

HEATH NEW RESIDENCE



APN	ADDRESS
011-350-027	121 PINE TREE AVE
011-350-024	111 PINE TREE AVE
011-350-026	81 PINE TREE AVE
011-350-057	61 PINE TREE AVE
011-350-047	80 PINE TREE AVE

SITE PLAN NOTES

PROVIDE POSITIVE DRAINAGE AWAY FROM NEW FOUNDATION. (SLOPE FINISH GRADE AWAY MINIMUM 2% TYPICAL).

IF REQUIRED, ALL ROOF DOWNSPOUTS SHALL BE CONNECTED TO AN APPROVED UNDERGROUND DRAINAGE SYSTEM WITH TERMINATION TO STORM DRAIN OR A DRYWELL.

VERIFICATION OF EXISTING OR NEW LOT STAKES SHALL BE PROVIDED PRIOR TO ISSUANCE OF A BUILDING PERMIT. EXISTING LOT STAKES MUST BE EXPOSED, VERIFIED, AND INDICATED ON BUILDING PLANS; OR NEW LOT STAKES MUST BE SET BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR. IF REQUIRED BY STATE LAW, CIVIL ENGINEER OR LICENSED LAND SURVEYOR SHALL FILE A RECORD-OF-SURVEY MAP.

IF ANY EARTH WORK AND/OR GRADING IS DONE ON THE PROPERTY OR ANY ACCESS ROADS, OWNER OR CONTRACTOR SHALL MAINTAIN AN UNINTERRUPTED FLOW OF WATER IN SWALES AND NATURAL COURSES, UPON COMPLETION OF THE PROJECT. PROPERTY OWNER IS RESPONSIBLE FOR THE ADEQUACY OF ANY DRAINAGE FACILITIES AND FOR THE CONTINUED MAINTENANCE THEREOF IN A MANNER WHICH WILL PRECLUDE ANY HAZARD TO LIFE, HEALTH, OR DAMAGE TO ADJOINING PROPERTY.

CONSULTING GEOLOGIST SHALL OBSERVE AND PROVIDE APPROVAL LETTER PRIOR TO FINAL INSPECTION.

ALL NEW ON-SITE UTILITIES, MAINS, AND SERVICES (IF APPLICABLE) SHALL BE PLACED UNDERGROUND AND EXTENDED TO SERVE THE PROPOSED RESIDENCE. OFF-SITE WORK SHALL BE COORDINATED WITH ANY UNDERGROUNDING TO SERVE OTHER PROPERTIES IN THE IMMEDIATE AREA.

NOTE: PER AROMAS TRI-COUNTY FIRE PROTECTION DISTRICT THERE SHALL BE A MINIMUM OF 100 FEET OF DEFENSIBLE SPACE MAINTAINED WITH NON-COMBUSTIBLE VEGETATION 100 FEET FROM ALL STRUCTURES, OR TO THE PROPERTY LINE, WHICHEVER IS CLOSER.

NEW SINGLE FAMILY RESIDENCE SHALL BE EQUIPPED WITH FIRE SPRINKLERS MEETING THE REQUIREMENTS OF THE CURRENT EDITION OF NFPA 13D.

FIRE SPRINKLERS ARE DEFERRED SUBMITTAL. DESIGNER SHALL SUBMIT TWO SETS OF PLAN AND HYDRULIC CALCULATIONS FOR APPROVAL BY THE FIRE DISTRICT PRIOR TO INSTALLATION.

UNDERGROUND FIRE LINE SHALL BE A DEFERRED SUBMITTAL AND APPROVED BY FIRE DISTRICT PRIOR TO INSTALLATION.

THE ROOF COVERING SHALL BE A MINIMUM OF CLASS A FOR THIS FIRE ZONE.

AUTOMATIC FIRE SPRINKLERS SHALL BE INSTALLED IN BATHROOMS, ATTACHED GARAGES AND STRUCTURES, ACCESSIBLE STORAGE AREAS, AND UNDER-STAIRS SPACES INCLUDING ALL CLOSETS. PER SBCC 21.01.021(N)(17)(d) TO (g).

Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet. [R401.3] Impervious surfaces within 10 feet of the building foundation shall be sloped not less than 2 percent away from the building. [R401.3, Exception]

Outdoor Lighting: All development is required to comply with the Zone II regulations set within County Ordinance 748. Prior to issuance of a building permit for development on the site, the applicant shall provide details for all outdoor lighting to the building official for review and approval.

Construction Hours: As required by County Ordinance, construction on the parcel shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. No construction activities shall be allowed on Sundays and holidays.

PROPOSED NEW RESIDENCE

BUILDING CODES AND REGULATIONS

2019 CRC CALIFORNIA RESIDENTIAL CODE
 2019 CPC CALIFORNIA PLUMBING CODE
 2019 CMC CALIFORNIA MECHANICAL CODE
 2019 CEC CALIFORNIA ELECTRIC CODE
 2019 CALIFORNIA CODE FOR BUILDING CONSERVATION
 2019 BUILDING ENERGY EFFICIENCY STANDARDS
 2019 CGBC CALIFORNIA GREEN BUILDING STANDARDS CODE
 2019 CFC CALIFORNIA FIRE CODE
 ALONG WITH ANY OTHER LOCAL AND STATE LAWS AND REGULATIONS

SCOPE OF WORK

NEW SINGLE LEVEL 557.0 S.F. HOME CONSISTING OF (2) BEDROOMS, (1) BATHROOM, KITCHEN AND LIVING ROOM.

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SITE DATA

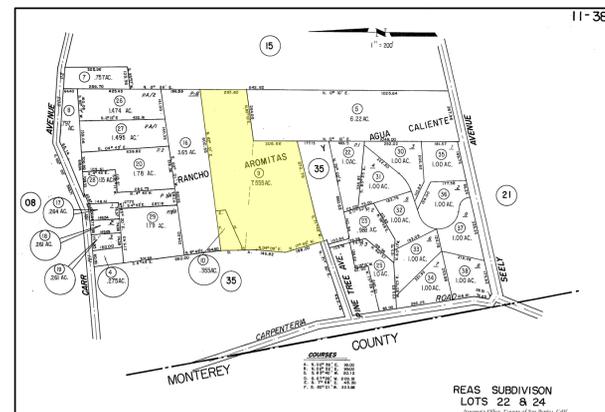
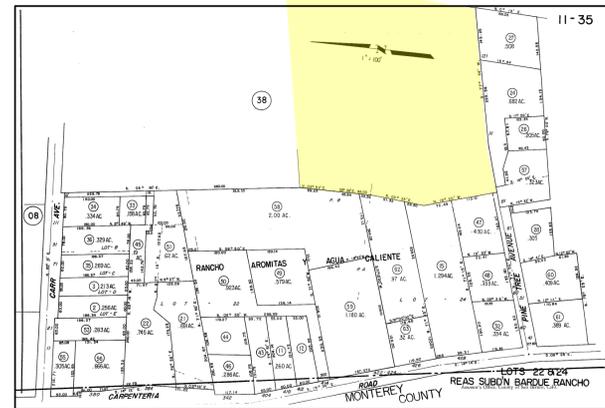
A.P.N.	011-350-009
LOT SIZE	339,876.2 S.F.
ACREAGE	7.555 AC
ZONING	RR (RURAL RESIDENTIAL)
SLOPE IS <10%	NO
FIRE SPRINKLERS	YES
OCCUPANCY TYPE	R3
CONSTRUCTION TYPE	VB
(N) LIVING AREA	557.0 S.F.
(N) GARAGE	0.0 S.F.
(N) PORCH COVER	77.5 S.F.
TOTAL AREA	557.0 S.F.
(N) DRIVEWAY	6740 S.F.

NOTE: THIS PROJECT IS WITHIN THE WILDLAND-URBAN INTERFACE FIRE AREA. APPLY MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE PER CHAPTER R337 IN THE CRC.

APPROVAL AND STAMP AREA

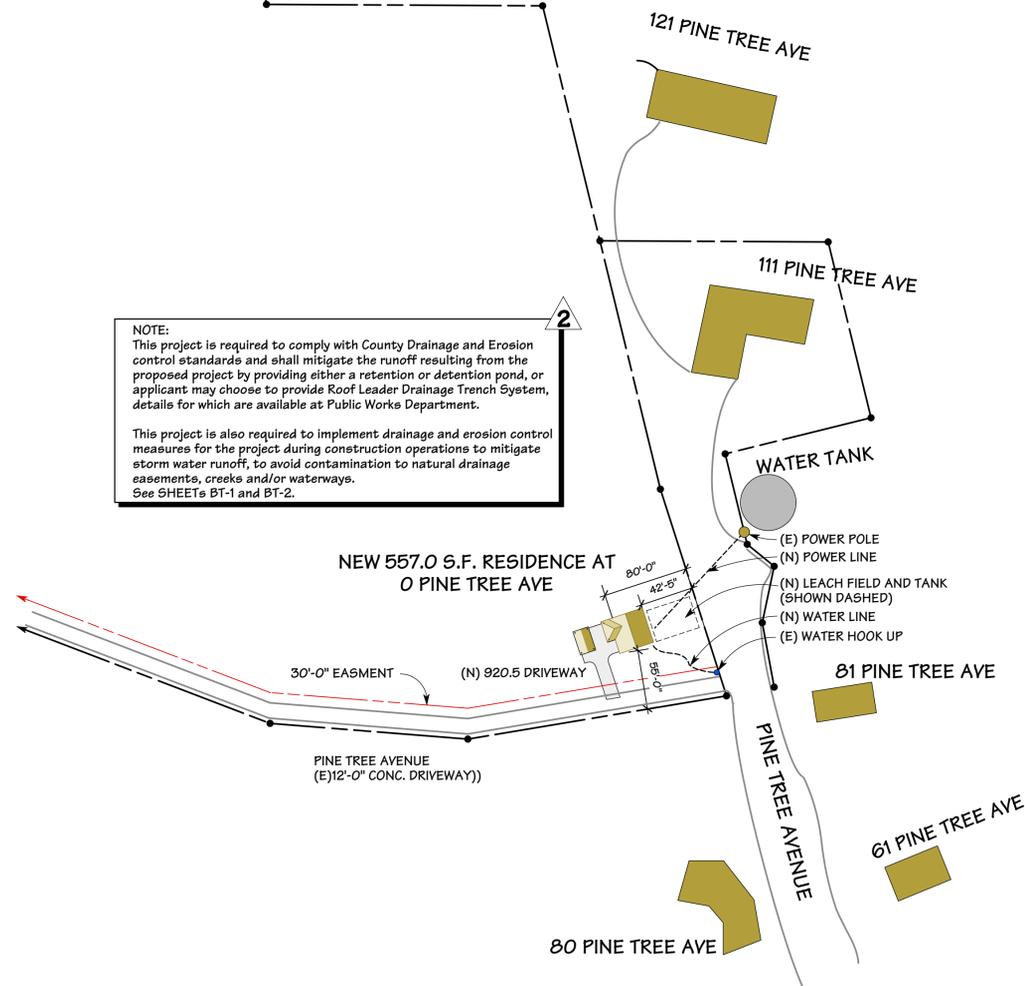
All work within the public right-of-way, which is to be performed by the Developer/Owner, the general contractor, and all subcontractors shall be included within a Single Street Opening Permit issued by the City Engineering Department.

Issuance of the Street Opening Permit and payment of all appropriate fees shall be completed by the developer prior to commencement of work, and all work under the permit shall be completed prior to issuance of occupancy permit.



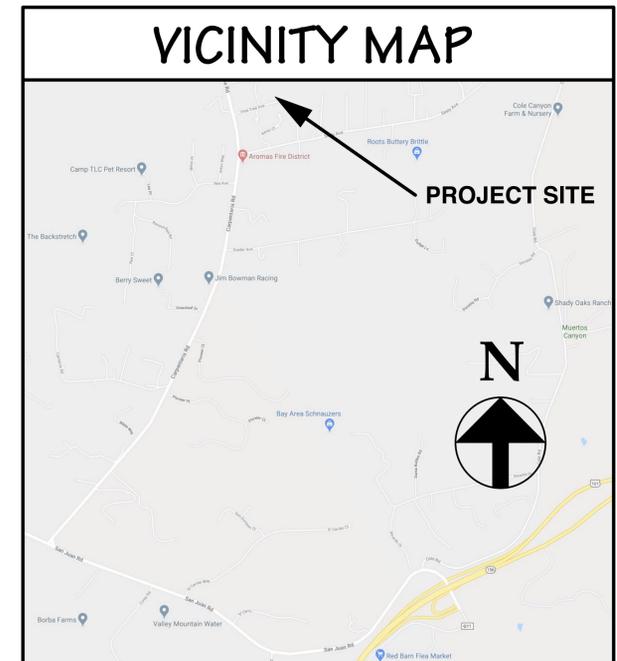
APN MAP

011-380-009



SITE PLAN

SCALE: 1" = 50'-0"



OWNER: CHRISTIAN HEATH
 0 PINE TREE AVENUE
 AROMAS, CA. 95004

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
 38 California Way
 Cambell, CA. 95008
 (408) 596-8826 Cell

REVISION:
 1 PER 4LEAF COMMENTS DATED 06/15/2022
 2 PER 4LEAF COMMENTS DATED 07/22/2022

SITE W/ ROOF PLAN
VICINITY MAP
PLAN NOTES

DRAWN BY: Michael S. Radu

CHECKED BY: PBD

JOB NO.: 20-04

DATE: 01/05/2023

SCALE: AS SHOWN

SHEET: A-1

FLOOR PLAN NOTES

PROVIDE EMERGENCY EGRESS WINDOWS WITH MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET. DIMENSIONS SHALL BE 24" MIN. HIGH BY 20" MIN. WIDE, WITH A MAXIMUM FINISH SILL HEIGHT OF 44" ABOVE THE SUBFLOOR. C.R.C.

GLAZING SUBJECT TO HUMAN IMPACT SHALL BE TEMPERED, LABELED "SAFETY GLASS", AND COMPLY WITH C.R.C. AS FOLLOWS:

- GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS, AND GLAZING IN ANY PORTION OF A WALL ENCLOSED THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE A STANDING SURFACE AND DRAIN INLET.
- GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE.
- GLAZING IN INDIVIDUALLY FIXED OR OPERABLE PANELS (OTHER THAN ABOVE) THAT MEET ALL OF THE FOLLOWING CONDITIONS: GLAZING GREATER THAN 9 SQ. FT. IN AREA; BOTTOM EXPOSED EDGE LESS THAN 18" & TOP EXPOSED EDGE GREATER THAN 36" ABOVE THE FLOOR; AND WITHIN 36" HORIZONTALLY OF ANY WALKING SURFACE.

SLIDING GLASS WINDOWS SHALL BE DESIGNED AND INSTALLED SO AS TO PREVENT THEIR REMOVAL BY RAISING THE MOVABLE PANEL FROM THE TRACK WHILE IN THE CLOSED POSITION. SLIDING WINDOWS SHALL ALSO HAVE AN APPROVED PRIMARY AND AUXILIARY LOCKING DEVICE PERMANENTLY MOUNTED AND NOT ACCESSIBLE FROM THE EXTERIOR OF THE BUILDING. THE MOVABLE SECTION OF THE SLIDING UNITS SHALL BE MOUNTED ON THE INSIDE TRACK.

ALL DOORS AND WINDOWS ARE TO BE FULLY WEATHER-STRIPPED PER TITLE 24 REQUIREMENTS.

ALL JOINTS AND PENETRATIONS ARE TO BE PROPERLY CAULKED AND SEALED PER TITLE 24 REQUIREMENTS.

MECHANICAL AND PLUMBING PENETRATIONS PASSING ENTIRELY THROUGH BOTH PROTECTIVE MEMBRANES OF BEARING WALLS REQUIRED TO HAVE A FIRE-RESISTANCE RATING, AND WALLS REQUIRING PROTECTED OPENINGS SHALL BE PROTECTED WITH THROUGH-PENETRATION FIRE BLOCKS SUITABLE FOR THE METHOD OF PENETRATION. PER C.R.C.

PROVIDE FIREBLOCKING IN THE FOLLOWING LOCATIONS PER C.R.C.

(A) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10 FT. INTERVALS BOTH VERTICAL AND HORIZONTAL.

(B) AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS.

(C) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN, AND BETWEEN STUDS ALONG AND IN LINE WITH THE RUN OF THE STAIRS IF THE WALLS UNDER THE STAIRS ARE UNFINISHED.

(D) IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS AT CEILING AND FLOOR LEVELS, WITH NON-COMBUSTIBLE MATERIALS.

(E) AT OPENINGS BETWEEN ATTIC SPACES & CHIMNEY CHASES FOR FACTORY-BUILT CHIMNEYS.

5/8" TYPE 'X' ONE HOUR FIRE RATED GYP. BOARD SHALL BE INSTALLED ON ALL WALLS AND CEILING AT GARAGE SIDE WHICH ARE COMMON TO ANY LIVING AREAS, ALSO INSTALL FIRE RATED GYPSUM BOARD AT UNDERSIDE OF ANY ENCLOSED STAIRWAYS. PER C.R.C.

PROVIDE 26 GA. G.I. FLASHING AT ALL NEW CONCRETE PORCH/STOOP AREAS WHERE CONTACT WITH WOOD FRAMING WILL OCCUR.

ALL STEPS AND STAIRWAYS RISERS SHALL NOT BE LESS THAN 4" MIN. OR GREATER THAN 7.75" MAX. ALL TREADS SHALL BE 13" WIDE (BUT, NOT LESS THAN 9" MIN.) TYPICAL UNLESS NOTED OTHERWISE ON THE PLANS. C.R.C.

SHOWERS AND TUB WALLS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE, SUCH AS TILE OR OTHER APPROVED MATERIAL, TO A MINIMUM HEIGHT OF 70" ABOVE THE DRAIN INLET. APPLY GLASS MAT GYPSUM PANEL, FIBER-REINFORCED GYPSUM PANELS, NON-ASBESTOS FIBER-CEMENT BACKER BOARD, OR NON-ASBESTOS FIBER-CEMENT REINFORCED CEMENTITIOUS BACKER UNITS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS PER (R702.4.2)

SHOWERS AND TUBS SHOWERS COMBINATION SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION FOR THE RATED FLOW RATE OF THE INSTALLED SHOWERHEAD. HANDLE POSITION STOPS SHALL BE PROVIDED ON SUCH VALVES AND SHALL BE ADJUSTED PER THE MANUFACTURER'S INSTRUCTIONS TO DELIVER MAXIMUM MIXED WATER SETTING OF 120°F PER C.P.C. 40B.3

CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS.

80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH THE VOC-EMISSION LIMITS DEFINED IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS), HIGH PERFORMANCE PRODUCTS DATABASE OR BE CERTIFIED UNDER THE RESILIENT FLOOR COVERING INSTITUTE (FRCI) FLOORSCORE PROGRAM; OR MEET CALIFORNIA DEPARTMENT OF PUBLIC HEALTH SPECIFICATION 01350.

PROVIDE MIN. 24" CLEAR AT FRONT AND MIN. 30" CLEAR WIDTH AT ALL WATER CLOSETS.

SEISMIC STRAP WATER HEATER TO BUILDING AND INSTALL A MIN. R-12 INSULATION BLANKET. C.P.C. SECTION 510.5, & TITLE 24 REQUIREMENTS.

EXHAUST FANS IN BATHROOMS, LAUNDRY ROOMS, AND SIMILAR ROOMS SHALL BE VENTED DIRECTLY TO THE OUTSIDE AND CAPABLE OF PROVIDING A MINIMUM OF FIVE COMPLETE AIR CHANGES PER HOUR. C.R.C.

571° 48' 30" W R2

PROPERTY LINE

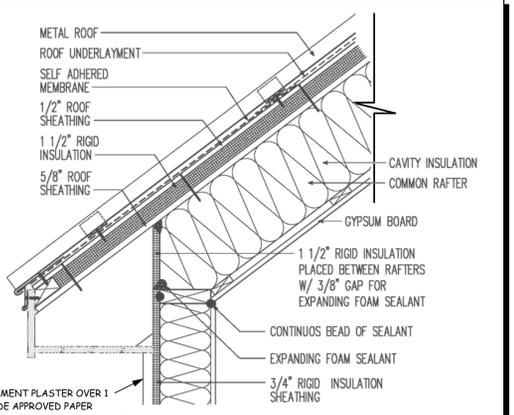
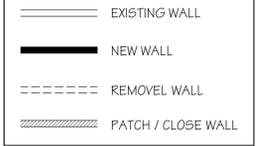
30'-0" EASEMENT LINE (SHOWN DASHED IN RED)

517° 46' 30" E 198.00' R2.3

EXISTING CONCRETE DRIVEWAY

NEW GRAVEL DRIVEWAY 920.5 S.F.

WALL LEGEND



EAVE DETAIL

VALLEY FLASHING SHALL BE A MINIMUM THICKNESS OF 26GA AT LEAST 36" WIDE PER (R337.5.3) AND CBC 705A.3

- ALL ROOF OPENINGS SHALL HAVE THE FOLLOWING PROPERTIES:
- OPENINGS SHALL BE 1/16" MIN. TO 1/8" MAX.
 - MATERIALS USED SHALL BE NON-COMBUSTIBLE
 - MATERIALS SHALL BE CORROSION RESISTANT

- NOTE: The exposed underside of exterior porch ceilings shall be non-combustible or protected by one of the following: [R337.7.6] [CBC 707A.6]
- Noncombustible material
 - Ignition-Resistant material
 - One layer of 5/8-inch Type X gypsum sheathing behind the exterior cover on the underside of the ceiling.
 - The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the ceiling assembly.
 - Porch ceiling assemblies with a horizontal underside tested to ASTM E2957.
 - Porch ceiling assemblies with a horizontal underside tested per SFM Standard 12-7A-3.
 - All exterior windows must have the exterior pane tempered, have not less than a 20-minute fire-resistance rating, or be tested to SFM Standard 12-7A-2. [R337.8.2.1] [CBC 708A.2.1]

All exterior doors shall have a fire-resistance rating of not less than 20 minutes, have an exterior surface of non-combustible or ignition resistant material, be solid core wood complying with stiles and rails not less than 1 3/8 inches thick, be tested to ASTM E2707, or be tested to SFM Standard 12-7A-1. [R337.8.3] [CBC 708A.3]

- NOTE: Ventilation openings are prohibited at the underside of eaves and cornices. [R337.6.3] Vents listed to ASTM E2896 without flaming ignition during the ember intrusion and flame instruction tests are allowed. [R337.6.3, Exception 1]
- Ventilation openings at the underside of eaves and cornices are allowed only when the attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with CBC 903.3.1.1, or when the vent is more than 12 feet above from the ground or walking surface of a deck, porch, patio, or similar surface and the eave is covered with non-combustible or ignition-resistant materials per SFM Standard 12-7A-5. [R337.6.3, Exception 3] The vents must have the following properties:

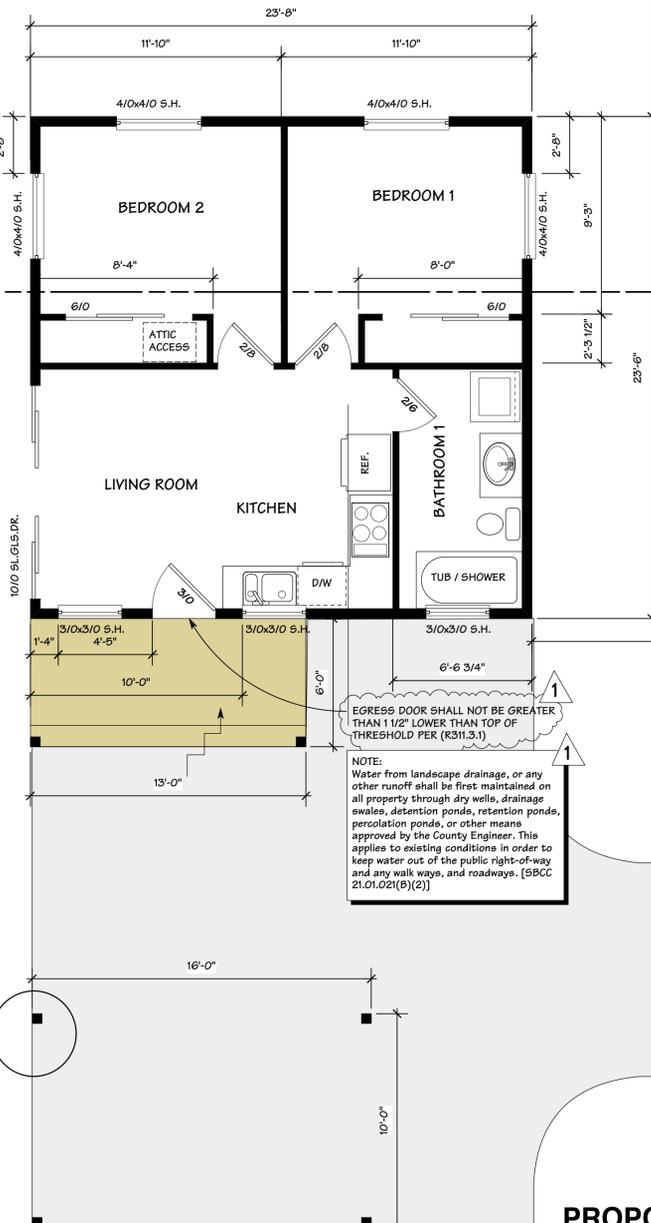
- ALL ROOF OPENINGS SHALL HAVE THE FOLLOWING PROPERTIES:
- OPENINGS SHALL BE 1/16" MIN. TO 1/8" MAX.
 - MATERIALS USED SHALL BE NON-COMBUSTIBLE
 - MATERIALS SHALL BE CORROSION RESISTANT

ATTIC VENTILATION
ENCLOSED ATTIC AND RAFTER SPACES SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY OPENINGS TO THE EXTERIOR (TYPICALLY AT THE EAVE LINE) COVERED WITH CORROSION-RESISTANT WIRE MESH WITH MESH OPENINGS OF 1/4 INCH IN DIMENSION. THE NET FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED PER UBC SECTION 1505.3.

FORMULA
ATTIC AREA AD + 150 SQ. FT. = REQUIRED OPEN AREA OF ATTIC VENTILATION (ROA)

(AA)	=	(ROA) ÷ FREE VENT AREA (FVA)	=	NUMBER OF VENTS REQUIRED
150 SQ. FT.	=		=	
(AA)	=	(ROA)	=	NUMBER OF VENTS REQUIRED
150 SQ. FT.	=	(FVA)	=	
557	=	3.71	=	MIN. OF 6 NEW VENTS REQUIRED. VENT SIZE 24" X 6" R.O.
150 SQ. FT.	=	.7	=	

EXCEPTION: THE REQUIRED EAVE VENT AREA MAY BE REDUCED TO 1/300 OF THE TOTAL SPACE TO BE VENTILATED - PROVIDED A MIN. OF 50% OF THE REQUIRED VENT AREA IS SUPPLIED BY GABLE OR OTHER TYPE ROOF VENTS INSTALLED AT LEAST THREE FEET ABOVE EAVE VENTILATORS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY THE EAVE VENTS.



PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS.

VAPOR RETARDER AND CAPILLARY BREAK IS INSTALLED AT SLAB-ON-GRADE FOUNDATIONS.

SHOWER AND OR TUB/SHOWER WALLS SHALL HAVE A SMOOTH, HARD, NOABSORBENT SURFACE OVER MOISTURE RESISTANT UNDERLAYMENT TO A HEIGHT OF NOT LESS THAN 6" ABOVE THE FLOOR. PER C.R.C. 307.2, R702.4 AND R702.3.7

ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. PER C.R.C. SECTION R311.2

ALL EXTERIOR WINDOWS AND SLIDING DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURE, PERFORMANCE CHARACTERISTICS AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH AAMA/WDMA/CSA 1011.5.2/A440

EXTERIOR SIDED-HINGED DOORS SHALL BE TESTED AND LABELED AS CONFORMING TO AAMA/WDMA/CSA 1011.5.2/A440 OR COMPLY WITH SECTION R609.1 AND R609.3 OR COMPLY WITH C.R.C. SECTION R609.

EGRESS DOOR SHALL NOT BE GREATER THAN 1 1/2" LOWER THAN TOP OF THRESHOLD PER (R311.3.1)

NOTE: Water from landscape drainage, or any other runoff shall be first maintained on all property through dry wells, drainage swales, detention ponds, retention ponds, percolation ponds, or other means approved by the County Engineer. This applies to existing conditions in order to keep water out of the public right-of-way and any walk ways, and roadways. [SBCC 21.01.021(B)(2)]

PROPOSED FLOOR PLAN

SCALE: 1/4" = 1'-0"

OWNER: CHRISTIAN HEATH
0 PINE TREE AVENUE
AROMAS, CA. 95004

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
Michael S. Radu
11222/2022
Cambell, CA. 95008
(408) 904-8826 Cell

REVISION:

1	PER 4LEAF COMMENTS DATED 06/15/2022
2	PER 4LEAF COMMENTS DATED 11/22/2022

PROPOSED FLOOR PLAN PLAN NOTES

DRAWN BY: Michael S. Radu

CHECKED BY: PBD

JOB NO.: 20-04

DATE: 01/05/2023

SCALE: AS SHOWN

SHEET: A-3

571° 48' 30" W R2

PROPERTY LINE

14'-0" 2'-0"



30'-0" EASEMENT LINE (SHOWN DASHED IN RED)

30'-0"

PROPERTY LINE
51° 46' 30" E 198.00' R2.3

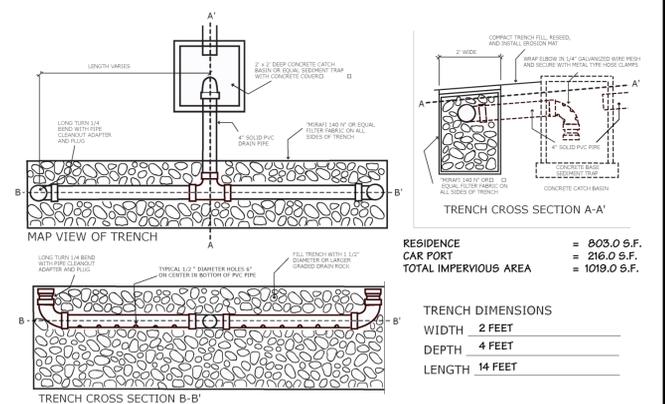
EXISTING CONCRETE DRIVEWAY

12'-0"

3'-0"

NOTE:
DURING CONSTRUCTION FOLLOW THE "BEST MANAGEMENT PRACTICES"
ON SHEET BMP-2 AND BMP-2.

ROOF WATER DISPERSION OUTLET DETAIL



RESIDENCE = 803.0 S.F.
CAR PORT = 216.0 S.F.
TOTAL IMPERVIOUS AREA = 1019.0 S.F.

TRENCH DIMENSIONS
WIDTH 2 FEET
DEPTH 4 FEET
LENGTH 14 FEET

REQ'D = 1019/1000 X 107 = 109.0 CU.FT.
PROV'D = 2 x 4 x 14 = 112.0 CU.FT.

NOTES:
1. DISPERSION TRENCH SHALL BE LOCATED ON THE LEAST STEEP AVAILABLE SLOPE.
2. DISPERSION TRENCH SHALL BE LOCATED AWAY FROM AND BELOW SPITTS, PILES,
3. DISPERSION TRENCH SHALL BE LOCATED AWAY FROM AND BELOW SPITTS, PILES,
4. DISPERSION TRENCH SHALL BE LOCATED AWAY FROM AND BELOW SPITTS, PILES,
5. DISPERSION TRENCH SHALL BE LOCATED AWAY FROM AND BELOW SPITTS, PILES,

WALL LEGEND

- EXISTING WALL
- NEW WALL
- REMOVAL WALL
- PATCH / CLOSE WALL
- DIRECTION WATER FLOW
- FIBER ROLLS

OWNER: CHRISTIAN HEATH
O PINE TREE AVENUE
AROMAS, CA. 95004

DESIGN BY:
PACIFIC BLUE DEVELOPMENTS
Michael S. Radu
10000 S. Bascom Avenue
Campbell, CA 95008
(408) 994-8826 Cell



REVISION	DATE	DESCRIPTION
1	06/15/2022	PER 4-LEAF COMMENTS DATED 06/15/2022
2	11/22/2022	PER 4-LEAF COMMENTS DATED 11/22/2022

EROSION CONTROL PLAN
PLAN NOTES

DRAWN BY
Michael S. Radu

CHECKED BY
PBD

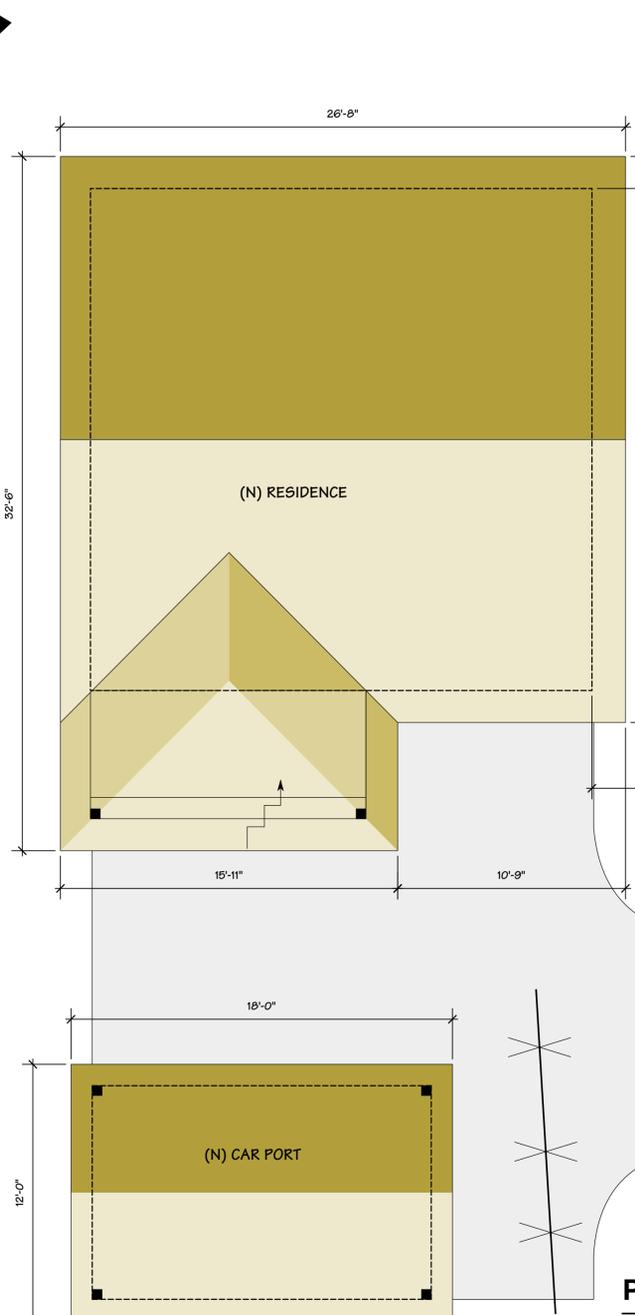
JOB NO.
20-04

DATE
01/05/2023

SCALE
AS SHOWN

SHEET

A-3.1



PROPOSED FLOOR PLAN

SCALE: 1/4" = 1'-0"

ELECTRICAL / MECHANICAL / PLUMBING NOTES

PROVIDE ELECTRICAL SYSTEM GROUNDING PER SECTION 250 OF THE CALIFORNIA ELECTRICAL CODE TYPICAL.

SMOKE DETECTORS IN DWELLING UNITS SHALL BE HARDWIRED AND MOUNTED ON THE CEILING OR WALL AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. IF THE DWELLING UNIT HAS MORE THAN ONE STORY A DETECTOR SHALL BE INSTALLED ON EACH STORY AND IN ANY BASEMENT IF APPLICABLE. WHEN SLEEPING ROOMS ARE ON AN UPPER LEVEL, A DETECTOR SHALL BE PLACED AT THE CEILING OF THE UPPER LEVEL IN CLOSE PROXIMITY TO THE STAIRWAY. DETECTORS SHALL SOUND AN AUDIBLE ALARM IN ALL SLEEPING AREAS OF THE DWELLING UNIT IN WHICH THEY ARE LOCATED. REFER TO C.E.C.

IN EVERY HABITABLE ROOM, RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN SIX FEET MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE. INCLUDING ANY WALL SPACE TWO FEET OR MORE IN WIDTH AND THE WALL SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS, BUT EXCLUDING SLIDING PANELS IN EXTERIOR WALLS. THE WALL SPACE AFFORDED BY FIXED ROOM DIVIDERS, SUCH AS FREE-STANDING BAR-TYPE COUNTERS, SHALL BE INCLUDED IN THE SIX FOOT MEASUREMENT. C.E.C.

ATTICS AND ROOF AREAS THAT ARE ACCESSIBLE, THE ELECTRICAL CABLE WITHIN SEVEN (7) FEET OF OPENING SHALL BE PROTECTED PER C.E.C. 320.23

CARBON MONOXIDE ALARMS

(A) SPECIFY THAT CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN THIS DWELLING PER C.R.C. R315
 (B) SPECIFY THAT CARBON MONOXIDE ALARMS SHALL BE "LISTED" AS COMPLYING WITH UL2034 AND UL2075 PER C.R.C. R315.3

RECEPTACLES SHALL:
 (A) NOT BE OVER 6' FROM OPENINGS INCLUDING ANY WALL SPACE 2' OR WIDER.
 (B) NOT BE MORE THAN 12' O.C. INCLUDING SLIDING GLASS DOORS.

(C) BE G.F.I. CIRCUITS WHEN INSTALLED WITHIN 6' OF SINKS AND WHEN INSTALLED OUTDOORS PER C.E.C. ARTICLE 210-8(a).
 (D) HAVE WATERPROOF COVERS WHEN INSTALLED OUTDOORS.

A 22" x 30" MINIMUM ACCESS TO FURNACE LOCATED IN THE ATTIC IS REQUIRED. IN ADDITION THE OPENING AND PASSAGEWAY MUST BE AS LARGE AS THE LARGEST COMPONENT OF THE APPLIANCE.

A SOLID 24" MIN. WIDE PLATFORM PATH FROM THE ACCESS OPENING TO THE FURNACE, WITH A RECEPTACLE AT THE FAU AND LIGHT, SWITCHED FROM THE ACCESS OPENING. PER C.M.C. 904.11

PROVIDE AN ADDITIONAL WATERTIGHT CORROSION RESISTANT METAL PAN BELOW CONDENSATE PRODUCING EQUIPMENT (IE. FURNACE) INSTALLED IN ATTIC. A SECONDARY DRAIN LINE MUST BE LOCATED AT A POINT WHERE IT CAN BE READILY OBSERVED. PER C.M.C. 310.2

ACCESS DOOR TO THE FURNACE/COOLING EQUIPMENT / COMPARTMENT SHALL BE A MINIMUM OF 24" WIDE AND A MINIMUM OF 30" CLEAR WORKING SPACE (OF A HEIGHT EQUAL TO THAT OF THE EQUIPMENT OR 6.5 FEET) ON THE FIREBOX SIDE.

PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) INSTALLED IN RESIDENTIAL BUILDINGS SHALL COMPLY WITH THE PRESCRIPTIVE REQUIREMENTS OF CGBC SECTION 4.303.1.1 THROUGH 4.303.1.4.4

PLUMBING FIXTURES AND FITTINGS REQUIRED IN CGBC SECTION 4.303.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE C.P.C AND SHALL MEET THE APPLICABLE REFERENCED STANDARDS.

ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.

HVAC SYSTEM INSTALLERS ARE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS.

SMOKE DETECTORS SHALL BE INTERCONNECTED 110V WITH BATTERY BACKUP, WHICH ARE AUDIBLE IN ALL SLEEPING AREAS AT THE FOLLOWING LOCATIONS:
 (1) ALL BEDROOMS; (2) HALLWAYS LEADING TO BEDROOMS, (4) AT LEAST ONE AT EVERY LEVEL AND (5) FARTHER THAN 3 FEET HORIZONTAL DISTANCE FROM THE BATHROOM DOOR CONTAINING A BATHTUB OR SHOWER. PER C.R.C. R314.3, R314.4, R314.5.

AN ARC-FAULT CIRCUIT INTERRUPTER SHALL PROTECT ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMP BRANCH CIRCUITS SUPPLYING OUTLETS IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DEN, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS. PER C.E.C. 210.12(A)

TWO SMALL APPLIANCE BRANCH CIRCUITS ARE REQUIRED FOR THE KITCHEN AND ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS FOR THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREAS. NOTE: THESE CIRCUITS CANNOT SERVE OUTSIDE PLUGS, RANGE HOOD, DISPOSALS, DISHWASHERS OR MICROWAVES — ONLY THE REQUIRED COUNTERTOP/WALL OUTLETS INCLUDING THE REFRIGERATOR. PER C.E.C. 210-11(C)(1) AND 210-52 (B)

A DEDICATED 20-AMP CIRCUIT IS REQUIRED TO SERVE THE REQUIRED BATHROOM OUTLETS. THIS CIRCUIT CANNOT SUPPLY ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC. (EXCEPTION-WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM). OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED.) PER C.E.C. 210.52 (C)(3) AND EXCEPTION: CEC210.23(A)(1) AND (A)(2).

A DEDICATED 20-AMP BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET. PER C.E.C. 210.11(C)(2) AND 210.52(F)

A PRESSURE ABSORBING DEVICE (OR APPROVED MECHANICAL DEVICE), LOCATED AS CLOSE AS POSSIBLE TO QUICK ACTING VALVES, THAT WILL ABSORB HIGH PRESSURES RESULTING FROM THE QUICK CLOSING OF QUICK-ACTING VALVES (I.E., DISHWASHER, WASHING MACHINE, ETC.). PER C.P.C. 609.10

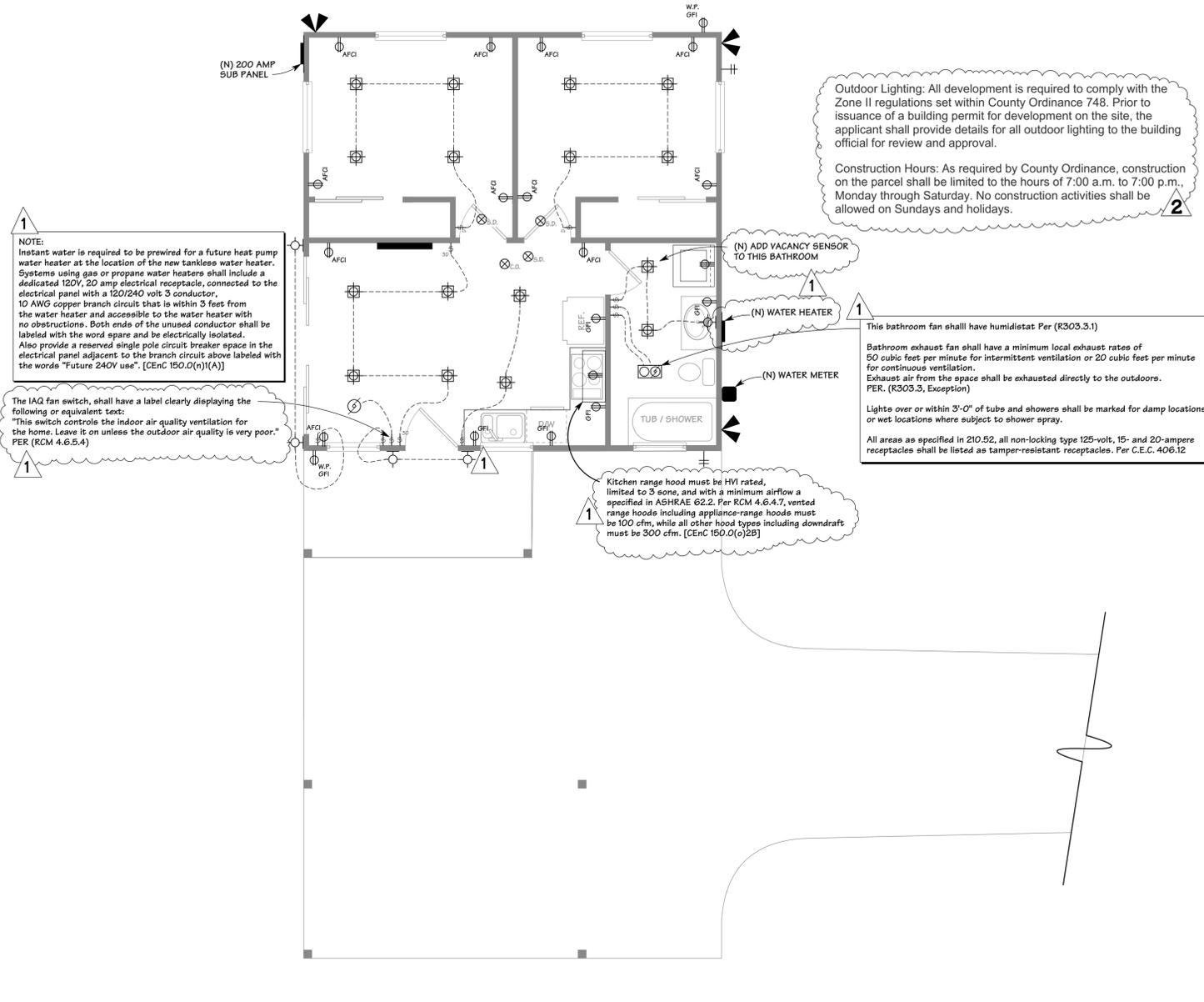
EXHAUST OUTLETS SHALL BE LOCATED A MINIMUM OF 10-FT FROM DOORS, OCCUPIED AREAS AND OPERABLE WINDOWS. PER C.M.C. 407.2.2

NOTES FOR HIGH EFFICACY LIGHTING:
 ALL LIGHTS THROUGHOUT THE RESIDENCE, INCLUDING THE GARAGE AND EXTERIOR, SHALL BE HIGH EFFICACY PER (CEC 150.0(k)(1A))

- Recessed luminaires with the following features per CA Energy Code 150.0(k)1C:
- IC-rated,
 - Airtight (AT) per ASTM E283,
 - Sealed with gasket or caulk,
 - Accessible ballast or drivers from below the ceiling,
 - Without screw base sockets, and
 - Light sources compliant with JCS-2016-E.

ALL OUTDOOR LIGHTS MUST BE HIGH EFFICACY AND CONTROLLED BY AN ASTRONOMICAL TIME CLOCK OR BY BOTH A MOTION SENSOR AND PHOTOCELL PER (CEC 150.0(k)(3)).

All showers and tub shower combination shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection for the rated flow rate of the installed showerhead. Handle position stops shall be provided on such valves and shall be adjusted per the manufacturer's instructions to deliver maximum mixed water setting of 120°F. [CPC 408.3]



Outdoor Lighting: All development is required to comply with the Zone II regulations set within County Ordinance 748. Prior to issuance of a building permit for development on the site, the applicant shall provide details for all outdoor lighting to the building official for review and approval.

Construction Hours: As required by County Ordinance, construction on the parcel shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. No construction activities shall be allowed on Sundays and holidays.

ELEC. /MECH. /PLUMB. PLAN

SCALE: 1/4" = 1'-0"

ELECTRICAL/MECHANICAL SYMBOL LEGEND

	LIGHT SWITCH, SINGLE POLE; +48" U.O.N.
	LIGHT SWITCH, 3-WAY; +48" U.O.N.
	LIGHT SWITCH, DIMMABLE; +48" U.O.N.
	CEILING FAN/LIGHT CONTROL
	OUTLET, DUPLEX CONVENIENCE - 20A, 120V; +12" U.O.N.
	OUTLET, SAME AS ABOVE EXCEPT GFI TYPE
	OUTLET, SAME AS ABOVE EXCEPT GFI & WATER PROOF
	OUTLET, ARC-FAULT CIRCUIT INTERRUPTER
	OUTLET, IN CAB FACE, GFI IN KITCHEN
	SWITCHED OUTLET, 1/2 HOT - 20A, 120V; +12" U.O.N.
	OUTLET, FOURPLEX CONVENIENCE - 20A, 120V +12" U.O.N.
	OUTLET, INDIVIDUAL APPLIANCE - 20A, 220V
	UNDER-COUNTER OUTLET
	COUNTER-TOP OUTLET
	FLOOR OUTLET - 20A, 120V
	DOT ADJACENT TO SYMBOL INDICATES MOUNTING ABOVE COUNTER TOP
	PENDANT MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	LOW VOLTAGE RECESSED FIXTURE
	RECESSED CEILING LIGHT FIXTURE
	RECESSED FLOURESCENT CEILING LIGHT FIXTURE
	ACCENT LIGHT
	WALL MOUNTED LIGHT FIXTURE
	WALL SCENCE
	FLOURESCENT FIXTURE, UNDER CAB MNTD. DIRECT WIRE, LENGTH VARIES
	SURFACE MOUNTED FLOURESCENT FIXTURE
	FAN/FLOURESCENT LIGHT
	EXHAUST FAN (CEILING UNIT U.O.N.) (TO PROVIDE MIN. 5 AIR CHANGES/HR. PER UBC 1203.3)
	DISPOSAL
	TELEPHONE OUTLET +12" U.O.N.
	FLOOR MOUNTED TELEPHONE JACK
	TELEVISION HOOKUP
	PUSH BUTTON
	DOORBELL CHIME
	THERMOSTAT
	JUNCTION BOX
	MOTOR CONNECTION
	APPROVED SMOKE DETECTOR - CEILING MOUNTED & WIRED TO MAIN SERVICE WITH BATTERY BACK-UP
	APPROVED CARBON MONOXIDE DETECTOR - CEILING MOUNTED & WIRED TO MAIN SERVICE WITH BATTERY BACK-UP
	GARAGE DOOR OPENER
	GAS OUTLET
	F.G. KEY
	HOSE BIB w/ VACUUM BREAKER
	AIR RETURN
	AIR REGISTER AT FLOOR
	AIR REGISTER @ WALL
	AIR REGISTER @ CEIL.
	MOTION / SOLOR FLOOD LIGHT
	CEILING FAN

OWNER: CHRISTIAN HEATH
 0 PINE TREE AVENUE
 AROMAS, CA. 95004

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
 35 Collins Way
 Campbell, CA. 95008
 (408) 596-8826 Cell

REVISION:

1	PER ALIAT COMMENTS DATED 06/19/2022
2	PER ALIAT COMMENTS DATED 11/22/2022

ELEC. / MECH. / PLUMB. PLANS PLAN NOTES

DRAWN BY: Michael S. Radu

CHECKED BY: PBD

JOB NO.: 20-04

DATE: 01/05/2023

SCALE: AS SHOWN

SHEET: A-4

NEW RESIDENCE 0 PINE TREE AVENUE AROMAS, CA 95004

CONSTRUCTION NOTES

GENERAL

- APPLYING TO ALL STRUCTURAL FEATURES UNLESS OTHERWISE SHOWN OR NOTED.
- ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE **2019 CALIFORNIA BUILDING CODE (CBC)**.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
 - UNLESS OTHERWISE SHOWN OR NOTED, ALL TYPICAL DETAILS SHALL BE USED WHERE APPLICABLE. ALL DETAILS SHALL BE CONSIDERED TYPICAL AT SIMILAR CONDITIONS.
 - UNLESS OTHERWISE SHOWN OR NOTED, FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS FOR ALL STRUCTURAL PRODUCTS USED ON THIS PROJECT.
 - THE APPROVED DRAWING SHALL BE KEPT ON THE JOB SITE AND SHALL BE AVAILABLE TO AUTHORIZED REPRESENTATIVES OF THE BUILDING OFFICIAL. THERE SHALL BE NO DEVIATION FROM THE STAMPED DRAWINGS WITHOUT OFFICIAL APPROVAL.
 - SAFETY MEASURES: AT ALL TIMES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PEOPLE AND PROPERTY, AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.
 - ANY OPENING, HOLES, CUTS OR DISCONTINUITIES NOT SHOWN ON THE STRUCTURAL DRAWINGS AND EXTENDING INTO OR THROUGH STRUCTURAL ELEMENTS REQUIRE THE PRIOR APPROVAL OF THE ENGINEER, AND MAY REQUIRE SPECIAL STRUCTURAL DETAILING.
 - CONTRACTORS SHALL SCHEDULE WORK TO MINIMIZE INTERRUPTION AND INCONVENIENCE TO THE ACTIVITIES OF THE ADJACENT BUILDING TENANTS.
 - CONTRACTOR SHALL MAINTAIN A CLEAN AND SAFE WORKING AREA.
 - CONTRACTOR SHALL COMPLY WITH **CITY OF AROMAS** REQUIREMENTS FOR THE PROTECTION OF PUBLIC RIGHT-OF-WAY (SIDEWALKS).
 - THE LOCATION OF EXISTING UTILITY LINES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL ENDEAVOR TO MAINTAIN IN SERVICE ALL UTILITIES TO THE TENANTS FOR THE DURATION OF THE PROJECT.
 - INTENT:
IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE DRAWINGS OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR SPECIFIED.
 - REFERENCE TO OTHER DRAWINGS:
13.1 SEE DRAWINGS OTHER THAN STRUCTURAL FOR KINDS OF FLOOR FINISH AND THEIR LOCATION, FOR DEPRESSIONS IN FLOOR SLABS, FOR OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MECHANICAL FEATURES, FOR DRIVEWAY PAVING, WALKS, RAMPS, STAIRS, CURBS, ETC.
13.2 HOLES AND OPENINGS THROUGH WALLS AND FLOORS FOR DUCTS, PIPING AND VENTILATION SHALL BE CHECKED BY THE CONTRACTOR WHO SHALL VERIFY SIZES AND LOCATION OF SUCH HOLES OR OPENINGS WITH THE PLUMBING, HEATING, VENTILATING AND ELECTRICAL DRAWINGS AND SUB-CONTRACTORS.

DESIGN DATA

- CODE: **CALIFORNIA BUILDING CODE, 2019 EDITION**
- DESIGN VERTICAL LOADS:

ROOF (METAL SHEETS)-----	DL	LL
SOLAR -----	17 PSF	20 PSF
WALLS (STUCCO) -----	3 PSF	---
	17 PSF	---
- LATERAL DESIGN:

SITE CLASS D		
SS = 2.228	SMS = 2.228	SDS = 1.486
S1 = 0.923	SM1 = 1.568	SD1 = 1.046
Fa = 1.0	Fv = 1.7	
- SOIL REPORT BY EARTH SYSTEMS, DATED 10/3/2022, PROJECT NO. 305539-001
BEARING CAPACITY = 1,800 PSF

SHEATHING

- U.O.N., USE DOUGLAS FIR OR OSB APA EXTERIOR, EXPOSURE1, RATED SHEATHING IN CONFORMANCE WITH THE U.S. COMMERCIAL STANDARDS PS-1. INSTALL WITH FACE GRAIN PERPENDICULAR TO JOISTS.
- SHEARWALL SHEATHING SHALL BE 15/32" STRUCTURAL 1 w/ FASTENING AS NOTED IN SHEARWALL SCHEDULE.
- ROOF SHEATHING SHALL BE 15/32" WITH A SPAN RATING OF 24/0. UNBLOCKED. w/ 8d COMMON NAILS OR 16d SINKER NAILS @ 6" O.C. EDGE & BOUNDARY NAILING AND 10d COMMON NAILS OR 16d SINKER NAILS @ 12" O.C. FIELD NAILING.
- FLOOR SHEATHING SHALL BE 3/4", MIN. SPAN RATING 48/24. UNBLOCKED. PROVIDE 10d COMMON NAILS OR 16d SINKER NAILS @ 6" o.c. EDGE NAILING, 10d COMMON NAILS OR 16d SINKER NAILS @ 4" O.C. BOUNDARY NAILING, AND 10d COMMON NAILS OR 16d SINKER NAILS @ 10" o.c. FIELD NAILING. GLUE TO FLOOR JOISTS. INSTALL WITH FACE GRAIN PERPENDICULAR TO JOISTS.

ROUGH CARPENTRY

- FOR SCHEDULE OF MINIMUM NAILING SEE TABLE 2304.9.1 OF **2019 CALIFORNIA BUILDING CODE**. UNLESS OTHERWISE NOTED, ALL NAILS SHALL BE COMMON NAILS.
- PLACE JOINTS WITH CROWN UP.
- ADD ONE ADDITIONAL JOIST UNDER ALL PARALLEL PARTITIONS.
- BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2X SOLID BLOCKING.
- METAL FRAMING DEVICES:
PROVIDE TYPICAL CONNECTORS FOR WOOD FRAMING BY SIMPSON CO. OR EQUAL. ALL CONNECTIONS SHALL BE 16 GA. GALVANIZED SHEET METAL OR THICKER, U.O.N., FULLY NAILED IN ALL PUNCHED HOLES WITH NAILS OF SIZE AND LENGTH SPECIFIED AND/OR PROVIDED BY MANUFACTURER. IF CONNECTORS ARE AVAILABLE IN DIFFERENT SIZES, THE SIZE USED SHALL BE AS SHOWN IN DETAILS OR ELSE THE LARGEST SIZE MADE FOR THE DEPTH OF MEMBER BEING FRAMED. COMPARABLE FASTENERS BY OTHER MANUFACTURERS MAY BE USED IF APPROVED IN ADVANCE BY THE DESIGN ENGINEER.
UNLESS OTHERWISE NOTED, PROVIDE THE FOLLOWING FRAMING CONNECTIONS:
 - SAWN LUMBER JOIST-TO-BEAM: SIMPSON U
 - BEAM-TO-POST: SIMPSON PC
 - POST-TO-BEAM: SIMPSON BC
 - POST-TO-FOUNDATION: SIMPSON PB
- ALL FRAMING LUMBER SHALL BE GRADE STAMPED S-DRY (19% MOISTURE CONTENT)
- SAWN LUMBER:
U.O.N. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR LARCH (COAST REGION), GRADED AND MARKED IN ACCORDANCE WITH THE STANDARD GRADING RULES NUMBER 16 OF THE WEST COAST LUMBER INSPECTION BUREAU.

POSTS, BEAMS -----	NO. 1 GRADE
JOISTS & RAFTERS -----	NO. 2 GRADE
STUDS -----	STUD GRADE
- GLUE-LAMINATED LUMBER:
ALL GLUE-LAMINATED MEMBERS SHALL BE DOUGLAS FIR COMBINATION 24F-V4; WET USE ADHESIVE; INDUSTRIAL APPEARANCE GRADE - (CONFORMING WITH AITC 117, CURRENT EDITION)

BENDING -----	Fb = 2,400 PSI
HORIZONTAL SHEAR -----	Fv = 165 PSI
COMPRESSION PERPENDICULAR TO GRAIN -----	Fp = 450 PSI
MODULUS OF ELASTICITY -----	E = 1,800,000 PSI
- PARALLAM BEAMS:
AS MANUFACTURED BY WEYERHAEUSER COMPANY

BENDING -----	Fb = 2,900 PSI
HORIZONTAL SHEAR -----	Fv = 290 PSI
COMPRESSION PERPENDICULAR TO GRAIN -----	Fp = 750 PSI
MODULUS OF ELASTICITY -----	E = 2,200,000 PSI

- JOISTS:
11.1 PROVIDE FULL BEARING AT SUPPORTS; 2" SOLID BLOCKING AT SUPPORTS UNDER PARTITIONS AT ANGLE TO JOISTS.
11.2 PROVIDE CROSSBRIDGING AT MIDSPAN FOR SPANS 8 FT. TO 16 FT. FOR GREATER SPANS, SPACING SHALL NOT EXCEED 8'-0". OMIT CROSS BRIDGING FOR ROOF AND CEILING JOIST 6" AND UNDER IN DEPTH.
11.3 USE DOUBLE JOISTS UNDER ALL PARTITIONS PARALLEL TO JOISTS.
- STRUCTURAL STUD WALLS:
12.1 USE SINGLE BOTTOM PLATE AND DOUBLE TOP PLATE UNLESS OTHERWISE NOTED OR SHOWN. STAGGER JOINTS IN UPPER AND LOWER MEMBERS OF TOP PLATES NOT LESS THAN 4'-0".
12.2 BOLT SILL PLATE TO CONCRETE AS PER ANCHOR BOLT SCHEDULE. ONE BOLT SHALL BE WITHIN 9" OF EACH END OF EACH PIECE OF PLATE. PROVIDE 2 BOLTS MINIMUM PER PIECE.
- BOLTS:
13.1 BOLTS SHALL BE PER ASTM A307, U.O.N.
13.2 BOLT HOLES 1/16" OVERSIZE. THREADS SHALL NOT BEAR ON WOOD OR STEEL.
13.3 USE STANDARD MALLEABLE IRON WASHERS AGAINST WOOD. 2 3/4" Øx 5/16" THICK FOR 5/8" BOLTS. 3" Øx7/16" THICK FOR 3/4" BOLTS.
- SCREWS:
14.1 (WOOD OR LAG) SCREWS SHALL BE SCREWED AND NOT DRIVEN INTO PLATE.
14.2 IN SPACING SCREWS, THE HOLES SHALL BE BORED TO THE SAME DIAMETER AND DEPTH OF THE SCREW SHANK. THE HOLES FOR THE THREADED PORTION OF THE SCREWS SHALL BE BORED WITH A BIT NOT LARGER THAN THE DIAMETER OF THE BASE OF THE THREAD.
- WOOD PRESERVATIVE:
ALL WOOD FRAMING IN CONTACT WITH CONCRETE AND/OR EXPOSED TO WEATHER OR PROLONGED DAMPNESS SHALL BE TREATED WITH 'CELLOLW' AT THE RATE OF 0.23 POUNDS PER CUBIC FOOT IN ACCORDANCE WITH AWP/PA SPECIFICATIONS, OR SHALL BE WOOD OF NATURAL RESISTANCE TO DECAY.
ALL STEEL CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL AS PER SECTION 2304.9.5 OF **2019 CBC**.

REINFORCING STEEL

- REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH "THE RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS" AS SET FORTH IN THE LATEST EDITION OF THE CRSI MANUAL OF STANDARD PRACTICE, AND WITHIN SETTING TOLERANCES AND OTHER REQUIREMENTS OF **2019 CBC** CHAPTER 19.
- REINFORCING STEEL SHALL BE ASTM A706, OR A615 GR.60 FOR # & BIGGER BAR AND ASTM A615 GR.40 FOR #3 & #4 BARS.
- CONCRETE COVER OF REINFORCING STEEL SHALL BE MAINTAINED AS FOLLOWS, UNLESS NOTED OTHERWISE:

CONCRETE POURED AGAINST EARTH -----	3" MIN.
FORMED SURFACES BACK FILLED WITH EARTH -----	2" MIN.
FORMED SURFACES EXPOSED TO WEATHER (#4 & #5) -----	1 1/2" MIN
FORMED SURFACES EXPOSED TO WEATHER (#6 & LARGER) -----	2" MIN.
FORMED SURFACES EXPOSED TO INTERIOR SPACE -----	3/4" MIN.
- PROVIDE 90 DEGREE HOOK WITH A 12" EXTENSION FOR ALL HORIZONTAL BARS AT CORNERS AND INTERSECTION OF WALLS, FOOTING, AND CURBS. STAGGER SPLICES OF REINFORCING STEEL WHERE POSSIBLE TO MAINTAIN STRUCTURAL CONTINUITY.
AT THE TIME OF PLACING THE CONCRETE, THE REINFORCING STEEL SHALL BE FREE FROM LOOSE RUST AND OTHER COATINGS OR MATERIALS, STRAIGHTENED, AND SHALL BE ACCURATELY PLACED AND POSITIVELY SECURED IN DESIGNATED LOCATIONS AGAINST DISPLACEMENT BY CONSTRUCTION AND CONCRETE OPERATIONS.

CONCRETE

- CONCRETE CEMENT SHALL CONFORM TO **2019 CBC** SECTION 1903, AND SHALL BE TYPE II. TYPE I CEMENT MAY BE USED IN AREAS NOT IN CONTACT WITH EARTH. AGGREGATE SHALL BE HARDROCK, CONFORMING TO ASTM C-33, AND FREE OF ALKALI-REACTIVITY. WATER-CEMENT RATIO SHALL NOT EXCEED 55%. ACID SOLUBLE CHLORIDE CONTENT SHALL NOT EXCEED 0.2 PERCENT OF CEMENT WEIGHT. CHLORIDE-FREE ADMIXTURES AND PLASTICIZERS FOR WORKABILITY MAY BE USED IF APPROVED BY THE TESTING LABORATORY AND ENGINEER. BECAUSE EXCESS WATER REDUCES CONCRETE STRENGTH, ADDING WATER AT THE SITE IS DISCOURAGED AND SHALL NOT EXCEED ONE GALLON PER CUBIC YARD.
- INSTALL ALL INSERTS, BOLTS, ANCHORS, AND REINFORCING BARS AND SECURELY TIE PRIOR TO PLACING CONCRETE.
- CONCRETE SHALL ATTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTHS AT 28 DAYS OF **2,500 PSI**.
- CONCRETE SHALL BE PLACED IN A CONTINUOUS OPERATION BETWEEN PREDETERMINED CONSTRUCTION JOINTS.
- CONCRETE SHALL BE CONTINUOUSLY CURED FOR 5 DAYS AFTER PLACEMENT IN ANY APPROVED MANNER.
- THE LOCATION AND PROTECTION OF EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UTILITY PIPES RUN THROUGH, OR WITHIN 24" BELOW, ANY NEW CONCRETE CONSTRUCTION.
- PIPE OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
- PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN.
- CONCRETE SHALL NOT BE ALLOWED TO CURE IN TEMPERATURES LESS THAN 40° FAHRENHEIT FOR THE FIRST THREE DAYS.
- MAXIMUM SLUMP: 4 INCHES.

ABBREVIATION

A.B.	ANCHOR BOLT(S)	EQ.	EQUAL	OPNG.	OPENING
A.C.	ASPHALT CEMENT	EQUIV.	EQUIVALENT	P.E.	PERIMETER & EDGE PLATE
A.C.I.	AMERICAN CONCRETE INSTITUTE	EXT.	EXTERIOR	PL.	PLATE
ADDL.	ADDITIONAL	E.E.	EACH END	PLF	POUND PER LINEAR FOOT
A.F.F.	ABOVE FINISH FLOOR	E.F.	EACH FACE	PLYWD.	PLYWOOD
AGG.	AGGREGATE	E.S.	EACH SIDE	PRE-FAB.	PRE-FABRICATED
A.I.S.C.	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	E.W.	EACH WAY	PSF	POUND(S) PER SQUARE FOOT
		F.F.L.	FINISH FLOOR LINE	PSI	POUND(S) PER SQUARE INCH
A.I.S.I.	AMERICAN IRON & STEEL INSTITUTE	F.O.	FACE OF	P.T.	PRESSURE TREATED
		F.O.S.	FACE OF STUD	RDWD.	REDWOOD
A.I.T.C.	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	FDN.	FOUNDATION	REF.	REFERENCE
		FLR.	FLOOR	REINF.	REINFORCING
A.S.T.M.	AMERICAN STANDARD TESTING & MATERIAL	FRMG.	FRAMING	REINFT.	REINFORCEMENT
		FT.	FOOT/FEET	REQD.	REQUIRED
APPROX.	APPROXIMATE	FTG.	FOOTING	REQ'T	REQUIREMENT
ARCH.	ARCHITECT	GA.	GAUGE	RFB	RETROFIT A.B.
ARCHL.	ARCHITECTURAL	GLB	GLU-LAM BEAM	R.O.	ROUGH OPENING
BLK.	BLOCK	H.S.B.	HIGH STRENGTH BOLT	S.A.D.	SEE ARCHITECTURAL DRAWINGS
BLK.G.	BLOCKING	HDR.	HEADER	SECT.	SECTION
B.O.	BOTTOM OF	I.C.C.	THE INTERNATIONAL	SHTG	SHEATHING
CANT.	CANTILEVER	INT.	INTERIOR	SIM.	SIMILAR
C-C	CENTER TO CENTER	JT.	JOINT	SPEC.	SPECIFICATION
C.J.	CONTROL JOINT	K	KIP(S)	SPECS.	SPECIFICATIONS
C.P.	COMPLETE PENETRATION	KSQ	KIP(S) PER SQUARE	STAGD.	STAGGERED
CLR.	CLEAR	LB	POUND	STD.	STANDARD
CMU.	CONCRETE MASONRY UNIT	MAX.	MAXIMUM	T&B	TOP & BOTTOM
CONST.	CONSTRUCTION	M.B.	MACHINE BOLT	T&G	TONGUE & GROOVE
CNTSK.	COUNTERSINK	MFR.	MANUFACTURER	T.O.	TOP OF
D.F.	DOUGLAS FIR	MIN.	MINIMUM	T.O.C.	TOP OF CONCRETE
DET.	DETAIL	MISC.	MISCELLANEOUS	T.O.G.	TOP OF GRADE
DIA.	DIAMETER	(N)	NEW	T.O.P.	TOP OF PLYWOOD
Ø	DIAMETER	N.F.P.A.	NATIONAL FOREST PRODUCT	T.O.W.	TOP OF WALL
DWG.	DRAWING		ASSOCIATION	TYP.	TYPICAL
(E)	EXISTING	N.T.S.	NOT TO SCALE	U.N.O.	UNLESS NOTED OTHERWISE
EA.	EACH	O'	OVER	W/	WITH
ELEV.	ELEVATION	O.C.	ON CENTER	W.W.F.	WELDED WIRE FABRIC
E.N.	EDGE NAIL	O-O	OUT TO OUT	Q	CENTER LINE

DRAWING INDEX

S1	TITLE SHEET
S2	ROOF FRAMING PLAN, CEILING FRAMING PLAN, FOUNDATION PLAN DETAILS

Engineer:

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Designer:

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Project:

NEW 2ND DWELLING UNIT
0 PINE TREE AVENUE
AROMAS, CA 95004

Job Number:
22099

Date:
April 27, 2022

Revisions:

1	October 24, 2022
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Sheet

S1

of 2 sheets

LEGEND

SYMBOLS

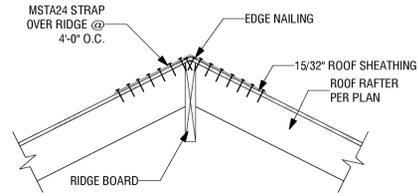
	DETAIL NUMBER		DETAIL & DETAIL SECTION		SHEAR WALL	SEE SHEAR WALL SCHEDULE
	SHEET NUMBER		GRID LINE BUBBLE		FLOOR BEAM (1)	FRAMING REF. TO STRUCT'L CAL'S
	GRID NUMBER		STRUCTURAL WOOD		WOOD BLOCKING	
	JOIST OR RAFTER		BEAM		HOLDOWN	SIZE & APPROX LOCATION
	POST		SHEATHING		U.O.N., MST37 STRAP @ WALL OPENING	
	2 x 4 @ 16" O.C. STUD WAL		(N) CONCRETE FOOTING			

SHEAR WALL SCHEDULE

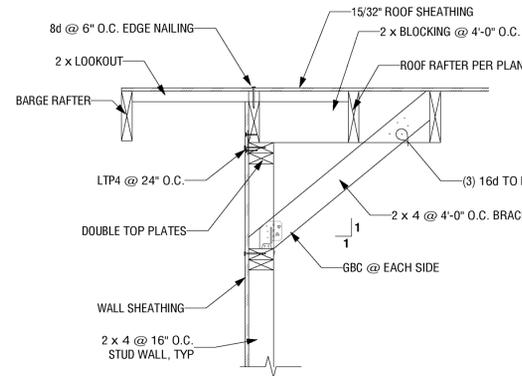
WALL TYPE SYMBOL	SHEAR LOAD (PLF)	WALL SHEATHING MATERIAL	EDGE NAILING	RBC CLIP @ TOP PLATES	SOLE PLATE NAILING	ANCHOR BOLTS 5/8"x12
	310	15/32" PLYWD.	10d @ 6"	24" O.C.	16d @ 6" O.C.	32" O.C.
	460	15/32" PLYWD.	10d @ 4"	16" O.C.	16d @ 4" O.C.	24" O.C.
	600	15/32" PLYWD.	10d @ 3"	12" O.C.	16d @ 3" O.C.	18" O.C.
	770	15/32" PLYWD.	10d @ 2"	9" O.C.	16d @ 2" O.C.	12" O.C.

NOTES:

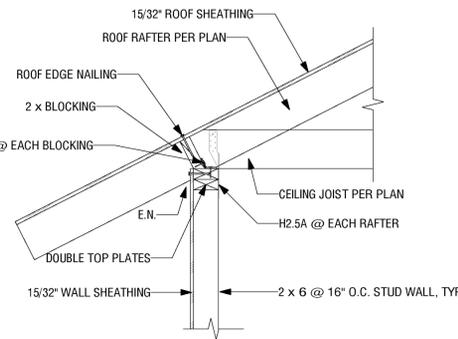
- U.O.N. SHEATHING: 15/32" CD, CC PLYWOOD OR OSB.
- FRAMING: 2x D.F. TYP. @ 16" O.C., 3x REQD. IF 10d W/ +1 5/8" PENETRATION, 2" OR 3" O.C.
- TYPICAL FASTENERS: 8d OR 10d COMMON OR 10d SHORT W/ 12D PENETRATION MIN., NAIL FIELD @ 12" O.C.
- 3x AT PANEL EDGES AT WALLS W/ SHEAR OVER 350 LSB. NAIL MIN. 1/2" FROM EDGE.
- ANCHOR BOLTS: (ASTM A-307) MIN. 7" EMBEDMENT, W/ 3"x3"x1/4" PLATE WASHER.



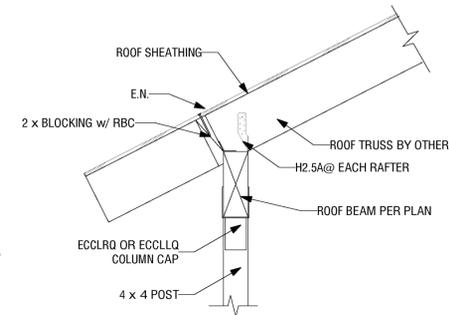
1 RIDGE BEAM CONNECTION
Scale: 1" = 1'-0"



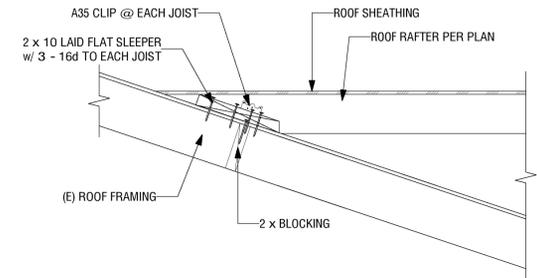
2 GABLE END
Scale: 1" = 1'-0"



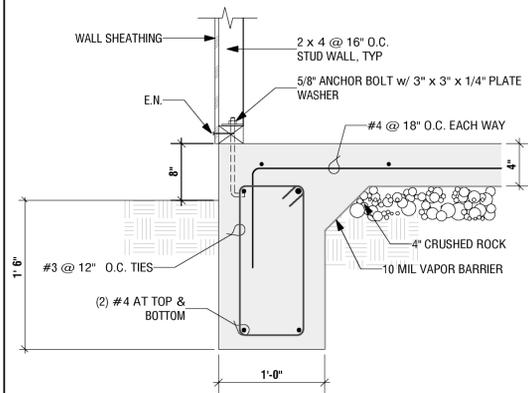
3 SHEAR TRANSFER @ ROOF
Scale: 1" = 1'-0"



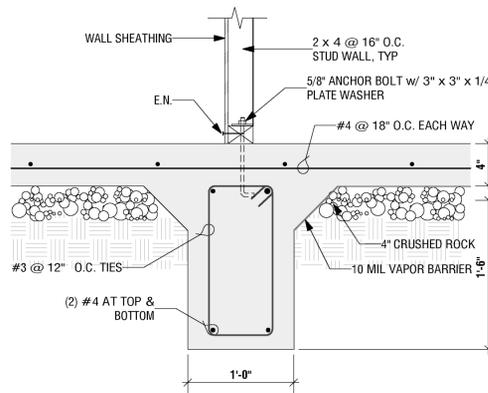
4 ROOF AT COVERED PORCH
Scale: 1" = 1'-0"



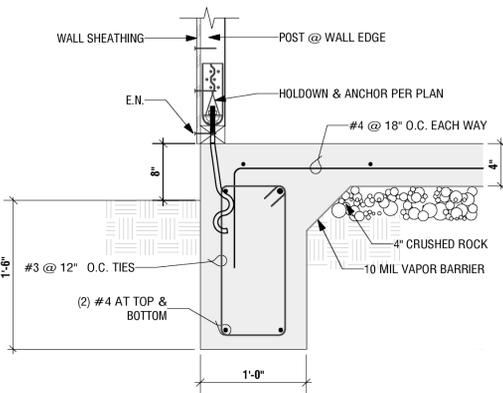
5 CALIFORNIA ROOF
Scale: 1" = 1'-0"



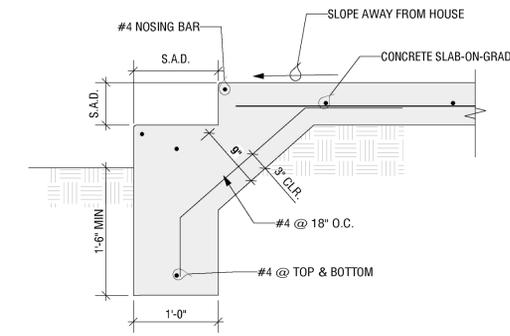
6 EXTERIOR FOOTING
Scale: 1" = 1'-0"



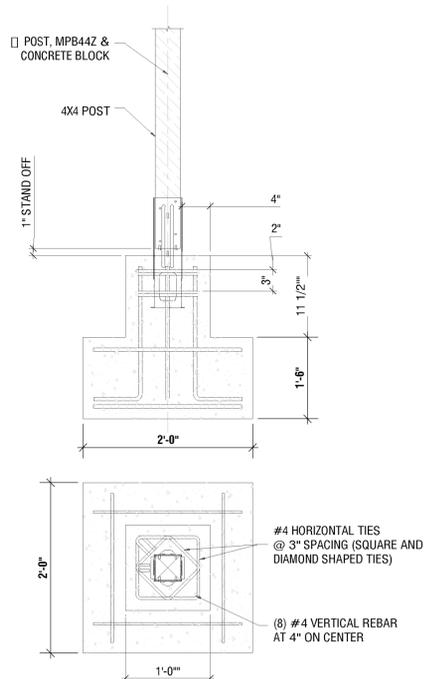
7 INTERIOR FOOTING
Scale: 1" = 1'-0"



8 HOLDDOWN ANCHOR
Scale: 1" = 1'-0"



9 CONCRETE STEPS & LANDING
Scale: 1" = 1'-0"



11 MOMENT POST BASE
Scale: 1" = 1'-0"

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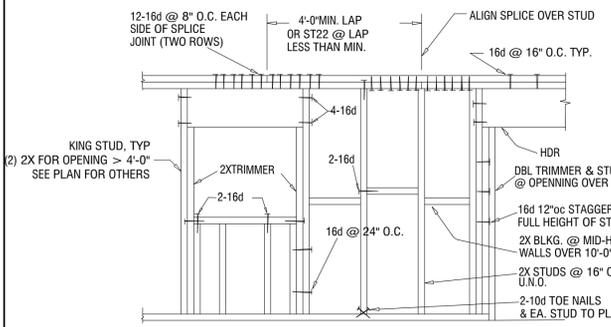
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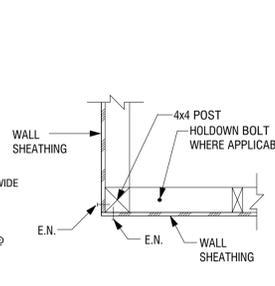
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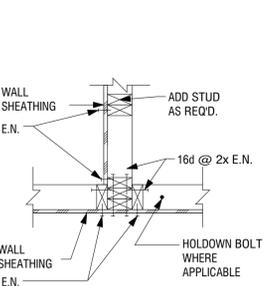
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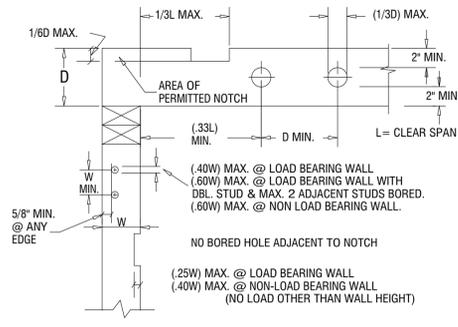
1 TYPICAL STUDWALL DETAIL
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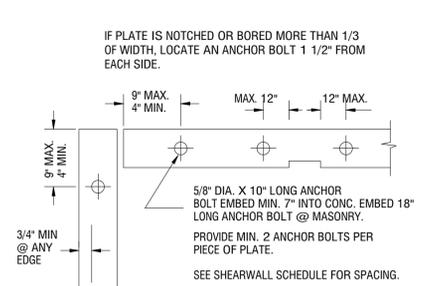
2 TYPICAL SHEAR WALL INTERSECTIONS
N.T.S.



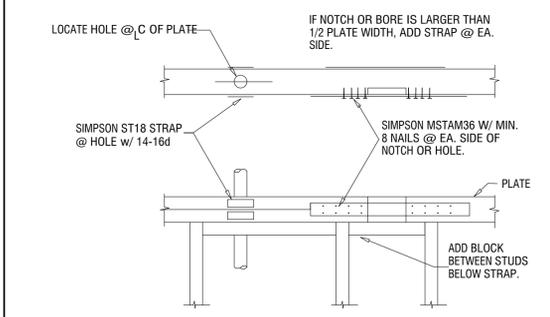
3 OPENING IN DIAPHRAGM
NOT TO SCALE



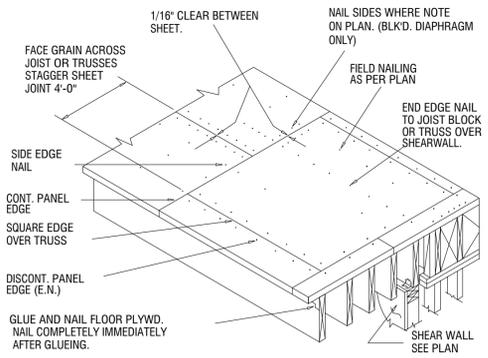
4 NOTCH & BORE LIMITS @ STUDS & JOISTS
NOT TO SCALE



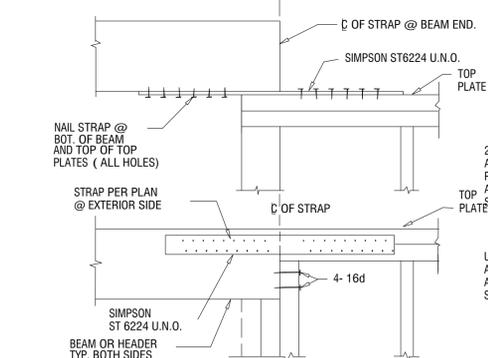
5 SILL PLATE DETAILS
NOT TO SCALE



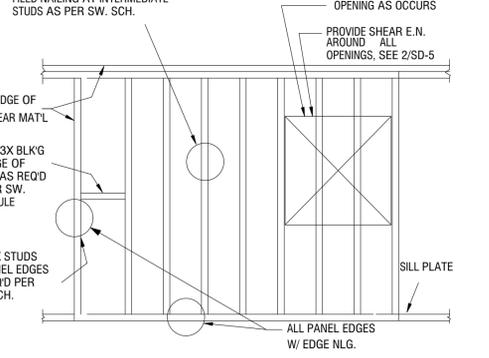
6 NOTCH OR BORE @ TOP PLATE
NOT TO SCALE
NOTE: IN BEARING WALLS, NOTCHES ARE NOT PERMITTED WITHOUT PRIOR APPROVAL OF STRUCTURAL ENGINEER.
NOTE: WHERE PENETRATION ON ONE SIDE OF PLATES, USE RPS18 OR RPS22



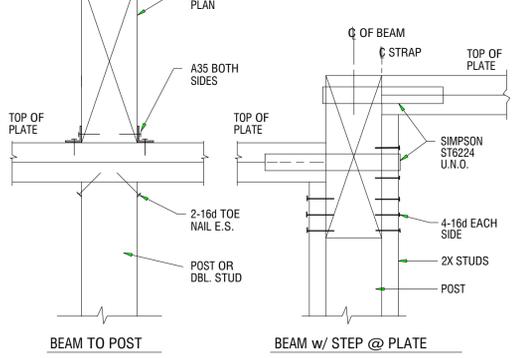
7 TYP. ROOF/FLOOR NAILING DETAIL
NOT TO SCALE
WOOD



8 BEAM OR HEADER DRAG STRAP DETAIL
NOT TO SCALE



9 TYPICAL SHEARWALL PANEL DETAIL
NOT TO SCALE



10 DETAIL OF BEAM TO POST W/ PLATE
NOT TO SCALE

TABLE 2304.10.1 FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Roof		
1. Blocking between ceiling joists, rafters or trusses to top plate or other framing below	3-8d common (3/8" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Each end, toenail
Blocking between rafters or truss not at the wall top plate, to rafter or truss	2-8d common (3/8" x 0.131") 2-3" x 0.131" nails 2-3" 14 gage staples	Each end, toenail
Flat blocking to truss and web filler	16d common (3/8" x 0.162") @ 6" o.c. 3" x 0.131" nails @ 6" o.c. 3" x 14 gage staples @ 6" o.c.	Face nail
2. Ceiling joists to top plate	3-8d common (3/8" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Each joist, toenail
3. Ceiling joist not attached to parallel rafter, laps over partitions (no thru)	3-16d common (3/8" x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Face nail
4. Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1)	Per Table 2308.7.3.1	Face nail
5. Collar tie to rafter	3-10d common (3" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Face nail
6. Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5)	3-10d common (3" x 0.148"); or 3-16d box (3/8" x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Toenail ^a
7. Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	2-16d common (3/8" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown; or 3-10d common (3/8" x 0.148"); or 3-16d box (3/8" x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	End nail

(continued)

TABLE 2304.10.1—continued FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Wall		
8. Stud to stud (not at braced wall panels)	16d common (3/8" x 0.162"); 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	24" o.c. face nail
9. Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d common (3/8" x 0.162"); or 16d box (3/8" x 0.135"); or 3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	16" o.c. face nail
10. Built-up header (2" to 2" header)	16d common (3/8" x 0.162"); or 16d box (3/8" x 0.135")	12" o.c. each edge, face nail
11. Continuous header to stud	4-8d common (2/8" x 0.131"); or 4-10d box (3" x 0.128")	Toenail
12. Top plate to top plate	16d common (3/8" x 0.162"); or 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown	16" o.c. face nail
13. Top plate to top plate, at end joints	8-16d common (3/8" x 0.162"); or 12-10d box (3" x 0.128"); or 12-3" x 0.131" nails; or 12-3" 14 gage staples, 7/16" crown	Each side of end joint, face nail (minimum 24" lap splice length each side of end joint)
14. Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d box (3/8" x 0.135"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown	12" o.c. face nail
15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	2-16d common (3/8" x 0.162"); or 3-16d box (3/8" x 0.135"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	16" o.c. face nail
16. Stud to top or bottom plate	4-8d common (2/8" x 0.131"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown; or 2-16d common (3/8" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Toenail
17. Top or bottom plate to stud	2-16d common (3/8" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	End nail
18. Top plates, laps at corners and intersections	2-16d common (3/8" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Face nail

TABLE 2304.10.1—continued FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Wall		
19. 1" brace to each stud and plate	2-8d common (2/8" x 0.131"); or 2-10d box (3" x 0.128"); or 2-3" x 0.131" nails; or 2-3" 14 gage staples, 7/16" crown	Face nail
20. 1" x 6" sheathing to each bearing	2-8d common (2/8" x 0.131"); or 2-10d box (3" x 0.128")	Face nail
21. 1" x 8" and wider sheathing to each bearing	3-8d common (2/8" x 0.131"); or 3-10d box (3" x 0.128")	Face nail
Floor		
22. Joist to sill, top plate, or girder	3-8d common (2/8" x 0.131"); or floor 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Toenail
23. Rim joist, band joist, or blocking to top plate, sill or other framing below	8d common (2/8" x 0.131"); or 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown	6" o.c., toenail
24. 1" x 6" subfloor or less to each joist	2-8d common (2/8" x 0.131"); or 2-10d box (3" x 0.128")	Face nail
25. 2" subfloor to joist or girder	2-16d common (3/8" x 0.162")	Face nail
26. 2" planks (plank & beam - floor & roof)	2-16d common (3/8" x 0.162")	Each bearing, face nail
27. Built-up girders and beams, 2" lumber layers	20d common (4" x 0.192") 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown And: 2-20d common (4" x 0.192"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	32" o.c., face nail at top and bottom staggered on opposite sides Ends and at each splice, face nail
28. Ledger strip supporting joists or rafters	3-16d common (3/8" x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Each joist or rafter, face nail
29. Joist to band joist or rim joist	3-16d common (3/8" x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	End nail
30. Bridging or blocking to joist, rafter or truss	2-8d common (2/8" x 0.131"); or 2-10d box (3" x 0.128"); or 2-3" x 0.131" nails; or 2-3" 14 gage staples, 7/16" crown	Each end, toenail

(continued)

TABLE 2304.10.1—continued FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing^a		
	Edges (inches)	Intermediate supports (inches)
31. 1/2" - 1/4"	6d common or deformed (2" x 0.113") (subfloor and wall) 8d box or deformed (2/8" x 0.113") (roof) 2/8" x 0.113" nail (subfloor and wall)	6 6 6
32. 3/16" - 1/4"	1 1/2" 16 gage staple, 7/16" crown (subfloor and wall) 2/8" x 0.113" nail (roof)	4 4
33. 1/4" - 1/2"	1 1/2" 16 gage staple, 7/16" crown (roof) 8d common (2/8" x 0.131"); or 6d deformed (2" x 0.113") 2/8" x 0.113" nail; or 2" 16 gage staple, 7/16" crown	6 6 4
Other exterior wall sheathing		
34. 1/2" fiberboard sheathing ^b	1 1/2" galvanized roofing nail (1/4" head diameter); or 1 1/2" 16 gage staple with 7/16" or 1" crown	3
35. 3/16" fiberboard sheathing ^b	1 1/2" galvanized roofing nail (1/4" diameter head); or 1 1/2" 16 gage staple with 7/16" or 1" crown	3
Wood structural panels, combination subfloor underlayment to framing		
36. 1/4" and less	8d common (2/8" x 0.131"); or 6d deformed (2" x 0.113")	6
37. 3/8" - 1"	8d common (2/8" x 0.131"); or 8d deformed (2/8" x 0.131")	6
38. 1 1/8" - 1 1/2"	10d common (3" x 0.148"); or 8d deformed (2/8" x 0.131")	6
Panel siding to framing		
39. 1/2" or less	6d corrosion-resistant siding (1 1/8" x 0.106"); or 6d corrosion-resistant casing (2" x 0.099")	6
40. 3/4"	8d corrosion-resistant siding (2 1/8" x 0.128"); or 8d corrosion-resistant casing (2 1/8" x 0.113")	6

(continued)

TABLE 2304.10.1—continued FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing^a		
	Edges (inches)	Intermediate supports (inches)
Interior paneling		
41. 1/4"	4d casing (1 1/2" x 0.080"); or 4d finish (1 1/2" x 0.072")	6
42. 3/8"	6d casing (2" x 0.099"); or 6d finish (Panel supports at 24 inches)	6

For SI: 1 inch = 25.4 mm.
a. Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.

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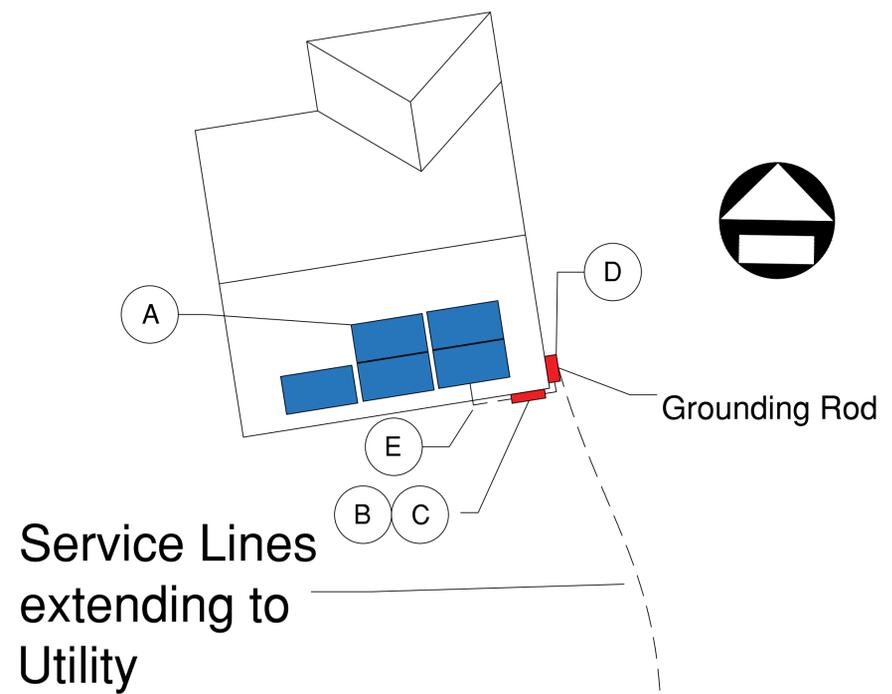
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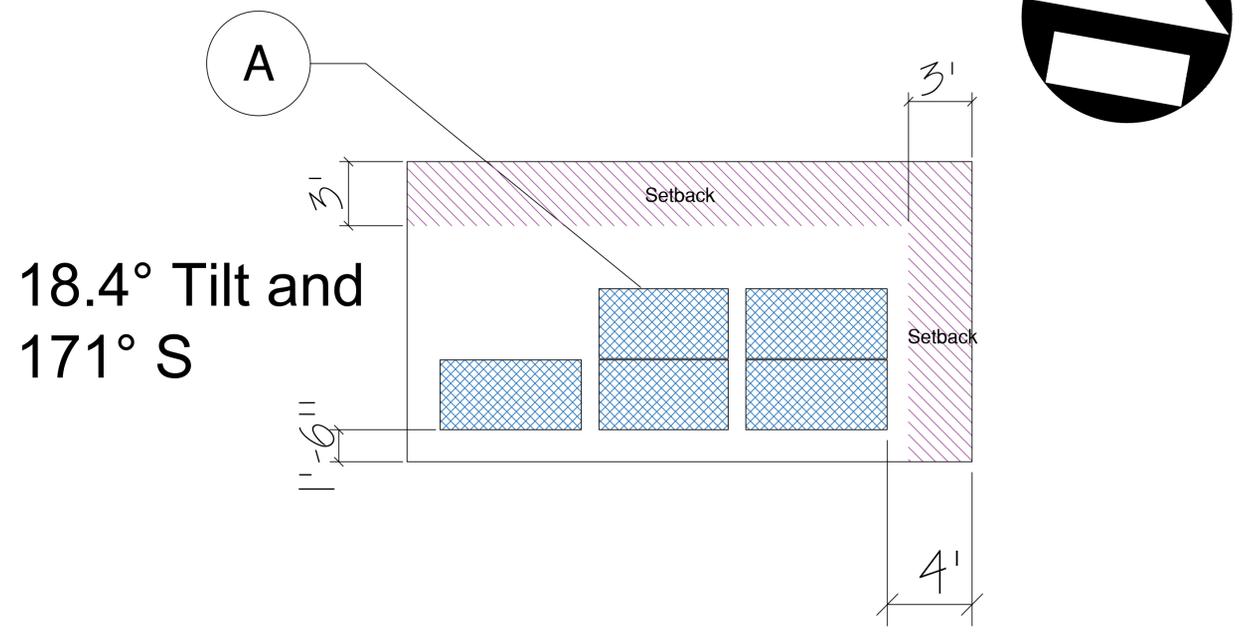
1 October 24, 2022

Sheet

S4



Site Plan, Not To Scale



Array Layout, South Roof Face-on, scale 1" = 4'

Plan Description	
1. The installation consists of (5) 410 watt solar photovoltaic modules, roof mounted Total Size: 2.05 kW DC.	
2. The system will be interconnected and will be operated in parallel with the utility electrical grid.	
Equipment Locations	
A	Solar Array
B	DC Shutoff
C	Inverter
D	Main Service Panel
E	¾" EMT Conduit
Roof Calculations	
Installation Area	109 SqFt
Total Roof Area	742 SqFt
% Roof Coverage	14.60%
# of Modules	5
Module weight	57.3 Lbs
Module Area	21.8 SqFt
Unit weight of Array	2.62 PSI
Max Module Wind Load	0.34 PSI

SOLAR SPECIFICATIONS

General Notes	
1) THIS PROJECT SHALL CONFORM TO THE 2019 EDITIONS OF CALIFORNIA BUILDING, ELECTRICAL, MECHANICAL, PLUMBING , FIRE, ENERGY AND LOCAL AHJ CODE(S).	
2) PHOTOVOLTAIC SYSTEM MEETS FIRE CLASSIFICATION PER CBC 1509.7 AND 1509.9 CLASS A . PV SYSTEM AND ASSOCIATED RACKING SYSTEM ARE TESTED AND IDENTIFIED WITH FIRE CLASSIFICATION IN ACCORDANCE WITH UL 1703, INVERTERS UL 1741 (PHOTOVOLTAIC MODULE ARE TO BE CONSIDERED NON-COMBUSTIBLE)	
4) LOCAL UTILITY PROVIDER SHALL BE NOTIFIED PRIOR TO USE AND ACTIVATION OF ANY SOLAR PHOTOVOLTAIC INSTALLATION	
5) SMOKE ALARMS & CARBON MONOXIDE DETECTORS TO BE INSTALLED PER AUTHORITY HAVING JURISDICTION S REQUEST IN ALL REQUIRED LOCATIONS (OUTSIDE EACH SEPARATE SLEEPING AREA, IN EACH ROOM FOR SLEEPING PURPOSES, IN EACH STORY, INCLUDING BASEMENT)	
9) THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS INCLUDING SKYLIGHTS.	
10) A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.	
11) MAIN PANEL IS NOT BEING DERATED	
12) THE SYSTEM MUST BE DISABLED TO ALLOW SAFE ACCESS TO THE PHOTOVOLTAIC SYSTEM	
Electrical Notes	
1) ALL EXPOSED ROOF WIRING SHALL BE TWHN-2 WIRE TYPE RATED FOR (90°C) WET CONDITIONS. OTHER OUTDOOR WIRING SHALL BE COPPER TWHN-2 RATED FOR (90°C) APPLICATIONS IN EMT CONDUIT	
2) ALL DC WIRING WILL BE: DC UNGROUNDED CONDUCTOR=BLACK, DC GROUNDED CONDUCTOR=WHITE OR OTHER APPROVED OPPOSING COLORS.	
4) #10AWG SOLID BARE COPPER GROUND WILL BE USED AS AN EQUIPMENT GROUND TO CONNECT THE PV RACKING STRUCTURE WHEN NOT EXPOSED TO DAMAGE. IF EXPOSED TO DAMAGE, #6AWG WILL BE USED. GROUNDING ELECTRODE CONDUCTORS SHALL BE NO LESS THAN #10AWG AND NO GREATER THAN #6AWG COPPER AND BONDED TO THE GROUND ROD OF THE MAIN SERVICE PANEL	
5) ALL DISCONNECT SWITCHES SHALL BE WIRED SUCH THAT THE LINE SIDE WILL HAVE LIVE CONDUCTORS WHEN THE SWITCH IS IN THE OPEN POSITION	
5) MARKING OF THE PV SYSTEM DISCONNECT SHALL BE ACCORDANCE WITH NEC 690.17. MARKING OF THE DC PV POWER SOURCE SHALL BE IN ACCORDANCE WITH NEC 690.53. MARKING OF THE INTERACTIVE SYSTEM POINT OF CONNECTION SHALL BE IN ACCORDANCE WITH NEC 690.54	
6) ALL EXTERIOR CONDUIT, FITTINGS, AND JUNCTION BOXES SHALL BE RAIN TIGHT AND APPROVED FOR USE IN A WET LOCATION	
7) EACH MODULE WILL BE GROUNDED USING THE SUPPLIED CONNECTIONS POINTS IDENTIFIED ON THE MODULE AND THE MANUFACTURER S INSTALLATION INSTRUCTIONS.	
8) EXPOSED NON-CURRENT CARRYING METAL PARTS OF MODULE FRAMES, EQUIPMENT, AND CONDUCTOR ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH 250.134 OR 250.136 (A) REGARDLESS OF VOLTAGE	
9) PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE MAINTAINED.	
10) NO SHEET METAL OR TECH SCREWS SHALL BE USED TO GROUND DISCONNECT ENCLOSURE WITH TIN-PLATED ALUMINUM LUGS, PROPER GROUNDING/GROUND BAR KITS WILL BE USED	
11) FERROUS METAL RACEWAYS ENCLOSING GEC CONDUCTORS SHALL BE ELECTRICALLY CONTINUOUS OR BONDED IN ACCORDANCE WITH ART 250.64E	
12) ALL MODULES AND RACKING GROUNDING LUGS SHALL BE UL 467 APPROVED (ILSCO GBL-4DBT)	
13) THIS SYSTEM IS AN UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES.	
14) CONTROLLED CONDUCTORS LOCATED OUTSIDE THE BOUNDARY OR MORE THAN 1M (3FT) FROM THE POINT OF ENTRY INSIDE A BUILDING SHALL BE LIMITED TO NOT MORE THAN 30 VOLTS WITHIN 30 SECONDS OF RAPID SHUTDOWN INITIATION PER NEC 690.12(B)(1)	

OWNER: CHRISTIAN HEATH
 0 PINE TREE AVENUE
 AROMAS, CA. 95004

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
 35 Colton Way
 Campbell, CA, 95008
 (408) 504-8826 Cell

REVISION:

1	PER ALEAF COMMENTS DATED 06/19/2022
2	PER ALEAF COMMENTS DATED 11/22/2022

DRAWN BY: Michael S. Radu

CHECKED BY: PBD

JOB NO.: 20-04

DATE: 01/05/2023

SCALE: AS SHOWN

SHEET: SP-1



COUNTY OF SAN BENITO
RESOURCE MANAGEMENT AGENCY
PLANNING AND BUILDING INSPECTION SERVICES

2301 Technology Parkway
Hollister, CA 95023-2513

Phone: (831) 837-5313
E-mail: sbcplan@cosb.us

PHOTOVOLTAIC REQUIREMENTS

In order to process and expedite your request for a building permit, please submit the items listed below and include this completed checklist in your submittal. Incomplete submittals will not be accepted. We do not accept submittals by mail or courier. A plan check fee will be required at submittal if ground mounted. The permit may only be issued to the property owner or a properly licensed contractor. Provide complete, stapled (down the left side) sets of drawings, 11"x17" minimum size -maximum size 30"x42", shall include the following: (please remember a C-10 or C-46 classification contractor's license may pull permits for photovoltaic installation):

1. General - Submittal Requirements

- ✓ Wet signature on all documents by design professional including designers(s).
- ✓ Name, title, registration number, address, email and telephone number of applicable design professional(s) or print name with phone number if not licensed.
- ✓ Cover sheet shall include: list the 2019 California Building Code, 2019 California Electrical Code, 2019 California Residential Code and 2019 Fire Code.
- ✓ If you are derating the main panel, you must submit two sets of load calculations for the entire house.
- ✓ Conductor sizing calculations per CEC - Article 690.8.
- ✓ PV back-feed breaker & calculations (120% rule) or for "Solar Ready" panels provide specifications and listings also include in line diagram per CEC - Article 705.12 (B)(2)(3)(b).

2. Roof Top Installation (3 sets of plans)

- ✓ General information: Size of system being installed.
- ✓ Floor plan, drawn to scale showing room locations and emergency escape locations per CRC-R324.6.2.2 (For one story houses please note: R324.6.2.2 N/A).
- ✓ Roof plan, drawn to scale, with the following information: North arrow, direction to street frontage main electric meter and panel, DC disconnect, inverter, AC disconnect, roof slope, materials of roof covering, roof dimension, location of array(s). Include rafter spans and intermediate bracing (rafters).
- ✓ Show rooftop setbacks per CRC - R324.6 through R324.6.2.2.
- ✓ Single line diagram of electrical equipment clearly showing: size of main panel, sub panels, rapid shut down, PV system equipment including make, model and size of units, disconnects and wire size and type.
- ✓ Show actual proposed labels and placards including site plan placard as required by code and policy. Note where to be located with approximate dimension of the label (include rapid shut down).
- ✓ Note the rapid shut down controlled limits for inside and outside the array boundary per CEC - Article 690.12 (B).
- ✓ Equipment type, listing, testing agency approvals, etc. on all equipment per CEC - Article 690.4 (B).

Revised 01/28/20

3. Ground Installation (4 sets of plans)

- ✓ General information: Size of system being installed
- ✓ Planning approval, location on site plan.
- ✓ Site plan shall show all existing and proposed utilities (water service, sewage disposal system, gas, electric, telephone, cable, TV service lines and transformers etc.).
- ✓ Footing and attachment details (width, depth, ...) with engineering calculations.
- ✓ Line drawing of conduit size and location of conduit connecting arrays and service panel.
- ✓ Show actual proposed labels and placards including site plan placard as required by code and policy.
- ✓ Note where to be located with approximate dimension of the label.
- ✓ Clear brush free area of 10 feet required per CRC - R324.7.2.6.
- ✓ Equipment type, listing, testing agency approvals, etc. on all equipment per CEC - Article 690.4 (B).

4. Photovoltaic Disconnect Requirements

- ✓ Provide a system to allow safe installation of servicing of portions of the PV array or the entire array per CEC - Article 690.15.
- ✓ Note and provide the system must be "disabled" to allow safe access to the photovoltaic system.

QUICK CHECK

- ✓ Roof plan to scale including setbacks.
- ✓ Arrow indicating North, Wind Load, Grounding Location
- ✓ Roof type, slope, size, span of rafters
- ✓ Roof cross section, truss design and/or mid span supports
- ✓ Calculations-derating main service(if applicable), conductor, conduit and back-feed breaker(120% rule)
- ✓ Size & Location of electrical service. Note: new or existing main service
- ✓ Single line diagram of all electrical equipment, breakers, conductors and conduit sizes
- ✓ Actual proposed labels and placards including site plan placard as required. Note location
- ✓ Equipment manufacturer's specifications showing equipment type, listing and testing agencies per CEC - Article 690.4 (B).

* Please be aware Smoke and Carbon Monoxide Alarm Retrofit Verification will be required at Final Inspection per CRC Section R315 and CBC 907.2.10.5.2
I have read the above information and have submitted all the required information.

Address: Pine Tree Avenue Permit # BLD22-00292

Signature: [Signature] Date: 12/4/2022

Revised 01/28/20

Solar Module Specifications	
Manufacturer	Znshine
Model Number	ZXM6-HLDD144-410/M
Pmax	410 W
Vmp	41.3 V
Imp	9.93 A
Voc	49.4 V
Isc	10.49 A
Module Dimension	(2033x996x30 mm) [80x39.2x1.2 in]

Inverter Specifications	
Manufacturer	Solar Edge
Model Number	SE3000H-US
Max Output Power	3000 W
Max Output Current	12.5 A
Max Output Voltage	264 V

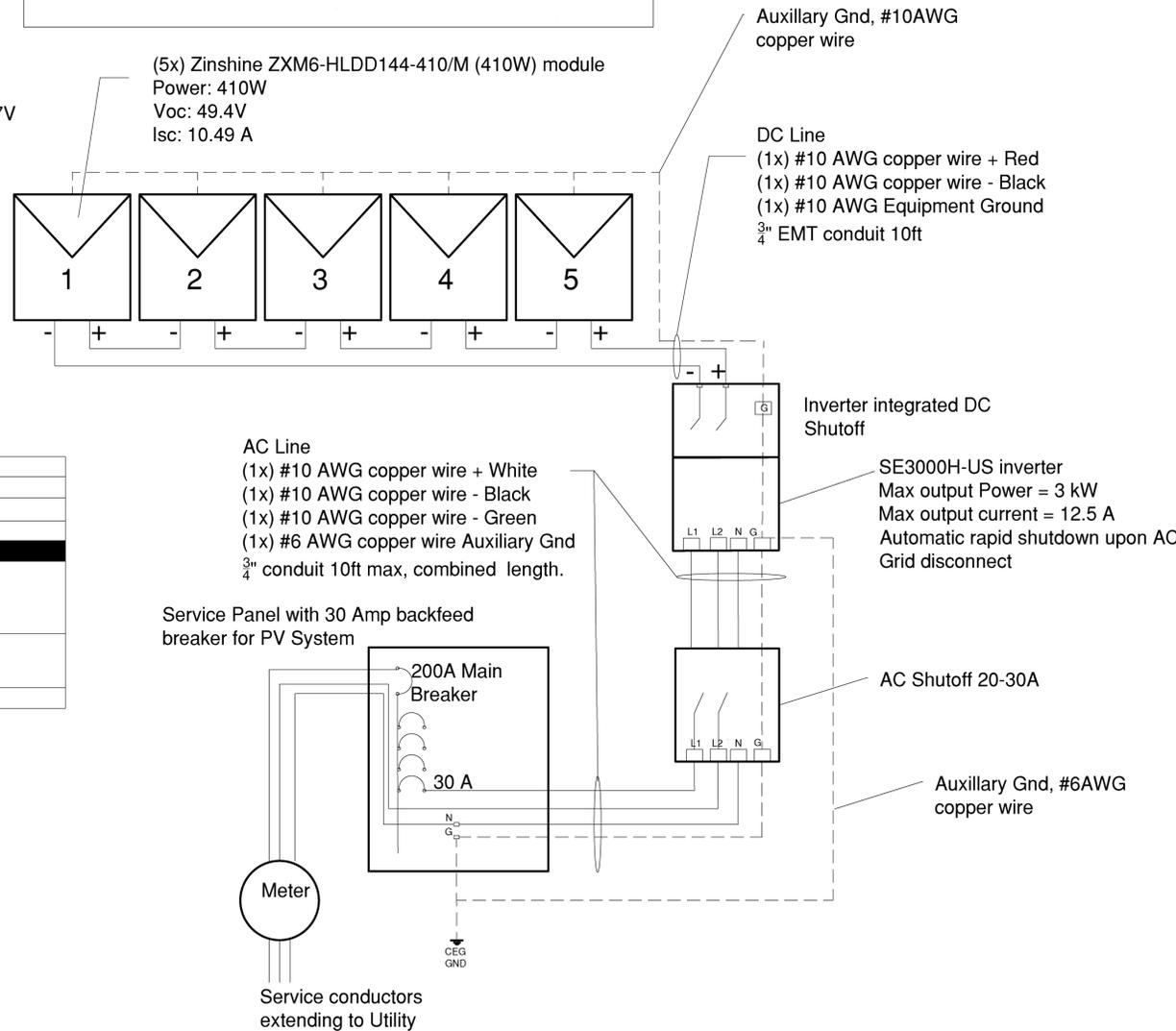
Percent of Values	Number of Current Carrying Conductors
.80	4-6
.70	7-9
.50	10-20

DC Conductor Ampacity Calculations - Array to Inverter	
Expected Wire Temp. (F)	72 F
Height of conduit from roof	3/4"
Adjusted Wire Temperature	112F
Temp Correction Per Table 310.16	0.87
No. of current carrying conductors	3
Conductor Bundling Correction per 310.15(B)(3)(a)	1.0
Circuit Conductor Size	#10 AWG
Circuit Conductor Ampacity	30 A
Required Circuit Conductor Ampacity Per NEC 690.8(A&B)	
1.25 * 1.25 * Isc	16.39 A
Derated Ampacity of Circuit Conductor Per NEC Table 310.16	
Temp Correction * Conduit Bundling Correction * Circuit Conductor Ampacity	26.1 A
Result of Derated Ampacity should be greater than 16.39A	

AC Conductor Ampacity Calculations -Inverter to Service Panel	
Expected Wire Temp. (F)	72 F
Height of conduit from roof	N/A - not on roof
Adjusted Wire Temperature	N/A
Temp Correction Per Table 310.16	1.0
No. of current carrying conductors	4
Conductor Bundling Correction per 310.15(B)(3)(a)	.80
Circuit Conductor Size	#10 AWG
Circuit Conductor Ampacity	30 A
Required Circuit Conductor Ampacity Per NEC 690.8(B)	
1.25 * Inverter Max Output Current	15.63 A
Derated Ampacity of Circuit Conductor Per NEC Table 310.16	
Temp Correction * Conduit Bundling Correction * Circuit Conductor Ampacity	24A
Result of Derated Ampacity should be greater than 15.63A	

Total Array Voc = 247V
Array Isc = 10.49 A

(5x) Znshine ZXM6-HLDD144-410/M (410W) module
Power: 410W
Voc: 49.4V
Isc: 10.49 A



120% Rule Calculations	
Inverter Max Output = 12.5A	12.5A
Main Breaker	200A
Busbar Rating	200A
Max Allowable Solar Backfeed Amperage	
(Busbar Rating * 1.25) - Main Breaker	40A
Solar Backfeed Amperage	
Inverter Max Output * 1.25	15.63 A
Solar Backfeed Amperage should be less than 40A	

SOLAR SPECIFICATIONS

SCALE: NOT TO SCALE

OWNER: CHRISTIAN HEATH
0 PINE TREE AVENUE
AROMAS, CA. 95004

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
38 Colton Way
Cumbria, CA 95008
(408) 950-6826 Cell

REVISION:

1	PER ALIAT COMMENTS DATED 06/19/2022
2	PER ALIAT COMMENTS DATED 11/22/2022

SOLAR SPECIFICATIONS
PV SOLAR SINGLE LINE
PV SOLAR CALCULATIONS

DRAWN BY: Michael S. Radu
[Signature]

CHECKED BY: PBD

JOB NO.: 20-04

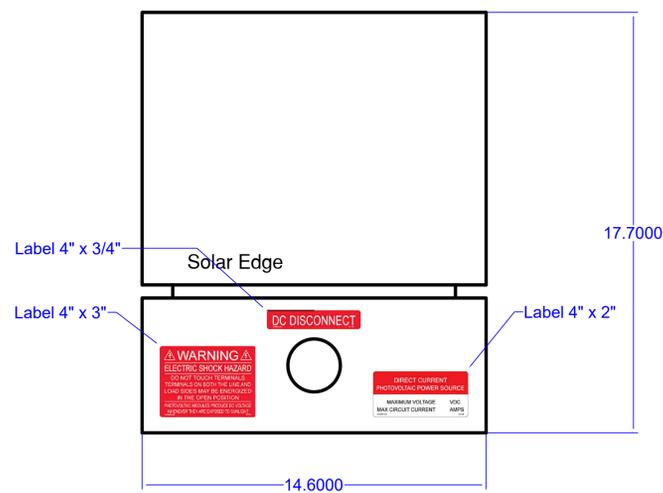
DATE: 01/05/2023

SCALE: AS SHOWN

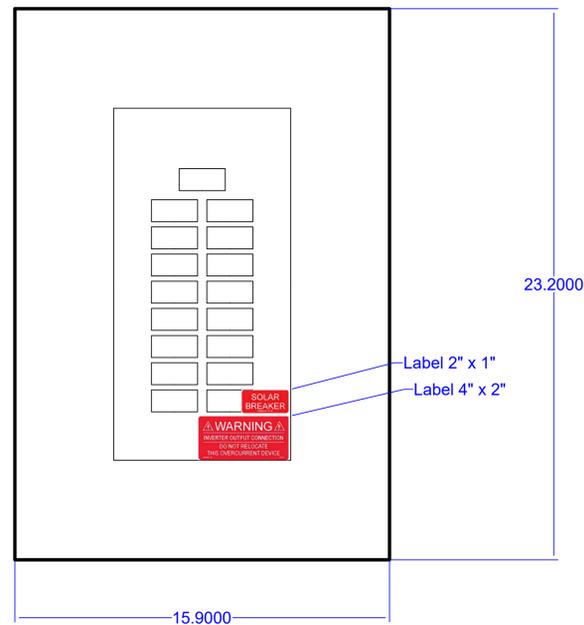
SHEET: SP-2



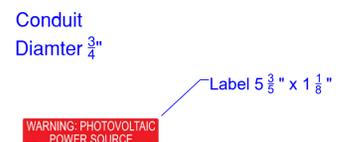
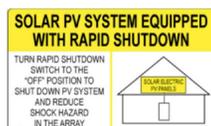
Solar Edge SE3000H-US inverter w/ DC Shutoff
 Max output Power = 3 kW
 Max output current = 12.5 A
 HxWxD = 17.7x14.6x6.8"



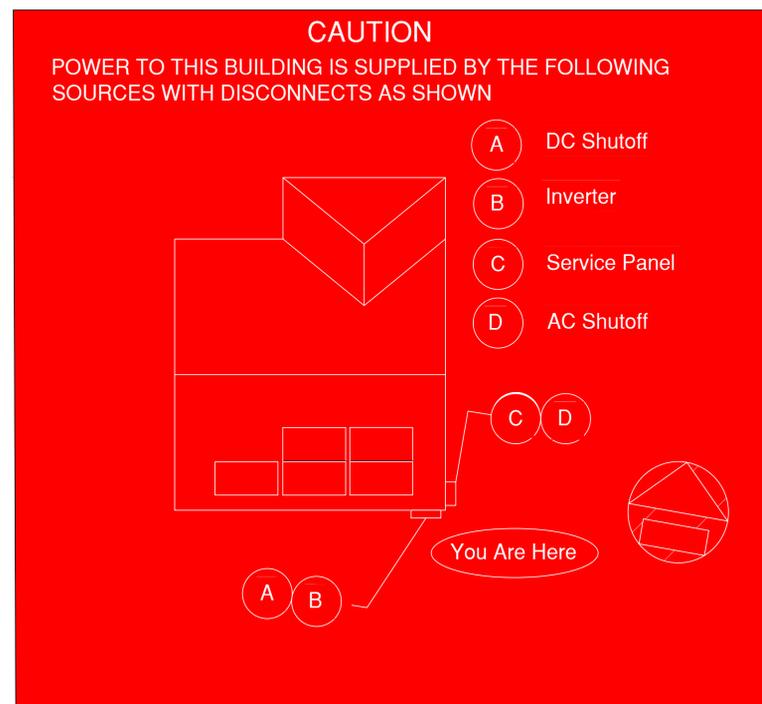
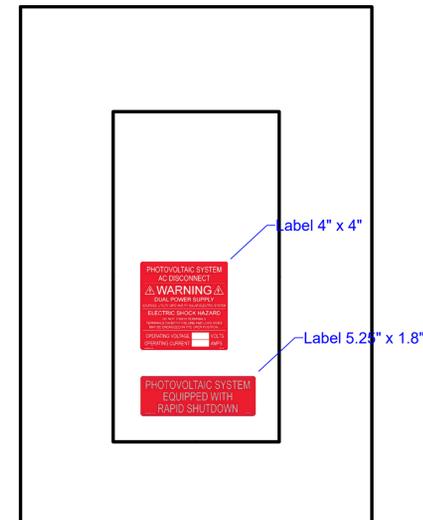
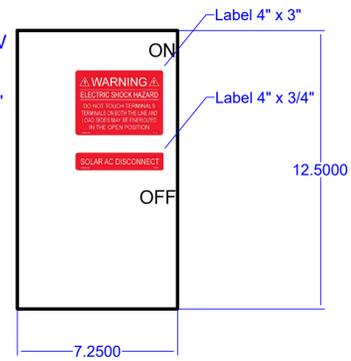
Main Breaker Open
 (HxWxD) 23.2 x 15.9 x 4.4"



Located near Rapid Shutdown Switch



Eaton Dg221Nrb AC Shutoff
 Operating Voltage: 120/240V
 Current Rating: 30A
 HxWxD = 12.5 x 7.25 x 6.5"



PLACARD LOCATED ON DOOR OF MAIN SERVICE PANEL PER 705.10

SOLAR SPECIFICATIONS

SCALE: NOT TO SCALE

OWNER: CHRISTIAN HEATH
 0 PINE TREE AVENUE
 AROMAS, CA. 95004

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
 35 Colton Way
 Campbell, CA, 95008
 (408) 504-6826 Cell

PACIFIC BLUE DEVELOPMENTS

REVISION: 1	PER A/E/CF COMMENTS DATED 06/19/2022
2	PER A/E/CF COMMENTS DATED 10/27/2022

SOLAR SPECIFICATIONS
 PV SOLAR COMPONENTS

DRAWN BY: Michael S. Radu

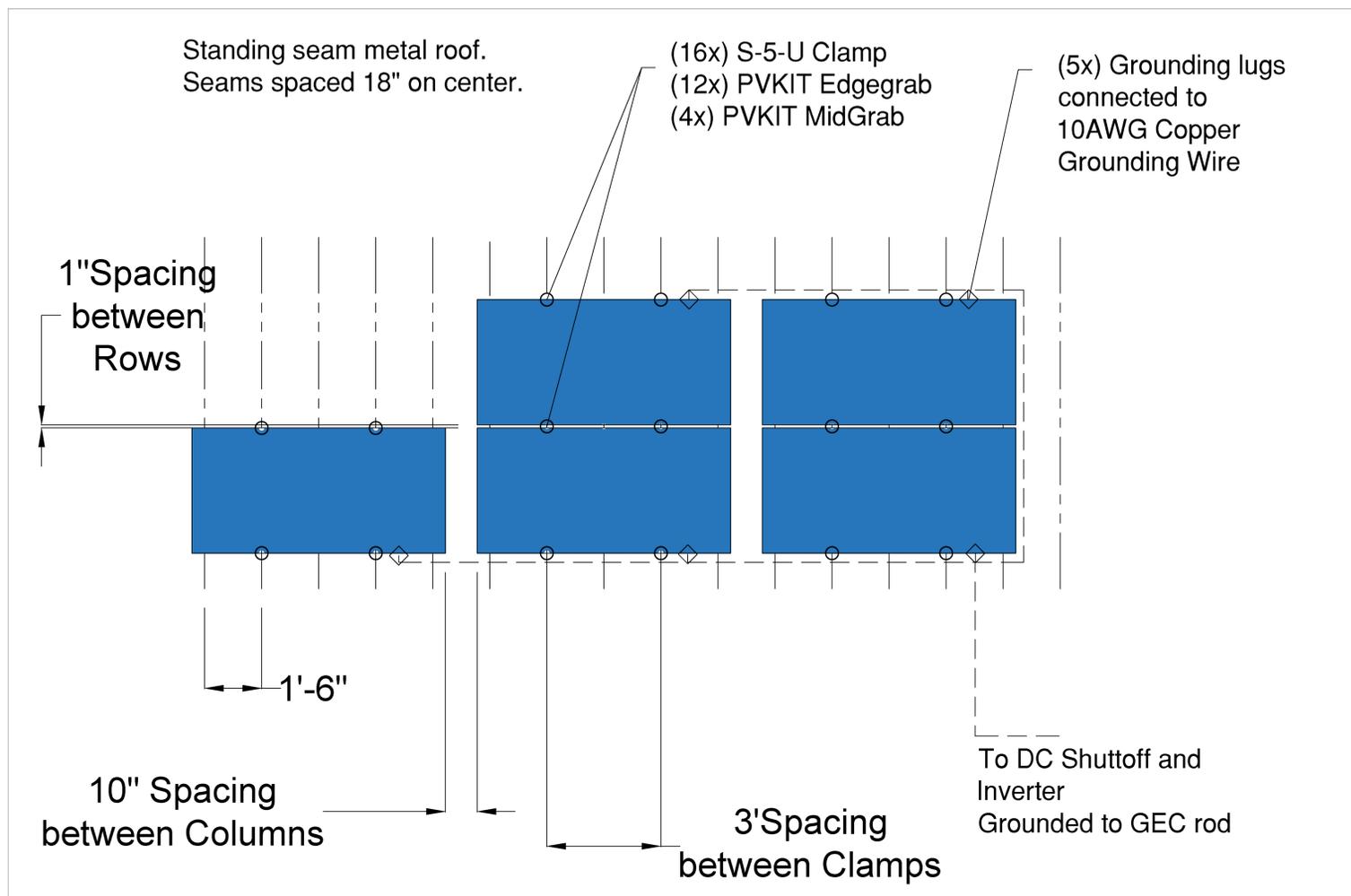
CHECKED BY: PBD

JOB NO.: 20-04

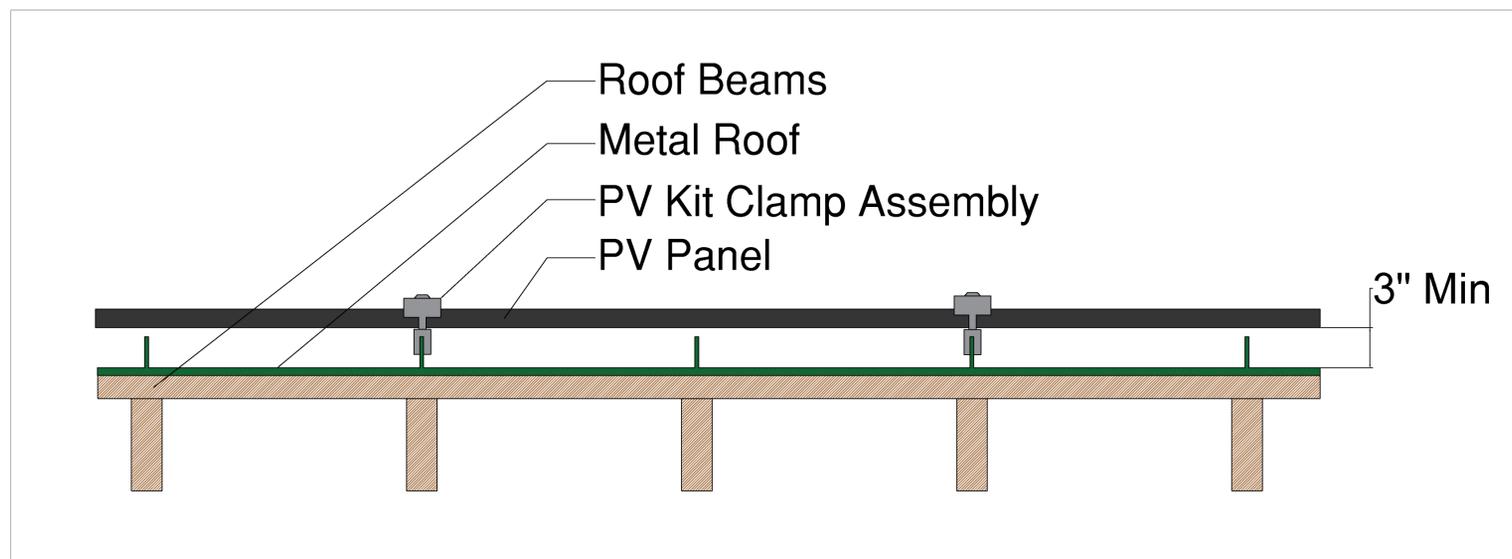
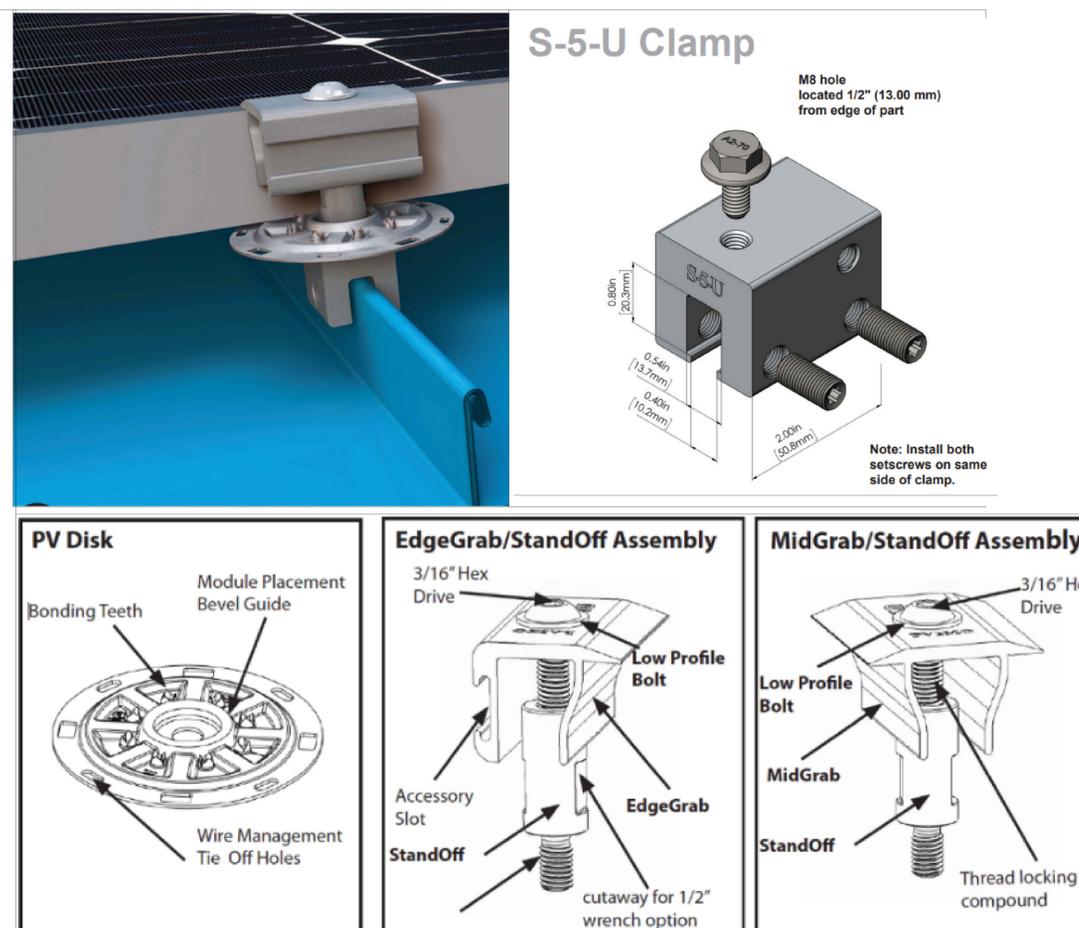
DATE: 01/05/2023

SCALE: AS SHOWN

SHEET: SP-3



Clamp and Ground Locations, scale 1" = 2'



Profile View, Typical of one module, Not to scale

OWNER: CHRISTIAN HEATH
O PINE TREE AVENUE
AROMAS, CA. 95004

DESIGN BY:
PACIFIC BLUE DEVELOPMENTS
38 Colton Way
Camarillo, CA. 93008
(805) 906-8826 Cell

REVISION:

1	PER ALFAT COMMENTS DATED 06/19/2022
2	PER ALFAT COMMENTS DATED 11/22/2022

SOLAR SPECIFICATIONS
PV SOLAR ATTACHMENT DETAILS

DRAWN BY:
Michael S. Radu

CHECKED BY:
PBD

JOB NO.:
20-04

DATE:
01/05/2023

SCALE:
AS SHOWN

SHEET:
SP-4

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (July 2021, Includes July 2021 Supplement)

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

Y	N/A	RESPON. PARTY
X		

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactant Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O₃/g ROG).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
- FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

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

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

- GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS
- THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.
- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

Y	N/A	RESPON. PARTY
X		

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

- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
- THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

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

<https://www.cdph.ca.gov/Programs/CDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx>.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

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

<https://www.cdph.ca.gov/Programs/CDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx>.

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

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

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

<https://www.cdph.ca.gov/Programs/CDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx>.

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

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

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

4.505 INTERIOR MOISTURE CONTROL

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

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

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

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

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

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

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

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

- Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
 - Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
 - Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
 - A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)
- Notes:**
- For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
 - Lighting integral to bathroom exhaust fans shall comply with the California Energy Code.

4.507 ENVIRONMENTAL COMFORT

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

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

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

Y	N/A	RESPON. PARTY
X		

CHAPTER 7 INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

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

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

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

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

Notes:

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

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

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

703 VERIFICATIONS

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

OWNER: CHRISTIAN HEATH
0 PINE TREE AVENUE
AROMAS, CA. 95004

DESIGN BY:
PACIFIC BLUE DEVELOPMENTS
38 California Way
Camarillo, CA 94988
(805) 906-6826 Cell



REVISION:	PER 4/EAF COMMENTS DATED 06/19/2022
1	PER 4/EAF COMMENTS DATED 10/22/2022
2	
3	
4	

CALIFORNIA GREEN WORKSHEET

DRAWN BY
Michael S. Radu

CHECKED BY
PBD

JOB NO.
20-04

DATE
01/05/2023

SCALE
AS SHOWN

SHEET

CG-2

CERTIFICATE OF COMPLIANCE
 Project Name: Pine Tree Ave Residence
 Calculation Date/Time: 2022-05-09T09:42:58-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 0220384 Pine Tree Ave Residence.rbd19x

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GENERAL INFORMATION	
01	Project Name: Pine Tree Ave Residence
02	Run Title: Title 24 Analysis
03	Project Location: D Pine Tree Ave
04	City: Aromas
05	Standards Version: 2019
06	Zip code: 95004
07	Software Version: EnergyPro 9.3
08	Climate Zone: 4
09	Front Orientation (deg): 345
10	Building Type: Single-Family
11	Number of Dwelling Units: 1
12	Project Scope: New Construction
13	Number of Bedrooms: 2
14	Addition Cond. Floor Area (ft²): 0
15	Number of Stories: 1
16	Existing Cond. Floor Area (ft²): n/a
17	Foundation Average U-Factor: 0.35
18	Total Cond. Floor Area (ft²): 557
19	Glasing Percentage (%): 11.50%
20	ADU Bedroom Count: n/a
21	ADU Conditioned Floor Area: n/a
22	Is Natural Gas Available? Yes

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

Registration Number: 222-P01000005A-000-000-000000-0000
 CA Building Energy Efficiency Standards - 2019 Residential Compliance
 Registration Date/Time: 2022-05-09 09:47:15
 Report Version: 2019.2.2000
 Schema Version: rev 20200901
 HERS Provider: CalCERTS, Inc.
 Report Generated: 2022-05-09 09:45:22

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ENERGY DESIGN RATINGS		
	Energy Design Ratings	Compliance Margin
	Efficiency (EDR)	Total (EDR)
Standard Design	56.9	27.3
Proposed Design	56.8	27.2
	Efficiency (EDR)	Total (EDR)
	0.1	0.1

RESULT: **COMPLIES**

1. Efficiency EDR includes improvements to the building envelope and more efficient equipment
 2. Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
 3. Building envelope when efficiency and total compliance margins are greater than or equal to zero
 • Standard Design PV Capacity: 1.36 kWdc
 • PV System received to 1.36 kWdc (a factor of 1.069 to achieve Standard Design PV PV scaling)

ENERGY USE SUMMARY				
Energy Use (Btu/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	53.96	33.55	-0.17	-0.9
Space Cooling	25.14	27.85	-4.71	-20.4
IAQ Ventilation	12.23	11.05	1.18	9.6
Water Heating	37.17	33.05	4.12	11.1
Solar Utilization/Incentive Credit	n/a	0	0	n/a
Compliance Energy Total	92.12	85.7	0.42	0.5

REQUIRED PV SYSTEMS - SIMPLIFIED											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	OH	Altimath (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff (%)	Annual Solar Access (%)
1.36	NA	Standard	Fixed	none	true	150-270	n/a	n/a	>=71.2	96	98

Registration Number: 222-P01000005A-000-000-000000-0000
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REQUIRED SPECIAL FEATURES
 The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
 • Indoor air quality, balanced fan
 • IAQ Ventilation System as low as 0.375 W/CFM
 • IAQ Ventilation System Heat Recovery: minimum 66 SRE and 66 ASRE
 • IAQ Ventilation System supply outside air, filter, and HEPA filters accessible per RACM Reference Manual
 • Insulation below roof deck

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
 Building Level Verifications:
 • Indoor air quality ventilation
 • Kitchen range hood
 Cooling System Verifications:
 • Minimum Airflow
 • Verified SEER
 Fan Efficiency (Watts/CFM)
 Heating System Verifications:
 • Verified HSPF
 • Verified heat pump rated heating capacity
 HVAC Distribution System Verifications:
 • Duct Leakage Testing
 Domestic Hot Water System Verifications:
 • None

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
Pine Tree Ave Residence	557	1	2	1	0	1

Registration Number: 222-P01000005A-000-000-000000-0000
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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	Water Heating System 2
Zone 1	Conditioned	HVAC System1	557	8.06	DHW Sys 1	NA

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Altimath	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	TIR (deg)
Front Wall	Zone 1	R-19 Wall	345	Front	150	47	90
Left Wall	Zone 1	R-19 Wall	75	Left	188	82.7	90
Rear Wall	Zone 1	R-19 Wall	345	Back	150	32	90
Right Wall	Zone 1	R-19 Wall	255	Right	188	56	90
Roof	Zone 1	R-30 HP ARI	n/a	n/a	557	n/a	n/a

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Size (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic Zone 1	IRC Roof Zone 1	Ventilated	4	0.1	0.85	No	No

PENETRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Altimath	Width (ft)	Height (ft)	Multi	Area (ft²)	U-Factor	SHGC Source	SHGC	SHGC	Exterior Shading
Window	Window	Front Wall	Front	345	3	9	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Window 2	Window	Front Wall	Front	345	1	9	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Door	Window	Front Wall	Front	345	1	20	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Window 3	Window	Front Wall	Front	345	1	9	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Door 2	Window	Left Wall	Left	75	1	66.7	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen

Registration Number: 222-P01000005A-000-000-000000-0000
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PENETRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Altimath	Width (ft)	Height (ft)	Multi	Area (ft²)	U-Factor	SHGC Source	SHGC	SHGC	Exterior Shading
Window 4	Window	Left Wall	Left	75	1	16	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Window 5	Window	Rear Wall	Back	185	1	16	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Window 6	Window	Rear Wall	Back	185	1	16	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen
Window 7	Window	Right Wall	Right	255	1	16	0.35	NFRC	0.25	NFRC	0.25	NFRC	Bug Screen

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	Capped Fraction	Heated
Slab	Zone 1	557	95	none	none	80%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total R-value	Interior / Exterior R-value	U-Factor	Assembly Layers
R-19 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O.C.	R-19	None / None	0.024	Inside Finish: Gypsum Board Cavity / Frame: R-20 in 1/2 in. (R-19) / 2x6 Exterior Finish: 3 Coat Stucco
Attic Roof Zone 1	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O.C.	R-13	None / None	0.078	Roofing: Light Roof (Asphalt Shingles) Roof Deck: Wood Siding/Sheathing/Decking: Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-6.0 (Insul.)

Registration Number: 222-P01000005A-000-000-000000-0000
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OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total R-value	Interior / Exterior R-value	U-Factor	Assembly Layers
R-30 HP ARI	Ceilings (Below Attic)	Wood Framed Ceiling	2x4 @ 24 in. O.C.	R-30	None / None	0.032	Over Ceiling Insul.: R-20.9 (Insul.) Cavity / Frame: R-3.1 / 2x4 Inside Finish: Gypsum Board

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

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

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gals)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (in/ft)	Standby Loss or Recovery Eff	1st Ht. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.55 UEF	<= 200 MBtu/yr	n/a	n/a	n/a	n/a	n/a

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WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/2	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Type	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC System1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	HVAC Fan 1	Air Distribution System 1	Setback	None	NA	1	1

HVAC - HEAT PUMPS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Number of Units	HSPF/COP	Cap 47	Cap 17	SEER	ERV/CEER	Zonality Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Central split HP	1	9.5	16000	12000	16	11.7	Not Zoned	Single Speed	Heat Pump System 1 Heat Pump

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

Registration Number: 222-P01000005A-000-000-000000-0000
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HVAC - DISTRIBUTION SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Unconditioned attic	Non-Verified	R-6	R-6	ARI	ARI	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1 Heat Pump

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 Heat Pump	Yes	5.0	Not Required	Not Required	Not Required	Not Required	Not Required	No

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.35	HVAC Fan 2 Heat Pump

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan 1 Heat Pump	Required	0.35

Registration Number: 222-P01000005A-000-000-000000-0000
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IAQ (INDOOR AIR QUALITY) RANKS		
01	02	03



2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.

Table with 2 columns: Code Section and Description. Includes sections for Building Envelope Measures, Ceiling and Vapor Retarder, Wall Insulation, Raised-Floor Insulation, Vapor Retarder, Fireplaces, Decorative Gas Appliances, Space Conditioning, Water Heating, and Heating/Cooling Loads.



2019 Low-Rise Residential Mandatory Measures Summary

Table with 2 columns: Code Section and Description. Includes sections for Clearances, Liquid Line Driv, Storage Tank Insulation, Water Piping, Solar Water-heating System Piping, Insulation Protection, Gas or Propane Water Heating Systems, Pool and Spa Systems, Ducts and Fans Measures, and Factory-Fabricated Duct Systems.



2019 Low-Rise Residential Mandatory Measures Summary

Table with 2 columns: Code Section and Description. Includes sections for Requirements for Ventilation and Indoor Air Quality, Single Family Detached Dwelling Units, Multifamily Attached Dwelling Units, Multifamily Building Central Ventilation Systems, Field Verification and Diagnostic Testing, Pool and Spa Systems and Equipment Measures, Lighting Measures, and Interior Switches and Controls.



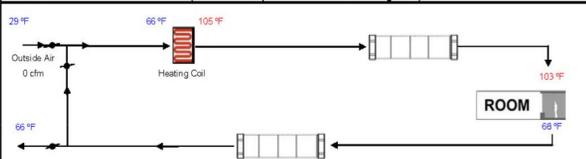
2019 Low-Rise Residential Mandatory Measures Summary

Table with 2 columns: Code Section and Description. Includes sections for Interior Switches and Controls, Interior Switches and Controls, Residential Outdoor Lighting, Internally Illuminated Address Signs, Residential Garages for Eight or More Vehicles, Interior Common Areas of Low-Rise Multifamily Residential Buildings, Solar Ready Buildings, and Minimum Solar Zone Area.

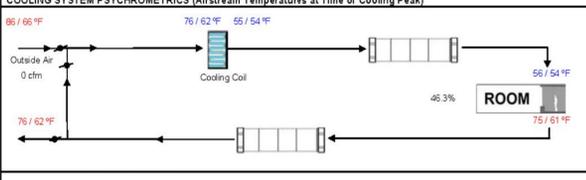
HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Summary table for HVAC system loads. Includes project name (Pine Tree Ave Residence), date (5/9/2022), and detailed breakdown of heating and cooling loads for the system.

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



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PINE TREE AVE RESIDENCE
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CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs)

Construction Projects Are Required to Implement the Stormwater Best Management Practices (BMPs) on this Page, as they Apply to Your Project, All Year Long.



MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials

- Berm and securely cover stockpiles of sand, dirt, or other construction materials with tarps when rain is forecast or if stockpiles are not actively being used. For best results, this should be done at the end of the work day throughout construction when feasible.
- Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.

- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Waste Management

- The California Green Building Code requires all permitted residential and non-residential construction, demolition and additions/alterations projects to recycle or salvage a minimum 65% of nonhazardous construction materials from the project.
- Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- Clean or replace portable toilets, and inspect them frequently for leaks and spills. Incorporate secondary containment and locate them away from storm drain inlets.
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste (the Monterey Regional Waste Management District offers a Household Hazardous Waste Facility that accepts these items).

Maintenance and Parking

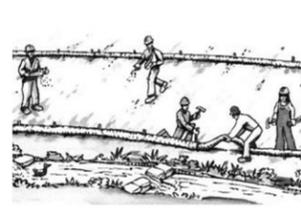
- Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, steam cleaning equipment, etc.
- Inlet protection is the last line of spill defense. Drains/inlets that receive storm water must be covered or otherwise protected from receiving sediment/dirt/mud, other debris, or illicit discharges, and include gutter controls and filtration where applicable in a manner not impeding traffic or safety.



EQUIPMENT MANAGEMENT & SPILL CONTROL

Spill Prevention and Control

- Keep spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- Clean up spills or leaks immediately and dispose of cleanup materials properly (see the Monterey Regional Waste Management District's guidelines for accepting hazardous waste materials).
- Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil (see the Monterey Regional Waste Management District's Contaminated Soil Acceptance Criteria).
- Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: Dial 911.



EARTHWORK & CONTAMINATED SOILS

Erosion Control

- Schedule grading and excavation work for dry weather only.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.

Sediment Control

- Protect storm drain inlets, gutters, ditches, and drainage courses with appropriate BMPs, such as gravel bags, inlet filler, berms, etc.
- Prevent sediment from migrating offsite by installing and maintaining sediment controls, such as fiber rolls, silt fences, or sediment basins.
- Keep excavated soil on the site where it will not collect into the street.
- Transfer excavated materials to dump trucks on the site, not in the street.
- If any of the following conditions are observed, test for contamination and contact the Monterey County Environmental Health Department, Regional Water Quality Control Board, and local municipal inspector:
 - Unusual soil conditions, discoloration, or odor
 - Abandoned underground tanks
 - Abandoned wells
 - Buried barrels, debris, or trash.

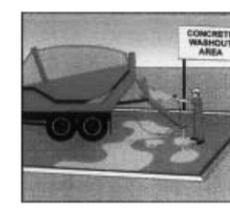


PAVING/ASPHALT WORK

- Avoid paving and seal coating in wet weather, or when rain is forecast before fresh pavement will have time to cure.
- Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- Do not use water to wash down fresh asphalt or concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- Completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- Protect storm drain inlets, gutters, ditches, and drainage courses with appropriate BMPs, such as gravel bags, inlet filters, berms, etc.
- Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If sawcut slurry enters a catch basin, clean it up immediately.



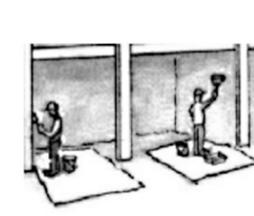
CONCRETE, GROUT & MORTAR APPLICATION

- Store concrete, grout and mortar under cover, on pallets and away from drainage areas. These materials must never reach a storm drain.
- Wash out concrete equipment/trucks offsite or in a contained area, so there is no discharge into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- Collect the wash water from washing exposed aggregate concrete and remove it for appropriate disposal offsite.



LANDSCAPE MATERIALS

- Contain stockpiled landscaping materials by storing them under tarps when they are not actively being used.
- Stack erodible landscape material on pallets. Cover or store these materials when they are not actively being used or applied.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.



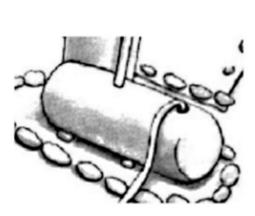
PAINTING & PAINT REMOVAL

Painting cleanup

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or surface waters.
- For water-based paints, paint out brushes to the extent possible. Rinse the sanitary sewer once you have gained permission from the local wastewater treatment authority. Never pour paint down a drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of residue and unusable thinner/solvents as hazardous waste.

Paint Removal

- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead or tributyltin must be disposed of as hazardous waste.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.

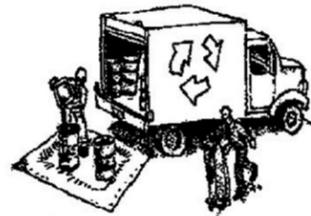


DEWATERING

- Effectively manage all run-on, all runoff within the site, and all runoff that discharges from the site.
- Divert run-on water from offsite away from all disturbed areas or otherwise ensure protection of its water quality for compliance.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap, and/or disposal in sanitary sewer may be required.
- In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the Engineer and municipal staff to determine whether testing is required and how to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

LAS MEJORES PRÁCTICAS DE CONSTRUCCIÓN

Los proyectos de construcción deben implementar las Mejores Prácticas de Construcción dadas en esta página, ya que son pertinentes a su proyecto todo el año.



MANEJO DE MATERIALES Y RESIDUOS

Materiales no peligrosos

- ❑ Haga un borde alrededor y cubra con lonas impermeables las pilas de arena, tierra u otros materiales de construcción cuando haya pronóstico de lluvia o si no se están usando activamente. Para mejor resultado, esto debería hacerse diariamente al final del día de trabajo durante toda la construcción cuando sea posible.
- ❑ Use (pero no abuse) agua reclamada para controlar el polvo.

Materiales peligrosos

- ❑ Póngales etiqueta con nombre a todos los materiales y residuos peligrosos (como pesticidas, pintura, diluyentes, solventes, gasolina, aceite y anticongelante) de acuerdo con las reglamentaciones de la ciudad, del condado, del estado y federales.
- ❑ Ponga los materiales y residuos peligrosos en contenedores que no pierdan, póngalos luego en contenedores secundarios apropiados y cúbralos después de cada día de trabajo, o durante la temporada lluviosa, o cuando se haya pronosticado lluvia.
- ❑ Al aplicar los materiales peligrosos, siga las instrucciones del fabricante y tenga cuidado de no usar más de lo necesario. No aplique productos químicos en el exterior cuando se haya pronosticado lluvia en las próximas 24 horas.
- ❑ Asegúrese de deshacerse apropiadamente de todos los residuos peligrosos.

Entradas y perímetros de los sitios de construcción

- ❑ Establezca y mantenga control efectivo de los perímetros y establezca todas las entradas y salidas del sitio de construcción

para controlar suficientemente la erosión y la descarga de sedimentos del sitio para que no salgan del sitio.

- ❑ Barra o aspire inmediatamente lo que haya pasado a la calle y controle la fuente de origen para prevenir que siga sucediendo. Nunca lave con manguera las calles para limpiar lo que haya sido acarreado o llevado del sitio de construcción.

Gestión de residuos

- ❑ El Código de Construcción Ecológica de California requiere que todos los proyectos permitidos de construcción, demolición y adiciones o alteraciones, residenciales o no residenciales, reciclen o salven un mínimo del 65% de los materiales de construcción no peligrosos del proyecto.
- ❑ Cubra los contenedores de residuos de manera segura con lonas impermeables al término de cada día de trabajo y durante el tiempo de lluvias.
- ❑ Limpie o reemplace los excusados portátiles e inspecciónelos con frecuencia para ver que no pierdan o se derramen. Incorpore contención secundaria y colóquela lejos de los desagües de aguas pluviales.
- ❑ Deshágase de los residuos líquidos de pintura, solventes, colas y líquidos de limpieza como materiales peligrosos (la compañía de Gestión de Residuos Monterey Regional Waste Management District, tiene una planta para residuos peligrosos del hogar que acepta estos artículos).

Mantenimiento y estacionamiento

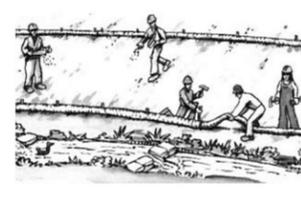
- ❑ Diseñe un área especial, usando técnicas apropiadas de control de polución, para estacionar los vehículos y el equipo, y para almacenamiento.
- ❑ Realice las tareas mayores de mantenimiento, los trabajos de reparación y el lavado de vehículos y equipos fuera del sitio de construcción.
- ❑ Si es necesario ponerle gasolina a un vehículo o hacer reparaciones en el sitio, trabaje en un área bordeada, alejada de los desagües pluviales y sobre una bandeja de goteo de tamaño suficiente para contener los líquidos peligrosos que se derramen. Recicle o deshágase de los líquidos como materiales peligrosos.
- ❑ Si es necesario lavar los vehículos o equipos en el sitio de construcción, límpielos sólo con agua, en un área contenida que no permita que el agua de enjuague llegue a cunetas, calles, desagües de aguas pluviales o superficies acuáticas (lagos, arroyos, etc.).
- ❑ No lave vehículos o equipos en el sitio de construcción usando jabones, solventes, desengrasadores, equipo de limpieza en seco, etc.
- ❑ La protección del conducto de entrada es el último punto de defensa de derrames. Desagües/entradas que reciben aguas pluviales deben ser cubiertos o de otra manera protegidos contra sedimentos, tierra, barro u otras basuras, o contra descargues ilícitos, y debe incluir el control de canaletas y la filtración, donde sea pertinente, de manera que no obstruya el tránsito o la seguridad.



MANEJO DEL EQUIPO Y CONTROL DE DERRAMES

Prevención y control de derrames

- ❑ Mantenga a mano en el sitio de construcción, en todo momento, los materiales para limpiar derrames (trapos, absorbentes, etc.).
- ❑ Inspeccione frecuentemente los vehículos y equipos para descubrir pérdidas de fluidos y repárelas inmediatamente. Use bandejas de goteo para recoger el líquido de la pérdida hasta que pueda hacer las reparaciones.
- ❑ Limpie los derrames o pérdidas inmediatamente y deshágase apropiadamente de los materiales de limpieza (vea las guías del *Monterey Regional Waste Management District* para ver los materiales peligrosos aceptados como desperdicio).
- ❑ No lave con manguera las superficies donde se hayan volcado líquidos. Use métodos en seco (materiales absorbentes, aserrín de cajas sanitarias para gatos, o trapos).
- ❑ Barra inmediatamente los materiales secos que se hayan desparramado. No trate de deshacerse de ellos usando agua, ni de enterrarlos.
- ❑ Limpie los derrames en la tierra excavando la tierra contaminada y deshaciéndose correctamente de ella (vea las guías del *Monterey Regional Waste Management District* sobre el criterio para aceptar tierra contaminada).
- ❑ Comunique inmediatamente cualquier derrame significativo. La ley obliga comunicar todos los derrames de materiales peligrosos, incluyendo el petróleo. Para comunicar un derrame: llame al 911.



TRABAJO EN LA TIERRA Y SUELOS CONTAMINADOS

Control de erosión

- ❑ Planee trabajo de nivelación y excavación sólo cuando no vaya a llover.
- ❑ Establezca todas las áreas desnudas, instale y mantenga control de erosión provisorio (como tela de control de erosión o matriz de tejido pegado) hasta que se haya establecido la vegetación.
- ❑ Plante semillas o plantas para control de erosión en superficies en declive o donde no se planee la construcción inmediata.

Control de sedimento

- ❑ Proteja las rejillas de los desagües de aguas pluviales, las cunetas, canales y cursos de drenaje, usando apropiadas técnicas de control de polución, como bolsas con grava, rollos de fibras, bordes, etc.
- ❑ Prevenga que los sedimentos migren fuera del sitio instalando y manteniendo controles de sedimentos, como rollos de fibra, cerca de sedimentos o estanques de sedimentos.
- ❑ Mantenga la tierra que se haya excavado en el sitio de construcción en un lugar donde no pueda ser acarreada a la calle.
- ❑ Transfiera a los camiones los materiales excavados, en el sitio mismo de construcción y no en la calle.
- ❑ Si se observan cualquiera de las siguientes condiciones, analice la tierra para descubrir contaminación y comuníquese con la Junta Regional de Control de Calidad del Agua y con el inspector municipal local:
 - Condiciones inusuales en la tierra, descoloramiento u olor.
 - Tanques enterrados abandonados.
 - Pozos de agua abandonados.
 - Barriles, basuras o residuos enterrados.



TRABAJO CON PAVIMENTO/ASFALTO

- ❑ Evite pavimentar o recubrir pavimento en temporada de lluvias, o cuando se haya pronosticado lluvia para antes que el nuevo pavimento haya tenido tiempo de secarse.
- ❑ Cubra las rejillas de los desagües de aguas pluviales y las bocas de sumideros antes de aplicar la capa de sellado, capa ligante, capa de lechada (*slurry seal*), capa final fluida, etc.
- ❑ Junte y recicle o deshágase apropiadamente del exceso de grava o arena abrasivas. NO las barra ni las empuje con agua a los desagües de aguas pluviales.
- ❑ No use agua para lavar pavimento de concreto y asfalto fresco.

Cortando con sierra y removiendo asfalto/concreto

- ❑ Cubra completamente o erija una barrera alrededor de las rejillas de desagües de aguas pluviales cuando corte con sierra. Use tela de filtro, filtros en las bocas de admisión, o bolsas de grava para evitar que la lechada entre en el sistema de desagües pluviales.
- ❑ Proteja las entradas de desagües de aguas pluviales, canaletas, cunetas y cursos de drenaje con las mejores prácticas de control, como bolsas de grava, filtros de entrada, bordes, etc.
- ❑ Levante con pala, absorba o aspire la lechada producida por la sierra y deshágase de todos los residuos tan pronto como haya finalizado en un sitio, o al terminar cada día de trabajo (¡lo que ocurra antes!).
- ❑ Si la lechada producida por la sierra entra en un sumidero, límpielo inmediatamente.



APLICACIÓN DE CONCRETO, LECHADA DE CEMENTO Y ARGAMASA

- ❑ Guarde el concreto, la lechada de cemento y la argamasa cubiertos, en paletas y alejados de las áreas de desagüe. Estos materiales nunca deben llegar a los desagües pluviales.
- ❑ Lave el concreto del equipo y de los camiones fuera del sitio de construcción o en un área contenida, para que no descarguen en la tierra subyacente o en las áreas de alrededor. Deje secar el concreto y deshágase de él como basura.
- ❑ Junte el agua con la que lavó el concreto de agregado expuesto y deshágase de ella apropiadamente fuera del sitio de construcción.



MATERIALES DE JARDINERÍA

- ❑ Contenga los materiales de jardinería ya apilados manteniéndolos cubiertos con lonas impermeables cuando no estén en uso activo.
- ❑ Ponga sobre paletas los materiales de jardinería que puedan sufrir erosión. Cubra o guarde esos materiales cuando no sean activamente usados o aplicados.
- ❑ No continúe aplicando cualquier material de jardinería que pueda sufrir erosión por lo menos dos días antes de una lluvia pronosticada o durante tiempo lluvioso.



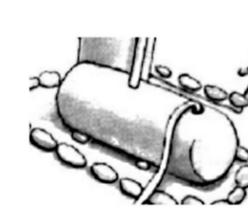
PINTANDO Y REMOVIENDO PINTURA

Limpieza después de pintar

- ❑ Nunca lave los pinceles ni enjuague los tarros de pintura en la calle, en las cunetas, desagües pluviales o superficies de aguas (arroyos, lagos, etc.).
- ❑ Al terminar de usar pinturas a base de agua, pinte lo más que pueda con la última pintura en el pincel. Enjuague los pinceles en un desagüe a las cloacas una vez que haya obtenido el permiso de las autoridades locales del sistema de tratamiento de aguas negras. Nunca eche pintura en un desagüe.
- ❑ Usando pinturas a base de aceite, pinte lo más que pueda con la última pintura en el pincel y limpie el pincel con diluyente o solvente en un envase apropiado. Filtre y vuelva a usar los diluyentes y solventes. Deshágase del residuo y del diluyente/solvente como desechos peligrosos.

Removiendo pintura

- ❑ Los residuos de productos químicos para remover pintura y los trozos y el polvo de pinturas marinas o de pinturas que contienen plomo o tributylin, deben ser desechados como residuos peligrosos.
- ❑ Los trozos de pintura y el polvo de productos no peligrosos y removidos en seco o con ráfagas de arena pueden ser barridos o juntados en tela de plástico y echados a la basura.



EXTRACCIÓN DEL AGUA

- ❑ Controle efectivamente toda el agua que corra al sitio, o dentro del sitio y la que corra hacia afuera originada en el sitio.
- ❑ Desvíe toda el agua que venga hacia el sitio para que no llegue a las áreas disturbadas o de alguna otra manera asegúrese de proteger la calidad del agua para cumplir con las ordenanzas.
- ❑ Al extraer el agua, notifique y obtenga el permiso de la municipalidad local antes de descargar agua en la cuneta de una calle o en un desagüe de aguas pluviales. Puede que se requiera filtración, o desvío a través de un depósito, tanque o entrapamiento de sedimento y/o puede ser requerida la descarga en un desagüe cloacal.
- ❑ En las áreas que se saben contaminadas, se requiere análisis antes de volver a usar o descargar el agua subterránea. Consulte con el ingeniero y el personal municipal para determinar si es necesario el análisis y cómo interpretar los resultados. El agua subterránea contaminada debe ser tratada o acarreada fuera del sitio para su eliminación apropiada.

¡QUIENES CONTAMINEN LOS DESAGÜES DE AGUAS PLUVIALES PUEDEN RECIBIR MULTAS DE HASTA \$10,000 POR DÍA!