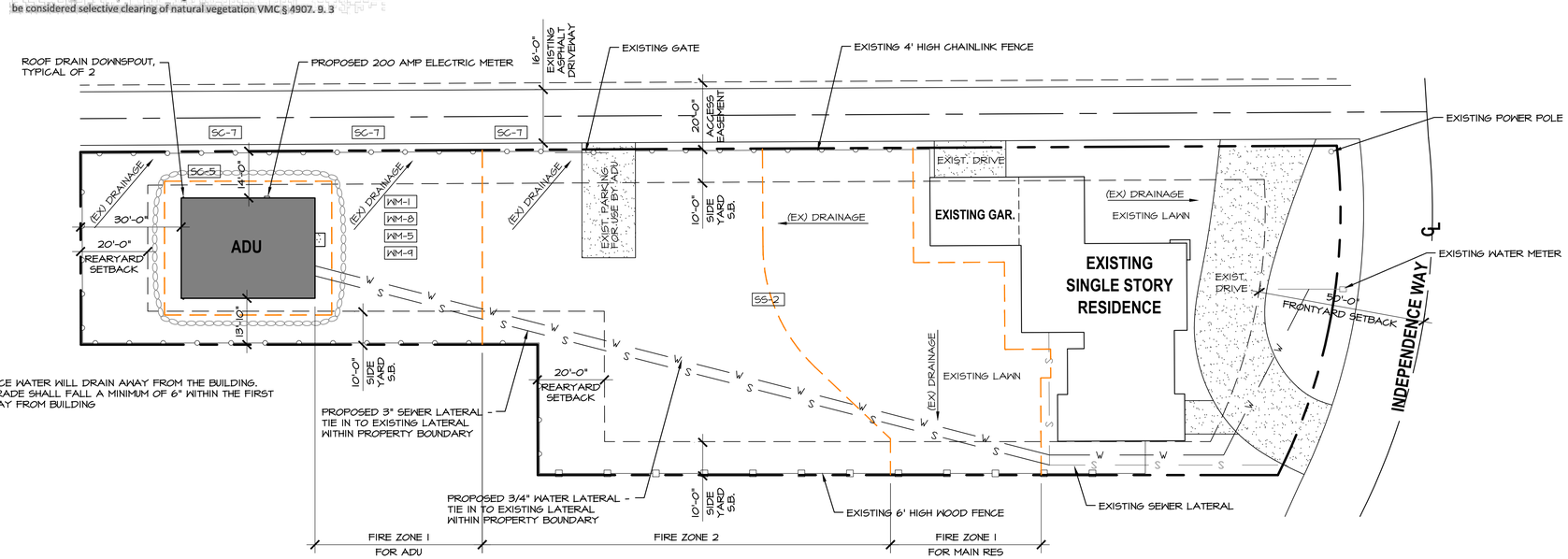
By using these standard plans, the user agrees to release the County of San Diego from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents.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

Zone 0 " Immediate Zone" 0- 5' Meaning from exterior wall surface or patio, deck or attachment to building or structure extending 5 feet on a horizontal plane. This zone shall be constructed of continuous hardscape or non-combustible materials. Removal of combustible materials surrounding the exterior wall area and maintaining area free and clear of combustible materials. The use of mulch and other combustible materials shall be prohibited. VMC § 4907. 9. 1
Zone 1 " Intermediate Zone" from Zone 0 to 50' means from the immediate edge of Zone 0 extending out in a horizontal plane. This zone shall consist of planting of low growth, drought tolerant and fire resistive plant species. The height of the plants in this zone starts at 6" adjacent to Zone 0 and extend in a linear fashion up to a maximum of 18" at intersection with Zone 2. Vegetation in this zone shall be irrigated and not exceed 6' in height and shall be moderate in nature as per Sec. 4907. 6. 4. 1. Firewood inside this zone shall be piled at a minimum of 30' away from all buildings and structures. Cords of firewood shall also be maintained at least 10' from property lines and not stacked under tree canopies drip lines. VMC § 4907. 9. 2
Zone 2 " Extended Zone" from Zone 1 to 100' means from the immediate edge of Zone 1 extending out in a horizontal plane for 50'. This zone consists of planting of drought tolerant and fire resistive plant species of moderate height. Brush and plants shall be limbed up off the ground so the lowest branches are 1/ 3 height of bush/tree/plant or up to 6' off the ground on mature trees. This area would be considered selective clearing of natural vegetation VMC § 4907. 9. 3



Permanent residential three-dimensional street numbers, minimum 4 inches in height, shall be provided on the address side of the building at the highest point and furthest projection of the structure. The address shall be visible from the street and shall not be obstructed in any manner.

NO CONCRETE WORK IS PERMITTED IN ADDITION TO WHAT IS SHOWN ON THE PLANS AND APPROVED BY THE CITY ENGINEER. AREAS SHOWN HEREON AS PERVIOUS ARE TO REMAIN PERVIOUS IN PERPETUITY. IF THESE SURFACES BECOME IMPERMEABLE AFTER PROJECT CLOSEOUT, OR IF FUTURE PERMITTED IMPROVEMENTS ARE PROPOSED AT A LATER TIME, THE PROPERTY OWNER SHALL SUBMIT A SWQMP AND HYDROLOGY STUDY TO THE CITY OF VISTA WITH SUPPORTING CALCULATIONS TO ADDRESS STORMWATER PROJECT REQUIREMENTS AND TO MITIGATE INCREASES IN POLLUTANT LOADINGS AND/OR RUNOFF PER CITY OF VISTA DEVELOPMENT CODE SECTION 17.56.070.

ENGINEERING SCALE: 1" = 20'

BMP LEGEND

PDS 659 BROW DITCH
PDS 659 BERM
DIRECTION OF LOT DRAINAGE

MATERIALS & WASTE MANAGEMENT BMPs:
- WM-1 MATERIAL DELIVERY & STORAGE
- WM-4 SPILL PREVENTION AND CONTROL
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-5 SOLID WASTE MANAGEMENT
- WM-9 SANITARY WASTE MANAGEMENT
- WM-6 HAZARDOUS WASTE MANAGEMENT

TEMPORARY RUNOFF CONTROL BMPs:
- SS-2 PRESERVATION OF EXISTING VEGETATION
- SS-3 BONDED OR STABILIZED FIBER MATRIX (WINTER)
- SS-4 HYDROSEEDING (SUMMER)
- SS-6 / SS-8 STRAW OR WOOD MULCH
- SS-7 PHYSICAL STABILIZATION (WINTER)
- SS-10 ENERGY DISSIPATOR
- SC-1 SILT FENCE
- SC-2 / PDS 659 SEDIMENT / DESILTING BASIN
- SC-5 FIBER ROLLS
- SC-6 / SC-8 GRAVEL OR SAND BAGS
- SC-7 STREET SWEEPING AND VACUUMING
- SC-10 STORM DRAIN INLET PROTECTION
- NS-2 DEWATERING FILTRATION
- TC-1 STABILIZED CONSTRUCTION ENTRANCE
- TC-2 CONSTRUCTION ROAD STABILIZATION
- TC-3 ENTRANCE / EXIT TIRE WASH

BASELINE BMPs FOR EXISTING AND PROPOSED SITE FEATURES
- SD-B DIRECT RUNOFF TO PERVIOUS AREAS
- SD-C INSTALL GREEN ROOF
- SD-E INSTALL RAIN BARRELS
- SD-G CONSERVE NATURAL FEATURES
- SD-H PROVIDE BUFFERS AROUND WATER BODIES
- SD-I CONSTRUCT SURFACES FROM PERMEABLE MATERIALS
- SD-K SUSTAINABLE LANDSCAPING

BASELINE BMPs FOR POLLUTANT-GENERATING SOURCES
- SC-A OVERHEAD COVERING
- SC-B SEPARATION OF FLOWS FROM ADJACENT AREAS
- SC-C WIND PROTECTION
- SC-D SANITARY SEWER
- SC-E CONTAINMENT SYSTEM

POTENTIAL RUNOFF POLLUTANTS:
- A TRASH & REFUSE STORAGE
- B MATERIALS & EQUIPMENT STORAGE
- C LOADING & UNLOADING
- D FUELING
- E MAINTENANCE & REPAIR
- F VEHICLE & EQUIPMENT CLEANING
- G OTHER

SHEET INDEX

Sheet No.	SHEET NAME
SP-1	SITE PLAN
A1	FLOOR PLAN
A2	ELECTRICAL PLAN
A3	ELEVATIONS - FRONT & BACK
A4	ELEVATIONS - RIGHT & LEFT
A5	ROOF PLAN / TRUSS LAYOUT
A6	SECTIONS
S1	FOUNDATION PLAN
S2	ROOF FRAMING
CS-1	MIN. CONSTRUCTION SPECIFICATIONS
T24	TITLE 24 ENERGY CALCS

GENERAL CODES

THIS PROJECT SHALL COMPLY WITH THE FOLLOWING BUILDING CODES AND ASSOCIATED COUNTY OF SAN DIEGO AMENDMENTS:

- 2022 CALIFORNIA RESIDENTIAL CODE
- 2022 CALIFORNIA BUILDING CODE
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
- 2022 CALIFORNIA ELECTRICAL CODE
- 2022 CALIFORNIA MECHANICAL CODE
- 2022 CALIFORNIA PLUMBING CODE
- 2022 CALIFORNIA FIRE CODE
- 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS

DESIGN BASIS

CONVENTIONAL LIGHT FRAME CONSTRUCTION

ROOF LIVE LOAD: 20 PSF
ULTIMATE WIND SPEED: 110 MPH
EXPOSURE CATEGORY: C
SITE CLASS: D
RISK CATEGORY: II
S_{DS}: 1.25
SEISMIC DESIGN CATEGORY: D_2
ALLOW SOIL VERTICAL BEARING PRESSURE: 1500 PSF
ALLOW SOIL LATERAL BEARING PRESSURE: 100 PSF/FT

ENERGY EFFICIENCY SPECIAL FEATURES

SPECIFY AS INDICATED IN CF1R FORM (TITLE 24):

- –IAQ VENTILATION SYSTEM: AS LOW AS 0.025 W/CFM
- –EXPOSED SLAB FLOOR IN CONDITIONED ZONE
- –NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) RATED HEAT PUMP WATER HEATER; SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED

ENERGY EFFICIENCY HERS VERIFICATION

SPECIFY AS INDICATED IN CF1R FORM (TITLE 24):

- –INDOOR AIR QUALITY VENTILATION
- –KITCHEN RANGE HOOD
- –MINIMUM AIRFLOW
- –FAN EFFICACY WATTS/CFM
- –VERIFIED HSPF
- –VERIFIED HEAT PUMP RATED HEATING CAPACITY
- –DUCT LEAKAGE TESTING

PROPERLY COMPLETED AND SIGNED CERTIFICATES OF INSTALLATION (CF2R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD. FOR PROJECTS REQUIRING HERS VERIFICATION, THE CF2R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY." CF2R FORMS ARE AVAILABLE AT HTTP://WWW.SDCOUNTY.CA.GOV/PDS/BLDG/ENERGY-STDS.HTML. (CBEES 10-103)

PROPERLY COMPLETED CERTIFICATES OF VERIFICATION (CF3R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD FOR ITEMS REQUIRING HERS VERIFICATION. CF3R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY." CF3R FORMS ARE AVAILABLE AT HTTP://WWW.SDCOUNTY.CA.GOV/PDS/BLDG/ENERGY-STDS.HTML. (CBEES 10-103)

PROVIDE SOLAR PV SYSTEM UNDER SEPARATE PERMIT. SYSTEM SIZE TO COMPLY WITH ENERGY COMPLIANCE DOCUMENTATION

VICINITY MAP

OWNER INFORMATION

NAME: DON AND LANA VAMPOLA
ADDRESS: 1503 INDEPENDENCE WAY VISTA, CA 92084
PHONE: (760) 525-2793
EMAIL: d.vampola@icloud.com

CONTACT INFORMATION

NAME: STEPHANIE LUPTON
ADDRESS: POBOX 2216 SAN MARCOS, CA 92079
PHONE: (760) 224-9704
EMAIL: SJLDRAFTING@GMAIL.COM

PROJECT INFORMATION

PROJECT SCOPE: PROPOSED 1200 SF DETACHED DWELLING UNIT ADU ☒ SFD ☐
APN: 174-070-49
SITE ADDRESS: 1503 INDEPENDENCE WAY VISTA, CA 92084

PROPERTY CONNECTED TO THE ELECTRICAL GRID (Y or N)
PROPERTY SERVICED BY PROPANE (Y or (N)) IF YES, SHOW TANK ON PLOT PLAN
PROPERTY SERVICED BY NATURAL GAS (Y or N)
ENTIRE LOT IS FUEL MODIFIED (Y or N) IF NO, DIMENSION 100' FUEL MODIFICATION ZONE

All proposed buildings, structures, additions, modifications to buildings/structures must comply with the approved location, as shown on the County approved Plot Plan. At the discretion of the County, the property owner may be required to provide proof of current placement of each on the parcel. This may include a stamped and signed setback certificate prepared by a California licensed surveyor or civil engineer. (County Building Code 91.1.107.2)

PERVIOUS AREA INFORMATION

PERVIOUS SURFACE AREA TABLE

SITE ID	PERVIOUS ITEM	DIMENSIONS	AREA (SF)	NOTES

PERVIOUS ELEMENT MANUFACTURER: _____
PERVIOUS ELEMENT SLOPE AND DIRECTION OF SLOPE: _____
MAINTENANCE PROGRAM: _____
PERVIOUS ELEMENT CROSS SECTION LOCATED ON SHEET: _____

CONSTRUCTED PERVIOUS SURFACES SHALL NOT BE SEALED.

IMPERVIOUS AREA INFORMATION

IMPERVIOUS SURFACE AREA TABLE

SITE ID	IMPERVIOUS ITEM	DIMENSIONS	NEW or REPLACED AREA (SF)	EXISTING AREA (SF)
1	PROPOSED DWELLING UNIT ADU ☒ SFD ☐	40'-0" x 30'-0"	1200	
2				
3				
4				
	TOTAL (SF)			

LAND DISTURBANCE: 1350 SF

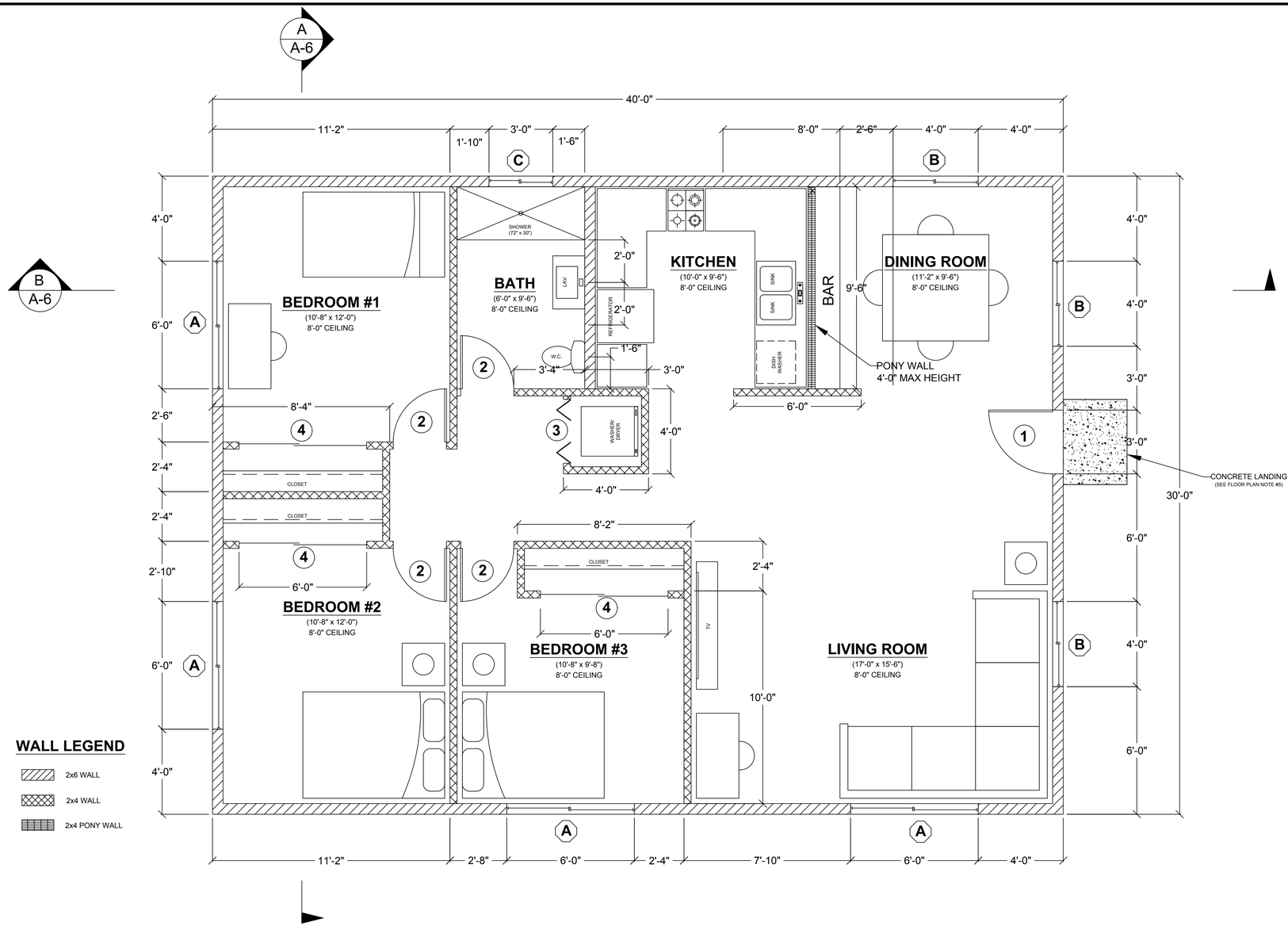
SHEET TITLE

PLOT PLAN

SHEET NUMBER

SP-1

PDS 670 (REV. 10/01/2023)



WALL LEGEND

- 2x6 WALL
- 2x4 WALL
- 2x4 PONY WALL

WINDOW SCHEDULE

MARK	DIMENSION	TYPE	TEMPERED	NOTES
A	6'-0" x 4'-0"	SLIDING		
B	4'-0" x 4'-0"	SLIDING		
C	3'-0" x 2'-0"	SLIDING	Y	

EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

A. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/I.S.2/A40
B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.
C. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2

DOOR SCHEDULE

MARK	DIMENSION	TYPE	TEMPERED	NOTES
1	3'-0" x 6'-8"	SWINGING		1-3/8" SOLID CORE
2	2'-8" x 6'-8"	SWINGING		
3		BI-FOLD		LAUNDRY ROOM
4	6'-0" x 6'-8"	SLIDING		6FT CLOSET

EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

A. EXTERIOR SURFACE OR CLADDING OF NON-COMBUSTIBLE OR IGNITION-RESISTANT MATERIAL
B. SOLID CORE WOOD COMPLYING WITH THE FOLLOWING:
- STILES AND RAILS MINIMUM 1-3/8 INCHES THICK
- RAISED PANELS MINIMUM 1-1/4 INCHES THICK
EXCEPTION: EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK

C. MINIMUM 20-MIN FIRE RATED WHEN TESTED PER NFPA 252
D. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

FLOOR PLAN
3/8" = 1'-0"

FLOOR PLAN NOTES

1. EXTERIOR WALLS WITHIN 3 FEET OF PROPERTY LINE (WITH SPRINKLERS) OR 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS) REQUIRE 1–HOUR FIRE RATING FOR EXPOSURE TO BOTH SIDES.
2. PROJECTIONS:
   - PROHIBITED WITHIN 2 FEET OF PROPERTY LINE
   - 1–HOUR FIRE RATING ON THE UNDERSIDE WITHIN 3FT OF PROPERTY LINE (WITH SPRINKLERS)
   - 1–HOUR FIRE RATING ON THE UNDERSIDE WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
3. OPENINGS:
   - PROHIBITED WITHIN 3FT OF PROPERTY LINE
   - MAXIMUM 25% OF WALL AREA WITHIN 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS)
4. PENETRATIONS:
   - 1–HOUR FIRE–RATED PENETRATIONS OF WALLS WITHIN 3FT OF PROPERTY LINE (WITH SPRINKLERS)
   - 1–HOUR FIRE–RATED PENETRATIONS OF WALLS WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
5. CONCRETE LANDING WITH MIN 36" DEPTH AND A MAXIMUM OF 1–½" LOWER THAN TOP OF DOOR THRESHOLD

OPTIONAL ROLL-IN SHOWER PLAN NOTES

1. SHOWER COMPARTMENT SEAT
   - MUST BE FOLDING TYPE, NOT TO EXCEED MORE THAN 6 INCHES FROM MOUNTING WALL WHEN FOLDED
   - LOCATED WITHIN 27 INCHES OF SHOWER CONTROLS
   - MOUNTED MINIMUM 17 INCHES AND MAXIMUM 19 INCHES ABOVE BATHROOM FINISHED FLOOR.
   - SEAT INSTALLED ON SIDE WALL ADJACENT TO CONTROLS AND EXTENDING FROM BACK WALL TO POINT WITHIN 3 INCHES OF SHOWER COMPARTMENT ENTRY
   - STRUCTURAL ADEQUACY OF MOUNTING HARDWARE AND FASTENERS TO ACCOMMODATE 250 POUND POINT LOAD APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE
2. SHOWER GRAB BARS
   - MOUNTED MINIMUM 33 INCHES AND MAXIMUM 36 INCHES ABOVE SHOWER FLOOR
   - NOT EXTENDING OVER SHOWER SEAT
   - IF CROSS SECTION IS CIRCULAR, MINIMUM 1–¼" AND MAXIMUM 2" OUTSIDE DIAMETER
   - IF CROSS SECTION IS NON–CIRCULAR, MINIMUM 4" AND MAXIMUM 4.8" PERIMETER AND MAXIMUM 2–¼" CROSS SECTION DIMENSION
   - GRAB BARS MOUNTED ADJACENT TO A WALL, 1–½" ABSOLUTE SPACE BETWEEN WALL AND GRAB BAR
   - MINIMUM 1–½" SPACE BETWEEN GRAB BAR AND PROJECTING OBJECTS BELOW AND AT ENDS
   - MINIMUM 12 INCH SPACE BETWEEN GRAB BAR AND PROJECTING OBJECTS ABOVE
   - SURFACE MATERIAL OF ANY WALLS OR OBJECTS ADJACENT TO GRAB BARS MUST BE FREE OF SHARP OR ABRASIVE ELEMENTS AND HAVE ROUNDED EDGES.
   - STRUCTURAL ADEQUACY OF MOUNTING HARDWARE AND FASTENERS TO ACCOMMODATE 250 POUND POINT LOAD APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE
   - WALL REINFORCEMENT TO BE PROVIDED AT LOCATION OF GRAB BARS (E.G. BLOCKING)
3. OPERABLE PARTS OF SHOWER CONTROLS AND FAUCETS:
   - INSTALLED ON BACK WALL OF SHOWER COMPARTMENT ADJACENT TO SEAT WALL
   - LOCATED MINIMUM 19 INCHES AND MAXIMUM 27 INCHES FROM SEAT WALL
   - LOCATED ABOVE GRAB BAR BUT NO HIGHER THAN 48 INCHES ABOVE SHOWER FLOOR
   - CENTERLINE AT MINIMUM 39 INCHES AND MAXIMUM 41 INCHES ABOVE SHOWER FLOOR
   - SINGLE–LEVER DESIGN
   - OPERABLE WITH MAXIMUM 5 POUNDS OF FORCE
   - OPERABLE WITH ONE HAND AND WITHOUT TIGHT GRASPING, PINCHING, OR TWISTING OF WRIST
4. SPRAYER UNIT AND ASSOCIATED OPERABLE PARTS SHALL BE PROVIDED PER THE FOLLOWING:
   - OPERABLE PARTS, INCLUDING HANDLE, TO BE INSTALLED ON BACK WALL OF SHOWER COMPARTMENT MINIMUM 19 INCHES AND MAXIMUM 27 INCHES FROM SEAT WALL
   - OPERABLE PARTS LOCATED ABOVE GRAB BAR BUT NO HIGHER THAN 48 INCHES ABOVE SHOWER FLOOR, MEASURED TO TOP OF MOUNTING BRACKET
   - MINIMUM 59 INCH LONG HOSE
   - CAPABLE FOR USE AS FIXED SHOWER HEAD AND HAND HELD SHOWER
   - ON/OFF CONTROL WITH NON–POSITIVE SHUT OFF
   - ADJUSTABLE –HEIGHT SHOWER HEADS ON VERTICAL BAR SHALL NOT OBSTRUCT USE OF BATHTUB GRAB BARS
5. WHERE SOAP DISHES ARE PROVIDED, MAXIMUM 40 INCHES ABOVE SHOWER FLOOR AND WITHIN REACH LIMITS FROM THE SHOWER SEAT
6. MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS OF ROLL–IN SHOWER FLOORS
7. MAXIMUM ½" HIGH THRESHOLDS WITH MAXIMUM 50% BEVELED SLOPE AT ROLL–IN SHOWERS
8. WHERE DRAINS ARE PROVIDED AT ROLL–IN SHOWERS, MAXIMUM ¼" GRATE OPENINGS FLUSH WITH SHOWER FLOOR SURFACE

AGING-IN-PLACE AND FALL PREVENTION DESIGN

1. REINFORCEMENT FOR GRAB BARS: AT LEAST ONE BATHROOM ON THE ENTRY LEVEL SHALL BE PROVIDED WITH REINFORCEMENT INSTALLED IN ACCORDANCE WITH SECTION R327.1.1. REINFORCEMENT SHALL BE MINIMUM 2X8 SOLID LUMBER, LOCATED BETWEEN 32" AND 39–¼" ABOVE THE FINISHED FLOOR FLUSH WITH WALL FRAMING ON BOTH SIDE WALLS OF THE FIXTURE.
2. ELECTRICAL OUTLETS, SWITCH, AND CONTROL HEIGHTS SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISHED FLOOR (SECTION R327.1.2). SHOW DIMENSION ON ELEVATION.
3. DOORBELL BUTTONS SHALL NOT EXCEED 48" ABOVE EXTERIOR FLOOR OR LANDING. (SECTION R327.1.4). SHOW DIMENSION ON ELEVATION.
4. INTERIOR DOORS: EFFECTIVE JULY 1, 2024, AT LEAST ONE BATHROOM AND ONE BEDROOM ON THE ENTRY LEVEL SHALL PROVIDE A DOORWAY WITH A NET CLEAR OPENING OF NOT LESS THAN 32 INCHES, MEASURED WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM THE CLOSE POSITION; OR, IN THE CASE OF A TWO– OR THREE–STORY SINGLE FAMILY DWELLING, ON THE SECOND OR THIRD FLOOR OF THE DWELLING IF A BATHROOM OR BEDROOM IS NOT LOCATED ON THE ENTRY LEVEL.

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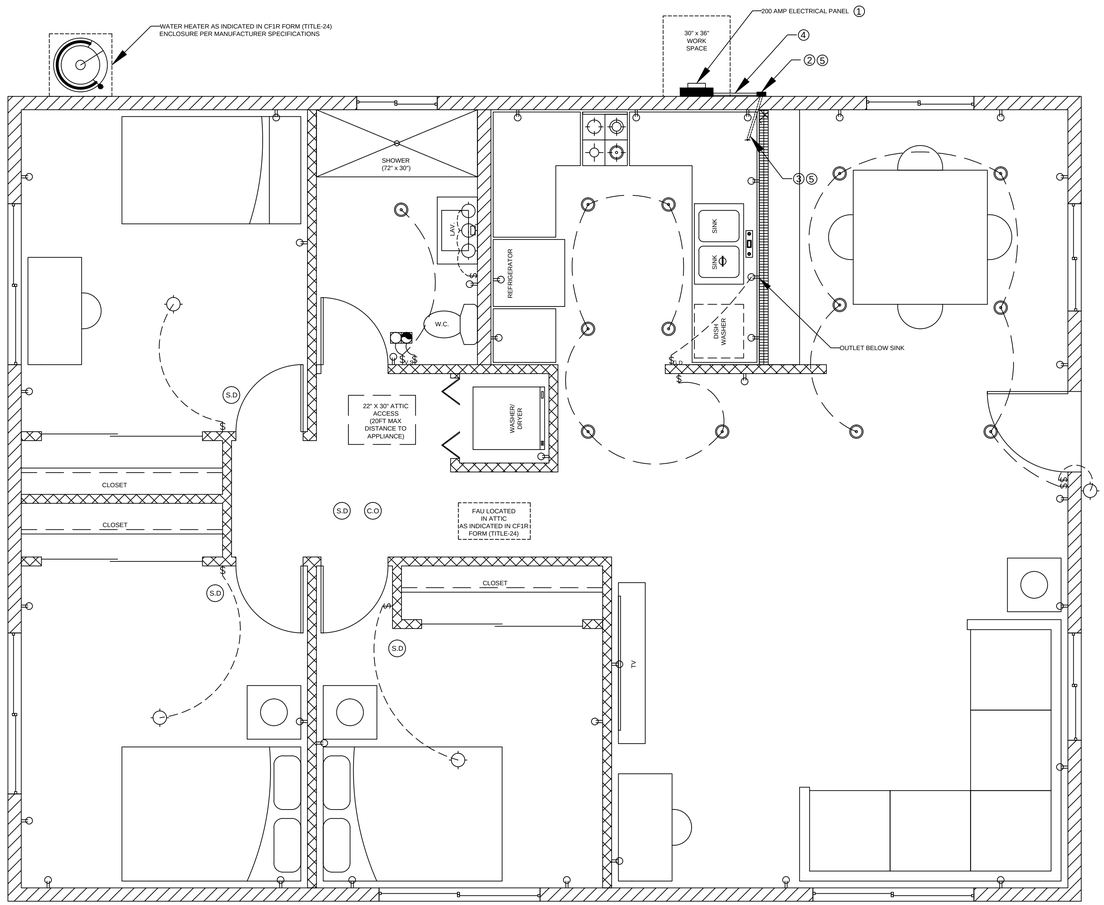
County of San Diego, Planning & Development Services

DWELLING UNIT (PLAN A - 1200 SF)

BUILDING DIVISION

Sheet Number

A1



ELECTRICAL LEGEND

	DUPLEX OUTLET		HIGH EFFICACY RECESSED LIGHT
$	WALL SWITCH		GARBAGE DISPOSAL
$G.D	GARBAGE DISPOSAL SWITCH		
$V.S	VACANCY SENSOR		
	4" DIA DRYER VENT		
SD	SMOKE DETECTOR		FAN & LIGHT COMBO
CO	CARBON MONOXIDE ALARM		
	FAN AND LIGHT COMBINATION		
	HIGH EFFICACY LIGHT FIXTURE		

ELECTRICAL PLAN
3/8" = 1'-0"

GAS or PROPANE WATER HEATERS NOTES

SYSTEMS USING GAS OR PROPANE WATER HEATERS TO SERVE INDIVIDUAL DWELLING UNITS SHALL DESIGNATE A SPACE AT LEAST 2.5 FEET BY 2.5 FEET WIDE AND 7 FEET TALL SUITABLE FOR THE FUTURE INSTALLATION OF A HEAT PUMP WATER HEATER (HPWH) BY MEETING EITHER A OR B BELOW. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE:

1. IF THE DESIGNATED SPACE IS WITHIN 3 FEET FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE THE FOLLOWING:
   a. A DEDICATED 125–VOLT, 20–AMP ELECTRICAL RECEPTACLE THAT IS CONNECTED TO THE ELECTRIC PANEL WITH A 120/240–VOLT 3 CONDUCTOR, 10 AWG COPPER BRANCH CIRCUIT, WITHIN 3 FEET FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS; AND
   b. BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED; AND
   c. A RESERVED SINGLE POLE CIRCUIT BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH CIRCUIT IN A ABOVE AND LABELED WITH THE WORDS 'FUTURE 240V USE'.
   d. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE.

2. IF THE DESIGNATED SPACE IS MORE THAN 3 FEET FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE THE FOLLOWING:
   a. A DEDICATED 240–VOLT BRANCH CIRCUIT SHALL BE INSTALLED WITHIN 3 FEET FROM THE DESIGNATED SPACE. THE BRANCH CIRCUIT SHALL BE RATED AT 30 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY"; AND
   b. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE HPWH INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS 'FOR FUTURE 240V USE'; AND
   c. EITHER A DEDICATED COLD–WATER SUPPLY, OR THE COLD–WATER SUPPLY SHALL PASS THROUGH THE DESIGNATED HPWH LOCATION JUST BEFORE REACHING THE GAS OR PROPANE WATER HEATER; AND
   d. THE HOT WATER SUPPLY PIPE COMING OUT OF THE GAS OR PROPANE WATER HEATER SHALL BE ROUTED FIRST THROUGH THE DESIGNATED HPWH LOCATION BEFORE SERVING ANY FIXTURES; AND
   e. THE HOT AND COLD–WATER PIPING AT THE DESIGNATED HPWH LOCATION SHALL BE EXPOSED AND READILY ACCESSIBLE FOR FUTURE INSTALLATION OF AN HPWH; AND
   f. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE.

GAS or PROPANE HEAT PUMPS NOTES

SYSTEMS USING GAS OR PROPANE FURNACE TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING:

1. A DEDICATED 240–VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE FURNACE AND ACCESSIBLE TO THE FURNACE WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS '240V READY.' ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

2. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE HEAT PUMP SPACE HEATER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS 'FOR FUTURE 240V USE.'

GAS or PROPANE COOKTOPS NOTES

SYSTEMS USING GAS OR PROPANE COOKTOP TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING:

1. A DEDICATED 240–VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE COOKTOP AND ACCESSIBLE TO THE COOKTOP WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 50 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS '240V READY.' ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

2. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE ELECTRIC COOKTOP INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS 'FOR FUTURE 240V USE.'"

GAS or PROPANE CLOTHES DRYERS NOTES

CLOTHES DRYER LOCATIONS WITH GAS OR PROPANE PLUMBING TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING:

1. A DEDICATED 240–VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE CLOTHES DRYER LOCATION AND ACCESSIBLE TO THE CLOTHES DRYER LOCATION WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS '240V READY.' ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

2. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE ELECTRIC CLOTHES DRYER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS 'FOR FUTURE 240V USE.'

UTILITY PLAN NOTES

1. LOCAL EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION.
2. SMOKE DETECTORS TO BE INTERCONNECTED PER CRC R314.4 AND HARD–WIRED WITH BATTERY BACK–UP PER CRC R314.6
3. CARBON MONOXIDE ALARMS TO BE INTERCONNECTED PER CRC R315.7 AND HARD–WIRED WITH BATTERY BACK–UP PER CRC R315.5
4. 4" ø DRYER VENT WITH MAXIMUM 14 FOOT COMBINED HORIZONTAL AND VERTICAL LENGTH WITH TWO 90 DEGREE ELBOWS.
5. A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATION SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DWELLING UNIT TO PROVIDE WHOLE–BUILDING VENTILATION WITH OUTDOOR AIR IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION.
6. AN INTERMITTENTLY OR CONTINUOUSLY OPERATING LOCAL MECHANICAL EXHAUST VENTILATION SYSTEM SHALL BE INSTALLED IN EACH BATHROOM WITH A BATHTUB, SHOWER, OR SIMILAR MOISTURE SOURCE AND IN EACH KITCHEN IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL EXHAUST VENTILATION AIRFLOW RATES SHALL BE 50 CFM IN BATHROOMS AND 100 CFM IN KITCHENS. CONTINUOUS LOCAL EXHAUST VENTILATION AIRFLOW RATES SHALL BE 20 CFM IN BATHROOMS AND 5 AIR CHANGES PER HOUR IN KITCHENS BASED ON KITCHEN VOLUME.
7. WATER HEATER OR FURNACE SHALL BE A DIRECT–VENT APPLIANCE
8. LISTED GASKETED SELF–CLOSING DOOR REQUIRED FOR GAS FAU

LIGHTING PLAN NOTES

1. ALL LUMINARIES SHALL BE HIGH–EFFICACY IN ACCORDANCE WITH CBEES TABLE 150.0–A
2. ALL LED LUMINARIES AND LAMPS SHALL BE MARKED "JA8" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT: HTTPS://CACERTAPPLIANCES.ENERGY.CA.GOV/PAGES/APPLIANCESEARCH.ASPX
3. ALL RECESSED DOWNLIGHT AND ENCLOSED LUMINARIES SHALL BE MARKED "JA8–E" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT: HTTPS://CACERTAPPLIANCES.ENERGY.CA.GOV/PAGES/APPLIANCESEARCH.ASPX
4. RECESSED DOWNLIGHT LUMINARIES IN CEILINGS SHALL NOT BE SCREW–BASED
5. BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS: AT LEAST ONE LUMINARIES IN EACH SPACE SHALL BE CONTROLLED BY A VACANCY SENSOR
6. ALL LUMINARIES REQUIRING "JA8" OR "JA8–E" MARKING SHALL BE CONTROLLED BY A DIMMER OR VACANCY SENSOR
   EXCEPTION: CLOSETS LESS THAN 70 S.F. & HALLWAYS
7. OUTDOOR LIGHTING PERMANENTLY MOUNTED TO BUILDINGS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING:
   – PHOTOCONTROL AND MOTION SENSOR
   – PHOTOCONTROL AND AUTOMATIC TIME–SWITCH CONTROL
   – ASTRONOMICAL TIME CLOCK
   – ENERGY MANAGEMENT CONTROL SYSTEM PER CBEES 150.0(K)3AIIIC

ENERGY STORAGE SYSTEMS (ESS) NOTES

1. AT LEAST ONE OF THE FOLLOWING SHALL BE PROVIDED:
   a. ESS READY INTERCONNECTION EQUIPMENT WITH A MINIMUM BACKED–UP CAPACITY OF 60 AMPS AND A MINIMUM OF FOUR ESS–SUPPLIED BRANCH CIRCUITS, OR
   b. A DEDICATED RACEWAY FROM THE MAIN SERVICE TO A PANELBOARD (SUBPANEL) THAT SUPPLIES THE BRANCH CIRCUITS IN SECTION 150.0(S)(2). ALL BRANCH CIRCUITS ARE PERMITTED TO BE SUPPLIED BY THE MAIN SERVICE PANEL PRIOR TO THE INSTALLATION OF AN ESS. THE TRADE SIZE OF THE RACEWAY SHALL BE NOT LESS THAN ONE INCH. THE PANELBOARD THAT SUPPLIES THE BRANCH CIRCUITS (SUBPANEL) MUST BE LABELED "SUBPANEL SHALL INCLUDE ALL BACKED–UP LOAD CIRCUITS."
2. A MINIMUM OF FOUR BRANCH CIRCUITS SHALL BE IDENTIFIED AND HAVE THEIR SOURCE OF SUPPLY COLLOCATED AT A SINGLE PANELBOARD SUITABLE TO BE SUPPLIED BY THE ESS. AT LEAST ONE CIRCUIT SHALL SUPPLY THE REFRIGERATOR, ONE LIGHTING CIRCUIT SHALL BE LOCATED NEAR THE PRIMARY EGRESS, AND AT LEAST ONE CIRCUIT SHALL SUPPLY A SLEEPING ROOM RECEPTACLE OUTLET.
3. THE MAIN PANELBOARD SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS.
4. SUFFICIENT SPACE SHALL BE RESERVED TO ALLOW FUTURE INSTALLATION OF A SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH WITHIN 3 FEET OF THE MAIN PANELBOARD. RACEWAYS SHALL BE INSTALLED BETWEEN THE PANELBOARD AND THE SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH LOCATION TO ALLOW THE CONNECTION OF BACKUP POWER SOURCE.

SOLAR READY KEY NOTES

1. THE MAIN ELECTRICAL SERVICE PANEL SHALL NOT BE OF A TYPE WITH A CENTER–FED MAIN CIRCUIT BREAKER AND SHALL INCLUDE RESERVED SPACE ALLOWING FOR INSTALLATION OF DOUBLE–POLE CIRCUIT BREAKERS FOR A FUTURE SOLAR PHOTOVOLTAIC SYSTEM. SUCH RESERVED SPACE SHALL BE POSITIONED AT THE OPPOSITE (LOAD) END FROM THE INPUT FEEDER OR MAIN CIRCUIT BREAKER LOCATION. THE RESERVED SPACE SHALL BE PERMANENTLY AND VISIBLY MARKED AS "FOR FUTURE SOLAR PHOTOVOLTAIC"
2. APPROVED MINIMUM 4–INCH SQUARE ELECTRICAL JUNCTION BOX LOCATED WITHIN 72 INCHES HORIZONTALLY AND 12 INCHES VERTICALLY OF MAIN ELECTRICAL SERVICE PANEL
3. MINIMUM 1 INCH DIAMETER LISTED ELECTRICAL METALLIC RACEWAY ORIGINATING AT READILY ACCESSIBLE ATTIC LOCATION WITH PROXIMITY TO SOLAR ZONE AREA AND TERMINATING AT THE REQUIRED ELECTRICAL JUNCTION BOX
4. MINIMUM 1 INCH DIAMETER LISTED ELECTRICAL METALLIC RACEWAY ORIGINATING AT THE REQUIRED ELECTRICAL JUNCTION BOX AND TERMINATING AT THE MAIN ELECTRICAL SERVICE PANEL
5. ELECTRICAL JUNCTION BOX AND SEGMENT OF METALLIC RACEWAY IN THE ATTIC SHALL BE PERMANENTLY AND VISIBLY MARKED AS "FOR FUTURE SOLAR PHOTOVOLTAIC"

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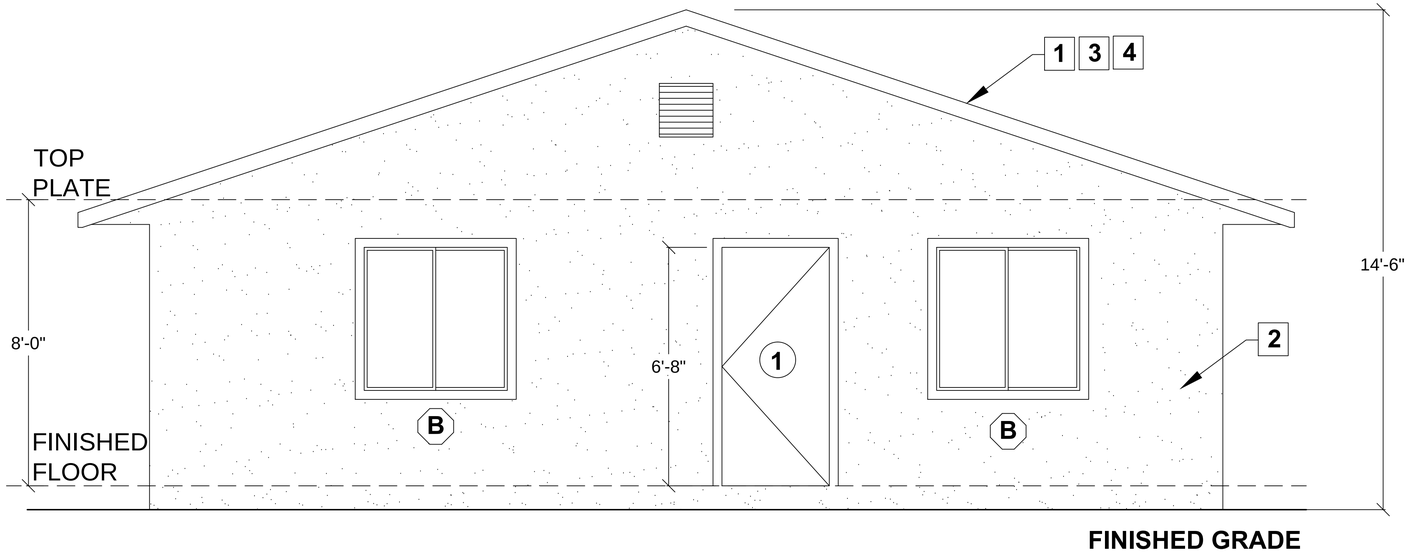
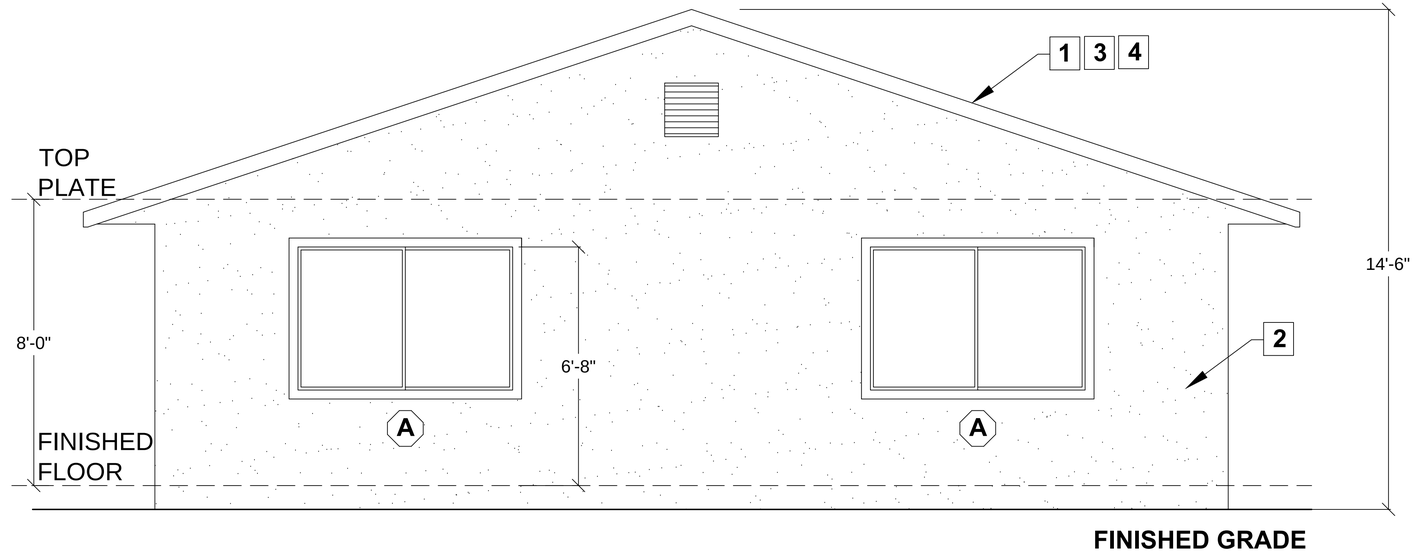
County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

Sheet Number

A2



FRONT



BACK

ELEVATIONS
1/2" = 1'-0"

ELEVATION KEY NOTES

1. ROOF: CLASS 'A' FIRE RATING

   ROOF MATERIAL: COMPOSITION SHINGLES

   MANUFACTURER / MODEL: GAF / TIMBERLINE

   UNDERLAYMENT: TWO LAYERS OF 15# FELT

   LISTING REPORT #: ESR-1475

2. EXTERIOR WALL FINISH: 7/8" STUCCO (SEE NOTE 7 BELOW)
3. ROOF PITCH: 4:12
4. RADIANT BARRIER IS REQUIRED YES ☐ NO X

WILDFIRE ZONE PLAN NOTES

1. IN ROOF COVERINGS WHERE THE PROFILE CREATES SPACE BETWEEN THE ROOF COVERING AND COMBUSTIBLE ROOF DECKING, SPECIFY ONE OF THE FOLLOWING MEANS OF PROTECTING SPACES AT EAVES ENDS:
   a. FIRE-STOPPING WITH APPROVED MATERIALS
   b. ONE LAYER OF 72 POUND (32.4 KG) MINERAL-SURFACED NON-PERFORATED CAP SHEET COMPLYING WITH ASTM D 3909 INSTALLED OVER THE COMBUSTIBLE DECKING
   c. OTHERWISE CONSTRUCTED TO PREVENT INTRUSION OF FLAMES AND EMBERS
2. EXPOSED VALLEY FLASHINGS SHALL BE CONSTRUCTED WITH NOT LESS THAN 0.019-INCH (NO. 26 GALVANIZED SHEET GAGE) CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36-INCH-WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY.
3. ANY ROOF GUTTERS SHALL BE PROVIDED WITH MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS.
4. SKYLIGHTS SHALL BE TEMPERED GLASS.
5. ALL VENTS (ROOF, FOUNDATION, COMBUSTION-AIR, ETC) SHALL RESIST THE INTRUSION OF FLAMES AND EMBERS
6. VENTILATION OPENINGS FOR ENCLOSED ATTICS, EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, UNDERFLOOR VENTILATION OPENINGS, AND VENT OPENINGS IN EXTERIOR WALLS AND EXTERIOR DOORS SHALL BE LISTED TO ASTM E 2886 AND COMPLY WITH ALL OF THE FOLLOWING:
   a. THERE SHALL BE NO FLAMING IGNITION OF THE COTTON MATERIAL DURING THE EMBER INTRUSION TEST
   b. THERE SHALL BE NO FLAMING IGNITION DURING THE INTEGRITY TEST PORTION OF THE FLAME INTRUSION TEST
   c. THE MAXIMUM TEMPERATURE OF THE UNEXPOSED SIDE OF THE VENT SHALL NOT EXCEED 662 DEGREES FAHRENHEIT (350 DEGREES CELSIUS)
7. EXTERIOR WALL FINISH SHALL COMPLY WITH ONE OF THE FOLLOWING:
   a. NON-COMBUSTIBLE MATERIAL (STUCCO, CEMENT FIBER BOARD, ETC)
      - STUCCO AND CEMENT PLASTER USED AS AN EXTERIOR WALL COVERING SHALL BE 7/8-INCH THICK
      - NONCOMBUSTIBLE OR FIRE-RETARDANT-TREATED WOOD SHAKE USED AS AN EXTERIOR WALL COVERING SHALL HAVE AN UNDERLAYMENT OF MINIMUM 1/2-INCH FIRE-RATED GYPSUM SHEATHING THAT IS TIGHTLY BUTTED, OR TAPED AND MUDDED, OR AN UNDERLAYMENT OF OTHER IGNITION-RESISTANT MATERIAL APPROVED BY THE BUILDING OFFICIAL.
   b. IGNITION-RESISTANT MATERIAL
8. PATIO COVER, CARPORT AND TRELLIS CONSTRUCTION WITH ALL EXPOSED ELEMENTS SHALL COMPLY WITH ANY OF THE FOLLOWING:
   - NON-COMBUSTIBLE MATERIAL
   - 1-HOUR FIRE-RESISTANT-RATED MATERIAL
   - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
   - MODIFIED HEAVY TIMBER (MIN 2X TONGUE-AND-GROOVE SHEATHING, 4X6 RAFTERS/BEAMS, 6X6 POSTS)
9. DECK, BALCONY, AND EXTERIOR STAIR CONSTRUCTION, WITH ALL EXPOSED ELEMENTS SHALL COMPLY WITH THE FOLLOWING:
   a. FRAMING
      - NON-COMBUSTIBLE MATERIAL
      - 1-HOUR FIRE-RESISTANT-RATED MATERIAL
      - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
      - MODIFIED HEAVY TIMBER (MIN 4X8 JOISTS, 4X10 OR 6X8 BEAMS, 6X6 POSTS)
   b. DECKING AND TREAD MATERIAL (ANY OF THE FOLLOWING):
      - NON-COMBUSTIBLE MATERIAL
      - 1-HOUR FIRE-RESISTANT-RATED MATERIAL
      - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
      - APPROVED ALTERNATIVE DECKING MATERIAL MEETING TESTS REQUIREMENTS OF COUNTY BUILDING CODE 92.1.709A.1.4)
10. EXTERIOR GARAGE DOORS SHALL RESIST THE INTRUSION OF EMBERS INTO THE GARAGE BY LIMITING THE SIZE OF ANY GAPS AT THE BOTTOM, SIDES, AND TOP OF THE DOOR TO 1/8 INCH OR LESS USING ONE OF THE FOLLOWING METHODS:
    a. WEATHER-STRIPPING PRODUCTS WITH TENSILE STRENGTH AND FLAMMABILITY RATING PER CBC 708A.4
    b. DOOR OVERLAPS ONTO JAMBS AND HEADERS
    c. GARAGE DOOR JAMBS AND HEADERS COVERED WITH METAL FLASHING
11. PAPER-FACED INSULATION PROHIBITED IN ATTICS OR OTHER VENTILATED SPACES.
12. FENCES OR ANY STRUCTURE WITHIN 5 FEET OF BUILDING SHALL BE CONSTRUCTED PER ONE OF THE FOLLOWING:
    a. NON-COMBUSTIBLE MATERIAL
    b. APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
    c. MATERIAL MEETING SAME FIRE-RESISTIVE STANDARDS AS EXTERIOR WALLS OF BUILDINGS

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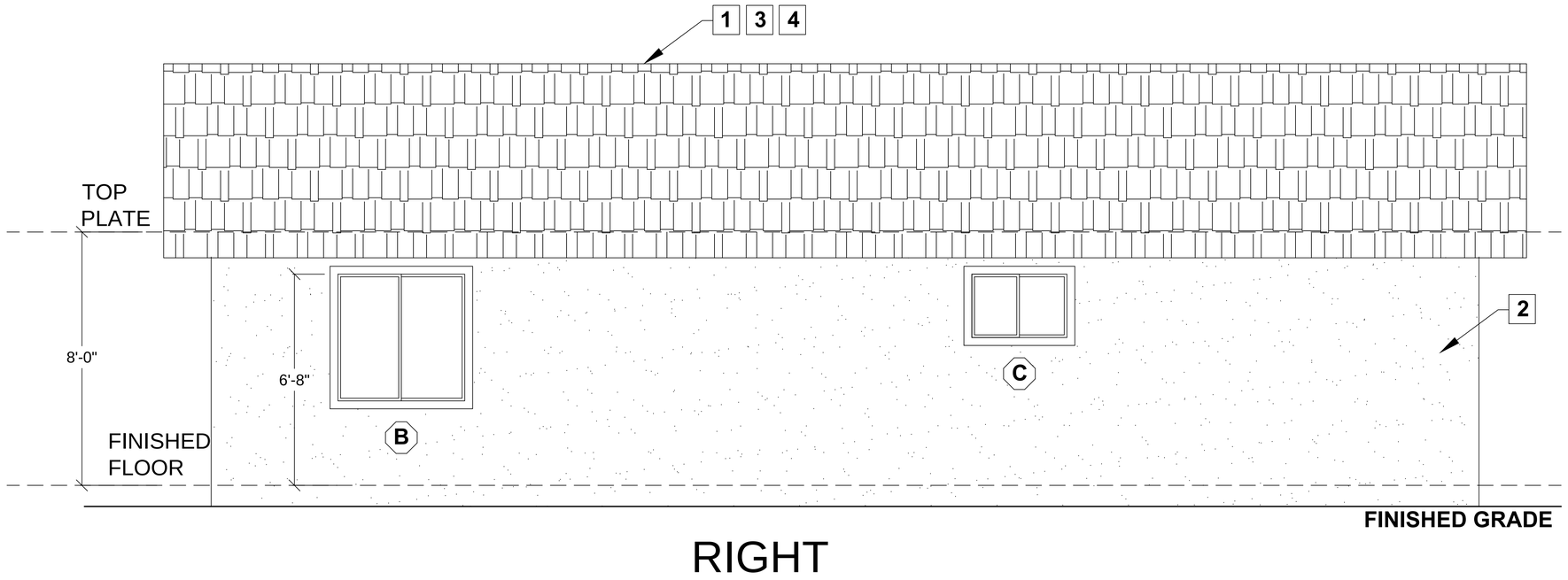
County of San Diego, Planning & Development Services

DWELLING UNIT (PLAN A - 1200 SF)

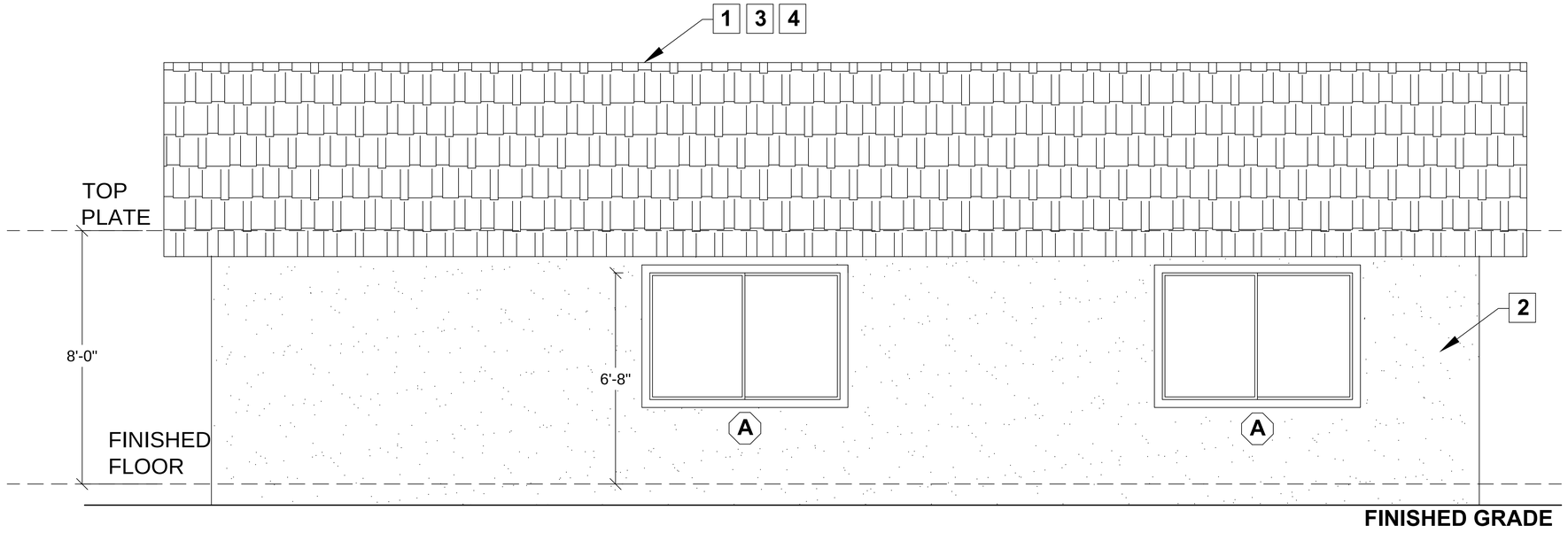
BUILDING DIVISION

Sheet Number

A3



RIGHT



LEFT

ELEVATIONS
1/2" = 1'-0"

ELEVATION KEY NOTES

SEE SHEET A3 FOR KEYNOTES

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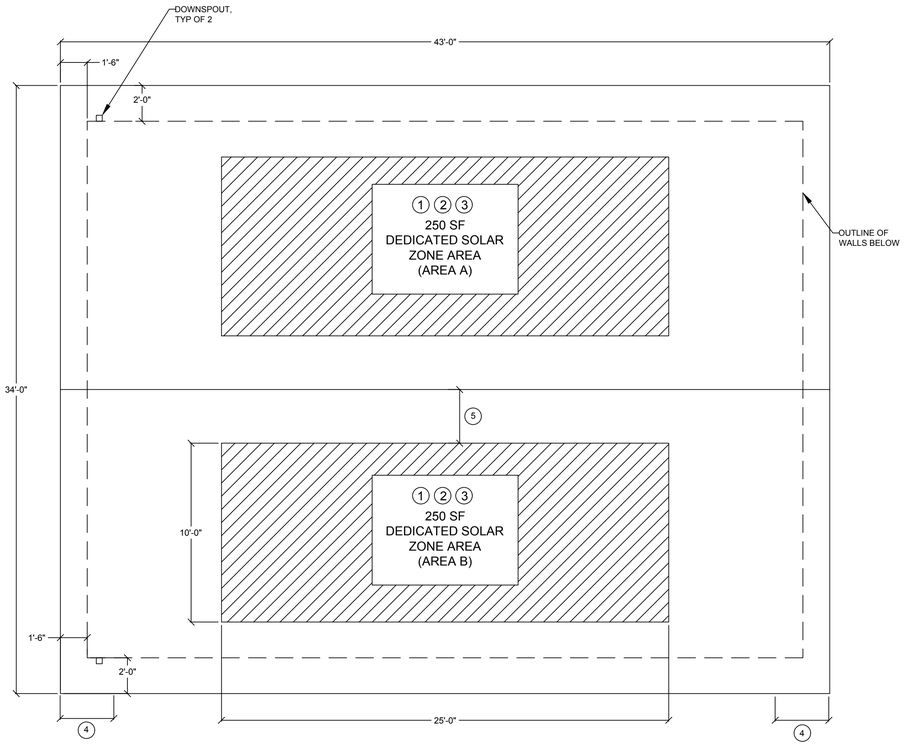
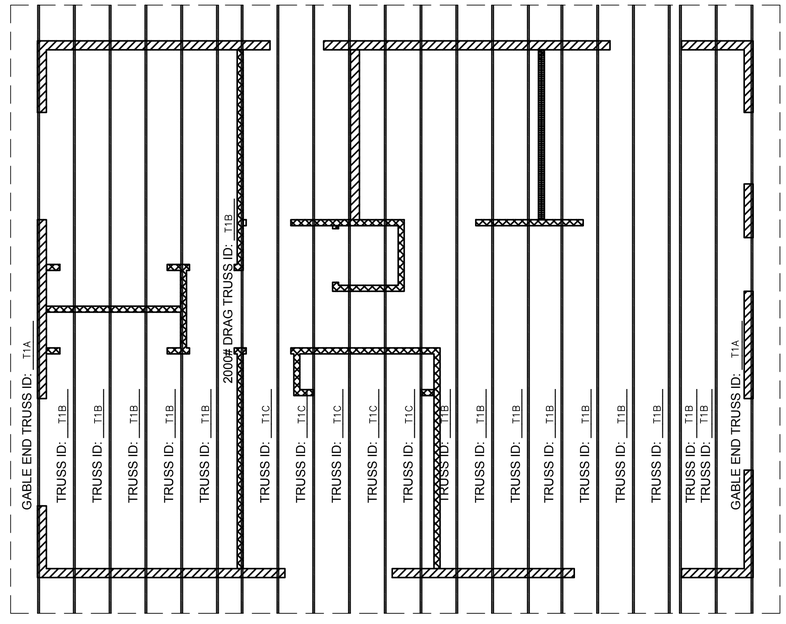
County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

Sheet Number

A4





SOLAR READY KEY NOTES

WHEN PV SYSTEM NOT REQUIRED PER ENERGY COMPLIANCE DOCUMENTATION OR OTHERWISE EXEMPTED:

1. MIN 250 S.F. SOLAR ZONE AREA
2. DEDICATED SOLAR ZONE AREA LOCATED BETWEEN 110 AND 270 DEGREES OF TRUE NORTH – USE AREA A OR B AS NEEDED.
3. NO OBSTRUCTIONS – INCLUDING VENTS, CHIMNEYS, SKYLIGHTS, ARCHITECTURAL FEATURES, ROOF–MOUNTED EQUIPMENT – LOCATED WITHIN SOLAR ZONE.
4. 3' MIN FIRE FIGHTER ACCESS
5. 3' SMOKE VENTILATION SETBACK AT RIDGES

ATTIC VENTILATION

ATTIC VENTILATION REQUIRED
(SEE WILDFIRE NOTES 5 & 6 ON SHEET A3)

NET FREE CROSS VENTILATION AREA = 1/300

VENT AREA REQUIRED = 1200 ft² / 300 = 4 ft² x 144 = 576 in² < _____ in² (TOTAL VENT AREA PROVIDED)

1. GABLE VENT (MIN ONE VENT AT EACH GABLE END)
   MANUFACTURER: EKENA
   MODEL: GVPVE18X1803SF
   QTY: 2 NFVA: 324 in²
   VENT AREA PROVIDED = QTY x NFVA = 648 in²
2. EAVE VENT
   MANUFACTURER: _____
   MODEL: _____
   QTY: _____ NFVA: _____ in²
   VENT AREA PROVIDED = QTY x NFVA = _____ in²
3. ROOF VENT
   MANUFACTURER: _____
   MODEL: _____
   QTY: _____ NFVA: _____ in²
   VENT AREA PROVIDED = QTY x NFVA = _____ in²
4. INSTALL BETWEEN 40% AND 50% OF THE REQUIRED NET FREE VENT AREA A MAXIMUM OF 3 FEET BELOW THE RIDGE OR THE HIGHEST POINT OF THE SPACE (MEASURED VERTICALLY), AND INSTALL THE BALANCE OF THE REQUIRED VENTILATION IN THE BOTTOM ONE–THIRD OF THE ATTIC SPACE.

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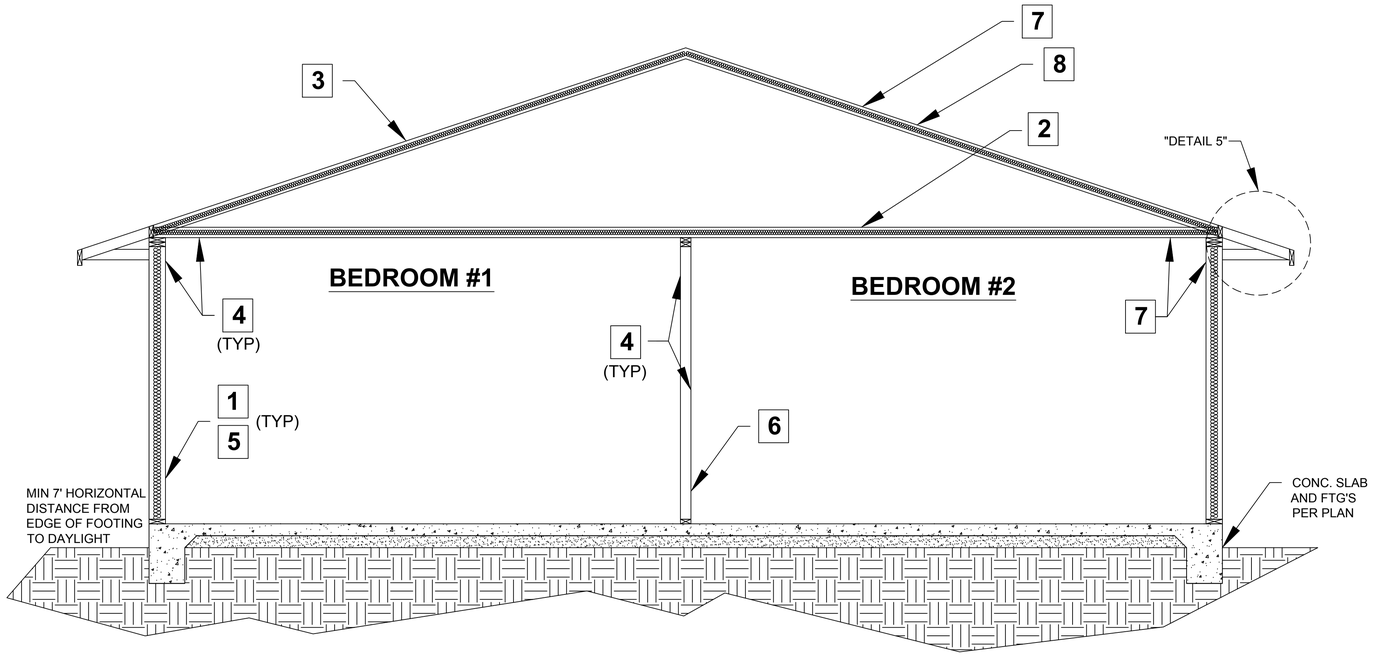
T1B

County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

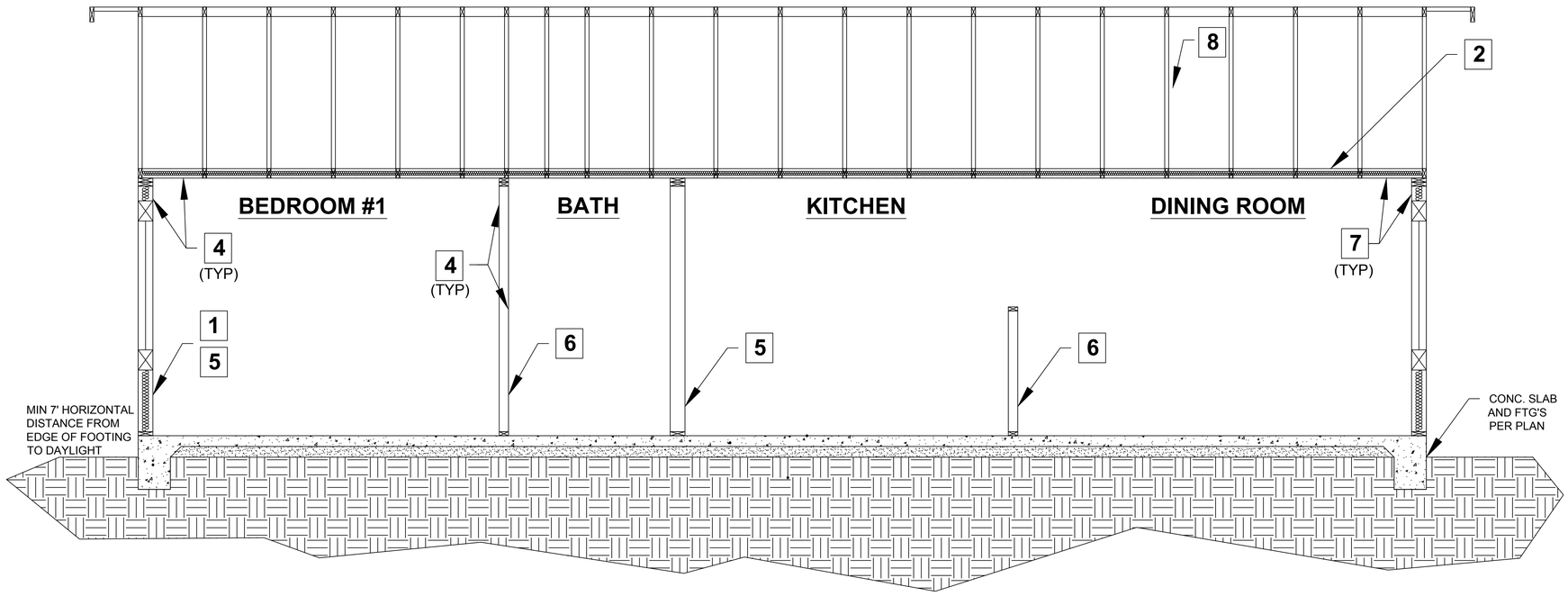
Sheet Number

A5

ROOF PLAN / TRUSS LAYOUT
1/4" = 1'-0"



SECTION A-A



SECTION B-B

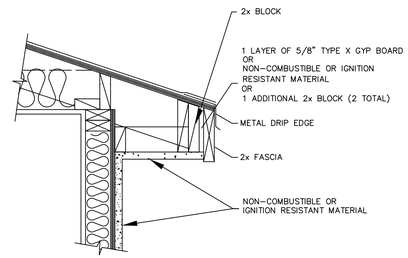
SECTIONS
1/2" = 1'-0"

SECTION KEY NOTES

1. WALL INSULATION: R-15
2. CEILING INSULATION: R-30
3. ROOF (TOP CHORD) INSULATION: _____
4. INTERIOR FINISH: ½" GYPSUM BOARD
5. EXTERIOR WALL/PLUMBING WALL: 2X6 STUD WALL
6. INTERIOR WALL: 2X4 STUD WALL
7. CLIMATE ZONE 14 PROJECT (Y or N) if yes, see below:

   A CLASS I OR II VAPOR RETARDER SHALL BE INSTALLED ON THE CONDITIONED SPACE SIDE OF ALL INSULATION IN ALL EXTERIOR WALLS AND VENTED ATTICS
8. MANUFACTURED TRUSSES

(1) IGNITION-RESISTANT EAVE



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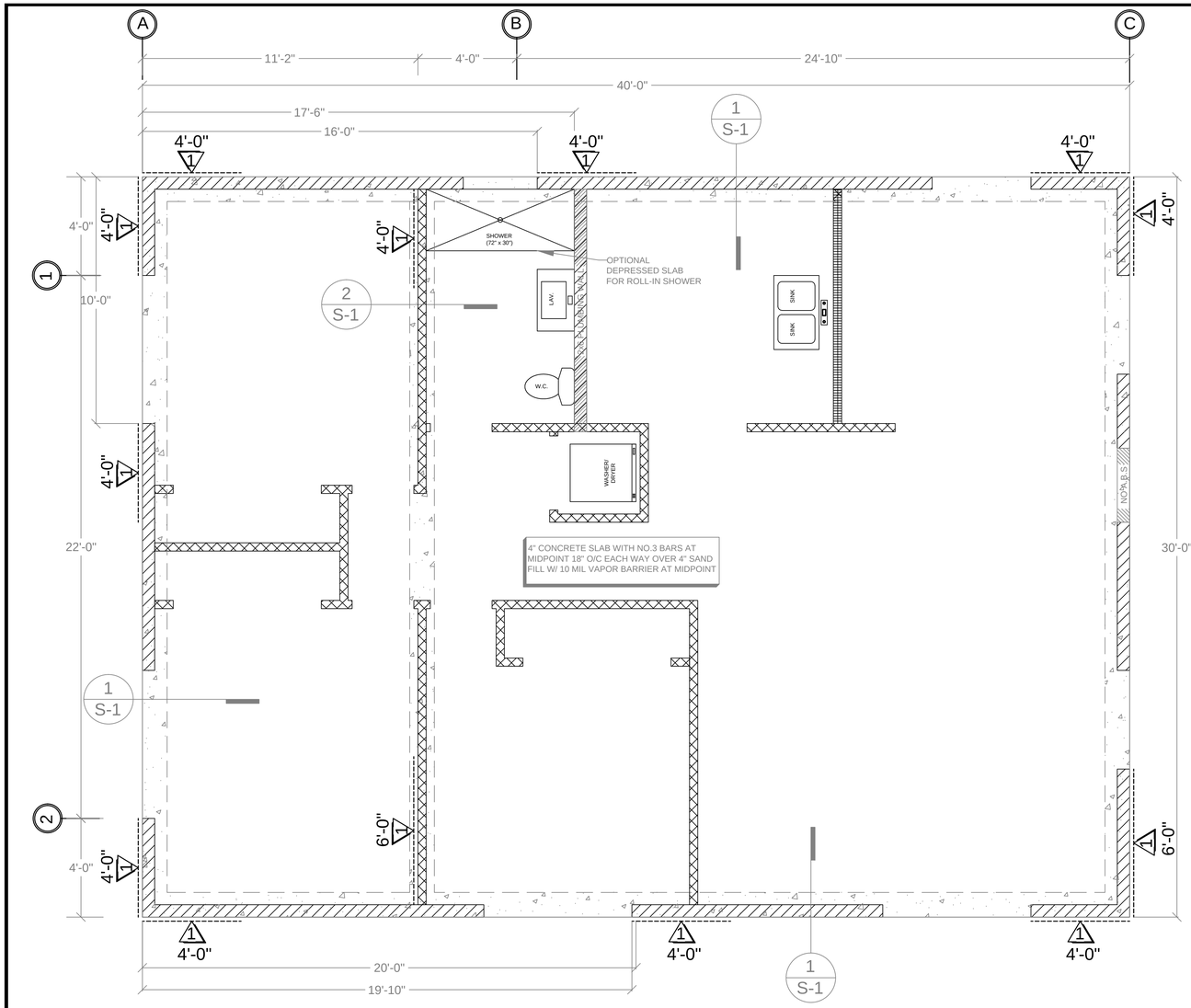
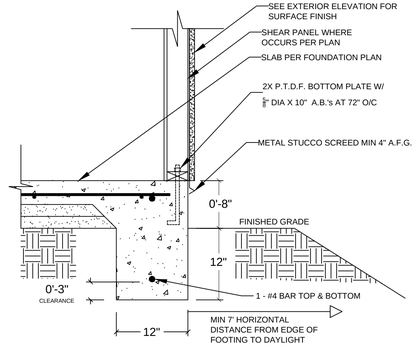
County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

Sheet Number

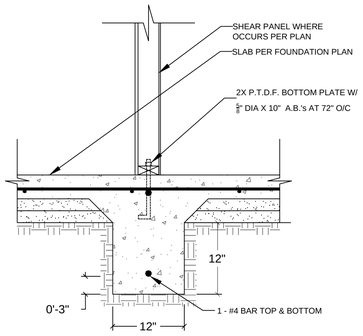
A6



FOUNDATION PLAN
3/8" = 1'-0"



1 EXTERIOR FOOTING



2 INTERIOR FOOTING

FOUNDATION PLAN NOTES

1. ALL ANCHORS BOLTS SHALL BE $\frac{5}{8}$" DIAMETER AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES INTO CONCRETE (UNO) AND NOT SPACED MORE THAN 6 FEET APART
2. 3"X3"X0.229" PLATE WASHERS SHALL BE USED ON EACH SILL PLATE ANCHOR BOLT
3. FOR STANDARD CUT WASHERS PLACED BETWEEN PLATE WASHER AND NUT, HOLE IN PLATE WASHER MAY BE DIAGONALLY SLOTTED WITH MAXIMUM $\frac{3}{16}$" LARGER WIDTH THAN BOLT DIAMETER AND MAXIMUM $1\frac{3}{4}$" SLOT LENGTH
4. PROVIDE A MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE WITH ONE BOLT LOCATED MAXIMUM 12" AND MINIMUM 7 BOLT DIAMETERS FROM EACH END OF EACH SECTION.
5. BOLTS LOCATED IN THE MIDDLE THIRD OF THE SILL PLATE WIDTH
6. FASTENERS FOR PRESSURE–PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL BE HOT–DIPPED ZINC COATED GALVANIZED, STAINLESS STEEL OR COPPER
7. NO LPG PIPING ASSEMBLIES ALLOWED IN OR BENEATH SLABS WITHIN THE STRUCTURE

WOOD STRUCTURAL PANEL SHEATHING

MARK	MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (in)	MAXIMUM WALL STUD SPACING (in)	PANEL NAIL SPACING	
	SIZE	PENETRATION (in)				EDGES (inches o/c)	FIELD (inches o/c)
1	6D COMMON	1.5	24:0	$\frac{3}{8}$"	16	6	12
	8D COMMON	1.75	24:16	$\frac{7}{16}$"	16	6	12

WOOD STRUCTURAL PANELS SHALL CONFORM TO DOC PS 1, DOC PS 2 OR ANSI/APA PRP 210, CSA O437 OR CSA O325.
PANELS SHALL BE IDENTIFIED BY A GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY

VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON STUDS.
HORIZONTAL JOINTS IN BRACED WALL PANELS SHALL OCCUR OVER AND BE FASTENED TO COMMON BLOCKING OF A MINIMUM $1\frac{1}{2}$ INCH THICKNESS.

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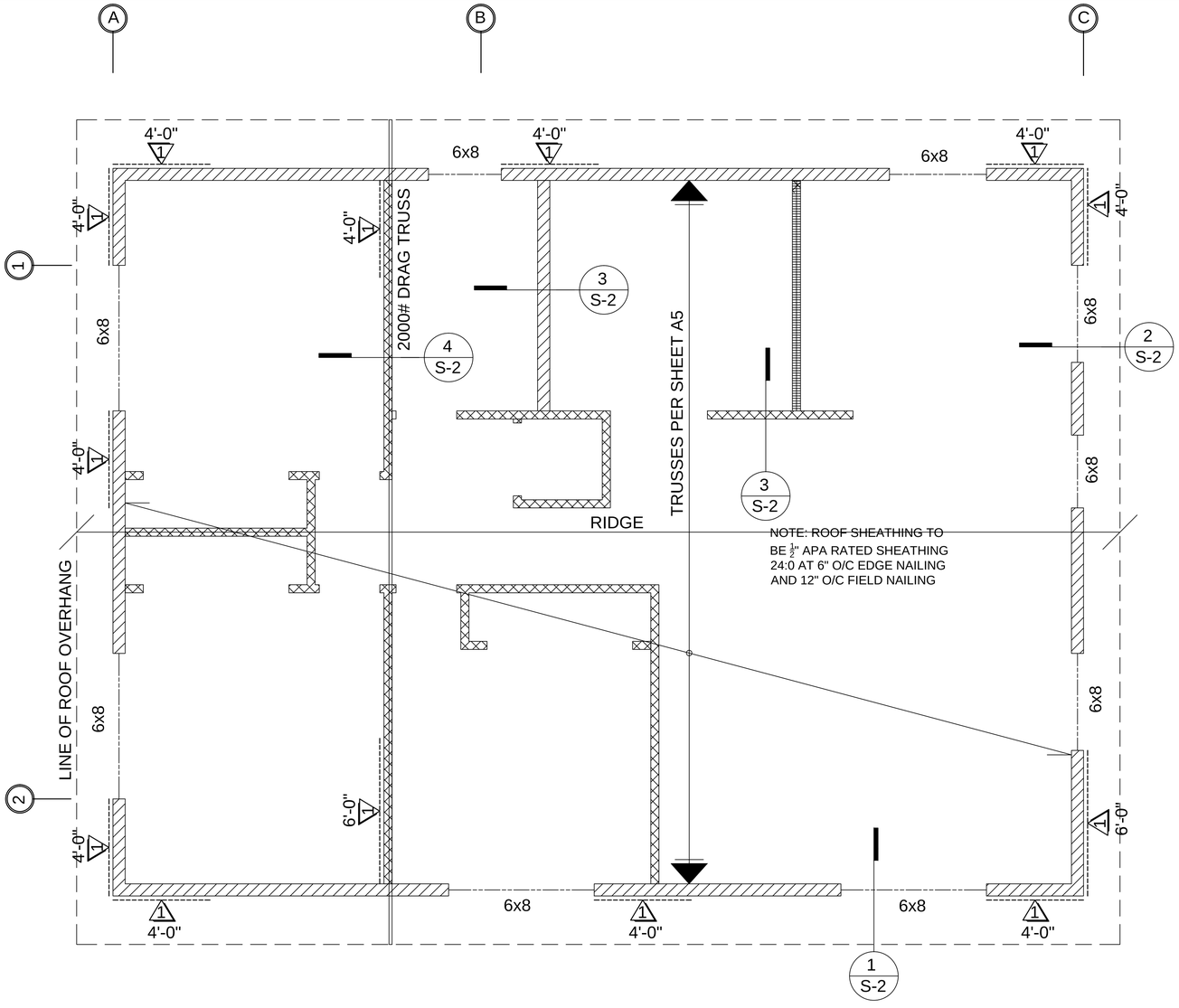
County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

Sheet Number

S1

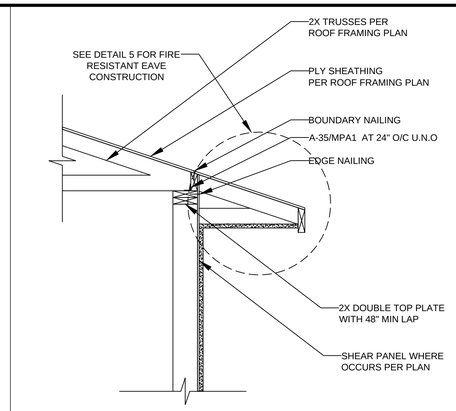


ROOF FRAMING PLAN
3/8" = 1'-0"

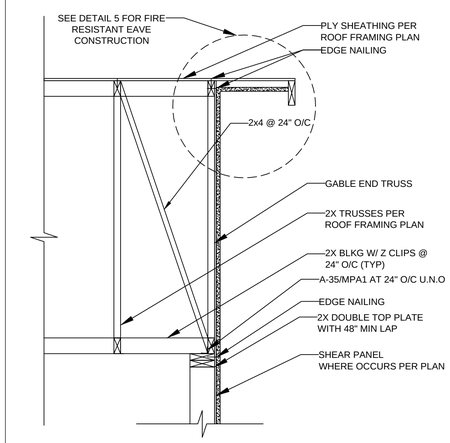
WOOD STRUCTURAL PANEL SHEATHING							
MARK	MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (in)	MAXIMUM WALL STUD SPACING (in)	PANEL NAIL SPACING	
	SIZE	PENETRATION (in)				EDGES (inches o/c)	FIELD (inches o/c)
1	6D COMMON	1.5	24:0	3/8"	16	6	12
	8D COMMON	1.75	24:16	7/16"	16	6	12

WOOD STRUCTURAL PANELS SHALL CONFORM TO DOC PS 1, DOC PS 2 OR ANSI/APA PRP 210, CSA O437 OR CSA O325.
PANELS SHALL BE IDENTIFIED BY A GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY

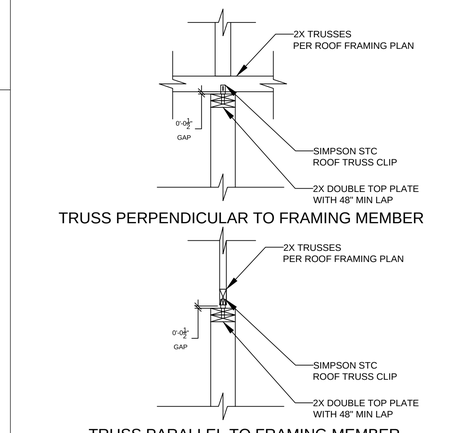
VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON STUDS.
HORIZONTAL JOINTS IN BRACED WALL PANELS SHALL OCCUR OVER AND BE FASTENED TO COMMON BLOCKING OF A MINIMUM 1 1/2 INCH THICKNESS.



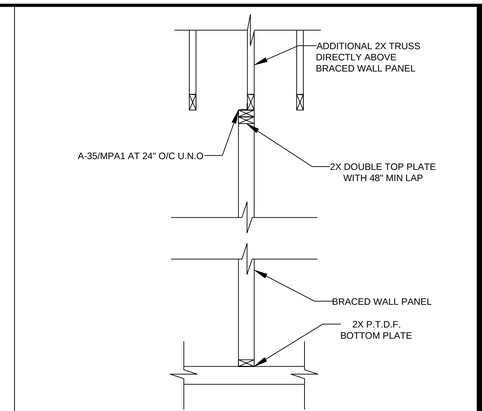
1 EAVE (SHEAR TRANSFER)



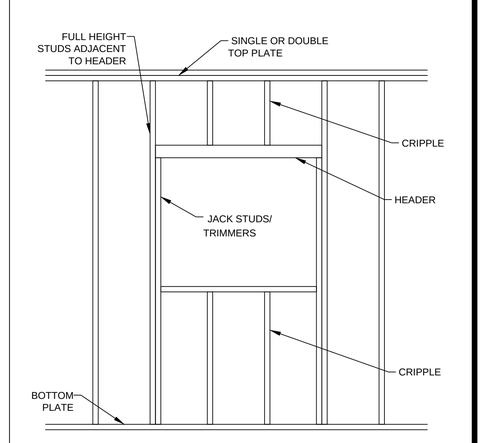
2 GABLE-END (SHEAR TRANSFER)



3 NON-BEARING WALL



4 BRACED WALL PANEL PARALLEL TO CEILING FRAMING



5 TYPICAL FRAMING AT OPENING

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

County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

Sheet Number

S2

A. General

Applicable codes. All projects will comply with the following building codes and associated County of San Diego amendment.
2022 California Building Code (CBC) and/or California Residential Code (CRC)
2022 California Green Building Standards Code (CalGreen)
2022 California Electrical Code (CEC)
2022 California Mechanical Code (CMC)
2022 California Plumbing Code (CPC)
2022 California Fire Code (CFC)
2022 California Building Energy Efficiency Standards (CBEES)

B. Electrical, Plumbing, and Mechanical

1. **Exterior lighting.** All projects shall comply with the County of San Diego lighting ordinance.
2. **GFCI outlets.** Ground Fault Circuit Interrupter (GFCI) outlets are required in bathrooms, at kitchen countertops, at laundry and wet bar sinks, in garages, in crawlspaces, in unfinished basements, and outdoors. (CEC 210.8)
3. **AFCI outlets.** Electrical circuits in bedrooms, living rooms, dining rooms, dens, closets, hallways, or similar rooms must be protected by Arc Fault Circuit Interrupters (AFCI). (CEC 210.12)
4. **Luminaire requirements.** Installed luminaires shall meet the efficacy and fixture requirements of CBEES 150.0(k).
5. **Smoke detectors in building remodels.** Smoke detectors are required in each existing sleeping room, outside each separate sleeping area in the immediate vicinity of sleeping rooms, and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R314.3)
6. **Carbon monoxide detectors in building remodels.** Carbon monoxide detectors are required outside each separate sleeping area in the immediate vicinity of sleeping rooms and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R315.3)
7. **Water heater seismic strapping.** Minimum two 3/4-inch-by-24-gauge straps required around water heaters, with 1/4-inch-by-3-inch lag bolts attached into wall framing. Straps shall be at points within upper third and lower third of water heater vertical dimension. Lower connection shall occur minimum 4 inches above controls. (CPC 507.2)
8. **Gas appliances in garages.** Water heaters and heating/cooling equipment capable of igniting flammable vapors shall be placed on minimum 18-inch platforms unless listing report number provided showing ignition-resistant appliance. (CPC 507.13 and CMC 305.1)
9. **Impact protection of appliances.** Water heaters and heating/cooling equipment subject to vehicular impact shall be protected by bollards or an equivalent measure. (CPC 507.13.1 and CMC 305.11)
10. **Water closet clearance.** Minimum 30-inch-wide by 24-inch-deep clearance required at front of water closets. (CPC 402.5)
11. **Shower size.** Shower compartments shall have minimum area of 1024 square inches and be able to encompass a 30-inch-diameter circle. Shower doors shall have a minimum 22-inch unobstructed width. (CPC 408.5 and CPC 408.6)
12. **Fireplace appliances.** Fireplaces with gas appliances are required to have the flue damper permanently fixed in the open position and fireplaces with LPG appliances are to have no 'pit' or 'sump' configurations. (CMC 303.7.1)
13. **Chimney clearance.** Minimum 2-foot chimney clearance required above building within 10-foot horizontally of chimney. The chimney shall extend minimum 3 feet above highest point where chimney passes through roof. (CRC R1003.9)

C. Mechanical Ventilation and Indoor Air Quality (ASHRAE 62.2-2010)

1. **Transfer air.** Ventilation air shall be provided directly from the outdoors and not as transfer air from adjacent dwelling units or other spaces, such as garages, unconditioned crawlspaces, or unconditioned attics. (CBEES 150.0(o))
2. **Instructions and labeling.** Ventilation system controls shall be labeled, and the homeowner shall be provided with instructions on how to operate the system. (CBEES 150.0(o))
3. **Combustion and solid-fuel burning appliances.** Combustion appliances shall be properly vented and air systems shall be designed to prevent back drafting. (CBEES 150.0(o))
4. **Garages.** The wall and openings between occupiable spaces and the garage shall be sealed. HVAC systems that include air handlers or return ducts located in garages shall have total air leakage of no more than 6% of total fan flow when measured at 0.1 in. w.c. using California Title 24 or equivalents. (CBEES 150.0(o))
5. **Minimum filtration.** Mechanical systems supplying air to occupiable space through ductwork shall be provided with a filter having a minimum efficiency of MERV 6 or better. (CBEES 150.0(o))
6. **Air inlets.** Air inlets (not exhaust) shall be located away from known contaminants. (CBEES 150.0(o))
7. **Air moving equipment.** Air moving equipment used to meet either the whole-building ventilation requirement or the local ventilation exhaust requirement shall be rated in terms of airflow and sound. (CBEES 150.0(o))
   a. All continuously operating fans shall be rated at a maximum of 1.0 sone.
   b. Intermittently operated whole-building ventilation fans shall be rated at a maximum of 1.0 sone.
   c. Intermittently operated local exhaust fans shall be rated at maximum of 3.0 sone.
   d. Remotely located air-moving equipment (mounted outside of habitable spaces) need not meet sound requirements if at least 4 feet of ductwork between fan and intake grill.

D. Foundation and Underfloor

1. **Foundation reinforcement.** Continuous footings and stem walls shall be provided with a minimum two longitudinal No. 4 bars, one at the top and one at the bottom of the footing. (CRC R403.1.3.3)
2. **Shear wall foundation support.** Shear walls shall be supported by continuous foundations. (CRC 403.1.2)
3. **Concrete slabs-on-grade.** Slabs-on-grade shall be minimum 3-1/2-inches thick. (CRC R506.1)
4. **Vapor retarder.** A 10-mil polyethylene or approved vapor retarder with joints lapped minimum 6 inches shall be placed between a concrete slab-on-grade and the base course or subgrade. (CRC 506.2.3)
5. **Anchor bolts and sills.** Foundation plates or sills shall be bolted or anchored to the foundation or foundation wall per the following (CRC R403.1.6 and CRC R602.11.1):
   a. Minimum 1/2-inch-diameter steel bolts
   b. Bolts embedded at least 7 inches into concrete or masonry
   c. Bolts spaced maximum 6 feet on center
   d. Minimum two bolts per plate/sill piece with one bolt located maximum 12 inches and minimum 7 bolt diameters from each end of each sill plate/piece
   e. Minimum 3-inch by 3-inch by 0.299-inch steel plate washer between sill and nut on each bolt
6. Hold-**downs**. All hold-downs must be tied in place prior to foundation inspection.
7. **Protection of wood against decay.** Naturally durable or preservative-treated wood shall be provided in the following locations (CRC R317.1):
   a. All wood in contact with ground, embedded in concrete in direct contact with ground, or embedded in concrete exposed to weather
   b. Wood joists within 18 inches and wood girders within 12 inches of the exposed ground in crawl spaces shall be of naturally durable or preservative-treated wood
   c. Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from exposed ground shall be of naturally durable or preservative-treated wood
   d. Wood framing, sheathing, and siding on the exterior of the building and having clearance less than 6 inches from the exposed ground or less than 2 inches vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surface exposed to weather
   e. Sills and sleepers on concrete or masonry slab in direct contact with ground unless separated from such slab by impervious moisture barrier
   f. Ends of wood girders entering masonry or concrete walls with clearances less than 1/2 inch on tops, sides, and ends
   g. Wood structural members supporting moisture-permeable floors or roofs exposed to weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier
   h. Wood furring strips or other wood framing members attached directly to interior of exterior concrete or masonry walls below grade except where vapor retarder applied between wall and furring strips or framing members
8. **Underfloor ventilation.** Underfloor areas shall have ventilation openings through foundation walls or exterior walls, with minimum net area of ventilation openings of 1 square foot for each 150 square feet of underfloor area. On such ventilating opening shall be within 3 feet of each corner of the building. (CRC R408.1)
9. **Underfloor access.** Underfloor areas shall be provided with a minimum 18-inch by 24-inch access opening. (CRC R408.4)

E. Wood Framing

1. **Fastener requirements.** The number, size, and spacing of fasteners connecting wood members/elements shall not be less than that set forth in CRC Table R602.3(1). (CRC R502.9, CRC R602.3, and CRC R802.2)
2. **Stud size, height, and spacing.** The size, height, and spacing of studs shall be in accordance with CRC Table R602.3(5). (CRC R602.3.1)

E. Wood Framing (Continued)

3. **Sill plate**. Studs shall have full bearing on nominal 2-inch thick or larger sill plate with width at least equal to stud width. (CRC R602.3.4)
4. **Bearing studs.** Where joists, trusses, or rafters are spaced more than 16 inches on center and the bearing studs below are spaced 24 inches on center, such members shall bear within 5 inches of the studs beneath. (CRC R602.3.3)
5. **Drilling and notching of studs.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40% of a single stud width. Any stud may be bored or drilled, provided the diameter of the resulting hole is no more than 60% of the stud width, the edge of the hole is no more than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior wall or bearing partitions drilled over 40% and up to 60% shall also be doubled with no more than two successive studs bored. (CRC R602.6)
6. **Top plate.** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates shall be offset at least 24 inches. Joints in plates need not occur over studs. Plates shall be minimum nominal 2 inches thick and have width at least equal to width of studs. (CRC R602.3.2)
7. **Top plate splices.** Top plate lap splices shall be face-nailed with minimum 8 16d nails on each side of splice. (CRC R602.10.8.1)
8. **Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling, or notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054-inch thick and 1-1/2-inches wide shall be fastened across and to the plate at each side of the opening with not less than 8 10d nails having a minimum length of 1-1/2 inches at each side or equivalent. The metal tie must extend minimum 6 inches past the opening. (CRC R602.6.1)
9. **Cripple walls.** Foundation cripple walls shall be framed of studs not less in size than the studding above. Cripple walls more than 4 feet in height shall have studs sized as required for an additional story. Cripple walls with stud height less than 14 inches shall be sheathed on at least one side with a wood structural panel fastened to both the top and bottom plates in accordance with Table R602.3(1), or the cripple walls shall be constructed of solid blocking. Cripple walls shall be supported on continuous foundations. (CRC R602.9)
10. **Wall bracing.** Buildings shall be braced in accordance with the methods allowed per CRC R602.10.2, CRC R602.10.4, and/or CRC R602.10.5.
11. **Braced wall line spacing.** Spacing between braced wall lines shall not exceed 20 feet or alternate provisions of CRC R602.10.1.3.
12. **Shear wall cumulative length.** The cumulative length of shear walls within each braced wall line shall meet the provisions of CRC Table R602.10.3(1) for wind loads and CRC Table R602.10.3(2) for seismic loads. (CRC R602.10.1.1)
13. **Shear wall spacing.** Shear walls shall be located not more than 25 feet on center. (CRC R602.10.2.2)
14. **Shear wall offset.** Shear walls may be offset out-of-plan not more than 4 feet from the designated wall line and not more than 8 feet from any other offset wall considered part of the same braced wall line. (CRC R602.10.1.2)
15. **Shear wall location.** Shear walls shall be located at the ends of each braced wall line or meet the alternate provisions of CRC R602.10.2.2.
16. **Individual shear wall length.** Shear walls shall meet minimum length requirements of CRC R602.10.6.5.1.
17. **Cripple wall bracing**. Cripple walls shall be braced per CRC R602.10.11.
18. **Shear wall and diaphragm nailing**. All shear walls, roof diaphragms, and floor diaphragms shall be nailed to supporting construction per CRC Table R602.3(1). (CRC R604.3)
19. **Shear wall joints.** All vertical joints in shear wall sheathing shall occur over, and be fastened to, common studs. Horizontal joints in shear walls shall occur over, and be fastened to, minimum 1-1/2-inch-thick blocking. (CRC R602.10.10)
20. **Framing over openings.** Headers, double joists, or trusses of adequate size to transfer loads to vertical members shall be provided over window and door openings in load-bearing walls and partitions. (CRC 2304.3.2)
21. **Joists under bearing partitions.** Joists under parallel bearing partitions shall be of adequate size to support the load. Double joists, sized to adequately support the load, that are separated to permit the installation of piping or vents shall be full-depth solid-blocked with minimum 2-inch nominal lumber spaced at maximum 4 feet on center. Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls, or partitions more than the joist depth unless such joists are of sufficient size to carry the additional load. (CRC R502.4)
22. **Joists above or below shear walls.** Where joists are perpendicular to a shear wall above or below, a rim joist, band joist, or blocking shall be provided along the entire length of the shear wall. Where joists are parallel to a shear wall above or below, a rim joist, end joist, or other parallel framing shall be provided directly above and/or below the shear wall. Where a parallel framing member cannot be located directly above and/or below the shear wall, full-depth blocking at 16-inch spacing shall be provided between the parallel framing members to each side of the shear wall. (CRC R602.10.8)
23. **Floor member bearing.** The ends of each floor joist, beam, or girder shall have minimum 1-1/2 inches of bearing on wood or metal and minimum 3 inches of bearing on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjoining stud or by the use of approved joist hangers. (CRC R502.6)
24. **Floor joist lap.** Floor joists framing opposite sides over a bearing support shall lap minimum 3 inches and shall be nailed together with minimum 3 10d face nails. A wood or metal splice with strength equal to or greater than that provided by the lap is permitted. (CRC R502.6.1)
25. **Floor joist-to-girder support.** Floor joists framing into the side of a wood girder shall be supported by approved framing anchors or on ledger strips minimum nominal 2 inches by 2 inches. (CRC R502.6.2)
26. **Floor joist lateral restraint.** Floor joists shall be supported laterally at ends and each intermediate support by minimum 2-inch full-depth blocking, by attachment to full-depth header, band joist, or rim joist, to an adjoining stud, or shall be otherwise provided with lateral support to prevent rotation. (CRC R502.7)
27. **Floor joist bridging.** Floor joists exceeding nominal 2 inches by 12 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at maximum 8-foot intervals. (CRC R502.7.1)
28. **Framing of floor openings.** Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)
29. **Girders.** Girders for single-story construction or girders supporting loads from a single floor shall not be less than 4 inches by 6 inches for spans 6 feet or less, provided that girders are spaced not more than 8 feet on center. Other girders shall be designed to support the loads specified in the CBC. Girder end joints shall occur over supports. When a girder is spliced over a support, an adequate tie shall be provided. The ends of beams or girders supported on masonry or concrete shall not have less than 3 inches of bearing. (CBC 2308.7)
30. **Ridges, hips, and valleys**. Rafters shall be framed to a ridge board or to each other with a gusset plate as a tie. Ridge boards shall be minimum 1-inch nominal thickness and not less in depth than the cut end of the rafter. At all valleys and hips, there shall be a valley or hip rafter not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than 3:12 slope (25% gradient), structural members that support rafters and ceilings joists, such as ridges, hips, and valleys, shall be designed as beams. (CRC R602.3)
31. **Ceiling joist and rafter connections.** Ceiling joists and rafters shall be nailed to each other per CRC Table R802.5.1(9), and the rafter shall be nailed to the wall top plate per CRC Table R602.3(1). Ceiling joists shall be continuous or securely joined per CRC Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to rafters. Where ceiling joists are not connected to the rafters at the wall top plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be minimum 2 inches by 4 inches nominal, installed per CRC Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceilings joists or rafter ties are not provided, the ridge shall be framed by these rafters shall be supported by a wall or engineer-designed girder. (CRC R802.3.1)
32. **Ceiling joists lapped.** Ends of ceiling joists shall be lapped minimum 3 inches or butted overbearing partitions or beams and toenailed to the bearing element. Where ceiling joists provide resistance to rafter thrust, lapped joists shall be nailed together per CRC Table R602.3(1) and butted joists shall be tied together in a manner to resist such thrust. (CRC R802.3.2)
33. **Collar ties.** Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space. Collar ties shall be a minimum 1 inch by 4 inches nominal and spaced at maximum 4 feet on center. (CRC R802.3.1)
34. **Purlins.** Purlins installed to reduce the span of rafters shall be sized not less than the required size of the rafters they support. Purlins shall be continuous and shall be supported by 2-inch-by-4-inch nominal braces installed to bearing walls at a minimum 45-degree slope from horizontal. The braces shall be spaced maximum 4 feet on center with a maximum 8-foot unbraced length. (CRC R802.5.1)
35. **Roof/ceiling member bearing.** The ends of each rafter or ceiling joist shall have not less than 1-1/2 inches of bearing on wood or metal and not less than 3 inches of bearing on masonry or concrete. (CRC R802.6)
36. **Roof/ceiling member lateral support.** Roof framing members and ceiling joists with a nominal depth-to-thickness ratio exceeding 5:1 shall be provided with lateral support at points of bearing to prevent rotation. (CRC R802.8)
37. **Roof/ceiling bridging.** Rafters and ceiling joists with a nominal depth-to-thickness ratio exceeding 6:1 shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch wood strip nailed across the rafters or ceiling joists at maximum 8-foot intervals. (CRC R802.8.1)

G. Roofing and Weatherproofing (Continued)

4. **Water-resistive barrier.** A minimum of one layer of No. 15 asphalt felt shall be attached to studs or sheathing of all exterior walls. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer minimum 2 inches. Where joints occur, felt shall be lapped minimum 6 inches. The felt shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to maintain a weather-resistant exterior wall envelope. (CRC R703.2)
5. **Wall flashing.** Approved corrosion-resistant flashing shall be applied shingle fashion at the following locations to prevent entry of water into the wall cavity or penetration of water to the building structural framing components (CRC R703.8):
   a. Exterior door and window openings, extending to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage
   b. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings
   c. Under and at the ends of masonry, wood, or metal copings and sills
   d. Continuously above all projecting wood trim
   e. Where exterior porches, decks, or stairs attach to a wall or floor assembly of wood-frame construction
   f. At wall and roof intersections
   g. At built-in gutters
6. **Damp proofing.** Damp proofing materials for foundation walls enclosing usable space below grade shall be installed on the exterior surface of the wall and shall extend from the top of the footing to finished grade. (CRC R406.1)
7. **Weep screed.** A minimum 0.019-inch (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed with a minimum vertical attachment flange of 3-1/2 inches shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 92. The weep screed shall be placed a minimum 4 inches above the earth or 2 inches above paved areas and shall be of a type allowing trapped water to drain to the exterior of the building. (CRC R703.7.2.1)

H. Grading and soils

1. **Grading permit.** Grading permit required if volume of earth moved exceeds 200 cubic yards or if any cuts or fills exceed 6 feet in height/depth. (County Grading Ordinance 202)
2. **Compaction report.** Compaction report required for fill material 12 inches or more in depth. (CBC 1803.5.8)

I. Green Building Standards Code (CALGreen) Requirements

1. Applicability. CalGreen residential mandatory measures shall apply to every newly constructed building or structure and within any addition or alteration increasing a building's conditioned area, volume, or size. (CalGreen 101.3, CalGreen 301.1.1)

   Exception: All residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures per CalGreen 301.1.1 and CalGreen 4.303.1
2. Water conserving plumbing fixtures and fittings. Plumbing fixtures and fittings shall comply with the following per CalGreen 4.303.1:
   a. Water closets: Maximum 1.28 gallons per flush
   b. Urinals: Maximum 0.5 gallons per flush
   c. Single showerheads: Maximum flow rate of 1.8 gallons per minute at 80 psi
   d. Multiple showerheads serving one shower: Maximum combined flow rate of 1.8 gallons per minute at 80 psi
   e. Lavatory faucets: Maximum flow rate of 1.2 gallons per minute at 60 psi, minimum flow rate of 0.8 gallons per minute at 20 psi
   f. Kitchen faucets: Maximum flow rate of 1.5 gallons per minute at 60 psi (County Green Building Code 97.1.4.303.1.4.4)

      Exception: Temporary increase allowed to maximum 2.2 gallons per minute at 60 psi if faucet defaults back to maximum 1.5 gallons per minute at 60 psi
   g. Appliances: At least one qualified ENERGY STAR dishwasher or clothes washer shall be installed in each dwelling unit. (County Green Building Code 97.1.4.303.3)
3. **Outdoor potable water uses in landscape areas.** Residential developments shall comply with local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. (CalGreen 4.304.1)
4. **Joints and openings.** Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate utility and other penetrations must be sealed in compliance with the California Energy Code. (CALGreen 4.406.1)

   Exception: Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such opening with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.
5. **Construction waste reduction, disposal, and recycling.** Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous 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. (CalGreen 4.408.1)

   Exception: Excavated soil and land-clearing debris.

   Exception: 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 The County of San Diego, Department of Public Works, Construction & Demolition (C&D) Facilities Guide is online at:

   https://www.sandiegocounty.gov/content/dam/sdc/dpw/SOLID_WASTE_PLANNING_and_RECYCLING/UpdatedCDResources/CDFacility_QuickGuide.pdf

   Exception: 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.
6. **Construction waste management plan.** A construction waste management plan in conformance with Items 1-5 shall be completed and available on the job site. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency. (CalGreen 4.408.2)
   a. 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.
   b. Specify if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
   c. Identify diversion facilities where the construction and demolition waste materials will be taken.
   d. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
   e. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.
7. **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. (CalGreen 4.408.3)

   Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste company.
8. **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 pounds per square foot of the building area shall meet the 65 percent construction waste reduction requirement in Section 4.408.1. (CalGreen 4.408.4)

   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 65 percent construction waste reduction requirement in Section 4.408.1.
9. **Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, Items 1-5, Section 4.408.3, or Section 4.408.4.
10. **Operation and maintenance manual.** Prior to final inspection, a manual, compact disc, web-based reference, or other acceptable media which includes all of the following shall be placed in the building (CALGreen 4.410.1):
    a. Directions to owner or occupant that manual shall remain with the building throughout the life cycle of the structure.
    b. Operation and maintenance instructions for the following:
       I. Equipment and appliances, including water-saving devices and systems, HVAC system, photovoltaic systems, water-heating systems and other major appliances and equipment.
       II. Roof and yard drainage, including gutters and downspouts.
       III. Space conditioning systems, including condensers and air filters.
       IV. Landscape irrigation systems.
       V. Water reuse systems.
    c. Information from local utility, water, and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
    d. Public transportation and/or carpool options available in the area.
    e. 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.
    f. Information about water-conserving landscape and irrigation design and controllers which conserve water.
    g. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.

I. (CalGreen) Requirements (Continued)

   h. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
   i. Information about state solar energy and incentive programs available.
   j. A copy of all special inspection verifications required by the enforcing agency or code.
   k. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
   l. Information and/or drawings identifying the location of grab bar reinforcements.
11. **Covering of duct openings and protection of mechanical equipment during construction.** At the time of rough installation or during storage on the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, Sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system. (CALGreen 4.504.1)
12. **Adhesives, sealants, caulks, paints, and coatings pollutant control.** Adhesives (including carpet adhesives), sealants, caulks, paints, and coatings shall comply with VOC limits per CALGreen 4.504.2. Verification of compliance shall be provided at the request of the enforcing agency. (CALGreen 4.504.2.1)
13. **Carpet systems.** All carpet installed in the building interior shall meet the testing and product requirements of one of the following (CALGreen 4.504.3):
    a. Carpet and Rug Institute's Green Label Plus Program (all carpet cushions must meet the requirements of this program).
    b. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350).
    c. NSF/ANSI 140 at the Gold level.
    d. Scientific Certifications Systems Indoor Advantage™ Gold.
14. **Resilient flooring systems.** At least 80 percent of the floor area receiving resilient flooring shall comply with one of or more of the following (CALGreen 4.504.4):
    a. VOC emission limits defined in the Collaborative for High Performance Schools (CHPS) High Performance Products Database
    b. Products compliant with CHPS criteria certified under the Greenguard Children & Schools program.
    c. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program.
    d. Meet the currently adopted version of California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," (also known as Specification 01350)
15. **Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building 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 CalGreen Table 4.504.5. The following limits are in parts per million (CALGreen 4.504.5):
    a. Hardwood plywood veneer core 0.05
    b. Hardwood plywood composite core 0.05
    c. Particle board 0.09
    d. Medium-density fiberboard (MDF) 0.11
    e. Thin MDF (5/16 inch or less) 0.13
16. **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 (CALGreen 4.505.3):
    a. Moisture content shall be determined with either a probe-type or contact-type moisture meter.
    b. Moisture readings shall be taken at a point 2 feet to 4 feet from the grade stamped end of each piece to be verified.
    c. 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 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.
17. **Bathrooms with a bathtub and/or shower** shall be mechanically ventilated per the following (CalGreen 4.506.1):
    a. Fans shall be ENERGY STAR compliant and ducted to terminate outside building
    b. Unless functioning as a component of a whole-house ventilation system, fans shall have humidity controls capable of adjustment - manually or automatically -- between a relative humidity range of 50% to 80%.
18. **Heating and air-conditioning system design.** Heating and air-conditioning systems shall be sized, designed, and have their equipment selected using the following methods (CALGreen 4.507.2):
    a. The heat loss and heat gain are established according to the currently adopted version of ANSI/ACCA 2 Manual J, ASHRAE handbooks, or other equivalent design software or methods.
    b. Duct systems are sized according to the currently adopted version of ANSI/ACCA 1 Manual D, ASHRAE handbooks, or other equivalent design software or methods.
    c. Select heating and cooling equipment according to the currently adopted version of ACCA 36-S Manual S or other equivalent design software or methods.

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

TABLE R602.3(1) FASTENING SCHEDULE			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
	Roof		
1	Blocking between ceiling joists, rafters or trusses to top plate or other framing below	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
	Blocking between rafters or truss not at the wall top plates, to rafter or truss	2-8d common (2½" × 0.131"); or 2-3" × 0.131" nails	Each end toe nail
		2-16d common (3½" × 0.162"); or 3-3" × 0.131" nails	End nail
	Flat blocking to truss and web filler	16d common (3½" × 0.162"); or 3" × 0.131" nails	6" o.c. face nail
2	Ceiling joists to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions [see Section R802.5.2 and Table R802.5.2(1)]	3-10d box (3" × 0.128"); or 3-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) [see Section R802.5.2 and Table R802.5.2(1)]	Table R802.5.2(1)	Face nail
5	Collar tie to rafter, face nail	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box (3½" × 0.135"); or 3-10d common (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
	Wall		
8	Stud to stud (not at braced wall panels)	16d common (3½" × 0.162")	24" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
		16d common (3½" × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with ½" spacer)	16d box (3½" × 0.135")	12" o.c. each edge face nail
11	Continuous header to stud 3½"	5-8d box (2½" × 0.113"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
		4-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	End nail
12	Adjacent full-height stud to end of header	16d common (3½" × 0.162")	16" o.c. face nail
13	Top plate to top plate	10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
14	Double top plate splice	8-16d common (3½" × 0.162"); or 12-16d box (3½" × 0.135"); or 12-10d box (3" × 0.128"); or 13-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
15	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3½" × 0.162")	16" o.c. face nail
		16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
	Roof		
16	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panels)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	16" o.c. face nail
17	Top or bottom plate to stud	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
18	Top plates, laps at corners and intersections	3-8d box (2½" × 0.113"); or 2-16d common (3½" × 0.162"); or 3-3" × 0.131" nails	Face nail
19	1" brace to each stud and plate	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2-3" × 0.131" nails	Face nail
20	1" × 6" sheathing to each bearing	2-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1½" long	Face nail
21	1" × 8" and wider sheathing to each bearing	3-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1¼" long	Face nail
		Wider than 1" × 8" 4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1¼" long	Face nail
	Floor		
22	Joist to sill, top plate or girder	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
		4" o.c. toe nail

GENERAL INFORMATION					
01	**Project Name**	Vampola ADU			
02	**Run Title**	Title 24 Analysis			
03	**Project Location**	1503 Independence Way			
04	**City**	Vista	05	**Standards Version**	2022
06	**Zip code**	92084	07	**Software Version**	EnergyPro 9.3
08	**Climate Zone**	7	09	**Front Orientation (deg/ Cardinal)**	180
10	**Building Type**	Single family	11	**Number of Dwelling Units**	1
12	**Project Scope**	Newly Constructed	13	**Number of Bedrooms**	3
14	**Addition Cond. Floor Area (ft²)**	0	15	**Number of Stories**	1
16	**Existing Cond. Floor Area (ft²)**	n/a	17	**Fenestration Average U-factor**	0.3
18	**Total Cond. Floor Area (ft²)**	1200	19	**Glazing Percentage (%)**	12.50%
20	**ADU Bedroom Count**	n/a	21	**ADU Conditioned Floor Area**	n/a
22	**Fuel Type**	Natural gas	23	**No Dwelling Unit:**	No

COMPLIANCE RESULTS	
01	**Building Complies with Computer Performance**
02	**This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.**
03	**This building incorporates one or more Special Features shown below**

ENERGY DESIGN RATINGS						
	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	38.2	48.1	34.3			
Proposed Design	37.5	39.3	31.2	0.7	8.8	3.1
RESULT[3]: PASS						

[1]Efficiency EDR includes improvements like a better building envelope and more efficient equipment
[2]Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries
[3]Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

- Standard Design PV Capacity: 2.34 kWdc
- PV System resized to 2.34 kWdc (a factor of 2.340) to achieve Standard Design PV system

ENERGY USE SUMMARY						
Energy Use	**Standard Design Source Energy (EDR1) (kBtu/ft²-yr)**	**Standard Design TDV Energy (EDR2) (kTDV/ft²-yr)**	**Proposed Design Source Energy (EDR1) (kBtu/ft²-yr)**	**Proposed Design TDV Energy (EDR2) (kTDV/ft²-yr)**	**Margin (EDR1)**	**Margin (EDR2)**
Space Heating	0.59	2.7	1.5	10.85	-0.91	-8.15
Space Cooling	0.38	8.95	0.08	2.77	0.3	6.18
IAQ Ventilation	0.52	5.53	0.04	0.4	0.48	5.13
Water Heating	1.78	19.96	1.45	16.33	0.33	3.63
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**3.27**	**37.14**	**3.07**	**30.35**	**0.2**	**6.79**
Photovoltaics	-2.19	-55.16	-2.19	-54.59		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.8	8.31	0.8	8.31		
Appl. & Cooking	4.66	30.62	4.63	30.3		
Plug Loads	4.55	48	4.55	48		
Outdoor Lighting	0.2	1.86	0.2	1.86		
TOTAL COMPLIANCE	**11.29**	**70.77**	**11.06**	**64.23**		

ENERGY USE INTENSITY				
	Standard Design (kBtu/ft² - yr)	**Proposed Design (kBtu/ft² - yr)**	**Margin (kBtu/ft² - yr)**	**Margin Percentage**
Gross EUI[1]	17.24	16.14	1.1	6.38
Net EUI[2]	6.75	5.65	1.1	16.3

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED PV SYSTEMS											
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**
DC System Size (kWdc)	**Exception**	**Module Type**	**Array Type**	**Power Electronics**	**CFI**	**Azimuth (deg)**	**Tilt: Input**	**Array Angle (deg)**	**Tilt: (x in 12)**	**Inverter Eff. (%)**	**Annual Solar Access (%)**
2.34	NA	Standard (14-17%)	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• IAQ Ventilation System: as low as 0.025 W/CFM • Exposed slab floor in conditioned zone • Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry
• Indoor air quality ventilation • Kitchen range hood • Minimum Airflow • Fan Efficacy Watts/CFM • Verified HSPF • Verified heat pump rated heating capacity • Duct leakage testing

BUILDING - FEATURES INFORMATION						
01	**02**	**03**	**04**	**05**	**06**	**07**
Project Name	**Conditioned Floor Area (ft²)**	**Number of Dwelling Units**	**Number of Bedrooms**	**Number of Zones**	**Number of Ventilation Cooling Systems**	**Number of Water Heating Systems**
Vampola ADU	1200	1	3	1	0	1

ZONE INFORMATION						
01	**02**	**03**	**04**	**05**	**06**	**07**
Zone Name	**Zone Type**	**HVAC System Name**	**Zone Floor Area (ft²)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Status**
1st Floor	Conditioned	Undefined System1	1200	8	DHW Sys 1	New

OPAQUE SURFACES							
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft²)**	**Window and Door Area (ft2)**	**Tilt (deg)**
Front Wall	1st Floor	R-15 Wall	180	Front	270	52	90
Left Wall	1st Floor	R-15 Wall	270	Left	360	48	90
Rear Wall	1st Floor	R-15 Wall	0	Back	270	48	90
Right Wall	1st Floor	R-15 Wall	90	Right	360	22	90
Roof	1st Floor	R-30 Roof Attic	n/a	n/a	1200	n/a	n/a

ATTIC							
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**
Name	**Construction**	**Type**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Radiant Barrier**	**Cool Roof**
Attic 1st Floor	Attic RoofTst Floor	Ventilated	4	0.1	0.85	No	No

FENESTRATION / GLAZING													
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft²)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**
Window B	Window	Front Wall	Front	180			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
Window B 2	Window	Front Wall	Front	180			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
Window A	Window	Left Wall	Left	270			1	24	0.3	NFRC	0.23	NFRC	Bug Screen
Window A 2	Window	Left Wall	Left	270			1	24	0.3	NFRC	0.23	NFRC	Bug Screen
Window A 3	Window	Rear Wall	Back	0			1	24	0.3	NFRC	0.23	NFRC	Bug Screen
Window A 4	Window	Rear Wall	Back	0			1	24	0.3	NFRC	0.23	NFRC	Bug Screen
Window C	Window	Right Wall	Right	90			1	6	0.3	NFRC	0.23	NFRC	Bug Screen
Window B 3	Window	Right Wall	Right	90			1	16	0.3	NFRC	0.23	NFRC	Bug Screen

OPAQUE DOORS			
01	**02**	**03**	**04**
Name	**Side of Building**	**Area (ft²)**	**U-factor**
Door 1	Front Wall	20	0.2

SLAB FLOORS							
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**
Name	**Zone**	**Area (ft²)**	**Perimeter (ft)**	**Edge Insul. R-value and Depth**	**Edge Insul. R-value and Depth**	**Carpeted Fraction**	**Heated**
Slab-on-Grade	1st Floor	1200	140	none	0	0%	No

OPAQUE SURFACE CONSTRUCTIONS						
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**
Construction Name	**Surface Type**	**Construction Type**	**Framing**	**Total Cavity R-value**	**Interior / Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
Attic RoofTst Floor	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.034	Over Ceiling Joists: R-6.0 insul. Cavity / Frame: R-24.1 / 2x10 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION				
01	**02**	**03**	**04**	**05**
Quality Insulation Installation (QII)	**High R-value Spray Foam Insulation**	**Building Envelope Air Leakage**	**CFM50**	**CFM50**
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS								
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**
Name	**System Type**	**Distribution Type**	**Water Heater Name**	**Number of Units**	**Solar Heating System**	**Compact Distribution**	**HERS Verification**	**Water Heater Name (#)**
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)

WATER HEATERS - NEEA HEAT PUMP						
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**
Name	**# of Units**	**Tank Vol. (gal)**	**NEEA Heat Pump Brand**	**NEEA Heat Pump Model**	**Tank Location**	**Duct Inlet Air Source**	**Duct Outlet Air Source**
DHW Heater 1	1	40	Rheem	Rheem HPLD40-18H	Outside	1st Floor	1st Floor

WATER HEATING - HERS VERIFICATION						
01	**02**	**03**	**04**	**05**	**06**	**07**
Name	**Pipe Insulation**	**Parallel Piping**	**Compact Distribution**	**Compact Distribution Type**	**Recirculation Control**	**Shower Drain Water Heat Recovery**
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS								
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**
Name	**System Type**	**Heating Unit Name**	**Heating Equipment Count**	**Cooling Unit Name**	**Cooling Equipment Count**	**Fan Name**	**Distribution Name**	**Required Thermostat Type**
Undefined System1	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	HVAC Fan 1	Air Distribution System 1	Setback

HVAC - HEAT PUMPS												
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**
Name	**System Type**	**Number of Units**	**Heating**				**Cooling**			**Zonally Controlled**	**Compressor Type**	**HERS Verification**
			Heating Efficiency Type	**HSPF/HSPF2/COP**	**Cap 47**	**Cap 17**	**Cooling Efficiency Type**	**SEER/SEER2**	**EER/EER 2/CEER**			
Heat Pump System 1	Central split HP	1	HSPF	9	18000	11000	EERSEER	14	12.2	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION									
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**
Name	**Verified Airflow**	**Airflow Target**	**Verified EER/EER2**	**Verified SEER/SEER2**	**Verified Refrigerant Charge**	**Verified HSPF/HSPF2**	**Verified Heating Cap 47**	**Verified Heating Cap 17**
Heat Pump System 1-hers-htpump	Required	350	Not Required	Not Required	No	Yes	Yes	Yes

HVAC - DISTRIBUTION SYSTEMS											
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**
Name	**Type**	**Design Type**	**Duct Ins. R-value**		**Duct Location**		**Surface Area**		**Bypass Duct**	**Duct Leakage**	**HERS Verification**
			Supply	**Return**	**Supply**	**Return**	**Supply**	**Return**			
Air Distribution System 1	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION								
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**
Name	**Duct Leakage Verification**	**Duct Leakage Target (%)**	**Verified Duct Location**	**Verified Duct Design**	**Buried Ducts**	**Deeply Buried Ducts**	**Low-leakage Air Handler**	**Low Leakage Ducts Entirely in Conditioned Space**
Air Distribution System 1-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No

HVAC - FAN SYSTEMS			
01	**02**	**03**	**04**
Name	**Type**	**Fan Power (Watts/CFM)**	**Name**
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	**02**	**03**
Name	**Verified Fan Watt Draw**	**Required Fan Efficacy (Watts/CFM)**
HVAC Fan 1-hers-fan	Required	0.58

INDOOR AIR QUALITY (IAQ) FANS								
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**
Dwelling Unit	**Airflow (CFM)**	**Fan Efficacy (W/CFM)**	**IAQ Fan Type**	**Includes Heat/Energy Recovery?**	**IAQ Recovery Effectiveness - SRE/ASRE**	**Includes Fault Indicator Display?**	**HERS Verification**	**Status**
SFam IAQVentRpt 1-1	80	0.025	Exhaust	No	n/a / n/a	No	Yes	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I, I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Austin Murdock	Documentation Author Signature: Austin Murdock
Company: ABC HERS Rating	Signature Date: 07/22/2025
Address: 116 Quail Gardens Dr.	CEA/ HERS Certification Identification (if applicable): RCN13375
City/State/Zip: Encinitas, CA 92123	Phone: (858) 401-0230
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Stephanie Lupton	Responsible Designer Signature: Stephanie Lupton
Company: Stephanie Lupton	Date Signed: 07/22/2025
Address: PO Box 2216	License:
City/State/Zip: San Marcos, CA 92079	Phone: (760) 224-9704

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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

County of San Diego, Planning & Development Services
DWELLING UNIT (PLAN A - 1200 SF)
BUILDING DIVISION

Sheet Number

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