

- ☐ 1. Standard ADU plans are not designed to be constructed in Seismic Design Categories E and F.
- ☐ 2. If required, an On-Site Wastewater System is a separate submittal.
- $\square$  3. Truss design shall be a separate submittal. Owner to submit truss manufacturer layout and calculations to the county for approval prior to erection.
- ☐ 4. Energy calculations are a separate submittal.
- ☐ 5. No alterations to these plans are allowed. All alterations must be done under a separate permit once the ADU permit has been issued.
- ☐ 6. If you do not have the construction knowledge and experience to construct these plans without further details, it is recommended you hire a contractor to do the construction. The county will not provide further information or details, and building inspectors will not provide step by step instructions in the field.
- $\square$  7. This project is designed with a slab-on-grade foundation and assumes a relatively flat site with standard soil. If the ADU is to be located on a slope the applicant must procure a soils report and may require a new foundation design.
- ☐ 8. Standard ADU plans within a flood zone shall be required to submit elevation certificates. FEMA Form FF-206-FY-22-152 will be required to be submitted and approved by LUS Land Development Division prior to foundation inspection.
- ☐ 9. Standard ADU plans within a designated Wildland-Urban Interface (WUI) shall comply with 2022 CRC Chapter R337.
- $\Box$  10. This project is to comply with Appendix J of the current CBC and SBC 63.0103, including a separate grading permit, if required.
- $\Box$ 11. This project is required to obtain an approval from the California Department of Fish and Wildlife if this project is in close proximity to a blueline stream.

### ADMINISTRATIVE REQUIREMENTS:

- 1. CONSTRUCTION OF THE SITE SHALL BE LIMITED TO WORKING HOURS SET FORTH BY SAN BERNARDINO COUNTY BUILDING DIVISION.
- 2. CONTRACTOR SHALL INSPECT THE JOB SITE AND STUDY ALL ELEMENTS OF WORKING DRAWINGS AND SPECIFICATIONS, AND REPORT ANY DISCREPANCIES TO ARCHITECT/DESIGNER PRIOR TO START OFF ANY
- 3. CONTRACTOR SHALL, AT THEIR OWN EXPENSE, CARRY ALL EMPLOYER'S LIABILITY INSURANCE AND PUBLIC LIABILITY INSURANCE NECESSARY FOR THE FULL PROTECTION OF THE CONTRACTOR AND OWNER DURING THE PROGRESS OF THE WORK. CONTRACTOR SHALL BE WHOLLY RESPONSIBLE IN CASE OF ANY LOSS OR DAMAGE TO ANY PERSON OR PROPERTY RESULTING FROM THE PERFORMANCE OF THIS CONTRACT AND AGREES TO HOLD THE OWNER HARMLESS FROM ALL LIABILITY AND EXPENSE RESULTING FROM CONSTRUCTION.
- 4. CONTRACTOR SHALL CONSULT WITH THE REPRESENTATIVES OF THE COUNTY, GAS, WATER, POWER, AND PHONE COMPANIES CONCERCING AVAILABLE FACILITIES BEFORE COMMENCING WORK OR CONNECTING
- 5. CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR ONE YEAR AFTER PROJECT COMPLETION.
- 6. ALL CONTRACTORS DOING BUSINESS IN THE CITY SHALL HAVE A CERTIFICATE OF WORKER'S COMPENSATION ON FILE WITH THE COUNTY.
- 7. IT IS IMPORTANT FOR THE GENERAL CONTRACTOR TO UNDERSTAND THAT IT IS HIS/HER RESPONSIBILITY TO BE SURE THIS PROJECT IS CONSTRUCTED IN FULL COMPLIANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. THE PLANS ARE NOT ALL INCLUSIVE OF ALL MINIMUM CODES AND ORDINANCES. THIS FACT DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ALL MINIMUM STANDARDS. NO OMISSION FROM THESE PLANS GIVES PERMISSION FOR VIOLATION OF ANY CODE OR ORDINANCE. NO APPROVAL EVER GRANTS TO VIOLATE ANY CODE OR COUNTY
- 8. THE GREATEST EFFORT HAS BEEN MADE TO DRAW THESE PLANS WITHOUT ERROR, HOWEVER, THERE IS NO GUARANTEE THAT THESE PLANS ARE WITHOUT ERROR. THE DESIGNER AND DRAFTSMAN ARE TO BE HELD HARMLESS OF ANY FINANCIAL LIABILITY RESULTING FROM THE ERRORS IN THESE PLANS. ANYONE USING THESE PLANS FOR CONSTRUCTION OF BUILDING, ACCEPTS FULL RESPONSIBILITY.

(CHECK PLANS CAREFULLY BEFORE CONSTRUCTION)

Sheet Number	Sheet Name
A101	Title
A102	Site Plan
A103	General Notes
A201	Level 1
A202	Ceiling Plan
A203	Roof Plan
A301	Elevations
A401	Sections
A501	Door & Window Schedule
A601	Green Code
A602	Green Code
E000	Electrical General Notes
E100	First Floor Electrical
S001	General Notes CRC
S002	Minimum Nailing Schedule
S010	Foundation Plan
S020	First Floor Framing Plan
S030	Roof Framing Plan

Sheet Index

### FIRE SAFETY OVERLAY

- 1. ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER.
- 2. VENTILATION OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND UNDER FLOOR VENTILATION OPENINGS SHALL BE FULLY COVERED WITH METAL WIRE MESH, VENTS, OTHER MATERIALS OR OTHER DEVICES THAT MEET THE FOLLOWING REQUIREMENTS.
- A. THE DIMENSIONS OF THE OPENINGS THEREIN SHALL BE A MINIMUM OF 1/16" AND SHALL NOT EXCEED 1/8". B. THE MATERIALS USED SHALL BE NONCOMBUSTIBLE. EXCEPTION: VENTS LOCATED UNDER THE ROOF COVERING, ALONG THE RIDGE OF ROOFS, WITH THE EXPOSED SURFACE OF THE VENT COVERED BY
- 3. THE EXTERIOR WALL COVERING OR WALL ASSEMBLY SHALL COMPLY WITH ONE OF THE FOLLOWING: A. NONCOMBUSTIBLE MATERIAL.
- B. IGNITION-RESISTANT MATERIAL
- C. HEAVY TIMBER EXTERIOR WALL ASSEMBLY. D. LOG WALL CONSTRUCTION ASSEMBLY.
- E. WALL ASSEMBLIES THAT MEET THE PERFORMANCE CRITERIA FOR A 10-MINUTE DIRECT FLAME CONTACT EXPOSURE TEST IN SFM STANDARD 12-7A-1.

NONCOMBUSTIBLE WIRE MESH, MAY BE OF COMBUSTIBLE MATERIALS.

- F. ONE LAYER OF 5/8" TYPE X GYPSUM SHEATHING APPLIED BEHIND THE EXTERIOR COVERING OR CLADDING ON THE EXTERIOR SIDE OF THE FRAMING.
- G. THE EXTERIOR PORTIONOF A 1-HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY DESIGNED FOR EXTERIOR FIRE EXPOSURE.
- 4. EXTERIOR WALL COVERINGS SHALL EXTEND FROM THE TOP OF THE FOUNDATION TO THE ROOF AND TERMINATE AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE.
- 5. OPEN ROOF EAVES. THE EXPOSED ROOF DECK ON THE UNDERSIDE OF UNENCLOSED ROOF EAVES SHALL CONSIST OF ON OF THE FOLLOWING:
- A. IGNITION RESISTANT MATERIAL. B NONCOMBUSTABLE MATERIAL
- C. ONE LAYER OF 5/8" TYPE X GYPSUM SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE EXTERIOR OF THE ROOF DECK.
- D. THE EXTERIOR PORTION OF A 1-HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE
- UNDERSIDE OF THE ROOF DECK DESIGNED FOR EXTERIOR EXPOSURE. E. SOLID WOOD RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MINIMUM NOMINAL DIMENSION OF 2".
- F. SOLID WOOD BLOCKING INSTALLED BETWEEN RAFTER TAILS ON THE EXPOSED UNDERSIDE OF OPEN ROOF EAVES HAVING A MINIMUM DIMENSION OF 2".
- i. GABLE END OVERHANGS AND ROOF ASSEMBLY PROJECTIONS BEYOND AN EXTERIOR WALL OTHER THAN AT THE LOWER END OF RAFTER TAILS. ii. FASCIA AND OTHER ARCHITECTURAL TRIM BOARDS.
- 6. THE EXPOSED UNDERSIDE OF EXTERIOR PORCH CEILING SHALL BE PROTECTED BY ONE OF THE
- FOLLOWING METHODS: A. IGNITION-RESISTANT MATERIAL.
- B. NONCOMBUSTIBLE MATERIAL.
- C. ONE LAYER OF 5/8" TYPE X GYPSUM SHEATHING APPLIED BEHIND THE EXTERIOR COVERING ON THE UNDERSIDE OF THE CEILING, FLOOR OR PROJECTION. D. THE EXTERIOR PORTION OF A 1-HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE CEILING, FLOOR
- E. ASSEMBLIES THAT MEET THE PERFORMANCE CRITERIA IN SFM STANDARD 12-7A-3.
- i. ARCHITECTURAL TRIM BOARDS ON EXTERIOR PORCHES AND PATIO COVER CEILINGS, ii. HEAVY TIMBER STRUCTURAL COLUMNS AND BEAMS ON UNDER FLOOR PROJECTION, UNDERSIDE OF APPENDAGES AND FLOOR PROJECTIONS.
- 7. MISCELLANEOUS VENTS IN EXTERIOR WALLS. VENT OPENINGS IN EXTERIOR WALLS FOR SUCH ITEMS AS BATHROOM FANS, KITCHEN HOOD VENTS, CLOTHES DRYERS OR SIMILAR OPENINGS SHALL BE
- PROTECTED BY ONE OF THE FOLLOWING:
- A. THE VENT SHALL BE SPECIFICALLY LISTED FOR RESISTING THE INTRUSION OF FLAME OR B. THE VENT SHALL BE PROTECTED BY CORROSION-RESISTANT, NONCOMBUSTIBLE WIRE MESH WITH A
- MINIMUM OPENING OF 1/16" AND A MAXIMUM OF 1/8". C. VENT OPENINGS IN TEH EXTERIOR WALL FOR CLOTHES DRYERS SHALL BE PROTECTED BY A
- METALLIC BACK DRAFT DAMPER AT THE EXTERIOR WALL SURFACE. 8. EXTERIOR GLAZING IN EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS IN EXTERIOR
- DOORS, GLAZED OPENINGS IN EXTERIOR GARAGE DOORS OR EXTERIOR STRUCTURAL GLASS SHALL COMPLY WITH ONE OF THE FOLLOWING REQUIREMENTS:
- A. DOUBLE GLAZED INSULATING GLASS WITH ONEOF THE PANES TEMPERED AND THE SECOND PANE MAY
- B. EITHER THE INTERIOR OR EXTERIOR PANE MAY BE TEMPERED.
- 9. EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: A. THE EXTERIOR SURFACE OF CLADDING SHALL BE OF NONCOMBUSTIBLE OR IGNITION RESISTANT MATERIALS.
- B. SOLID WOOD DOORS HAVING STILES AND RAILS NOT LESS THAN 1-3/8" THICKNESS WITH THE INTERIOR FIELD PANELS NOT LESS THAN 1-1/4" THICKNESS, EXCEPT FOR THE EXTERIOR PERIMETER OF THE RAISED PANEL THAT MAY TAPER TO A TONGUE NOT LESS THAN 3/8" THICK. C. SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 20 MINUTES.
- D. SHALL BE TESTED TO MEET THE PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1.

LOT INFO.:

ADDRESS:

PROJECT INFO .:

LEGAL:

10. THIS PROJECT IS SUBJECT TO THE REQUIREMENTS OF SECTION R337 OF THE CALIFORNIA RESIDENTIAL CODE.

### PROJECT SCOPE; PROJECT DATA: OWNER:

CONSTRUCT A 560 SF ACCESSARY DWELLING UNIT. R-3 OCCUPANCY TYPE VB CONSTRUCTION

**DESIGN CRITERIA:** ROOF LL: 20 psf SNOW P<sub>g</sub>: 30 psf

ADU: 560 SF WIND V<sub>ult</sub>: 130 mph BLDG. CODE DATA: Exposure C

SEISMIC : Catagory D<sub>2</sub> OCCUPANCY GROUPS: R-3 TYPE OF CONSTRUCTION: V-B



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County amendments.

All projects shall comply with the 2022 California Building Code (CBC) and/or California Residential Code (CRC), 2022 California Green Building Standards Code (CalGreen), 2022 California Electrical Code (CEC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Fire Code (CFC), 2022 California Building Energy Efficiency Standards (CBEES), and all San Bernardino

By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Address Fax e-mail

560 sf ADU

No.	Description	Date

Owner

Project Number Issue Date Author Checker Checked by

A101



Site

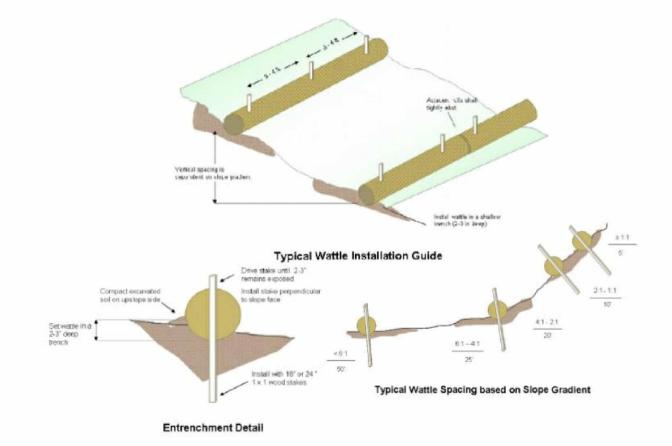
THE FOLLOWING EROSION CONTROL SHALL BE FOLLOWED FOR ALL DEVELOPMENT WHERE EROSION AND SEDIMENT CONTROL PLANS AND PERMITS ARE REQUIRED BY CHAPTER 85.11, DIVISION 5 OF THE SAN BERNARDINO DEVELOPMENT CODE. IN ADDITION TO THE FOLLOWING STANDARDS, REFER TO THE STORMWATER BEST MANAGEMENT PRACTICE HANDBOOK.

- 1. DURING CONSTRUCTION, MEASURES SHOULD BE TAKEN TO MINIMIZE SILT-LADEN RUNOFF FROM CONSTRUCTION SITES REACHING DRAINAGE COURSES. THIS CAN MOST READILY BE DONE BY INSTALLING A FENCE OR FILTER FABRIC AROUND THE DOWNSLOPE EDGES OF THE PROJECT. IN SOME INSTANCES, VISQUEEN-COVERED EARTH OR GRAVEL BERMS CAN BE CONSTRUCTED AROUND THE DOWNSLOPE EDGES OF THE PROJECT, AND RUNOFF FROM THE SITE CAN BE ALLOWED TO PERCOLATE WITHIN THE PROPERTY. LINES OF STRAW BALE FILTERS SHOULD BE USED ONLY IN NEARLY FLAT TERRAIN, UNLESS STAKED IN. SILT-LADEN RUNOFF FROM THE CONSTRUCTION SITE SHALL NOT BE ALLOWED TO LEAVE THE SITE.
- 2. ALL ACCESS TO THE PROJECT SITE SHOULD BE FROM THE UPHILL SIDE TO ENSURE THAT RUNOFF FROM THE SITE DOES NOT RUN OUT OF THE TEMPORARY ACCESS WHERE IT COULD REACH WATER COURSES. ACCESS REFERS TO CONSTRUCTION ACCESS FOR MATERIALS AND CONSTRUCTION WORKERS. NOTE: IF UPHILL ACCESS IS IMPOSSIBLE OR IMPRACTICAL, THEN USE DOWNHILL ACCESS. HOWEVER, NECESSARY TEMPORARY EROSION CONTROL (i.e. STRAW BALES, FILTER FABRIC FENCES, ROCK, ETC.) IS REQUIRED.
- 3. ONLY MINIMUM SOIL DISTURBANCE SHOULD BE PERMITTED, GRADING A LIMITED SECTION AT A TIME SO PROMPT REVEGETATION AND/OR CONSTRUCTION CAN CONTROL EROSION. WHERE POSSIBLE, ONLY THOSE AREAS WHICH WILL LATER BE RESURFACED, LANDSCAPED OR BUILT ON SHOULD BE DISTURBED. RESURFACING OF PARKING LOTS AND ROADWAYS SHOULD TAKE PLACE AS SOON AS PRACTICABLE FOLLOWNIG THE GRADING TO PREVENT EROSION.
- PERIODIC INSPECTION SHOULD OCCUR TO ENSURE THE INTEGRITY OF THE TEMPORARY EROSION CONTROL MEASURES. WHERE THEY HAVE BEEN FOUND IN DISREPAIR, THEY SHOULD BE IMMEDIATELY CORRECTED. PERIODIC INSPECTION BY OWNER, CONTRACTOR AND THE BUILDING INSPECTOR IS REQUIRED. MAINTANANCE OF THE EROSION CONTROL MEASURES IS THE RESPONSIBILITY OF THE OWNER. THE BUILDING INSPECTOR WILL INSPECT EROSION CONTROL MEASURES AT ALL CALLED INSPECTIONS, UPON RECEIVING A COMPLAINT OR AS NECESSARY TO ASSURE COMPLIANCE.
- 5. CONTINUED AND SERIOUS EROSION PROBLEMS WHCIH CAUSE OR THREATEN TO CAUSE TURBIDITY AND SILTATION IN PERENNIAL STREAMS, LAKES, FLOOD CONTROL DRAINAGE DEVICES OR STREETS, SHOULD BE CAUSE TO STOP CONSTRUCTION UNTIL THE PROBLEM IS CORRECTED.
- 6. PERMANENT SOIL STABILIZATION MEASURES SHOULD INCLUDE SODDING OR SEEDING AND ADEQUATE PROTECTION TO ENSURE VEGETATION TAKES HOLD (i.e. WOOD CHIPS, CRIMPED STRAW, JUTE MATTING, HYDROMULCH, ETC.).

FINAL APPROVAL OF THE PROJECT SHOULD NOT TAKE PLACE UNTIL VEGETATION HAS BEEN REESTABLISHED. THE LOCAL RESOURCE CONSERVATION DISTRICT (SCS) CAN BE CONTACTED TO RECOMMEND SEED MIXTURES AND PLANTS WHICH HAVE BEEN PROVEN EFFECTIVE. SOIL IS REQUIRED TO BE STABILIZED SO IT WILL NOT LEAVE THE SITE DO TO RAIN RUNOFF.

"REESTABLISED" MEANS ALL BARED AREAS SEEDED WITH NATIVE OR COMPATIBLE FAST GERMINATING VEGETATION, AND COVERED WITH JUTE NETTING OR EQUALVALENT ON STEEPER SLOPES. MAINTANANCE IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

7. GRADING OPERATIONS SHALL BE PLANNED TO AVOID THEIR OCCURRENCE WITHIN THE RAINY SEASON. EVERY EFFORT SHOULD BE TAKEN TO ASSURE THAT ALL ROAD CONSTRUCTION AND RELATED DRAINAGE IMPROVEMENTS BE COMPLETED WITHIN A TWELVE (12) MONTH PERIOD. THE RAINY SEASON IS GENERALLY CONSIDERED OCTOBER 15<sup>TH</sup> THROUGH APRIL 15<sup>TH</sup>. GRADING PERMITS SHALL ONLY BE ISSUED BETWEEN THESE DATES IF A PLAN FOR EROSION CONTROL AND SILT RETENTION HAS BEEN APPROVED BY THE BUILDING AND SAFETY DIVISION.



### NPDES NOTE

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

- SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
- 2. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
- 3. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
- 4. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED IN CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE OTHER POLLUTANTS.
- 5. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
- 6. AT THE END OF EACH DAY CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
- 7. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD: CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
- 8. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/ EQUIPMENT WAS WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
- DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
- 10. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
- 11. THE PERMITEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
- 12. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
- 13. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
- 14. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
- 15. ALL REMOVABLE EROSION PROTECTIVE DEVISES SHALL BE IN PLACE AT THE END OF EACH
- 16. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OF ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
- APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BEIMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

## OTE:

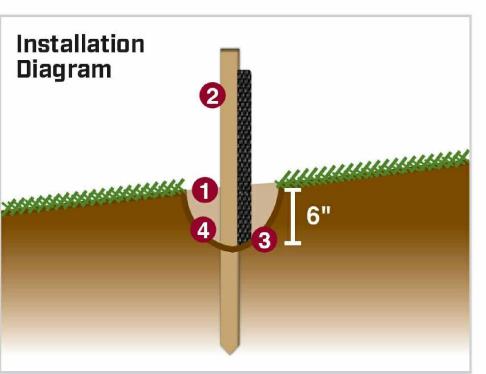
THERE SHALL BE NO TRENCHES OR EXCAVATIONS
5 FEET OR MORE IN DEPTH INTO WHICH A PERSON
IS REQUIRED TO DESCEND, OR OBTAIN PERMIT
FROM STATE OF CALIFORNIA, DIVISION OF
OCCUPATIONAL SAFETY AND HEATLTH (CAL/OSHA).
THIS PERMIT AND ANY OTHER SAFETY PERMIT
SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF
ANY WORK

## **Silt Fence with Stakes**

Silt Fence is a woven fabric that temporarily controls sediment on construction sites to protect water quality in nearby streams, rivers and lakes from sediment in storm water runoff.

## Installation

- 1 Dig a 6"x6" trench along the site perimeter or appropriate location.
- 2 Unroll the fence one section at a time and position the stakes on the downhill side of the trench.
- 3 Hammer each stake into the trench until bottom of the fabric is even with the bottom of the trench.
- 4 Backfill and compact.





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By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Consulta Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

Owner

Site Plan

Project number	Project Number
Date	Issue Date
Drawn by	Author
Checked by	Checker

A102

1/8" = 1'-0"

'-0"

### **GENERAL NOTES:**

### PRIOR TO ANY CONSTRUCTION, CONTRACTOR SHALL MEET WITH OWNER OR OWNER'S REPRESENTITIVE

- INFORMATION CONTAINED IN THESE DRAWINGS MAY REQUIRE ADJUSTMENTS OR MODIFICATIONS TO IN DETAILS ARE NECESSARY, THESE DRAWINGS SHALL BE USED TO SHOW THE DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONCERNING EXISTING AND NEW WORK AND NOTIFY THE ARCHITECT BEFORE PROCEEDING WITH EITHER FABRICATION OR INSTALLATION IMMEDIATELY, SHOULD EXISTING CONDITIONS PROHIBIT EXECUTION OF THE DESIGN INTENT OF THE DRAWINGS. ANY ADDITIONAL WORK, DEMOLITION AND/OR REMOVAL AS A RESULT OF FAILURE TO DO SO WILL BE AT CONTRACTOR'S EXPENSE.
- 2. DUE TO THE SMALL SCALE OF THESE PLANS AND THE INSTABILITY OF THE BLUEPRINT PAPER, THESE DRAWINGS SHALL NOT BE SCALED AND ANY CRITICAL DIMENSIONS SHOULD BE FIELD CHECKED. THE CONTRACTOR(S) SHALL BE RESPONSIBLE TO FIELD MEASURE EXISTING CONDITIONS PRIOR TO BEGINNING OF WORK AND PERIODICALLY DURING CONSTRUCTION PROGRESS TO VERIFY ALL CRITICAL DIMENSIONS. ANY DEVIATION FROM DIMENSIONS INDICATED ON THE DRAWINGS ARE NOT APPROVED.
- THE CONTRACTOR SHALL VISIT THE SITE AND BE AWARE OF EXISTING CONDITIONS TO THE EXTENT AND INFLUENCE OF THE WORK PRIOR TO BIDDING & CONSTRUCTION. CONTRACTOR SHALL BE FAMILIAR WITH ALL APPLICABLE BUILDING CODES, CBC AND CRC CODES. NO SUBSEQUENT EXTRAS OR ADDITIONS WILL BE ALLOWED FOR ANY CLAIM OF LACK OF KNOWLEDGE OF CONDITIONS OR CIRCUMSTANCES ABOUT WHICH THE CONTRACTOR COULD HAVE SITE INSPECTED AND INFORMED HIMSELF.
- 4. ALL CONTRACTORS SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE BUILDING AS TO HOURS OF OPERATION FOR THE PURPOSES OF DELIVERY AND ALSO AS THE MANNER OF HANDLING MATERIALS, EQUIPMENT AND DEBRIS, TO AVOID CONFLICT AND INTERFERENCE WITH NORMAL BUILDING OPERATION.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXTENT, NATURE AND SCOPE OF WORK DESCRIBED IN THE CONTRACT DOCUMENTS AND WILL COORDINATE WITH THE OWNER'S REPRESENTATIVE THE INTERFACING OF THE BASE BUILDING CONTRACTOR'S WORK AND THE WORK SHOWN AND DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO PROVIDE ALL LABOR AND MATERIALS NECESSARY TO EXECUTE ALL WORK NECESSARY TO ACHIEVE SUBSTANTIAL COMPLETION. HE SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, INCLUDING THOSE OPERATING UNDER SEPARATE CONTRACT WITH THE OWNER.
- 6. ALL WORK SHALL BE PERFORMED BY SKILLED AND QUALIFIED WORKMEN AND IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADES INVOLVED. CARE SHALL BE TAKEN TO ENSURE COMPLIANCE WITH BUILDING REGULATIONS AND/OR GOVERNMENTAL LAWS, STATUTES OR ORDINANCES CONCERNING THE USE OF UNION
- 7. ALL MATERIALS SHALL BE NEW, UNUSED AND OF THE HIGHEST QUALITY IN EVERY RESPECT UNLESS OTHERWISE NOTED.MANUFACTURED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURER'S WRITTEN RECOMMENDATIONS AND INSTRUCTIONS UNLESS OTHERWISE NOTED.MAINTENANCE INSTRUCTIONS, IN TRIPLICATE, SHALL BE PROVIDED FOR ALL MATERIALS USED WITHIN THE PROJECT IN A 3 RING BINDER IN CSI FORMAT WITH CSI NUMBERED TABS.THREE COPIES SHALL GO THE OWNER.
- 8. PERFORM ALL WORK IN ACCORDANCE WITH RULES AND REGULATIONS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION AND CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL CONSTRUCTION, SAFETY AND SANITARY LAWS, CODES, STATUTES AND ORDINANCES. CONSTRUCTION, SHALL COMPLY IN ALL RESPECTS WITH APPLICABLE FEDERAL, COUNTY AND/OR LOCAL STATUTES, ORDINANCES, REGULATIONS, LAWS
- 9. SUPPLY, PRIOR TO COMMENCING WORK, A LIST OF ALL SUBCONTRACTORS TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND ACCEPTANCE. INCLUDE THE NAME OF THE PRINCIPAL CONTACT, THE ADDRESS AND PHONE NUMBER OF EACH SUBCONTRACTOR IN THIS LIST.
- 10. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR THE DISTRIBUTION OF DRAWINGS TO ALL
- 11. CONTRACTOR IS TO PROVIDE A DUMPSTER FOR USE DURING CONSTRUCTION. THE PROJECT IS TO BE KEPT CLEAR OF DEBRIS AT ALL TIMES.
- 12. ALL INSTALLED PLUMBING, MECHANICAL AND ELECTRICAL EQUIPMENT SHALL OPERATE QUIETLY AND FREE OF VIBRATION.
- 13. DO NOT SUBSTITUTE MATERIALS WHERE A MANUFACTURER IS SPECIFIED UNLESS SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. WHERE THE TERM "OR APPROVED EQUAL" IS USED, THE OWNER SHALL DETERMINE EQUALITY, BASED ON INFORMATION SUBMITTED BY THE CONTRACTOR FOR APPROVAL. UNLESS SAID APPROVAL IS RECEIVED BY CONTRACTOR. IT WILL BE ASSUMED THAT THE CONTRACTOR'S TOTAL BID
- 14. PERFORM ALL WORK IN A GOOD AND WORKMANLIKE MANNER AND PROSECUTE TO COMPLETION WITH ALL DUE DILIGENCE. TIME IS OF THE ESSENCE WITH RESPECT TO THE WORK PERFORMED UNDER THIS CONTRACT.

IS BASED UPON SPECIFIED MATERIALS AND EQUIPMENT.

DEMISED SPACE UNLESS OTHERWISE INDICATED.

- 15. PERFORM ALL CUTTING AND PATCHING IN A NEAT, WORKMANLIKE MANNER. REPAIR TO MATCH EXISTING, IN KIND AND FINISH, ANY EXISTING FINISHES THAT ARE TO REMAIN AND ARE DISTURBED OR DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THE WORK.
- 16. COORDINATE ALL WALL, FLOOR AND CEILING FINISHES TO ENSURE THAT JOINTS AND TRANSITIONS BETWEEN MATERIALS, WHETHER THEY BE WALL TO WALL, WALL TO FLOOR, FLOOR TO FLOOR, WALL TO CEILING, OR CEILING TO CEILING, WILL BE SMOOTH, TRUE, LEVEL AND IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND SCHEDULES.
- 17. STORE ALL WORK AND MATERIAL TO ACCOMPLISH DESIGNATED WORK WITHIN THE
- THOROUGHLY CLEAN ALL INTERIOR SURFACES, INCLUDING GLASS, FLOOR SURFACES, PRIOR TO OCCUPANCY OF THE SPACE BY THE OWNER. REMOVE ALL TRASH, CONSTRUCTION DEBRIS, TOOLS, ETC. PRIOR TO OCCUPANCY.
- 19. PLACE ALL STUDS, CEILING FURRING AND FRAMING MEMBERS SO AS TO AVOID INTERFERENCE WITH LOCATIONS OF RECESSED LIGHTING FIXTURES, PIPING, DUCTWORK AND THE LIKE.
- 20. WORK SHALL BE SUBJECT TO THE INSPECTION OF THE OWNER. ANY WORK NOT FOUND IN COMPLIANCE WITH GOOD CONSTRUCTION STANDARDS SHALL BE CORRECTED WITHOUT ADDITIONAL COST TO THE OWNER.
- 21. UPON COMPLETION OF THE WORK, ALL FACILITIES SHALL BE IN FULL USE, WITHOUT DEFECTS.
- 22. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENT BUILDING CODES OR SUBSEQUENT CODE AS MAY BE ENACTED BY LOCAL AUTHORITY, AND ALL OTHER APPLICABLE LOCAL AND STATE REGULATIONS.
- 23. THE CONTRACTOR SHALL LAYOUT AND ESTABLISH ALL BUILDING AND CONSTRUCTION LINES, LEVELS, GRADES AND LOCATIONS REQUIRED FOR WORK AND SHAL BE RESPONSIBLE FOR ACCURACY AND MAINTENANCE OF SAME.
- THE CONTRACTOR SHALL COORDINATE AND VERIFY WITH ALL DRAWINGS AND TRADES FOR SIZE AND LOCATION OF WALL, FLOOR AND ROOF OPENINGS, WALLS OFFSETS, PROVISIONS FOR PRESENT AND FUTURE EQUIPMENT, ATTACHEMENT AND MOUNTING OF FIXTURES, CURBS, DEPRESSIONS, SLEEVES, INSERTS, AND OTHER EMBEDDED HARDWARES, PIPE, VENT, DUCT AND OTHER OPENINGS AND/OR DETAILS.

### **GENERAL NOTES (CONT.):**

- 25. EVERY ITEM MENTIONED IN THE SPECIFICATIONS IS INTENDED TO REPRESENT THE QUALITY OF MATERIALS THAT WILL BE REQUIRED. WORKMANSHIP SHALL BE OF THE FINEST QUALITY AND DONE IN ACCORDANCE WITH THE BEST METHODS TO OBTAIN THE RESULTS REQUIRED BY THE OWNER. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, ETC. AS PER MANUFACTURER'S SPECIFICATIONS.
- 26. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DOCUMENTS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
- 7. ANY DEVIATION FROM THE APPROVED PLANS OR SPECIFICATIONS SHALL BE AT THE CONTRACTORS OWN RISK UNLESS PRIOR APPROVAL IS OBTAINED FROM
- 28. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUE, SEQUENCES AND PROCEDURES, INCLUDING, BUT NOT LIMITED TO BRACING AND SHORING.
- 29. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING SITE CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS ARE FOUND TO CONFLICT WITH THE DRAWINGS THEY SHALL BE REPORTED TO OWNER, SO THAT PROPER REVISIONS SHALL BE MADE.

  MODIFICATIONS OF DETAILS OF CONSTRUCTION SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE OWNER.
- 30. ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR CONFIRMING EXISTING CONDITIONS.
- 31. UPON COMPLETION OF THE WORK, WARRANTIES SHALL BE ASSIGNED BY THE CONTRACTOR TO THE OWNER'S REPRESENTATIVE. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING THE WORK SHALL BE RESPONSIBLE FOR THE REPLACEMENT OR REPAIR, WITHOUT ADDITIONAL CHARGE TO THE OWNER, OF ANY AND ALL WORK DONE OR FURNISHED BY OR THROUGH SUCH CONTRACTOR OR SUBCONTRACTOR WHICH SHALL BECOME DEFECTIVE WITHIN ONE YEAR AFTER SUBSTANTIAL COMPLETION OF THE WORK.THE CORRECTIONS OF SUCH WORK SHALL INCLUDE, WITHOUT ADDITIONAL CHARGE TO THE OWNER, ALL ADDITIONAL EXPENSES AND DAMAGES IN CONNECTION WITH SUCH REMOVAL, REPLACEMENT OF, OR ANY PART OF THE WORK OR PART OF THE BUILDING WHICH MAY BE DAMAGED OR DISTURBED THEREBY. THIS WARRANTY SHALL IN NO WAY VOID ANY MANUFACTURER'S WARRANTIES ON MATERIALS OR EQUIPMENT FOR WHICH THE NORMAL WARRANTY PERIOD EXCEEDS ONE YEAR, WITHOUT DEFECTS.
- 32. ALL LIGHT FIXTURES, DIFFUSERS, ELECTRICAL OUTLETS AND THE LIKE SHALL BE COVERED PRIOR TO ANY SANDING TO PREVENT FINE DUST FROM ENTERING THE SYSTEMS.
- 33. COORDINATE WORK WITH THAT OF ALL OTHER OWNER CONTRACTED WORK. COOPERATE WITH, INTEGRATE AND SCHEDULE THIS WORK INTO THE OVERALL SEQUENCE OF THE PROJECT, TO ENSURE THAT ALL WORK IS COMPLETED WITHIN THE APPROVED CONTRACT.
- 34. IT IS EXPECTED THAT SUFFICIENT LABOR WILL BE PROVIDED SO THAT ACTIVITY FOR ANY GIVEN TRADE WILL NOT BE LIMITED TO ONLY ONE PART OF THE TOTAL WORK AREA.
- 5. EACH TRADE SHALL PROCEED IN A FASHION THAT WILL NOT DELAY OR DETAIN THE TRADES FOLLOWING THEM.
- 36. PROVIDE AND COMPLETE ALL PRELIMINARY WORK AND TEMPORARY CONSTRUCTION AS MAY BE REASONABLY REQUIRED BY THE SCOPE OF WORK OR AS INDICATED ELSEWHERE IN THE CONTRACT DOCUMENTS.
- 37. CONTRACTOR TO PROVIDE TEMPORARY LIGHT AND POWER SERVICE ON-SITE AS NEEDED,
- 38. PROVIDE HEAT AS NECESSARY TO PROTECT THE WORK AGAINST DAMAGE FROM DAMPNESS AND COLD. SYSTEM SHALL BE SUFFICIENT TO MAINTAIN A MINIMUM TEMPERATURE OF 50 DEGREES. SYSTEM MAY BE EXISTING.
- 39. PROVIDE BARRICADES WHERE NECESSARY TO PROTECT THE PUBLIC, TO PROVIDE SECURITY TO THE STORE AND TO CONFINE ALL DUST AND ODOR TO THE CONSTRUCTION AREA. THIS MUST BE CONSTRUCTED AS REQUIRED BY THE LANDLORD.
- 40. EACH SUBCONTRACTOR IS CONSIDERED A FULLY QUALIFIED SPECIALIST IN HIS RESPECTIVE FIELD AND SHALL, PRIOR TO SUBMISSION OF BID NOTIFY THE CONTRACTOR OF ANY WORK CALLED OUT IN HIS TRADE THAT CANNOT BE EXECUTED OR FULLY GUARANTEED.
- 41. CONTRACTOR TO PROVIDE FIRE-TREATED BLOCKING IN WALLS AND CEILING AS REQUIRED FOR ATTACHMENT OF FIXTURES THROUGHOUT. COORDINATE WITH WORK BY OTHERS.
- 42. BY THE COVERING UP OF A PREVIOUS SUB-CONTRACTOR'S WORK IT IS ASSUMED THAT THE CONTRACTOR HAS INSPECTED THE PREVIOUS WORK AND HAS RENDERED IT
- 43. ALL REQUIRED ROOF OPENINGS ARE TO BE MADE BY THE OWNER, APPROVED ROOFING CONTRACTOR AND SHALL INCLUDE ALL CUTTING, REINFORCING, CURES, FLASHING, AND NEW
- 44. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL OWNER REQUIREMENTS, CRITERIA, AND RESTRICTIONS. ALL WORK PERFORMED AS A PART OF THIS PROJECT MUST BE CAREFULLY COORDINATED WITH THE OWNER AND BE IN FULL COMPLIANCE WITH ALL OWNER RESTRICTIONS.
- BATHROOM EXHAUST FANS SHALL BE DUCTED TO THE ROOF. CONTRACTOR SHALL SUBMIT WEATHERPROOF ROOF PENETRATION AND DUCT TERMINATION DETAILS TO THE OWNER FOR REVIEW PRIOR TO ROOF INSTALLATION.

### PROJECT REQUIREMENTS AND CONDITIONS OF CONSTRUCTION:

- 1. THESE PLANS WERE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE ("CODE"), AS ADOPTED BY THE LOCAL JURISDICTION. FOR THE FEE CHARGED, NO ATTEMPT HAS BEEN MADE TO MAKE THESE PLANS "ALL-INCLUSIVE", "COMPREHENSIVE", OR "COMPLETE".
- 2. THE "BUILDER" AS USED HEREIN SHALL REFER TO THE GENERAL CONTRACTOR(S), SUB-CONTRACTOR(S), AND THEIR AGENTS AND EMPLOYEES, WHETHER LICENSED OR NOT, OR TO THE OWNER WHEN OWNER IS ACTING AS "OWNER-BUILDER".
- THE BUILDER SHALL THOROUGHLY REVIEW THESE PLANS, SPECIFICATIONS, AND THE JOB SITE TO FAMILIARIZE HIMSELF WITH ALL ASPECTS OF THE BUILDING AND SITE WORK. IN THE EVENT OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS, THE BUILDER SHALL IMMEDIATELY BRING THAT TO THE ATTENTION OF THE OWNER, PRIOR TO CONSTRUCTION, OR ELSE WAIVE FUTURE CLAIMS FOR EXTRA COSTS HOWEVER INCURRED.
- 5. IN THE EVENT OF DISCREPANCIES OR CONFLICTING INFORMATION ON THESE PLANS, THE STRICTER OR MORE EXPENSIVE OF THE DISCREPANCY/CONFLICT SHALL BE USED.
- 7. THE PLANS APPROVED BY THE COUNTY SHALL ALSO TAKE PRECEDENCE.
- 8. ALL CONSTRUCTION, INCLUDING BUT NOT LIMITED TO PLUMBING, MECHANICAL, ELECTRICAL, ETC. SHALL BE TO CODE, WHETHER OR NOT EXPLICITLY SHOWN ON THESE PLANS. BUILDER SHALL INCLUDE THIS IN HIS BID AMOUNT, AND BE RESPONSIBLE FOR ALL CODE COMPLIANCE. NOTHING IN THESE PLANS OR NOTES SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO CODE.
- 9. ALL WORK SHALL BE DONE IN A NEAT, PROFESSIONAL AND WORKMANLIKE MANNER
- 10. THE PROJECT SHALL BE LEFT "BROOM CLEAN" UPON COMPLETION.
- OWNER, SHALL NOT HAVE CONTROL NOR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, AS THESE ARE SOLELY THE BUILDER'S RESPONSIBILITIES UNDER THE CONTRACT FOR CONSTRUCTION. OWNER SHALL NOT BE RESPONSIBLE FOR THE BUILDER'S SCHEDULES OR FAILURES TO CARRY OUT THE WORK IN ACCORDANCE WITH THE PLANS AND NOTES. OWNER, SHALL NOT HAVE CONTROL OVER OR CHARGE OF THE ACTS OR OMISSIONS OF THE BUILDER OR ANY OF THE SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES OR ANY OTHER PERSONS PERFORMING PORTIONS OF THE
- 12. ALL MANUFACTURED MATERIALS, COMPONENTS, HARDWARE, ASSEMBLIES, ETC. SHALL BE HANDLED AND INSTALLED IN STRICT ACCORDANCE WITH APPLICABLE CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 13. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.
- 14. UNLESS OWNER HAS PROVIDED THE COUNTY, WITH A CURRENT SOILS REPORT DONE BY A LICENSED SOILS ENGINEER, IN NO WAY SHALL THE COUNTY, BE RESPONSIBLE FOR LOCALIZED SOIL CONDITIONS SUCH AS ORGANIC CLAYS, EXPANSIVE SOIL, HIGH WATER TABLE, OR FILL. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH
- 15. NOT ALL NOTES HERE APPLY TO EVERY PROJECT. REFER TO THE NOTE ONLY IF IT IS APPLICABLE AND/OR REFERENCED TO BY THE PLANS.

## MEASUREMENTS:

- 1. IN GENERAL, THE MEASUREMENTS ON THE DRAWINGS ARE REASONABLE AND ACCURATE FOR THE PURPOSE OF DESIGN INTENT. HOWEVER, IN THE EXECUTION OF THE WORK ON THE PROJECT, THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS WITH ACTUAL CONDITIONS ON THE JOB IN ORDER TO MAKE A PERFECT FIT; THE REQUIREMENTS OF THE SAMPLES AND SHOP DRAWINGS SECTION NOTWITHSTANDING. WHERE THE WORK OF ONE CONTRACTOR IS TO JOIN THAT OF ANOTHER, BOTH ARE TO FURNISH SHOP DRAWINGS SHOWING THE ACTUAL DIMENSIONS AND THE METHOD OF JOINING THE WORK OF THE TWO TRADES. THESE DRAWINGS MAY BE IN ADDITION TO ANY DRAWINGS REQUESTED OR AS LISTED UNDER "SHOP
- 2. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED ON ACCOUNT OF DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND THE MEASUREMENTS INDICATED ON THE DRAWINGS.
- 3. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF OWNER, BEFORE PROCEEDING WITH EFFECTED WORK.

## SPECIFICATIONS AND DRAWINGS:

- 1. IF ANY ERRORS OR OMISSIONS APPEAR IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF SUCH ERROR OR OMISSIONS. IF THE CONTRACTOR FAILS TO GIVE SUCH NOTICE, WHETHER PRIOR TO OR DURING THE EXECUTION OF THE WORK, CONTRACTOR WILL BE HELD RESPONSIBLE FOR RESULTS OF SUCH ERRORS OR OMISSIONS AND FOR COST OF RECTIFYING SAME.
- 2. THE GENERAL CHARACTER OF THE DETAIL WORK IS SHOWN ON THE DRAWINGS BUT MINOR MODIFICATIONS MAY BE MADE BY THE OWNER. ALL DRAWINGS ILLUSTRATE DESIGN INTENT.

### GENERAL CONSTRUCTION REQUIREMENTS:

- 1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO CODES, ORDINANCES AND STANDARDS HAVING JURISDICTION.
- 2. FOR ALL WOOD IN CONTACT WITH CONCRETE SLAB PLACED ON EARTH, WOOD SHALL BE EITHER FOUNDATION GRADE REDWOOD OR PRESSURE TREATED DOUGLAS FIR. WHERE NOT SUBJECT TO WATER SPLASH OR TO EXTERIOR MOISTURE AND LOCATED ON CONCRETE HAVING A MINIMUM THICKNESS OF 3" WITH AN IMPERVIOUS MEMBRANE INSTALLED BETWEEN CONCRETE AND EARTH, THE WOOD MAY BE TREATED AND OF ANY SPECIES.
- 3. WOOD/EARTH SEPARATION WOOD BEAMS RESTING ON CONCRETE PIERS SHALL BE PLACED A MINIMUM OF 8 INCHES ABOVE ADJACENT EARTH. WOOD LOCATED NEARER THAN 8 INCHES TO EARTH SHALL BE TREATED WOOD OR WOOD OF NATURAL RESISTANCE TO DECAY. BOTTOM OF WOOD FRAMING SHALL BE SEPARATED FROM EARTH BY 12 INCHES MINIMUM FOR GIRDERS AND 18 INCHES FOR FLOOR JOISTS.
- 4. CONTRACTOR SHALL CLEAN UP AND REMOVE THEIR OWN RUBBISH AND DEBRIS FROM THE JOB SITE.
- 5. ALL INSULATING MATERIAL SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING SMOKE DENSITY REQUIREMENTS OF CALIFORNIA BUILDING CODE.
- 6. THE REQUIRED CLEARANCE FOR WOOD MEMBERS ABOVE GRADE IS 8"
- 7. A CORROSION RESISTANT METAL FLASHING WHICH ALLOWS TRAPPED WATER TO DRAIN TO EXTERIOR OF THE BUILDING IS REQUIRED BEHIND EXTERIOR SIDING AT FOUNDATION OR SILL PLATE IN. THE FLASHING SHALL BE A MINIMUM NUMBER 26 GALVANIZED SHEET GAGE CORROSION RESISTANT SHEET METAL AND SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS.
- 8. INSPECTION IS REQUIRED FOR ALL INTERIOR AND EXTERIOR IN-PLACE LATH AND/OR WALLBOARD BEFORE ANY EXTERIOR FINISH IS APPLIED OR ANY JOINTS AND FASTENERS ARE TAPED AND FINISHED.
- 9. PLYWOOD PANELS SHALL BE BONDED WITH INTERMEDIATE OR EXTERIOR GLUE AND BE OF EXTERIOR TYPE WHERE EXPOSED TO THE WEATHER.
- ). GLAZING WITHIN 18" OF FLOOR OR 24" OF A DOOR OPENING SHALL BE TEMPERED GLASS



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By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Consultan Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

Owner

**General Notes** 

Project number

Date

Drawn by

Checked by

Project Number

Issue Date

Author

Checked by

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R327.1.1 Reinforcement for grab bars. At least one bathroom on the entry level shall be provided with reinforcement installed.

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 nominal lumber. [1<sup>1</sup>/<sub>2</sub> inch by 7<sup>1</sup>/<sub>4</sub> inch actual dimension] or other construction material providing equal height and load capacity. Reinforcement shall be located between 32 inches and 39<sup>1</sup>/<sub>4</sub> inches 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 above the bathtub rim.

Exceptions:

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.

 Reinforcement shall not be required in wall framing for pre-fabricated shower enclosures and bathtub wall panels with integral factoryinstalled grab bars or 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-mounted grab bars or an alternate method is approved by the enforcing agency.

4. Bathtubs with no surrounding walls, or where

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 lab floors.

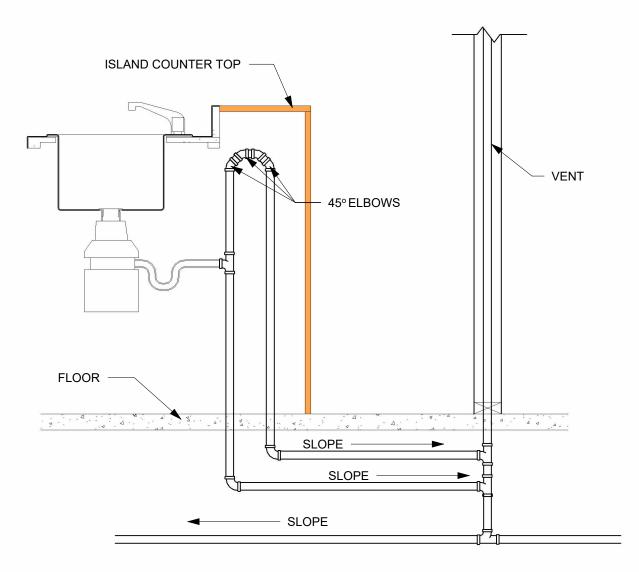
R327.1.2 Electrical receptacle outlet, switch and control heights. Electrical receptacle outlets, switches and controls (including controls for heating, ventilation and air conditioning) intended to be used by occupants shall be located no more than 48 inches measured from the top of the outlet box and not less than 15 inches measured from the bottom of the outlet box above the finish floor.

Dedicated receptacle outlets; floor receptacle outlets; controls mounted on ceiling fans and ceiling lights; and controls located on appliances.
 Receptacle outlets required by the California Electrical Code on a wall space where the distance between the finished floor and a built-in feature above the finish floor, such as a window,

Exceptions:

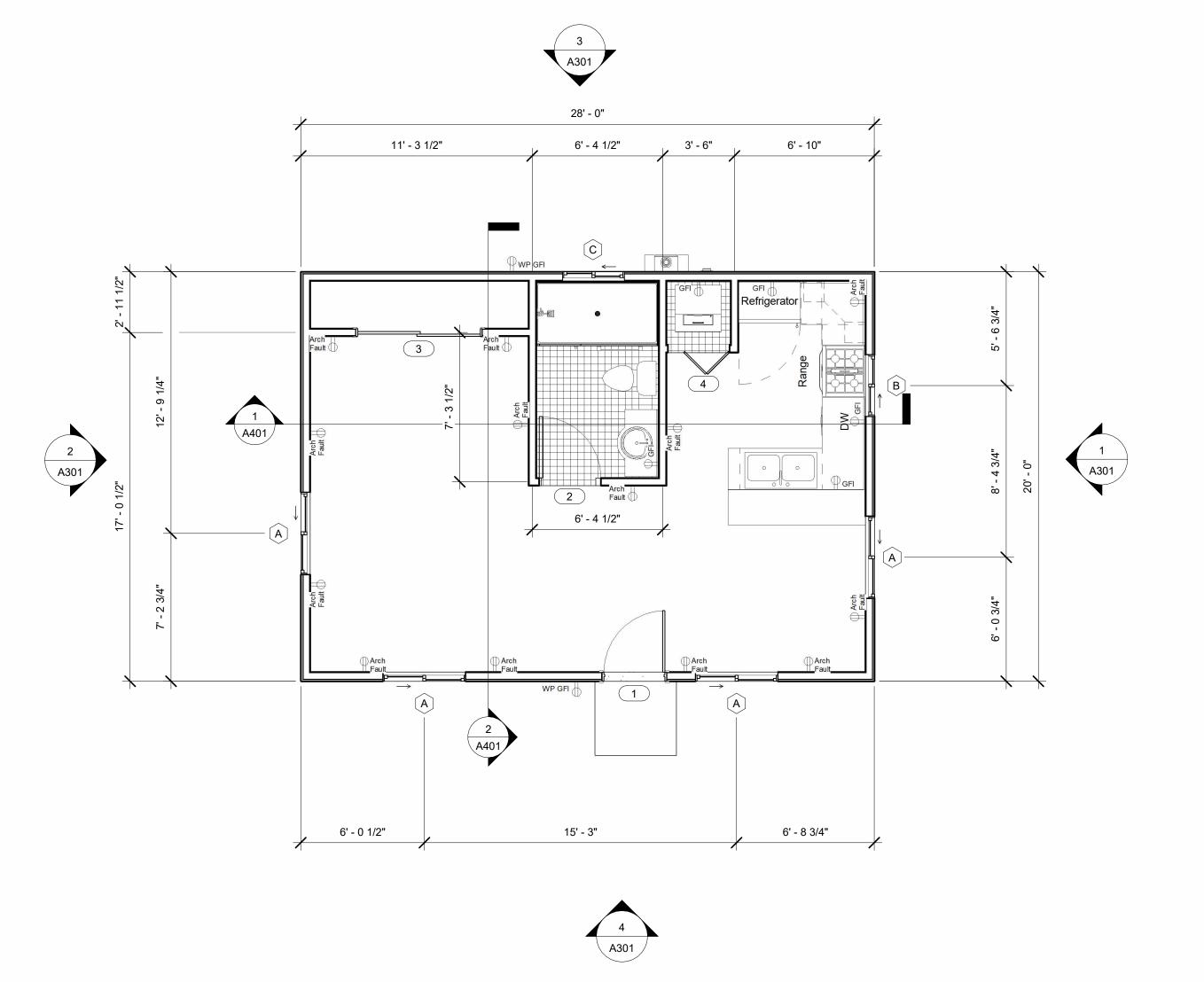
is less than 15 inches.

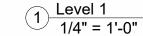
R327.1.3 Interior doors. Effective July 1, 2024, at least one bathroom and one bedroom on the entry level shall provide a doorway with a net clear opening of not less than 32 inches, measured with the door positioned at an angle of 90 degrees from the closed position R327.1.4 Doorbell buttons. Doorbell buttons or controls, when installed, shall not exceed 48 inches above exterior floor or landing, measured from the top of the doorbell button assembly. Where doorbell buttons integrated with other features are required to be installed above 48 inches measured from the exterior floor or landing, a standard doorbell button or control shall also be provided at a height not exceeding 48 inches above exterior floor or landing, measured from the top of the doorbell button or control.



### **GENERAL NOTES:**

- 1. WALL FINISHED ON SHOWER AND WHIRLPOOL TO BE TILED 70" MINIMUM HIGH ABOVE DRAIN INLET. CEMENT, FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM OR FIBER REINFORCED GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TITLE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWERS.
- 2. PROPOSED SHOWERS SHALL HAVE TEMPERED GLASS DOORS. DOORS SHALL SWING
- 3. SHOWER SIZE. SHOWER COMPARTMENTS SHALL HAVE MINIMUM AREA OF 1024 SQUARE INCHES AND BE ABLE TO ENCOMPASS A 30-INCH-DIAMETER CIRCLE. SHOWER DOORS SHALL HAVE A MINIMUM 22-INCH UNOBSTRUCTED WIDTH. (CPC 408.5 AND CPC 408.6)
- A. WATER CLOSETS SHALL BE ULTRA LOW FLUSH WITH 1.28 GALS MAXIMUM PER FLUSH.
  B. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF 1.8 GALS PER MINUTE AT 80 PSI.
  C, LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALS PER MINUTE AT 60 PSI.
  D. KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALS PER MINUTE AT 60 PSI AND MAY TEMPORARILY INCREASE TO THE FLOW RATE ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALS PER MINUTE AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALS PER MINUTE
- 5. WATER CLOSET CLEARANCE. MINIMUM 30-INCH-WIDE BY 24-INCH-DEEP CLEARANCE REQUIRED AT FRONT OF WATER CLOSETS. (CPC 402.5)





2 Island Sink Vent Detail 1 1" = 1'-0" SAN BERNARDING COUNTY

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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

Level 1

Owner

Project number

Date

Drawn by

Checked by

Project Number

Issue Date

Author

Checker

A201

As indicated

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### **INTERIOR LIGHT SWITCHES & CONTROLS:**

- 1. ALL FORWARD PHASE CUT DIMMERS USED WITH LED LIGHT SOURCES SHALL COMPLY WITH NEMA SSL 7A.
- 2. EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEMS.
  LIGHTING INTEGRAL TO AN EXHAUST FAN MAY BE ON THE SAME SWITCH IF THE LIGHT
  CAN BE SWITCHED OFF IN ACCORDANCE WITH SECTION 150.0(k)2 WHILE THE FAN
  CONTINUES TO OPERATE.
- 3. LUMINAIRES SHALL BE SWITCHED WITH ACCESSIBLE CONTROLS THAT PERMIT THE LUMINAIRES TO BE MANUAULY SWITCHED ON & OFF.
- 4. LIGHTING CONTROLS & EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH
- 5. CONTROLS SHALL NOT BYPASS A DIMMER OR VACANCY SENSOR FUNCTIONS THAT COMPLY WITH SECTION 150.0(k).
- 6. LIGHTING CONTROLS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 110.9.
- 7. AN ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) MAY BE USED TO COMPLY WITH DIMMER OR VACANCY SENSOR REQUIREMENTS IF AT A MINIMUM IT PROVIDES THE FUNCTIONALITY OF A DIMMER IN ACCORDANCE WITH SECTION 110.9, MEETS THE INSTALLATION CERTIFICATE REQUIREMENTS IN SECTION 130.4, THE EMCS REQUIREMENTS IN SECTION 130.5(F), AND COMPLIES WITH ALL OTHER APPLICABLE REQUIREMENTS IN SECTION 150.0(k)2. A MULTISCENE PROGRAMMABLE CONTROLLER MAY ALSO BE USED TO COMPLY WITH DIMMER REQUIRMENTS.
- 8. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS, AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES SHALL BE CONTROLED BY A VACANCY SENSOR.
- 9. DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8 EXCEPT IN CLOSETS LESS THAN 70 SQ. FT. & HALLWAYS.
- 10. UNDER CABINET LIGHTING SHALL. BE SWITCHED SEPARATELY FROM OTHER LIGHTING SYSTEMS.

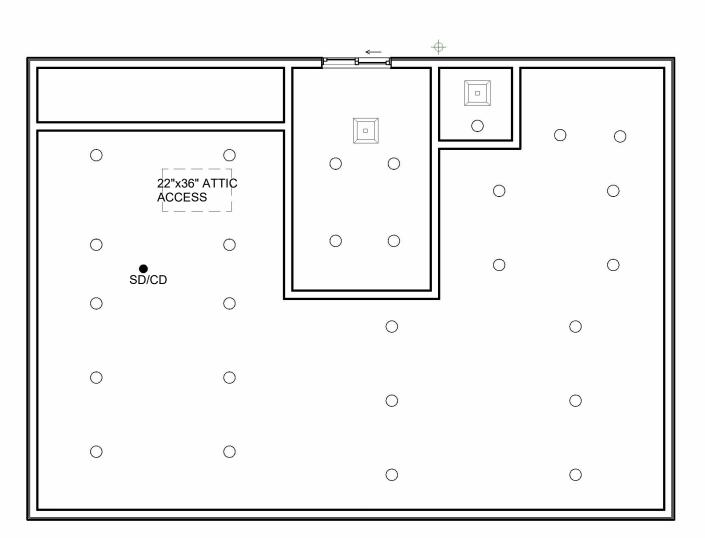
### **OUTDOOR LIGHTING:**

- 1. IN ADDITION TO MEETING THE REQUIREMENTS OF SECTION 150.0(k)1A, OUTDOOR
  - BE CONTROLLED BY A MANUAL 'ON & OFF' SWITCH THAT DOES NOT OVERRIDE AUTOMATIC FUNCTIONS AND ONE OF THE FOLLOWING DEVICES: PHOTOCELL & MOTION SENSOR. CONTROLS THAT OVERRIDE TO 'ON' SHALL BE ALLOWED IF THE OVERRIDE AUTOMATICALLY REACTIVATES THE MOTION SENSOR WITHIN 6 HOURS;
    - OR:
      PHOTOCONTROL & AUTOMATIC TIME SWITCH CONTROL. CONTROLS
      THAT OVERRIDE TO 'ON' SHALL BE ALLOWED IF THE OVERRIDE
      AUTOMATICALLY RETURNS THE PHOTOCONTROL & AUTOMATIC TIME
      SWITCH CONTROL TO ITS NORMAL OPERATION WITHIN 6 HOURS.
- 2. ASTRONOMICAL TIME CLOCK. CONTROLS THAT OVERRIDE TO 'ON' SHALL BE ALLOWED IF THE OVERRIDE AUTOMATICALLY RETURNS THE ASTRONOMICAL CLOCK TO ITS NORMAL OPERATION WITHIN 6 HOURS AND IT IS PROGRAMMED TO AUTOMATICALLY TURN THE OUTDOOR LIGHTING 'OFF' DURING DAYLIGHT HOURS.
- 3. ENERGY MANAGEMENT CONTROL SYSTEM. AT A MINIMUM PROVIDES THE FUNCTIONALITY OF AN ASTRONOMICAL TIME CLOCK IN ACCORDANCE WITH SECTION 110.9, MEETS THE INSTALLATION CERTIFICATION REQUIREMENTS IN SECTION 130.4, DOES NOT HAVE AN OVERRIDE OR BYPASS SWITCH THAT ALLOWS THE LUMINAIRE TO BE ALWAYS 'ON', AND IS PROGRAMMED TO AUTOMATICALLY TURN THE OUTDOOR LIGHTING 'OFF' DURING DAYLIGHT HOURS.

### INTERNALLY ILLUMINATED ADDRESS

1. INTERNALLY ILLUMINATED ADDRESS SIGNS SHALL COMPLY WITH SECTION 140.8 UNLESS THEY CONSUME LESS THAN 5 WATTS OF POWER AS DETERMINED ACCORDING TO SECTION 130.0(c).

ELE	CTRICAL LEGEND:	MECHANIC	CAL LEGEND:
⇒ S ⇒ ARC ⇒ GFI ⇒ GFI-WP ⇒ 220V ⇒ R	110V DUPLEX RECEPTACLE SERVICE RECEPTACLE ARC FAULT RECEPTACLE 110V DUPLEX RECEPTACLE (GROUND FAULT) 110V WATER-PROOF DUPLEX RECEPTACLE HALF HOT 220V RECEPTACLE 220V RANGE RECEPTACLE COMMON WALL SWITCH 3-WAY WALL SWITCH MOTION LIGHTING PHOTOCELL	ATTIC ACCESS	CARBON MONOXIDE / SMOKE ALARM GARBAGE DISPOSAL GARAGE DOOR OPENER  ATTIC ACCESS  EXHAUST FAN UP DUCT RETURN AIR SUPPLY AIR
TV PH L	TELEVISION OUTLET TELEPHONE OUTLET  LIGHTING LEGEND:	FURNACE	ATTIC FURNACE
	6" DIA. RECESSED CAN LIGHT FIXTURE  VANITY WALL MOUNTED LIGHTING FIXTURE  4' FINISH TYPE 2 TUBE FLUORESCENT	A/C (A/C)  MASTER	ROOF MOUNTED A/C UNIT  GROUND MOUNTED A/C UNIT  WALL MOUNTED MASTER COOL
AC	CCESSORY LEGEND:		WASTERVOOCE
M/C	HOSE BIB W/WATERING SYSTEM STUB-OUT MEDICINE CABINET	OWNER AND/O	NOTE: AN MAY BE ALTERED BY THE R GENERAL CONTRACTOR, DG. DEPT. APPROVAL.
DOME L	LIGHT FAN FAN/LIGHT FAN/LIGHT EILING LIGHT, FANS & FANS w/LIGHT		



1) Level 1

### **ELECTRICAL NOTES:**

- 1. LOCAL UTILITY COMPANY APPROVAL IS REQUIRED FOR METER LOCATION PRIOR TO INSTALLATION.
- 2. BRANCH CIRCUITS SUPPLYING RECEPTACLES IN KITCHENS (EXCEPT THOSE REQUIRED TO BE GFCI WHERE SERVING COUNTERTOPS), FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI).
- ALL RECEPTACLES LOCATED IN BATHROOMS, KITCHENS, LAUNDRY, UTILITY, WET BARS, GARAGES, ACCESORY BUILDINGS, & OUTDOORS SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION.
- PROVIDE GROUNDING W/20' UFER BAR IN FOOTING. BOND TO GAS AND WATER LINES.
- BATHROOM RECEPTACLES TO BE ON AN ISOLATED 20 AMP CIRCUIT.
- PROVIDE IWO (2) 20 AMP SMALL-APPLIANCE CIRCUITS IN KITCHEN AND ONE (1) 20 AMP LAUNDRY CIRCUIT.
- PROVIDE LOW VOLTAGE LIGHTED ADDRESS SIGN. NUMBERS SHALL BE OF NON-COMBUSTIBLE MATERIALS IN SPECIAL FIRE OVERLAY AREAS.
- SINGLE FAMILY RESIDENTIAL ADDRESS NUMBERS SHALL BE CONTRASTING ILLUMINATED AND ALIGNED HORIZONTALLY. THE NUMBERS SHALL BE 4" HIGH WHEN UP TO 50 FT. FROM CURB LINE, 6" UP TO 100 FT. ANO 8" IF OVER 100 FT. NOTE- IF NO CURB, THE DISTANCE SHALL BE MEASURED FROM THE
- 9. CENTRAL HEATING EQUIPMENT REQUIRES AN INDIVIDUAL BRANCH CIRCUIT.
- 10. ALL FIXTURE LOCATIONS ARE DIAGRAMMATIC. EXACT TYPE AND LOCATION TO BE SPECIFIED BY OWNER.
- 11. PROVIDE RECEPTACLES ON THE OUTSIDE OF THE BUILDING (FRONT AND BACK) AND IN THE ATTACHED GARAGE.
- 12. ALL OUTSIDE RECEPTACLES SHALL HAVE AN "IN-USE" ENCLOSURE.
- 13. PROVIDE DOUBLE SWITCHING AND SOLID BLOCKING AND METAL BOXES AT AII CEILING FANS.
- 13. PROVIDE RECEPTACLE AT ANY WALL 2' OR MORE, AND EVERY 12'.
- 14. PROVIDE AT LEAST ONE (1) RECEPTACLE AT HAU.WAYS OF 10' OR MORE IN LENGTH.
- 15. BRACE ALL OVERHEAD BEDROOM LIGHTS BETWEEN TRUSSES FOR POSSIBILITY OF FUTURE CEILING FAN (USE "UL" APPROVED FAN OUTLET BOXES).
- 16. GARAGE AND KITCHEN RECEPTACLES TO BE+ 42" A.F.F. (UNLESS NOTED OTHERWISE).
- 17. IN KITCHENS AND DINING AREAS, RECEPTACLES SHALL BE INSTALLED EVERY 4' ALONG THE WALL LINE OF COUNTER SPACES 12" OR WIDER.
- 18. ISLAND AND PENINSULA COUNTER TOPS 12" OR WIDER SHALL HAVE ONE (1) RECEPTACLE FOR EACH 4' OF COUNTER SPACE.
- 19. SMOKE DETECTOR TO BE HARD WIRED \*/ BATTERY BACKUP AND TO BE WITHIN 12" OF CEILING.-SMOKE DETECTORS SHALL BE INTER-CONNECTED AND SOUND SIMULTANEOUSLY.
- 20. PROVIDE ONE LIGHT CIRCUIT FOR EACH 500 S.F. OF LIVEABLE AREA.
- 21. IF LIGHT IN CLOSET IS LESS THAN 12" TO COMBUSTIBLES, PROVIDE RECESSED LIGHT.
- 22. A/C UNIT SHALL BE F.A.U. LOCATED IN ATTIC. PROVIDE RECEPTACLE AND LIGHT
- 21. PRIMARY LIGHTING AT ALL BATHS AND KITCHEN SHALL BE HIGH EFFICACY.
- 22. PROVIDE WEATHER RESISTIVE G.F.I.C. DUPLEX RECEPTACLE WITHIN 25 FT. OF ANY ELECTRICAL EQUIPMENTW/ 30 AMP OR GREATER LOAD.
- 23. BOND ALL GAS AND WATER PIPES.
- 24. PROVIDE 3'-0" (MIN.) CLEAR WORK SPACE AT MAIN PANEL.
- 25. NON-METALLIC SHEATHED CABLE SHALL BE CONCEALED OR PROTECTED.
- 26. PROVIDE CARBON MONOXIDE ALARM AS SHOWN AND INSTALLED PER THE CALIFORNIA RESIDENTIAL CODE AND MANUFACTURER SPECIFICATIONS.
- 27. ALL ELECTRICAL OUTLETS SHALL BE TAMPER RESISTANT (CHILD PROOF) TYPE...
- 28. RECEPTACLE @ GARBAGE DISPOSAL SHALL BE ON SEPARATE #12 A.W.G. WIRE BRANCH CIRCUIT.
- 29. BATHROOM SHALL BE MECHANICALLY VENTED AND BE ENERGY STAR COMPLIANT. CONTROLLED BY A HUMIDITY CONTROL, CAPABLE OF MANUAL OR AUTOMATICALLY ADJUSTMENT OF RELATIVE HUMIDITY BETWEEN ≤ 50 PERCENT TO A MAXIMUM OF 80 PERCENT. EXHAUST FANS SHALL BE CAPABLE OF PROVIDING A MINIMUM OF 50 CFM INTERMITTENTLY OR 20 CFM CONTINUOUS VENTILATION.



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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

Owner

Ceiling Plan

Project number

Date

Drawn by

Checked by

Project Number

Issue Date

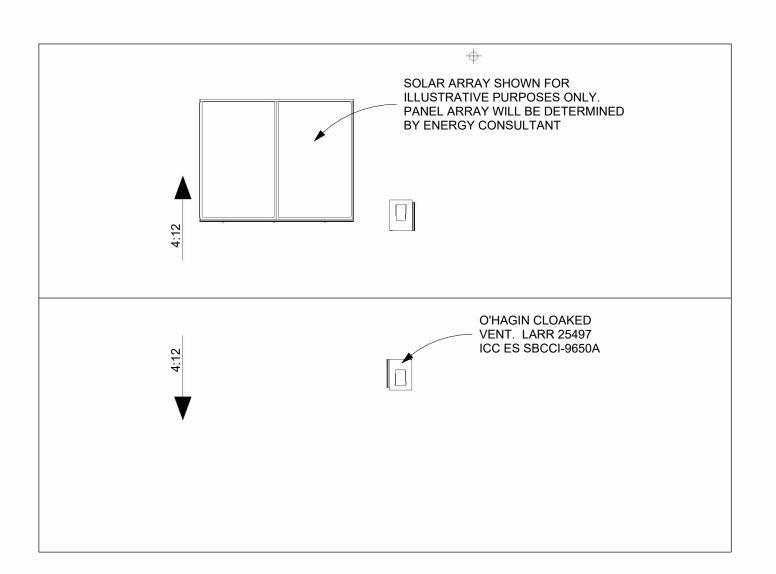
Drawn by

Author

Checker

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Roof

### **FIRE SAFETY OVERLAY NOTES:**

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

- A. NONCOMBUSTIBLE MATERIAL OR
- B. IGNITION-RESISTANT MATERIAL OR
- C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE EXTERIOR OF ROOF DECK OR
- 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.

EXPOSED UNDERSIDE SHALL BE PROTECTED BY ONE OF THE FOLLOWING:

- A. NONCOMBUSTIBLE MATERIAL OR
- B. IGNITION-RESISTANT MATERIAL OR
- C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE RAFTER TAILS OR SOFFIT OR
- 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 OR
- E. BOXED-IN ROOF EAVE SOFFIT ASSEMBLIES COMPLYING WITH SFM 12-7A-3 OR ASTM E2957.

EXPOSED UNDERSIDE SHALL BE PROTECTED BY ONE OF THE FOLLOWING:

- A. NONCOMBUSTIBLE MATERIAL OR
- B. IGNITION-RESISTANT MATERIAL OR
- C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE CEILING OR
- 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 OR
- E. PORCH CEILING ASSEMBLIES WITH A HORIZONTAL UNDERSIDE COMPLYING WITH SFM 12-7A-3 OR ASTM E2957.

### ROOF COVERING:

- 1. ALL ROOF COVERING SHALL BE INSTALLED PER APPLICABLE REQUIREMENTS OF CBC. ROOF COVERINGS SHALL BE AT LEAST CLASS A RATED IN ACCORDANCE WITH ASTM E 108 OR UL 7790, WHICH SHALL INCLUDE COVERINGS OF SLATE, CLAY OR CONCRETE ROOF TILE, EXPOSED CONCRETE ROOF DECK, FERROUS OR COPPER SHINGLES OR SHEETS.
  - ROOF FLASHING. FLASHING SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, AT GUTTERS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION, AND AROUND ROOF OPENINGS. WHERE FLASHING IS OF METAL, THE METAL SHALL BE CORROSION-RESISTANT WITH A THICKNESS OF NOT LESS THAN 0.019 INCH (NO. 26 GALVANIZED SHEET).
- 3. CRICKETS AND SADDLES. A CRICKET OR SADDLE SHALL BE INSTALLED ON THE RIDGE SIDE OF ANY CHIMNEY OR PENETRATION MORE THAN 30 INCHES WIDE AS MEASURED PERPENDICULAR TO THE SLOPE. CRICKET OR SADDLE COVERING SHALL BE SHEET METAL OR THE SAME MATERIAL AS THE ROOF COVERING.

## ROOF AREA

VENT REQUIRED: <u>560</u> Sq.Ft. / 150= <u>3.733</u>x144 = 537 Sq.In.

VENT PROVIDED:

2 - GALV. STEEL LOUVERED VENT DECORATIVE VENT (264 sq. in.)

2 - O' HAGIN ROOF COMPOSITION VENT MODEL "FLAT" (72 sq. in.)

528 + 144 = <u>672</u> **sq. in.** 

ATTIC VENT CALCULATION

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 MINIMUM 1/16" AND MAXIMUM 1/8" OPENINGS
- c. LARR 25495, LEGACY REPORT ICC ES SBCCI-9650A



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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

Owner

Roof Plan

Project number

Date

Drawn by

Checked by

Project Number

Issue Date

Author

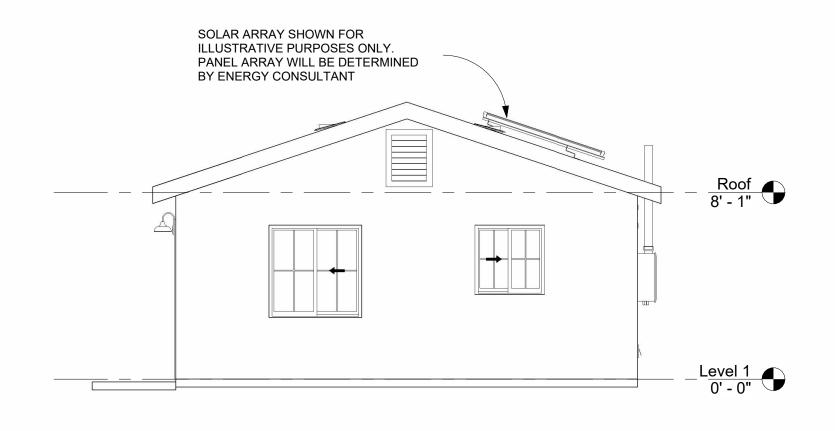
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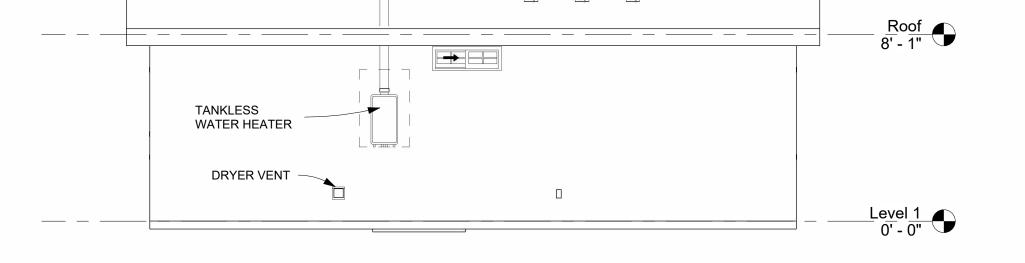
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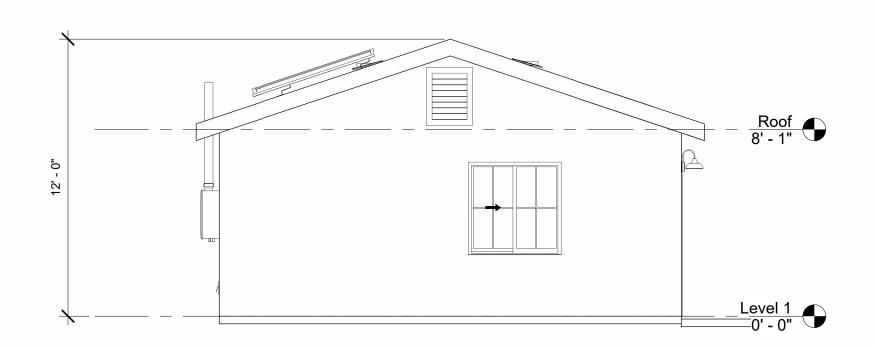
1/4" = 1'-0"

7 00000





1 East 1/4" = 1'-0" 3 North 1/4" = 1'-0"







4 South 1/4" = 1'-0"



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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Dat

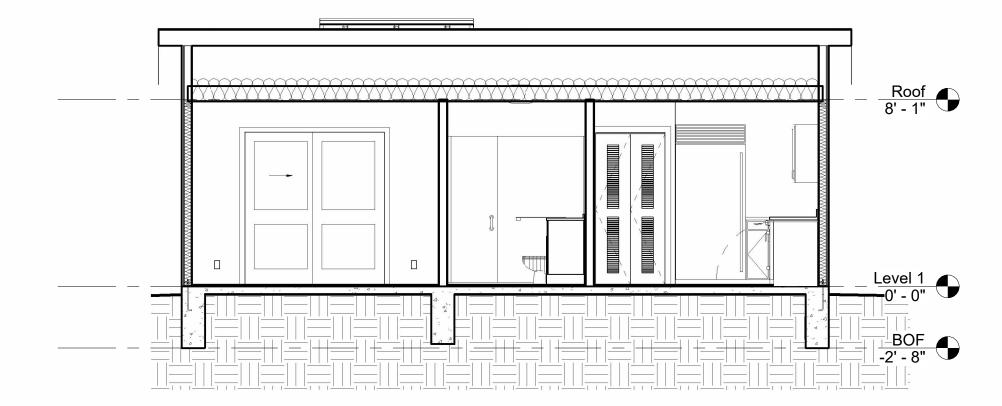
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Elevations

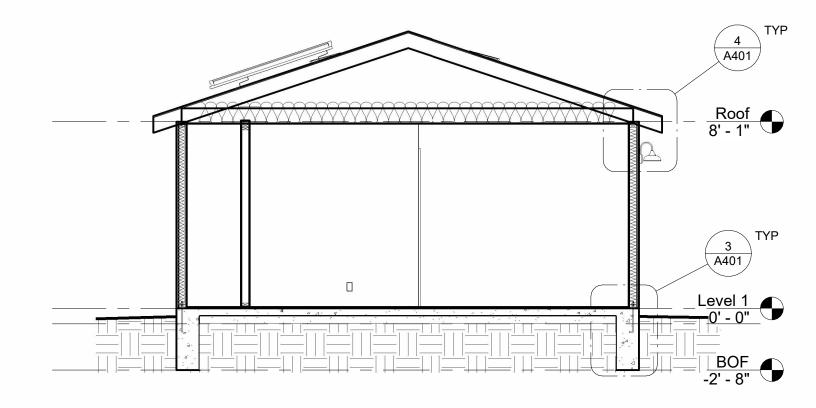
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Date	Issue Da
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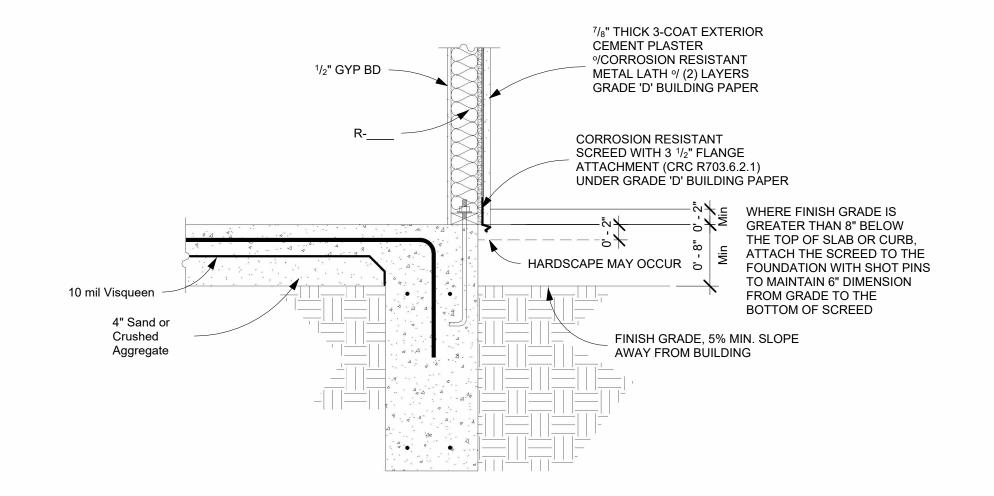
1/4" = 1'-0"



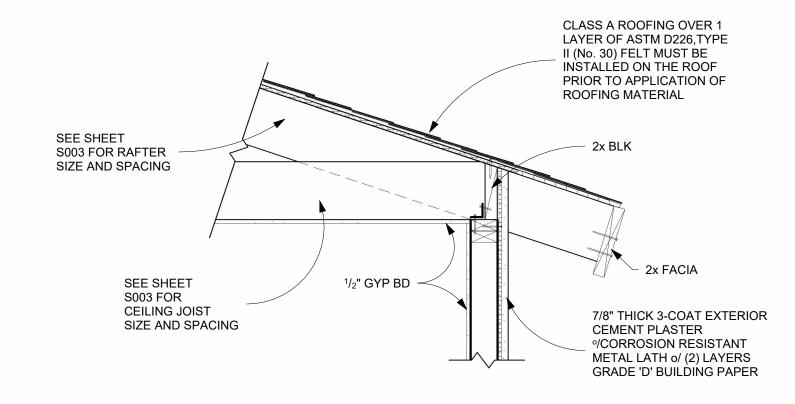
1 Section 1 1/4" = 1'-0"



2 Section 2 1/4" = 1'-0"



3 A-24" Deep Foundation-Exterior-Slab-2x4 1" = 1'-0"



4 A-Roof-Exterior-Eave Detail 1" = 1'-0"



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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Dat

Owner

Sections

Project number

Date

Drawn by

Checked by

Project Number

Issue Date

Author

Checker

A401

As indicated

7.0000000

Door Schedule							
Mark	Width	Height	Thickness	Туре	Rough Width	Rough Height	Comments
1	3' - 0"	6' - 8"	0' - 1 1/2"	36" x 80"	3' - 2"	6' - 9"	
2	3' - 0"	6' - 8"	0' - 2"	36" x 80"			
3	6' - 0"	6' - 8"	0' - 1 1/2"	72" x 80"	6' - 2"	6' - 9"	
4	3' - 0"	6' - 8"	0' - 1"	36"x80"			Louvered door with a minimum 100 square inch opening for makeup air

	Window Schedule					
Type Mark	Width	Height	Head Height	Sill Height	Туре	Comments
A	4' - 0"	4' - 0"	6' - 8"	2' - 8"	48" x 48"	SEE ENERGY CALCULATIONS FOR REQUIRED u VALUE AND SHGC VALUE
A	4' - 0"	4' - 0"	6' - 8"	2' - 8"	48" x 48"	SEE ENERGY CALCULATIONS FOR REQUIRED u VALUE AND SHGC VALUE
A	4' - 0"	4' - 0"	6' - 8"	2' - 8"	48" x 48"	SEE ENERGY CALCULATIONS FOR REQUIRED u VALUE AND SHGC VALUE
А	4' - 0"	4' - 0"	6' - 8"	2' - 8"	48" x 48"	SEE ENERGY CALCULATIONS FOR REQUIRED u VALUE AND SHGC VALUE
В	3' - 0"	3' - 0"	6' - 8"	3' - 8"	36" x 36"	SEE ENERGY CALCULATIONS FOR REQUIRED u VALUE AND SHGC VALUE
С	3' - 0"	1' - 0"	7' - 6 1/2"	6' - 6 1/2"	36" x 12"	SEE ENERGY CALCULATIONS FOR REQUIRED u VALUE AND SHGC VALUE



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Consultant Address Address Phone Fax e-mail

560 sf ADU

Description	Date

Owner

## Door & Window Schedule

Project number	Project Number
Date	Issue Da
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7/8/2025 7:56:03 AM

# AIA California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code. 4.304 OUTDOOR WATER USE 4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code. Efficient Landscape Ordinance (MWELO), whichever is more stringent. 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 Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its 1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code Regulations, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/ .106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or **EFFICIENCY** altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. 4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE 4.406.1 RODENT PROOFING. 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 1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing EV charging. 2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use. 4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING **DIVISION 4.2 ENERGY EFFICIENCY** 4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste 4.201 GENERAL **4.201.1 SCOPE.** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards. DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION Excavated soil and land-clearing debris. 2. Alternate waste reduction methods developed by working with local agencies if diversion or 4.303 INDOOR WATER USE recycle facilities capable of compliance with this item do not exist or are not located reasonably 4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and close to the jobsite. urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3 3. The enforcing agency may make exceptions to the requirements of this section when isolated iobsites are located in areas beyond the haul boundaries of the diversion facility. Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving .408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final in conformance with Items 1 through 5. The construction waste management plan shall be updated as completion, certificate of occupancy, or final permit approval by the local building department. See Civil necessary and shall be available during construction for examination by the enforcing agency. Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates 1. Identify the construction and demolition waste materials to be diverted from disposal by recycling. reuse on the project or salvage for future use or sale. 4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1,28 gallons per Specify if construction and demolition waste materials will be sorted on-site (source separated) or flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense bulk mixed (single stream) Specification for Tank-type Toilets. 3. Identify diversion facilities where the construction and demolition waste material collected will be Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume 4. Identify construction methods employed to reduce the amount of construction and demolition waste of two reduced flushes and one full flush. 5. Specify that the amount of construction and demolition waste materials diverted shall be calculated 4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush by weight or volume, but not by both The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush. **4.408.3 WASTE MANAGEMENT COMPANY.** Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1 **4.303.1.3.1 Single Showerhead.** Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA Note: The owner or contractor may make the determination if the construction and demolition waste NaterSense Specification for Showerheads. materials will be diverted by a waste management company. **4.303.1.3.2 Multiple showerheads serving one shower**. When a shower is served by more than one 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 bs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a showerhead. 4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction 4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall **4.408.5 DOCUMENTATION**. Documentation shall be provided to the enforcing agency which demonstrates not be less than 0.8 gallons per minute at 20 psi. compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4. 4.303.1.4.2 Layatory Faucets in Common and Public Use Areas. The maximum flow rate of layatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential 1. Sample forms found in "A Guide to the California Green Building Standards Code buildings shall not exceed 0.5 gallons per minute at 60 psi. (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in 4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver documenting compliance with this section. 2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle). 4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons 4.410 BUILDING MAINTENANCE AND OPERATION per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per **4.410.1 OPERATION AND MAINTENANCE MANUAL.** At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building: Note: Where complying faucets are unavailable, aerators or other means may be used to achieve . Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure. 4.303.1.4.5 Pre-rinse spray valves. 2. Operation and maintenance instructions for the following: When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance a. Equipment and appliances, including water-saving devices and systems, HVAC systems. Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 photovoltaic systems, electric vehicle chargers, water-heating systems and other major (d)(7) and shall be equipped with an integral automatic shutoff. appliances and equipment. Roof and yard drainage, including gutters and downspouts FOR REFERENCE ONLY: The following table and code section have been reprinted from the California Space conditioning systems, including condensers and air filters. Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section d. Landscape irrigation systems. e. Water reuse systems. 3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations. 5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range. STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY 6. Information about water-conserving landscape and irrigation design and controllers which conserve VALUES MANUFACTURED ON OR AFTER JANUARY 28, 201 7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 8. Information on required routine maintenance measures, including, but not limited to, caulking, MAXIMUM FLOW RATE (gpm) [spray force in ounce force (ozf)] painting, grading around the building, etc. 9. Information about state solar energy and incentive programs available. 10. A copy of all special inspections verifications required by the enforcing agency or this code. Product Class 1 (≤ 5.0 ozf) 11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures Product Class 2 (> 5.0 ozf and  $\leq$  8.0 ozf) 12. Information and/or drawings identifying the location of grab bar reinforcements. Product Class 3 (> 8.0 ozf) 4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)] depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling 4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the **Exception:** Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seg. are note required to comply with the organic waste portion of **4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 01.1 of the California Plumbing Code. **DIVISION 4.5 ENVIRONMENTAL QUALITY** THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER. **SECTION 4.501 GENERAL** The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, TABLE - MAXIMUM FIXTURE WATER USE irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors. **SECTION 4.502 DEFINITIONS** FIXTURE TYPE FLOW RATE 5.102.1 DEFINITIONS SHOWER HEADS (RESIDENTIAL) 1.8 GMP @ 80 PSI The following terms are defined in Chapter 2 (and are included here for reference) AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 LAVATORY FAUCETS (RESIDENTIAL) cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.



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County of San Bernardino Building & Safety Division 385 N. Arrowhead Ave. San Bernardino, CA 92415 909-387-8311 SBCounty.gov

All projects shall comply with the 2022 California Building Code (CBC) and/or California Residential Code (CRC), 2022 California Green Building Standards Code (CalGreen), 2022 California Electrical Code (CEC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Fire Code (CFC), 2022 California Building Energy Efficiency Standards (CBEES), and all San Bernardino County amendments.

By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Consultant Address Phone e-mail

560 sf ADU

No.	Description	Date

Green Code

Project number	Project Number
Date	Issue Date
Drawn by	Author
Checked by	Checker

**CHAPTER 3 GREEN BUILDING** SECTION 301 GENERAL 301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in 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 but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. 301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration. The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section. Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1 et seg., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates. 301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and nigh-rise buildings, no banner will be used. SECTION 302 MIXED OCCUPANCY BUILDINGS 302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy 1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable. 2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the California Building Code, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable. DIVISION 4.1 PLANNING AND DESIGN Department of Housing and Community Development California Building Standards Commission Division of the State Architect, Structural Safety Office of Statewide Health Planning and Development Low Rise High Rise Additions and Alterations CHAPTER 4 RESIDENTIAL MANDATORY MEASURES **SECTION 4.102 DEFINITIONS** he following terms are defined in Chapter 2 (and are included here for reference) FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar 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 sed for perimeter and inlet controls. 4.106 SITE DEVELOPMENT 4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section. .106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjace property, prevent erosion and retain soil runoff on the site. . Retention basins of sufficient size shall be utilized to retain storm water on the site. 2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency 3. Compliance with a lawfully enacted storm water management ordinance. Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, are part of a larger common plan of development which in total disturbs one acre or more of soil. (Website: https://www.waterboards.ca.gov/water\_issues/programs/stormwater/construction.html) .106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following: 2. Water collection and disposal systems French drains Water retention gardens 5. Other water measures which keep surface water away from buildings and aid in groundwater Exception: Additions and alterations not altering the drainage path. 4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625. 1. On a case-by-case basis, where the local enforcing agency has determined EV charging and 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 1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 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

parking facilities.

accordance with the California Electrical Code.

overcurrent protective device.

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

shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed 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

concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere

208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circui

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in

4.106.4.1.1 Identification. The service 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 permanently and visibly marked as "EV CAPABLE".

.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities. When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511 4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to 1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes. The service 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 California Electrical Code. 1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number 2. When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number o EV chargers installed a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or 2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit. Exception: Areas of parking facilities served by parking lifts. .106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or mor sleeping units or guest rooms. The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to 1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserve for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required. a. Construction documents shall show locations of future EV spaces. b. There is no requirement for EV spaces to be constructed or available until receptacles for EV charging o

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required pe dwelling unit when more than one parking space is provided for use by a single dwelling unit. Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE sha ave a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS). Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1. Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable

4.106.4.2.2.1.1 Location. EVCS shall comply with at least one of the following options:

1. The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space 2. The charging space shall be located on an accessible route, as defined in the California Building Code,

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.

1. The minimum length of each EV space shall be 18 feet (5486 mm).

2. The minimum width of each EV space shall be 9 feet (2743 mm).

4.106.4.2.2.1.3 Accessible EV spaces.

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083

In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B, EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section

4.106.4.2.3 EV space requirements. 1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shal have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in ealed areas and spaces shall be installed at the time of original construction.

LAVATORY FAUCETS IN COMMON & PUBLIC 0.5 GPM @ 60 PSI **USE AREAS** KITCHEN FAUCETS 1.8 GPM @ 60 PSI METERING FAUCETS 0.2 GAL/CYCLE WATER CLOSET 1.28 GAL/FLUSH 0.125 GAL/FLUSH

**COMPOSITE WOOD PRODUCTS.** Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for mbustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BY THE END USED BY THE END USER TO BE USED ON AN INDIVIDUAL PROJECT BY THE END USED B



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.

# California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

CHAPTER 7 TABLE 4.504.2 - SEALANT VOC LIMIT TABLE 4.504.5 - FORMALDEHYDE LIMITS1 MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS ompound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to (Less Water and Less Exempt Compounds in Grams per Liter) MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION nundredths of a gram (g O3/g ROC) **702 QUALIFICATIONS** Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 **VOC LIMIT** 702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper **ARCHITECTURAL** HARDWOOD PLYWOOD VENEER CORE 0.05 installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood. certification program. Uncertified persons may perform HVAC installations when under the direct supervision and MARINE DECK HARDWOOD PLYWOOD COMPOSITE CORE esponsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this NONMEMBRANE ROOF 300 PARTICLE BOARD 0.09 Examples of acceptable HVAC training and certification programs include but are not limited to the following: article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of 250 **ROADWAY** MEDIUM DENSITY FIBERBOARD 0.11 State certified apprenticeship programs. product (excluding container and packaging). Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a). 2. Public utility training programs. THIN MEDILIM DENSITY FIBERBOARD2 SINGLE-PLY ROOF MEMBRANE 450 0.13 Training programs sponsored by trade, labor or statewide energy consulting or verification organizations. REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to Programs sponsored by manufacturing organizations. 1 VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED. OTHER Other programs acceptable to the enforcing agency. BY THE CALIF, AIR RESOURCES BOARD, AIR TOXICS CONTROL **SEALANT PRIMERS** MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE 702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings WITH ASTM F 1333 FOR ADDITIONAL INFORMATION SEE CALIF ARCHITECTURA with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain esponsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a). **NON-POROUS** 250 to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to 2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be **POROUS** 4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed onsidered by the enforcing agency when evaluating the qualifications of a special inspector: THICKNESS OF 5/16" (8 MM). woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPŚ) emission limits as MODIFIED BITUMINOUS applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, 1. Certification by a national or regional green building program or standard publisher. MARINE DECK pellet stoves and fireplaces shall also comply with applicable local ordinances. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building DIVISION 4.5 ENVIRONMENTAL QUALITY (continued) performance contractors, and home energy auditors. 4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California 4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING Successful completion of a third party apprentice training program in the appropriate trade. Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emission 4. Other programs acceptable to the enforcing agency. rom Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final California Specification 01350) 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 1. Special inspectors shall be independent entities with no financial interest in the materials or the See California Department of Public Health's website for certification programs and testing labs. educe the amount of water, dust or debris which may enter the system. project they are inspecting for compliance with this code. 2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx. 4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section. homes in California according to the Home Energy Rating System (HERS). TABLE 4.504.3 - VOC CONTENT LIMITS FOR 4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the BSC1 When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall 4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the ARCHITECTURAL COATINGS2,3 California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with requirements of the following standards unless more stringent local or regional air pollution or air quality Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the management district rules apply: GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT (Emission testing method for California Specification 01350) particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a . Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks ecognized state, national or international association, as determined by the local agency. The area of certification See California Department of Public Health's website for certification programs and testing labs. COATING CATEGORY VOC LIMIT shall comply with local or regional air pollution control or air quality management district rules where shall be closely related to the primary job function, as determined by the local agency. applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable FLAT COATINGS https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx. 50 Note: Special inspectors shall be independent entities with no financial interest in the materials or the Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic project they are inspecting for compliance with this code. compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and NON-FLAT COATINGS 100 4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1. tricloroethylene), except for aerosol products, as specified in Subsection 2 below. NONFLAT-HIGH GLOSS COATINGS 150 .504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area receiving 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in 703 VERIFICATIONS **SPECIALTY COATINGS** esilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the units of product, less packaging, which do not weigh more than 1 pound and do not consist of more 703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not esting and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including ALUMINUM ROOF COATINGS 400 ersion 1.2. January 2017 (Emission testing method for California Specification 01350) mited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific commencing with section 94507. BASEMENT SPECIALTY COATINGS 400 See California Department of Public Health's website for certification programs and testing labs. documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist **4.504.2.2 Paints and Coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of BITUMINOUS ROOF COATINGS htps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits BITUMINOUS ROOF PRIMERS 350 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 **BOND BREAKERS** 4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources composite wood products used on the interior or exterior of the buildings shall meet the requirements for Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in CONCRETE CURING COMPOUNDS 350 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 CONCRETE/MASONRY SEALERS 4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR DRIVEWAY SEALERS 4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic by the enforcing agency. Documentation shall include at least one of the following: compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of California Code of DRY FOG COATINGS Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Product certifications and specifications. Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation **FAUX FINISHING COATINGS** 350 Chain of custody certifications. Product labeled and invoiced as meeting the Composite Wood Products regulation (see FIRE RESISTIVE COATINGS CCR, Title 17, Section 93120, et seq.). **4.504.2.4 Verification.** Verification of compliance with this section shall be provided at the request of the OOR COATINGS 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engine enforcing agency. Documentation may include, but is not limited to, the following: Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA FORM-RELEASE COMPOUNDS 0121, CSA 0151, CSA 0153 and CSA 0325 standards. Manufacturer's product specification. Other methods acceptable to the enforcing agency. 2. Field verification of on-site product containers. GRAPHIC ARTS COATINGS (SIGN PAINTS) 500 HIGH TEMPERATURE COATINGS 420 INDUSTRIAL MAINTENANCE COATINGS 4.505 INTERIOR MOISTURE CONTROL 250 TABLE 4.504.1 - ADHESIVE VOC LIMIT<sub>1,2</sub> 5.505.1 General. Buildings shall meet or exceed the provisions of the California Building Standards Code. LOW SOLIDS COATINGS1 120 (Less Water and Less Exempt Compounds in Grams per Liter) 4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by MAGNESITE CEMENT COATINGS 450 California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the ARCHITECTURAL APPLICATIONS California Residential Code, Chapter 5, shall also comply with this section. MASTIC TEXTURE COATINGS INDOOR CARPET ADHESIVES METALLIC PIGMENTED COATINGS **4.505.2.1 Capillary break.** A capillary break shall be installed in compliance with at least one of the 500 CARPET PAD ADHESIVES MULTICOLOR COATINGS 250 150 OUTDOOR CARPET ADHESIVES 1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with PRETREATMENT WASH PRIMERS a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, 100 WOOD FLOORING ADHESIVES shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, PRIMERS, SEALERS, & UNDERCOATERS 100 RUBBER FLOOR ADHESIVES REACTIVE PENETRATING SEALERS Other equivalent methods approved by the enforcing agency. SUBFLOOR ADHESIVES 3. A slab design specified by a licensed design professional. RECYCLED COATINGS 250 CERAMIC TILE ADHESIVES **4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS.** Building materials with visible signs of water damage ROOF COATINGS shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent VCT & ASPHALT TILE ADHESIVES oisture content. Moisture content shall be verified in compliance with the following: RUST PREVENTATIVE COATINGS 250 DRYWALL & PANEL ADHESIVES SHELLACS 1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent COVE BASE ADHESIVES moisture verification methods may be approved by the enforcing agency and shall satisfy requirements 730 found in Section 101.8 of this code. MULTIPURPOSE CONSTRUCTION ADHESIVE 2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end **OPAQUE** 550 of each piece verified. 100 STRUCTURAL GLAZING ADHESIVES SPECIALTY PRIMERS, SEALERS & 3. At least three random moisture readings shall be performed on wall and floor framing with documentation SINGLE-PLY ROOF MEMBRANE ADHESIVES acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. **UNDERCOATERS** OTHER ADHESIVES NOT LISTED sulation 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 SPECIALTY APPLICATIONS STONE CONSOLIDANTS 450 ecommendations prior to enclosure. SWIMMING POOL COATINGS **PVC WELDING** 4.506 INDOOR AIR QUALITY AND EXHAUST TRAFFIC MARKING COATINGS 490 100 **4.506.1 Bathroom exhaust fans.** Each bathroom shall be mechanically ventilated and shall comply with the **CPVC WELDING TUB & TILE REFINISH COATINGS** 420 ABS WELDING 1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 250 WATERPROOFING MEMBRANES 250 PLASTIC CEMENT WELDING 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a WOOD COATINGS 550 275 ADHESIVE PRIMER FOR PLASTIC WOOD PRESERVATIVES 350 CONTACT ADHESIVE 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 SPECIAL PURPOSE CONTACT ADHESIVE ZINC-RICH PRIMERS b. A numidity control may be a separate component to the exhaust fan and is not required to be 140 1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & STRUCTURAL WOOD MEMBER ADHESIVE integral (i.e., built-in) TOP & TRIM ADHESIVE 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS SUBSTRATE SPECIFIC APPLICATIONS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE. 1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY METAL TO METAL THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS 2. Lighting integral to bathroom exhaust fans shall comply with the California Energy Code. PLASTIC FOAMS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD. 1.507 ENVIRONMENTAL COMFORT POROUS MATERIAL (EXCEPT WOOD) 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: **FIBERGLASS** 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. 1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential

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

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



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All projects shall comply with the 2022 California Building Code (CBC) and/or California Residential Code (CRC), 2022 California Green Building Standards Code (CalGreen), 2022 California Electrical Code (CEC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Fire Code (CFC), 2022 California Building Energy Efficiency Standards (CBEES), and all San Bernardino County amendments.

By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Consultant Address Phone e-mail

560 sf ADU

No.	Description	Date

## Green Code

Project number	Project Number
Date	Issue Date
Drawn by	Author
Checked by	Checker

### MECHANICAL, PLUMBING, ELECTRICAL NOTES

- 1. ALL RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER-RESISTANT RECEPTACLES.
- 2. ALL RECEPTACLES IN BEDROOM, THE DINING ROOM, HALLWAY, DEN, LIBRARIES, CLOSET, THE FAMILY ROOM, AND SIMILAR ROOMS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT.
- PROVIDE WHOLE HOUSE INDOOR AIR QUALITY VENTILATION BY MEANS OF CONTINUOUS EXHAUST VENTILATION, SUPPLY VENTILATION, OR A COMBINATION OF BOTH EXHAUST AND SUPPLY VENTILATION IN EACH INDIVIDUAL DWELLING UNIT. SPECIFY THE REQUIRED CFM CALIFORNIA ENERGY CODE AND ASHRAE 62.2.
- 4. FLUSH VOLUMES FOR LOW-CONSUMPTION AND WATER SAVER WATER CLOSETS SHALL BE PROVIDED WITH A MAX 1.28 GALLONS OF WATER PER FLUSH.
- . ALL NEW PLUMBING FIXTURES SHALL BE WATER CONSERVING.
- 6. CONTROL VALVE FOR SHOWER OR TUB-SHOWER SHALL BE OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE.
- 7. WATER HEATER SHALL BE STRAPPED TO WALL AT POINTS WITHIN THE UPPER 1/3 AND LOWER 1/3 OF ITS VERTICAL DIMENSIONS WITH THE LOWER A MIN. 4" ABOVE THE CONTROLS.
- TWO 20-AMP SMALL APPLIANCE BRANCH CIRCUITS SERVING THE KITCHEN COUNTER RECEPTACLES SHALL HAVE NO OTHER OUTLIETS
- 9. A DEDICATED 20 AMP CIRCUIT IS REQUIRED TO SERVE THE REQUIRED BATHROOM RECEPTACLES.
- 10. APPLIANCES SUCH AS KITCHEN SINK, FOOD GRINDERS, DISHWASHERS, MICROWAVE OVENS, TRASH COMPACTORS, WASHING MACHINES, DRYERS, REFRIGERATORS, AIR CONDITIONS, FAUS, BUILT-IN HEATERS OR ANY FIXED APPLIANCE WITH MOTOR LARGER THAN 1/4 HP SHALL BE ON A SEPARATE BRANCH CIRCUIT SUPPLIED BY A MINIMUM NUMBER 12 AWG WIRE.
- 11. VERIFY ELECTRICAL AND FUEL GAS REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS.
- 12. SMOKE ALARMS & CARBON DIOXIDE ALARMS SHALL BE INSTALLED IN ALL BEDROOMS, ON THE CEILING OR WALL OUTSIDE OF EACH BEDROOM AND IN EVERY STORY.
- 13. SMOKE & CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH BATTERY BACKUP AND LOW BATTERY SIGNAL.
- 14. BATHROOMS SHALL BE MECHANICALLY VENTILATED.
- 5. WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED, IT SHALL BE INTERCONNECTED IN SUCH A MANNER SO THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS.
- 16. EXHAUST FANS ARE TO HAVE A MIN. CAPACITY OF 50 CFM.
- . INSTALL ON THE COLD WATER SUPPLY PIPE AT THE TOP OF THE WATER HEATER A CAPPED "T" FITTING TO PLUMB FOR FUTURE SOLAR WATER HEATING.
- 18. COOKING EQUIPMENT MUST BE LISTED FOR RESIDENTIAL USE.
- 19. ALL HEATING AND/OR COOLING SYSTEMS OTHER THAN WOOD STOVES SHALL HAVE AN AUTOMATIC THERMOSTAT WITH A CLOCK MECHANISM OR OTHER SETBACK MECHANISM APPROVED BY THE EXECUTIVE DIRECTOR OF THE CALIFORNIA ENERGY COMMISSION THAT SHUTS THE SYSTEM OFF DURING PEAK PERIODS OF NONUSE AND THAT ALLOWS THE BUILDING OCCUPANT TO AUTOMATICALLY SET BACK THE THERMOSTAT SET POINTS FOR AT LEAST TWO PERIODS WITH 24 HOURS.
- 20. A WHOLE HOUSE VENTILATION FAN SHALL BE INSTALLED IN A CENTRAL LOCATION AND SHALL BE CONTINUOUSLY OPERATED AT A NOISE LEVEL NO GREATER THAN 1 SONE. TOTAL CFM CALCULATION IS 560 SQ. FT. TOTAL CONDITION SPACE MULTIPLIED BY .03 PLUS 1 BEDROOM PLUS 1 ADDITIONAL OCCUPANT X 7.5 = 16.8+15 = 31.8 MIN CFM. INSTALL A 50 MIN. CFM CONTINUOUSLY OPERATED WHOLE HOUSE FAN W/ A 8" DIA. FLEX DUCT. DUCT SIZE PER TABLE 7.1, MAX. LENGTH SHALL NOT EXCEED 70 LINEAR FT. PROVIDE DOCUMENTATION CERTIFICATION OF REQUIRED AIR FLOW AND NOISE LEVEL.
- 21. PROVIDE A MIN. 50 CFM LOCAL FAN FOR EACH BATHROOM W/ 4" DUCT TO OUTSIDE PER TABLE 7.1. MAX. LENGTH OF DUCT SHALL NOT EXCEED 70'. MAX. NOISE LEVEL NOT TO EXCEED 1 SONE. SEE SECTION 4.506 OF THE CALIFORNIA GREEN CODE FOR ADDTIONAL REQUIREMENTS. PROVIDE DOCUMENTATION CERTIFICATION OF REQUIRED AIR FLOW AND NOISE LEVEL.
- 22. PROVIDE A MIN. 100 CFM KITCHEN HOOD W/ 7" DUICT TO OUTSIDE PER TABLE 7.1. MAX. LENGTH OF DUCT SHALL NOT EXCEED 35'. MAX. NOISE LEVEL NOT TO EXCEED 3 SONES.
- 23. PROVIDE DOCUMENTATION CERTIFICATION OF REQUIRED AIR FLOW AND NOISE LEVEL.

## ELECTRICAL GENERAL NOTES:

- 1. CERTIFICATES OF INSTALLATION (CF2R-ENV, CF2R-LTG AND CF2R-MECH) SHALL BE COMPLETED BY THE APPLICABLE CONTRACTORS INSTALLING ENERGY FEATURES. WHEN COMPLIANCE REQUIRES HERS FIELD VERIFICATION AND/OR TESTING, ALL CF2R FORMS SHALL BE SUBMITTED ELECTRONICALLY TO AN APPROVED HERS PROVIDER DATA REGISTRY. THE CF2R FORMS SHALL BE POSTED AT THE JOB SITE IN A CONSPICUOUS LOCATION.
- 2. CERTIFICATE OF VERIFICATION (CF3R) SHALL BE COMPLETED, REGISTERED, AND SIGNED/CERTIFIED BY THE HERS RATER. THE REGISTERED CF3R FORM SHALL BE MADE AVAILABLE TO THE BUILDING DEPARTMENT AND BUILER.
- 3. TWO 20-AMP SMALL APPLIANCE BRANCH CIRCUITS SERVING THE KITCHEN COUNTER RECEPTACLES SHALL HAVE NO OTHER OUTLETS.
- 4. DEDICATED 20 AMP CIRCUIT IS REQUIRED TO SERVE THE REQUIRED BATHROOM RECEPTACLES.
- 5. ALL BEDROOM, HALLWAYS AND HABITABLE RECEPTACLES SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT.
- 6. APPLIANCES SUCH AS KITCHEN SINK, FOOD GRINDERS, DISHWASHERS, MICROWAVE OVENS, TRASH COMPACTORS, WASHING MACHINES, DRYERS, REFRIGERATORS, AIR CONDITIONERS, FAU'S, BUILT-IN HEATERS OR ANY FIXED APPLIANCE WITH MOTOR LARGER THAN 1/4 HP SHALL BE ON A SEPARATE BRANCH CIRCUIT SUPPLIED BY A MINIMUM NUMBER 12 AWG
- 7. SMOKE ALARMS & CARBON DIOXIDE ALARMS SHALL BE INSTALLED IN ALL BEDROOMS, ON THE CEILING OR WALL OUTSIDE OF EACH BEDROOM AND IN EVERY STORY.
- 8. SMOKE & CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRIING AND SHALL BE EQUIPPED WITH BATTERY BACKUP AND LOW BATTERY SIGNAL.
- 9. WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED, IT SHALL BE INTERCONNECTED IN SUCH A MANNER SO THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS
- 10. BATHROOMS SHALL HAVE EXHAUST FANS, MINIMUM MECHANICAL VENTILATION RATES SHALL BE 50 CFM FOR INTERMITTENT VENTILATION AND 25 CFM FOR CONTINUOUS VENTILATION.
- 11. COOKING EQUIPMENT MUST BE LISTED FOR RESIDENTIAL USE.
- 12. ALL ELECTRICAL, TELEPHONE, CABLE TV, AND SIMILAR SERVICE WIRES AND CABLES SHALL BE INSTALLED UNDERGROUND FOR ALL NEW BUILDINGS. UNDERGROUND FUTURE STUB-OUT IS REQUIRED IF REMODEL IS OVER 50%
- 13. VERIFY ELECTRICAL AND FUEL GAS REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS.
- 14. ALL LUMINARIES SHALL BE HIGH EFFICACY.
- 15. IN HABITABLE ROOMS: ALL LIGHTING SHALL BE CONTROLLED BY EITHER DIMMERS OR VACANCY SENSORS.

### **ELECTRICAL GENERAL NOTES (CONT):**

WHERE APPLICABLE.

- 16. OUTDOOR LIGHTING ATTACHED TO THE BUILDING SHALL BE SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH AND BY MOTION SENSOR WITH INTEGRAL PHOTO CONTROL.
- 7. PERMANENTLY INSTALLED LUMINARIES IN BATHROOMS, GARAGES, LAUNDRY / UTILITY ROOMS SHALL BE HIGH EFFICACY LUMINARIES AND CONTROLLED BY VACANCY SENSORS.
- PERMANENTLY INSTALLED LUMINARIES LOCATED OTHER THAN IN KITCHENS, BATHROOMS, GARAGES, LAUNDRY / UTILITY ROOMS SHALL BE HIGH EFFICACY LUMINARIES
- 19. REFERENCE ELEVATIONS (BOTH INTERIOR AND EXTERIOR) FOR VERTICAL SURFACE FIXTURE & OUTLET LOCATIONS
- 20. ALL 120V BRANCH CIRCUITS SUPPLYING OUTLETS IN LAUNDRY ROOM, CLOSETS, HALLWAYS, BEDROOMS AND OTHER HABITABLE ROOMS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI).
- 21. ALL RECEPTACLE OUTLETS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLE
- 22. ALL 125-V RECEPTACLES IN GARAGE (INCLUDING CEILING) SHALL HAVE GFCI PROTECTION.
- 23. ALL 125-V RECEPTACLES SERVING COUNTER TOP SURFACES IN THE KITCHEN SHALL HAVE GFCI PROTECTION
- 24. RECEPTACLE OUTLETS IN HABITABLE ROOMS SHALL BE SPACED AT 12' O.C. MAX AND SHALL BE LOCATED WITHIN 6' OF WALL ENDS, DOOR OPENINGS, AND AT EVERY 2' OR WIDER WALL.
- 25. RECEPTACLE OUTLETS AT KITCHEN COUNTERTOPS SHALL BE SPACED AT 4 'O.C. MAX AND WITHIN 2' OF ENDS-BREAKS OF COUNTERS.
- 26. AT LEAST ONE WALL SWITCH CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED INEVERY HABITABLE ROOM; IN BATHROOMS, HALLWAYS, STAIRWAYS, ATTACHED GARAGES AND DETACHED GARAGES WITH ELECTRIC POWER; AND AT OUTDOOR ENTRANCES (NOT INCLUDING GARAGE OVERHEAD OR VEHICLE DOORS). IN HABITABLE ROOMS, OTHER THAN KITCHENS AND BATHROOMS, RECEPTACLES CONTROLLED BY A WALL SWITCH IS PERMITTED IN LIEU OF LIGHTING OUTLETS.
- 27. AT LEAST ONE SWITCH CONTROLLED, LIGHTING OUTLET IS REQUIRED AT THE ENTRY OF ATTIC, CRAWL SPACE, UTILITY ROOM OR BASEMENT WITH STORAGE OR EQUIPMENT. THE LIGHTING OUTLET SHALL BE PROVIDED AT OR NEAR ANY EQUIPMENT REQUIRING SERVICING.
- 28. LIGHTING IS REQUIRED FOR ALL INTERIOR AND EXTERIOR STAIRWAYS. LIGHTING OUTLETS AT STAIRS SHALL BE SWITCHED AT EACH FLOOR LEVEL WHERE THE DIFFERENCE BETWEEN FLOOR LEVELS IS SIX STEPS OR MORE.
- 29. INCANDESCENT FIXTURES IN CLOSETS SHALL BE A MINIMUM OF 12" FROM ANY SHELF EDGE, MEASURED HORIZONTALLY (6" FOR FLUORESCENT FIXTURES). THE DIMENSION FOR SHELVES LESS THAN 12" WIDE WILL BE 24" FROM THE WALL.
- 30. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET FROM A RECEPTACLE OUTLET.
- 31. KITCHEN AND DINING AREA COUNTER TOPS SHALL HAVE RECEPTACLE OUTLETS AT EACH COUNTER SPACE WIDER THAN 12". RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24" FROM AN OUTLET. ONE OUTLET IS REQUIRED FOR ISLAND AND PENINSULAR COUNTER TOPS WHICH SHALL BE INSTALLED ABOVE OR WITHIN 12" BELOW THE COUNTER TOP. (RECEPTACLE OUTLETS SHALL NOT BE INSTALLED IN A FACE UP POSITION ON
- 32. 125V SINGLE PHASE, 15 OR 20 AMPERE RATED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT. OUTLET SHALL BE INSTALLED AT THE SAME LEVEL AND WITHIN 25 FEET OF THE EQUIPMENT.
- 33. OUTLETS SHALL BE INSTALLED IN BATHROOMS WITHIN 36"OF THE OUTSIDE EDGE OF THE BASIN ON THE WALL ADJACENT TO THE BASIN.
- 34. AT LEAST TWO OUTLETS THAT ARE ACCESSIBLE AT GROUND LEVEL SHALL BE INSTALLED OUTDOORS. THERE SHALL BE A MINIMUM OF ONE OUTLET AT THE FRONT AND ONE OUTLET AT THE BACK OF DWELLING WITHIN 6'-6" OF GRADE.
- 35. AT LEAST ONE OUTLET SHALL BE INSTALLED FOR THE LAUNDRY.

PROVIDE PROTECTION TO THE BRANCH CIRCUIT.

- 36. AT LEAST ONE OUTLET, IN ADDITION TO ANY PROVIDED FOR LAUNDRY, SHALL BE INSTALLED IN EACH BASEMENT AND EACH ATTACHED GARAGE, AND IN EACH DETACHED GARAGE WITH ELECTRIC POWER.
- 37. FOR HALLWAYS 10' OR MORE LONG, ONE OUTLET SHALL BE PROVIDED.
- 38. PERMANENT ACCESS MUST BE PROVIDED TO ALL HOT TUB AND WHIRLPOOL TUB EQUIPMENT REQUIRING SERVICE.
- 39. SMOKE AND MULTIPLE STATION SMOKE ALARMS IN NEW CONSTRUCTION, THE REQUIRED ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND BE EQUIPPED WITH A BATTERY BACK-UP. SINGLE AND MULTIPLE STATION ALARMS SHALL BE MOUNTED ON THE CEILING OF WALL AT A POINT CENTRALLY LOCATED IN THE HALL OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA AND IN EVERY BEDROOM.
- 40. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL WHEREVER STANDARDS HAVE BEEN ESTABLISHED AND THEIR LABEL SERVICE IS REGULARLY FURNISHED. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- 41. CARBON MONOXIDE ALARMS AND SMOKE DETECTORS (AC/DC) SHALL ALL BE INTERCONNECTED, (IF ONE ACTIVATES, THEY ALL ACTIVATE), COMPLY WITH UL 2034, AND BE INSTALLED INSIDE AND JUST OUTSIDE OF EACH SLEEPING AREA AND AT EVERY LEVEL OF THE DWELLING UNIT (MIN 3' AWAY HORIZONTALLY FROM ALL BATHROOM DOORS).
- 42. EXTERIOR RECEPTACLES AND RECEPTACLES LOCATED WITHIN A GARAGE, KITCHEN, OR BATHROOM SHALL BE GFCI EQUIPPED INCLUDING DISHWASHER. ALL LIGHTING FIXTURES AT TUBS AND SHOWERS SHALL BE GFCI AND WEATHERPROOF TYPE. NO RECEPTACLES MAY BE INSTALLED WITHIN 6 FEET OF A JACUZZI-TYPE TUB. ALL GFCI RECEPTACLES SHALL COMPLY WITH CALIFORNIA ELECTRICAL CODE. EXTERIOR RECEPTACLES SHALL BE WEATHERPROOF.
- 43. INSTALL RECEPTACLES AT 12" ABOVE FLOOR, AND LIGHT SWITCHES AT 3'-8" ABOVE FLOOR, UNLESS OTHERWISE NOTED. RECEPTACLES AND SWITCHES SHALL BE LOCATED AND SPACED ACCORDING TO THE CEC. (ALL WALL SPACES 2' OR MORE IN WIDTH SHALL HAVE RECEPTACLES INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY IS MORE THAN 6' FROM A RECEPTACLE (12' MAXIMUM SPACING.) ALL RECEPTACLES SHALL COMPLY WITH THE CEC. RESIDENTIAL RECEPTACLES SHALL BE "TAMPER-RESISTANT".
- 4. PROVIDE A DRIVEN GROUND ROD AT EACH PANEL. INSTALL A MINIMUM OF 3' RISER AT SAME. A MINIMUM 20' UFER GROUND SHALL BE INSTALLED IN AN EXTERIOR FOOTING IN ADDITION TO 8' GROUND ROD GROUNDING ELECTRODE. THE SERVICE GROUNDING CONNECTOR SHALL BE #8 COPPER (FOR 100 AMPS) CONNECTED TO THE UFER/DRIVEN GROUND SYSTEM WITH A READILY ACCESSIBLE AND APPROVED CLAMPING DEVICE. THE GROUND MUST BE KEPT 6' AWAY FROM THE DRIVEN COPPER PIPE
- 45. PROVIDE MIN. 30" WIDE CLEAR FLOOR SPACE, 36" DEEP CENTERED IN FRONT OF ALL ELECTRICAL PANEL W/MIN 6'-6" HEADROOM. LABEL ALL ELECTRICAL CIRCUITS AT THE BREAKER PANELS.
- 46. NON-METALLIC SHEATHING, SUCH AS ROMEX, SHALL BE CONCEALED WITHIN THE CONSTRUCTION OR PROTECTED FROM PHYSICAL DAMAGE.
- 47. ALL OUTLETS (NOT JUST RECEPTACLES) IN DWELLINGS SHALL BE AFCI COMBINATION RATED. ALL RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER-RESISTANT. COUNTERTOP RECEPTACLES TO COMPLY WITH CEC 210.52(C)
- ALL BRANCH CIRCUITS THAT SUPPLY 120V, SINGLE PHASE, 15 & 20 AMP OUTLETS IN BEDROOMS, FAMILY/DINING/LIVING ROOMS, KITCHENS, PARLORS, LIBRARIES, DENS, SUNROOMS, RECREATION ROOMS, HALLWAYS, CLOSETS, LAUNDRY AREAS AND SIMILAR SHALL BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTER (AFCI) COMBINATION TYPE INSTALLED TO
- 9. PROVIDE ONE 20-AMP MINIMUM LAUNDRY CIRCUIT, TWO 20-AMP APPLIANCE CIRCUITS AT THE KITCHEN IN ADDITION TO THE REQUIRED DISHWASHER AND DISPOSAL CIRCUITS. KITCHEN LIGHTING AND BATHROOM RECEPTACLES TO BE ON SEPARATE 20-AMP CIRCUITS. MAIN ELECTRICAL SERVICE PANEL SHALL BE 200-AMP MIN. UNLESS NOTED OTHERWISE, AND BE SURFACE-MOUNTED. PROVIDE AT LEAST ONE LIGHTING CIRCUIT FOR EACH 500 SQUARE FEET OF LIVABLE FLOOR AREA.
- FIXED APPLIANCES (GARBAGE DISPOSALS, DISHWASHERS, WASHING MACHINES, FURNACES, OR ANY OTHER WITH 1/4 HP OR LARGER MOTOR SHALL BE ON A SEPARATE 20-AMP BRANCH CIRCUIT.
- 51. 1" MINIMUM INSIDE DIAMETER CONDUIT SHALL BE PROVIDED FOR A FUTURE 208/240 VOLT ELECTRICAL VEHICLE CHARGING STATION W/40-AMP BREAKER.
- 72. RECESSED LIGHTING FIXTURES SHALL BE RATED AIR-TIGHT; ALL NEW RECESSED LIGHTS SHALL BE SEALED, WHEN INSTALLED IN AN INSULATED CEILING SHALL HAVE AN APPROVED ZERO CLEARANCE INSULATION COVER.

### **ELECTRICAL GENERAL NOTES (CONT):**

- 53. ALL RECEPTACLES IN BEDROOMS, FAMILY ROOM, DINING ROOM, LIVING ROOM, KITCHENS, LIBRARIES, DENS, SUNROOMS, RECREATION ROOMS, LAUNDRY ROOMS, CLOSETS, HALLWAYS OR SIMILAR AREAS SHALL BE AFCL
- 54. ALL RECEPTACLES IN KITCHEN COUNTER, BATHROOM AND GARAGE SHALL BE GFCI, OUTSIDE RECEPTACLES SHALL BE GFCI W/ WEATHERPROOF BUBBLE COVER TO PROTECT WHEN THE PLUG IS INSERTED OR REMOVED.
- 55. PROVIDE GFCI PROTECTION TO ALL 120 VOLT, 15 AND 20 AMP RECEPTACLES INSTALLED OUTDOORS, IN BATHROOMS, IN BASEMENT, AT KITCHEN COUNTER TOP SURFACE, GARAGES, AND 6 FEET WITHIN SINKS, WHICH INCLUDES LAUNDRY, UTILITY, AND WET BAR SINKS.
- 56. ALL LIGHTS, INTERIOR AND EXTERIOR SHALL BE HIGH EFFICIENCY TYPE FLUORESCENT, UNLESS PROVIDED WITH DIMMER SWITCH OR OCCUPANCY SENSOR.
- 57. ALL BEDROOMS AND HALL AREAS THAT ACCESS BEDROOMS SHALL HAVE SMOKE DETECTORS, HARD WIRE W/BATTERY BACK-UP WITH AN APPROVED CARBON MONOXIDE ALARMS.
- 58. ALL NEW 125 V, 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
- 59. BATHROOMS ARE REQUIRED TO BE VENTILATED WITH A MINIMUM 50 CUBIC FT. PER MIN. EXHAUST FAN.
- 60. EACH BATHROOM SHALL BE MECHANICALLY VENTILATED, SHALL BE ENERGY STAR COMPLIANT, DUCTED TO THE EXTERIOR AND CONTROLLED BY A HUMIDITY CONTROL.
- 61. KITCHEN IS REQUIRED TO BE VENTILATED WITH A MINIMUM 280 CUBIC FT. PER MIN. EXHAUST FAN.
- 62. EXHAUST VENTS SHALL BE SEPARATELY SWITCHED FROM THE LIGHTING.
- 63. ALL CEILING FANS SHALL BE INSTALLED TO METAL BOXES OR EQUAL
- 64. IF APPLICABLE, MAKE ARRANGEMENTS FOR PRE-WIRE CABLE TV,TELEPHONE, ALARM, INTERCOM,
- 65. BATHROOM RECEPTACLES OUTLETS SHALL BE SUPPLIED BY OWN AT LEAST ONE 20 AMP BRANCH CIRCUIT.
- 66. PROVIDE 2 (20 AMP) DEDICATED OWN CIRCUIT BREAKER IN THE KITCHEN, SUCH CIRCUIT SHALL SERVE NO
- 67. PROVIDE ATTIC ACCESS SWITCH, LIGHT AND RECEPTACLES.

OTHER OUTLETS.

68. HIGH EFFICACY LUMINARIES SHALL BE ONLY THE PLUG-IN TYPE.

BATHROOM RECEPTACLES REQUIRE SEPARATE CIRCUIT.

- 69. LIGHT FIXTURES WITHIN 3' AND LOWER THAN THE HEIGHT OF 8' OF SHOWER THRESHOLD OR THE RIM OF THE TUB SHALL BE RATED FOR WET OR DAMP LOCATION.
- 70. OUTDOOR LIGHTING THAT IS ATTACHED TO A BUILDING MUST BE HIGHEFFICANCY AND CONTROLLED BY A VACANCY SENSOR IN COMBINATION WITH A PHOTOCONTROL, ASTRONOMICAL TIME CONTROL, OR ENERGY MANAGEMENT CONTROL SYSTEM (EMCS).
- 71. ALL LUMINARIES SHALL EITHER BE HIGH EFFICACY AND SHALL BE CONTROLLED BY A VACANCY SENSOR. CLOSETS THAT ARE LESS THAN 70 SQFT. ARE EXEMPT FROM THIS REQUIREMENT.
- 72. INSTALL RECEPTACLES 15" FROM BOTTOM OF BOX TO F.F. AND SWITCHES @ 48" TO TOP UNLESS OTHERWISE NOTED



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By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Consultan Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Dat

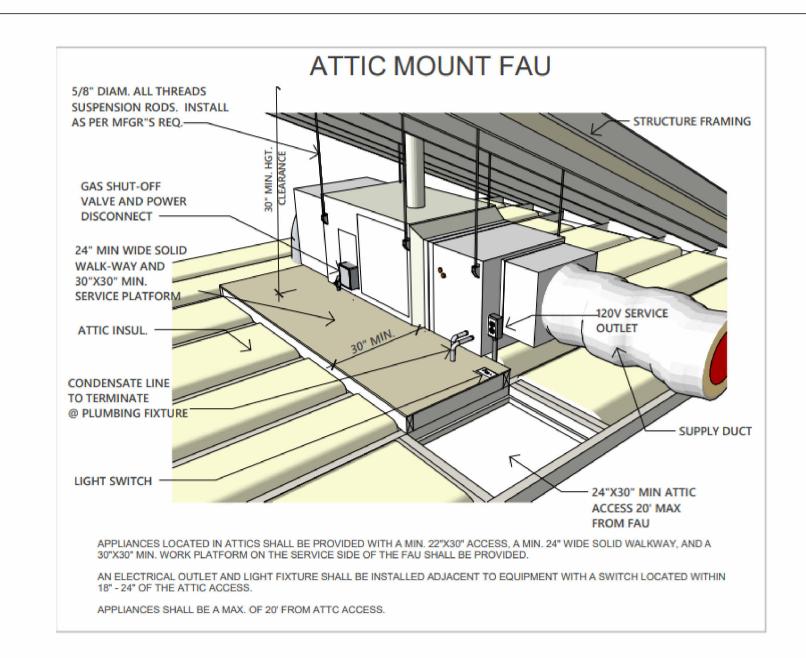
Owner

Electrical General Notes

Date Issue Date
Drawn by Author
Checked by Checker

Project number

Project Number





1) First Floor Electr

- 1. LOCAL EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION.
- 2. SMOKE DETECTORS TO BE INTERCONNECTED AND HARD-WIRED WITH BATTERY BACK-UP.
- 3. CARBON MONOXIDE ALARMS TO BE INTERCONNECTED AND HARD-WIRED WITH BATTERY BACK-UP.
- 4. 4" Ø DRYER VENT WITH MAXIMUM 14 FOOT COMBINED HORIZONTAL AND VERTICAL LENGTH WITH TWO 90 DEGREE ELBOWS.
- 5. A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATION SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DWELLING UNIT TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION.
- 6. AN INTERMITTENTLY OR CONTINUOUSLY OPERATING LOCAL MECHANICAL EXHAUST VENTILATION SYSTEM SHALL BE INSTALLED IN EACH BATHROOM WITH A BATHTUB, SHOWER, OR SIMILAR MOISTURE SOURCE AND IN EACH KITCHEN IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL EXHAUST VENTILATION AIRFLOW RATES SHALL BE 50 CFM IN BATHROOMS AND 100 CFM IN KITCHENS. CONTINUOUS LOCAL EXHAUST VENTILATION AIRFLOW RATES SHALL BE 20 CFM IN BATHROOMS AND 5 AIR CHANGES PER HOUR IN KITCHENS BASED ON KITCHEN VOLUME.
- 7. WATER HEATER OR FURNACE SHALL BE A DIRECT-VENT APPLIANCE
- 8. LISTED GASKETED SELF CLOSING DOOR REQUIRED FOR GAS FAU
- 9. ALL LUMINAIRES SHALL BE HIGH-EFFICACY
- 10. ALL LED LUMINAIRES AND LAMPS SHALL BE MARKED "JA8-2016" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT HTTPS://CACERTAPPLIANCES. ENERGY.CA.GOV/PAGES/ APPLIANCESEARCH.ASPX
- 11. ALL RECESSED DOWNLIGHT AND ENCLOSED LUMINAIRES SHALL BE MARKED "JA8-2016-E" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABSE AT HTTPS://CACERTAPPLIANCES.ENERGY.CA.GOV/PAGES/ APPLIANCESEARCH.ASPX
- 12. RECESSED DOWNLIGHT LUMINAIRES IN CEILINGS SHALL NOT BE SCREW-BASED
- 13. BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS: AT LEAST ONE LUMINAIRE IN EACH SPACE SHALL BE CONTROLLED BY A VACANCY SENSOR
- 14. ALL LUMINAIRES REQUIRING "JA8-2016" OR "JA8-2016-E" MARKING SHALL BE CONTROLLED BY A DIMMER OR VACANCY **EXCEPTION**: CLOSETS LESS THAN 70 S.F. & HALLWAYS
- 15. OUTDOOR LIGHTING PERMANENTLY MOUNTED TO BUILDINGS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING:
- PHOTOCONTROL AND MOTION SENSOR
- PHOTOCONTROL AND AUTOMATIC TIME-SWITCH CONTROL ASTRONOMICAL TIME CLOCK
  - GEMENT CONTROL SYSTEM

MECHANICAL LEGEND:

ATTIC ACCESS

MASTER COOL

LIGHTING LEGEND:

ACCESSORY LEGEND:

MEDICINE CABINET

HOSE BIB W/WATERING SYSTEM STUB-OUT

CEILING LIGHT, FANS & FANS w/LIGHT

6" DIA. RECESSED CAN LIGHT FIXTURE

4' FINISH TYPE 2 TUBE FLUORESCENT

VANITY WALL MOUNTED LIGHTING FIXTURE

CARBON MONOXIDE / SMOKE ALARM GARBAGE DISPOSAL

ATTIC ACCESS

EXHAUST FAN UP DUCT RETURN AIR SUPPLY AIR

ATTIC FURNACE

ROOF MOUNTED A/C UNIT

GROUND MOUNTED

WALL MOUNTED MASTER COOL

A/C UNIT

NOTE:

ELECTRICAL PLAN MAY BE ALTERED BY THE OWNER AND/OR GENERAL CONTRACTOR,

WITH BLDG. DEPT. APPROVAL.

GARAGE DOOR OPENER



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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	

## Owner

## First Floor Electrical

Project Number Project number Issue Date Drawn by Author Checker

E100

As indicated

Fault Arch Fault		- ASTRONOMICAL TIME CLOP - ENERGY MANAGEMENT CO
_ = = <u></u>		ELECTRICAL LEGEND:
Arch Fault WP GFI	= = = = = = = = = = = = = = = = = = =	110V DUPLEX RECEPTACLE  S SERVICE RECEPTACLE  ARC FAULT RECEPTACLE  GFI 110V DUPLEX RECEPTACLE (GROUND FAULT)  110V WATER-PROOF DUPLEX RECEPTACLE  HALF HOT  220V RECEPTACLE  R 220V RANGE RECEPTACLE  COMMON WALL SWITCH
		3-WAY WALL SWITCH MOTION LIGHTING
rical	l c	PHOTOCELL TELEVISION OUTLET TELEPHONE OUTLET

### A. General

Applicable codes. All projects shall comply with the 2022 California Building Code (CBC) and/or California Residential Code (CRC), 2022 California Green Building Standards Code (CalGreen), 2022 California Electrical Code (CEC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Fire Code (CFC), 2022 California Building Energy Efficiency Standards (CBEES), and all County of San Bernardino amendments.

### A. Electrical, Plumbing, and Mechanical 1. Exterior lighting. All projects shall comply with the Current California Electrical Code

crawl space, or basement.

- and California Energy Efficiency Standards. 2. GFCI outlets. Ground Fault Circuit Interrupter (GFCI) outlets are required in bathrooms, at kitchen countertops, at laundry and wet bar sinks, in garages, in crawlspaces, in
- unfinished basements, and outdoors. 3. AFCI outlets. Electrical circuits in bedrooms, living rooms, dining rooms, dens, closets,
- hallways, or similar rooms must be protected by Arc Fault Circuit Interrupters (AFCI). **4. Luminaire requirements.** Installed luminaires shall meet the efficacy and fixture
- 5. Smoke detectors in building remodels. Smoke detectors are required in each existing sleeping room, outside each separate sleeping area in the immediate vicinity of sleeping rooms, and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic,
- 6. Carbon monoxide detectors in building remodels. Carbon monoxide detectors are required outside each separate sleeping area in the immediate vicinity of sleeping rooms and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic,
- crawl space, or basement. 7. Water heater seismic strapping. Minimum two <sup>3</sup>/<sub>4</sub>-inch-by-24-gauge straps required around water heaters, with 1/4-inch-by-3-inch lag bolts attached directly to framing. Straps shall be at points within upper third and lower third of water heater vertical
- dimension. Lower connection shall occur minimum 4 inches above controls. 8. Gas appliances in garages. Water heaters and heating/cooling equipment capable of igniting flammable vapors shall be placed on minimum 18-inch-high platform unless
- listing report number provided showing ignition-resistant appliance. 9. Impact protection of appliances. Water heaters and heating/cooling equipment subject
- to vehicular impact shall be protected by bollards or an equivalent measure. **10. Water closet clearance.** Minimum 30-inch-wide by 24-inch-deep clearance required at front of water closets.
- 11. Shower size. Shower compartments shall have minimum area of 1024 square inches and be able to encompass a 30-inch-diameter circle. Shower doors shall have a minimum 22-inch unobstructed width.
- **12. Fireplace appliances.** Fireplaces with gas appliances are required to have the flue damper permanently fixed in the open position and fireplaces with LPG appliances are to
- have no 'pit' or 'sump' configurations. **13. Chimney clearance.** Minimum 2-foot chimney clearance required above building within 10-foot horizontally of chimney. The chimney shall extend minimum 3 feet above highest point where chimney passes through roof
- C. Mechanical Ventilation and Indoor Air Quality (ASHRAE 62.2-2010)
- 1. Transfer air. Ventilation air shall be provided directly from the outdoors and not as transfer air from adjacent dwelling units or other spaces, such as garages, unconditioned crawlspaces, or unconditioned attics.
- 2. Instructions and labeling. Ventilation system controls shall be labeled and the home owner shall be provided with instructions on how to operate the system. 3. Combustion and solid-fuel burning appliances. Combustion appliances shall be
- properly vented and air systems shall be designed to prevent back drafting. 4. Garages. The wall and openings between occupiable spaces and the garage shall be sealed. HVAC systems that include air handlers or return ducts located in garages shall have total air leakage of no more than 6% of total fan flow when measured at 0.1 in. w.c. using California Title 24 or equivalents
- 5. Minimum filtration. Mechanical systems supplying air to occupiable space through ductwork shall be provided with a filter having a minimum efficiency of MERV 6 or
- **6. Air inlets.** Air inlets (not exhaust) shall be located away from known contaminants. 7. Air moving equipment. Air moving equipment used to meet either the whole-building ventilation requirement or the local ventilation exhaust requirement shall be rated in terms of airflow and sound.
- **a.** All continuously operating fans shall be rated at a maximum of 1.0 sone.
- b. Intermittently operated whole-building ventilation fans shall be rated at a maximum of **c.** Intermittently operated local exhaust fans shall be rated at maximum of 3.0 sone.
- d. Remotely located air-moving equipment (mounted outside of habitable spaces) need not meet sound requirements if at least 4 feet of ductwork between fan and intake grill. D. Foundation and Underfloor
- 1. Foundation reinforcement. Continuous footings and stem walls shall be provided with a minimum two longitudinal No. 4 bars, one at the top and one at the bottom of the footing.
- 2. Shear wall foundation support. Shear walls shall be supported by continuous
- **3. Concrete slabs-on-grade.** Slabs-on-grade shall be minimum 3-1/2-inches thick. **4. Vapor retarder.** A 10-mil polyethylene or approved vapor retarder with joints lapped minimum 6 inches shall be placed between a concrete slab-on-grade and the base
- 5. Anchor bolts and sills. Foundation plates or sills shall be bolted or anchored to the foundation or foundation wall per the following:
- **a.** Minimum <sup>1</sup>/<sub>2</sub>-inch-diameter steel bolts

preservative-treated wood

- **b.** Bolts embedded at least 7 inches into concrete or masonry **c.** Bolts spaced maximum 6 feet on center
- d. Minimum two bolts per plate/sill piece with one bolt located maximum 12 inches and
- minimum 7 bolt diameters from each end of each sill plate/piece e. Minimum 3-inch by 3-inch by 0.299-inch steel plate washer between sill and nut on **6. Hold-downs.** All hold-downs must be tied in place prior to foundation inspection.
- 7. Protection of wood against decay. Naturally durable or preservative-treated wood shall be provided in the following locations:
- **a.** All wood in contact with ground, embedded in concrete in direct contact with ground, or embedded in concrete exposed to weather
- b. Wood joists within 18 inches and wood girders within 12 inches of the exposed
- ground in crawl spaces shall be of naturally durable or preservative-treated wood c. Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or
- **d.** Wood framing, sheathing, and siding on the exterior of the building and having clearance less than 6 inches from the exposed ground or less than 2 inches vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surface exposed to weather
- e. Sills and sleepers on concrete or masonry slab in direct contact with ground unless separated from such slab by impervious moisture barrier
- f. Ends of wood girders entering masonry or concrete walls with clearances less than
- <sup>1</sup>/<sub>2</sub>-inch on tops, sides, and ends g. Wood structural members supporting moisture-permeable floors or roofs exposed to weather, such as concrete or masonry slabs, unless separated from such floors or
- roofs by an impervious moisture barrier **h.** Wood furring strips or other wood framing members attached directly to interior of exterior concrete or masonry walls below grade except where vapor retarder applied between wall and furring strips or framing members
- 8. Underfloor ventilation. Underfloor areas shall have ventilation openings through foundation walls or exterior walls, with minimum net area of ventilation openings of 1
- square foot for each 150 square feet of underfloor area. On such ventilating opening
- 24-inch access opening.
- shall be within 3 feet of each corner of the building. 9. Underfloor access. Underfloor areas shall be provided with a minimum 18-inch by

### E. Wood Framing

- 1. Fastener requirements. The number, size, and spacing of fasteners connecting wood members/elements shall not be less than that set forth in CRC Table R602.3(1). 2. Stud size, height, and spacing. The size, height, and spacing of studs shall be in accordance with CRC Table R602.3(5).
- 3. Sill plate. Studs shall have full bearing on nominal 2-inch thick or larger sill plate with width at least equal to stud width
- **4. Bearing studs.** Where joists, trusses, or rafters are spaced more than 16 inches on center and the bearing studs below are spaced 24 inches on center, such members shall bear within 5 inches of the studs beneath
- 5. Drilling and notching of studs. Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40% of a single stud width. Any stud may be bored or drilled, provided the diameter of the resulting hole is no more than 60% of the stud width, the edge of the hole is no more than <sup>5</sup>/<sub>8</sub> inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior wall or bearing partitions drilled over 40% and up to 60% shall also be doubled with no more
- than two successive studs bored **6. Top plate.** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates shall be offset at least 24 inches. Joints in plates need not occur over studs. Plates shall be minimum nominal 2 inches thick and have width at least equal to width of
- 7. Top plate splices. Top plate lap splices shall be face-nailed with minimum 8 16d nails
- on each side of splice. 8. Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling, or notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054-inch thick and 1-1/2-inches wide shall be fastened across and to the plate at each side of the opening with not less than 8 10d nails having a minimum length of 1-1/2 inches at each
- side or equivalent. The metal tie must extend minimum 6 inches past the opening. 9. Cripple walls. Foundation cripple walls shall be framed of studs not less in size than the studding above. Cripple walls more than 4 feet in height shall have studs sized as required for an additional story. Cripple walls with stud height less than 14 inches shall be sheathed on at least one side with a wood structural panel fastened to both the top and bottom plates in accordance with Table R602.3(1), or the cripple walls shall be constructed of solid blocking. Cripple walls shall be supported on continuous
- **10. Wall bracing.** Buildings shall be braced in accordance with the methods allowed per
- 11. Braced wall line spacing. Spacing between braced wall lines shall not exceed 20 feet. 12. Braced wall cumulative length. The cumulative length of shear walls within each braced wall line shall meet the provisions of CRC Table R602.10.3(1) for wind loads and CRC Table R602.10.3(2) for seismic loads.
- **13. Braced wall spacing.** Braced walls shall be located not more than 25 feet on center. 14. Braced wall offset. Braced walls may be offset out-of-plan not more than 4 feet from the designated braced wall line and not more than 8 feet from any other offset wall
- considered part of the same braced wall line. 15. Braced wall location. Braced walls shall be located at the ends of each braced wall line or meet the alternate provisions of the California Residential Code.
- 16. Individual Braced wall length. Braced walls shall meet minimum length requirements of California Residential Code
- 17. Cripple wall bracing. Cripple walls shall be braced per California Residential Code. **18. Braced wall and diaphragm nailing.** All braced walls, roof diaphragms, and floor diaphragms shall be nailed to supporting construction per CRC Table R602.3(1).
- 19. Braced wall joints. All vertical joints in braced wall sheathing shall occur over, and be fastened to, common studs. Horizontal joints in braced walls shall occur over, and be fastened to, minimum 1-1/2-inch-thick blocking. 20. Framing over openings. Headers, double joists, or trusses of adequate size to transfer

loads to vertical members shall be provided over window and door openings in

- load-bearing walls and partitions. 21. Joists under bearing partitions. Joists under parallel bearing partitions shall be of adequate size to support the load. Double joists, sized to adequately support the load, that are separated to permit the installation of piping or vents shall be full-depth solid-blocked with minimum 2-inch nominal lumber spaced at maximum 4 feet on center. Bearing partitions perpendicular to joists shall not be offset from supporting girders. walls, or partitions more than the joist depth unless such joists are of sufficient size to carry the additional load.
- 22. Joists above or below shear walls. Where joists are perpendicular to a shear wall above or below, a rim joist, band joist, or blocking shall be provided along the entire length of the shear wall. Where joists are parallel to a shear wall above or below, a rim joist, end joist, or other parallel framing shall be provided directly above and/or below the shear wall. Where a parallel framing member cannot be located directly above and/or below the shear wall, full-depth blocking at 16-inch spacing shall be provided between the parallel framing members to each side of the shear wall.
- 23. Floor member bearing. The ends of each floor joist, beam, or girder shall have minimum 1-1/2 inches of bearing on wood or metal and minimum 3 inches of bearing on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjoining stud or by the use of approved joist hangers.
- 24. Floor joist lap. Floor joists framing opposite sides over a bearing support shall lap minimum 3 inches and shall be nailed together within minimum 3 10d face nails. A wood
- or metal splice with strength equal to or greater than that provided by the lap is permitted. 25. Floor joist-to-girder support. Floor joists framing into the side of a wood girder shall be supported by approved framing anchors or on ledger strips minimum nominal 2 inches by
- **26. Floor joist lateral restraint.** Floor joists shall be supported laterally at ends and each intermediate support by minimum 2-inch full-depth blocking, by attachment to full-depth header, band joist, or rim joist, to an adjoining stud, or shall be otherwise provided with
- lateral support to prevent rotation. 27. Floor joist bridging. Floor joists exceeding nominal 2 inches by 12 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous
- 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at maximum 8-foot intervals.
- 28. Framing of floor openings. Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches.
- 29. Girders. Girders for single-story construction or girders supporting loads from a single floor shall not be less than 4 inches by 6 inches for spans 6 feet or less, provided that girders are spaced not more than 8 feet on center. Other girders shall be designed to support the loads specified in the CBC. Girder end joints shall occur over supports. When a girder is spliced over a support, an adequate tie shall be provided. The ends of beams or girders supported on masonry or concrete shall not have less than 3 inches of
- 30. Ridges, hips, and valleys. Rafters shall be framed to a ridge board or to each other with a gusset plate as a tie. Ridge boards shall be minimum 1-inch nominal thickness and not less in depth than the cut end of the rafter. At all valley and hips, there shall be a valley or hip rafter not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than 3:12 slope (25% gradient), structural members that support rafters and ceilings joists, such as ridges, hips, and valleys, shall be designed as

### E. Wood Framing (Continued)

- 31. Ceiling joist and rafter connections. Ceiling joists and rafters shall be nailed to each other per CRC Table R802.5.1(9), and the rafter shall be nailed to the wall top plate per CRC Table R602.3(1). Ceiling joists shall be continuous or securely joined per CRC Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to rafters. Where ceiling joists are not connected to the rafters at the wall top plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be minimum 2 inches by 4 inches nominal, installed per CRC Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceilings joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or engineer-designed girder.
- 32. Ceiling joists lapped. Ends of ceiling joists shall be lapped minimum 3 inches or butted over bearing partitions or beams and toenailed to the bearing element. Where ceiling joists provide resistance to rafter thrust, lapped joists shall be nailed together per CRC Table R602.3(1) and butted joists shall be tied together in a manner to resist such thrust
- 33. Collar ties. Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space. Collar ties shall be a minimum 1 inch by 4 inches nominal and spaced at maximum 4 feet on center.
- **34. Purlins.** Purlins installed to reduce the span of rafters shall be sized not less than the required size of the rafters they support. Purlins shall be continuous and shall be supported by 2-inch-by-4-inch nominal braces installed to bearing walls at a minimum 45-degree slope from horizontal. The braces shall be spaced maximum 4 feet on center
- with a maximum 8-foot unbraced length. **35. Roof/ceiling member bearing.** The ends of each rafter or ceiling joist shall have not less than 1-1/2 inches of bearing on wood or metal and not less than 3 inches of bearing on
- 36. Roof/ceiling member lateral support. Roof framing members and ceiling joists with a nominal depth-to-thickness ratio exceeding 5:1 shall be provided with lateral support at
- points of bearing to prevent rotation. 37. Roof/ceiling bridging. Rafters and ceiling joists with a nominal depth-to-thickness ratio exceeding 6:1 shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch wood strip nailed across the rafters or ceiling
- joists at maximum 8-foot intervals **38. Framing of roof/ceiling openings.** Openings in roof and ceiling framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the ceiling joist or rafter. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the ceiling joists or rafters framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger
- strips minimum 2 inches by 2 inches **39. Roof framing above shear walls.** Rafters or roof trusses shall be connected to top

plates of shear walls with blocking between the rafters or trusses

- **40. Roof diaphragm under fill framing.** Roof plywood shall be continuous under California
- 41. Roof diaphragm at ridges. Minimum 2-inch nominal blocking required for roof diaphragm nailing at ridges
- **42. Blocking of roof trusses.** Minimum 2-inch nominal blocking required between trusses at ridge lines and at points of bearing at exterior walls.
- **43. Truss clearance**. Minimum <sup>1</sup>/<sub>2</sub>-inch clearance required between top plates of interior non-bearing partitions and bottom chords of trusses. 44. Drilling, cutting, and notching of roof/floor framing. Notches in solid lumber joists,
- rafters, blocking, and beams shall not exceed one-sixth the member depth, shall be not longer than one-third the member depth, and shall not be located in the middle one-third of the span. Notches at member ends shall not exceed one-fourth the member depth. The tension side of members 4 inches or greater in nominal thickness shall not be notched except at member ends. The diameter of holes bored or cut into members shall not exceed one-third the member depth. Holes shall not be closer than 2 inches to the top or bottom of the member or to any other hole located in the member. Where the
- member is also notched, the hole shall not be closer than 2 inches to the notch. 45. Exterior landings, decks, balconies, and stairs. Such elements shall be positively anchored to the primary structure to resist both vertical and lateral forces or shall be designed to be self-supporting. Attachment shall not be accomplished by use of toenails
- **46. Fireblocking.** Fireblocking shall be provided in the following locations: a. In concealed spaces of stud walls and partitions, including furred spaces, and parallel
- i. Vertically at the ceiling and floor levels ii. Horizontally at intervals not exceeding 10 feet

rows of studs or staggered studs, as follows:

- **b.** At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, and cove ceilings
- **c.** In concealed spaces between stair stringers at the top and bottom of the run **d.** At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion
- e. At chimneys and fireplaces per item E.49 f. Cornices of a two-family dwelling at the line of dwelling-unit separation **47. Fireblocking materials.** Except as otherwise specified in items E.48 and E.49,
- fireblocking shall consist of the following materials with the integrity maintained: a. Two-inch nominal lumber **b.** Two thicknesses of one-inch nominal lumber with broken lap joints c. One thickness of <sup>23</sup>/<sub>32</sub>-inch wood structural panel with joints backed by <sup>23</sup>/<sub>32</sub>-inch
- wood structural panel **d.** One thickness of <sup>3</sup>/<sub>4</sub>-inch particleboard with joints backed by <sup>3</sup>/<sub>4</sub>-inch particleboard
- **e.** <sup>1</sup>/<sub>2</sub>-inch gypsum board
- **f.** <sup>1</sup>/<sub>4</sub>-inch cement-based millboard g. Batts or blankets of mineral or glass fiber of other approved materials installed in such a manner as to be securely retained in place. Batts or blankets of mineral or glass fiber or other approved non-rigid materials shall be permitted for compliance with the 10-foot horizontal fireblocking in walls constructed using parallel rows of studs or staggered studs. Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross-section of the wall cavity to a minimum height of 16 inches measured vertically. When piping, conduit, or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction. Loose-fill insulation material shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot
- 48. Fireblocking at openings around vents, pipes, ducts, cables, and wires at ceiling and floor level. Such openings shall be fireblocked with an approved material to resist the free passage of flame and products of combustion
- **49.** Fireblocking of chimneys and fireplaces. All spaces between chimneys and floors and ceilings through which chimneys pass shall be fireblocked with noncombustible material securely fastened in place. The fireblocking of spaces between chimneys and wood joists, beams, or headers shall be self-supporting or be placed on strips of metal or metal lath laid across the spaces between combustible material and the chimney.
- 50. Draftstopping. 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 1000 square feet. Draftstopping shall divide the concealed space into approximately equal areas. Where the assembly is enclosed by a floor membrane above and a ceiling membrane below, draftstopping shall be provided in floor/ceiling assemblies under the following circumstances: **a.** Ceiling is suspended under the floor framing
- **b.** Floor framing is constructed of truss-type open-web or perforated members **51. Draftstopping materials.** Draftstopping shall not be less than <sup>1</sup>/<sub>2</sub>-inch gypsum board, <sup>3</sup>/<sub>8</sub>-inch wood structural panels, or other approved materials adequately supported. Draftstopping shall be installed parallel to the floor framing members unless otherwise approved by the building official. The integrity of draftstops shall be maintained.
- **52.** Combustible insulation clearance. Combustible insulation shall be separated minimum 3 inches from recessed luminaires, fan motors, and other heat-producing devices.

### F. General Material Specifications

- 1. Lumber. All joists, rafters, beams, and posts 2-inches to 4-inches thick shall be No. 2 grade Douglas Fir-Larch or better. All posts and beams 5 inches and thicker shall be No. 1 grade Douglas Fir-Larch or better. Studs not more than 8 feet long shall be stud-grade Douglas Fir-Larch or better when supporting not more than one floor, roof, and ceiling.
- Studs longer than 8 feet shall be No. 2 grade Douglas Fir-Larch or better. 2. Concrete. Concrete shall have a minimum compressive strength of 2,500 psi at 28 days and shall consist of 1 part cement, 3 parts sand, 4 parts 1-inch maximum size rock, and not more than 7-1/2 gallons of water per sack of cement.
- **3. Mortar.** Mortar used in construction of masonry walls, foundation walls, and retaining walls shall conform to ASTM C 270 and shall consist of 1 part portland cement, 2-1/4 to 3 parts sand, and  $\frac{1}{4}$  to  $\frac{1}{2}$  part hydrated lime
- 4. Grout. Grout shall conform to ASTM C 476 and shall consist of 1 part portland cement,  $^{1}/_{10}$  part hydrated lime, 2- $^{1}/_{4}$  to 3 parts sand, and 1 to 2 parts gravel. Grout shall attain
- a minimum compressive strength of 2,000 psi at 28 days. **5. Masonry**. Masonry units shall comply with ASTM C 90 for load-bearing concrete masonry units.
- 6. Reinforcing steel. Reinforcing steel used in construction of reinforced masonry or concrete structures shall be deformed and comply with ASTM A 615.
- 7. Structural steel. Steel used as structural shapes such as wide-flange sections, channels, plates, and angles shall comply with ASTM A36. Pipe columns shall comply with ASTM A53. Structural tubes shall comply with ASTM A500, Grade B. 8. Fasteners for preservative-treated wood. Fasteners for preservative-treated and fire-retardant-treated wood - including nuts and washers -- shall be of hot dipped
- zinc-coated galvanized steel, stainless steel, silicon bronze, or copper **Exception:** 1/2-inch diameter or greater steel bolts **Exception:** Fasteners other than nails and timber rivets may be of mechanically deposited zinc-coated steel with coating weights in accordance with
- ASTM B 695, Class 55 minimum Exception: Plain carbon steel fasteners acceptable in SBX/DOT and zinc borate
- preservative-treated wood in an interior, dry environment **9. Fasteners for fire-retardant-treated wood.** Fasteners for fire-retardant-treated wood used in exterior applications or wet or damp locations shall be of hot dipped zinc-coated dalvanized steel, stainless steel, silicon bronze, or copper
- G. Roofing and Weatherproofing **1. Roof covering.** All roof covering shall be installed per applicable requirements of CRC Roof coverings shall be at least Class A rated in accordance with ASTM E 108 or UL 790, which shall include coverings of slate, clay or concrete roof tile, exposed
- concrete roof deck, ferrous or copper shingles or sheets. **2. Roof flashing.** Flashing shall be installed at wall and roof intersections, at gutters, wherever there is a change in roof slope or direction, and around roof openings. Where flashing is of metal, the metal shall be corrosion-resistant with a thickness of not less
- than 0.019 inch (No. 26 galvanized sheet). 3. Crickets and saddles. A cricket or saddle shall be installed on the ridge side of any chimney or penetration more than 30 inches wide as measured perpendicular to the slope. Cricket or saddle covering shall be sheet metal or the same material as the roof
- **4. Water-resistive barrier.** A minimum of one layer of No. 15 asphalt felt shall be attached to studs or sheathing of all exterior walls. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer minimum 2 inches. Where joints occur, felt shall be lapped minimum 6 inches. The felt shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to
- maintain a weather-resistant exterior wall envelope. **5. Wall flashing.** Approved corrosion-resistant flashing shall be applied shingle fashion at the following locations to prevent entry of water into the wall cavity or penetration of water to the building structural framing components
- a. Exterior door and window openings, extending to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage
- **b.** At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings **c.** Under and at the ends of masonry, wood, or metal copings and sills
- d. Continuously above all projecting wood trim e. Where exterior porches, decks, or stairs attach to a wall or floor assembly of wood-frame construction
- **f.** At wall and roof intersections **q.** At built-in gutters **6. Dampproofing.** Dampproofing materials for foundation walls enclosing usable space
- below grade shall be installed on the exterior surface of the wall, and shall extend from the top of the footing to finished grade.
- 7. Weep screed. A minimum 0.019-inch (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed with a minimum vertical attachment flange of 3-1/2 inches shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 92. The weep screed shall be placed a minimum 4 inches above the earth or 2 inches above paved areas and shall be of a

2. Compaction report. Compaction report required for fill material 12 inches or more in

type allowing trapped water to drain to the exterior of the building. H. Grading and soils 1. Grading permit. Grading permit required if volume of earth moved exceeds 100 cubic yards or if any cuts or fills exceed 8 feet in height/depth.

SAN BERNARDINO COUNTY

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County of San Bernardino **Building & Safety Division** 385 N. Arrowhead Ave. San Bernardino, CA 92415 909-387-8311 SBCounty.gov

All projects shall comply with the 2022 California Building Code (CBC) and/or California Residential Code (CRC), 2022 California Green Building Standards Code (CalGreen), 2022 California Electrical Code (CEC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Fire Code (CFC), 2022 California Building Energy Efficiency Standards (CBEES), and all San Bernardino County amendments.

By using these standard plans, the user agrees to release San Bernardino County from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information

Consultant Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

Owner

## General Notes CRC

Project number	Project Number
Date	Issue Date
Drawn by	Author
Checked by	Checker

### FASTENING SCHEDULE

EM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>	SPACING AND LOCATION
		Roof	
	Blocking between ceiling joists, rafters or trusses to top plate or other framing below	4-8d box $(2^{1}/_{2}" \times 0.113")$ ; or 3-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 3-10d box $(3" \times 0.128")$ ; or 3-3" $\times$ 0.131" nails	Toe nail
1	Blocking between rafters or truss not at	2-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 2-3" × 0.131" nails	Each end toe nail
	the wall top plates, to rafter or truss	2-16d common ( $3^{1}/_{2}'' \times 0.162''$ ); or 3-3" × 0.131" nails	End nail
	Flat blocking to truss and web filler	16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162"); or 3" × 0.131" nails	6" o.c. face nail
2	Ceiling joists to top plate	4-8d box $(2^{1}/_{2}" \times 0.113")$ ; or 3-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 3-10d box $(3" \times 0.128")$ ; or 3-3" $\times$ 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel raf- ter, laps over partitions [see Section R802.5.2 and Table R802.5.2(1)]	4-10d box $(3'' \times 0.128'')$ ; or 3-16d common $(3^1/_2'' \times 0.162'')$ ; or 4-3" $\times$ 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) [see Section R802.5.2 and Table R802.5.2(1)]	Table R802.5.2(1)	Face nail
5	Collar tie to rafter, face nail	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box $(3^{1}/_{2}" \times 0.135")$ ; or 3-10d common $(3" \times 0.148")$ ; or 4-10d box $(3" \times 0.128")$ ; or 4-3" $\times 0.131"$ nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss <sup>i</sup>
7	Roof rafters to ridge, valley or hip raf-	4-16d box $(3^1/_2" \times 0.135")$ ; or 3-10d common $(3" \times 0.148")$ ; or 4-10d box $(3" \times 0.128")$ ; or 4-3" $\times 0.131"$ nails	Toe nail
7	ters or roof rafter to minimum 2" ridge beam	3-16d box $(3^1/_2" \times 0.135")$ ; or 2-16d common $(3^1/_2" \times 0.162")$ ; or 3-10d box $(3" \times 0.128")$ ; or 3-3" $\times$ 0.131" nails	End nail
		Wall	
	Stud to stud	16d common $(3^{1}/_{2}'' \times 0.162'')$	24" o.c. face nail
8	(not at braced wall panels)	10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at inter- secting wall corners (at braced wall	16d box $(3^1/_2" \times 0.135")$ ; or $3" \times 0.131"$ nails	12" o.c. face nail
	panels)	16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with	16d common $(3^1/_2'' \times 0.162'')$	16" o.c. each edge face nail
10	<sup>1</sup> / <sub>2</sub> " spacer)	$16d \text{ box } (3^{1}/_{2}" \times 0.135")$	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box $(2^{1}/_{2}" \times 0.113")$ ; or 4-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 4-10d box $(3" \times 0.128")$	Toe nail

## FASTENING SCHEDULE

TEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>	SPACING AN	ID LOCATION
		Other wall sheathing <sup>9</sup>	1	
34	1/2" structural cellulosic fiberboard sheathing	$1^{1}/_{2}'' \times 0.120''$ galvanized roofing nail, $7^{7}/_{16}''$ head diameter; or $1^{1}/_{4}''$ long 16 ga. staple with $7^{7}/_{16}''$ or 1" crown	3	6
35	<sup>25</sup> / <sub>32</sub> " structural cellulosic fiberboard sheathing	$1^{3}/_{4}'' \times 0.120''$ galvanized roofing nail, $7/_{16}''$ head diameter; or $1^{1}/_{4}''$ long 16 ga. staple with $7/_{16}''$ or 1" crown	3	6
36	1/2" gypsum sheathing <sup>d</sup>	$1^{1}/_{2}'' \times 0.120''$ galvanized roofing nail, $7/_{16}''$ head diameter, or $1^{1}/_{4}''$ long 16 ga.; staple galvanized, $1^{1}/_{2}''$ long; $7/_{16}''$ or $1''$ crown or $1^{1}/_{4}''$ screws, Type W or S	7	7
37	5/8" gypsum sheathing <sup>d</sup>	$1^{3}/_{4}'' \times 0.120''$ galvanized roofing nail, $^{7}/_{16}''$ head diameter, or $1^{1}/_{4}''$ long 16 ga.; staple galvanized, $1^{1}/_{2}''$ long; $^{7}/_{16}''$ or $1''$ crown or $1^{1}/_{4}''$ screws, Type W or S	7	7
	Wood st	ructural panels, combination subfloor underlayment	to framing	
38	3/4" and less	Deformed $(2" \times 0.113")$ or Deformed $(2" \times 0.120")$ nail; or 8d common $(2^1/_2" \times 0.131")$ nail	6	12
39	<sup>7</sup> / <sub>8</sub> " – 1"	8d common $(2^1/_2" \times 0.131")$ nail; or Deformed $(2" \times 0.113")$ ; or Deformed $(2^1/_2" \times 0.120")$ nail	6	12
40	$1^{1}/_{8}" - 1^{1}/_{4}"$	10d common (3" × 0.148") nail; or Deformed (2" × 0.113"); or Deformed $(2^{1}/_{2}" \times 0.120")$ nail	6	12

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s; 1 ksi = 6.895 MPa.

a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections are carbon steel and shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less. Connections using nails and staples of other materials, such as stainless steel, shall be designed by accepted engineering practice or approved under Section R104.11.

b. RSRS-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.

c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.

d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.

e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).

f. For wood structural panel roof sheathing attached to gable end roof framing and to intermediate supports within 48 inches of roof edges and ridges, nails shall be spaced at 4 inches on center where the ultimate design wind speed is greater than 130 mph in Exposure B or greater than 110 mph in Exposure C.

g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with ASTM C1280 or GA 253. Fiberboard sheathing shall conform to ASTM C208.

h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members are solid blocking.

supported by framing members or solid blocking. i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

### **FASTENING SCHEDULE**

TEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>	SPACING AND LOCATION
		Wall	•
12	Adjacent full-height stud to end of header	4-16d box $(3^1/_2" \times 0.135")$ ; or 3-16d common $(3^1/_2" \times 0.162")$ ; or 4-10d box $(3" \times 0.128")$ ; or 4-3" × 0.131" nails	End nail
		16d common $(3^{1}/_{2}^{"} \times 0.162")$	16" o.c. face nail
13	Top plate to top plate	10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
14	Double top plate splice	8-16d common $(3^{1}/_{2}" \times 0.162")$ ; or 12-16d box $(3^{1}/_{2}" \times 0.135")$ ; or 12-10d box $(3" \times 0.128")$ ; or 12-3" $\times 0.131"$ nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Bottom plate to joist, rim joist, band	16d common $(3^{1}/_{2}" \times 0.162")$	16" o.c. face nail
15	joist or blocking (not at braced wall panels)	16d box $(3^{1}/_{2}^{"} \times 0.135")$ ; or $3" \times 0.131"$ nails	12" o.c. face nail
		Roof	
16	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box $(3^{1}/_{2}" \times 0.135")$ ; or 2-16d common $(3^{1}/_{2}" \times 0.162")$ ; or 4-3" × 0.131" nails	16" o.c. face nail
17	Top or bottom plate to stud	4-8d box $(2^{1}/_{2}" \times 0.113")$ ; or 3-16d box $(3^{1}/_{2}" \times 0.135")$ ; or 4-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 4-10d box $(3" \times 0.128")$ ; or 4-3" $\times 0.131"$ nails	Toe nail
		3-16d box $(3^{1}/_{2}" \times 0.135")$ ; or 2-16d common $(3^{1}/_{2}" \times 0.162")$ ; or 3-10d box $(3" \times 0.128")$ ; or 3-3" $\times 0.131"$ nails	End nail
18	Top plates, laps at corners and intersections	3-10d box $(3'' \times 0.128'')$ ; or 2-16d common $(3^1/_2'' \times 0.162'')$ ; or 3-3" $\times$ 0.131" nails	Face nail
19	1" brace to each stud and plate	3-8d box $(2^1/_2" \times 0.113")$ ; or 2-8d common $(2^1/_2" \times 0.131")$ ; or 2-10d box $(3" \times 0.128")$ ; or 2 staples $1^3/_4"$	Face nail
20	$1'' \times 6''$ sheathing to each bearing	3-8d box $(2^{1}/_{2}" \times 0.113")$ ; or 2-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 2-10d box $(3" \times 0.128")$ ; or 2 staples, 1" crown, 16 ga., $1^{3}/_{4}$ " long	Face nail
21	$1'' \times 8''$ and wider sheathing to each	3-8d box $(2^1/_2" \times 0.113")$ ; or 3-8d common $(2^1/_2" \times 0.131")$ ; or 3-10d box $(3" \times 0.128")$ ; or 3 staples, 1" crown, 16 ga., $1^3/_4$ " long	
21	bearing	Wider than $1'' \times 8''$ $4-8d \text{ box } (2^1/_2'' \times 0.113''); \text{ or }$ $3-8d \text{ common } (2^1/_2'' \times 0.131''); \text{ or }$ $3-10d \text{ box } (3'' \times 0.128''); \text{ or }$ $4 \text{ staples, } 1'' \text{ crown, } 16 \text{ ga., } 1^3/_4'' \text{ long }$	Face nail

### FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>	SPACING AN	D LOCATION
		Floor		
22	Joist to sill, top plate or girder	4-8d box $(2^1/_2" \times 0.113")$ ; or 3-8d common $(2^1/_2" \times 0.131")$ ; or 3-10d box $(3" \times 0.128")$ ; or 3-3" $\times$ 0.131" nails	Toe	nail
		8d box $(2^{1}/_{2}" \times 0.113")$	4" o.c.	toe nail
23	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d common $(2^{1}/_{2}" \times 0.131")$ ; or 10d box $(3" \times 0.128")$ ; or $3" \times 0.131"$ nails	6" o.c.	toe nail
24	$1'' \times 6''$ subfloor or less to each joist	3-8d box $(2^1/_2" \times 0.113")$ ; or 2-8d common $(2^1/_2" \times 0.131")$ ; or 3-10d box $(3" \times 0.128")$ ; or 2 staples, 1" crown, 16 ga., $1^3/_4$ " long	Face	nail
25	2" subfloor to joist or girder	3-16d box $(3^1/_2" \times 0.135")$ ; or 2-16d common $(3^1/_2" \times 0.162")$	Blind and	face nail
26	2" planks (plank & beam—floor & roof)	3-16d box $(3^1/_2" \times 0.135")$ ; or 2-16d common $(3^1/_2" \times 0.162")$	At each bear	ing, face nail
27	Band or rim joist to joist	3-16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162"); or 4-10 box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, <sup>7</sup> / <sub>16</sub> " crown	End	nail
		20d common (4" × 0.192"); or	Nail each layer as follo bottom and	
28	Built-up girders and beams, 2-inch	10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top on oppos	
20	lumber layers	And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends	and at each splice
29	Ledger strip supporting joists or rafters	4-16d box $(3^1/_2" \times 0.135")$ ; or 3-16d common $(3^1/_2" \times 0.162")$ ; or 4-10d box $(3" \times 0.128")$ ; or 4-3" $\times 0.131"$ nails	At each joist or	rafter, face nail
30	Bridging or blocking to joist, rafter or truss	2-10d box $(3" \times 0.128")$ ; or 2-8d common $(2^{1}/_{2}" \times 0.131")$ ; or 2-3" × 0.131" nails	Each end	, toe nail
			SPACING OF	FASTENERS
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>	Edges <sup>h</sup> (inches)	Intermediate supports <sup>c, e</sup> (inches)
		ral panels, subfloor, roof and interior wall sheathing ing [see Table R602.3(3) for wood structural panel ex		II framing
31		6d common or deformed $(2" \times 0.113" \times 0.266" \text{ head}); \text{ or } 2^{3}/_{8}" \times 0.113" \times 0.266" \text{ head nail } (\text{subfloor, wall})^{i}$	6	6 <sup>f</sup>
		8d common $(2^1/_2" \times 0.131")$ nail (roof); or RSRS-01 $(2^3/_8" \times 0.113")$ nail (roof) <sup>b</sup>	6	6 <sup>f</sup>
		8d common $(2-2^1/2'' \times 0.131'')$ nail (subfloor, wall)	6	12
32	$^{19}/_{32}" - ^{3}/_{4}"$	8d common $(2^1/_2" \times 0.131")$ nail (roof); or RSRS-01; $(2^3/_8" \times 0.113")$ nail (roof) <sup>b</sup>	6	6 <sup>f</sup>
		Deformed $2^{3}/_{8}" \times 0.113" \times 0.266"$ head (wall or subfloor)	6	12
		10d common (3" × 0.148") nail; or		



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Consultant Address Address Phone Fax e-mail

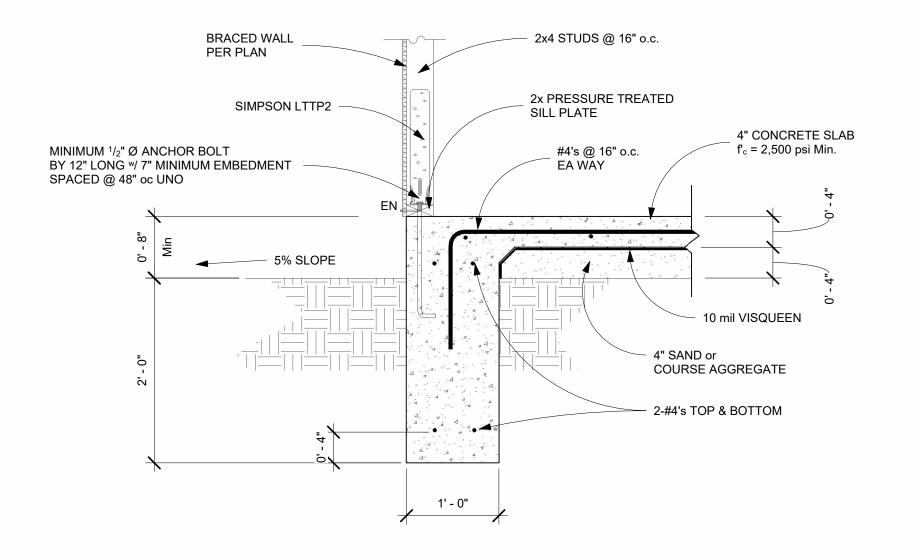
560 sf ADU

Description	Date
	Description

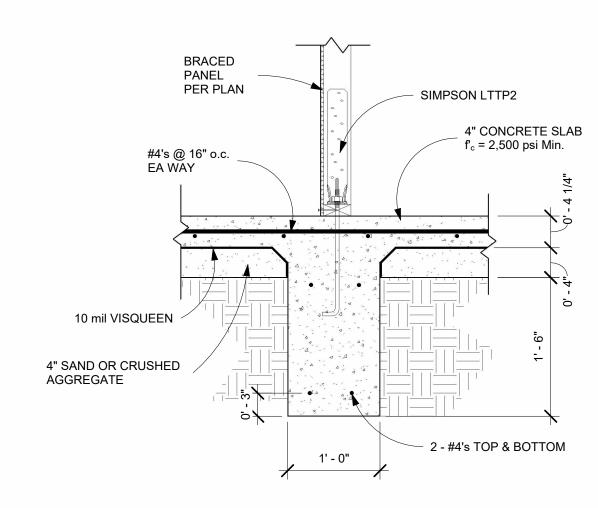
Owner

# Minimum Nailing Schedule

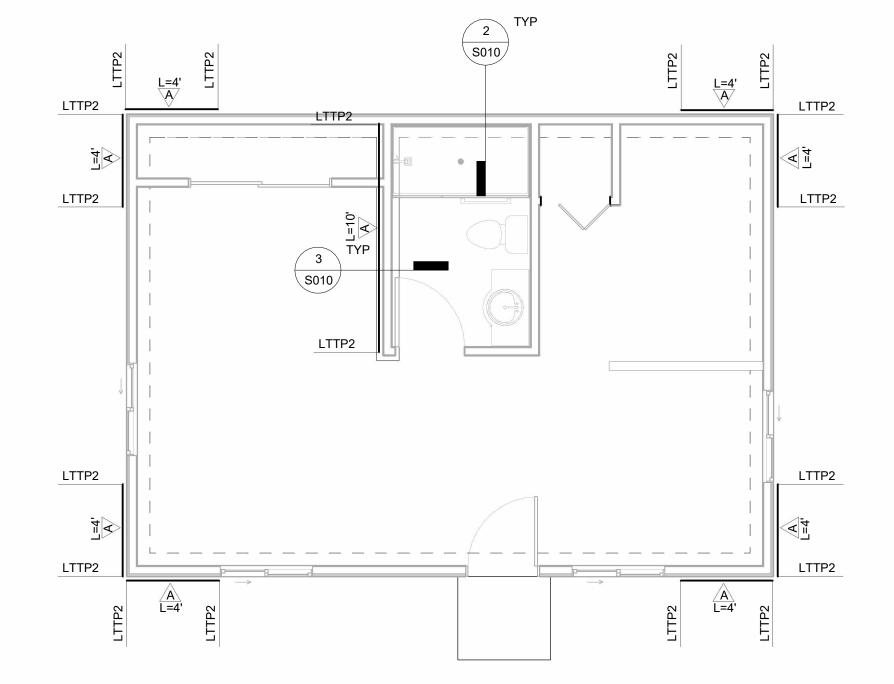
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Date	Issue Date
Drawn by	Autho
Checked by	Checke



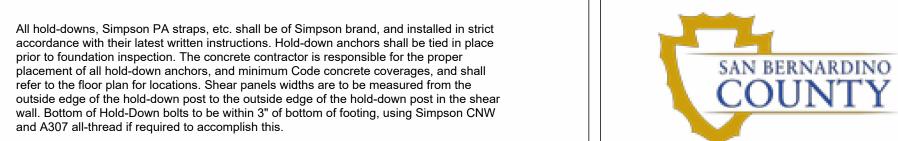
Poundation-Exterior-Slab-2x4 Wall
1" = 1'-0"



3 18" Interior Foundation 1" = 1'-0"



1 Foundation 1/4" = 1'-0"



All hold-downs, Simpson PA straps, etc. shall be of Simpson brand, and installed in strict accordance with their latest written instructions. Hold-down anchors shall be tied in place

placement of all hold-down anchors, and minimum Code concrete coverages, and shall refer to the floor plan for locations. Shear panels widths are to be measured from the

Anchor bolts and dowels shall be securely tied in place prior to the placing of concrete.

For standard cut washers placed between plate washer and nut, hole in plate washer may be diagoally slotted with maximum  $^3/_{16}$ " larger width than bolt diameter and maximum  $1 - ^3/_4$ " slot length.

Anchor bolts shall be  $^5/_8$ " diameter x 10" long, with 3" sq. x 0.229" thick. square washers, and spaced 6 feet oc or as noted on the plans. Minimum embedment 7-inches.

All concrete shall bear on firm, undisturbed natural soil, or certified fill, and footings shall

Provide a minimum of two anchor bolts per sill plate with one bolt loacted maximum 12"

Fasteners for pressure-preservative treated and fire retarnant treated wood shall be

No LPG piping assemblies allowed in or beneath slabs within the structure.

be stepped where slope is greater than one foot in ten. All footing that bears on

and minimum 7 bolt diameters from each end of each section.

hot-dipped zinc coated galvanized, stainless steel or copper.

On all other sloping lots, maintain minimum 7' distance to daylight.

Bolts located in the middle third of the sill plate witdth.

Walkways and landings to have a max. slope of 2%,

prior to foundation inspection. The concrete contractor is responsible for the proper

and A307 all-thread if required to accomplish this.

compacted fill must have a soils report.

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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

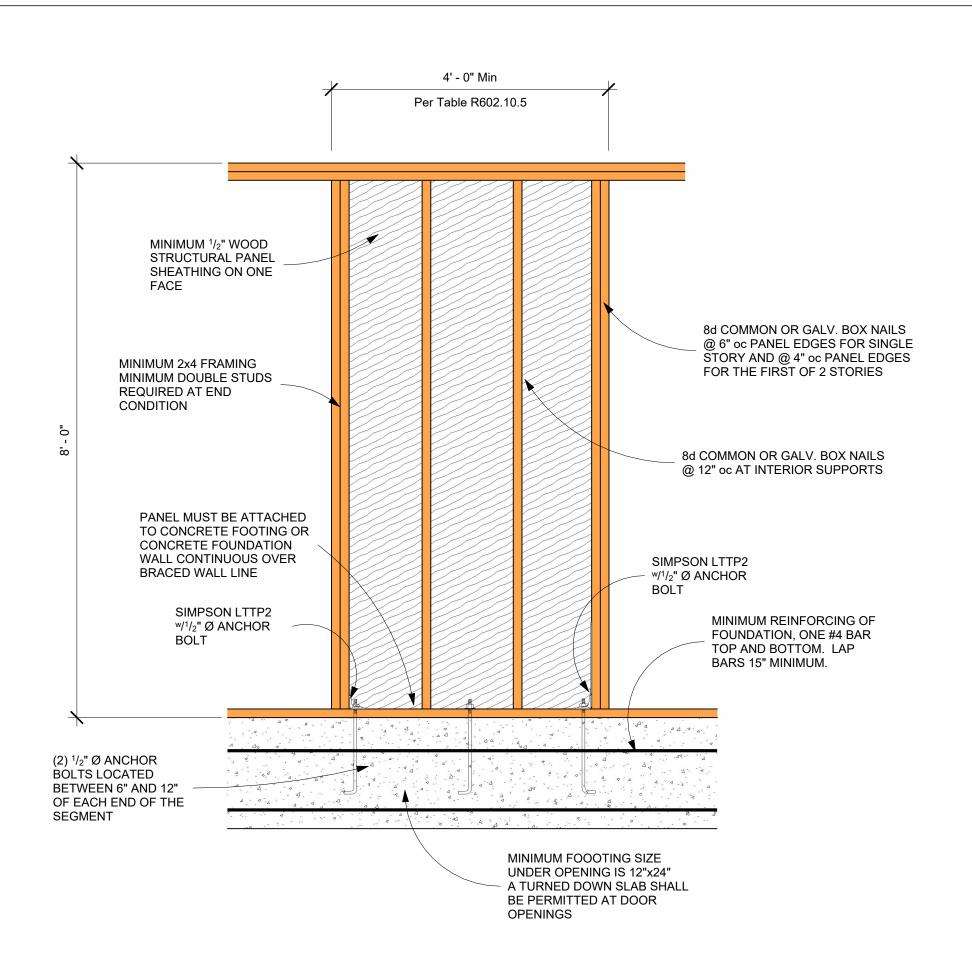
Owner

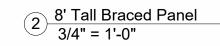
## Foundation Plan

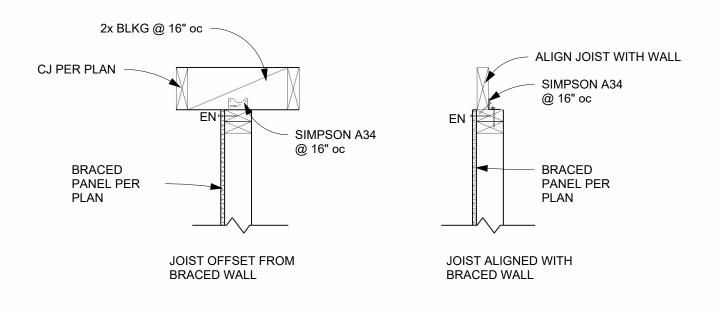
Project number	Project Number
Date	Issue Date
Drawn by	Author
Checked by	Checker

S010

As indicated





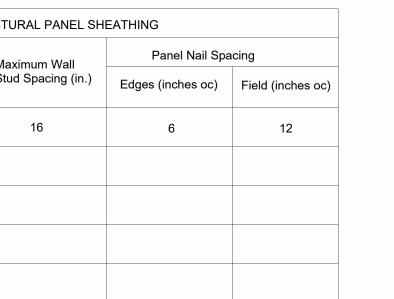


Interior-Braced Wall Top Connection
1" = 1'-0"

			WOOD ST	RUCTURAL PANEL SH	EATHING	
	Minimum Nail		Minimum Panel	Maximum Wall	Panel Nail Spacing	
Mark	Size	Penetration (in.)	Thickness (in.)	Stud Spacing (in.)	Edges (inches oc)	Field (inches oc)
A	8d Common	1.75	15/32 CDX	16	6	12

 WOOD STRUCTURAL PANELS SHALL CONFORM TO DOC PS 1, DOC PS 2 OR ANSI/APA PRP 210, CSA O437 OR CSA O325.
 PANELS SHALL BE IDENTIFIED BY A GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY 3. VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON STUDS.

4. HORIZONTAL JOINTS IN STRUCTURAL WALL PANELS SHALL OCCUR OVER AND BE FASTENED TO COMMON BLOCKING OF A MINIMUM 1 1/2 INCH THICKNESS.



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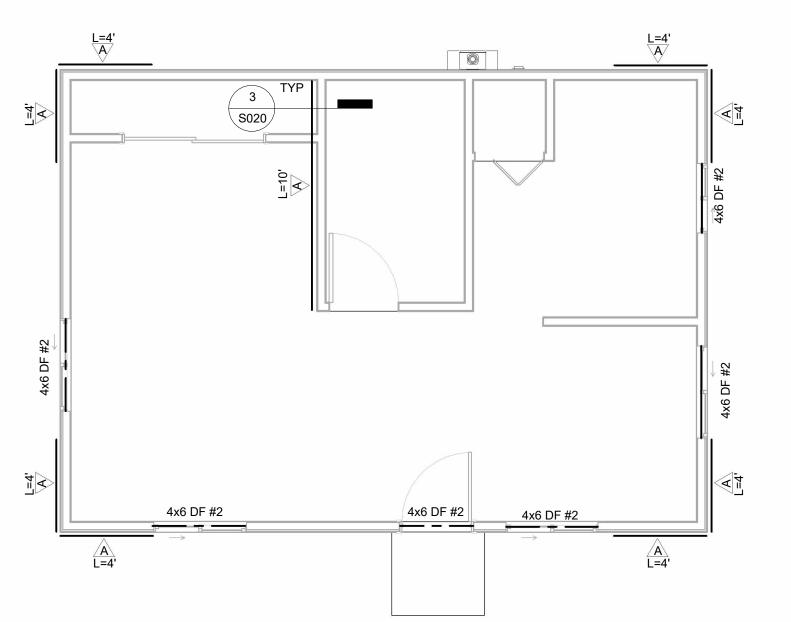
Owner

## First Floor Framing Plan

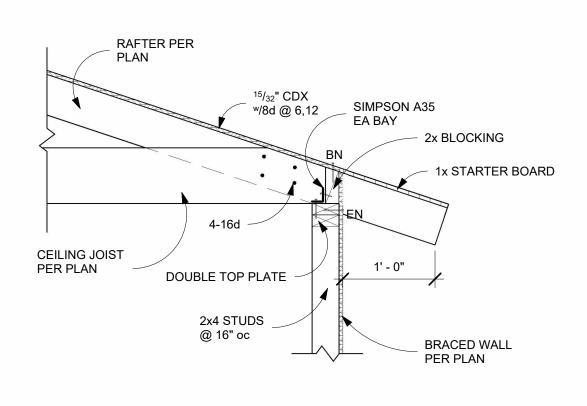
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	Date	Issue Date
	Drawn by	Author
	Checked by	Checker

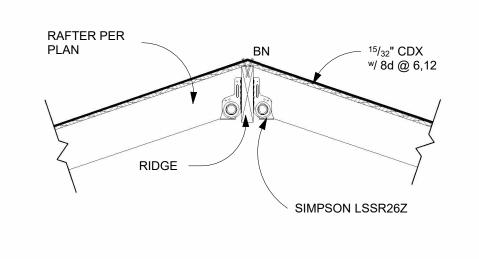
S020

As indicated



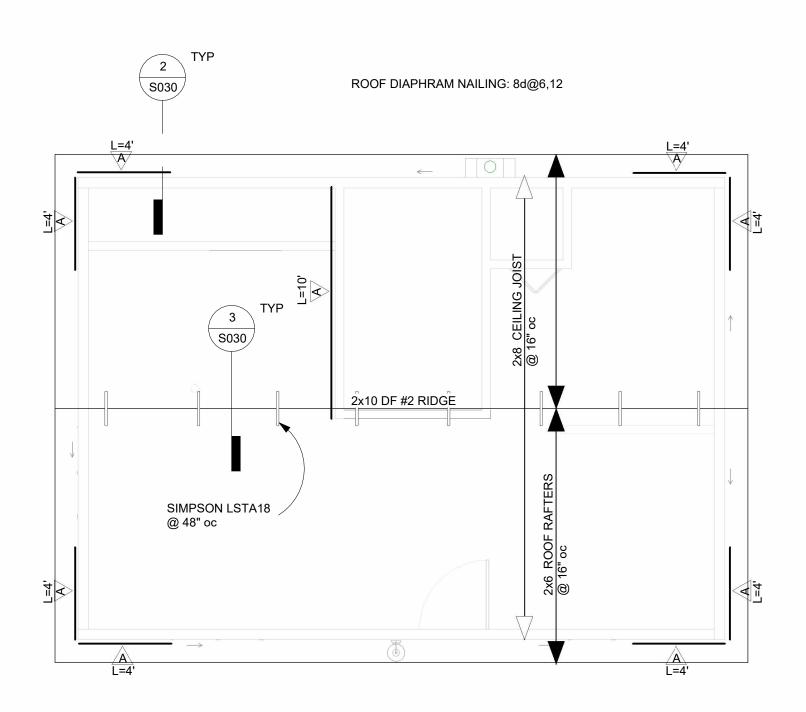
1 Level 1 1/4" = 1'-0"





3 Roof-Ridge 1" = 1'-0"

2 Exterior- Wall to Roof Diaphragm
1" = 1'-0"







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Consultant Address Address Phone Fax e-mail

560 sf ADU

No.	Description	Date

## Owner

## Roof Framing Plan

	Project number	Project Number
	Date	Issue Date
	Drawn by	Author
	Checked by	Checker

S030

As indicated