THIS PROJECT IS WITHIN:

WILDLAND URBAN INTERFACE (W.U.I.)

THIS PROJECT IS TO BE CONSTRUCTED IN COMPLIANCE TO FOLLOWING STATE RESPINSIBILITY AREA / WILDLAND URBAN INTERFACE (SRA/WUI) REQUIREMENTS OF 2019 CRC R337.

NOTE:

THIS PLAN SET IS AN ADDENDUM TO THE ORIGINAL SUBMITTED 3/ BEDROOM 2 BATH MASTER PLAN PERMIT NO: BP-20-01758

BUILDING INFORMATION:

OCCUPANCY GROUP:	R-3
CONSTRUCTION TYPE:	V-B
STORIES:	
BUILDING HEIGHT:	16' MAX
FLOOR AREA:	1120 SF
COVERED PORCH:	240 SF
FIRE SPRINKLERS:	SITE SPECIFIC*
FLOOD ZONE:	

FLOOD ZONE:_____

FIRM PANEL #:_____

PARCELS CONTAINING FEMA FLOOD HAZARDOUS ZONES CAN NOT USE THIS MASTER PLAN.

BUILDING SHALL COMPLY WITH THE FOLLOWING CODE: CRC 2019, CEC 2019, CMC 2019, CPC 2019, CFC 2019, CGBC 2019, CEnC 2019, AND ALL STATE, FEDERAL AND LOCAL ORDINANCES AS AMENDED BY THE LOCAL JURISDICTION.

* FIRE SPRINKLERS ARE REQUIRED IF THE HOUSE THAT THIS ADU IS ACCESSORY TO, HAS FIRE SPRINKLERS OR WILL REQUIRE FIRE SPRINKLERS IF BEING NEWLY CONSTRUCTED.

PLAN SELECTION INFORMATION:

TITLE 24 ENERGY REQUIREMENTS:89

1. WINDOWS: U-FACTOR= 0.3 SHGC=0.23
2. INSULATION: WALLS= R-21 FLOOR= SLAB, N/A ATTIC= R-38, RAFTERS= R-19
3. ROOF REQUIREMENTS: NO RADIANT BARRIER VENTILATION= 150 SQ.FT.
4. WATER HEATER: PROPANE SIZE:TANKLESS ENERGY FACTOR: 0.91
5. HERS TESTING REQUIREMENTS: PER CALCULATIONS
6. AIR CONDITIONING: 8.2% HSPF COOLING: 14 SEER 11.7 EER SPLIT HEAT PUMP

*NO SPECIAL INSPECTIONS ON THIS PROJECT

SHEET INDEX:

PROJECT DESCRIPTION:

NEW CONSTRUCTION OF A 1,120 SQUARE FOOT 3 BEDROOM 2 BATH RESIDENCE

OWNER:

ADDRESS:

APN #:

DESIGN CRITERIA:

SEISMIC:ASCE7-16, CHP 12.8

EQUIVALENT LATERAL FORCE PROCEDURE.

I=	1
SS=	0.693
S1=	0.23
SMS=	0.864
SM1=	NULL
SDS=	0.576
SD1=	NULL
TL=	16
RO=	1.3
R=	6.5
SITE CLASS	D
SEISMIC DESIGN CATEGORY	D
SNOW LOAD	37 PSF

WIND:

MAIN WIND FORCE RESISTING SYSTEM, ALL HEIGHTS METHOD, ASCE7-16 CHP. 26 & 27

WIND SPEED=	85 MPH
EXPOSURE=	C
ENCLOSURE=	ENCLOSED

SOIL:

ALLOWABLE = SOIL BEARING	1500 PSF

PROJECT SCOPE IS TO PROVIDE A MIRRORED VERSION OF THE ORIGINAL PERMITTED PLANS. THIS PLAN SET HAS AN ADDED WINDOW TO THE MASTER BATHROOM. STRUCTURAL CALCULATIONS AND ENERGY CALCULATIONS HAVE BEEN REVISED ACCORDINGLY.

General Notes

JACKSON AND SANDS ENGINEERING HAS PROVIDED THESE PLANS SOLELY FOR THE USE FOR THE PROJECT SPECIFIED ON THESE PLANS & DOES NOT REPRESENT THAT THESE PLANS ARE SUITABLE FOR ANY OTHER SITE WEATHER MODIFIED OR NOT.

JACKSON & SANDS ENGINEERING, Inc.
1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

No.	Revision/Issue	Date
1	INITIAL SUBMITTAL:	
2		
3		

BID SET

HCRN 3-2 MIRRORED

Project #20-110	Sheet CS
Date 09/02/21	
Scale AS NOTED	

TABLE 2304.10.1
FASTENING SCHEDULE

	CONNECTION	FASTENING[a,b,c]	LOCATION
1.	JOIST TO SILL OR GIRDER	3-8d COMMON (2.5" X 0.131")	TOENAIL
2.	BRIDGING TO JOIST	2-8d COMMON (2.5" X 0.131")	TOENAIL EA. END
3.	1"X6" SUBFLOOR OR LESS TO EA. JOIST	2-8d COMMON (2.5" X 0.131")	FACE NAIL
4.	WIDER THAN 1"X6" SUBFLOOR TO EA. JOIST	3-8d COMMON (2.5" X 0.131")	FACE NAIL
5.	2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (2.5" X 0.162")	BLIND AND FACENAIL
6.	SOLE PLATE TO JOIST OR BLOCKING SOLE PLATE TO JOIST OR BLOCKING @ BRACED WALL PANEL	16d (3.5" X 0.135") @ 16" O.C. 3" - 16d (3.5" X 0.135")@ 16" O.C.	TYPICAL FACE NAIL BRACED WALL PANELS
7.	TOP PLATE TO STUD	2-16d COMMON (2.5" X 0.162")	END NAIL
8.	STUD TO SOLE PLATE	4-8d COMMON (2.5" X 0.131") 2-16d COMMON (3.5" X 0.162")	TOENAIL END NAIL
9.	DOUBLE STUDS	16d (3.5" X 0.135") @ 24" O.C.	FACE NAIL
10.	DOUBLE TOP PLATES DOUBLE TOP PLATES	16d (3.5" X 0.135") @ 16" O.C. 8-16d COMMON (2.5" X 0.162")	TYP. FACE NAIL LAP SPLICE
11.	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-8d COMMON (2.5" X 0.131")	TOENAIL
12.	RIM JOIST TO TOP PLATE	8d (2.5" X 0.131") @6" O.C.	TOENAIL
13.	TOP PLATES, LAPS AND INTERSECTIONS	2-16d COMMON (2.5" X 0.162")	FACE NAIL
14.	CONTINUOUS HEADER, TWO PIECES	16d COMMON (3.5" X 0.162")	16" O.C. ALONG EDGE
15.	CEILING JOISTS TO PLATE	3-8d COMMON (2.5" X 0.131")	TOENAIL
16.	CONTINUOUS HEADER TO STUD	4-8d COMMON (2.5" X 0.131")	TOENAIL
17.	CEILING JOISTS, LAPS OVER PARTITIONS SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d COMMON (3.5" X 0.162") MINIMUM, TABLE 2308.10.4.1	FACE NAIL
18.	CEILING JOISTS TO PARALLEL RAFTERS SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d COMMON (3.5" X 0.162") MINIMUM, TABLE 2308.10.4.1	FACE NAIL
19.	RAFTER TO PLATE SEE SECTION 2308.10.1, TABLE 2308.10.1)	3-8d COMMON (2.5" X 0.131")	TOENAIL
20.	1" DIAGONAL BRACE TO EA. STUD AND PLATE	2-8d COMMON (2.5" X 0.131")	
21.	1"X8" SHEATHING TO EA. BEARING	3-8d COMMON (2.5" X 0.131")	
22.	WIDER THAN 1"X8" SHEATHING TO EA. BEARING	3-8d COMMON (2.5" X 0.131")	
23.	BUILT-UP CORNER STUDS	16d COMMON (3.5" X 0.162")	
24.	BUILT-UP GIRDER AND BEAMS	20d COMMON (4" X 0.192") 32" O.C. 2 - 20d COMMON (4" X 0.192")	
25.	2" PLANKS	16d COMMON (3.5" X 0.162")	
26.	COLLAR TIE TO RAFTER	3-10d COMMON (3" X 0.148")	
27.	JACK RAFTER TO HIP	3-10d COMMON (3" X 0.148") 2-16d COMMON (3.5" X 0.162")	
28.	ROOF RAFTER TO 2 BY RIDGE BEAM	2-16d COMMON (3.5" X 0.162") 2-16d COMMON (3.5" X 0.162")	
29.	JOIST TO BAND JOIST	3-16d COMMON (3.5" X 0.162")	
30.	LEDGER STRIP	3-16d COMMON (2.5" X 0.131")	
31.	WOOD STRUCTURAL PANELS AND PARTICLEBOARD SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING) SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING)	1/2" AND LESS 19/32" TO 3/4" 7/8" TO 1" 1 1/8" TO 1 1/4" 3/4" AND LESS 7/8" TO 1" 1 1/8" TO 1 1/4"	6d [c,l] 8d [g] OR 6d [e] 8d 10d [c] or 8d 6d [e] 8d [e] 10d [g] or 8d [e]
32.	PANEL SIDING (TO FRAMING)	1/2" AND LESS 5/8" AND LESS	6d [f] 8d [f]
33.	FIVERBOARD SHEATHING	1/2" AND LESS 25/32"	No. 11 GA ROOFING NAIL [h] 6d COMMON NAIL (2" X 0.113") No. 16 GA STAPLE [i] No. 11 GA ROOFING NAIL [h] 8d COMMON NAIL (2 1/2" X 0.131") No. 16 GA STAPLE [i]
34.	INTERIOR PANELING	1/4" 3/8"	4d [j] 6d [k]

a. Common or box nails are permitted to be used except where otherwise noted.
b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particle board diaphragms and shear walls, refer to Section 2305. Nails for wall sheating are permitted to be commom, box or casing.
c. Common or deformed shank (6d - 2" x 0.113",8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
d. Common (6d - 2" x 0.113",8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
e. Deformed shank (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
f. Corrosion resistant siding (6d - 1 7/8" x 0.106"; 8d - 2 3/8" x 0.128") or casing (6d - 2" x 0.099"; 8d - 2 1/2" x 113") nail.
g. Fasterners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches oncenter at intermediate supports for nonstructural applications.
h. Corrosion resistant roofing nails with 7/16 inch dia. head and 1 1/2" inch length for 1/2" length for 1/2" inch sheathing and 1 3/4 inch lenth for 25/32 inch sheathing.
i. Corrosion resistant staples with nominal 7/16" crown and 1 1/8" length for 1/2" inch sheathing and 1 3/4" inch length for 25/32 inch sheathing.
j. Casing (1 1/2" x 0.080" or finish (1 1/2" x 0.072") nails spaced 6" on panel edges, 12" at intermediate supports.
k. Panel supports at 24". Casing or finish nails spaced 6" on panel edges, 12" at intermediate supports.
l. For roof sheathing applications, 8d nails (2 1/2" x 0.113") are the minimum required for nod structural panels.
m. Staples shall have a minimum crown width of 7/16 inch.
n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at inermediate supports for roof sheathing.
o. Fastners spaced 4inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

EXTERIOR BUILDING FINISH:

1. EXTERIOR WALL COVERINGS SHALL BE NONCOMBUSTIBLE OR IGNITION RESISTANT, HEAVY TIMBER, LOG WALL OR FIRE RESISTIVE CONSTRUCTION (CRC R337.7)
2. EXTERIOR WALL COVERINGS SHALL EXTEND FROM THE FOUNDATION TO THE ROOF AND TERMINATE AT 2 INCH NOMINAL SOLID BLOCKING BETWEEN RAFTERS AND OVERHANGS. (CRC R337.7.3.2)
3. ATTIC GABLE AND EAVES ABOVE 12' AND UNDER FLOOR VENTILATION SHALL BE PROVIDED WITH FULLY COVERED METAL WIRE MESH, VENTS, OR OTHER MATERIALS THAT HAVE A MINIMUM 1/8" AND MAXIMUM 1/4" OPENINGS, NON-COMBUSTIBLE AND CORROSION RESISTANT. ALL OTHER EAVE VENTS SHALL BE LISTED/ APPROVED TO RESIST THE INTRUSION OF FLAME AND BURNING EMBERS. (CRC337.6.2)

DWELLING WITH ATTACHED GARAGE:

ALL NEW RESIDENTIAL CONSTRUCTION WITH ATTACHED PRIVATE GARAGES SHALL HAVE THE FOLLOWING FOR ELECTRICAL VEHICLE (EV) CHARGING STATIONS (CGBSC 4.106.4) :

1. INSTALL A MIM 1" CONDUIT CAPABLE OF SUPPLY A 208/240V BRANCH CIRCUIT TO A SUITABLE BOX LOCATION FOR EV CHARGING. THE OTHER END SHALL TERMINATE TO THE MAIN SERVICE OR SUBPANEL.
2. THE MAIN PANEL AND OR SUBPANEL SHALL BE OF SUFFICIENT SIZE TO INSTALL A 40 AMP DEDICATED BRANCH CIRCUIT. THE DEDICATED OVER-CURRENT PROTECTION SPACE SHALL BE LABELED "EV Capable"

FLOOR PLAN NOTES:

1. BUILDING TO COMPLY WITH WILDLAND/ URBAN INTERFACE CONSTRUCTION.
2. AUTOMATIC RESIDENTIAL FIRE SPRINKLERS ARE REQUIRED THROUGHOUT THE RESIDENCE. SPRINKLER DESIGN BY OTHERS.
3. EXTERIOR WALLS TO BE 2X6 DF NO. 2 STUDS AT 16" O.C. WITH R-19 INSULATION. SIDING/ SHEAR AS SHOWN ON.
4. INTERIOR WALLS TO BE 2X4 DF NO.2 STUDS AT 16" O.C.
5. TYPICAL WALL HEIGHT IS 9'.
6. BALLOON FRAME WALLS UNDER VAULTED TRUSS

ELECTRICAL NOTES:

1. THE PANEL BOARD(S) SHALL BE PROVIDED WITH A CIRCUIT DIRECTORY OR CIRCUIT IDENTIFICATION. 2019 CEC ART. 408.3(F). EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. THE IDENTIFICATION SHALL INCLUDE AN APPROVED DEGREE OF DETAIL THAT ALLOWS EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS. SPARE POSITIONS THAT CONTAIN UNUSED OVER CURRENT DEVICES OR SWITCHES SHALL BE DESCRIBED ACCORDINGLY. THE IDENTIFICATION SHALL BE INCLUDED IN A CIRCUIT DIRECTORY THAT IS LOCATED ON THE FACE OR INSIDE OF THE PANEL DOOR IN THE CASE OF A PANEL BOARD AND AT EACH SWITCH OR CIRCUIT BREAKER IN A SWITCHBOARD OR SWITCHGEAR. NO CIRCUIT SHALL BE DESCRIBED IN A MANNER THAT DEPENDS ON TRANSIENT CONDITIONS OF OCCUPANCY.
2. LISTED INSTALLATION INSTRUCTION OR MANUALS SHALL BE ON SITE AND AVAILABLE FOR PLUMBING, MECHANICAL, ELECTRICAL EQUIPMENT OR OTHER INSTALLATIONS DURING FIELD INSPECTION OF SPECIFIC APPLIANCES OR FEATURES.
3. PHOTOVOLTAIC GENERATING SYSTEMS IS REQUIRED BY CALIFORNIA ENERGY CODE SECTION 150.1(C)14. INSTALLATION OF SOLAR PANELS REQUIRED PRIOR CERTIFICATE OF OCCUPANCY CAN BE ISSUED FOR THIS ADU. A SEPARATE PERMIT IS REQUIRED.
4. AT LEAST ONE 120-VOLT, 20-AMP BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY A BATHROOM OUTLET(S). SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS. (EXCEPTION-WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED.) CEC 210.11(C(1)) AND 210.52
5. FIXTURES, LAMP HOLDER AND RECEPTACLES OUTLETS SHALL BE SECURELY SUPPORTED. A FIXTURE THAT WEIGHTS MORE THAN 6 POUNDS OR EXCEEDS 16 INCHES IN ANY DIMENSION SHALL NOT BE SUPPORTED BY THE SCREW SHELL OF A LAMP HOLDER. 2019 CEC Art. 410.30(a) OUTLET BOXES SHALL NOT BE USED AS THE SOLE SUPPORT FOR CEILING (PADDLE) FANS. 2019 CEC Art. 314.27(A)&(D)
6. TWO SMALL APPLIANCE 20-AMP BRANCH CIRCUITS ARE REQUIRED FOR THE KITCHEN AND ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS FOR THE KITCHEN, PANTRY, NOOK, DINING ROOM, AND SIMILAR AREAS. NOTE: THE CIRCUITS CANNOT SERVE OUTSIDE PLUGS, RANGE HOODS, DISPOSALS, DISHWASHER OR MICROWAVES - ONLY THE REQUIRED COUNTERTOP/WALL OUTLETS INCLUDING THE REFRIGERATOR. CEC 210.11(C(1)) & 210.52(B)
7. GROUNDED AND BONDING OF ELECTRICAL INSTALLATIONS SHALL COMPLY WITH 2019 CEC ART. 250
8. PACIFIC GAS AND ELECTRIC (PG&E) COMPANY APPROVAL IS REQUIRED FOR ELECTRICAL METER. LOCATION PRIOR TO INSTALLATION. PANEL LOCATION SUBJECT TO SITE SPECIFIC CONDITIONS AND SERVING UTILITY APPROVAL WHERE THIS PLAN IS USED.
9. AFTER BUILDING PERMIT HAS BEEN ISSUED THE OWNER AND/OR CONTRACTOR SHALL APPLY FOR ELECTRICAL AND UTILITY GAS SERVICE REQUESTS TO PACIFIC GAS AND ELECTRIC COMPANY.

LIGHTING NOTES:

1. ALL LIGHTING TO BE HIGH EFFICACY.
2. FIXTURES, LAMP HOLDER AND RECEPTACLES OUTLETS SHALL BE SECURELY SUPPORTED. A FIXTURE THAT WEIGHS MORE THAN 6 LBS. OR EXCEEDS 16 INCHES IN ANY DIMENSION SHALL NOT BE SUPPORTED BY THE SCREW SHELL OF A LAMP HOLDER. CEC ART. 410.30(a). OUTLET BOXES SHALL NOT BE USED AS THE SOLE SUPPORT FOR CEILING (PADDLE) FAN. 2019 CEC ART. 314-27(A)&(D)
3. ALL LIGHTING IN (BATHROOM, UTILITY ROOM LAUNDRY ROOM AND GARAGES) TO BE MANUAL ON, AUTOMATIC OFF, OCCUPANT SENSOR. (VACANCY SENSOR)
4. OUTDOOR LIGHTING ATTACHED TO THE BUILDING TO BE HIGH EFFICACY, CONTROLLED BY A MANUAL ON AND OFF SWITCH AND ONE OF THE FOLLOWING AUTOMATIC CONTROLS
   - 4.1. PHOTO CONTROL AND MOTION SENSOR.
   - 4.2. PHOTO CONTROL AND AUTOMATIC TIME SWITCH CONTROOL.
   - 4.3. ASTRONOMICAL TIME CLOCK CONTROL THAT AUTOMATICALLY TURNS THE OUTDOOR LIGHT OFF DURING DAYLIGHT HOURS.
   - 4.4. EMCS THAT PROVIDES THE FUNCTIONALITY OF AN ASTRONOMICAL TIME CLOCK, DOES NOT HAVE AN OVERRIDE OR BYPASS SWITCH THAT ALLOWS THE LUMINARIES TO BE ALWAYS ON, AND IS PROGRAMMED TO AUTOMATICALLY TURN THE OUTDOOR LIGHTING OFF DURING DAYLIGHT HOURS.
5. LUMINARIES RECESSED IN INSULATED CEILINGS MUST MEET THREE REQUIREMENTS (CALIFORNIA ENERGY CODE 150.0(K)1C):
   - 5.1. THEY MUST BE RATED FOR DIRECT INSULATION CONTACT (IC).
   - 5.2. THEY MUST BE CERTIFIED AS AIRTIGHT (AT) CONSTRUCTION.
   - 5.3. THEY MUST HAVE A SEALED GASKET OR CAULKING BETWEEN THE HOUSING AND CEILING TO PREVENT FLOW OF HEATED OR COOLED AIR OUT OF LIVING AREAS AND INTO THE CEILING CAVITY.

   ALL RECESSED LIGHTS
   - 5.4. SCREW BASES ARE NOT ALLOWED FOR LUMINARIES RECESSED IN CEILINGS
   - 5.5. THEY SHALL COMPLY WITH JA8-2016-E COMPLIANT LIGHT SOURCE.
   - 5.6. ALL JA8 LUMINARIES REQUIRE DIMMERS OR VACANCY SENSORS.
6. OUTDOOR LIGHTING SHALL BE SUITABLE FOR WET LOCATIONS.
7. BATHROOM FAN SHALL BE MIN VENTILATION RATE OF 50 CUBIC FEET PER MIN. FOR INTERMITTENT OR 25 CUBIC FEET PER MIN FOR CONTINUOUS VENTILATION.
   - 7.1. FAN SHALL BE 3 SONE OR LESS AND INSTALLED PER MANUFACTURES SPECS.
   - 7.2. MIN 4" DUCT SHALL VENT TO OUTSIDE AND SHALL BE AIR TIGHT WITH CALKING AND GASKET.
   - 7.3. FANS IN BATHROOMS CONTAINING TUB OR SHOWER MUST BE CONTROLLED BY A HUMIDISTAT AND BE ENERGY STAR RATED. IF FAN PROVIDES CONTINUOUS VENTILATION BY THE ENERGY CODE IT IS EXEMPT.
8. CALIFORNIA ENERGY COMMISSION STANDARDS SECTION 150(K) REQUIREMENTS FOR INDOOR AIR QUALITY VENTILATION.
   - 8.1. BATHROOM EXHAUST FAN TO BE USED TO PROVIDE THE WHOLE BUILDING VENTILATION FAN AND PROVIDE THE FOLLOWING:
     - 8.1.1. THE BATHROOM EXHAUST FAN MUST HAVE A MINIMUM CFC RATING OF 75-CFM.
     - 8.1.2. THE BATHROOM EXHAUST FAN IS RATED AT A MAXIMUM OF 1.0 SONE.
     - 8.1.3. THE CONTROL SWITCH MUST BE LABELED AS THE WHOLE-BUILDING VENTILATION AND FAN SHOULD OPERATE WHENEVER THE HOME IS OCCUPIED.
     - 8.1.4. BATHROOM FAN SHALL BE MIN VENTILATION RATE OF 50 CUBIC FEET PER MIN. FOR INTERMITTENT OR 25 CUBIC FEET PER MIN FOR CONTINUOUS VENTILATION.

ENERGY NOTES:

FOR NEW WATER HEATER PROVIDE 125-VOLT, 20 AMP ELECTRICAL RECEPTABLE CONECTED TO ELECTRIC PANEL W/ 120/240-VOLT 3 CONNECTOR, 10 AWG COPPER BRANCH CIRCUIT WITHIN 3 FT FROM WATER HEATER.

i. BOTH ENDS OF THE UNUSED CONDUCTER SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED.

ii. A RESERVED SINGLE POLE CIRCUIT BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH IN A ABOVE AND LABELED WITH WORD "FUTURE 240V USE" CEnC SECTION 150.0.(n)1

General Notes

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Hope Crisis Response Network

REBUILD PARADISE FOUNDATION

JACKSON & SANDS ENGINEERING, Inc.
1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

No.	Revision/Issue	Date
1	INITIAL SUBMITTAL:	
2		
3		

BID SET

HCRN 3-2
MIRRORED

Project #20-110	Sheet GN1
Date 09/02/21	
Scale AS NOTED	

GENERAL

1. Provide each bedroom, basement, and habitable attics with a minimum of one exterior window with a 44^ maximum clear opening height, 5.7 sq. ft. minimum clear openable area (minimum 5.0 sq. ft. at grade floor openings), 24^ minimum clear openable height and 20^ minimum clear width, or an openable exterior exit door. (CRC R310.2.1 and CRC R310.2.2) Window wells, ladders, and steps shall comply with CRC R310.2.3. Bars, grilles, covers, ands screens shall be releasable or removable from the inside without the use of a key, tool, special knowledge, or force greater than 15lbs to oper-ate the emergency escape and rescue openings. (CRC R310.4)

2. Each bathroom containing a bathtub, shower or tub/shower combination shall be me-chanically ventilated with Energy Star approved equipment (minimum 50cfm) with an integral humidistat installed. (CRC R303.3.1)

3. Provide attic cross ventilation: 1/150 of attic area or 1/300 with at least 40% but more than 50% of vents are 3 ft. above eave and balance is at eave. As an alternative in Climate Zone 16 (Truckee region), the net area may be reduced to 1/300 when a Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling. Baffles are required at vents for insulation. Provide minimum of 1^ inch of air space between insu-lation and roof sheathing. (CRC R806)

4. Enclosed rafter spaces shall have 1-inch clear cross ventilation. (Properly sized rafters for insulation) (CRC R806.3)

5. Under floor cross ventilation: minimum 1.0 sq. ft. for each 150 sq. ft. of under floor area. When a class I vapor retarder is installed on the ground surface the minimum area of ventilation may be limited to 1sq.ft for each 1,500 square feet of under-floor space. One ventilation opening shall be within three (3) feet of each corner of the building (CRC R408.1). Unvented crawl spaces shall comply with CRC R408.3.

6. The following areas shall have safety glazing: (CRC R308.4) •Sliding/swinging glass doors

   6.1. Glazing in walls and enclosures facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and swimming pools where the glazing is less than 60 inches above the standing surface within the compartment and within 60 inches horizontally of the water 's edge (CRC R308.4.5)

   6.2. Glazing within a 24" arc of a door that is less than 60 inches above the floor. Glazing installed perpendicular to a door in a closed position and within 24 inches of the door only requires safety glazing if it is on the hinge side of an inswing door. (CRC R308.4.2).

   6.3. Glazing where the exposed area is greater than 9sq.ft, bottom is less than 18 in. and at least 36 in. above the floor, and adjacent to a walking surface.

   6.4. Within 60in. of the bottom tread of a stairway and less than 36in. above the landing.

   6.5. Glazing in guards and railings.

   6.6. Glazing adjacent to stairways, landings, and ramps within 36in. horizontally of the walking surface less than 36in. above the walking surface.

7. Provide landings and a porch light at all exterior doors. Landings are to be minimum 3 ft deep x width of door. Landings at required egress doors may step down a maximum of 7.75 inches when the door does not swing over the landing and 1.5 inches when door swings onto the landing. Other than required exterior exit doors may have a threshold of 7.75 inches maximum; a landing is not required if a stair with two or fewer risers is located on the exterior side and the door does not swing over the stairway. (CRC R311.3-R311.3.2)

INGRESS/EGRESS WINDOWS IN BEDROOMS AND SLEEPING AREAS
R310.2.1 MINIMUM OPENING AREA.

Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m2). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm). exception: grade floor or below grade openings shall have a net clear opening of not less than 5 square feet (0.465 m2).

FOUNDATIONS & CONCRETE SLABS
Concrete Strength(s): 2,500 PSI
Rebar Grades: 40 KSI U.O.N.

1. Slope drainage 6" within the first 10ft. from the foundation wall. If physical obstruc-tions or lot lines prohibit the 10 ft. distance, a 2-5 percent slope shall be provided to an approved alternative method of diverting the water away from the foundation. Impervious surfaces shall also be sloped a minimum of 2 percent for 10ft away from structures to an approved drainage way. (CRC R401.3)
2. Stepped footings shall be used when slope of footing bottom is greater than 1 in 10 (V: H).
3. Concrete slabs: 3 1/2" minimum (CRC R506.1). Slabs under living areas and garages shall be reinforced with wire 6" x 6", 10-gauge x 10 gauge welded mesh or equivalent steel reinforcement and 4" thickness of 3/8 minimum gravel under the concrete slab. Separate from soil with a 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches in living areas. A capillary break shall be installed when a vapor retarder is required.
4. Provide 18" X 24" foundation access through the floor or 16"X24" access through a perimeter wall. (CRC R408.4)
5. Minimum sill bolting: 1/2 " anchor bolts or approved anchors at 6 ft. o.c. maximum for one-story (CRC R403.1.6). Use anchor bolts at 4 ft. o.c. maximum for three story construction. Embed bolts 7" minimum. The anchor bolts shall be placed in the middle third of the width of the plate. Locate end bolts not less than 7 bolt diameters, nor more than 12" from ends of sill members. In SDC DD and above: Provide 3"X3"X0.229" plate washers on each bolt at braced or shear wall locations, standard cut washers shall be permitted for anchor bolts not located in braced/shear wall lines.

CLEARANCES AND TREATMENT FOR WOOD FRAMING

1. Weather exposed glulam, beams and posts shall be pressure treated or shall be wood of natural resistance to decay (CRC R317.1.3 & 5)
2. Columns exposed to the weather or in basements when supported on concrete pier or metal pedestals shall be pressure treated or natural resistance to decay unless the pier/pedestals project 1" above concrete or 6" above earth and the earth is covered by an approved impervious moisture barrier. (CRC R317.1.4 exc.)
3. Columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building shall be pressure treated or natural resistance to decay unless the column is supported by a concrete pier or metal pedestal of a height 8" or more and the earth is covered by an impervious moisture barrier. (CRC R317.1.4 exc. 2)
4. Deck posts supported by concrete piers or metal pedestals projecting not less than 1" above a concrete floor or 6" above exposed earth. (CRC R317.1.4 exc. 3)

WALLS

1. Positive post to beam connection shall be provided to ensure against uplift and lateral displacement. (CRC R502.9 & CBC 2304.9.7)
2. All fasteners used for attachment of siding & into pressure treated lumber shall be of a corrosion resistant type (CRC R317.3).
3. Fire-block in concealed spaces of stud walls/partitions, vertically at ceiling/floor levels, & horizontally at 10ft. intervals. Fire-block at soffits, drop ceilings/similar locations & in concealed spaces at the top/bottom of stair stringers. (CRC R302.11)
4. Provide approved building paper under the building siding and approved flashing at exterior openings (CRC R703.2). Specify a minimum of 2 layers of Grade D paper un-der stucco and 2 layers of 15lb felt (or equivalent) under stone veneer.
5. Stucco shall have a minimum clearance to earth of 4 inches and 2 inches to paved sur-faces with an approved weep screed. (CRC R703.7.2.1) Masonry stone veneer shall be flashed beneath the first course of masonry and provided with weep holes immediately above the flashing. (CRC R703.8.5 and R703.8.6)

ROOF

1. Provide a minimum 22^ x 30^ access opening to attic (CRC R807); may be required to be 30^x30^ to remove the largest piece of mechanical equipment per the California Mechanical Code.
2. Roof drains/gutters required to be installed per the California Plumbing Code with leaf/ debris protection also installed.
3. All roofing shall be tested/listed Class A minimum.
4. Asphalt shingles with sloped roofs 2/12 to 4/12 shall have two layers of underlayment applied per CRC R905.2.2.

GARAGE AND CARPORT

1. Garage shall be separated from the dwelling unit & attic area by ½inch gypsum board applied to the garage side. Garage beneath habitable rooms shall be separated by not less than 5/8" type X gypsum board. Structure supporting floor/ceiling assemblies used for required separations shall have 1/2" gypsum board installed minimum. Door openings from the garage to the dwelling shall be solid wood/steel doors or honeycomb steel doors not less than 1 3/8" thick or a 20-minute rated fire door. Doors shall be self-closing & self-latching. No openings directly into a sleeping room from the garage. When the dwelling and garage has fire sprinklers installed per R309.6 and R313, doors into the dwelling unit from the garage only need to be self-closing and self-latching. (CRC R302.5.1 & T-R302.6) (Carports open on two or more sides and no enclosed areas above do not require a separation).
2. Ducts penetrating the garage to dwelling separation shall be a minimum of 26 gauge with no openings into the garage. (CRC R302.5.2)
3. Penetrations through the garage to dwelling separation wall (other than ducts as listed above) shall be fire-blocked per CRC section R302.11, item #4.
4. Garage and carport floor surfaces shall be non-combustible material and slope to drain towards the garage door opening. (CRC R309.1)
5. Appliances and receptacles installed in garage generating a glow, spark or flame shall be located 18^ above floor unless it is listed as flammable vapor ignition resistant. Pro-vide protective post or other impact barrier from vehicles (CMC 308.0).

STAIRWAYS & RAMPS

1. Exterior stair stringers must be naturally resistant to decay or pressure treated. (CRC R317.1)
2. Rise shall be maximum 7.75^. Run shall be 10" minimum; headroom 6'-8" minimum; width 36" minimum. 31.5" between a handrail on one side and 27" with handrails on two sides. Variation between riser heights 3/8" maximum. A nosing not less than .75 inches but not more than 1.25 inches shall be provided on stairways with solid risers where the tread depth is less than 11 inches. The leading edge of treads shall project not more than 1.25 inches beyond the tread below. Open risers are permitted, pro-vided the opening between the treads does not permit the passage of a 4" sphere. (Openings are not limited when the stair has a rise of 30" or less). (CRC R311.7)
3. Stairways with 4 or more risers shall have a handrail on one side 34" to 38" above the tread nosing. Circular handrails shall have an outside diameter of 1.25"-2"; if not circular, it shall have a perimeter dimension of 4"-6.25" with a maximum cross-sectional dimension of 2.25". See R311.7.8.3 Item# 2 for type II handrails with a parameter over 6.25". A minimum clearance of 1.5" shall be maintained from the wall or other surface. Handrails shall be returned, terminate in newel posts, or safety terminals. (CRC R311.7.8.2)
4. Guards shall be 42" minimum height (unless acting as a handrail/guard for a stairway; the guard height may be 34"-38" in height), with openings less than 4" inches clear (guards on the open sides of stairs may have 4 3/8" openings). (CRC R312)
5. Provide landings at the top/bottom of the stairway the width of the stairway. The depth of the landing shall be 36" minimum. (see CRC R311.7.6 for exceptions).
6. Usable spaces underneath enclosed/unenclosed stairways shall be protected by a minimum of 1/2" gypsum board. (CRC R302.7)
7. Ramps serving the egress door shall have a slope of not more than 1 unit vertical in 12 units horizontal (8.3-percent slope). All other ramps shall have a maximum slope of 1 unit vertical in 8 units horizontal (12.5-percent slope). Exception: Where it is technically infeasible to comply because of site constraints, ramps shall have a slope of not more than 1 unit vertical in 8 units horizontal (12.5-percent slope) (CRC R311.8.1). Provide 3 ' X3 ' landings at the top and bottom of ramps, where doors open onto ramps, and where ramps change directions. (CRC R311.8)
8. Handrails shall be provided on each side of each continuous run of tread or flight with four or more risers. (CRC SEC. R311.7.8)
9. Exterior stairs, balconies, decks, etc. shall be attached to the primary structure with lag screws or equivalent attachment that will resist against withdrawal and vertical lateral forces or shall be designed to be self-supporting. (CRC R311.5)

DECKS

1. Guards are required if deck or floor is over 30" above grade, minimum 42" high, with openings less than 4" (CRC R312). Guardrails shall be designed and detailed for lat-eral forces according to CRC Table 301.5.
2. Provide deck lateral load connections at each end of the deck and at deck intersec-tions per CRC R507.2.4. Connectors shall have a minimum allowable stress design capacity of 1,500lbs and install with 24" of the end of the deck. 750lb rated devices are allowed (DTTIZ as example) if located evenly at 4 points along the deck.
3. Posts/columns shall be retrained at the bottom end to prevent lateral displacement; clearly show approved post bases, straps, etc to achieve this per CRC R407.5
4. Hardware and fasteners to be hot-dipped galvanized, stainless steel, silicon bronzed or copper. (CRC R317.3)

ELECTRICAL

1. No electrical panels shall be in closets of bathrooms. Maintain a clearance of 36" inches in front of panels, 30" wide or width of equipment and 6'-6" high for headroom (CEC 110.26).
2. A concrete-encased electrode (ufer) consisting of 20'of rebar or #4 copper wire placed in the bottom of a footing is required for all new construction. (CEC 250.52(A) (3)) Bond all metal gas and water pipes to ground. All ground clamps shall be accessible and of an approved type. (CEC 250.104)
3. All 15/20 ampere receptacles installed per CEC 210.52 shall be listed tamper-resistant receptacles. (CEC 406.12)
4. All branch circuits supplying 15/20 ampere outlets in family rooms, dining rooms, living rooms, parlors, libraries, den, bedrooms, sunrooms, recreation rooms, closets, hallways, kitchens, laundry room or similar rooms/areas shall be protected by a listed combination type arc-fault circuit interrupter. (CEC 210.12)
5. Provide a minimum of one 20A circuit to be used for the laundry receptacle. (CEC 210.11(c)(2)) Provide a minimum of one 20A circuit for bathroom receptacle outlets. (CEC 210.11(C)(3)
6. Provide at least 1 outlet in basements, garages, laundry rooms, decks, balconies, porches and within 3' of the outside of each bathroom basin. (CEC 210.52 (D), (F) & (G))
7. Furnaces installed in attics and crawl spaces shall have an access platform (catwalk in attics), light switch and receptacle in the space. Provide a service receptacle for the furnace. (CEC 210.63)
8. All dwellings must have one exterior outlet at the front and the back of the dwelling. (CEC 210.52(E))
9. Garage receptacles shall not serve outlets outside the garage. A minimum of 1 receptacle shall be provided for each car space. (210.52(G)(1))
10. A 15/20-amp receptacle shall be installed within 50ft of electrical service equipment. (CEC 210.64)
11. Kitchens, dining rooms, pantries, breakfast nooks, and similar areas must have a minimum of two 20A circuits. Kitchen, pantry, breakfast nooks, dining rooms, and similar areas counter outlets must be installed in every counter space 12" inches or wider, not greater than 4' o.c., within 24" inches of the end of any counter space and not higher than 20" above counter. (CEC 210.52 (C)) Island counter spaces shall have at least 1 receptacle outlet unless a range top or sink is installed then 2 receptacles may be required. 1 receptacle is required for peninsular counter spaces. Receptacles shall be located behind kitchen sinks if the counter area depth behind the sink is more than 12" for straight counters and 18" for corner installations. (CEC Fig-ure 210.52(C)(1))
12. Receptacles shall be installed at 12' o.c. maximum in walls starting at 6' maximum from the wall end. Walls longer than two feet shall have a receptacle. Hallway walls longer than 10 ft shall have a receptacle in hallways. (CEC 210.52(A))
13. Receptacles shall not be installed within or directly over a bathtub or shower stall. (CEC 406.9(C) Light pendants, ceiling fans, lighting tracks, etc shall not be located within 3ft horizontally and 8ft vertically above a shower and/or bathtub threshold. (CEC 410.10(D))
14. All lighting/fan fixtures located in wet or damp locations shall be rated for the appli-cation. (CEC 410.10)
15. GFCI outlets are required: for all kitchen receptacles that are designed to serve countertop surfaces, dishwashers, bathrooms, in under-floor spaces or below grade level, in exterior outlets, within 6' of a laundry/utility/wet bar sinks, laundry areas, and in all garage outlets including outlets dedicated to a single device or garage door opener (CEC 210.8).
16. Carbon-monoxide alarms shall be installed in dwelling units with fuel-burning appliances or with attached garages (CRC R315).
    16.1. Outside of each separate sleeping area in the immediate vicinity of bedrooms
    16.2. On every level of a dwelling unit including basements
    16.3. Alterations, repairs, or additions exceeding 1,000 dollars (May be battery operated)
17. Smoke alarms shall be installed (CRC (R314):
    17.1. In each room used for sleeping purposes.
    17.2. Outside of each separate sleeping area in the immediate vicinity of bedrooms.
    17.3. In each story, including basements.
    17.4. Shall not be installed within 20ft horizontally of cooking appliances and no closer than 3ft to mechanical registers, ceiling fans and bathroom doors with a bathtub or shower unless this would prevent placement of a smoke detector (314.3(4)).
    17.5. Alterations, repairs, or additions exceeding 1,000 dollars. (May be battery operated)
18. All smoke and carbon-monoxide alarms shall be hardwired with a battery backup (smoke alarms shall have a 10-year sealed battery). (CRC R314.4 & R315.1.2)
19. All 15/20 ampere receptacles in wet locations shall have in-use (bubble) covers in-stalled. All receptacles in wet locations shall also be listed weather-resistant type. (CEC 406.9(B)(1)

PLUMBING

1. Underfloor cleanouts shall not be more than 5 FEET from an underfloor access, access door or trap door. (CPC 707.9)
2. ABS piping shall not be exposed to direct sunlight unless protected by water based synthetic latex paints. (CPC 312.13)
3. PVC piping shall not be exposed to direct sunlight unless protected by water based synthetic latex paint, .04" thick wrap or otherwise protected from UV degradation. (CPC 312.14)
4. The adjacent space next to showers without thresholds shall be considered a @wet location when using the CRC, CBC, and the CEC. (CPC 408.5)
5. Shower compartments, regardless of shape, shall have a minimum finished interior of 1024 square inches (32" by 32") and shall also be capable of encompassing a 30" circle. The required area and dimensions shall be measured at a height equal to the top of the threshold and shall be maintained to a point of not less than 70" above the shower drain outlet. (CPC 408.6) Provide curtain rod or door a minimum of 22" in width (CPC 408.5). Showers and tubs with showers require a non-absorbent sur-face up to 6' above the floor. (CRC R307.2)
6. Water Heaters: Provide pressure relief valve with drain to outside for water heater. (CPC 504.6) Provide seismic strapping in the upper & lower third of the water heater a minimum of 4" above controls. (CPC 507.2) The water heater shall be of an instantaneous type or the following shall be provided (new construction only) (CEC 150(n)):
   - A 120V receptacles provided within 3ft •A category III or IV vent, or a straight (without bends) Type B vent
   - Condensate drain that is no more than 2 inches higher than the base of the water heater
   - Gas supply line with a minimum 200,000 Btu/hr dedicated capacity for the water heater
   - Domestic hot water lines shall be insulated. Insulation shall be the thickness of the pipe diameter up to 2" in size and minimum 2" thickness for pipes larger than 2" in diameter. (CPC 609.11)
   - A 3-inch gravity drain shall be provided at the low point of underfloor spaces, installed so as to provide 1/4-inch per foot grade and terminate at an exterior point of the building protected from blockage. The opening shall be screened with a corro-sion-resistant wire mesh with mesh openings of 1/4-inch in dimension. Lengths of the gravity drains over 10 feet in length shall be first approved by the Building Offi-cial. (L-V 8.9)
   - Water heaters located in attics, ceiling assemblies and raised floor assemblies shall show a water-tight corrosion resistant minimum 1 1/2 " deep pan under the water heater with a minimum 3/4 inch drain to the exterior of the building. (CPC 507.5)
   - Water closet shall be located in a space not less than 30" in width (15^ on each side) and 24" minimum clearance in front. (CPC 402.5)
   - The maximum hot water temperature discharging from a bathtub or whirlpool bath-tub filler shall not exceed 120 degrees F. (CPC 418)
   - Provide anti-siphon valves on all hose bibs. (CPC 603.5.7)
   - Floor drains shall be provided with a trap primer. (CPC 1007)
   - Maximum water flow rates. (CGBSC 4.303.1):

•Water Closets: 1.28gpf
•Urinals: .125gpf
•Kitchen Faucets: 1.8gpm @ 60psi
•Lavatory Faucets: 1.2pgm @ 60psi
•Showerheads: 2gpm

MECHANICAL

1. Wood burning appliances shall be one of the following: •A pellet-fueled wood burning heater. •A U.S. EPA Phase II Certified wood burning heater. •An appliance or fireplace determined to meet the U.S. EPA particulate matter emis-sion standard of less than 7.5 grams per hour for a non-catalytic wood fired appli-ance or 4.1 grams per hour for a catalytic wood fired appliance and is approved in writing by the APCO.
2. All newly installed gas fireplaces shall be direct vent and sealed-combustion type. (CMC 912.2)
3. Any installed wood stove or pellet stove shall have a permanent NSPS label certifying emission limits.
4. Top chimney must extend a minimum of 2 ft. above any part of the building within 10 ft. (CMC 802.5.4)
5. Fireplaces shall have closable metal or glass doors, have combustion air intake drawn from the outside and have a readily accessible flue dampener control. Continuous burning pilot lights are prohibited. (CEC 150.0(e))
6. Provide combustion air for all gas fired appliances per CMC Chapter 7.
7. Gas vents passing through an insulated assembly shall have a metal insulation shield a minimum 2" above insulation. (509.6.2.7)
8. Gas water heater and furnace are not allowed in areas opening into bathrooms, closets or bedrooms unless installed in a closet equipped with a listed gasketed door assembly and a listed self-closing device with all combustion air obtained from the outdoors. (CPC 504)
9. Roof top equipment on roofs with over 4/12 slope shall have a level 30"x30" work-ing platform. (CMC 304.2)
10. Exhaust openings terminating to the outdoors shall be covered with a corrosion re-sistant screen 1/4"-1/2" in opening size (not required for clothes dryers). (CMC 502.1)
11. Vent dryer to outside of building (not to under-floor area). Vent length shall be 14 ft. maximum. Shall terminate a minimum of 3' from the property line and any opening into the building. (CMC 504.4.2)
12. Environmental Air Ducts shall not terminate less than 3' to a property line, 10' to a forced air inlet, 3' to openings into the building and shall not discharge on to a public way. (CMC 502.2.1)
13. Provide minimum 100 square inches make-up air for clothes dryers installed in closets. (CMC 504.4.1(1))
14. Heating system is required to maintain 68 degrees at 3 ft. above floor level and 2ft from exterior walls in all habitable rooms. (CRC R303.9)

General Notes

JACKSON AND SANDS ENGINEERING HAS PROVIDED THESE PLANS SOLELY FOR THE USE FOR THE PROJECT SPECIFIED ON THESE PLANS & DOES NOT REPRESENT THAT THESE PLANS ARE SUITABLE FOR ANY OTHER SITE WEATHER MODIFIED OR NOT.

Hope Crisis Response Network
Compassion at Love in Times of Great Need

REBUILD PARADISE FOUNDATION

JACKSON & SANDS ENGINEERING, Inc.
1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

No.	Revision/Issue	Date
1	INITIAL SUBMITTAL:	
2		
3		

BID SET

HCRN 3-2
MIRRORED

Project #20-110
Date 09/02/21
Scale AS NOTED
Sheet GN1.1

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	N/A	RESPON. PARTY

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.

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 seq., 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 high-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.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES
DIVISION 4.1 PLANNING AND DESIGN
SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS
The 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 used 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.

4.106.2 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 adjacent property, prevent erosion and retain soil runoff on the site.

1. 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, or 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)

4.106.3 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:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

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, 4.106.4.2, or 4.106.4.3 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.

Exceptions:
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 commercial power supply.
   1.2 Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than $400.00 per dwelling unit.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

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 minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

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".

4.106.4.2 New multifamily dwellings. If residential parking is available, 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 EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Notes:
1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. Where common use parking is provided at least one EV space shall be located in the common use parking area and shall be available for use by all residents.

4.106.4.2.1.1 Electric Vehicle Charging Stations (EVCS) When EV chargers are installed, EV spaces required by Section 4.106.2.2, Item 3, shall comply with at least one of the following options:

1. The EV 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 EV space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

Note: Electric Vehicle charging stations serving public housing are required to comply with the *California Building Code*, Chapter 11B.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. The EV space shall be designed to comply with the following:

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).
3. One in every 25 EV spaces, but not less than one EV space, shall 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 12 feet (3658 mm).
   a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.3 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 proposed location of the EV space. Construction documents shall identify the raceway termination point. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

4.106.4.2.4 Multiple EV spaces required. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on the anticipated future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify 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 the full rated amperage of the EVSE. 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 concealed areas and spaces shall be installed at the time of original construction.

4.106.4.2.5 Identification. 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*.

4.106.4.3 New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces.

Notes:

1. Construction documents are intended to demonstrate the project's capability and capacity or facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.3.1 Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TABLE 4.106.4.3.1

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

4.106.4.3.2 Electric vehicle charging space (EV space) dimensions. The EV spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486mm).
2. The minimum width of each EV space shall be 9 feet (2743mm)

4.106.4.3.3 Single EV space required. When a single EV space is required, the EV space shall be designed in accordance with Section 4.106.4.2.3.

4.106.4.3.4 Multiple EV spaces required. When multiple EV spaces are required, the EV spaces shall be designed in accordance with Section 4.106.4.2.4.

4.106.4.3.5 Identification. The service panels or sub-panels shall be identified in accordance with Section 4.106.4.2.5.

4.106.4.3.6 Accessible EV spaces. In addition to the requirements in Section 4.106.4.3, EV spaces for hotels/motels and all EVSE, when installed, shall comply with the accessibility provisions for the EV charging stations in the *California Building Code*, Chapter 11B.

DIVISION 4.2 ENERGY EFFICIENCY
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
4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced 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 seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

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 WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by 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.

4.303.1.4 Faucets.

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 not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons 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 minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.2 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 1701.1 of the *California Plumbing Code*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND
IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

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/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY
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 openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

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 management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

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.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

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.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

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 requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in 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).

4.410 BUILDING MAINTENANCE AND OPERATION

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:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   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.
4. Public transportation and/or carpool options available in the area.
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.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, 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.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY
SECTION 4.501 GENERAL

4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS

5.102.1 DEFINITIONS
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 cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

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 93120.1.

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

General Notes

JACKSON AND SANDS ENGINEERING HAS PROVIDED THESE PLANS SOLELY FOR THE USE FOR THE PROJECT SPECIFIED ON THESE PLANS & DOES NOT REPRESENT THAT THESE PLANS ARE SUITABLE FOR ANY OTHER SITE WEATHER MODIFIED OR NOT.

JACKSON & SANDS ENGINEERING, Inc.
1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

No.	Revision/Issue	Date
1	INITIAL SUBMITTAL:	
2		
3		

BID SET

HCRN 3-2
MIRRORED

Project #20-110
Date 09/02/21
Scale AS NOTED
Sheet GN2

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

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

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

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

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

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

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

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

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

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

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

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

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

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

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

(Less Water and Less Exempt Compounds in Grams per Liter)

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

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

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

TABLE 4.504.2 - SEALANT VOC LIMIT

(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

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

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

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

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

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

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

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)
4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the following:

1. Carpet and Rug Institute's Green Label Plus Program.
2. California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers" Version 1.1, February 2010 (also known as Specification 01350).
3. NSF/ANSI 140 at the Gold level.
4. Scientific Certifications Systems Indoor Advantage™ Gold.

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

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall comply with one or more of the following:

1. Products compliant with the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.
2. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools program).
3. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program.
4. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers", Version 1.1, February 2010 (also known as Specification 01350).

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

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

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

4.505 INTERIOR MOISTURE CONTROL
4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

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

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

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

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

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

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

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   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 adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

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

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

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

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

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS
702 QUALIFICATIONS
702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

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

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

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

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE 2016 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

General Notes
JACKSON AND SANDS ENGINEERING HAS PROVIDED THESE PLANS SOLELY FOR THE USE FOR THE PROJECT SPECIFIED ON THESE PLANS & DOES NOT REPRESENT THAT THESE PLANS ARE SUITABLE FOR ANY OTHER SITE WEATHER MODIFIED OR NOT.

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1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

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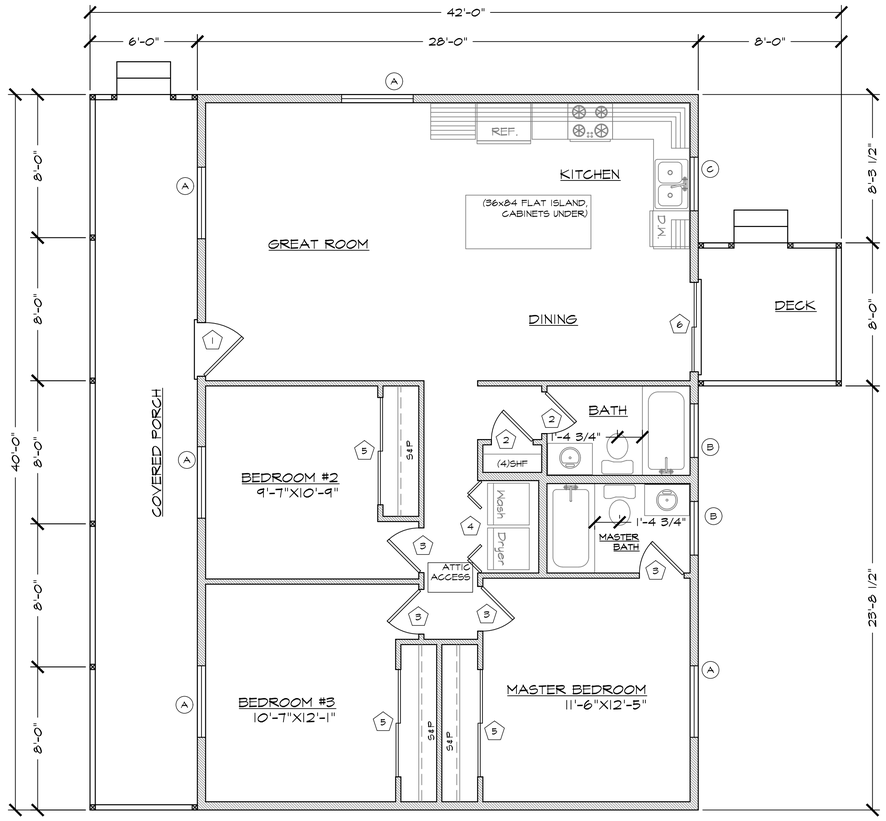
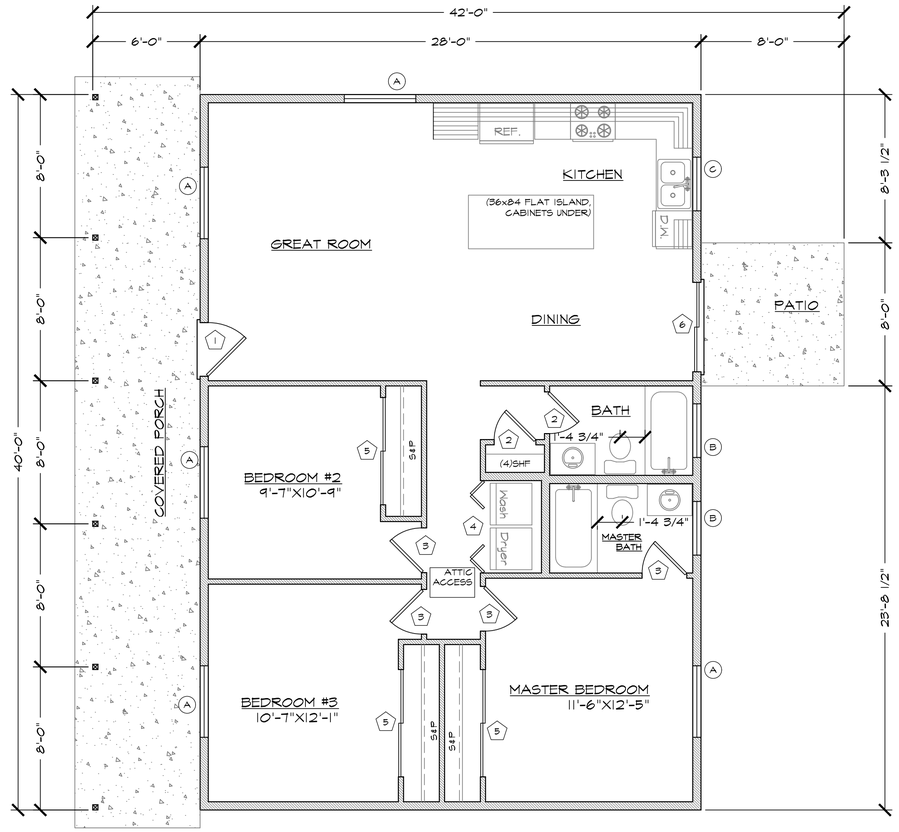


FLOOR PLAN: RAISED

1120 SQ. FT. 1/4" = 1'-0"



FLOOR PLAN: SLAB

1120 SQ. FT. 1/4" = 1'-0"

FLOOR PLAN NOTES:

1. AUTOMATIC FIRE SPRINKLERS ARE REQUIRED THROUGHOUT THE RESIDENCE. FIRE SPRINKLERS SHALL BE DESIGNED BY A CALIFORNIA CONTRACTOR CLASSIFICATION C-16. FIRE SPRINKLER SHALL BE REQUIRED IF THE PRIMARY RESIDENCE HAS FIRE SPRINKLERS.
2. EXTERIOR WALLS TO BE 2X6 DF NO. 2 STUDS AT 16" O.C. WITH R-21 INSULATION. SIDING/ SHEAR AS SHOWN ON.
3. INTERIOR WALLS TO BE 2X4 DF NO.2 STUDS AT 16" O.C.
4. TYPICAL WALL HEIGHT IS 9'.
5. NO OPENING SHALL BE PERMITTED IN THE EXTERIOR WALLS, INCLUDING VENTS, OF GROUP R-3 OCCUPANCIES WHERE THE EXTERIOR WALL IS CLOSER THAN 5FT FROM PROPERTY LINE 2019 CRC TABLE R302.1(1) AND TABLE R302.1(2)
6. LISTED INSTALLATION INSTRUCTION OR MANUALS SHALL BE ON SITE AND AVAILABLE FOR PLUMBING, MECHANICAL, ELECTRICAL EQUIPMENT OR OTHER INSTALLATIONS DURING FIELD INSPECTION OF SPECIFIC APPLIANCES OR FEATURES.
7. RODENT PROOFING AND INSECT INTRUSION PROTECTION. ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLE CONDUITS OR OTHER OPENINGS IN BOTTOM/SOLE PLATE AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS IN ACCORDANCE WITH THE 2019 CALGREEN BUILDING CODE, CHAPTER 4. DIVISION 4.4 CEMENT MORTAR, CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE BY THE ENFORCING AGENCY. METHOD ACCEPTABLE BY THE CITY OF CHICO BUILDING DIVISION WOULD BE LOW VOC CAULKING WITH NON-COMBUSTIBLE FILLING MATERIAL.
8. PORTIONS OF THE PLAN CLOSER TO THE PROPERTY LINE THAN THE DISTANCES SPECIFIED IN CRC TABLE 302.1(1) OR IF APPLICABLE, 2019 CRC TABLE 302.1(2), SHALL REQUIRE A CONSTRUCTION OF A LISTED 1-HOUR FIREWALL ASSEMBLY SEPARATION OR OTHER APPROVED METHOD SPECIFIED IN THIS CODE. THE COMPLIANCE MEANS SHALL BE PROVIDED WITH THE SITE PLAN AT TIME OF APPLICATION. THIS MAY REQUIRE ADDITIONAL PLAN DESIGN BY A CALIFORNIA REGISTERED DESIGN PROFESSIONAL FOR EMERGENCY EGRESS, AND, LIGHT AND VENTILATION.
9. ATTIC ACCESS OPENINGS WITH MIN. SIZE OF 22"X30" CRC R807.1

*NO ALTERATIONS SHALL BE MADE TO THIS SET OF PLANS

DOOR SCHEDULE

DOOR SYMBOL	DOOR SIZE			DOOR TYPE	CORE	MATERIAL	FRAME	NOTES:
	WIDTH	HEIGHT	THICK					
1	3'-0"	6'-8"	1-3/4"	SINGLE DOOR	SOLID	WOOD/GLASS	WOOD	FRONT ENTRY DOOR
2	2'-4"	6'-8"	1-3/4"	SINGLE DOOR	HOLLOW	WOOD	WOOD	INTERIOR DOORS
3	2'-6"	6'-8"	1-3/4"	SINGLE DOOR	HOLLOW	WOOD	WOOD	INTERIOR DOORS
4	5'-0"	6'-8"	1-3/4"	BI-FOLD	HOLLOW	WOOD	WOOD	BI-FOLD CLOSET DOOR
5	6'-0"	6'-8"	1-3/4"	BI-PASS	HOLLOW	METAL	WOOD	BI PASS CLOSET DOORS
6	5'-0"	6'-8"	1-3/4"	SGD	SOLID	VINYL	VINYL	SLIDING GLASS DOOR

WINDOW SCHEDULE

*ONE PANE OF ALL WINDOWS TO BE TEMPERED, R337.8 & (W.U.I.)

WINDOW SYMBOL	WINDOW SIZE		OPER.	QNTY.	FRAME	HEAD HEIGHT	U-FACTOR	SHGC	NOTES:
	WIDTH	HEIGHT							
A	4'-0"	4'-0"	SLIDING	5	VINYL	6'-8"	.30	.23	EGRESS REQ. IN BEDROOMS
B	4'-0"	1'-0"	SLIDING	1	VINYL	6'-8"	.30	.23	TEMPERED, OBSCURED
C	3'-0"	3'-0"	SLIDING	1	VINYL	6'-8"	.30	.23	MIN (1) PANE SHALL BE TEMPERED

NOTE.
1. SEE FRAMING PLAN, PG. A5, FOR ADDITIONAL DIMENSIONS
2. DO NOT REMOVE LABELS INDICATING U-FACTORS AND SOLAR HEAT GAIN COEFFICIENT (SHGC) FROM WINDOWS AND DOORS. VERIFY TEMPORARY LABLES WITH BUILDING INSPECTOR.

W.U.I NOTES:

1. THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF 2019 CRC SECTION R337
2. ONE PANE OF ALL WINDOWS TO BE TEMPERED, R337.8
3. DECKING MATERIAL TO BE IN ACCORDANCE WITH CRC SECTION R337.9
4. UNDER-FLOOR PROTECTION IN ACCORDANCE WITH CRC SECTION R337.7.8
5. ROOF GUTTERS SHALL BE OF NON COMBUSTIBLE MATERIALS AND PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS.
6. EAVE AND SOFFIT VENTS SHALL BE IGNITION RESISTANT OR NON-COMBUSTIBLE MATERIAL.
7. EXTERIOR DOORS SHALL BE FIRE RESISTIVE IN ACCORDANCE WITH CRC SECTION R337.8.3. (DOOR SHALL HAVE AN EXTERIOR SURFACE OF NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIALS OR BE CONSTRUCTED OF SOLID CORE WOOD 1-3/8" THICK OR HAVE A FIRE-RESISTIVE RATING OF NOT LESS THAN 20-MINUTES.)
8. IGNITION RESISTANT OR NON-COMBUSTIBLE EXTERIOR PORCH CEILING IN ACCORDANCE WITH CRC SECTION R 337.7.6
9. GABLE ATTIC VENTS AND FOUNDATION VENTS SHALL BE FULLY COVERED WITH METAL WIRE MESH OR NONCOMBUSTIBLE MATERIALS WITH MINIMUM OPENINGS OF $\frac{1}{16}$" AND SHALL NOT EXCEED $\frac{1}{8}$" OPENINGS IN COMPLIANCE WITH CRC SECTION R337.6.2
10. EAVE VENTS SHALL BE APPROVED TO RESIST THE INTRUSION OF FLAME AND BURNING EMBERS.

General Notes

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CHICO, CA 95926
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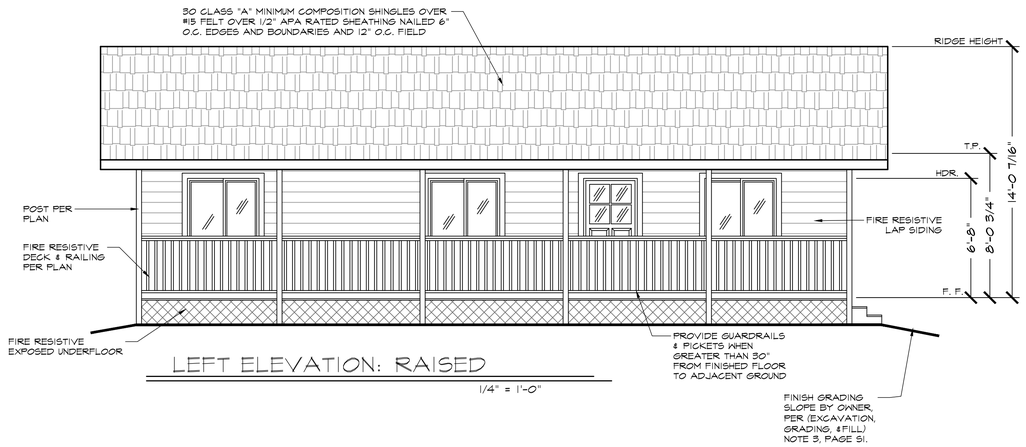
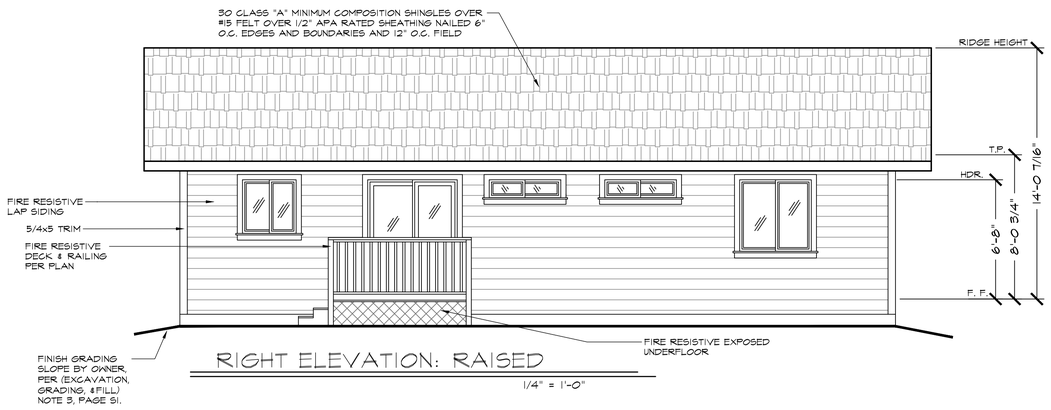
FRONT ELEVATION: RAISED

1/4" = 1'-0"



LEFT ELEVATION: RAISED

1/4" = 1'-0"



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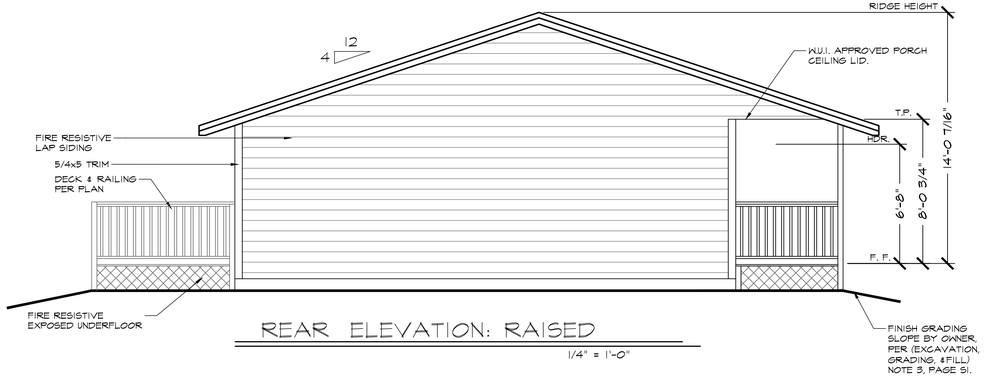
1/4" = 1'-0"



REAR ELEVATION: RAISED

1/4" = 1'-0"

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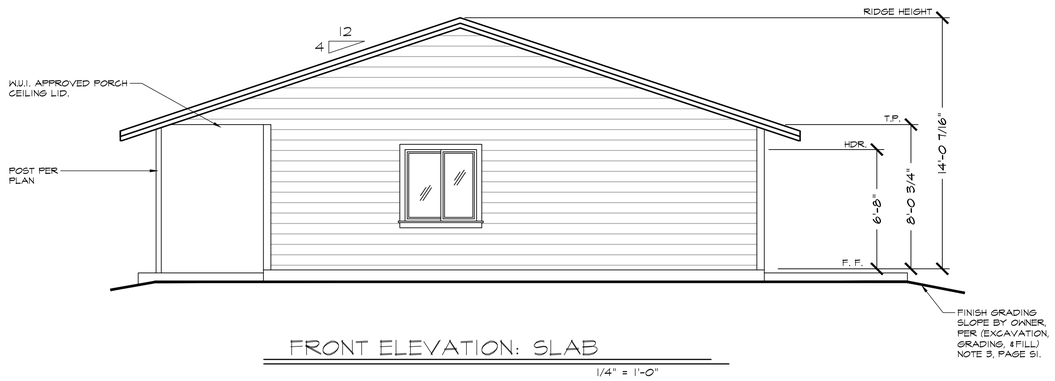
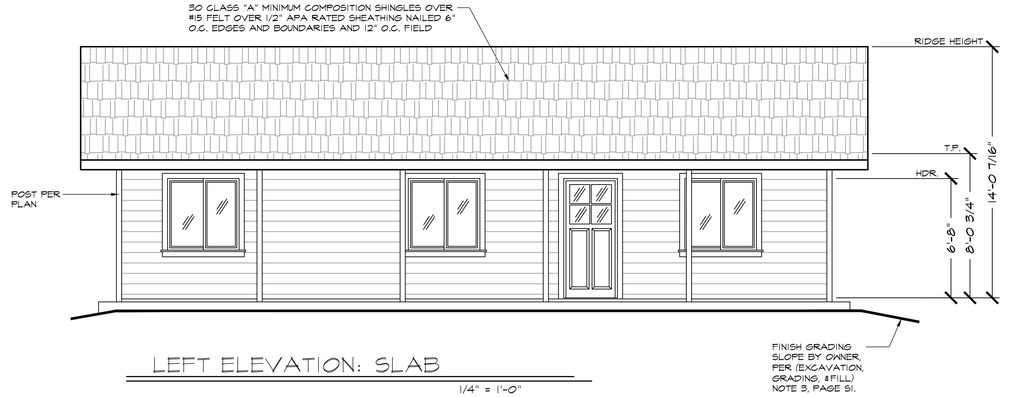


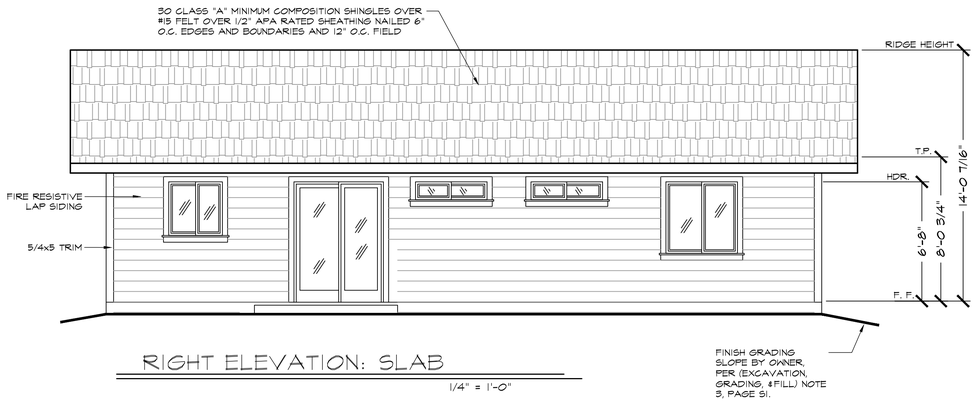
FRONT ELEVATION: SLAB

1/4" = 1'-0"



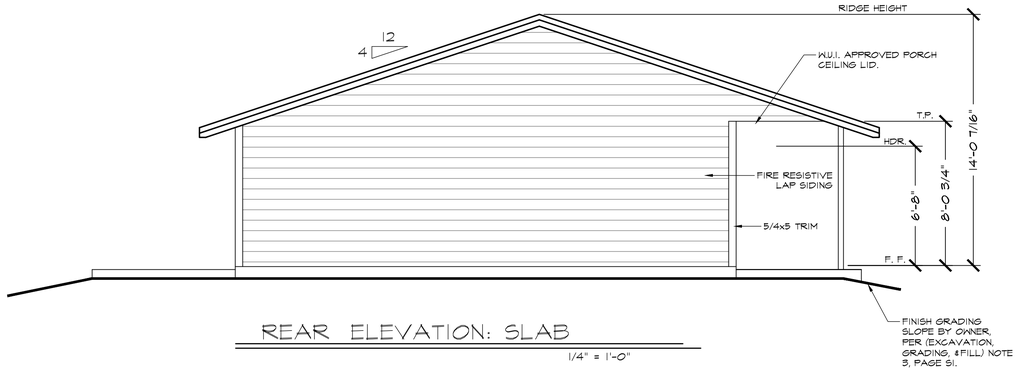
LEFT ELEVATION: SLAB

1/4" = 1'-0"



RIGHT ELEVATION: SLAB

1/4" = 1'-0"



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(530)521-5415

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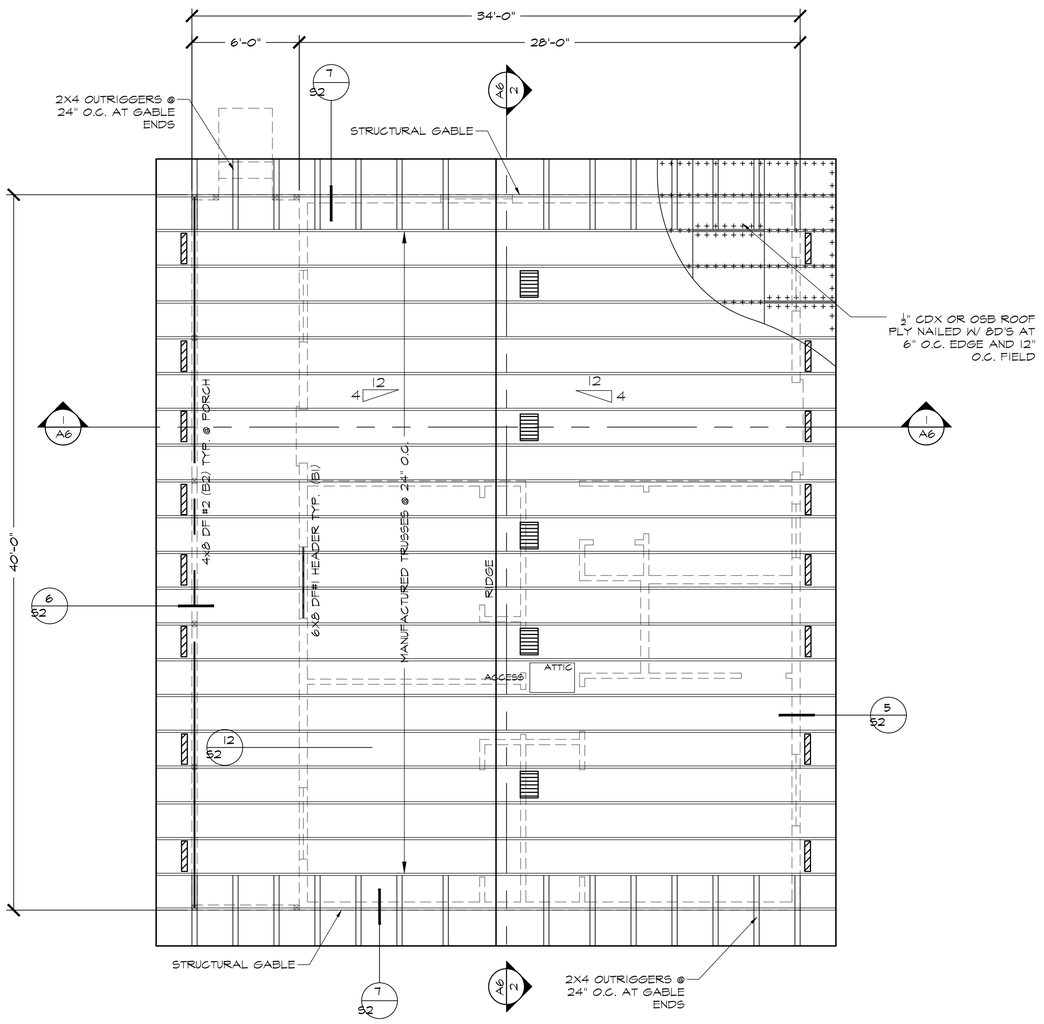

ROOF PLAN

1120 SQ. FT. — 1/4" = 1'-0"

NOTE: ROOF SHEATHING AT OVERHANG SHALL BE EXTERIOR RATED AND W.U.I. APPROVED.

ATTIC VENTILATION CALCULATION
* EQUIVALENT MEANS OF ACHIEVING VENT AREA ARE ACCEPTABLE.

DESCRIPTION	SQUARE FOOTAGE	REQUIREMENT	VALUE	PROPOSED VENT	SYMBOL	NET VENT AREA/ VENT	# VENTS	IN² PROVIDED
ATTIC SPACE TOTAL	1,360	1/150	9.06 FT² / 1305 IN²					
LOWER VENT	--	1/300	4.53 FT² / 652 IN²	VULCAN VE3522		41 IN²/LF	16 LF	656 IN²
UPPER VENTS	--	1/300	4.53 FT² / 652 IN²	VULCAN HALF ROUND DORMER VDHR1224		147 IN²	5	735 IN²
							TOTAL=	1391 IN²

TRUSS NOTES:
1. 40 PSF SNOW LOAD
2. ADD 5 PSF FOR SOLAR PANELS
3. 30 YEAR COMP ROOFING OVER 15# FLET OVER ½" APA RATED SHEATHING NAILED WITH 8d NAILS @ 6" O.C. EDGES AND BOUNDARY AND 12" O.C. FIELD U.O.N.
4. OVERHANG TO VARY AS NEEDED
5. EXTERIOR WALL PLATE HEIGHT TO BE 9'-03/4" U.O.N.
6. ATTIC ACCESS LOCATION IS APPROXIMATE AND INTENDED TO BE IN THIS AREA FOR GENERAL CONCEALMENT FROM VIEW.
7. F.A.U. LOCATION SHOWN IS APPROXIMATE AND INTENDED TO BE IN THE GENERAL AREA NEAR ATTIC ACCESS AND NOT OVER KITCHEN AREA.
8. FLASHING SHALL BE INSTALLED IN A MANNER THAT PREVENTS MOISTURE FROM ENTERING THE WALL AND ROOF THROUGH JOINTS IN COPINGS, THROUGH MOISTURE PERMEABLE MATERIALS AND AT INTERSECTIONS WITH PARAPET WALLS AND OTHER PENETRATIONS THROUGH THE ROOF PLANE.
9. FLASHING SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION AND AROUND ROOF OPENINGS. A FLASHING SHALL BE INSTALLED TO DIVERT THE WATER AWAY FROM WHERE THE EAVE OF A SLOPED ROOF INTERSECTS A VERTICAL SIDEWALL. 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.
10. WHERE VALLEY FLASHING IS INSTALLED, THE FLASHING SHALL BE NOT LESS THAN 0.019 INCH NO. 26 GALVANIZED SHEET CORROSION-RESISTANT METAL INSTALLED OVER NOT LESS THAN ONE LAYER OF MINIMUM 72-POUND MINERAL-SURFACED NONPERFORATED CAP SHEET COMPLYING WITH ASTM D3909, AT LEAST 36-INCH-WIDE RUNNING THE FULL LENGTH OF THE VALLEY.

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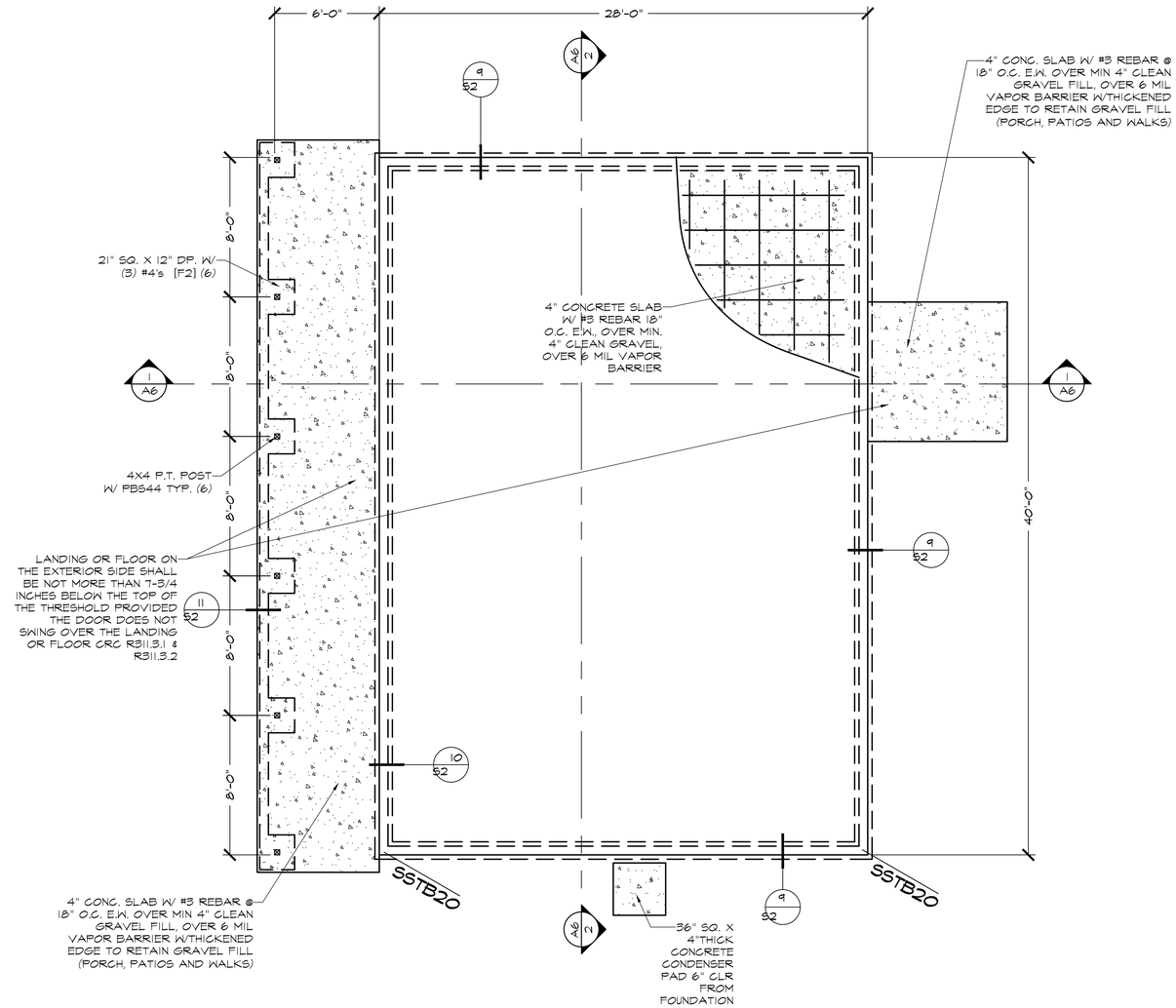

FOUNDATION PLAN: SLAB

1120 SQ. FT. 1/4" = 1'-0"

SSTB ANCHOR BOLT ARE TO BE LOCATED PER MANUFACTURES SPECS AND ARE THE RESPONSIBILITY OF THE FRAMING CONTRACTOR TO LOCATE, BASED ON TYPICAL FRAMING METHODS.

General Notes

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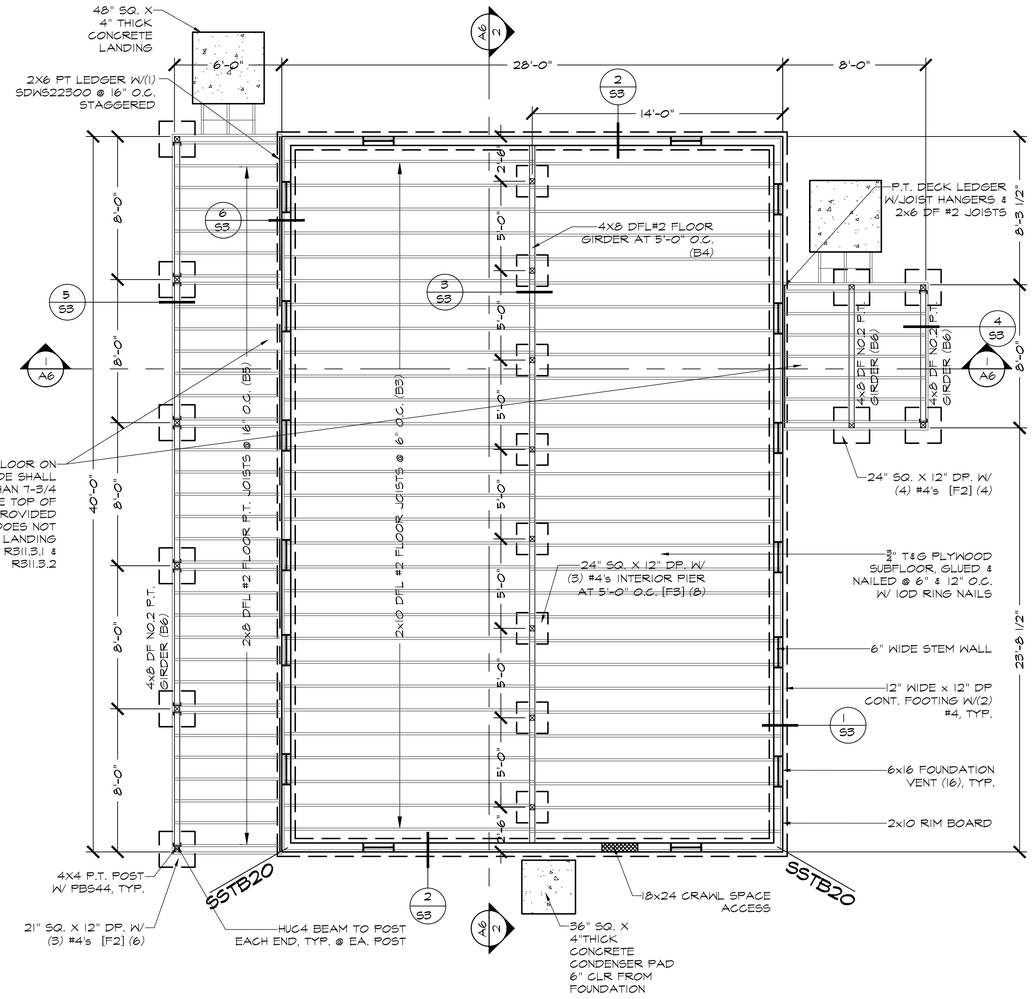

FOUNDATION PLAN: RAISED

1120 SQ. FT. 1/4" = 1'-0"

SSTB ANCHOR BOLT ARE TO BE LOCATED PER MANUFACTURES SPECS AND ARE THE RESPONSIBILITY OF THE FRAMING CONTRACTOR TO LOCATE, BASED ON TYPICAL FRAMING METHODS.

FLOOR VENTILATION CALCULATION
* EQUIVALENT MEANS OF ACHIEVING VENT AREA ARE ACCEPTABLE.

DESCRIPTION	SQUARE FOOTAGE	REQUIREMENT	VALUE	PROPOSED VENT	NET VENT AREA/ VENT	# VENTS	IN^2 PROVIDED
CRAWL SPACE TOTAL	1120	1/150	7.4 FT^2 / 1075 IN^2	6X16"	99 IN^2	16	784 IN^2
				18X24" SCREENED ACCESS	350 IN^2	1	350 IN^2
						TOTAL =	1,134 IN^2

General Notes

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SHEAR WALL SCHEDULE

A — WALL SYSTEM STRENGTH: 173 PLF SEISMIC / 173 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)

6" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 72" W/ 2X P.T. SILL

SIMPSON A35 SHEAR TRANSFER @ 36" O.C.
SILL SHEAR TRANSFER NAILING 16d
@ 6" O.C. (COMMON, BOX OR SINKER)

B — WALL SYSTEM STRENGTH: 260 PLF SEISMIC / 260 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)

6" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 48" W/ 2X P.T. SILL

SIMPSON A35 SHEAR TRANSFER @ 27" O.C.
SILL SHEAR TRANSFER NAILING 16d
@ 6" O.C. (COMMON, BOX OR SINKER)

C — WALL SYSTEM STRENGTH: 260 PLF SEISMIC / 346 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)

6" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 36" W/ 2X P.T. SILL

SIMPSON A35 SHEAR TRANSFER @ 18" O.C.
SILL SHEAR TRANSFER NAILING 16d
@ 4" O.C. (COMMON, BOX OR SINKER)

D — WALL SYSTEM STRENGTH: 390 PLF SEISMIC (SEE NOTE 1) / 520 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)

4" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 24" W/ 2X P.T. SILL
SIMPSON A35 SHEAR TRANSFER @ 12" O.C.
SILL SHEAR TRANSFER NAILING (2) ROWS
16d @ 4" O.C. (COMMON, BOX OR SINKER)

E — WALL SYSTEM STRENGTH: 640 PLF SEISMIC (SEE NOTE 1) / 895 WIND

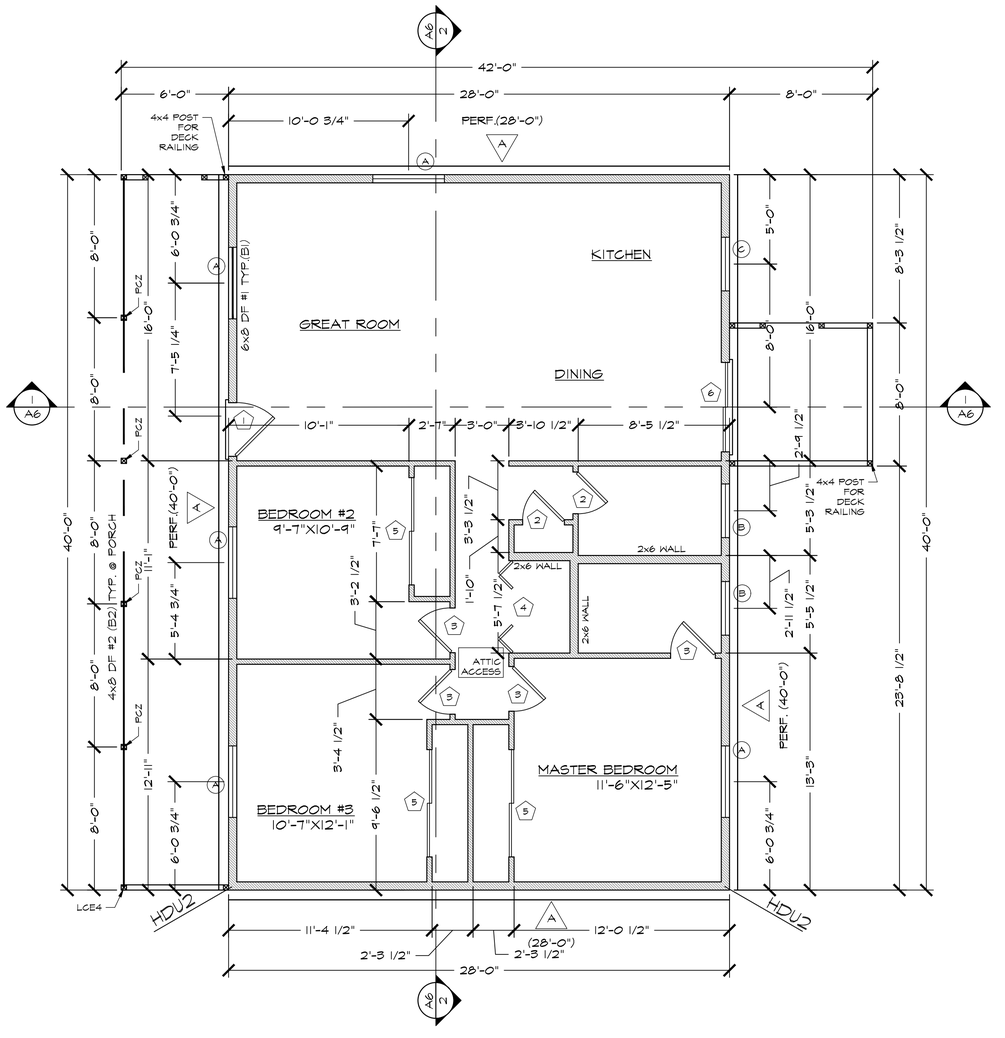
3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 10d (COMMON OR HOT DIPPED GALVANIZED)

2" O.C. @ EDGES
12" O.C. @ FIELD

5/8"Φ ANCHOR BOLT SPACING 24" W/ 3X P.T. SILL
SIMPSON A35 SHEAR TRANSFER @ 8" O.C.
SILL SHEAR TRANSFER NAILING (2) ROWS
16d @ 4" O.C. (COMMON, BOX OR SINKER)

SEE SHEET S1 FOR ADDITIONAL SHEAR WALL NOTES.



FRAMING PLAN

1120 SQ. FT. — 1/4" = 1'-0"

DOOR SCHEDULE

DOOR SYMBOL	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICK	DOOR TYPE	CORE	MATERIAL	FRAME	NOTES:
1	3'-0"	6'-8"	1-3/4"	SINGLE DOOR	SOLID	WOOD/GLASS	WOOD	FRONT ENTRY DOOR
2	2'-4"	6'-8"	1-3/4"	SINGLE DOOR	HOLLOW	WOOD	WOOD	INTERIOR DOORS
3	2'-6"	6'-8"	1-3/4"	SINGLE DOOR	HOLLOW	WOOD	WOOD	INTERIOR DOORS
4	5'-0"	6'-8"	1-3/4"	BI-FOLD	HOLLOW	WOOD	WOOD	BI-FOLD CLOSET DOOR
5	6'-0"	6'-8"	1-3/4"	BI-PASS	HOLLOW	METAL	WOOD	BI PASS CLOSET DOORS
6	5'-0"	6'-8"	1-3/4"	SGD	SOLID	VINYL	VINYL	SLIDING GLASS DOOR

WINDOW SCHEDULE

*ONE PANE OF ALL WINDOWS TO BE TEMPERED, R337.8 & (N.U.I.)

WINDOW SYMBOL	WINDOW SIZE WIDTH	WINDOW SIZE HEIGHT	OPER.	QNTY.	FRAME	HEAD HEIGHT	U-FACTOR	SHGC	NOTES:
A	4'-0"	4'-0"	SLIDING	5	VINYL	6'-8"	.30	.23	EGRESS REQ. IN BEDROOMS
B	4'-0"	1'-0"	SLIDING	1	VINYL	6'-8"	.30	.23	TEMPERED, OBSCURED
C	3'-0"	3'-0"	SLIDING	1	VINYL	6'-8"	.30	.23	MIN (1) PANE SHALL BE TEMPERED

NOTE:
1. SEE FRAMING PLAN, PG. A5, FOR ADDITIONAL DIMENSIONS
2. DO NOT REMOVE LABELS INDICATING U-FACTORS AND SOLAR HEAT GAIN COEFFICIENT (SHGC) FROM WINDOWS AND DOORS. VERIFY TEMPORARY LABLES WITH BUILDING INSPECTOR.

General Notes

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Hope Crisis Response Network — Compassion at Time in Times of Great Need

REBUILD PARADISE FOUNDATION

JACKSON & SANDS ENGINEERING, Inc.
1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

No.	Revision/Issue	Date
1	INITIAL SUBMITTAL:	
2		
3		

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HCRN 3-2 MIRRORED

Project #20-110	Sheet A5
Date 09/02/21	
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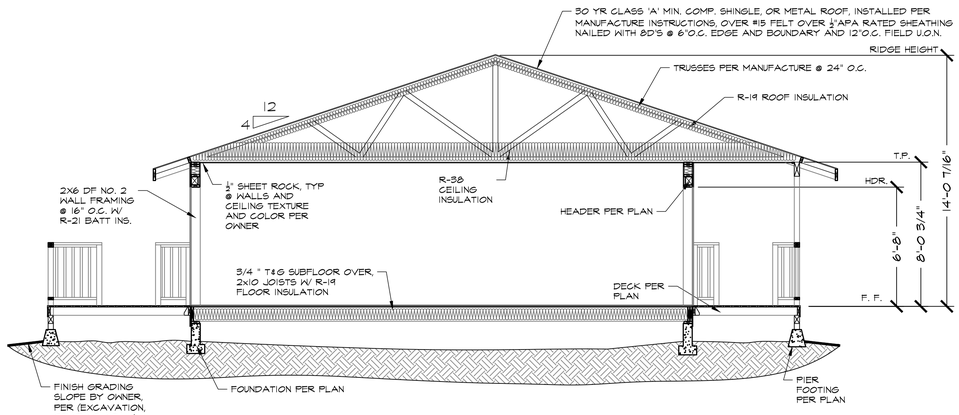
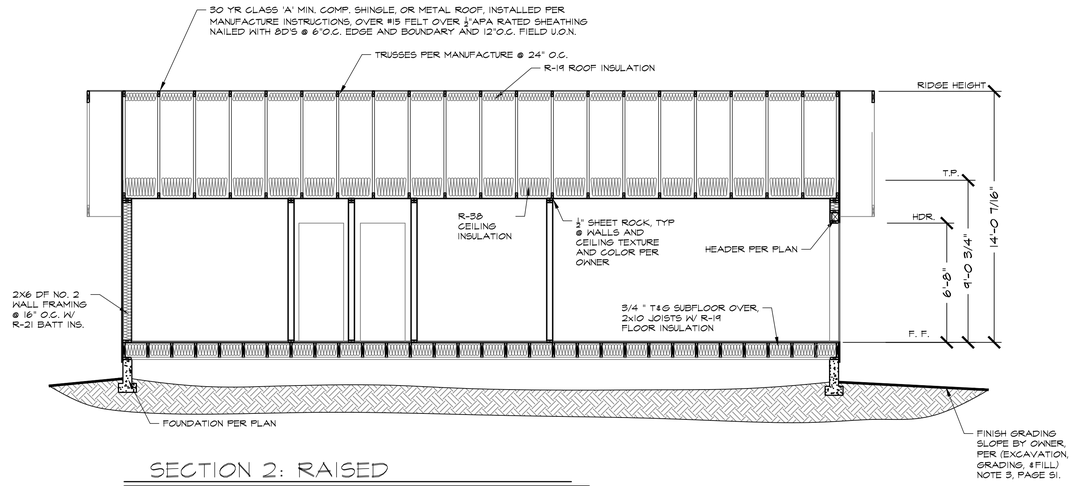


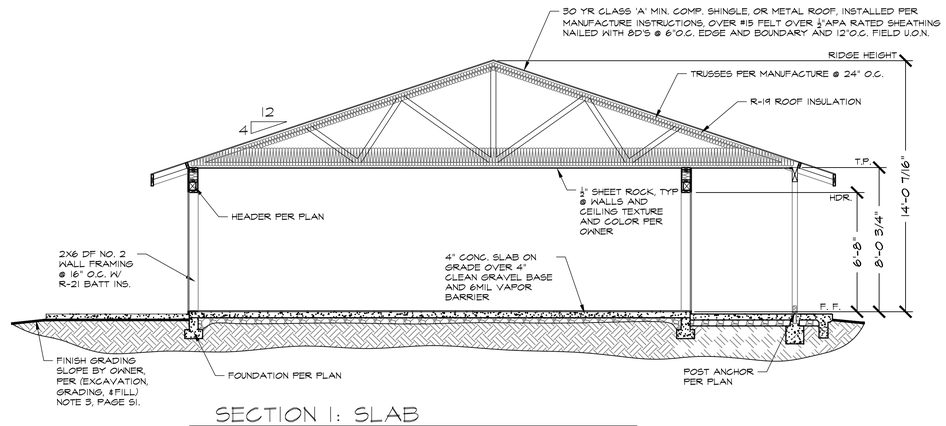
SECTION 1: RAISED

1/4" = 1'-0"



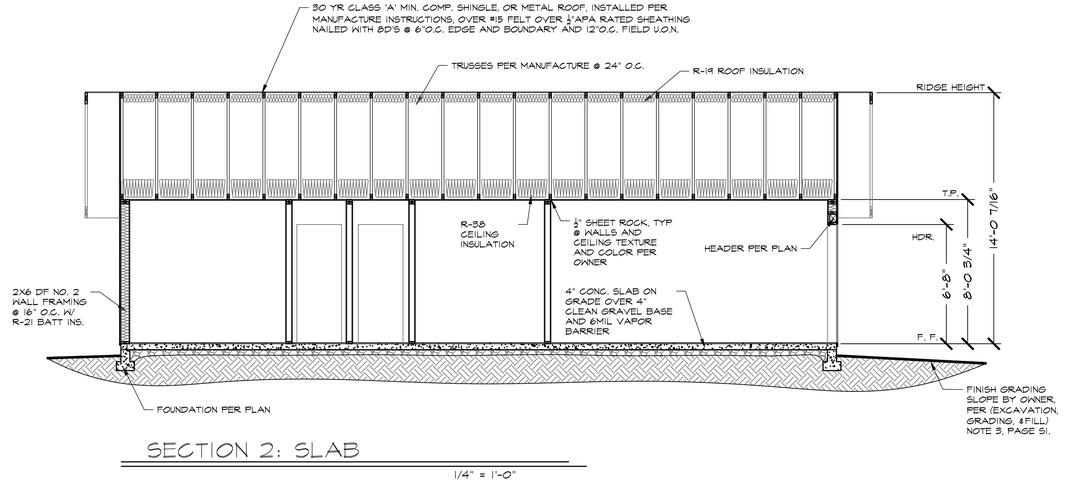
SECTION 2: RAISED

1/4" = 1'-0"



SECTION 1: SLAB

1/4" = 1'-0"



SECTION 2: SLAB

1/4" = 1'-0"

General Notes

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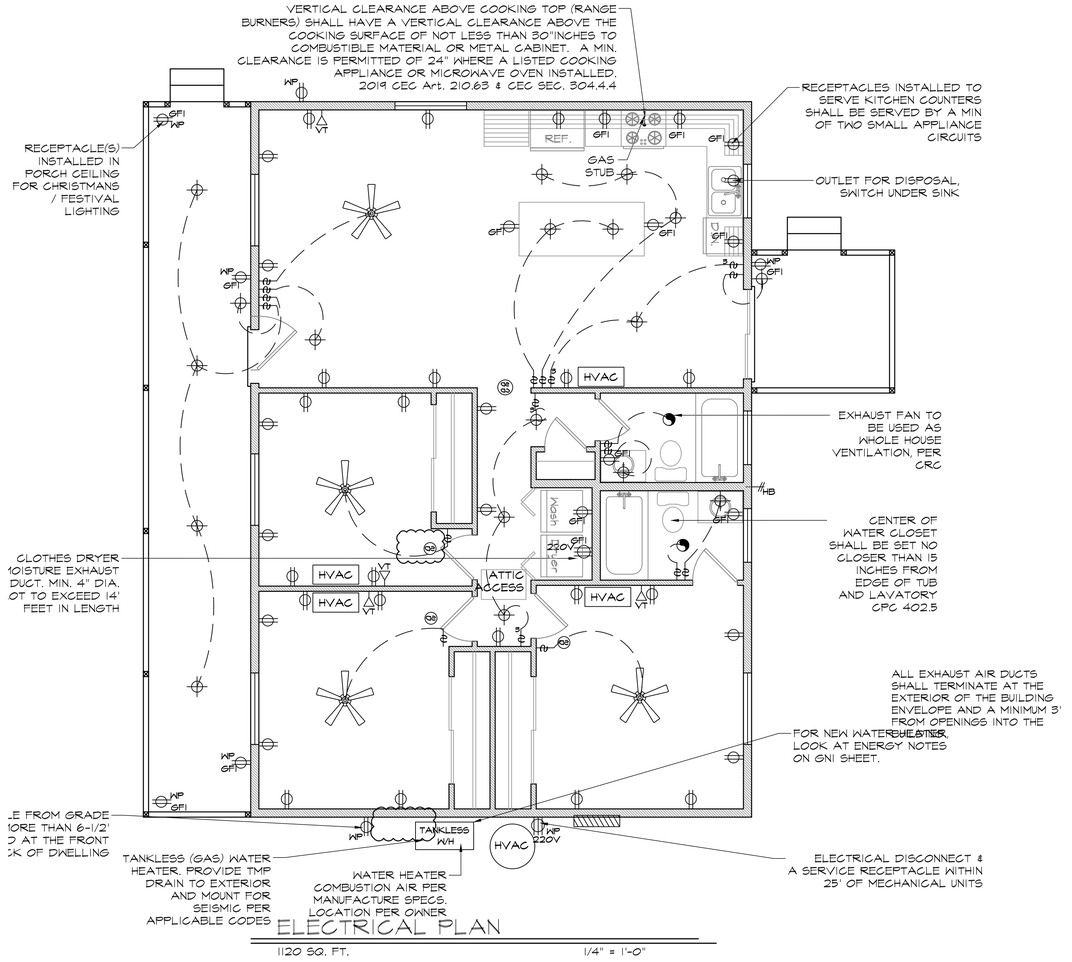
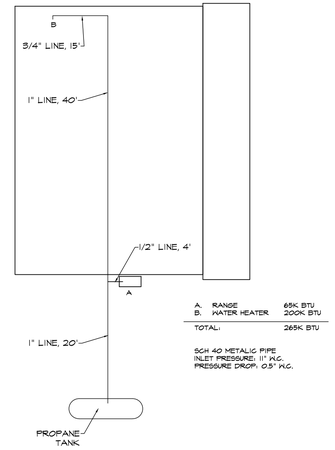
ELECTRICAL SYMBOLS

DUPLEX RECEPTACLE	
DUPLEX RECEPTACLE 72" A.F.F.	+72
GROUND FAULT CIRCUIT, AS REQUIRED	GFI
DUPLEX RECEPTACLE 220 VOLT	220V
DUPLEX RECEPTACLE, WATER-PROOF	WP
CABLE TV	TV
TELEPHONE OUTLET	PH
HOSE BIB W/ ANTI-SIPHON VALVE	HB
SWITCH @ +42"	
SWITCH 3-WAY	3
CEILING LIGHT FIXTURES	
SUBPANEL MIN. 100 AMP	
EXHAUST FAN	
SMOKE DETECTOR	SD
COMBINATION SMOKE & CARBON MONOXIDE DETECTOR	SD CO
CEILING FAN	
HVAC CONDENSER	HVAC
HVAC MINI-SPLIT HEAD	HVAC
GAS OUTLET	
TANKLESS WATER HEATER	TANKLESS W/H
GAS METER	



ELECTRICAL PLAN

1120 SQ. FT. 1/4" = 1'-0"

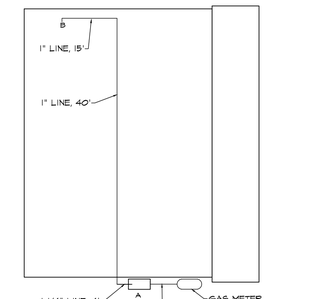


A. RANGE 65K BTU
B. WATER HEATER 200K BTU
TOTAL: 265K BTU

SCH 40 METALIC PIPE
INLET PRESSURE: 11" W.C.
PRESSURE DROP: .05" W.C.

GAS PIPING PLAN

PROPANE 3/32" = 1'-0"



A. RANGE 63 CUFT/HR
B. WATER HEATER 193 CUFT/HR
TOTAL: 256 CUFT/HR

SCH 40 METALIC PIPE
INLET PRESSURE: < 2 PSI
PRESSURE DROP: .05" W.C.

GAS PIPING PLAN

NATURAL GAS 3/32" = 1'-0"

ELECTRICAL

1. No electrical panels shall be in closets of bathrooms. Maintain a clearance of 36" inches in front of panels, 30" wide or width of equipment and 6'-6" high for headroom (CEC 110.26).
2. A concrete-encased electrode (ufer) consisting of 20' of rebar or #4 copper wire placed in the bottom of a footing is required for all new construction. (CEC 250.52(A) (3) Bond all metal gas and water pipes to ground. All ground clamps shall be accessible and of an approved type. (CEC 250.104)
3. All 15/20 ampere receptacles installed per CEC 210.52 shall be listed tamper-resistant receptacles. (CEC 406.12)
4. All branch circuits supplying 15/20 ampere outlets in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, kitchens, laundry room or similar rooms/areas shall be protected by a listed combination type arc-fault circuit interrupter. (CEC 210.12)
5. Provide a minimum of one 20A circuit to be used for the laundry receptacle. (CEC 210.11(c)(2)) Provide a minimum of one 20A circuit for bathroom receptacle outlets. (CEC 210.11(C)(3)
6. Provide at least 1 outlet in basements, garages, laundry rooms, decks, balconies, porches and within 3' of the outside of each bathroom basin. (CEC 210.52 (D), (F) & (G))
7. Furnaces installed in attics and crawl spaces shall have an access platform (catwalk in attics), light switch and receptacle in the space. Provide a service receptacle for the furnace. (CEC 210.63)
8. All dwellings must have one exterior outlet at the front and the back of the dwelling. (CEC 210.52(E))
9. Garage receptacles shall not serve outlets outside the garage. A minimum of 1 receptacle shall be provided for each car space. (210.52(G)(1))
10. A 15/20-amp receptacle shall be installed within 50ft of electrical service equipment. (CEC 210.64)
11. Kitchens, dining rooms, pantries, breakfast nooks, and similar areas must have a minimum of two 20A circuits. Kitchen, pantry, breakfast nooks, dining rooms, and similar areas counter outlets must be installed in every counter space 12" inches or wider, not greater than 4' o.c., within 24" inches of the end of any counter space and not higher than 20" above counter. (CEC 210.52 (C)) Island counter spaces shall have at least 1 receptacle outlet unless a range top or sink is installed then 2 receptacles may be required. 1 receptacle is required for peninsular counter spaces. Receptacles shall be located behind kitchen sinks if the counter area depth behind the sink is more than 12" for straight counters and 18" for corner installations. (CEC Fig-ure 210.52(C)(1))

ELECTRICAL (CONT.)

12. Receptacles shall be installed at 12' o.c. maximum in walls starting at 6' maximum from the wall end. Walls longer than two feet shall have a receptacle. Hallway walls longer than 10 ft shall have a receptacle in hallways. (CEC 210.52(A))
13. Receptacles shall not be installed within or directly over a bathtub or shower stall. (CEC 406.9(C) Light pendants, ceiling fans, lighting tracks, etc shall not be located within 3ft horizontally and 8ft vertically above a shower and/or bathtub threshold. (CEC 410.10(D))
14. All lighting/fan fixtures located in wet or damp locations shall be rated for the appli-cation. (CEC 410.10)
15. GFCI outlets are required: for all kitchen receptacles that are designed to serve countertop surfaces, dishwashers, bathrooms, in under-floor spaces or below grade level, in exterior outlets, within 6' of a laundry/utility/wet bar sinks, laundry areas, and in all garage outlets including outlets dedicated to a single device or garage door opener (CEC 210.8).
16. Carbon-monoxide alarms shall be installed in dwelling units with fuel-burning appliances or with attached garages (CRC R315):
    - 16.1 Outside of each separate sleeping area in the immediate vicinity of bedrooms
    - 16.2 On every level of a dwelling unit including basements
    - 16.3 Alterations, repairs, or additions exceeding 1,000 dollars (May be battery operated)
17. Smoke alarms shall be installed (CRC (R314):
    - 17.1 In each room used for sleeping purposes.
    - 17.2 Outside of each separate sleeping area in the immediate vicinity of bedrooms.
    - 17.3 In each story, including basements.
    - 17.4 Shall not be installed within 20ft horizontally of cooking appliances and no closer than 3ft to mechanical registers, ceiling fans and bathroom doors with a bathtub or shower unless this would prevent placement of a smoke detector (314.3(4)).
    - 17.5 Alterations, repairs, or additions exceeding 1,000 dollars. (May be battery operated)
18. All smoke and carbon-monoxide alarms shall be hardwired with a battery backup (smoke alarms shall have a 10-year sealed battery). (CRC R314.4 & R315.1.2)
19. All 15/20 ampere receptacles in wet locations shall have in-use (bubble) covers in-stalled. All receptacles in wet locations shall also be listed weather-resistant type. (CEC 406.8(B)(1))
20. Smoke and carbon monoxide alarms shall be interconnected in such a manner that the action of one alarm will activate all of the alarms in the individual unit. CRC Section R314.4 & R315.5

*NO ALTERATIONS SHALL BE MADE TO THIS SET OF PLANS

General Notes

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Project #20-110	Sheet A7
Date 09/02/21	
Scale AS NOTED	

TABLE 2304.10.1
FASTENING SCHEDULE

	CONNECTION	FASTENING [a][m]	LOCATION
1.	JOIST TO SILL OR GIRDER	3-8d COMMON (2.5" X 0.131")	TOENAIL
2.	BRIDGING TO JOIST	2-8d COMMON (2.5" X 0.131")	TOENAIL EA. END
3.	1"X6" SUBFLOOR OR LESS TO EA. JOIST	2-8d COMMON (2.5" X 0.131")	FACE NAIL
4.	WIDER THAN 1"X6" SUBFLOOR TO EA. JOIST	3-8d COMMON (2.5" X 0.131")	FACE NAIL
5.	2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (2.5" X 0.162")	BLIND AND FACENAIL
6.	SOLE PLATE TO JOIST OR BLOCKING SOLE PLATE TO JOIST OR BLOCKING @ BRACED WALL PANEL	16d (3.5" X 0.135") @ 16" O.C. 3" - 16d (3.5" X 0.135")@ 16" O.C.	TYPICAL FACE NAIL BRACED WALL PANELS
7.	TOP PLATE TO STUD	2-16d COMMON (2.5" X 0.162")	END NAIL
8.	STUD TO SOLE PLATE	4-8d COMMON (2.5" X 0.131") 2-16d COMMON (3.5" X 0.162")	TOENAIL END NAIL
9.	DOUBLE STUDS	16d (3.5" X 0.135") @ 24" O.C.	FACE NAIL
10.	DOUBLE TOP PLATES DOUBLE TOP PLATES	16d (3.5" X 0.135") @ 16" O.C. 8-16d COMMON (2.5" X 0.162")	TYP. FACE NAIL LAP SPLICE
11.	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-8d COMMON (2.5" X 0.131")	TOENAIL
12.	RIM JOIST TO TOP PLATE	8d (2.5" X 0.131") @6" O.C.	TOENAIL
13.	TOP PLATES, LAPS AND INTERSECTIONS	2-16d COMMON (2.5" X 0.162")	FACE NAIL
14.	CONTINUOUS HEADER, TWO PIECES	16d COMMON (3.5" X 0.162")	16" O.C. ALONG EDGE
15.	CEILING JOISTS TO PLATE	3-8d COMMON (2.5" X 0.131")	TOENAIL
16.	CONTINUOUS HEADER TO STUD	4-8d COMMON (2.5" X 0.131")	TOENAIL
17.	CEILING JOISTS, LAPS OVER PARTITIONS SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d COMMON (3.5" X 0.162") MINIMUM, TABLE 2308.10.4.1	FACE NAIL
18.	CEILING JOISTS TO PARALLEL RAFTERS SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d COMMON (3.5" X 0.162") MINIMUM, TABLE 2308.10.4.1	FACE NAIL
19.	RAFTER TO PLATE SEE SECTION 2308.10.1, TABLE 2308.10.1)	3-8d COMMON (2.5" X 0.131")	TOENAIL
20.	1" DIAGONAL BRACE TO EA. STUD AND PLATE	2-8d COMMON (2.5" X 0.131")	
21.	1"X8" SHEATHING TO EA. BEARING	3-8d COMMON (2.5" X 0.131")	
22.	WIDER THAN 1"X8" SHEATHING TO EA. BEARING	3-8d COMMON (2.5" X 0.131")	
23.	BUILT-UP CORNER STUDS	16d COMMON (3.5" X 0.162")	
24.	BUILT-UP GIRDER AND BEAMS	20d COMMON (4" X 0.192") 32" O.C. 2 - 20d COMMON (4" X 0.192")	
25.	2" PLANKS	16d COMMON (3.5" X 0.162")	
26.	COLLAR TIE TO RAFTER	3-10d COMMON (3" X 0.148")	
27.	JACK RAFTER TO HIP	3-10d COMMON (3" X 0.148") 2-16d COMMON (3.5" X 0.162")	
28.	ROOF RAFTER TO 2 BY RIDGE BEAM	2-16d COMMON (3.5" X 0.162") 2-16d COMMON (3.5" X 0.162")	
29.	JOIST TO BAND JOIST	3-16d COMMON (3.5" X 0.162")	
30.	LEDGER STRIP	3-16d COMMON (2.5" X 0.131")	
31.	WOOD STRUCTURAL PANELS AND [b] PARTICLEBOARD SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING) SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING)	1/2" AND LESS 6d[c,j] 19/32" TO 3/4" 8d[d] OR 6d[e] 7/8" TO 1" 8d 1 1/8" TO 1 1/4" 10d[c] or 8d 3/4" AND LESS 6d[e] 7/8" TO 1" 8d[e] 1 1/8" TO 1 1/4" 10d[d] or 8d[e]	
32.	PANEL SIDING (TO FRAMING)	1/2" AND LESS 6d[f] 5/8" AND LESS 8d[f]	
33.	FIVERBOARD SHEATHING	1/2" AND LESS No. 11 GA ROOFING NAIL[h] 6d COMMON NAIL (2" X 0.113") No. 16 GA STAPLE [i] 25/32" No. 11 GA ROOFING NAIL[h] 8d COMMON NAIL (2 1/2" X 0.131") No. 16 GA STAPLE [i]	
34.	INTERIOR PANELING	1/4" 4d[j] 3/8" 6d[k]	

a. Common or box nails are permitted to be used except where otherwise noted.
b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particle board diaphragms and shear walls, refer to Section 2305. Nails for wall sheating are permitted to be commom, box or casing.
c. Common or deformed shank (6d - 2" x 0.113";8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
d. Common (6d - 2" x 0.113";8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
e. Deformed shank (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
f. Corrosion resistant siding (6d - 1 7/8" x 0.106"; 8d - 2 3/8" x 0.128") or casing (6d - 2" x 0.099"; 8d - 2 1/2" x 113") nail.
g. Fasterners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches oncenter at intermediate supports for nonstructural applications.
h. Corrosion resistant roofing nails with 7/16 inch dia. head and 1 1/2" inch length for 1/2" length for 1/2" inch sheathing and 1 3/4 inch lenth for 25/32 inch sheathing.
i. Corrosion resistant staples with nominal 7/16" crown and 1 1/8" length for 1/2" inch sheathing and 1 3/4" inch length for 25/32 inch sheathing.
j. Casing (1 1/2" x 0.080" or finish (1 1/2" x 0.072") nails spaced 6" on panel edges, 12" at intermediate supports.
k. Panel supports at 24". Casing or finish nails spaced 6" on panel edges, 12" at intermediate supports.
l. For roof sheathing applications, 8d nails (2 1/2" x 0.113") are the minimum required for nod structural panels.
m. Staples shall have a minimum crown width of 7/16 inch.
n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at inermediate supports for roof sheathing.
o. Fastners spaced 4inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

EXCAVATION, GRADING AND FILL:

1. EXCAVATION NEAR FOUNDATION FOR ANY PURPOSE SHALL NOT REDUCE LATERAL SUPPORT FROM ANY FOUNDATION OR ADJACENT FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST DETRIMENTAL LATERAL OR VERTICAL MOVEMENT OR BOTH.
   1.1. WHERE UNDERPINNING IS CHOSEN TO PROVIDE THE PROTECTION OR SUPPORT OF ADJACENT STRUCTURES, THE UNDERPINNING STEM WALL SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH PROVISIONS OF CURRENT CALIFORNIA BUILDING CODE.
   1.2. UNDERPINNING SHALL BE INSTALLED IN A SEQUENTIAL MANNER THAT PROTECTS THE NEIGHBORING STRUCTURE AND THE WORKING CONSTRUCTION SITE. THE ENGINEER OF RECORD SHALL BE NOTIFIED IF THIS CONDITION EXISTS TO ALLOW FOR PREPARATION OF CONSTRUCTION DOCUMENTS.
2. PLACEMENT OF BACKFILL. THE EXCAVATION OUTSIDE THE FOUNDATION SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ORGANIC MATERIAL, CONSTRUCTION DEBRIS, COBBLES AND BOULDERS OR WITH CONTROLLED LOW-STRENGTH MATERIAL (CLSM). THE BACKFILL SHALL BE PLACED IN LIFTS AND COMPACTED IN A MANNER THAT DOES NOT DAMAGE THE FOUNDATION OR THE WATERPROOFING OR DAMPPROOFING MATERIAL.
3. SITE GRADING. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN 5% FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE WALL. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10 FEET AN APPROVED METHOD OF DRAINAGE AWAY FROM STRUCTURE SHALL BE USED. SWALES USED FOR THIS PURPOSE SHALL BE SLOPED A MINIMUM OF 2% WHERE LOCATED WITHIN 10 FEET OF BUILDING FOUNDATION. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MIN. OF 2% AWAY FROM THE BUILDING. 2% SLOPES MAY BE USED WHEN APPROVED BY THE ENGINEER OF RECORD.
4. WHERE SHALLOW FOUNDATIONS WILL BEAR ON COMPACTED FILL MATERIAL, THE COMPACTED FILL SHALL COMPLY WITH THE APPROVED GEOTECHNICAL REPORT.
   4.1. WHERE COMPACTED FILL MATERIAL 12 INCHES IN DEPTH OR LESS NEED NOT COMPLY WITH AN APPROVED REPORT, PROVIDED THE IN-PLACE DRY DENSITY IS NOT LESS THAN 90% OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557. THE COMPACTION SHALL BE VERIFIED BY SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1705.6
5.

DAMPPROOFING AND WATERPROOFING:

1. WALLS OR PORTIONS THEREOF THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED AND DAMPPROOFED IN ACCORDANCE WITH THIS SECTION.
   1.1. VENTILATION FOR CRAWL SPACES SHALL COMPLY WITH CBC SECTION 1203.4
2. STORY ABOVE GRADE PLANE. WHERE A BASEMENT IS CONSIDERED A STORY ABOVE GRADE PLANE AND THE FINISHED GROUND LEVEL ADJACENT TO THE BASEMENT WALL IS BELOW THE BASEMENT FLOOR ELEVATION FOR 25% OR MORE OF THE PERIMETER, THE FLOOR AND WALLS SHALL BE DAMPPROOFED IN ACCORDANCE WITH THIS SECTION AND A FOUNDATION DRAIN SHALL BE INSTALLED.
3. THE FINISHED GROUND LEVEL OF AN UNDER-FLOOR SPACE SUCH AS A CRAWL SPACE SHALL NOT BE LOCATED BELOW THE BOTTOM OF THE FOOTINGS. WHERE THERE IS EVIDENCE THAT THE GROUND WATER TABLE RISES TO WITHIN 6 INCHES OF THE GROUND LEBVEL AT THE OUTSIDE BUILDING PERIMETER, OR THAT THE SURFACE WATER DOES NOT READILY DRAIN FROM THE BUILDING SITE, THE GROUND LEVEL OF THE UNDER-FLOOR SPACE SHALL BE AS HIGH AS THE OUTSIDE FINISHED GROUND LEVEL, UNLESS AN APPROVED DRAINAGE SYSTEM IS PROVIDED.
   3.1. DAMPPROOFING MATERIALS FOR WALLS SHALL BE INSTALLED ON THE EXTERIOR SURFACE OF THE WALL, AND SHALL EXTEND FROM THE TOP OF THE FOOTING TO ABOVE GROUND LEVEL.
   3.2. DAMPPROOFING SHALL CONSIST OF A BITUMINOUS MATERIAL, 3 POUNDS PER SQUARE YARD OF ACRYLIC MODIFIED CEMENT, 1/8" COAT OF SURFACE BONDING MORTAR COMPLYING WITH ASTM C887, ANY OF THE MATERIALS PERMITTED FOR WATERPROOFING BY SECTION 1805.3.2 OR OTHER APPROVED METHODS OR MATERIALS.
4. WHERE GROUND WATER IS UNCOVERED BY INVESTIGATION OR EXCAVATIONS THE ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY FOR WATERPROOFING SOLUTIONS.
5. A DRAIN SHALL BE PLACED AROUND THE PERIMETER OF A FOUNDATION THAT CONSIST OF GRAVEL OR CRUSHED STONE CONTAINING NOT MORE THAN 10% MATERIAL THAT PASSES THROUGH A No. 4 SIEVE. THE DRAIN SHALL EXTEND A MINIMUM OF 12" BEYOND THE OUTSIDE EDGE OF THE FOOTING. THE THICKNESS SHALL BE SUCH THAT THE BOTTOM OF THE DRAIN IS NOT HIGHER THAN THE BOTTOM OF THE BASE UNDER THE FLOOR, AND THE TOP OF THE DRAIN SHALL BE NOT LESS THAN 6" ABOVE THE TOP OF THE FOOTING. THE TOP OF THE DRAIN SHALL BE COVERED WITH AN APPROVED FILTER MEMBRANE MATERIAL. WHERE A DRAIN TILE OR PERFORATED PIPE IS USED, THE INVERT OF THE PIPE OR TILE SHALL NOT BE HIGHER THAN THE FLOOR ELEVATION. THE TOP OF JOINTS OR THE TOP OF PERFORATIONS SHALL BE PROTECTED WITH AN APPROVED FILTER MEMBRANE MATERIAL.
6. THE FLOOR BASE AND FOUNDATION PERIMETER DRAIN SHALL DISCHARGE BY GRAVITY OR MECHANICAL MEANS INTO AN APPROVED DRAINAGE SYSTEM THAT COMPLIES WITH THE CPC. WHEN A SITE IS LOCATED IN A WELL-DRAINED GRAVEL OR SAND/ GRAVEL MIXTURE SOILS, A DEDICATED DRAINAGE SYSTEM IS NOT REQUIRED.

FOUNDATIONS:

1. NO FILL OR OTHER SURCHARGE LOADS SHALL BE PLACED ADJACENT TO ANY BUILDING OR STRUCTURE UNLESS SUCH STRUCTURE IS CAPABLE OF WITHSTANDING THE ADDITIONAL LOADS CAUSED BY THE FILL OR SURCHARGE.
2. IF VIBRATORY LOADS ARE TO BE PRESENT DURING THE USE OF THE STRUCTURE, THE ENGINEER OF RECORD SHALL BE NOTIFIED TO DETERMINE IF ADDITIONAL CONSIDERATION IS REQUIRED TO PREVENT DETRIMENTAL DISTURBANCES OF THE SOIL.
3. IF EXPANSIVE SOILS ARE DISCOVERED THE ENGINEER OF RECORD SHALL BE NOTIFIED TO PROVIDE ADDITIONAL FOUNDATION DESIGN AND CONSTRUCTION REQUIREMENTS.
4. BUILDING CLEARANCE FROM ASCENDING SLOPES SHALL IN GENERAL BE SET A SUFFICIENT DISTANCE FROM THE SLOPE TO PROVIDE PROTECTION FROM SLOPE DRAINAGE, EROSION AND SHALLOW FAILURES.
5. FOUNDATION SETBACK FROM DESCENDING SLOPE SURFACE SHALL BE FOUNDED IN FIRM MATERIAL WITH AN EMBEDMENT AND SET BACK FROM THE SLOPE SURFACE SUFFICIENT TO PROVIDE VERTICAL AND LATERAL SUPPORT FOR THE FOUNDATION WITHOUT DETRIMENTAL SETTLEMENT.
6. FOR FOUNDATIONS SUPPORTING GROUP R OR U OCCUPANCIES OF LIGHT-FRAME CONSTRUCTION, TWO STORIES OR LESS IN HEIGHT, ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 psi
7. CONCRETE FOUNDATIONS ARE PERMITTED TO BE CAST AGAINST THE EARTH WHERE SOIL CONDITIONS DO NOT REQUIRE FORMWORK.
8. SHALLOW FOUNDATIONS SHALL BE BUILT ON UNDISTURBED SOIL, COMPACTED FILL MATERIAL OR CLSM. COMPACTED FILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH CBC SECTION 1804.5
9. THE TOP SURFACE OF FOOTINGS SHALL BE LEVEL. THE BOTTOM SURFACE OF FOOTINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT EXCEEDING 10%. FOOTINGS SHALL BE STEPPED WHERE IT IS NECESSARY TO CHANGE THE ELEVATION OF THE TOP SURFACE OF THE FOOTING OR WHERE THE SURFACE OF THE GROUND SLOPES MORE THAN 10%.
10. FOR SINGLE STORIES, THE MIN. DEPTH OF FOOTINGS SHALL BE 12" BELOW UNDISTURBED GROUND SURFACE. THE MIN. WIDTH OF FOOTING SHALL BE 12". FOR TWO STORIES, THE MIN DEPTH OF FOOTINGS SHALL BE 18" BELOW UNDISTURBED GROUND SURFACE AND THE MIN. WIDTH OF THE FOOTING SHALL BE 15".
11. ALL LOAD BEARING WALLS SHALL BE PLACED ON CONTINUOUS CONCRETE FOOTINGS BONDED INTEGRALLY WITH THE EXTERIOR WALL FOOTINGS.
12. MIN. SLAB THICKNESS SHALL BE 4". A 6-MIL POLYETHYLENE VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6" SHALL BE PLACED BETWEEN THE BASE COURSE AND THE CONCRETE FLOOR SLAB. A VAPOR RETARDER IS NOT REQUIRED FOR DETACHED STRUCTURES ACCESSORY TO OCCUPANCIES IN GROUP R-3, SUCH AS GARAGES, UTILITY BUILDINGS OR OTHER UNHEATED FACILITIES.

SHEAR WALL NOTES: (PER SDPWS-2015)

1. FRAMING REQUIREMENTS: ALL FRAMING MEMBERS AND BLOCKING USED FOR SHEAR WALL CONSTRUCTION SHALL BE 2" NOMINAL OR GREATER, WHERE SHEAR WALLS ARE DESIGNED AS BLOCKED, ALL JOINTS IN SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON FRAMING MEMBERS OR COMMON BLOCKING. SHEAR WALL BOUNDARY ELEMENTS,SUCH AS END POSTS, SHALL BE PROVIDED TO TRANSMIT THE DESIGN TENSION AND COMPRESSION FORCES. SHEAR WALL SHEATHING SHALL NOT BE USED TO SPLICE BOUNDARY ELEMENTS. END POSTS (STUDS OR COLUMNS) SHALL BE FRAMED TO PROVIDE FULL END BEARING.
2. COMMON FRAMING MEMBER: WHERE A COMMON FRAMING MEMBER IS REQUIRED AT ADJOINING PANEL EDGES, TWO FRAMING MEMBERS THAT ARE AT LEAST 2" NOMINAL THICKNESS SHALL BE PERMITTED PROVIDED THEY ARE FASTENED TOGETHER WITH FASTENERS DESIGNED IN ACCORDANCE WITH THE NDS TO TRANSFER THE INDUCED SHEAR BETWEEN MEMBERS. WHEN FASTENERS CONNECTING THE TWO FRAMING MEMBERS ARE SPACED LESS THAN 4" ON CENTER, THEY SHALL BE STAGGERED.
3. TENSION AND COMPRESSION CHORDS SHALL BE INSTALLED AT EACH END OF SHEAR WALL.
4. FASTENERS: SHEATHING SHALL BE ATACHED TO FRAMING MEMBERS USING NAILS OR OTHER APPROVED FASTENERS. NAILS SHALL BE DRIVEN WITH THE HEAD OF THE NAIL FLUSH WITH THE SURFACE OF THE SHEATHING. OTHER APPROVED FASTENERS SHALL BE DRIVEN AS REQUIRED FOR PROPER INSTALLATION OF THAT FASTENER. SEE TABLE FOR NAIL DIMENSIONS.
5. ANCHOR BOLTS: FOUNDATION ANCHOR BOLTS SHALL HAVE A STEEL PLATE WASHER UNDER EACH NUT NOT LESS THAT 0.229"X3"X3" IN SIZE. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO $\frac{3}{16}$" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN $\frac{1}{4}$" OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING OR OTHER MATERIAL WITH NOMINAL UNIT SHEAR CAPACITY GREATER THAN 400 PLF FOR WIND OR SEISMIC (TYPE D AND E SHEAR WALLS) EXCEPTIONS MAY APPLY PER SECTION 4.3.6.4.3
6. WOOD STRUCTURAL PANEL SHEAR WALL CONSTRUCTION: PANELS SHALL NOT BE LESS THAN 4'X8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING.
   6.1. ALL EDGES OF PANELS SHALL BE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.
   6.2. NAILS SHALL BE LOCATED AT LEAST $\frac{3}{8}$" FROM THE PANEL EDGES. MAXIMUM NAIL SPACING AT PANEL EDGES SHALL BE 6" ON CENTER.
   6.3. NAILS ALONG INTERMEDIATE FRAMING MEMBERS SHALL BE THE SAME SIZE AS NAILS SPECIFIED FOR PANEL EDGE NAILING. AT INTERMEDIATE FRAMING MEMBERS, THE MAXIMUM NAILING SPACING SHALL BE 6" ON CENTER. WHERE PANELS ARE THICKER THAN $\frac{3}{4}$" NOMINAL OR STUDS ARE SPACED LESS THAN 24" ON CENTER, THE MAXIMUM NAIL SPACING SHALL BE 12" ON CENTER.
   6.4. THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS AND BLOCKING SHALL BE 2" NOMINAL OR GREATER.
   6.5. WHERE ANY OF THE FOLLOWING CONDITIONS OCCUR, THE WIDTH OF THE NAILED FACE OF A COMMON FRAMING MEMBER OR BLOCKING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR GREATER AND NAILING SHALL BE STAGGERED AT ALL PANEL EDGES (IN LIEU OF A SINGLE COMMON FRAMING MEMBER, TWO FRAMING MEMBERS THAT ARE AT LEAST 2" IN NOMINAL THICKNESS SHALL BE PERMITTED):
      6.5.1. NAIL SPACING OF 2" ON CENTER AT ADJOINING PANEL EDGES IS SPECIFIED (TYPE E SHEAR WALL), OR
      6.5.2. 10D COMMON NAILS HAVING PENETRATION INTO FRAMING MEMBERS AND BLOCKING OF MORE THAN 1-1/2" ARE SPECIFIED AT 3" ON CENTER, OR LESS AT ADJOINING PANEL EDGES, OR
      6.5.3. THE NOMINAL UNIT SHEAR CAPACITY ON EITHER SIDE OF THE SHEAR WALL, TYPE E, EXCEEDS 700 PLF IN SEISMIC DESIGN CATEGORY D, E, OR F.
   6.6. MAXIMUM STUD SPACING SHALL BE 24" ON CENTER
   6.7. WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS FOR ITS TYPE.
7. SHEAR WALL CONSTRUCTION WITH GYPSUM WALLBOARD OR GYPSUM SHEATING BOARD SHALL MEET THE FOLLOWING REQUIREMENTS.
   7.1. END JOINTS OF ADJACENT COURSES OF GYPSUM WALLBOARD OR SHEATING SHALL NOT OCCUR OVER THE SAME STUD. THE SIZE AND SPACING OF FASTENERS AT SHEAR WALL BOUNDARIES, PANEL EDGES, AND INTERMEDIATE SUPPORTS SHALL BE PER SHEAR WALL SCHEDULE. NAILS SHALL BE LOCATED AT LEAST $\frac{3}{8}$" FROM THE EDGES AND ENDS OF PANELS. THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS AND BLOCKING SHALL BE 2" NOMINAL OR GREATER.
   7.2. GYPSUM WALLBOARD SHALL BE APPLIED PARALLEL OR PERPENDICULAR TO STUDS. GYPSUM WALLBOARD SHALL CONFORM TO ASTM C 1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C 840.
   7.3. GYPSUM SHEATING BOARD: 4' WIDE PIECES OF GYPSUM SHEATING BOARD SHALL BE APPLIED PARALLEL OR PERPENDICULAR TO STUDS. 2' WIDE PIECES OF GYPSUM SHEATING BOARD SHALL BE APPLIED PERPENDICULAR TO THE STUDS. GYPSUM SHEATHING BOARD SHALL CONFORM TO ASTM C 1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C 1280.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH THE CURRENTLY ACCEPTED EDITION OF THE CALIFORNIA BUILDING CODE (CBC) AND CBC STANDARDS, AND CALIFORNIA RESIDENTIAL BUILDING CODE CRC.
2. IF CONDITIONS ARISE OUTSIDE THE SCOPE OF THESE PLANS, THE ENGINEER OF RECORD SHALL BE NOTIFIED.
3. ALL CONCRETE SHALL HAVE A MIN. STRENGTH OF 2,500 PSI (28 DAY)
4. REINFORCEMENT BAR SHALL BE GRADE 40 FOR BARS #4 AND SMALLER AND GRADE 60 FOR BARS #5 AND LARGER
5. BOTTOM HORIZONTAL REINFORCING BAR PLACED IN THE FOOTING SHALL BE 3" CLEAR OF BOTTOM OF FOOTING. TOP HORIZONTAL REINFORCING BAR PLACED IN THE FOOTING SHALL BE 2" CLEAR OF THE TOP OF THE FOOTING

ENERGY NOTES:

FOR NEW WATER HEATER PROVIDE 125-VOLT, 20 AMP ELECTRICAL RECEPTABLE CONECTED TO ELECTRIC PANEL W/ 120/240-VOLT 3 CONNECTOR, 10 AWG COPPER BRANCH CIRCUIT WITHIN 3 FT FROM WATER HEATER.

I. BOTH ENDS OF THE UNUSED CONDUCTER SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED.

II. A RESERVED SINGLE POLE CIRCUIT BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH IN A ABOVE AND LABELED WITH WORD "FUTURE 240V USE" CEnC SECTION 150.0.(n)I

SHEAR WALL SCHEDULE

A — WALL SYSTEM STRENGTH: 173 PLF SEISMIC, 173 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)
6" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 72" W/ 2X P.T. SILL

SIMPSON A35 SHEAR TRANSFER @ 36" O.C.
SILL SHEAR TRANSFER NAILING 16d @ 6" O.C. (COMMON, BOX OR SINKER)

B — WALL SYSTEM STRENGTH: 260 PLF SEISMIC, 260 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)
6" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 48" W/ 2X P.T. SILL

SIMPSON A35 SHEAR TRANSFER @ 27" O.C.
SILL SHEAR TRANSFER NAILING 16d @ 6" O.C. (COMMON, BOX OR SINKER)

C — WALL SYSTEM STRENGTH: 260 PLF SEISMIC, 346 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)
6" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 36" W/ 2X P.T. SILL

SIMPSON A35 SHEAR TRANSFER @ 18" O.C.
SILL SHEAR TRANSFER NAILING 16d @ 4" O.C. (COMMON, BOX OR SINKER)

D — WALL SYSTEM STRENGTH: 390 PLF SEISMIC, SEE NOTE 1; 520 PLF WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 8d (COMMON OR HOT DIPPED GALVANIZED)
4" O.C. @ EDGES
12" O.C. @ FIELD

1/2"Φ ANCHOR BOLT SPACING 24" W/ 2X P.T. SILL
SIMPSON A35 SHEAR TRANSFER @ 12" O.C.
SILL SHEAR TRANSFER NAILING (2) ROWS 16d @ 4" O.C. (COMMON, BOX OR SINKER)

E — WALL SYSTEM STRENGTH: 640 PLF SEISMIC, SEE NOTE 1; 895 WIND

3/8" STRUCTURAL WOOD PANELS (BLOCKED)

NAILING: 10d (COMMON OR HOT DIPPED GALVANIZED)
2" O.C. @ EDGES
12" O.C. @ FIELD

5/8"Φ ANCHOR BOLT SPACING 24" W/ 3X P.T. SILL
SIMPSON A35 SHEAR TRANSFER @ 8" O.C.
SILL SHEAR TRANSFER NAILING (2) ROWS 16d @ 4" O.C. (COMMON, BOX OR SINKER)

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1250 EAST AVE #25
CHICO, CA 95926
(530)521-5415

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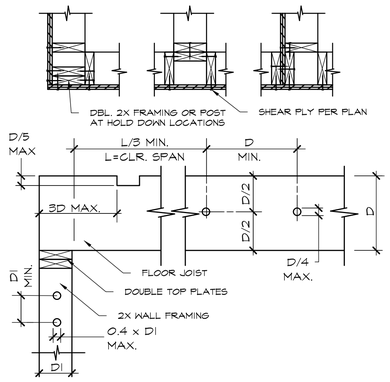
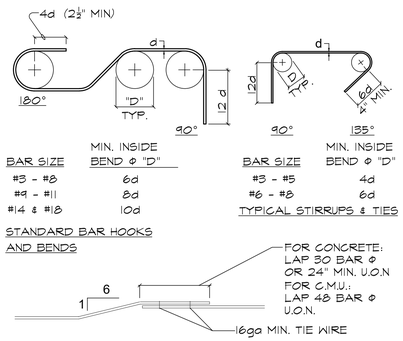


TYPICAL WALL CORNERS | 1



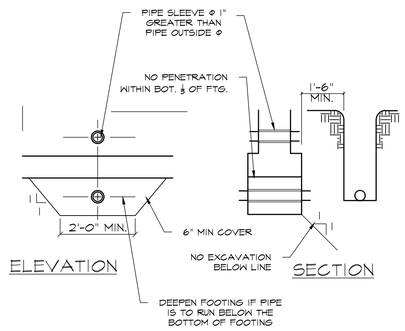
BAR SIZE	MIN. INSIDE BEND ø "D"
#3 - #8	6d
#9 - #11	8d
#14 & #18	10d

BAR SIZE	MIN. INSIDE BEND ø "D"
#3 - #5	4d
#6 - #8	6d

TYPICAL STIRRUPS & TIES

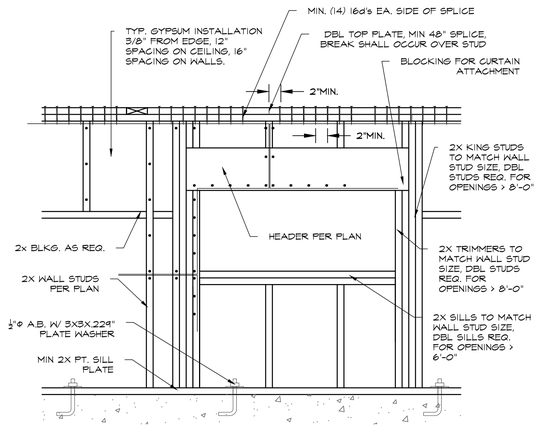
STANDARD BAR HOOKS AND BENDS

TYPICAL HOOKS & BENDS | 2

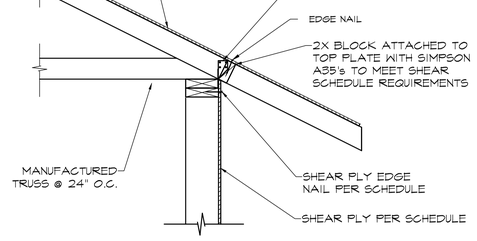


1. INSIDE SLEEVE DIA. IS PIPE DIA. +1" MIN.
2. NO PENETRATION ALLOWED WITH IN BOTTOM 1/3 OF FTG.
3. DEEPEN FOOTING IF PIPE IS TO RUN BELOW BOTTOM OF FOOTING.
4. NO EXCAVATION ALLOWED BELOW THIS LINE.
5. 4" MIN BELOW BOT. OF FOUNDATION.
6. 6" MIN COVER BELOW PIPE SLEEVE.

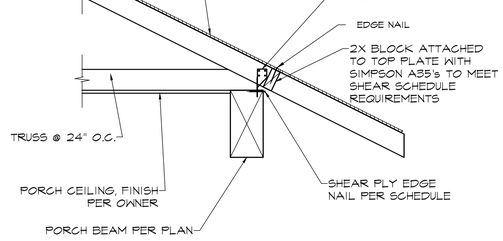
FOUNDATION PENETRATIONS | 3



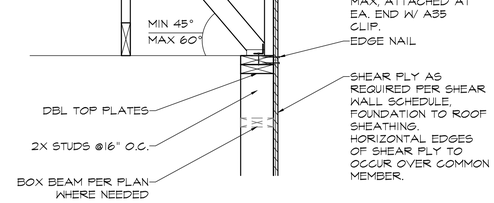
TYP. WALL CONN. DETAIL | 4



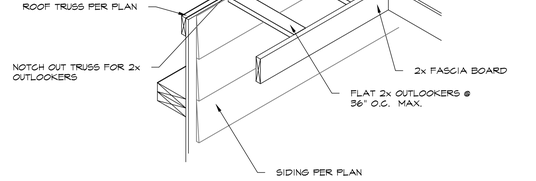
ROOF EAVE DETAIL | 5



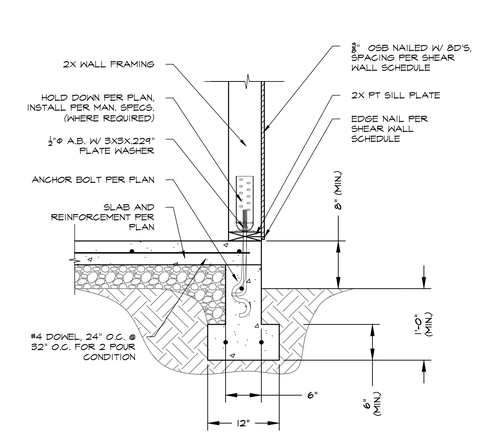
PORCH CONN. | 6



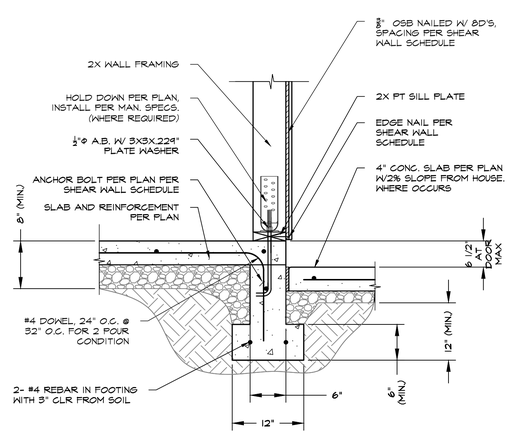
GABLE END CONN. DETAIL | 7



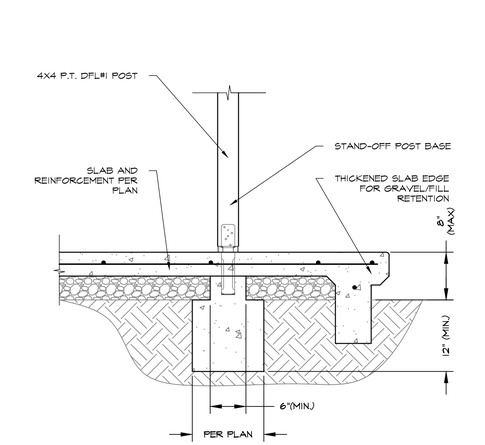
OUTLOOKER DETAIL | 8



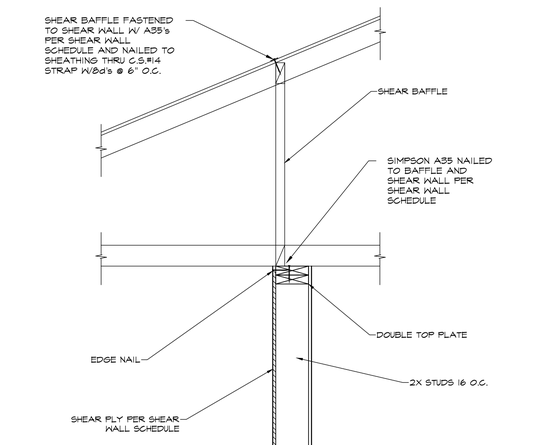
SHEAR/HOLDOWN CONN. @ FOUNDATION | 9



SHEAR/HOLDOWN CONN. @ FOUNDATION | 10



POST @ PORCH | 11



SHEAR BAFFLE. DETAIL | 12

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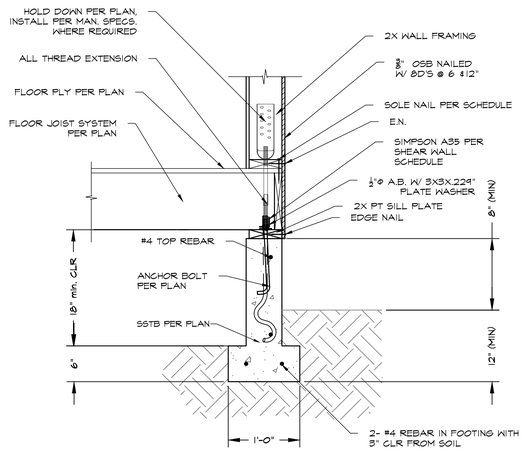

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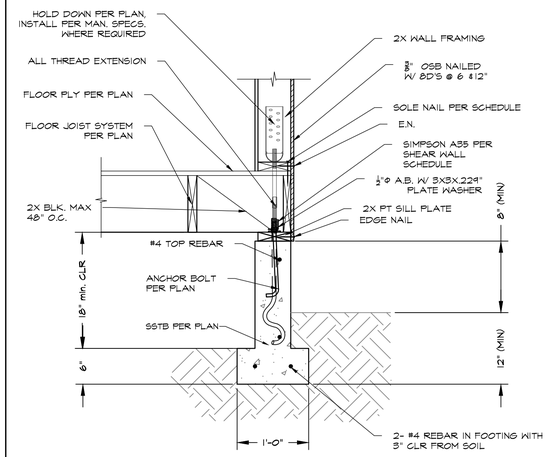

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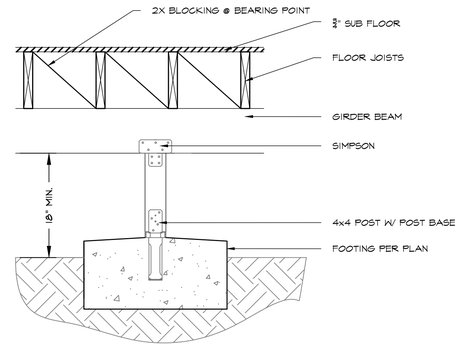

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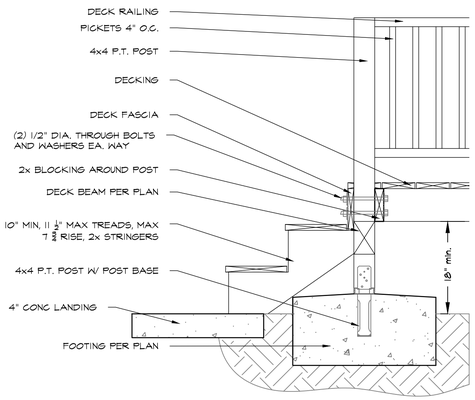

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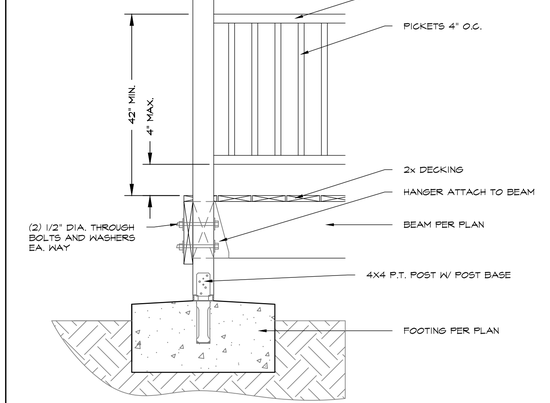

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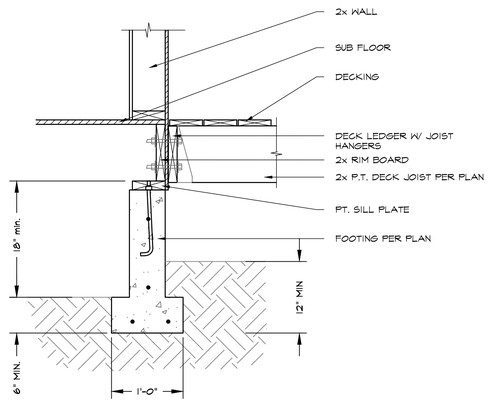

TYP. DECK LEDGER | 6

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