# A REMODEL FOR WEI-KEN SATO



## APPLICABLE CODE

ALL CONSTRUCTION SHALL COMPLY WITH:

- CALIF. FIRE CODE
- CALIF. BLDG CODE
- CALIF. RESIDENTIAL CODE
- 2022 CALIF. MECH. CODE
- 2022 CALIF. PLUMB'G CODE 2022 CALIF. ELEC. CODE
- CALIF. ENERGY CODES
  - ANY OTHER APPLICABLE LOCAL & STATE LAWS & REGULATIONS.

CALIF. GREEN BUILDING CODES

## SPECIAL NOTES

BEFORE YOU START CONSTRUCTION REVIEW ALL SHEETS CAREFULLY. READ THE GREEN CHECKLIST SHEETS AND THE TITLE 24 SHEETS FOR REQUIREMENTS AS RULES HAVE CHANGED AND THERE MAY BE THINGS YOU ARE NOT EXPECTING

## PERSONAE

OWNER WEI-KEN SATO 16431 MATILIJA DR LOS GATOS, CA

18488 PROSPECT ROAD SUITE 12 SARATOGA, CA 95070 NATHAN@NJMENGINEERING.COM 415-676-9896

DESIGNER MEGAN MINER DESIGN MEGAN MINER 18488 PROSPECT RD. #6

408-396-0951

PHONE: 510-887-4086 X.103 EMAIL: GBRAZE@LEABRAZE.COM

## GENERAL NOTES

ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF MICHELLE MINER DESIGN PRIOR TO COMMENCING

VERIFY LOCATION OF UTILITIES AND EXISTING CONDITIONS AT SITE PRIOR TO CONSTRUCTION AND BIDDING

CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR METHOD AND MANNER OF CONSTRUCTION AND FOR

ALL JOB SITE SAFETY DURING CONSTRUCTION.

SLOPE ALL FINISH GRADES IN. 5% 5'-0" AWAY FROM STRUCTURE FOR POSITIVE DRAINAGE @ LANDSCAPED AREA & SLOPE GRADE 2% MIN. @ PAVED AREAS.

ALL WORK APPLIANCES AND EQUIPMENT SHALL COMPLY WITH C.E.C. TITLE 24 RESIDENTIAL ENERGY

NO CONSTRUCTION EQUIPMENT OR PRIVATE VEHICLES SHALL PARK OR BE STORED WITHIN THE DRIPLINE OF ANY ORDINANCE PROTECTED TREES ON SITE.

ADDRESS NUMBERS ON BUILDING SHALL BE CLEARLY VISIBLE FROM STREET OR ROAD FRONTING THE PROPERTY. MIN.

4" HIGH X 1" WIDE PER CRC R319. DUCT OPENINGS, TO BE COVERED AND PROTECTION OF MECHANICAL EQUIPMENT TO BE PROVIDED DURING

VOC COMPLIANCE - CAULKS, SEALANTS, ADHESIVES, SHALL BE COMPLIANT WITH MIR LIMITS FOR ROC AND OTHER

COMPOUNDS (TABLE 4.504.1) PAINTS AND COATINGS COMPLIANT WITH VOC LIMITS (TABLE 4.504.3)

AEROSOLS AND COATINGS SHALL BE COMPLIANT WITH MIR LIMITS FOR ROC AND OTHER TOXIC COMPOUNDS

VERIFICATION AND DOCUMENTATION OF VOC LIMITS AND FINISH MATERIALS

VOC COMPLIANCE - CARPET & CARPET SYSTEMS

CONSTRUCTION

80% FLOOR AREA RECEIVING RESILIENT FLOORING MEET VOC-EMISSION LIMITS PER CHPS

PARTICLEBOARD, MDF, HARDWOOD PLYWOOD COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS. (TABLE

MOISTURE CONTENT OF FLOORS AND WALLS CHECKED BEFORE ENCLOSURE

BATHROOM EXHAUST FANS SHALL TERMINATE OUTSIDE BUILDING AND CONTROLLED BY HUMIDITY CONTROL THIS PROJECT IS LOCATED IN THE WILDLAND-URBAN INTERFACE FIRE AREA

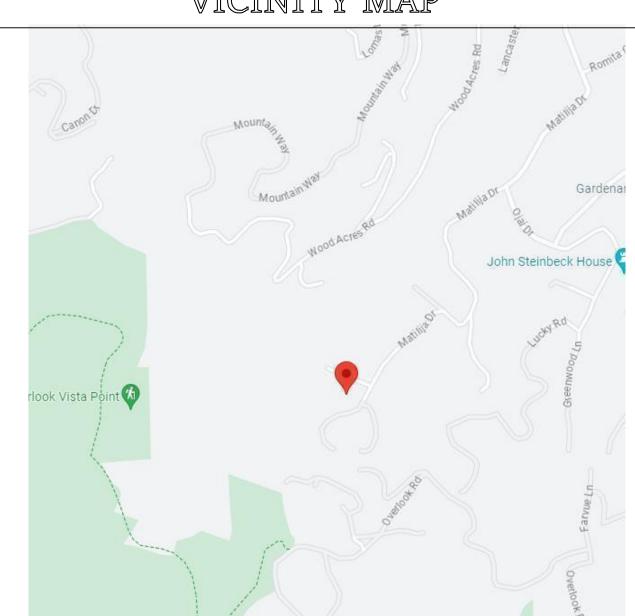
AND MUST MEET THE REQUIREMENTS OF CHAPTER 7A OF THE 2013 CBC

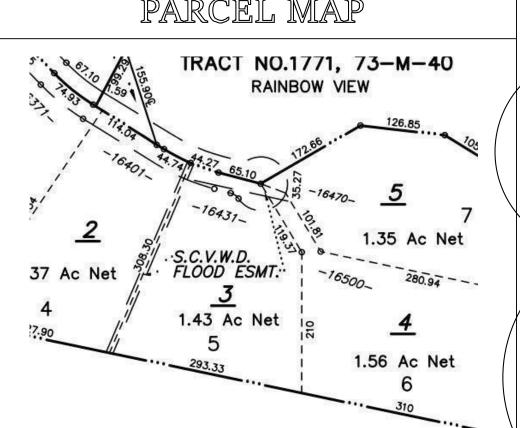
ADDRESS IDENTIFICATION, NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE

THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MINIMUM OF 4 INCHES (101.6 MM)

HIGH WITH A MINIMUM STROKE WIDTH OF 0.5 INCH (12.7 MM). WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE SHALL HOLD THE ADDESS NUMBERS

## VICINITY MAP





REMODEL OF ENTIRE 4 BEDROOM 5 BATH HOME FOR UPDATED 4 BEDROOM 4.5 BATH

ADDITION OF 505 SQFT FOR LIVING AND 625 SQFT FOR GARAGE. UPDATE TO 400 AMP. ELEC. SERVICE, UPDATE FURNACE/HEAT PUMP, UPDATE TANKLESS WATER HEATER, NEW REAR AND SIDE PATIO, NEW ROOFING, AND ALL NEW ELECTRICAL AND PLUMBING.

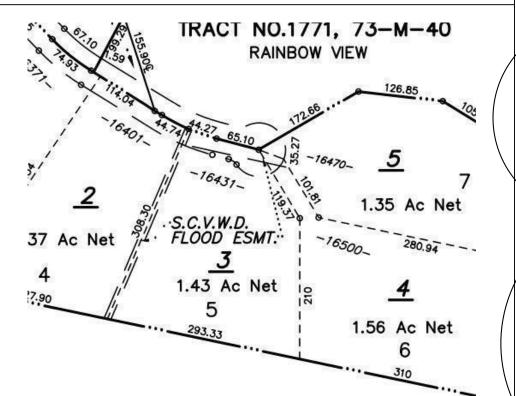
MMHOMEDESIGNS@GMAIL.COM

\_408-396-0951

SARATOGA, CA 95070 SHELMINER@AOL.COM **SURVEYOR** LEA & BRAZE SURVYOR

STRUCTURAL ENGINEER NJM CONSULTING ENGINEERING INC

## PARCEL MAP



## SCOPE OF WORK

### WATER HEATER

2 NEW HIGH EFFICIENCY ELECTRIC HEAT PUMP WATER HEATER

### HEATING AND AC

NEW HIGH EFFICIENCY DUCTED ELECTRIC

HEAT PUMP FURNACE AND AIR HANDLER

FURNACE IN ATTIC VENTS ON FLOOR

## CURBLESS SHOWERS?

MASTER SHOWER AND ADU TO BE CURBLESS - SEE DETAIL ON INTERIOR FINISH SHEET

## ANALYSIS

\( \times		
ASSESSOR'S PARCEL #	51030003	
LOT AREA:	59,242 S.F.	
ZONING:	R1-	
TYPE OF CONSTRUCTION:	V-B	
OCCUPANCY RATING:	R-3, U	
EXISTING USE:	SINGLE FAMILY RES.	
SLOPE OF LOT	FLAT LOT	
FLOOD ZONE	D	
HISTORIC	NO	
FIRE SPRINKLERS	NO	
WUI /	YES	$\setminus \mid$
STORIES	ONE	
EXISTING		7
EXISTING LIVING:	4,435 S.F.	
EXISTING GARAGE:	1,050 S.F.	
TOTAL EXISTING	5,485 S.F.	
<u>PROPOSED</u>		
NEW LIVING	495 S.F.	$\nearrow$

### NEW FRONT PORCH 50% ENCLOSED

1,500 S.F.

IMPERVIOUS IMPACT

575 S.F.

1070 S.F.

6,550 S.F.

110 S.F.

TOTAL BUILDING SQUARE FOOTAGE

(E) GARAGE CONVERTED TO LIVING

PROPOSED BUILDING FOOTPRINTS EXHIBIT B:

**NEW GARAGE** 

TOTAL ADDED STRUCTURES

495 NEW LIVING EXHIBIT C: **NEW GARAGE** 575 S.F.

## PROPOSED LANDING FOOTPRINTS

TOTAL BUILDING SQUARE FOOTAGE

EXHIBIT E:

NEW PATIO / LANDING 80 S.F. EXHIBIT F:

NEW DRIVEWAY 350 S.F.

### CITY STAMP AREA

NOTE TO CONTRACTOR

THE CONTRACTOR AND/OR SUPPLIER OF MATERIALS SHALL NOT SCALE ANY DIMENSIONS FOR CONSTRUCTION PURPOSES. IN THE EVENT A DIMENSION IS REQUIRED THAT DOES

THE CONTRACTOR AND/OR SUPPLIER OF MATERIALS WILL NOTIFY THE OFFICE OF

ERROR IS FOUND ON PLAN OF ANY KIND NOTIFY MICHELLE MINER DESIGN THE

ARE NOT EXPECTING

DEFERRED SUBMITTALS

. STAIR AND RAILING DESIGN

6. SWIMMING POOL RELATED EQUIPTMENT

5, ROOF TRUSSES

RESIDENCES WHEN SQUARE FOOTAGE IS ADDED).

REVIEW OF FIRE SPRINKLER PLANS BY THIS OFFICE.

MICHELLE MINER DESIGN. AND REQUIRES ASSISTANCE AS SOON AS POSSIBLE. IF ANY

THE RESULTS OF ERRORS, DISCREPANCIES AND OMISSIONS WHICH THE CONTRACTOR

AND/OR MATERIAL SUPPLIER FAILED TO NOTIFY THE OFFICE, OF MICHELLE MINER DESIGN.

PRIOR TO CONSTRUCTION AND/OR FABRICATION OF THE WORK. NO DEVIATION FROM THE

PLANS IN ANY WAY SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF MICHELLE MINER

DESIGN. APPROVAL BY THE CITY INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE

FROM THE PLANS OR OTHER DOCUMENTS PROVIDED BY THE OFFICE OF MICHELLE MINER DESIGN.

BEFORE YOU START CONSTRUCTION REVIEW ALL SHEETS CAREFULLY. READ THE GREEN CHECKLIST SHEETS

AND THE TITLE 24 SHEETS FOR REUIREMENTS AS RULES HAVE CHANGED AND THERE MAY BE THINGSD YOU

ALL CONSTRUCTION ACTIVITIES SHALL BE IN CONFORMANCE \VITH THE SANTA CLARA COUNTY NOISE

ORDINANCE SECTION B11-154 AND PROHIBITED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. ON

. FIRE SPRINKLER SYSTEM: AN APPROVED RESIDENTIAL FIRE SPRINKLER SYSTEM COMPLYING

NOTE: THE FIRE SPRINKLER SYSTEM SHALL BE INSTALLED AND FINALED BY THIS OFFICE PRIOR TO

C-16 CONTRACTOR PRIOR TO INSTALLATION. PLEASE ALLOW FOR A MINIMUM OF 30 DAYS FOR PLAN

OCCÚPANCY. A SEPARATE PERMIT SHALL BE OBTAINED FROM THIS OFFICE BY A STATE LICENSED

CONSTRUCTION WAS TE MANAGEMENT PLAN IN ACCORDANCE WITH CALCREEN 4.

NO TREE REMOVAL IS PROPOSED DEX

BLUEPRINT FOR CLEAN BAY

EXISITING SITE PLAN

PROPOSED SITE PLAN

GREEN CHECKLIST

GREEN CHECKLIST 2

DEMO FLOOR PLAN

NEW FLOOR PLAN

EXISTING ROOF

NOTES DETAILS

TITLE 24

PROPOSED ROOF PLAN

EXISTING LINEAR FOOTAGES

FIRE BLOCKING - WUI NOTES

FOUNDATION-FLOOR FRAMING

ELETRICAL- MECHANICAL NOTES

ELECTRICAL PLAN

FLASHING DETAILS

TITLE 24 - SHEET 1

TITLE 24 - SHEET 2

STRUCTURAL

ROOF FRAMING

STRUCT. DETAILS

STRUCTURAL DETAIL 1

STRUCTURAL DETAIL 2

NEW SITEPLAN NOTES

NOTES

SURVEY

SITE DETAILS

MFR1

INDEX - VICINITY MAP - ANALYSIS

PROPOSED EXTERIOR ELEVATIONS

PROPOSED EXTERIOR ELEVATIONS 2

VITH CFMO-SP6 SHALL BE INSTALLED THROUGHOUT THE STRUCTURE (INCLUDING EXISTING

WEEKDAYS AND SATURDAYS, OR AT ANY TIME ON SUNDAYS FOR THE DURATION OF CONSTRUCTION.

NOT OCCUR ON THE DRAWINGS AND/OR A DIMENSION ERROR IS FOUND ON THE DRAWINGS.

REVISIONS BY londay, June 3, 202

> ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLEY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN

ct en

2

10

11

12

13

14

15

16

17

18

20

T241

T242

S1

S2

 $s_3$ 

SD1

SD2

22

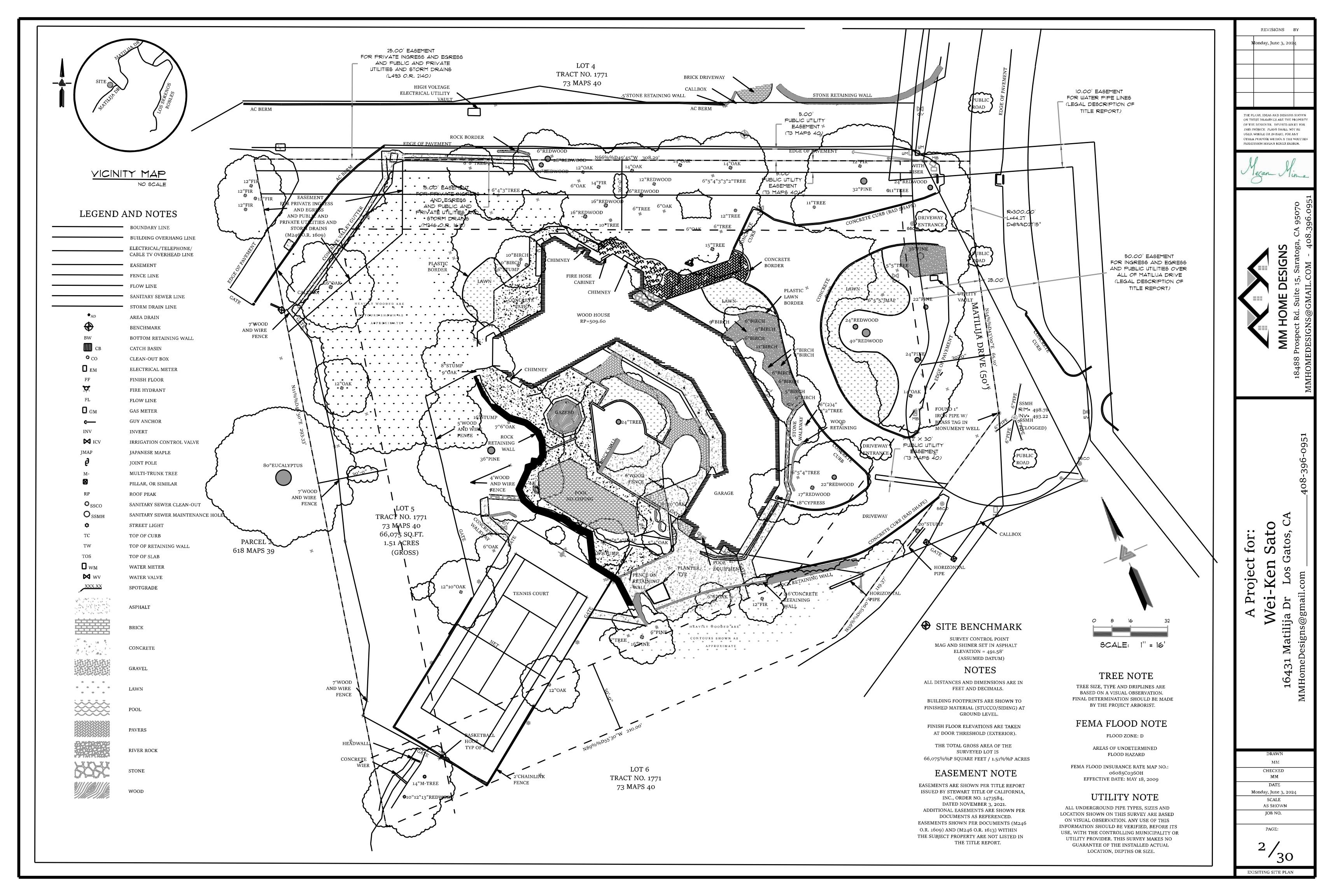
23

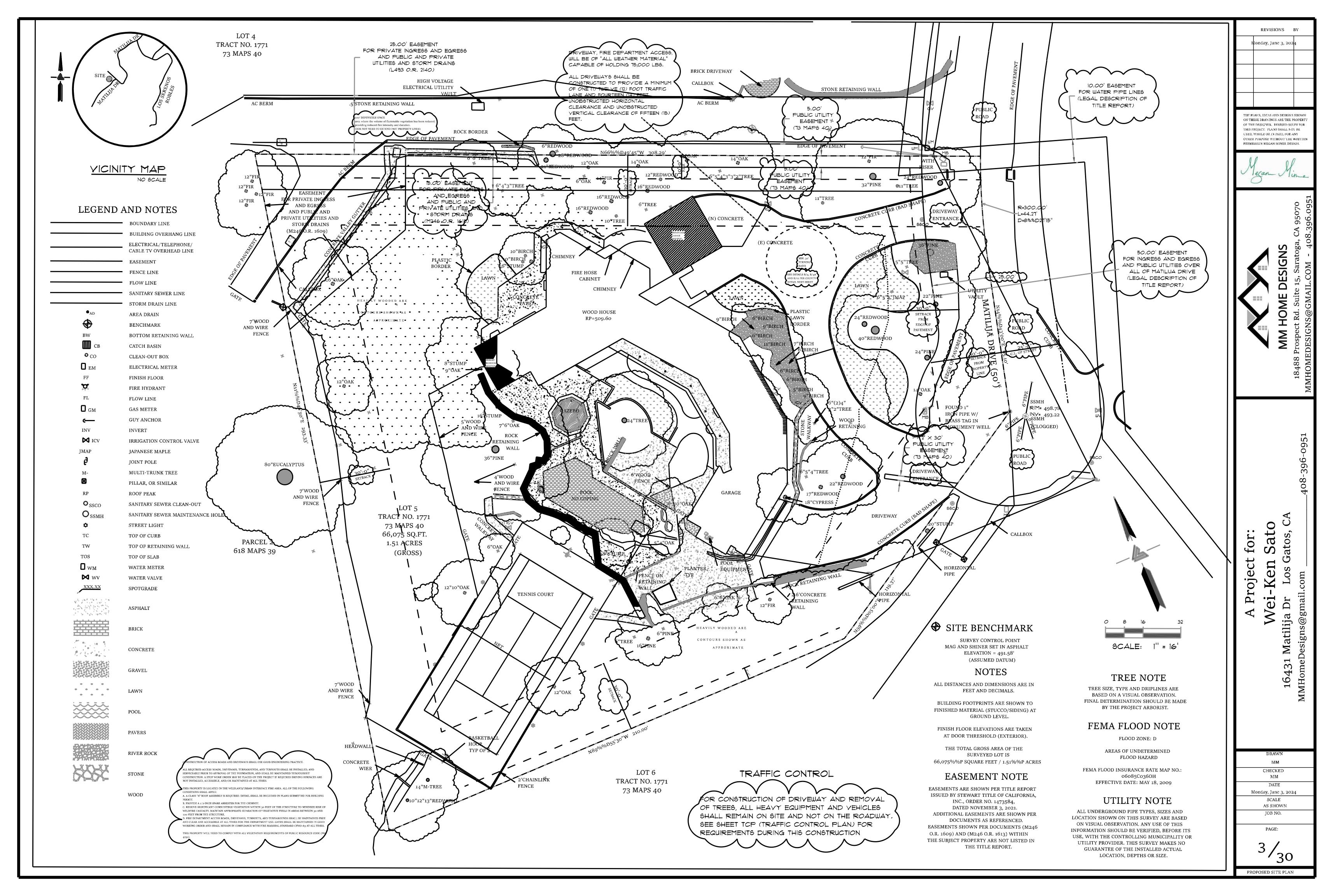
Matilija 16431

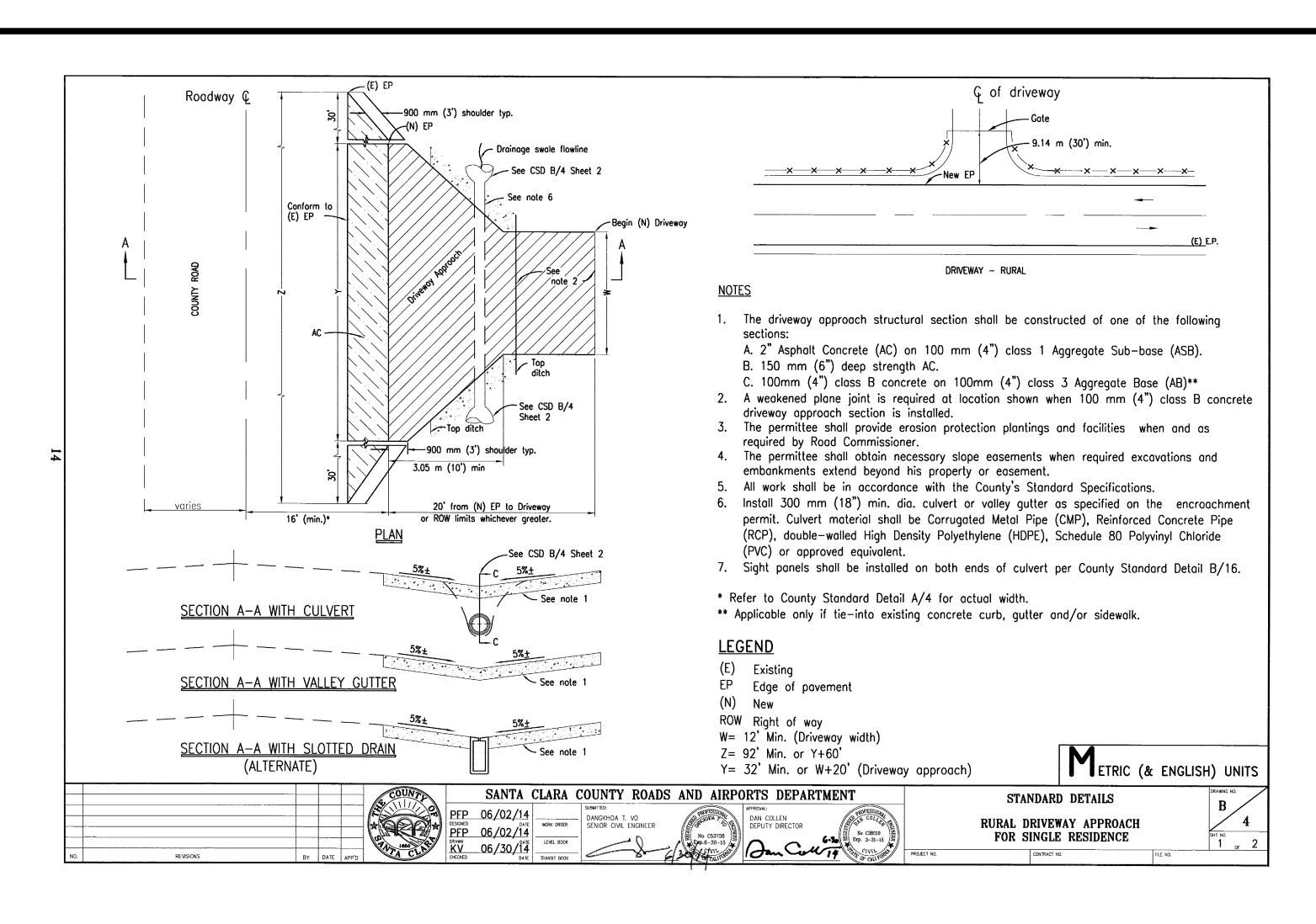
MMCHECKED Monday, June 3, 2024 AS SHOWN JOB NO.

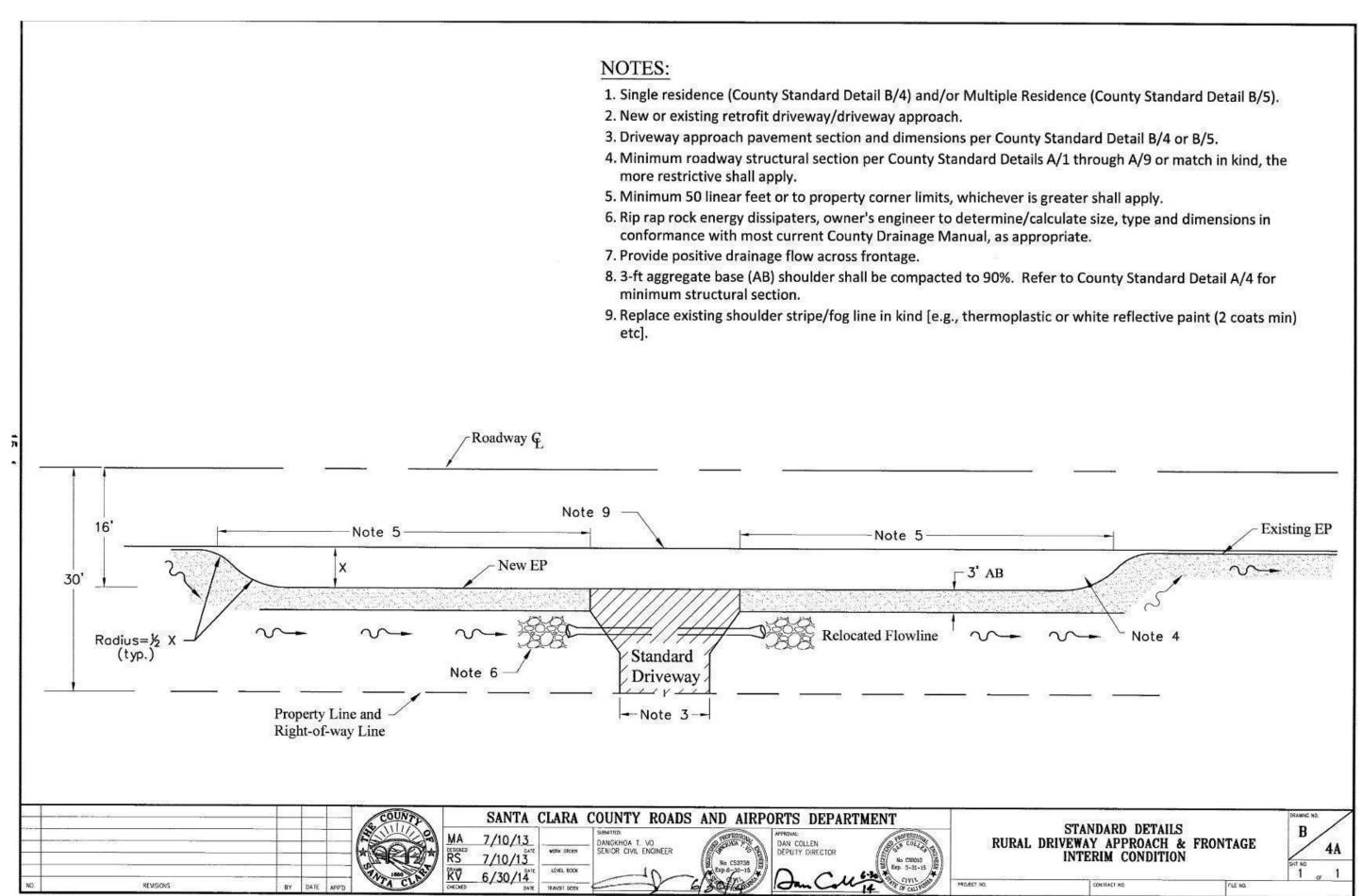
PAGE:

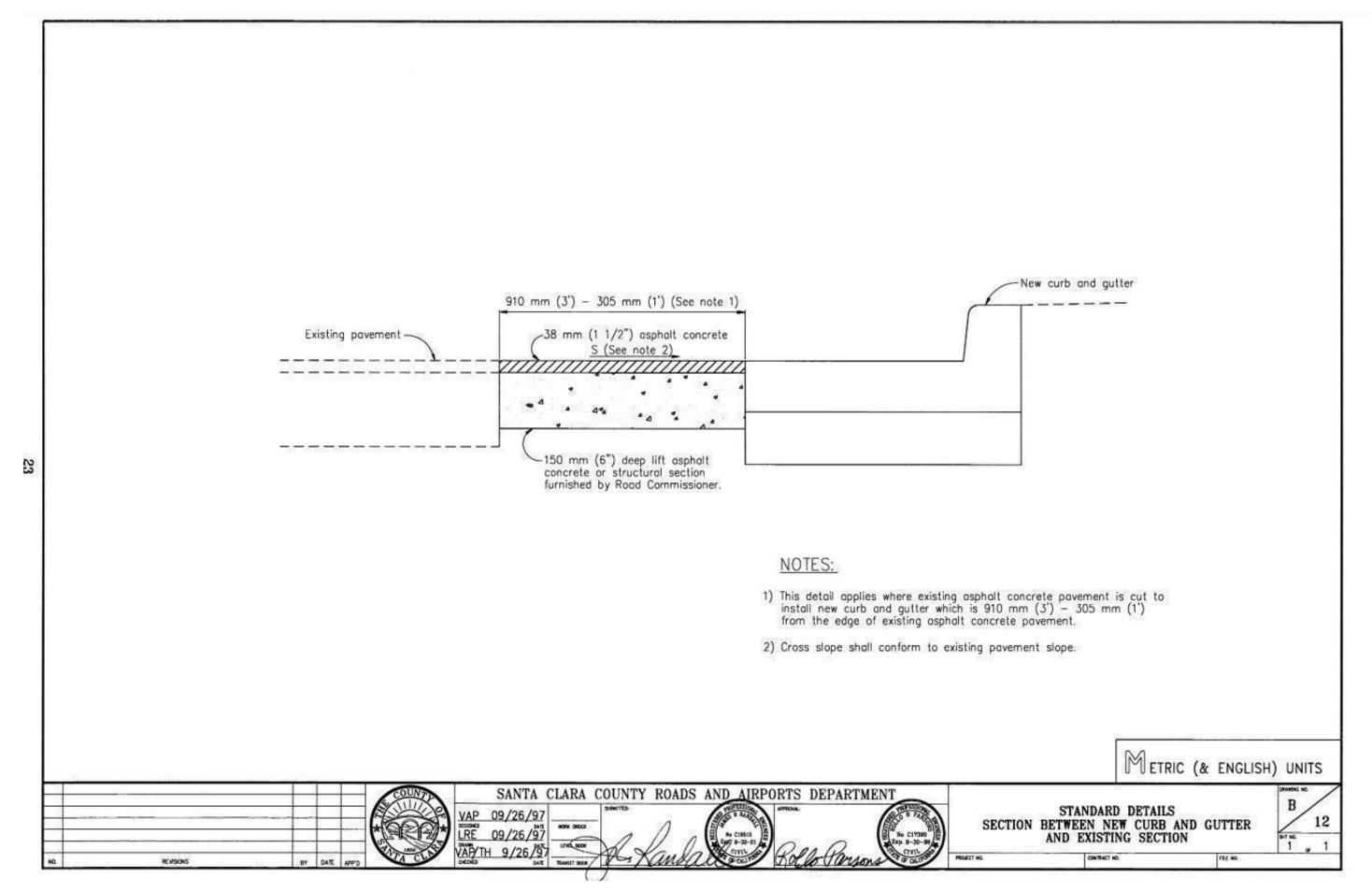
INDEX - VIC NITY MAP - ANALYSIS

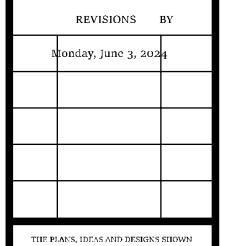












ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLFY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION MEGAN MINER DESIGN.



ato for: Project 16431 Matilija

CHECKED

Monday, June 3, 2024 AS SHOWN

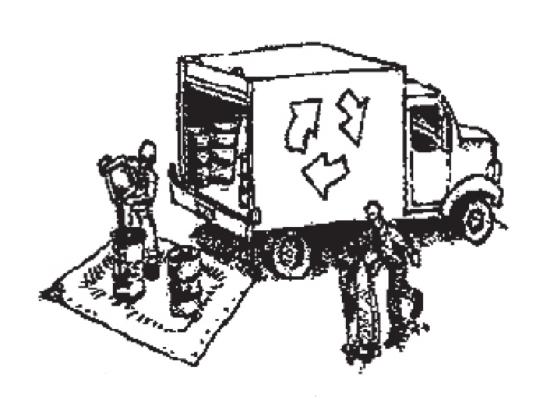
JOB NO.

SITE DETAILS

# Construction Best Management Practices (BMPs)

Construction projects are required to implement year-round stormwater BMPs.

## Materials & Waste Management



### **Non-Hazardous Materials**

- ☐ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- ☐ Use (but don't overuse) reclaimed water for dust control.
- ☐ Ensure dust control water doesn't leave site or discharge to storm drains.

### **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 do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ☐ Arrange for appropriate disposal of all hazardous wastes.

### Waste Management

- ☐ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- ☐ Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- ☐ Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ☐ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- ☐ Keep site free of litter (e.g. lunch items, cigarette butts).
- ☐ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

### **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.

# **Equipment Management & Spill Control**



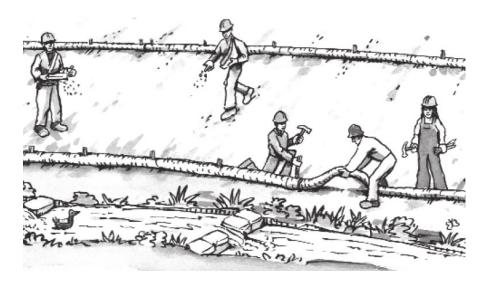
### **Maintenance and Parking**

- Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto 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 or drop cloths 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, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite

### **Spill Prevention and Control**

- ☐ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ☐ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- ☐ Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- ☐ Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- ☐ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ☐ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazrd to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).

## **Earthmoving**



### **Grading and Earthwork**

- ☐ Schedule grading and excavation work during dry weather.
- ☐ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ☐ Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (i.e. silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- ☐ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

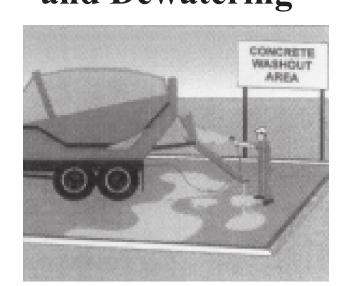
### **Contaminated Soils**

- ☐ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
- Unusual soil conditions, discoloration, or odor.
- Abandoned underground tanks.
- Abandoned wells
- Buried barrels, debris, or trash.
- ☐ If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not distrurbed by construction activities.

### Landscaping

- ☐ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ☐ Stack bagged material on pallets and under cover.
- ☐ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

# **Concrete Management and Dewatering**



### **Concrete Management**

- ☐ Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- ☐ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- ☐ Wash out concrete equipment/trucks offsite or in a designated washout area onsite, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

### **Dewatering**

- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, call your local wastewater treatment plant.
- ☐ Divert run-on water from offsite away from all disturbed areas.
- ☐ 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 may be required.
- ☐ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

## Paving/Asphalt Work



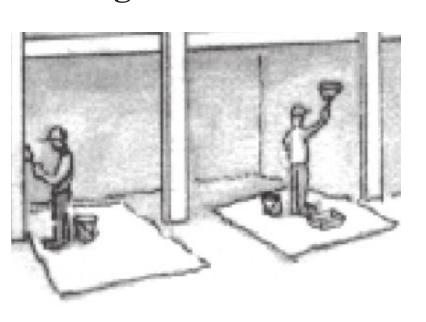
### **Paving**

- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ☐ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ☐ Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

### Sawcutting & Asphalt/Concrete Removal

- ☐ Protect storm drain inlets during saw cutting.
- ☐ If saw cut slurry enters a catch basin, clean it up immediately.
- ☐ Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

## **Painting & Paint Removal**



### **Painting Cleanup and Removal**

- ☐ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ☐ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer.

  Never pour paint down a storm 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 excess liquids as hazardous waste.
- ☐ Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ☐ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste.

  Lead based paint removal requires a statecertified contractor.



Storm drain polluters may be liable for fines of up to \$10,000 per day!



## 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.

Building Envelop	e Measures:
§ 110.6(a)1:	Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	Labeling. Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped.*
§ 110.7:	<b>Air Leakage.</b> All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	<b>Insulation Certification by Manufacturers.</b> Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).
3 110.8(i):	<b>Roofing Products Solar Reflectance and Thermal Emittance.</b> The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs
§ 150.0(a):	Ceiling and Rafter Roof Insulation. Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.*
§ 150.0(b):	Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	<b>Wall Insulation.</b> Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.*
§ 150.0(d):	Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	<b>Slab Edge Insulation.</b> Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	Vapor Retarder. In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	<b>Fenestration Products.</b> Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*
Fireplaces, Deco	rative Gas Appliances, and Gas Log Measures:
§ 110.5(e)	Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Conditioni	ng, Water Heating, and Plumbing System Measures:
§ 110.0-§ 110.3:	Certification. Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.*
§ 110.2(a):	HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.*
§ 110.2(c):	<b>Thermostats.</b> All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)4:	Water Heating Recirculation Loops Serving Multiple Dwelling Units. Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	<b>Isolation Valves.</b> Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	<b>Pilot Lights.</b> Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour ); and pool and spa heaters.
·	Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards



CONTROL COMMISSION	2019 Low-Rise Residential Mandatory Measures Summary
§ 150.0(k)2G:	Interior Switches and Controls. An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	Interior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	Interior Switches and Controls. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	Interior Switches and Controls. Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.*
§ 150.0(k)2K:	Interior Switches and Controls. Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	Residential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aii (astronomical time clock), or an EMCS.
§ 150.0(k)3B:	Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either § 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by § 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	Internally illuminated address signs. Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c).
§ 150.0(k)5:	Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must:  i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and  ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Bui	
§ 110.10(a)1:	Single Family Residences. Single family residences located in subdivisions with 10 or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	<b>Low-rise Multifamily Buildings.</b> Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.*
§ 110.10(b)2:	Azimuth. All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north.
3 110.10(b)3A:	<b>Shading.</b> The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.*
110.10(b)3B:	<b>Shading.</b> Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.*
3 110.10(b)4:	<b>Structural Design Loads on Construction Documents.</b> For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
} 110.10(c):	Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	<b>Documentation.</b> A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".



§ 150.0(h)3A:	Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the
§ 150.0(j)1:	manufacturer's instructions.  Storage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must hav a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	Insulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	Gas or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour
§ 150.0(n)2:	Recirculating Loops. Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	<b>Solar Water-heating Systems.</b> Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans	Measures:
§ 110.8(d)3:	<b>Ducts.</b> Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	<b>CMC Compliance.</b> All air-distribution system ducts and plenums must meet the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts are plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.*
§ 150.0(m)2:	<b>Factory-Fabricated Duct Systems.</b> Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	<b>Field-Fabricated Duct Systems.</b> Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	<b>Gravity Ventilation Dampers.</b> Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	<b>Protection of Insulation.</b> Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation expose to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	Porous Inner Core Flex Duct. Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
8 150 0(m)13·	Space Conditioning System Airflow Rate and Fan Efficacy. Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be $\geq 350 \text{ CFM}$ per ton of nominal cooling capacity, and an air-handling unit fan efficacy $\leq 0.45$ watts per CFM for gas furnace air handlers and $\leq 0.58$ watts per CFM for gas furnace air handlers.

§ 150.0(m)13: per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per

CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.\*



### 2019 Low-Rise Residential Mandatory Measures Summary

Requirements for	or Ventilation and Indoor Air Quality:
§ 150.0(o)1:	Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	Single Family Detached Dwelling Units. Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	Multifamily Attached Dwelling Units. Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	Multifamily Building Central Ventilation Systems. Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 percent of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance
§ 150.0(o)1G:	Kitchen Range Hoods. Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	<b>Field Verification and Diagnostic Testing.</b> Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Sy	ystems and Equipment Measures:
§ 110.4(a):	Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	<b>Piping.</b> Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	<b>Directional Inlets and Time Switches for Pools.</b> Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, florate, piping, filters, and valves.*
Lighting Measu	
§ 110.9:	<b>Lighting Controls and Components.</b> All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 150.0(k)1A:	Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	<b>Blank Electrical Boxes.</b> The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	Electronic Ballasts for Fluorescent Lamps. Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	Night Lights, Step Lights, and Path Lights. Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	<b>Lighting Integral to Exhaust Fans.</b> Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*
§ 150.0(k)1G:	Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
§ 150.0(k)1H:	<b>Light Sources in Enclosed or Recessed Luminaires.</b> Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	<b>Light Sources in Drawers, Cabinets, and Linen Closets.</b> Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit note than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)2C:	Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	Interior Switches and Controls. Controls and equipment must be installed in accordance with manufacturer's instructions.
	Interior Switches and Controls. Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to
§ 150.0(k)2E:	comply with § 150.0(k).

REVISIONS BY Monday, June 3, 2024

> ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLEY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION MEGAN MINER DESIGN.

THE PLANS, IDEAS AND DESIGNS SHOWN

A Project for:

Wei-Ken Sato 16431 Matilija Dr Los Gatos, CA MMHomeDesigns@gmail.com

Monday, June 3, 2024 SCALE AS SHOWN

# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

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

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y N/A RESPON. CHAPTER 3

**GREEN BUILDING** 

**SECTION 301 GENERAL** 

specific area of the addition or alteration.

other important enactment dates.

high-rise buildings, no banner will be used.

**ABBREVIATION DEFINITIONS:** 

Additions and Alterations

High Rise

**SECTION 4.102 DEFINITIONS** 

used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

CHAPTER 4

4.102.1 DEFINITIONS

HCD

OSHPD

AA

**SECTION 302 MIXED OCCUPANCY BUILDINGS** 

Chapter 4 and Appendix A4, as applicable.

**DIVISION 4.1 PLANNING AND DESIGN** 

California Building Standards Commission

pervious material used to collect or channel drainage or runoff water.

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

by the enforcing agency

water include, but are not limited to, the following:

parking facilities.

accordance with the California Electrical Code

overcurrent protective device.

French drains

. Water collection and disposal systems

Division of the State Architect, Structural Safety

comply with Chapter 4 and Appendix A4, as applicable.

Department of Housing and Community Development

Office of Statewide Health Planning and Development

**RESIDENTIAL MANDATORY MEASURES** 

The following terms are defined in Chapter 2 (and are included here for reference)

**301.1 SCOPE.** Buildings shall be designed to include the green building measures specified as mandatory in

but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

the application checklists contained in this code. Voluntary green building measures are also included in the

application checklists and may be included in the design and construction of structures covered by this code,

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or

improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures.

Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate

of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1,

et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of

buildings, or both. Individual sections will be designated by banners to indicate where the section applies

individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential

specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building

1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall

Building Code, shall not be considered mixed occupancies. Live/Work units shall comply with

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials

such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also

**4.106.1 GENERAL.** Preservation and use of available natural resources shall be accomplished through evaluation

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less

Retention basins of sufficient size shall be utilized to retain storm water on the site.

are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water\_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will

4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply

equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

4.106.4, may adversely impact the construction cost of the project.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each

dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway

shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main

service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the

proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is

installed in close proximity to the proposed location of an EV charger at the time of original construction in

location shall be permanently and visibly marked as "EV CAPABLE".

**4.106.4.1.1 Identification.** The service panel or subpanel circuit directory shall identify the overcurrent

protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination

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

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

management of storm water drainage and erosion controls shall comply with this section.

3. Compliance with a lawfully enacted storm water management ordinance.

**Exception**: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections

and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes,

than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre

during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent

2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or

manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface

5. Other water measures which keep surface water away from buildings and aid in groundwater

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:

1.1 Where there is no local utility power supply or the local utility is unable to supply adequate

1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional

local utility infrastructure design requirements, directly related to the implementation of Section

2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional

disposal method, water shall be filtered by use of a barrier system, wattle or other method approved

or more, shall manage storm water drainage during construction. In order to manage storm water drainage

2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the California

shall comply with the specific green building measures applicable to each specific occupancy.

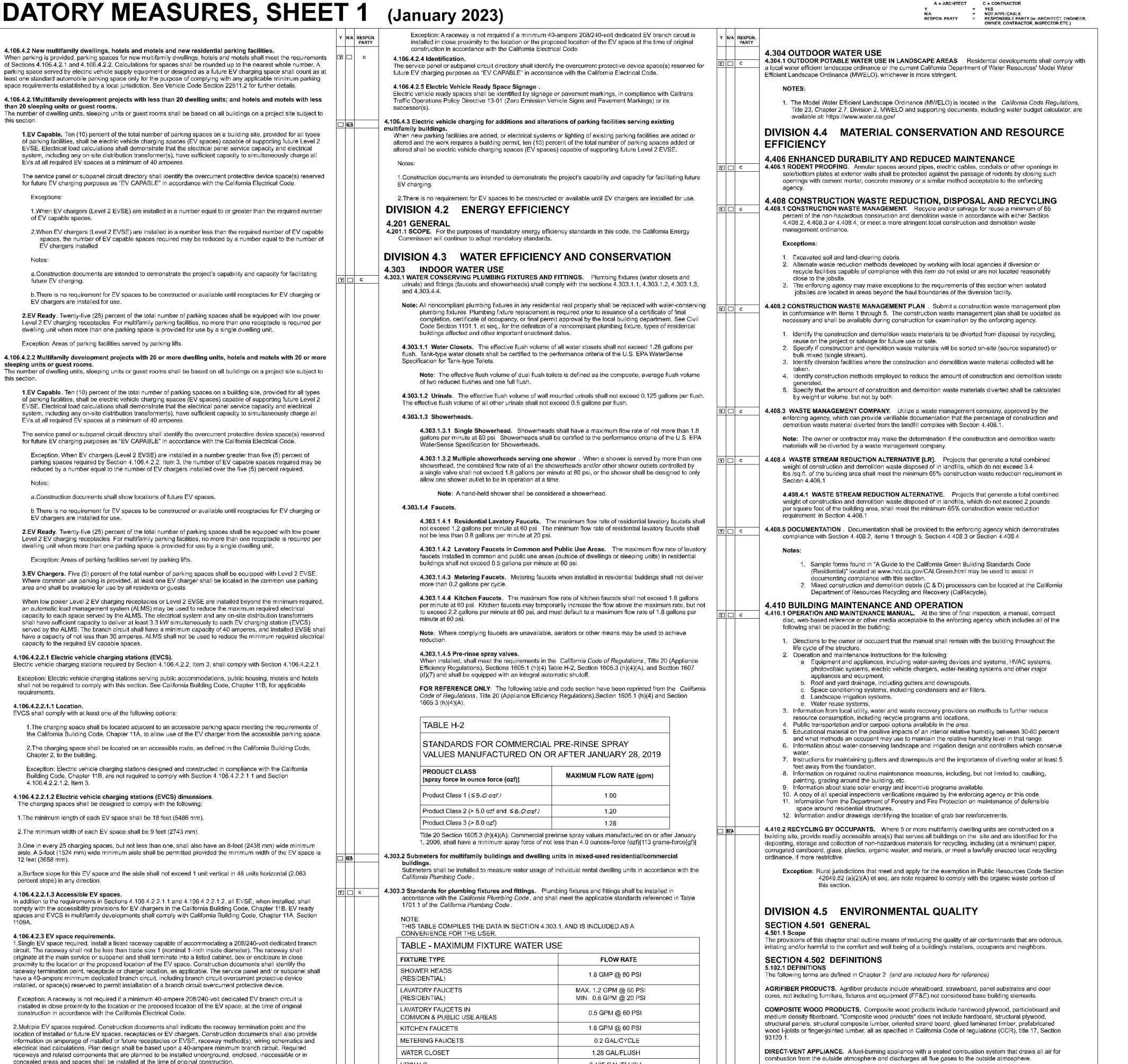
additions or alterations of existing residential buildings where the addition or alteration increases the

building's conditioned area, volume, or size. The requirements shall apply only to and/or within the

facilities or the addition of new parking facilities serving existing multifamily buildings. See Section

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing

lighting fixtures are not considered alterations for the purpose of this section.



0.125 GAL/FLUSH

REVISIONS BY Monday, June 3, 202

ON THESE DRAWINGS ARE THE PROPERT OF THE DESIGNER. DEVISED SOLEY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION MEGAN MINER DESIGN.



ct

roj

CHECKED

DATE Monday, June 3, 2024 SCALE AS SHOWN

JOB NO.

# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

SHEET 2 (January 2023)

PART	ON.				Y N/A	RESPON. PARTY		
	c	MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum chang	ge in weight of ozone formed by add	ing a		С	TABLE 4.504.2 - SEALANT VOC LIMIT	Γ
		compound to the "Base Reactive Organic Gas (ROG) Mixture" per weigh hundredths of a gram (g O ³/g ROC).					(Less Water and Less Exempt Compounds in Gram	s per Liter)
		Note: MIR values for individual compounds and hydrocarbon solvents a and 94701.	are specified in CCR, Title 17, Sectio	ns 94 <b>7</b> 00			SEALANTS	VOC LIMIT
			percentage of the weight of the ever	a dry wood			ARCHITECTURAL	250
		MOISTURE CONTENT. The weight of the water in wood expressed in		•			MARINE DECK	760
		<b>PRODUCT-WEIGHTED MIR (PWMIR).</b> The sum of all weighted-MIR f article. The PWMIR is the total product reactivity expressed to hundred					NONMEMBRANE ROOF	300
		product (excluding container and packaging).  Note: PWMIR is calculated according to equations found in CCR, Title	17. Section 94521 (a).				ROADWAY	250
		REACTIVE ORGANIC COMPOUND (ROC). Any compound that has t	, ,	vuto to			SINGLE-PLY ROOF MEMBRANE	450
		ozone formation in the troposphere.	ine potential, once emitted, to continu	rule to			OTHER	420
		VOC. A volatile organic compound (VOC) broadly defined as a chemic	al compound based on carbon chain	s or rings			SEALANT PRIMERS	
		with vapor pressures greater than 0.1 millimeters of mercury at room to hydrogen and may contain oxygen, nitrogen and other elements. See 0		ally contain			ARCHITECTURAL	250
		4.503 FIREPLACES	, , , , , , , , , , , , , , , , , , , ,				NON-POROUS POROUS	775
□ c	;	<b>4.503.1 GENERAL</b> . Any installed gas fireplace shall be a direct-vent s woodstove or pellet stove shall comply with U.S. EPA New Source Perl	sealed-combustion type. Any installed	d va limaita aa			MODIFIED BITUMINOUS	500
		applicable, and shall have a permanent label indicating they are certified	ed to meet the emission limits. Wood					760
		pellet stoves and fireplaces shall also comply with applicable local ordin	nances.				MARINE DECK	750
		4.504 POLLUTANT CONTROL 4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MEC	HANICAL FOLIDMENT DURING				OTHER	130
		CONSTRUCTION. At the time of rough installation, during stora startup of the heating, cooling and ventilating equipment, all duc openings shall be covered with tape, plastic, sheet metal or othe to reduce the amount of water, dust or debris which may enter the syst	age on the construction site and until t and other related air distribution col or methods acceptable to the enforcir	mponent				
_ c	:	4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materia	als shall comply with this section.					
□ c	;	4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, seala					TABLE 4.504.3 - VOC CONTENT LIN	/IIIS FUK
		requirements of the following standards unless more stringent lo management district rules apply:	cal or regional air pollution or air qua	ality			GRAMS OF VOC PER LITER OF COATING, LES	S WATER & LESS EY
		Adhesives, adhesive bonding primers, adhesive prime	ers, sealants, sealant primers and cal	ulks			COMPOUNDS	
		shall comply with local or regional air pollution control applicable or SCAQMD Rule 1168 VOC limits, as sho	or air quality management district ru	les where			COATING CATEGORY	VOC LIMIT
		Such products also shall comply with the Rule 1168 p	rohibition on the use of certain toxic	יאייסטופי			FLAT COATINGS	50
		compounds (chloroform, ethylene dichloride, methyler tricloroethylene), except for aerosol products, as spec					NON-FLAT COATINGS	100
		2. Aerosol adhesives, and smaller unit sizes of adhesive	s. and sealant or caulking compound	ds (in			NONFLAT-HIGH GLOSS COATINGS	150
		units of product, less packaging, which do not weigh r than 16 fluid ounces) shall comply with statewide VOC	nore than 1 pound and do not consis	st of more			SPECIALTY COATINGS	
		prohibitions on use of certain toxic compounds, of Ca					ALUMINUM ROOF COATINGS	400
		commencing with section 94507.					BASEMENT SPECIALTY COATINGS	400
c	-	4.504.2.2 Paints and Coatings. Architectural paints and coating the ARB Architectural Suggested Control Measure, as shown in					BITUMINOUS ROOF COATINGS	50
		apply. The VOC content limit for coatings that do not meet the d listed in Table 4.504.3 shall be determined by classifying the coatings.	lefinitions for the specialty coatings of	ategories			BITUMINOUS ROOF PRIMERS	350
		coating, based on its gloss, as defined in subsections 4.21, 4.36	, and 4.37 of the 2007 California Air	Resources			BOND BREAKERS	350
		Board, Suggested Control Measure, and the corresponding Flat, Table 4.504.3 shall apply.	, Nonflat or Nonflat-High Gloss VOC	limit in			CONCRETE CURING COMPOUNDS	350
) c		4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and c	oatings shall meet the Product-weigh	nted MIR			CONCRETE/MASONRY SEALERS	100
		Limits for ROC in Section 94522(a)(2) and other requirements, in compounds and ozone depleting substances, in Sections 94522	ncluding prohibitions on use of certai	n toxic			DRIVEWAY SEALERS	50
		Regulations, Title 17, commencing with Section 94520; and in a Quality Management District additionally comply with the percen	reas under the jurisdiction of the Bay	Area Air			DRY FOG COATINGS	150
		8, Rule 49.	it voc by weight of product limits of	Regulation			FAUX FINISHING COATINGS	350
С	;	4.504.2.4 Verification. Verification of compliance with this sect		of the			FIRE RESISTIVE COATINGS	350
		enforcing agency. Documentation may include, but is not limited	d to, the following:				FLOOR COATINGS	100
		Manufacturer's product specification.					FORM-RELEASE COMPOUNDS	250
		2. Field verification of on-site product containers.					GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
							HIGH TEMPERATURE COATINGS	420
		TABLE 4.504.1 - ADHESIVE VOC LIMIT	Γ 1,2				INDUSTRIAL MAINTENANCE COATINGS	250
		(Less Water and Less Exempt Compounds in Grams	per Liter)				LOW SOLIDS COATINGS 1	120
		ARCHITECTURAL APPLICATIONS	VOC LIMIT				MAGNESITE CEMENT COATINGS	450
		INDOOR CARPET ADHESIVES	50				MASTIC TEXTURE COATINGS	100
		CARPET PAD ADHESIVES	50				METALLIC PIGMENTED COATINGS	500
		OUTDOOR CARPET ADHESIVES	150				MULTICOLOR COATINGS	250
		WOOD FLOORING ADHESIVES	100				PRETREATMENT WASH PRIMERS	420
		RUBBER FLOOR ADHESIVES	60				PRIMERS, SEALERS, & UNDERCOATERS	100
		SUBFLOOR ADHESIVES	50				REACTIVE PENETRATING SEALERS	350
		CERAMIC TILE ADHESIVES	65				RECYCLED COATINGS	250
		VCT & ASPHALT TILE ADHESIVES	50				ROOF COATINGS	50
		DRYWALL & PANEL ADHESIVES	50				RUST PREVENTATIVE COATINGS	250
		COVE BASE ADHESIVES	50				SHELLACS	
		MULTIPURPOSE CONSTRUCTION ADHESIVE	70				CLEAR	730
		STRUCTURAL GLAZING ADHESIVES	100				OPAQUE	550
		SINGLE-PLY ROOF MEMBRANE ADHESIVES	250				SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
		OTHER ADHESIVES NOT LISTED	50				STAINS	250
		SPECIALTY APPLICATIONS					STONE CONSOLIDANTS	450
		PVC WELDING	510				SWIMMING POOL COATINGS	340
		CPVC WELDING	490				TRAFFIC MARKING COATINGS	100
		ABS WELDING	325				TUB & TILE REFINISH COATINGS	420
		PLASTIC CEMENT WELDING	250				WATERPROOFING MEMBRANES	250
		ADHESIVE PRIMER FOR PLASTIC	550				WOOD COATINGS	275
		CONTACT ADHESIVE	80				WOOD PRESERVATIVES	350
		SPECIAL PURPOSE CONTACT ADHESIVE	250				ZINC-RICH PRIMERS	340
		STRUCTURAL WOOD MEMBER ADHESIVE	140				1. GRAMS OF VOC PER LITER OF COATING, II	
		TOP & TRIM ADHESIVE	250				EXEMPT COMPOUNDS	
		SUBSTRATE SPECIFIC APPLICATIONS					2. THE SPECIFIED LIMITS REMAIN IN EFFECT ARE LISTED IN SUBSEQUENT COLUMNS IN T	
1	THE CALIFORNIA AIR RESOURCES BOARD, A	RCHITECTURAL COA						
	- 1				1 1	. 1	j suggested control Measure, Feb. 1, 20	SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION AVAILABLE FROM THE AIR RESOURCES BOARD.
			50				AVAILABLE FROM THE AIR RESOURCES BOAF	
		POROUS MATERIAL (EXCEPT WOOD) WOOD	50 30				AVAILABLE FROM THE AIR RESOURCES BOAF	

. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER,

THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE

THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR

QUALITY MANAGEMENT DISTRICT RULE 1168.

Water and Less Exempt Compounds in G	Grams per Liter)
LANTS	VOC LIMIT
HITECTURAL	250
NE DECK	760
MEMBRANE ROOF	300
DWAY	250
LE-PLY ROOF MEMBRANE	450
ER .	420
ANT PRIMERS	
HITECTURAL	
ON-POROUS	250
OROUS	775
IFIED BITUMINOUS	500
NE DECK	760
≣R	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, INC EXEMPT COMPOUNDS     THE SPECIFIED LIMITS REMAIN IN EFFECT U	

<b>y</b>	С

**DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)** 4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350) See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx. 4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the

(Emission testing method for California Specification 01350) See California Department of Public Health's website for certification programs and testing labs.

Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017

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

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

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

California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic

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

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

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

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

1. Product certifications and specifications.

2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see

CCR. Title 17, Section 93120, et seq.). 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.

5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

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

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

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

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

2. Other equivalent methods approved by the enforcing agency. 3. A slab design specified by a licensed design professional.

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

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code

2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end 3. At least three random moisture readings shall be performed on wall and floor framing with documentation

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

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

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a

a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of

b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or

tub/shower combination. 2. Lighting integral to bathroom exhaust fans shall comply with the California Energy Code.

4.507 ENVIRONMENTAL COMFORT 4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be

sized, designed and have their equipment selected using the following methods:

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

ASHRAE handbooks or other equivalent design software or methods. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential

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

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

INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper

installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or

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

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

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

2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building

1. Special inspectors shall be independent entities with no financial interest in the materials or the

2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate

**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:

project they are inspecting for compliance with this code.

shall be closely related to the primary job function, as determined by the local agency.

1. Certification by a national or regional green building program or standard publisher.

3. Successful completion of a third party apprentice training program in the appropriate trade.

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

Note: Special inspectors shall be independent entities with no financial interest in the materials or the

**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

documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in

methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific

**CHAPTER 7** 

**702 QUALIFICATIONS** 

1. State certified apprenticeship programs. 2. Public utility training programs.

4. Programs sponsored by manufacturing organizations. 5. Other programs acceptable to the enforcing agency.

performance contractors, and home energy auditors.

4. Other programs acceptable to the enforcing agency.

project they are inspecting for compliance with this code.

the appropriate section or identified applicable checklist.

**703 VERIFICATIONS** 

NOT APPLICABLE RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER,

> ON THESE DRAWINGS ARE THE PROPERTY THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN

REVISIONS BY

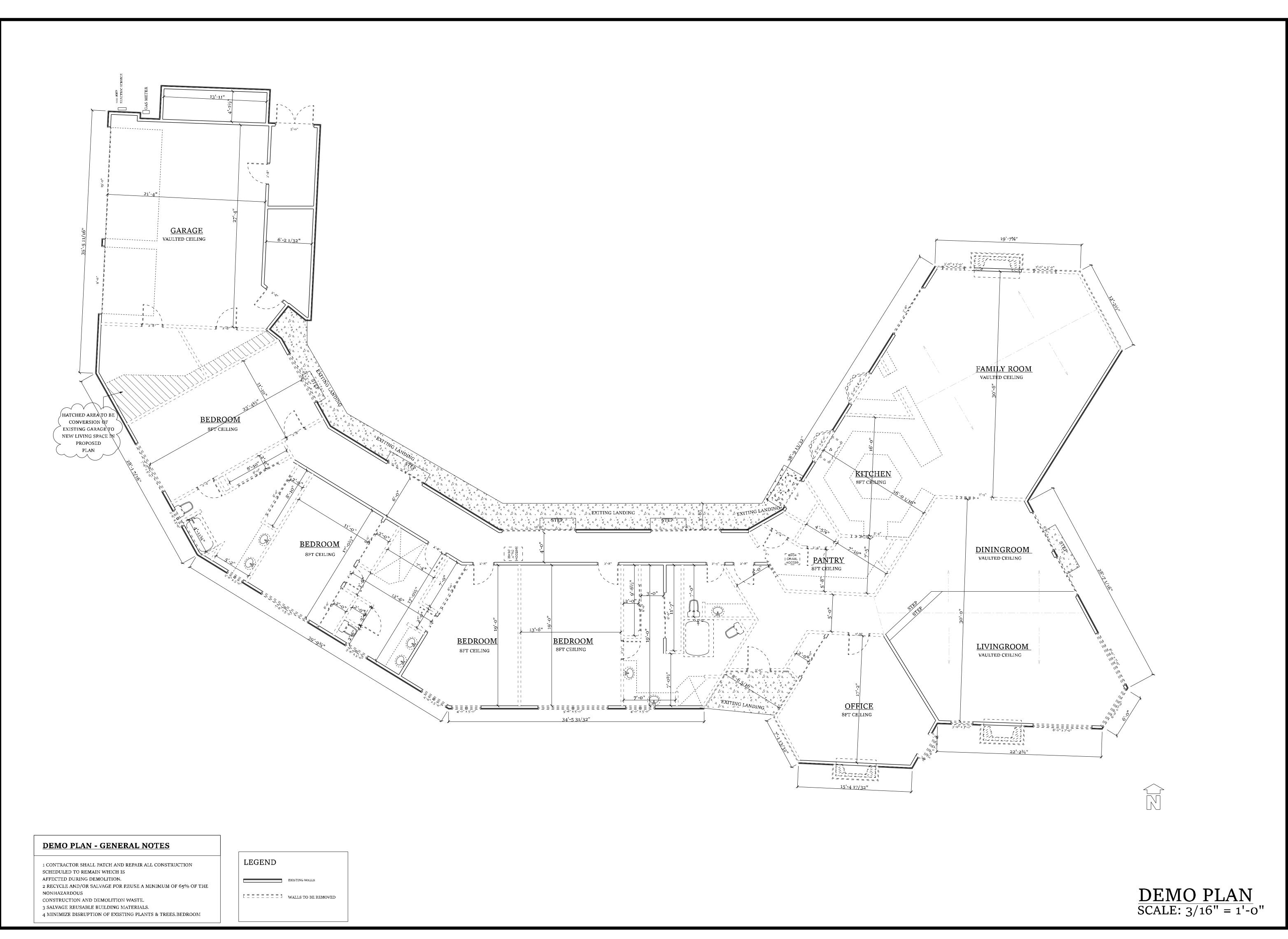
Monday, June 3, 202

PERMISSION MEGAN MINER DESIGN.

for: ct

CHECKED DATE SCALE JOB NO.

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



REVISIONS BY Monday, June 3, 2024

THE PLANS, IDFAS AND DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLEY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION MEGAN MINER DESIGN.

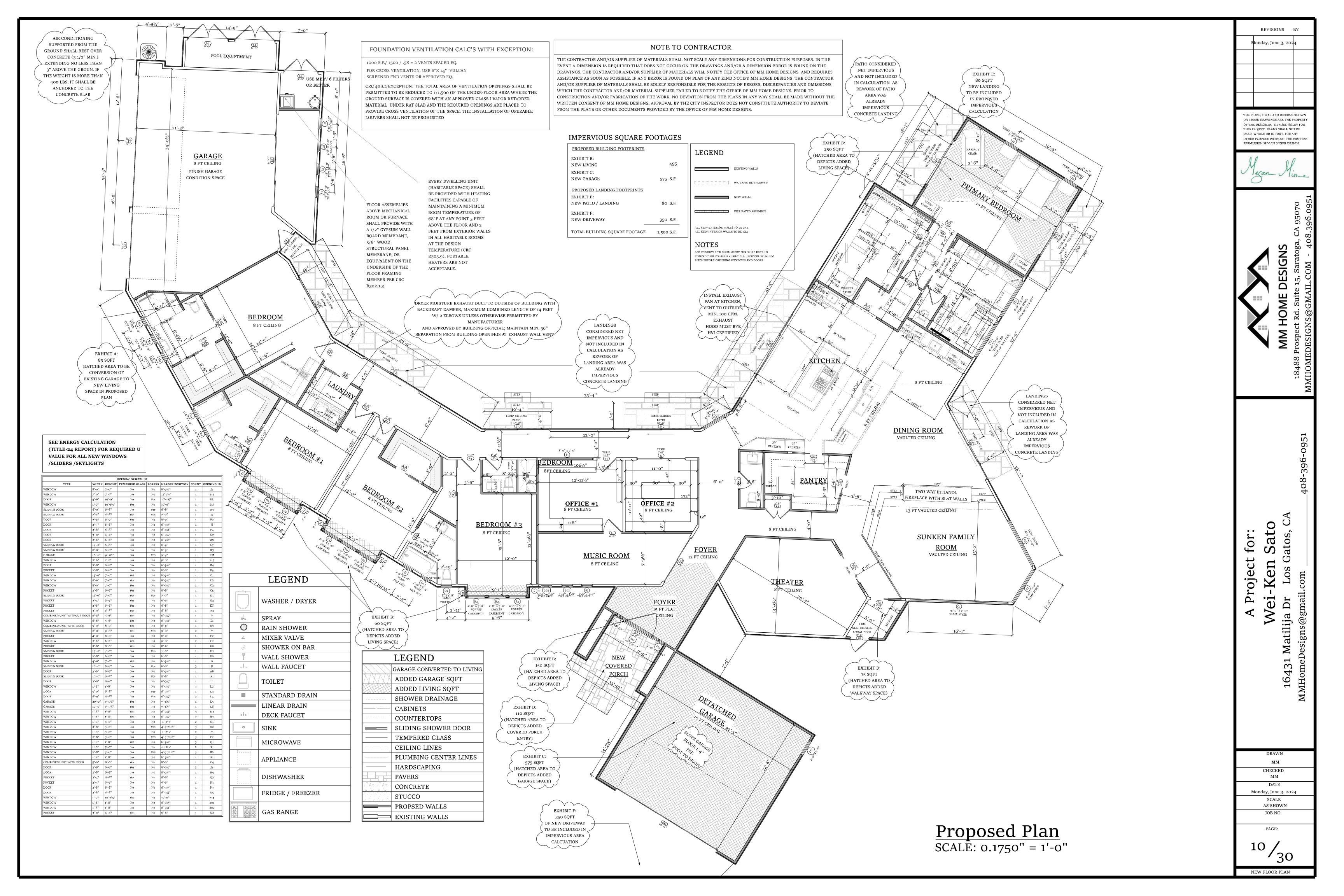
Sato A Project for: Wei

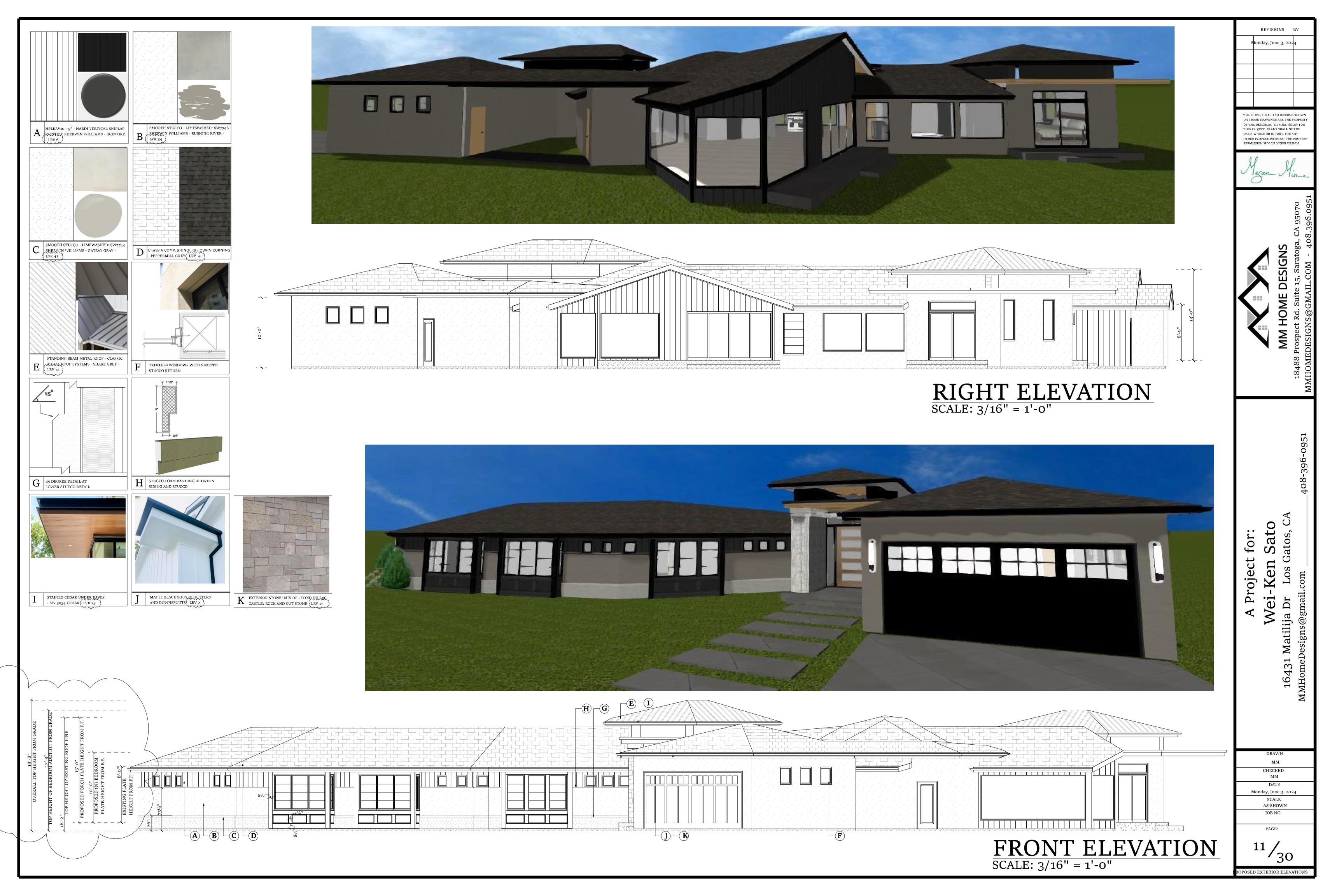
16431 Matilija Dr MMHomeDesigns@gmai

 $\mathbf{M}\mathbf{M}$ CHECKED Monday, June 3, 2024 AS SHOWN JOB NO.

PAGE:

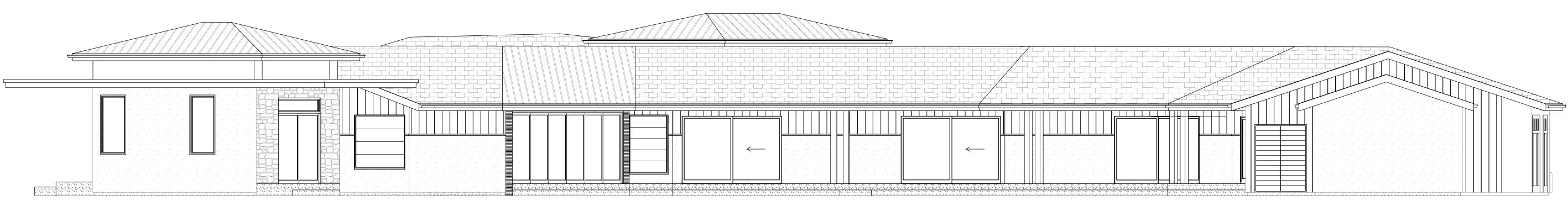
DEMO FLOOR PLAN





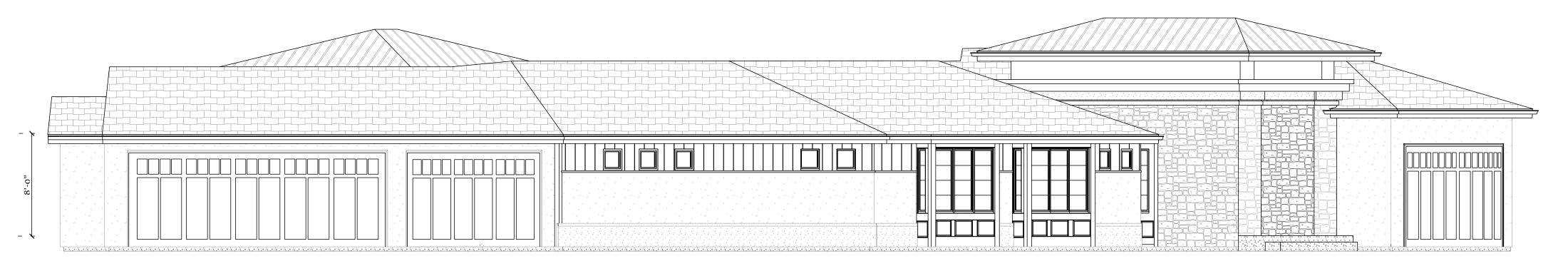






REAR ELEVATION
SCALE: 3/16" = 1'-0"





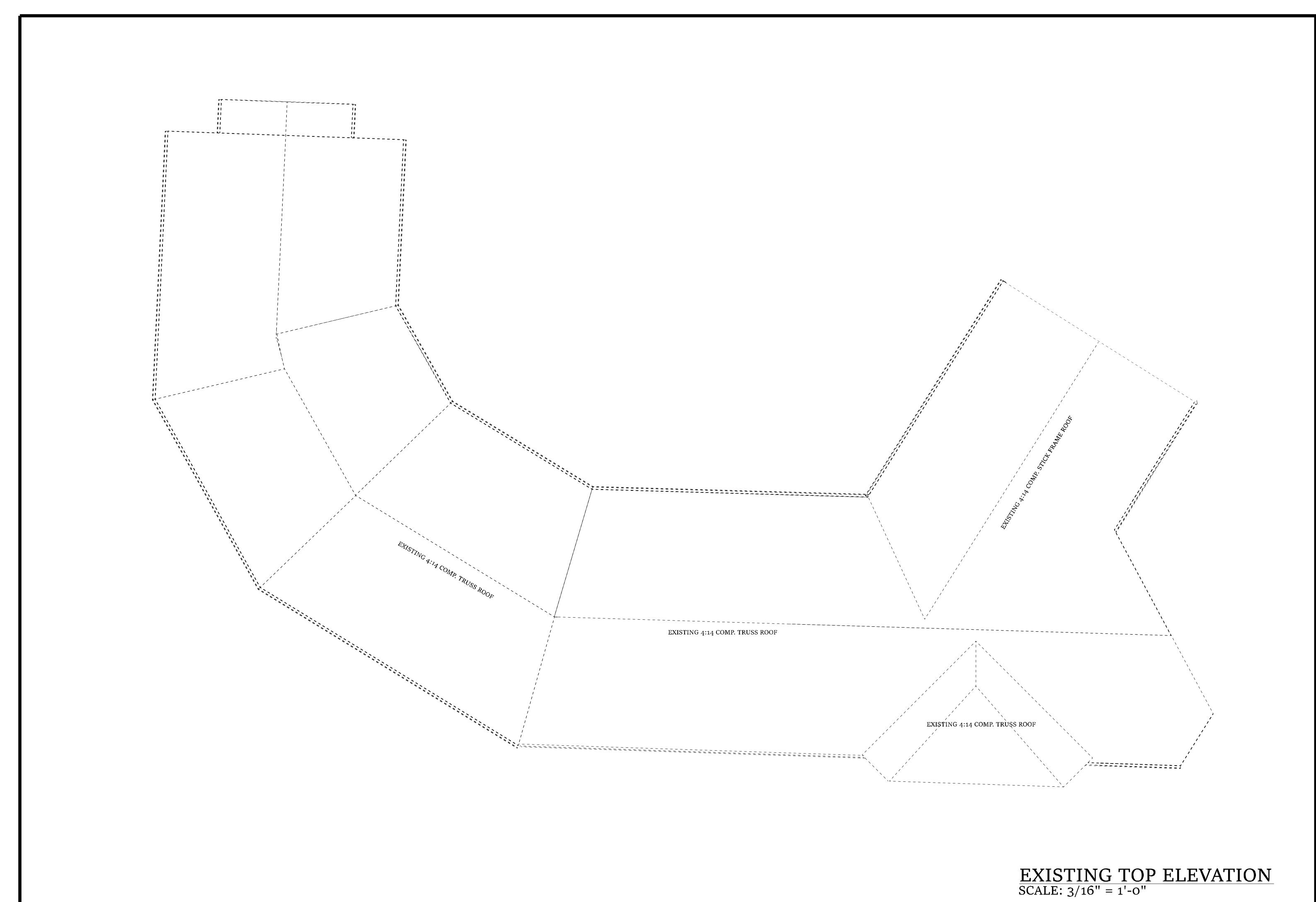
LEFT ELEVATION
SCALE: 3/16" = 1'-0"

THE PLANS, IDEAS AND DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN

Ken Sato Los Gatos, CA A Project for:

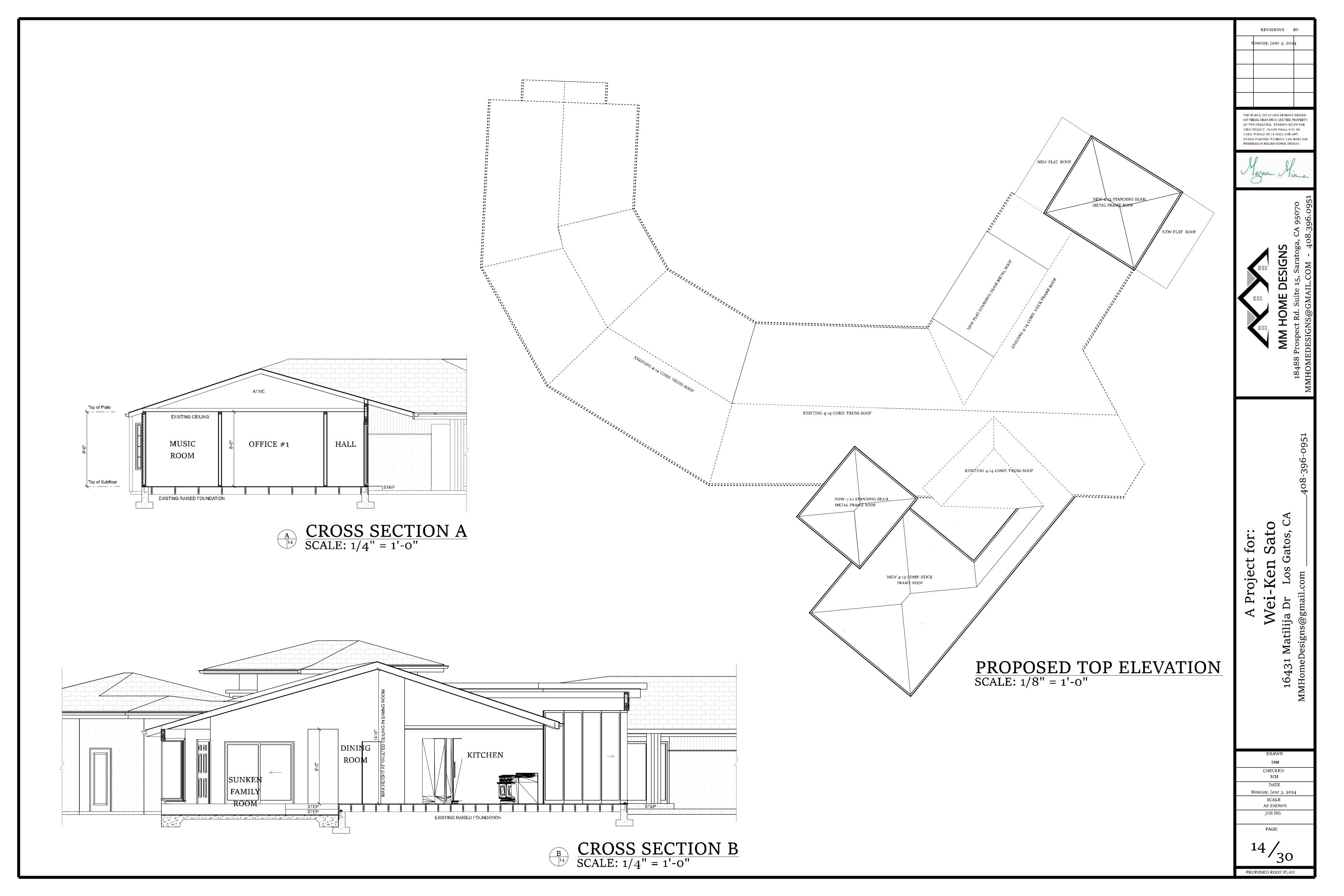
Wei-Ken S 16431 Matilija Dr Los Ga MMHomeDesigns@gmail.com

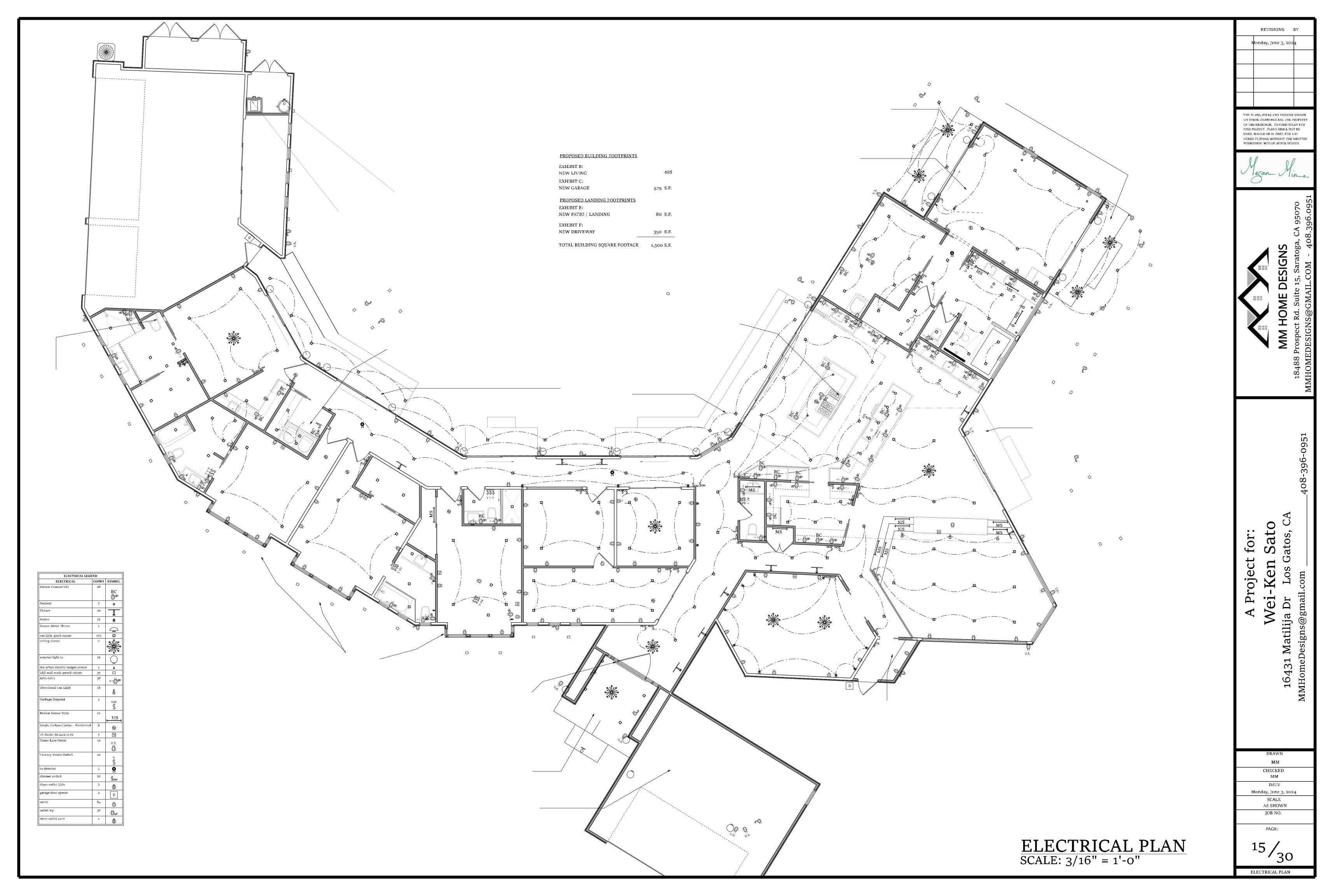
CHECKED

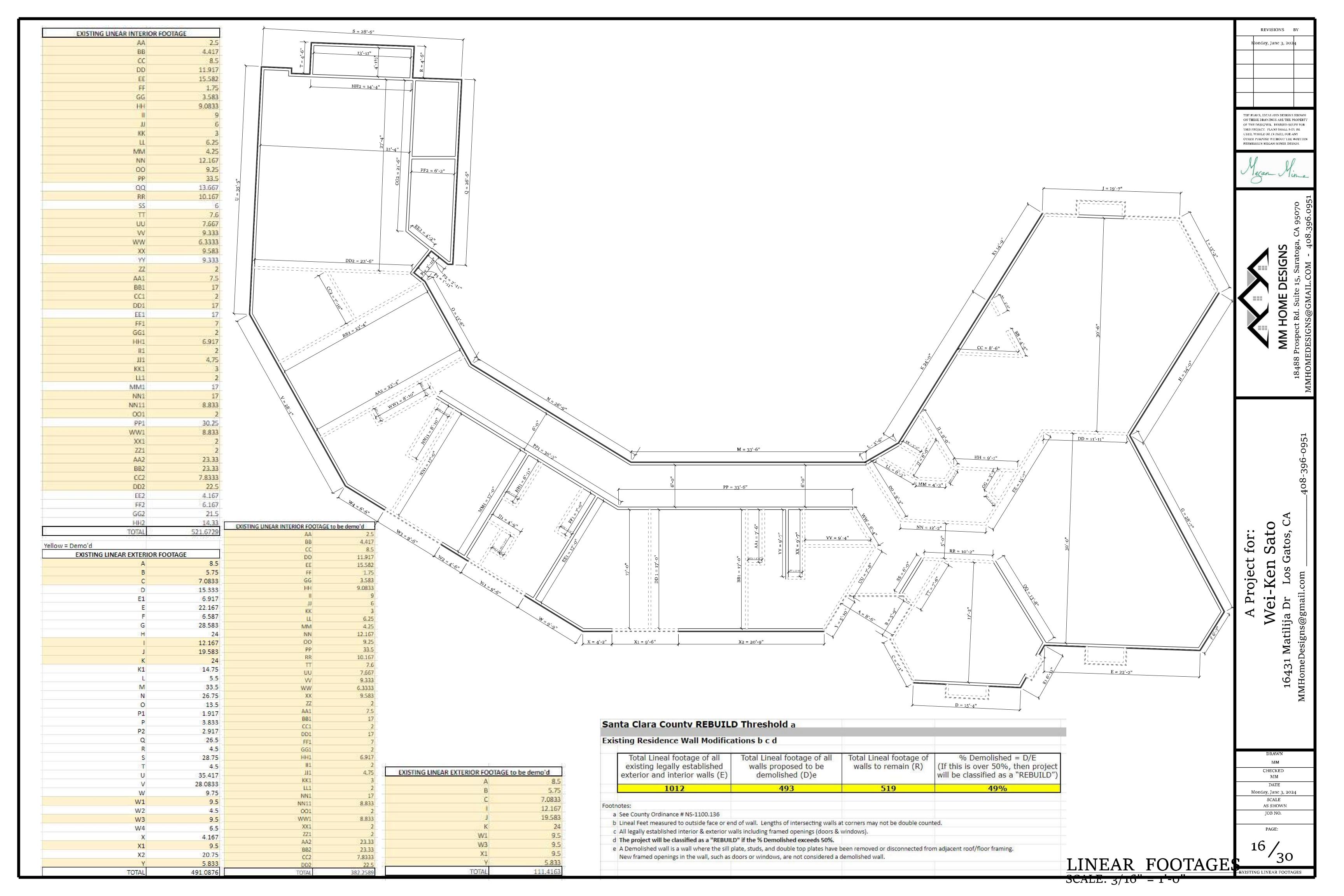


Monday, June 3, 2024

OF THE DESIGNER, DEVISED SOLFY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION MEGAN MINER DESIGN.







### GENERAL ELECTRICAL NOTES

1. ALL OUTLETS WITHIN 6'-o" OF ANY SINK OR WET LOCATION TO BE GFI PROTECTED

2. AT LEAST ONE RECEPTACLE MUST BE INSTALLED AT THE FRONT AND BACK OF THE DWELLING UNIT, AND BE LISTED AS WEATHER TYPE RECEPTACLE.

3. AT LEAST ONE GENERAL PURPOSE RECEPTACLE MUST BE INSTALLED WITHIN EACH BASEMENT, ATTACHED GARAGE, DETACHED GARAGE WITH ELECTRICAL POWER AND HALLWAYS 10' OR MORE IN LENGTH. ALL GARAGE OUTLETS TO BE GFI

4. OWNER TO SELECT AND COORDINATE WITH CONTRACTOR ALL ELECTRICAL FIXTURES, EQUIPMENT AND DEVICES, INCLUDING SWITCHES AND OUTLETS NOT OTHERWISE SPECIFIED.

5. FIELD VERIFY LOCATION OF ALL OUTLETS, LIGHTS, TELEPHONE, CABLE JACKS AND ELECTRICAL EQUIPMENT WITH OWNER.

6. GENERAL LIGHTING MUST BE HIGH EFFICACY AND ON A DIMMER OR MANUAL ON-OCCUPANCY SENSOR. LUMINAIRES WITH INTEGRAL SOURCES AND CHANGEABLE LAMPS MUST BE CEC CERTIFIED AS MEETING THE REQUIREMENTS OF JAS. LIGHTING AT NEW CLOSETS UNDER 70 SF IS EXEMPT FROM THIS REQUIREMENT.

7. NEW OUTDOOR LIGHTING ATTACHED TO BUILDINGS SHALL BE HIGH EFFICACY OR CONTROLLED BY BOTH A MOTION SENSOR AND PHOTO CONTROL. LIGHTING NOT ATTACHED TO THE BUILDING (I.E. LANDSCAPE LIGHTING IS EXEMPT FROM THIS REQUIREMENT

8. NEW EXTERIOR ELECTRICAL FIXTURES TO BE SUITABLE FOR WET LOCATIONS

9. ALL CAN LIGHTS TO BE IC & AT RATED.

10. ALL NEW EXTERIOR OUTLETS TO BE GFI PROTECTED AND INSTALLED IN A WEATHER PROOF BOX

11. REOUIRED NEW EXTERIOR OUTLETS TO BE WITHIN 6'-6" OF FINISH GRADE

AREAS SHALL BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTER. CEC 210.12

12. ALL REQ. 15/20 AMP RECEPTACLES LISTED IN SECTION 210.52, SHALL BE LISTED TAMPER RESISTANT RECEPTACLES PER CEC 406.11

13. NEW OUTLETS AT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, BEDROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR

14. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE IN ANY WALL SPACE IS OVER 6'
FROM THE RECEPTACLE. THIS ALLOWS FOR A MAX OF 12' BETWEEN RECEPTACLES ON THE SAME WALL AND ON ANY WALL SPACE 2' OR MORE.

15. GARAGE, LAUNDRY, AND UTILITY ROOM LIGHTS ARE TO BE HIGH EFFICACY LUMINARIES AND CONTROLLED BY A VACANCY SENSOR (MANUAL - ON OCCUPANCY SENSOR AND MOTION SENSOR THAT COMPLIES WITH CEC SECTION 110.9(B) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINARIES TO BE ALWAYS ON).

16. SMOKE DETECTORS TO BE AC/DC WITH A BATTERY BACK UP AND LOCATED WITHIN EACH SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED OUTSIDE EACH SLEEPING ROOM, ON EACH FLOOR OF THE DWELLING INCLUDING BASEMENTS

17. ALL FLOOR LEVELS SHALL HAVE A SMOKE DETECTOR AND SHALL BE INTERCONNECTED, UL LISTED & CALIF. STATE FIRE MARSHALL APPROVED.

18. CARBON MONOXIDE DETECTORS SHALL BE LOCATED AT A POINT CENTRALLY LOCATED OUTSIDE EACH SLEEPING ROOM AND ON EACH LEVEL OF THE DWELLING, INCLUDING BASEMENTS

19. AN APPROVED, INDEPENDENT MEANS OF DISCONNECT FOR THE ELECTRICAL SUPPLY TO EACH PIECE OF EQUIPMENT SHALL BE PROVIDED WITHIN SIGHT OF THE EQUIPMENT SERVED WHEN THE SUPPLY VOLTAGE EXCEEDS 300 VOLTS. FOR CORD-AND-PLUG-CONNECTED APPLIANCES, AN ACCESSIBLE SEPARABLE CONNECTOR OR AN ACCESSIBLE PLUG AND RECEPTACLE COMBINATION SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS. THE ATTACHMENT FITTING SHALL BE A FACTORY INSTALLED PART OF THE APPLIANCE AND SUITABLE FOR DISCONNECTION OF THE APPLIANCE. WHERE THE SEPARABLE CONNECTOR OR PLUG AND RECEPTACLE COMBINATION ARE NOT ACCESSIBLE, CORD-AND-PLUG-CONNECTED OR ATTACHMENT FITTING-AND-PLUG-CONNECTED APPLIANCES SHALL BE PROVIDED WITH DISCONNECTING MEANS IN ACCORDANCE WITH 422.31.(CMC 308, CEC 422.31(B), CEC 422.33(A))

20. A DEDICATED CIRCUIT SHALL BE PROVIDED FOR THE FURNACE. (CEC 422.12)

21. A 120 VOLT SERVICE RECEPTACLE SHALL BE LOCATED WITHIN 25 FEET OF, AND ON THE SAME LEVEL AS, THE EQUIPMENT FOR MAINTENANCE, THE SERVICE RECEPTACLE SHALL NOT BE CONNECTED ON THE LOAD SIDE OF THE REQUIRED MEANS OF DISCONNECT.

22. A PERMANENT SWITCH CONTROLLED LIGHTING FIXTURE SHALL BE INSTALLED FOR MAINTENANCE OF EQUIPMENT AND SHALL BE ACCESSIBLE. SUCH FIXTURE SHALL PROVIDE SUFFICIENT ILLUMINATION TO SAFELY APPROACH THE EQUIPMENT AND PERFORM THE TASKS FOR WHICH THE ACCESS IS PROVIDED. CONTROL OF THE LIGHTING SHALL BE PROVIDE AT THE ACCESS ENTRANCE.

23. LIGHTING NOT AUTOMATICALLY CLASSIFIED AS HIGH EFFICACY BY THE CA ENERGY COMMISSION IS TO HAVE A LIGHT SOURCE OR LAMP INSTALLED IN THEM AT THE TIME OF INSPECTION THAT MEETS THE REQUIREMENTS OF JOINT APPENDIX JAS.

24. NEW LIGHTING FIXTURES IN CLOSETS TO HAVE THE FOLLOWING CLEARANCE TO COMBUSTIBLE SHELVES:

A. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE 12" CLEAR AND ENCLOSED LAMIB. FLUORESCENT & RECESSED FIXTURES TO HAVE MIN. 6" CLEARANCE

25. THE CARBON MONOXIDE ALARMS TO BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS IN THE INDIVIDUAL UNIT. (CRC R315.5)

26. ALL LIGHTING MUST BE HIGH EFFICACY. ALL LIGHT FIXTURES SHALL BE TITLE 20 COMPLIANT. ALL LIGHTS THROUGHOUT THE RESIDENCE, INCLUDING EXTERIORS SHALL BE HIGH EFFICACY (CENC 150.0(K)1A).

27. ALL LIGHTS SHALL BE LED LITHTING FIXTURES AND CONTROLLED WITH DIMMER SWITCHING. EXCEPTIONS ARE PROVIDED FOR CLOSETS SMALLER THAN 70 SQFT IN FLOOR AREA AND LIGHT FIXTURES FOR HALLWAYS. (CA ENERTY 150.0(K)2). BATHROOMS SHALL HAVE DIMMER AND VACANCY SENSORS.

28. RECESSED DOWNLIGTING IS TO CONTAIN LIGHT SOURCES THAT ARE JA8-CERTIFIED, SHALL NOT CONTAIN SCREW BASED LAMPS AND SHALL NOT CONTAIN LIGHT SOURCES THAT ARE LABELED "NOT FOR USE IN ENCLOSED FIXTURES" OR "NOT FOR USE IN RECESSED FIXTURES". THEY SHALL BE LISTED FOR ZERO CLEARANCE, HAVE A LABEL THAT CERTIFIES THE LUMINAIRE AS AIRTIGHT WHEN TESTED IN ACCORDANCE WITH ASTM E283 (WITH EXCEPTION OF EXHAUST FAN HOUSINGS) AND BE READILY ACCESSIBLE FOR BALLAST OR DRIVER MAINTENANCE AND REPLACEMENT.

29. INSTALL AIRSCAPE 4.4E WHF WHOLE HOUSE FAN @ (57 CFM MIN.) AS PER MANUF SPECS OR APPROVED EQ.

30. PLAN DRAWINGS ARE FOR LAYOUT PURPOSES ONLY. EXACT FIXTURE AND RECEPTACLE LOCATIONS ARE TO BE DETERMINED ON SITE BY ELECTRICIAN AND VERIFIED BY OWNER.

31. CARBON MONOXIDE ALARMS: INSTALL PER CRC R315 AND INTERCONNECT WITH SMOKE DETECTORS. CARBON MONOXIDE ALARMS SHALL BE "LISTED" AS COMPLYING WITH US 2034 AND UL 2075. CRC R 315.3.

32. A COMPLETED CF2R-LTG-01-E FORM MUST BE PROVIDED TO THE CITY BUILDING INSPECTOR PRIOR TO FINAL INSPECTION.

33. THE NUMBER OF BLANK ELECTRICAL BOXES MORE THAN FIVE FEET ABOVE THE FINISH FLOOR SHALL BE LIMITED TO NO MORE THAN THE NUMBER OF BEDROOMS. THESE BOXES SHALL BE CONTROLLED BY A DIMMER, VACANCY SENSOR, OR FAN SPEED CONTROL. (CEC 150.K.B).

34. RECESSED LIGHTING FIXTURES SHALL MEET ALL OF THE FOLLOWING:

A)LISTED FOR ZERO CLEARANCE INSULATION CONTACT
B)BE RATED AS AIR-TIGHT

B)BE RATED AS AIR-TIGHT C)BE SEALED WITH A GASKET OR CAULK

D)BE READILY ACCESSIBLE FROM BELOW AT LUMINAIRES WITH HARDWIRED BALLASTS OR DRIVERS
E)NOT CONTAIN SCREW BASE SOCKETS

F)CONTAIN LIGIT SOURCES COMPLYING WITH REFERENCES JOINT APPENDIX JAS AND MARKED "JAS-2019" OR JAS-2019-E"

35. SCREW BASED PERMANENTLY INSTALLED LIGHT FIXTURES MUST CONTAIN SCREW-BASED JA8 (JOINT APPENDIX 8) COMPLIANT LAMPS. JA8

COMPLIANT LIGHT SOURCES MUS BE MARKED AS "JA8-2019" OR" JA8-2019-E". (CEC 150.K.1.G)

36. EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEMS. (CEC 150.K.2.B).

37. JA8 COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS SHALL BE CONTROLLED BY VACANCY SENSORS OR DIMMERS (CEC 150.K.2.K)

A. CEILING RECESSED DOWNLIGHT LUMINAIRES
B. LED LUMINAIRES WITH INTEGRAL SOURCES

B, LED LUMINAIRES WITH INTEGRAL SOURCES
C. PIN-BASED LED LAMPS (I.E. MR16, AR-111, ETC.)

D. GU-24 BASED LIGHT SOURCES E. PULSE-START MH

38. UNDERCABINET LIGHTING SHALL BE SWITCHED SEPARATELY FROM OTHER LIGHTING SYSTEMS. (CEC 150.K.2.L)

39. ALL ELECTRICAL SHALL COMPLY WITH CA TITLE-24 ENERGY ODE AND OTHER REFERENCE CODES LISTED ON THE COVER SHEET. REFER TO PROJECT ENERGY COMPLIANCE REPORT AND CALGREEN MANDATORY MEASURES FOR INFORMATION, CONTRACTOR SHALL VERIFY COMPLIANCE OF FIXTURES AND EQUIPMENT PRIOR TO ORDERING.

40. CONTRACTOR SHALL CONDUCT AN ELECTRICAL PRE-WIRE WALK-THROUGH WITH OWNER AND ELECTRICAL CONTRACTOR TO VERIFY LOCATION OF FIXTURES, LIGHTS, RECEPTACLES, SWITCHES, AND LIGHTED MIRRORS.

41. PROVIDE SETBACK THERMOSTATS THAT ALLOW MINIMUM FOUR SETTINGS WITHIN A 24 HOUR PERIOD PER CEEC 150(1). 112(C), MANDATORY FEATURES FOR ENERGY COMPLIANCE.

42. CONTRACTOR TO VERIFY LOCATION OF DOOR BELL CHIME

43. WALL SWITCHES TO BE LOCATED 42" ABOVE FINISH FLOOR, TYP., U.N.O.

### GENERAL ELECTRICAL NOTES CONTINUED

44. ARC-FAULT PROTECTION IS REQUIRED FOR ALL CIRCUITS SERVING DWELLING UNIT KITCHENS, FAMILY ROOMS, KITCHENS, DINING ROOMS, LIVING ROOMS, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS. (CCEC 210.12)

45. PROVIDE A DEDICATED 20 AMP CIRCUIT FOR THE FURNACE AND PROVIDE A RECEPTACLE WITHIN 25'.

46. ALL NEW BEDROOM OUTLETS (RECEPTACLES, SWITCHES, LIGHTING, ETC.) SHALL BE ON CIRCUITS PROTECTED WTH A COMBINATION ARC-FAULT CIRCUIT INTERRUPTER.

### KITCHEN ELECTRICAL NOTES

1. PROVIDE DEDICATED CIRCUITS FOR: DISHWASHER, GARBAGE DISPOSAL, TRASH COMPACTOR AND BUILT IN MICROWAVE

2. PROVIDE COUNTER TOP OUTLETS AT 48" OC MAX

3. KITCHEN LIGHTING MUST BE HIGH EFFICACY AND BE ON A DIMMER SWITCH

4. TWO OR MORE 20-AMP SMALL APPLIANCE BRANCH CIRCUITS ARE REQUIRED FOR THE KITCHEN AND ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE RECEPTACLE OUTLETS FOR THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREAS. NOTE: THESE CIRCUITS CANNOT SERVE OUTSIDE PLUGS, RANGE HOOD, DISPOSALS, DISHWASHER, OR MICROWAVES ONLY THE REQUIRED COUNTERTOP/WALL OUTLETS INCLUDING THE REFRIGERATOR.

### 5. WALL COUNTER SPACES:

A. A RECEPTACLE SHALL BE INSTALLED FOR ANY COUNTER THAT IS 12" WIDE OR GREATER
B. NO POINT ON THE KITCHEN COUNTER, MEASURED AT THE WALL MAY BE MORE THAT 24" AWAY FROM A RECEPTACLE

6. RECEPTACLE REQUIREMENTS FOR ISLAND AND PENINSULAR COUNTER SPACES:

B. AN ISLAND COUNTER WITH A RANGETOP OR SINK INSTALLED WHERE THE DIMENSION BEHIND THE RANGETOP OR SINK TO THE EDGE OF THE COUNTER IS LESS THAN 12" IS CONSIDERED AS TWO SEPARATE ISLAND COUNTERTOPS

A. AT LEAST ONE RECEPTACLE IS REQUIRED FOR AN ISLAND OR PENINSULAR COUNTER WITH DIMENSIONS OF AT LEAST 24" BY

7. RECEPTACLE INSTALLATION:

A. MAX OF 20" ABOVE COUNTERTOP

B. ISLAND OR PENINSULAR COUNTERTOPS MAY NOT EXTEND MORE THAN 6" BEYOND THE CABINET HOUSING THE

C. RECEPTACLE MAY NOT BE INSTALLED FACE-UP IN THE COUNTERTOP

C. A PENINSULAR COUNTERTOP IS MEASURED FROM THE CONNECTING EDGE

8. COUNTERTOPS SEPARATED BY SINKS, RANGES, OR REFRIGERATORS SHALL BE TREATED AS SEPARATE SPACES. THE WALL BEHIND THE SINK OR COOKTOP IS NOT TO BE TREATED AS WALL SPACE UNLESS THE DISTANCE EXCEEDS 12" TO THE WALL OR 18" TO A CORNER

9. GFCI PROTECTION IS REQUIRED FOR ALL RECEPTACLES SERVING KITCHEN COUNTERTOPS, AS WELL AS PANTRIES, BREAKFAST ROOMS, DINING ROOMS AND SIMILAR AREAS

10. KITCHEN HOOD SHALL HAVE A MIN 100 CFM EXHAUST RATE, AND HOOD TO HAVE BACKDRAFT DAMPER, IF HOOD IS PART OF INTERMITTENT WHOLE HOUSE FAN VENTILATION SYSTEM PER ASHRAE 62.2 MAX SOUND RATING OF 3-SONES IS ALLOWED @ 100 CFM. PER ASHRAE 62.2 & 2019 ENERGY CODE.

11. KITCHEN EXHAUST FANS TO BE MINIMUM 100 CFM PER 2019 CALIFORNIA ENERGY CODE 150(0) AND ASHRAE 62.2.

12. ALL LIGHTS IN THE KITCHEN ARE TO BE HIGH EFFICACY LUMINARIES.

13. UNDER-CABINET LIGHTING SHALL HAVE SEPARATE SWITCHING FROM OTHER LIGHTING SYSTEMS.

14. DISHWASHER RECEPTACLE MUST BE ACCESSIBLE. LOCATE UNDER KITCHEN SINK.

15. NO SMALL APPLIACNCE BRANCH CIRCUIT SHALL SERVE MORE THAN ONE KITCHEN,

16. SEPARATE CIRCUITS ARE REQUIRED FOR ALL BUILT IN APPLIANCES. PLUG IN APPLIANCES SHALL HAVE THE PLUG ACCESSIBLE FOR DISCONNECT WITHOUT REMOVING THE APPLIANCE.

17. ALL KITCHEN AND DINING COUNTER SPACES WIDER THAT 12" SHALL BE PROVIDED WITH OUTLETS SUCH THAT NO POINT ALONG THE COUNTER IS OVER 24" FROM A RECEPTACLE. CEC 210-52(C). OUTLETS AT THE KITCHEN COUNTERTOPS MUST BE LOCATED ABOVE THE COUNTERTOP NOT MORE THAT 18", AND CANNOT BE INSTALLED FACE UP IN THE COUNTER.

18. AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND COUNTER SPACE WITH A LONG DIMENSION OF 24" OR GREATER AND A SHORT DIMENSION OF 12" OR GREATER.

19. COUNTER TOP SPACES SERARATED BY RANGE TOPS, REFRIGERATORS, OR SINKS SHALL BE CONSIDERED AS SEPARAT

### OUTDOOR ELECTRICAL NOTES

COUNTER TOP SPACES. OUTLET LAYOUT SHALL START AT KITCHEN SINK.

1. AT LEAST ONE RECEPTACLE MUST BE INSTALLED AT THE FRONT AND BACK OF THE DWELLING UNIT, AND BE LISTED AS WEATHER TYPE RECEPTACLE.

2. NEW OUTDOOR LIGHTING ATTACHED TO BUILDINGS SHALL BE HIGH EFFICACY OR CONTROLLED BY BOTH A MOTION SENSOR AND PHOTO CONTROL. LIGHTING NOT ATTACHED TO THE BUILDING (I.E. LANDSCAPE LIGHTING IS EXEMPT FROM THIS REQUIREMENT

3. NEW EXTERIOR ELECTRICAL FIXTURES TO BE SUITABLE FOR WET LOCATIONS.

4. ALL NEW EXTERIOR OUTLETS TO BE GFI PROTECTED AND INSTALLED IN A WEATHER PROOF BOX

5. REQUIRED NEW EXTERIOR OUTLETS TO BE WITHIN 6'-6" OF FINISH GRADE.

6. RECEPTACLES IN DAMP OR WET LOCATIONS - DAMP LOCATIONS - A RECEPTACLE INSTALLED OUTDOORS IN A LOCATION PROTECTED FROM THE WEATHER OR IN OTHER DAMP LOCATIONS SHAL HAVE AN ENCLOSURE FOR THE RECEPTACLE THAT IS WEATHERPROOF WHEN THE RECEPTACLE IS COVERED (ATTACHMENT PLUG CAP NOT INSERTED AND RECEPTACLE COVERS CLOSED). AN INSTALLATION SUITABLE FOR WET LOCATIONS SHALL ALSO BE CONSIDERED SUITABLE FOR DAMP LOCATIONS. A RECEPTACLE SHALL BE CONSIDERED TO BE IN A LOCATION PROTECTED FROM THE WEATHER WHERE LOCATED UNDER ROOFED OPEN PORCHES, CANOPIES, MARQUEES, AND THE LIKE, AND WILL NOT BE SUBJECTED TO A BEATING RAIN OR WATER RUNOFF. ALL 15 AND 20 AMP, 125 AND 250 VOLT NON LOCKING RECEPTACLES SHALL BE A LISTED WEATHER RESISTANT TYPE. WET LOCATIONS-RECEPTACLES OF 15 AND 20 AMP IN A WET LOCATION, 125 AND 250 VOLTS INSTALLED IN A WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHETHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED. AN OUTLET BOX HOOD INSTALLED FOR THIS PURPOSE SHALL BE LISTED AND SHALL BE IDENTIFIED AS "EXTRA DUTY". OTHER LISTED PRODUCTS, ENCLOSURES, OR ASSEMBLIES PROVIDING WEATHERPROOF PROTECTION THAT DO NOT UTILIZE AN OUTLET

7. RECEPTACLES SHALL NOT BE INSTALLED WITHIN OR DIRECTLY OVER A BATHTUB OR SHOWER STALL. RECEPTACLES SHALL NOT BE INSTALLED WITHIN SHOWER ROOMS OR STALLS OR BE ACCESSIBLE FROM WITHIN THESE AREAS.

### GARAGE ELECTRICAL NOTES

1. ALL LIGHTS IN THE GARAGE ARE HIGH EFFICACY LUMINARIES AND CONTROLLED BY A VACANCY SENSOR (MANUAL-ON OCCUPANCY SENSOR AND MOTION SENSOR THAT COMPLIES WITH CEC SECTION 110,9(B) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINARIES TO BE ALWAYS ON).

2. ALL GARAGE OUTLETS TO BE GFI.

### EV CHARGER NOTES

PROTECTIVE DEVICE (CGBSC 4.106.4.4)

BOX HOOD NEED NOT BE MARKED "EXTRA DUTY".

1. A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240 VOLT BRANCII CIRCUIT IS REQUIRED 2. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1 (NOMINAL1\*) INSIDE KIAMETER

3. THE RACEWAY SHALL BE ORIGINAL AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE INTO A LISTED CABINET, BOX, PROPOSED LOCATION OF THE EV CHARGER.

CABINET, BOX, PROPOSED LOCATION OF THE EV CHARGER.
4. THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMP MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVER CURRENT

### LAUNDRY/UTILITY ELECTRICAL NOTES

1. RECEPTACLE OUTLETS IN LAUNDRY ROOM (CEC 210.52(F)) SHALL BE COMBINATION GFCI/AFCI RECEPTACLES (CEC 210.12(A)).

2. ALL LIGHTS SHALL BE HIGH EFFICACY LUMINAIRES.

3. AT LEAST ONE FIXTURE SHALL BE CONTROLLED BY A VACANCY SENSOR (MANUAL-ON OCCUPANCY SENSOR AND MOTION SENSOR THAT COMPLIES WITH CEC SECTION 110.99(b) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINARIES TO BE ALWAYS ON).

### BATHROOM ELECTRICAL NOTES

1. ALL BATHROOM LIGHTING TO BE HIGH EFFICACY (SEE WATTS AND LUMEN REQUIREMENTS IN GENERAL NOTES) AND CONTROLLED BY A VACANCY SENSOR (MANUAL-ON OCCUPANCY SENSOR OR DIMMER THAT COMPILES WITH CEC SECTION 110.9(B) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE ALWAYS ON.) 2019 CA ENERGY CODE SECTION 150(K) FOR LIGHTING.

2. LIGHTS OVER SHOWER AND TUBS MUST BE WATERPROOF.

3. A SEPARATE CIRCUIT IS REQUIRED FOR HYDROMASAGE BATHTUBS AND GFI PROTECTED AND BONDED.

4. AT LEAST ONE RECEPTACLE MUST BE INSTALLED WITHIN A RESIDENTIAL BATHROOM WITHIN 3' OF THE SINK AND ON THE WALL ADJACENT TO THE SINK AND ON THE SIDE OR FACE OF THE SINK CABINET.

5. BATHROOM RECEPTACLES SHALL BE INSTALLED ON A 20-AMPERE BRANCH CIRCUIT THAT IS DEDICATED TO ONLY BATHROOM RECEPTACLES, OR DEDICATED TO THE RECEPTACLES AND LIGHTING WITHIN A SINGLE BATHROOM ONLY.

BATHROOM RECEPTACLES, OR DEDICATED TO THE RECEPTACLES AND LIGHTING WITHIN A SINGLE BATHR

6. EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEMS. (CEC 150.K.2.B).

7. GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION IS REQUIRED FOR ALL BATHROOM RECEPTACLES.

### 8. RECEPTACLES MAY NOT BE INSTALLED WITHIN OR DIRECTLY OVER A BATHTUB OR SHOWER STALL

9. BATHROOMS SHALL BE MECHANICALLY VENTILATED WITH AN ENERGY STAR EXHAUST FAN, AND MUST BE CONTROLLED BY A HUMIDITY CONTROL (CALGREEN 4.506.1), AND MIN, 50 CFM,

10. THE FOLLOWING FIXTURES SHALL BE LISTED FOR A DAMP LOCATION OR A WET LOCATION WHEN SUBJECT TO SHOWER SPRAY:

A. LIGHTING FIXTURES LOCATED WITHIN THE TUB/SHOWER ENCLOSURE, AND

B. HANGING LIGHTING FIXTURES AND PADDLE FANS LOCATED WITHIN  $_3$  FEET HORIZONTALLY ANE 8 FEET VERTICALLY OF THE BATHTUB RIM/SHOWER STALL THRESHOLD. (CEC  $_4$ 10.4)

11. EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEMS. (CEC 150.K.2.B).

12. EACH BATHROOM IS REQUIRED TO HAVE A 50 CFM MINIMUM EXHAUST FAN DUCTED TO THE OUTSIDE. BATHROOM IS ANY ROOM WITH A BATHTUB, SHOWER, SPA OR SIMILAR SOURCES OF MOISTURE. TOILET ROOM IS NOT CONSIDERED A BATHROOM

13. THE DUCTING FOR THE EXHAUST FAN SHALL BE SIZED ACCORDANCE TO ASHRAE STANDARD 62.2, TABLE 7.1.

14. EXILAUST FANS TO BE CAPABLE OF PROVIDING FIVE AIR CHANGES PER HOUR IN ROOMS SUCH AS BATHROOMS, WATER CLOSETS COMPARTMENTS, AND SIMILAR ROOMS. (MIN, 50 CFM INTERMITTENT) OR (MIN, 20 CFM FOR CONTINUOUS).

15. MOTORS SHALL BE UL LISTED FOR HYDRO MASSAGE USE AND A REMOVABLE PANEL OF SUFFICIENT SIZE TO ACCESS MOTOR.

# T24 ENERGY REQUIREMENTS (2019 CALIFORNIA ENERGY CODE & ASHRAE 62.2)

LICUTING DECILIDEMENTS:

A. OCCUPANCY SENSOR MUST BE MANUAL ON/OFF AND AUTOMATIC OFF. THE MAXIMUM TIME DELAY TO TURN OFF IS 30 MINUTES AFTER THE LAST DETECTED MOTION. SENSORS CANNOT HAVE AN OVERRIDE ALLOWING THE LIGHT FIXTURE TO BE CONTINUOSLY ON.

2. EXHAUST FANS WITH INTEGRAL LIGHTING SYSTEM SHALL BE SWITCHES SEPARATELY FROM LIGHTING SYSTEM OR HAVE A LIGHTING SYSTEM THAT CAN BE MANUALLY TURNED ON AND OFF WHILE ALLOWING THE FAN TO CONTINUE TO OPERATE FOR LIGHTING SYSTEM THAT CAN BE MANUALLY TURNED ON AND OFF WHILE ALLOWING THE FAN TO CONTINUE TO OPERATE FOR AN EXTENDED PERIOD OF TIME. LIGHTING INTEGRAL TO AN EXHAUST FAN MUST BE HIGH-EFFICACY.

3. PERMANENTLY INSTALLED NIGHT LIGHT MUST BE HIGH EFFICACY LIGHTING OR THE NIGHT LIGHT IS RATED TO CONSUME NO MORE THAN 5 WATTS OF POWER AND DOES NOT CONTAIN A MEDIUM SCREW-BASE SOCKET.

4. ALL LIGHTING SHALL BE HIGH EFFICACY SUCH AS FLUORESCENT. LED LIGHTING SYSTEMS AND GU24 LAMP HOLDER SHAL BE LISTED BY ENERGY COMMISSION AND SHALL MEET THE REQUIREMENT OF TABLE

WATTS LUMENTS/ WATTS

5 OR LESS \_\_\_\_\_ 30

>5 TO 15 \_\_\_\_\_ 40

>15 TO 40 \_\_\_\_\_ 50

OVER 40 \_\_\_\_\_ 60

## GENERAL RESIDENTIAL RECEPTACLE

## REQUIREMENTS

RECEPTACLES ON THE SAME WALL.

REQUIRED RECEPTACLE

APPLIANCE

1. THIS DOCUMENT APPLIES TO ALL DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS,

2. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE IN ANY WALL SPACE IS OVER 6 FEET FROM THE RECEPTACLE. THIS ALLOWS FOR A MAXIMUM OF 12 FEET BETWEEN

3. RECEPTACLES INSTALLED IN THE FLOOR MUST BE WITHIN 18 INCHES OF THE WALL TO BE INCLUDED AS A

4. ANY RECEPTACLE INSTALLED FOR A SPECIFIC APPLIANCE MUST BE LOCATED WITHIN 6 FEET OF THE

5. AT LEAST ONE RECEPTACLE MUST BE INSTALLED AT THE FRONT AND BACK OF THE DWELLING UNIT, AND BE

6. AT LEAST ONE GENERAL-PURPOSE RECEPTACLE MUST BE INSTALL WITHIN EACH BASEMENT, ATTACHED

GARAGE, DETACHED GARAGE WITH ELECTRICAL POWER, AND HALLWAYS 10 FEET OR MORE IN LENGTH.

LISTED AS WEATHER RESISTANT AND GELTYPE RECEPTACLE.

7. WALL SPACE INCLUDES THE FOLLOWING:
A. ANY SPACE 2 FOOT OR MORE (INCLUDING SPACE MEASURED AROUND CORNERS) AND UNBROKEN ALONG THE

FLOOR LINE BY DOORWAYS, FIREPLACES, AND SIMILAR OPENING
B. THE SPACE OCCUPIED BY FIXED DOOR PANELS

## ATTIC

1. PROVIDE A LIGHT WITH A LIGHT SWITCH IN ATTIC MOUNTED FURNACE SPACES.

C. THE SPACE AFFORDED BY FIXED ROOM DIVIDERS SUCH AS BAR COUNTERS OR RAILINGS

REVISIONS BY

Monday, June 3, 2024

THE PLANS, IDEAS AND DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLFY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN



San Mine

**GNS** tratoga, CA 95070 M - 408.396.0951

MM HOME DESIG

roject for: -Ken Sato

Wel-Ke 16431 Matilija Dr Lo

MM

CHECKED

MM

DATE

Monday, June 3, 2024

SCALE

AS SHOWN

JOB NO.

 $^{17}/_{30}$ 

TRICAL- MECHANICAL NOTES

### **GENERAL NOTES**

A. OPENINGS SHALL COMPLY WITH THE FOLLOWING IN ACCORDANCE WITH THE CITY MUNICIPAL CODE SECTION 15.48.060. I, DOOR BETWEEN THE GARAGE AND DWELLING TO BE EQUIPPED WITH DEAD BOLT LOCKS, STRIKE PLATES SHALL BE SECURED TO WOODEN JAMBS WITH AT LEAST TWO AND ONE-HALF INCH WOOD SCREWS.

II. EXTERIOR DOORS AND DOORS LEADING FROM THE GARAGE AREA SHALL BE SOLID CORE WITH A MINIMUM THICKNESS OF 1-3/4". GARAGE DOOR TO HAVE SELF CLOSING HINGE.

III. DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE GARAGE. CRC

B. WALLS SEPARATING THE DWELLING AND ATTIC FROM THE GARAGE SHALL BE PROVIDED WITH 1/2" MINIMUM GYPSUM BOARD APPLIED ON THE GARAGE SIDE.

C. WHERE HABITABLE ROOMS OCCUR ABOVE THE GARAGE, SPECIFY THE FOLLOWING:

I. 5/8" MINIMUM TYPE X GYPSUM BOARD ON THE CEILING. II. 1/2" MINIMUM GYPSUM BOARD ON ALL STRUCTURES SUPPORTING THE FLOOR/CEILING ASSEMBLIES.

2. INSTALL 1/2" GYP BOARD FROM FOUNDATION TO ROOF SHEATHING ON GARAGE SIDE OF WALLS COMMON TO LIVING SPACE

AND 5/8"TYPE "X" GYP. ONE - HOUR FIRE-RESISTIVE CONSTRUCTION TO BEPROVIDED ON THE GARAGE CEILING WHEN LIVING SPACE IS ABOVE THE GARAGE. APPLY TO WALLS, POST AND BEAMS OF GARAGEADJACENT TO AND SUPPORTING THE RESIDENCE. APPLIED VENT.OR HORIZONTALLY. NAIL W/6D COOLER OR WALLBOARD NAILS @ 7" OCW/ END JOINTS O/ NAILING MEMBERS. STAGGER JOINTS EA. SIDE.

3. NO DIRECT OPENINGS BETWEEN THE GARAGE AND SLEEPING ROOMS

4. ALL DUCTS IN GARAGE THAT PASS THRU LIVING/GARAGE COMMON WALL SHALL BE 26 GA. STEEL OR THICKER

5. EXTERIOR STUD WALLS TO BE 2 X 4 STUDS 16" O.C. W/BATT INSULATION. (UNLESS OTHER WISE NOTED - CHECK FLOORPLANS.)

6. ALL DIMENSIONS ARE TO THE FACE OF STUDS.

7. CEILING HEIGHT OF ALL ROOMS TO INCLUDE FLOOR FINISH.

8. ALL INTERIOR WALLS SHALL BE COVERED WITH 1/2" GYPSUM WALL BOARD EXCEPT OTHERWISE NOTED.

9. GYPSUM WALL BOARD SHALL BE INSTALLED PER CURRENT C.B.C.

10. PROVIDE 2 X SOLID BACKING FOR RAILINGS, CABINETS, SHELVING, ACCESSORIES, ETC. AS NEEDED.

11. EXTERIOR DOORS SHALL BE 1-3/4" THICK SOLID CORE. EXCEPTIONS: EXTERIOR DOORS 1-3/4" THICK WITH SOLID WOOD PANELS NOT LESS THAN 9/16" THICK ARE A SATISFACTORY ALTERNATIVE TO A SOLID CORE DOORS

12. INSTALL ALL WINDOWS AND DOOR AS PER MANUFACTURER. SPECIFICATIONS

13. ALL GLASS DOORS, GLASS WITHIN 24" OF DOORS & WITHIN 18" OF FLOOR, GLASS SUBJECT TO HUMAN IMPACT, ETC SHALL BE

14. WINDOWS MARKED AS "EGRESS" MUST MEET C.B.C. MINIMUM REQUIREMENTS. OF MAX 44" HIGH SILL & MINIMUM. NET CLEAR OPENINGS OF 20" IN WIDTH & 24" IN HEIGHT W/ MINIMUM. CLEAR OPENING OF 5.7 SQ. FEET

15. WINDOWS AND DOOR SIZES SHOWN ARE FOR DESIGN PURPOSES ONLY. ACTUAL WINDOW & DOOR SIZES SHALL BE FRAMED &

SET PER MRG. SPECIFICATIONS. MAKE & MODEL NUMBERS SHALL BE CALLED OUT PER SUPPLIERS AND OR OWNERS SPECIFICATIONS. WINDOWS TO BE DUAL-PANED (U.N.O.)

16. FLASH ALL EXTERIOR OPENINGS WITH SHEET METAL TO EXTEND 6" LINDER BUILDING PAPER BEHIND WALL OPENING.

17. INSTALL 5/8" TYPE "X" GYP. BD. ON WALLS AND CEILING@ USABLE UNDER STAIR CLOSET, WHERE APPLICABLE.

18. PROVIDE WATER RESISTANT GYP. BD. ON ALL "WET" AREAS

19. TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS SHALL BE A MINIMUM OF 3' FROM ANY OPENINGS INTO THE BUILDING (I.E., DRYERS, BATII & UTILITY FANS, ETC., MUST BE 3' AWAY FROM DOORS, WINDOWS, OPENING SKYLIGHTS OR ATTIC VENTS). CMC 504.5

20. WATER-RESISTANT GYPSUM BACKING BOARD LIMITATIONS (CBC 2509.3) SHALL NOT BE USED IN THE FOLLOWING

A. OVER A VAPOR RETARDENT IN SHOWER OR BATHROOM COMPARTMENT.

B. WHERE THERE WILL BE DIRECT EXPOSURE TO WATER OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY SUCH AS

C. ON CEILINGS WHERE FRAME SPACING EXCEEDS 12 INCHES ON CENTER FOR ½" THICK WATER-RESISTANT GYPSUM BOARD OR MORE THAN 16 INCHES ON CENTER FOR 5/8" THICK WATER RESISTANT GYPSUM BOARD.

21. OPENINGS AROUND GAS VENTS, DUCTS & PIPING @ EACH FLOOR SHALL BE FIRE STOPPED

22. DRAFTSTOPPING SHALL BE INSTALLED IN ALL ATTIC SPACES AND CONCEALED ROOF SPACES SUCH THAT NO HORIZONTAL AREA EXCEEDS 3,000 S.F.

23. ATTIC ACCESS TO BE 30"X 22" MIN.

24. ATTICS WITH A VERTICAL HEIGHT OF 30" OR MORE REQUIRES ACCESS. ALL ATTICS ACCESS ARE A 1/2" PLYWOOD PANEL FINISHED WITH A GRADE SIDE TO THE OCCUPIED SPACE. PAINT TO MATCH THE CEILING TO THE PLYWOOD PANEL.

25. ACCESSIBLE UNDER-FLOOR AREA SHALL BE PROVIDED WITH A MIN. 18" X 24" OPENING.

26. UNDER-FLOOR AREA SHALL BE VENTILATED BY OPENINGS OF A NET AREA OF NOT LESS THAN 1/150 OF UNDER-FLOOR AREA. VENTILATED OPENINGS SHALL BE PROTECTED BY METAL MESH WITH A 1/4" MAX. OPENING.

27. FIREPLACE INSTALLATION AND USE SHALL BE IN ACCORDANCE WITH THEIR LISTING & LOCAL CODES AND INSTALLED PER MANUFACTURER, SPECIFICATIONS.

28. PROVIDE FIRE STOPS IN OPENINGS @ FLOOR CEILINGS OF ALL FIREPLACES

29. INTERIOR HANDRAILS & GAURD RAILS TO BE WOOD.

30. EXTERIOR HANDRAILS & GUARDRAILS TO BE W.I. UNLESS OTHERWISE NOTED.

31. CABINET MANUFACTURER SHALL PROVIDE SHOP DRAWINGS FOR CONTRACTOR, OWNER, OR HIS AGENTS APPROVAL FOR ALL CABINET SIZES AND FINISHES, MATERIAL ETC. SHOP DRAWING SUPERCEDE ALL INTERIOR ELEVATIONS.

32. CONTRACTOR SHALL PROVIDE GALVANIZED SHEET METAL PAN UNDER ALL CLOTHES WASHER, WHEN LOCATED ON AN UPPER FLOOR.

33. LANDINGS SHALL HAVE A WIDTH NOT LESS THAN A WIDTH OF THE DOOR OR A STAIRWAY.

34. STAIRWAYS: 36" MINIMUM WIDTH, 7 3/4" MAX. RISE, 10" MIN. RUN AND 6'-8"MIN. HEAD ROOM.

35. PROVIDE COMBUSTION AIR FOR SOLID FUEL BURNING APPLIANCES

36. THE EV CHARGER TO PROVIDE A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240 VOLT BRANCH CIRCUIT AND A DEDICATED 40 AMP BRANCH CIRCUIT FOR THE EV CHARGER. IN ADDITION, INSTALL A LEVEL 2 EV READY CIRCUIT AND LEVEL 1 EV READY CIRCUIT (ORDINANCE NO.19-2193, SECTION 16.58.400)

37. BATHROOM VENTILATION - PROVIDE MECHANICAL VENTILATION CONNECTED DIRECTLY TO THE OUTSIDE CAPABLE OF PROVIDING 50 CFM IN BATHROOMS, WATER CLOSET COMPARTMENTS, AND SIMILAR ROOMS (CBC 1203.4.2.1, TABLE 4-4 CMC)

38. DRYER VENTILATION - DRYER SHALL VENT TO OUTSIDE WITH A 4" DIAMETER RIGID METAL DUCT, MAX LENGTH 14 FT WITH MAX OF TWO 90 DEGREE ELBOWS, AND A BACK DRAFT DAMPER. VENT SHALL DISCHARGE MIN 3 FEET AWAY FROM ANY OPENING INTO THE BUILDING (CMC 504). MAKEUP AIR SHALL BE PROVIDED FOR TYPE 1 CLOTHES DRYER IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. (NFPA 54:10.4.3.1). WHERE A CLOSET IS DESIGNED FOR THE INSTALLATION OF A CLOTHES DRYER, AN OPENING OF NOT LESS THAT 100 SQUARE INCHES FOR MAKEUP AIR SHALL BE PROVIDED IN THE DOOR OR BY OTHER APPROVED MEANS, INSTALL 7.5" X 14" LOUVER VENT IN CLOSET DOOR.

39. CONTRACTOR SHALL VERIFY ALL APPLIANCES AND EQUIPMENT REQUIREMENTS PRIOR TO BEGINNING WORK AND SHALL PROVIDE ALL HOOK UPS.

40. EARTHQUAKE ACTUATED GAS SHUT-OFF VALVES ARE REQUIRED FOR ALL NEW OR RELOCATED GAS METERS

### TANKLESS WATER HEATER - GAS

1. MOST TWHS ARE INSTALLED IN GARAGES, BASEMENTS, OR ON EXTERIOR WALLS OF GARAGES OR STRUCTURES. THWS MAY BE INSTALLED IN BEDROOM OR BATHROOM CLOSETS ONLY IF THEY ARE OF THE DIRECT-VENT TYPE OR THEY ARE IN A CLOSET DEDICATED SOLELY TO THE THW. WITH SELF-CLOSING GASKETED DOORS AND ALL COMBUSTION AIR FROM THE EXTERIOR

2. A TWH MAY BE LOCATED IN AN ATTIC WHEN ALL REQUIREMENTS FOR A CODE COMPLIANT INSTALLATION ARE MET INCLUDING REQUIRED ACCESS, CLEARANCE TO COMBUSTIBLES, LIGHTING WITH A SWITCH NEAR THE ATTIC ENTRY, AND AN ADJACENT RECEPTACLE

3. A TWH SHALL NOT BE INSTALLED IN LOCATIONS WHERE DAMAGE TO THE SUPPORTING STRUCTURE WOULD OCCUR FROM AN UNDETECTED LEAK UNLESS A WATER TIGHT CORROSION RESISTANT PAN IS INSTALLED BENEATH THE TWH WITH A MINIMUM ¾ INCH DIAMETER DRAIN LINE DISCHARGING TO AN APPROVED LOCATION

1. TWH VENTING AND INSTALLATION:

A. MOST TWHS USE POSITIVE PRESSURE (FORCED) VENTS, SUCH VENTS SHALL COMPLY WITH THE VENT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR CATEGORY III AND IV APPLIANCES. MOST ARE STAINLESS STEEL DUE TO THE SLIGHTLY ACIDIC CONTENT OF THE CONDENSATE. MOST DO NOT ALLOW COMMON VENT WITH OTHER APPLIANCES. ALL POSITIVE PRESSURE VENT PIPES SHALL BE SEALED AIR TIGHT AT EACH JOINT FROM FLUE COLLAR TO TERMINATION. TYPE B VENTING MATERIAL IS NOT ACCEPTABLE FOR POSITIVE PRESSURE VENTS.

B. LISTED PRESSURE-ONLY RELIEF VALVES (PRVS) SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER. C. CPVC PIPING USED WITH ANY TWILSHALL BE INSTALLED WITH RESTRICTIONS AS REQUIRED BY TWILOR CPVC MANUFACTURER, WHICHEVER IS MOST RESTRICTIVE.

TO DISCHARGE ONTO SOIL. THEY SHOULD NOT DISCHARGE OVER HARDSCAPED (CONCRETE) SURFACES OR WALKWAYS.

5. TWH ELECTRICAL: A. GAS-FIRED TWH UNITS USUALLY REQUIRE A 120-VOLT RECEPTACLE FOR OPERATION OF THE THERMOSTATICS CONTROLS WHEN INSTALLED IN A GARAGE, THE POWER FOR THESE GAS-FIRED UNITS MAY BE PROVIDED BY AN ADJACENT

D. CONDENSATE DRAINS NEED NOT COMPLY WITH THE SAME REQUIREMENTS AS FOR AC CONDENSATE, AND ARE ALLOWED

B. WHEN INSTALLED OUTDOORS, THE RECEPTACLE MUST BE GFCI PROTECTED AND LISTED WEATHER-RESISTIVE (WR) WITH A WEATHERPROOF "BUBBLE COVER" OR BE HARD WIRED WITH A DISCONNECT SWITCH IN SIGHT OF THE UNIT C. CORDS ON OUTDOOR THWS MUST BE LISTED AS SUITABLE FOR A WET LOCATION AND FOR SUNLIGHT RESISTANCE. IF THE

D. ATTIC OR BASEMENT INSTALLATIONS WILL REQUIRE A 120-VOLT RECEPTACLE AND SWITCHED LUMINARIES AT OR NEAR THE TWH. THE SWITCH FOR THE LUMINARIES MUST BE LOCATED ADJACENT TO THE ATTIC OR BASEMENT ACCESS E. ALL NEW ELECTRICAL WORK REQUIRES AN ELECTRIC PERMIT

A. A TWH GENERALLY REQUIRES A SIGNIFICANTLY GREATER QUANTITY OF GAS THAN A STORAGE TANK HEATER, TYPICALLY, A DEDICATED GAS LINE MUST BE INSTALLED FROM THE GAS METER TO THE TWH AND A LARGER GAS METER MAY BE REQUIRED. TO PROPERLY SIZE GAS PIPING USE THE APPROPRIATE TABLE IN CHAPTER 12 OF THE CURRENT CPC.

B. ALL NEW AND ALTERED GAS PIPING SYSTEMS MUST BE PRESSURE TESTED AS PRESCRIBED BY CODE

LAST LETTER OF THE LETTER CODE PRINTED ON THE CORD IS A "W" THE CORD IS COMPLIANT.

A. TWH INSTALLATIONS SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS AND CURRENT CPC AND CMC REQUIREMENTS FOR COMBUSTION AND MAKE-UP AIR OR BE THE DIRECT-VENT TYPE, PROPERLY SIZED COMBUSTION AIR VENTS ARE TO BE LOCATED COMMENCING WITHIN THE UPPER 12" OF AN ENCLOSURE AND COMMENCING WITHIN THE LOWER 12" FROM THE BOTTOM OF AN ENCLOSURE

B. F.A.U. & WATER HEATER INSTALLED ON 18" HIGH WOOD F.A.U. & WATER HEATER INSTALLED ON 18" HIGH WOOD PLATFORM W/ 1 1/8" PLYWOOD TOP SURFACE.

C. INSTALL SEISMIC STRAP ON ALL WATER HEATERS AND FURNACES TO BE CEC CERTIFIED. WATER HEATERS TO HAVE PRESSURE & TEMPERATURE RELIEF DEVICES & DISCHARGE TO OUTSIDE STRAPS TO BE

INSTALLED AT POINTS WITHIN UPPER 1/3 AND LOWER 1/3 OF ITS VERTICAL DIMENSIONS. AT LOWER POINT, A 4" CLEARANCE SHALL BE MAINTAINED ABOVE CONTROLS, WHEN LOCATED IN GARAGE. SEE DETAIL SHEET. D.INSTALLING CONTRACTOR TO DESIGN & BUILD COMPLETE AND FUNCTIONING SYSTEMS,

A. MINIMUM OF 5' IN HEIGHT OF CLEAR SPACE. A CONTINUOUS ACCESSIBLE OPENING AND PASSAGEWAY WITH A MIN. OF 22" X 30" IN SIZE OR AS LARGER AS THE SMALLEST PIECE OF EQUIPMENT. MAX. 20 FEET TRAVEL PATH AND 24" WIDE W/ SOLID FLOOR PASSAGEWAY. MIN. 30" X 30" WORKING PLATFORM IN FRONT OF THE ENTIRE FIREBOX. A PERMANENT ELECTRICAL OUTLET AND LIGHTING FIXTURE. SEE DETAIL SHEET.

### ELECTRIC HEAT PUMP WATER HEATER

INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

IF INSTALL IN A CLOSET - USE FULL LOUVERED DOOR TO INSURE SUFFICIENT AIR CIRCULATION.

PROVIDE A PAN WITH DRAIN

### KITCHEN NOTES

1. NO DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD DISPOSER WITHOUT THE USE OF AN APPROVED AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISH-\VASHING MACHINE

2. PROVIDE GAS SHUT-OFF @ STOVE IN AN ACCESSIBLE LOCATION

3. RANGE HOOD MUST EXTEND FULL WIDTH OF RANGE. INSTALL PER MANUF. SPECIFICATIONS.

4. RANGE HOOD MUST TERMINATE A MIN. OF 3' FROM ANY AIR INTAKE OR OPENING INTO THE BUILDING

5. RANGE HOOD VENT TO OUTSIDE AS PER CEC SECTION 150(0)

6. KITCHEN HOOD SHALL HAVE A MIN 100 CFM EXHAUST RATE, AND HOOD TO HAVE BACKDRAFT DAMPER, IF HOOD IS PART OF INTERMITTENT WHOLE HOUSE FAN VENTILATION SYSTEM PER ASHRAE 62.2 MAX SOUND RATING OF 3-SONES IS ALLOWED @ 100 CFM. PER ASHRAE 62.2 & 2019 ENERGY CODE.

7. KITCHEN FAUCETS NOT TO EXCEED 1.8 GPM @ 60 PSI, MIN 0.8 GPM AS PER 2019 CPC SECTION 402.1.2, TABLE 4.303.2 OF

8. KITCHEN EXHAUST FANS TO BE MINIMUM 100 CFM PER 2019 CALIFORNIA ENERGY CODE 150(O) AND ASHRAE 62.2.

### GENERAL RESIDENTIAL RECEPTACLE

### REQUIREMENTS

1. THIS DOCUMENT APPLIES TO ALL DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, BEDROOMS, OR SIMILAR ROOMS.

2. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE IN ANY WALL SPACE IS OVER 6 FEET FROM THE RECEPTACLE. THIS ALLOWS FOR A MAXIMUM OF 12 FEET BETWEEN

3. RECEPTACLES INSTALLED IN THE FLOOR MUST BE WITHIN 18 INCHES OF THE WALL TO BE INCLUDED AS A REQUIRED

4. ANY RECEPTACLE INSTALLED FOR A SPECIFIC APPLIANCE MUST BE LOCATED WITHIN 6 FEET OF THE APPLIANCE

5. AT LEAST ONE RECEPTACLE MUST BE INSTALLED AT THE FRONT AND BACK OF THE DWELLING UNIT, AND BE LISTED AS WEATHER RESISTANT AND GFI TYPE RECEPTACLE.

6. AT LEAST ONE GENERAL-PURPOSE RECEPTACLE MUST BE INSTALL WITHIN EACH BASEMENT, ATTACHED GARAGE, DETACHED GARAGE WITH ELECTRICAL POWER, AND HALLWAYS 10 FEET OR MORE IN LENGTH.

7. WALL SPACE INCLUDES THE FOLLOWING:

A. ANY SPACE 2 FOOT OR MORE (INCLUDING SPACE MEASURED AROUND CORNERS) AND UNBROKEN ALONG THE FLOOR LINE BY DOORWAYS, FIREPLACES, AND SIMILAR OPENING B. THE SPACE OCCUPIED BY FIXED DOOR PANELS C. THE SPACE AFFORDED BY FIXED ROOM DIVIDERS SUCH AS BAR COUNTERS OR RAILINGS

LAUNDRY

1. AT LEAST ONE RECEPATACLE REQUIRED FOR LAUNDRY

2. PROVIDE A MIN OF ONE 20 AMP LAUNDRY BRANCH CIRCUIT, SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS (CEC 210-23(A))

3. VENT DRYER SHALL TERMINATE TO THE OUTSIDE OF THE BUILDING, 3 FEET FROM THE PROPERTY LINE W/ MIN. 4" RND BY 14' MAXIMUM LENGTH DUCT INCLUDING NO MORE THAN 2-90 DEGREE ELBOWS AND EQUIPED W/ BACK DRAFT DAMPER

### GENERAL BATHROOM NOTES

1. WALL COVERING SHALL BE CEMENT BACKER BOARD, TILE OR APPROVED EQUAL TO 72" ABOVE DRAIN AT SHOWERS OR TUB WITH SHOWERS. MATERIALS OTHER THAN STRUCTURAL ELEMENTS TO BE MOISTURE RESISTANT.

2. SHOWER LINING REQUIRED IN PERMANENT BUILT IN SHOWER SEATS UP THE WALL 3" AND PITCHED 1/4" PER FT.

3. SHOWER COMPARTMENTS SHALL BE A MIN OF 1024 S.I. AND SHALL BE CAPABLE OF ENCOMPASSING A 30" CIRCLE.

4. TOILETS TO HAVE MIN. 30" SIDE X 24" DEEP CLEARANCE IN FRONT OF TOILET AND A MIN. 15" CLEAR FROM CENTERLINE OF

5. MOTORS SHALL BE UL LISTED FOR HYDRO MASSAGE USE AND A REMOVABLE PANEL OF SUFFICIENT SIZE TO ACCESS MOTOR.

6. DIMENSION SHALL BE INSTALLED TO ACCESS PUMP.

7. ALL BATHROOMS REQUIRE A VENT FAN WITH MIN. 50 CFM 8. ALL VENT TERMINATIONS MUST BE 10' AWAY OR 3' ABOVE ANY OPENING. TYP.

9. EACH BATHROOM IS REQUIRED TO HAVE A 50 CFM MINIMUM EXHAUST FAN DUCTED TO THE OUTSIDE. BATHROOM IS ANY ROOM WITH A BATHTUB, SHOWER, SPA OR SIMILAR SOURCES OF MOISTURE, TOILET ROOM IS NOT CONSIDERED A BATHROOM

10. THE DUCTING FOR THE EXHAUST FAN SHALL BE SIZED ACCORDANCE TO ASHRAE STANDARD 62.2, TABLE 7.1.

11. WATER-RESISTANT GYPSUM BACKING BOARD SHALL BE USED AS A BASE FOR TILE IN WATER CLOSET COMPARTMENT WALLS, INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

12. GYPSUM BOARD IN SHOWERS AND WATER CLOSETS (CBC 2509.2), CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS SHALL BE USED AS A BASE FOR WALL TILE IN TUB, SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS.

13. EXHAUST FANS TO BE CAPABLE OF PROVIDING FIVE AIR CHANGES PER HOUR IN ROOMS SUCH AS BATHROOMS, WATER CLOSETS COMPARTMENTS, AND SIMILAR ROOMS. (MIN. 50 CFM INTERMITTENT) OR (MIN. 20 CFM FOR CONTINUOUS)

### BATHROOM PLUMBING NOTES

1. SHOWER DRAIN & TRAP 2" MINIMUM. (CPC TABLE 7-3)

2. PROVIDE PRESSURE BALANCE VALVES FOR ALL SHOWERS AND SHOWER/TUB.

3. LAVATORY FAUCETS TO BE LESS THAN 1.2 GPM @ 60 PSI. mIN. 0.8 GPM @ 20 PSI PER 2019 CPC 402.1.2 TABLE 4.304.2 OF 2019

4. WATER CLOSETS SHALL HAVE MAX 1.28 GALLON/FLUSH, SHOWER HEAD TO HAVE MAX FLOW OF 1.8 GPM @ 80 PSI PER 2019 CPC SECTION 402.1.1, TABLE 4.303.2 OF 2019 CGBC. THE WATER CLOSET SHALL HAVE A MINIMUM 15 INCH DIMENSION FROM CENTERLINE OF WATER CLOSET TO WALL OR BARRIER ON EACH SIDE, AND PROVIDE A CLEAR SPACE OF NOT LESS THAN 24" IN FRONT OF WATER CLOSET (CPC 402.5).

5. ON SITE SHOWER PAN (RECEPTOR) ON GROUND TYPE SHALL BE WATER TIGHT, CONSTRUCTED WITH APPROVED MATERIAL, ADEQUATELY REINFORCED AND WITH AN APPROVED FLANGE FLOOR DRAIN. LINING TO BE PITCHED '4" PER FOOT TO WEEP HOLES IN DRAIN. (CPC 411.8 (1) ABOVE GROUND TYPE, WATER TIGHT LINING WITH MINIMUM OF 3" ABOVE FINISHED DAM, CURB OR TIIRESIIOLD HEIGHT. IN NO CASE SHALL ANY DAM OR THRESHOLD BE LESS THAN 2" OR MORE THAN 9" IN DEPTH WHEN MEASURED FROM THE TOP OF THE DAM OR THRESHOLD TO THE TOP OF THE DRAIN. (CPC 411.5 AND CPC 411.6)

6. SHOWER AND TUB-SHOWER CONTROL VALVES SHALL BE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION OF PRESSURE BALANCE/THERMOSTATIC MIXING VALVES. HANDLE POSITION STOPS SHALL BE PROVIDED ON SUCH VALVES AND SHALL BE ADJUSTED PER THE MANUFACTURER'S INSTRUCTIONS TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120 OF. (CPC)

7. SHOWER COMPARTMENTS

A. MINIMUM INTERIOR OF 1024 SQUARE". B, MINIMUM DIMENSIONS SO A 30" CIRCLE WILL FIT IN THE COMPARTMENT.

C. MINIMUM HEIGHT ABOVE FLOOR DRAIN IS 70". D. SHOWER DOORS SHALL OPEN TO PROVIDE A MINIMUM OF 22" UNOBSTRUCTED EGRESS OPENING

9. ALL SHOWER HEADS TO BE LESS THAN 1.8 GALLONS PER MINUTE (GPM) @ 80 PSI WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWER HEAD, THE COMBINED FLOW OF ALL SHOWER HEADS AND OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONE SHOWER

## **GENERAL PLUMBING NOTES**

1. NO REOUIRED UNDERFLOOR CLEAN-OUT SHALL BE MORE THAN 20' FROM AN ACCESS DOOR (CPC 707.10)

2. PROVIDE WALL CLEANOUTS FOR ALL NEW SINKS

OUTLET TO BE IN OPERATION AT A TIME 4.303.1.3.2

3. NEW HOSE BIBBS SHALL BE PROVIDED W/ ANTI SIPHON VALVES

4. GAS SHUT OFF VALVE FOR FIREPLACE TO BE INSTALLED OUTSIDE OF THE HEARTH AREA. MIN. 36" AND MAX OF 48" FROM GAS

5. COMBUSTION AIR MUST BE MAINTAINED (CMC CHAPTER 7)

6. THE CLEAR SPACE AND DISTANCE TO COMBUSTIBLE MATERIALS AROUND THE FURNACE UNIT SHALL COMPLY WITH THE MANFUFACTURERS INSTALLATION INSTRUCTIONS. (CMC 904.2)

7. A SEDIMENT TRAP SHALL BE INSTALLED ON THE GAS LINE DOWNSTREAM OF THE APPLIANCE SHUT-OFF VALVE AND AS CLOSE TO THE INLET OF THE EQUIPMENT AS PRACTICAL (CPC 1212.7)

8. APPLIANCES GENERATING A GLOW, SPARK, OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS MAY BE INSTALLED IN A GARAGE PROVIDED THE PILOTS. BURNERS OR HEATING ELEMENTS AND SWITCHES ARE A MIN. OF 18" ABOVE THE FLOOR LEVEL. (CMC 307.1) EXCEPTION: SEALED COMBUSTION SYSTEM APPLIANCES MAY BE INSTALLED AT FLOOR LEVEL WHEN LOCATED IN A GARAGE AND SUBJECT TO VEHICULAR DAMAGE, ADEQUATE BARRIERS MUST BE INSTALLED (E.G. 4" DIAM. STEEL PIPE FILLED WITH CONCRETE INSTALLED IN A FOOTING

9. PLUMBING VENTS TO BE A MINIMUM 10' FROM OPERABLE SKYLIGHTS OR OPENINGS.

10. INSTALL NON REMOVABLE BACK FLOW PREVENTORS ON HOSE BIBS PER ALL APPLICABLE CODES.

## WATER EFFICIENT PLUMBING FIXTURES

ALL SHOWER HEADS TO BE LESS THAN 1.8 GALLONS PER MINUTE (GPM) @ 80 PSI

LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GPM @ 60 psi.

BUILDING, AND 10 FEET FROM A FORCED AIR INLET. CMC 502.2.1

KITCHEN AND UTILITY FAUCETS LESS THAN 1.8 GALLONS PER MINUTE @ 60 psi. TOILETS TO BE LESS THAN 1.28 GALLONS PER FLUSH

WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWER HEAD, THE COMBINED FLOW OF ALL SHOWER HEADS AND OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME 4,303.1.3.2

## **MECHANICAL**

1. INSTALL FURNACE AND WATER-HEATER PLATFORMS PER ALL APPLICABLE CODES.

2. PROVIDE COMBUSTION AIR FOR FUEL BURNING APPLIANCES PER ALL APPLICABLE CODES 3. AIR DUCTS THAT PASS THROUGH LIVING/GARAGE COMMON WILL SHALL BE 26 GUAGE STEEL OR THICKER PER THE CBC. 4. SEISMICALLY BRACE WATER HEATER AND FURNACE PER ALL APPLICABLE CODES.

5. HEATING SYSTEM TO BE SIZED AND LAID OUT BY A MECHANICAL CONTRACTOR, IN ACCORDANCE WITH REQUIREMENTS OF 6. EXHAUST DRYER TO OUTDOORS WITH RIGID METAL DUCT PER ALL CODES. 7. HEW HEATING EQUIPMENT THAT GENERATES A GLOW, FLAME, OR SPARK, LOCATED IN THE GARAGE SHALL BE INSTALLED

SUCH THAT THE SOURCE OF IGNITION IS AT LEAST 18" ABOVE THE FLOOR. 8. HERS VERIFICATION REQUIRED FOR HVAC COOLING, HVAC-DISTRIBUTION, HVAC-FAN SYSTEMS, AND IAQ FANS. PROVIDE EVIDENCE OF THIRD PARTY VERIFICATIONS (HERS) TO PROJECT BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION PER TITLE 24 REQUIREMENTS.

9. VENTILATION HEATING AND AC SYSTEMS SHALL HAVE MERV 6 FILTERS OR BETTER, CEC 150.0(M)12B.

10. AT FINAL INSPECTION, PLACE IN THE BUILDING A MANUAL, WEB BASED REFERENCE, OR OTHER ACCEPTABLE MEDIA INCLUDING ITEMS 1 THROUGH 10 IN ACCORDANCE WITH CGBSC SECTION 4,410.1 11. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS AT THE TIME OF ROUGH INSTALLATION OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL STARTUP OF THE HEATING AND COOLING EQUIPMENT.

12. ALL ENVIRONMENTAL AIR DUCTS SHALL TERMINATE A MINIMUM OF 3 FEET FROM PROPERTY LINE OR OPENINGS INTO

T24 ENERGY REQUIREMENTS (2019 CALIFORNIA ENERGY CODE & ASHRAE 62.2)

A. OCCUPANCY SENSOR MUST BE MANUAL ON/OFF AND AUTOMATIC OFF. THE MAXIMUM TIME DELAY TO TURN OFF IS 30 MINUTES AFTER THE LAST DETECTED MOTION. SENSORS CANNOT HAVE AN OVERRIDE ALLOWING THE LIGHT FIXTURE TO BE

2. EXIIAUST FANS WITH INTEGRAL LIGHTING SYSTEM SHALL BE SWITCHES SEPARATELY FROM LIGHTING SYSTEM OR HAVE A LIGHTING SYSTEM THAT CAN BE MANUALLY TURNED ON AND OFF WHILE ALLOWING THE FAN TO CONTINUE TO OPERATE FOR LIGHTING SYSTEM THAT CAN BE MANUALLY TURNED ON AND OFF WHILE ALLOWING THE FAN TO CONTINUE TO

3. PERMANENTLY INSTALLED NIGHT LIGHT MUST BE HIGH EFFICACY LIGHTING OR THE NIGHT LIGHT IS RATED TO CONSUME NO MORE THAN 5 WATTS OF POWER AND DOES NOT CONTAIN A MEDIUM SCREW-BASE SOCKET.

OPERATE FOR AN EXTENDED PERIOD OF TIME. LIGHTING INTEGRAL TO AN EXHAUST FAN MUST BE HIGH-EFFICACY.

4. ALL LIGHTING SHALL BE HIGH EFFICACY SUCH AS FLUORESCENT. LED LIGHTING SYSTEMS AND GU24 LAMP HOLDER SHAL BE LISTED BY ENERGY COMMISSION AND SHALL MEET THE REQUIREMENT OF TABLE 150-C

LUMENS/ WATTS >5 TO 15 — 40 >15 TO 40 — 50

OVER 40 — 60

1. USE LOW-VOC INTERIOR VALLS/CEILING PAINTS (<50 GRAMS PER LETTER (GPL) VOCS REGARDLESS OF SHEEN) 2. USE LOW-VOC COATINGS THAT MEET SCAOMD RULE 1113

3. All CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING

A. CARPET AND RUG INDUSTRIES GREEN LABEL PLUS PROGRAM

B. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD OF TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS." VERSION 1.1, FEB 201 (AKA SPEC 01350) C. NSF/ANSI 140 AT THE GOLD LEVEL

D. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD.

4. WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING A. COC EMISSION LIGHTS DEFINES IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS HIGH PERFORMANCE

D. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH . "STANDARD METHOD OF TESTING AND EVALUATION OF

PRODUCTS DATABASE B. PRODUCTS COMPLIANT WITH CHPS CRITERIA CERTIFIED UNDER THE GREEN GUARD CHILDREN & SCHOOLS PROGRAM C. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE FLOOR SCORE PROGRAM

VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS." VERSION 1.1, FEB 201 (AKA SPEC 01350) 5. HARDWOOD PLYWOOD, PARTICAL BOARD AND MDF COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED ON ARB'S AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD (17 CCR 93120 ET SEQ), BY OR BEFORE THE DATES SPECIFIED IN THOSE SECTIONS, AS SHOWN ON TABLE

6. ALL CARPET ADHESIVES SHALL MEET THE REQUIREMENTS OF TABLE 4.504.1

PER CRC R308.1 EACH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATIONS PER CRC R308.4 SHALL COMPLY WITH SAFETY GLAZING (I.E. TEMPERED). AS THIS PROJECT IS LOCATED IN A WUI ZONE THE MUST ALSO SATISFY THOSE REQUIREMENTS WHERE APPLICABLE

INCHES ABOVE THE FLOOR AND WITHIN 24 INCHES OF EITHER EDGE OF A DOOR PER CRC R308.4.2 #1 B. GLAZING ADJACENT TO A DOOR WHERE THE BOTTOM OF GLAXING IS LESS THAN 60 INCHES ABOVE THE FLOOR AND GLAZING IS ON THE PERPENDICULAR WALL AND WITHIN

A. GLAZING ADJACENT TO A DOOR WHERE THE BOTTOM OF GLAZING IS LESS THAN 60

24 INCHES OF THE HINGE SIDE OF THE DOOR PER CRC R308.4.2 #2

BOTTOM TREAD NOSING PER CRC R308.4.7

COMPLY WITH SECTION R312.2.2.

C. GLAZING IN DOORS PER CRC R308.4.1 D. WINDOWS GREATER THAN 9 SQUARE FEET AND THE BOTTOM EDGE CLOSER THAN 18 INCHES TO THE FLOOR AND TOP EDGE MOE THAN 36 ABOVE FLOOR PER CRC R308.4.3

E. GLAZING IN WALLS OR ENCLOSURES ADJCENT TO SHOWERS, BATHTUBS, AND POOLS THAT ARE WITHIN 60 INCHES OF THE DRAIN OR FLOOR PER CRC R308.4.5 UNLESS GLAZING IS MORE THAN 60 INCHES HOTIZONTALLY AWAY FROM THESE LOCATIONS.

F. GLAZING IN GUARDS AND RAILING PER CRC R308.4.4 G. GLAZING ADJACENT TO STAIRS AND RAMPS WHERE THE BOTTOM OF GLAZING IS CLOSER THAN 35 INCHES ABOVE THE FLOOR UINLESS GLAZING IS MORE THAN 60 INCHES

H. GLAZING ADJACENT TO THE BOTTOM OF STAIR LANDING WHERE THE GLAZING IS

CLOSER THAN 36 INCHES ABOVE THE LANDING AND WITHIN 60 INCHES FROM THE

HORIZONTALLY FROM THE WALKING SURFACE PER CRC R308.4.6

WINDOW FALL PROTECTION AND WINDOW SILLS1. IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND GREATER THAN 72" ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING (CRC R312.2):WINDOW FALL PROTECTION AND WINDOW SILLS1. IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND GREATER THAN 72" ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR

B. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F2090. C. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT

PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPEN POSITION.

OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING (CRC

R312.2):A. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4" DIAMETER SPHERE TO

EGRESS DOOR SHALL BE SIDE HINGED AND SHALL PROVIDE A CLEAR WIDTH OF NOT LESS THAN 32 INCHES BETWEEN FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES PER CRC R311.2. THE CLEAR HEIGHT OF THE OPENING SHALL BE NOT LESS THAN 78 INCHES IN HEIGHT MEASURED FROM TOP OF THRESHOLD TO THE BOTTOM OF THE DOOR STOP PER CRC R311.2.

MINIMUM 36 INCH DEEP LANDING IN THE DIRECTION OF TRAVEL, OUTSIDE ALL EXTERIOR DOORS. LANDINGS SHALL BE NOT MORE THAN 7-3/4 INCHES LOWER THAN THRESHOLD FOR IN-SWINGING DOORS AND NOT MORE THAN 1-1/2 INCHES LOWER THAN THRESHOLD FOR OUT-SWINGING DOORS PER CRC R311.3.1. SPECIFY THE LANDINGS HAVE MINIMUM 2% SLOPE AWAY FROM THE BUILDING PER CRC

A) DOOR SHALL HAVE A MINIMUM CLEAR HEIGHT OF 78 INCHES, MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE STOP

OR SPECIAL KNOWLEDGE OR EFFORT. C) A SLOPE AT THE EXTERIOR LANDING SHALL NOT EXCEED 2%. CRC R311.3.

D) LANDING AT THE EGRESS DOOR SHALL NOT BE MORE THAN ½ INCHES LOWER THAN THE TOP OF THE THRESHOLD. LANDING SHALL NOT BE MORE THAN 7.75 INCHES LOWER THAN THE TOP OF THE THRESHOLD WHERE DOOR DOES NOT SWING OVER THE LANDING. CRC R311.3.1

B) DOOR SHALL BE READILY OPENABLE FROM THE INSIDE THE DWELLING WITHOUT THE USE OF A KEY

REVISIONS BY Ionday, June 3, 2024

> ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLEY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION MEGAN MINER DESIGN.



ct

en • 🖂 **(** [atilija  $\mathbb{N}$ 

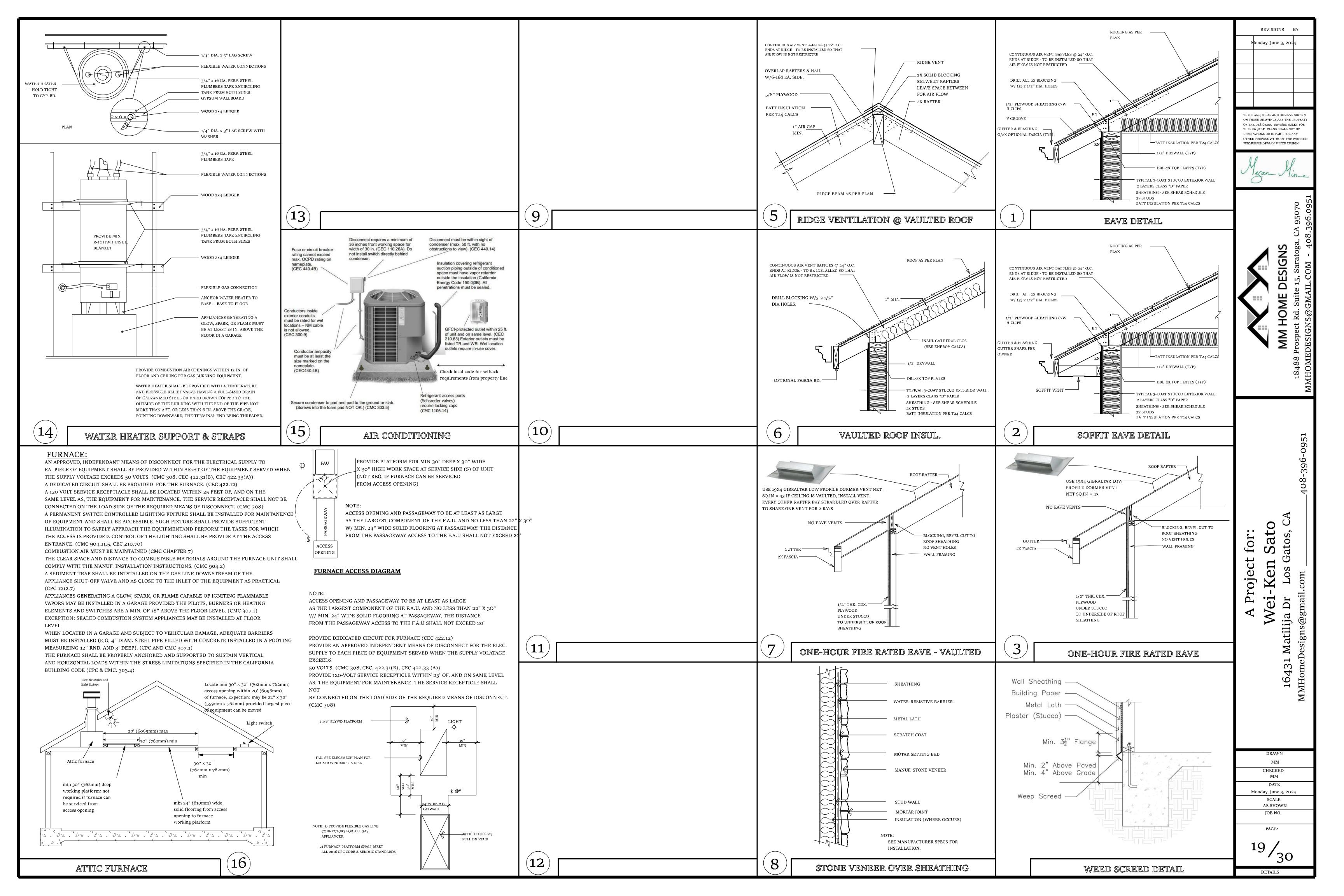
31

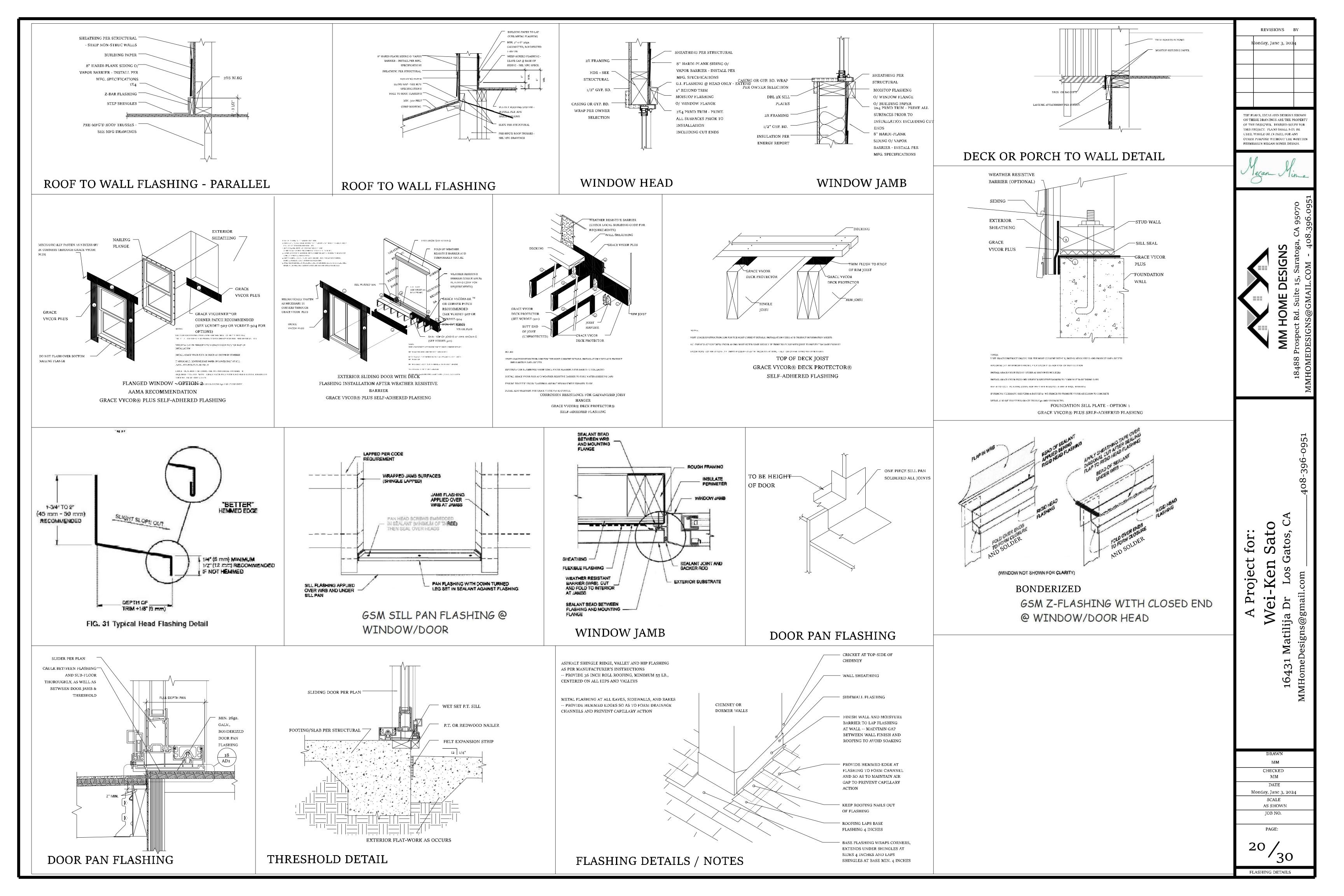
 $\mathbf{M}\mathbf{M}$ CHECKED SCALE AS SHOWN JOB NO.

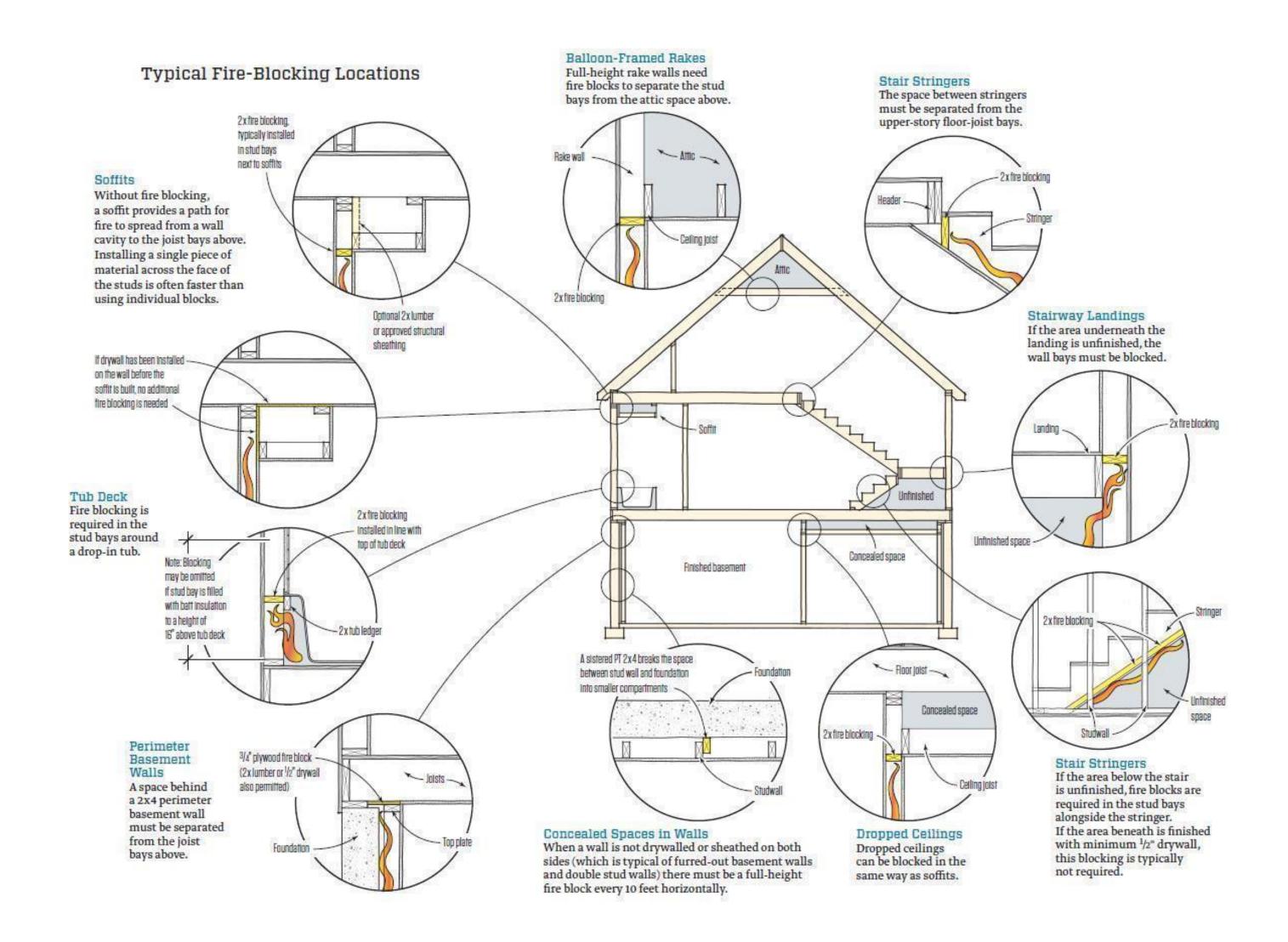
PAGE:

D

Monday, June 3, 2024







## WILDLAND URBAN INTERFACE NOTES

THE PROPOSED STRUCTURE IS IN THE STATE RESPONSIBILITY AREA (SRA) AND THE REQUIREMENTS OF THE WILDLAND-URBAN INTERFACE CODE (WUI) CBC CHAPTER 7A OR CRC R337 APPLY. ANY NEW CONSTRUCTION IN THE STATE RESPONSIBILITY AREA (SRA) LOCATED WITHIN ANY SEVERITY ZONE SHALL COMPLY VITH THE REQUIREMENT OF THE WILDLAND-URBAN INTERFACE CODE (WEI) CRC R337.

THIS PROJECT IS CONSTRUCTION OF A NEW BUILDING REQUIRED TO BE FULLY FIRE SPRINKLERED. All PLAN SUBMITTALS REQUIRING FIRE SPRINKLERS, FIRE SERVICE UNDERGROUND, FIRE ALARMS, AND HOOD AND DUCT SYSTEMS, SHALL BE SUBMITTED AND SHALL BE APPROVED BY THE FIRE DEPARTMENT AND STATE FIRE MARSHALL BEFORE A FRAMING INSPECTION SHALL BE GRANTED BY THE BUILDING

JOB COMES OF THE BUILDING AND FIRE SYSTEM PLANS AND PERMITS SHALL BE ON-SITE DURING INSPECTIONS. PRIOR TO THE FRAME INSPECTION, APPROVED FIRE SPRINKLERS AND/OR FIRE ALARM PLANS MUST BE ON SITE FOR THE FIRE/BUILDING INSPECTOR.

BUILDINGS SHALL BE OF APPROVED ADDRESS NUMBERS, BUILDING NUMBERS AND/OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION SHALL BE IN COMPLIANCE WITH THE JURISDICTIONAL REQUIREMENTS. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE PROVIDE IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE, AND SHALL BE OF ARABIC NUMBERS OR ALPHABETICAL LETTERS. WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE.

NOTICE TO CONTRACTORS - FIRE DEPARTMENT DOES NOT Allow INSTALLATION OF FIRE SERVICES MAINS (INCLUDING ON SITE FIRE HYDRANTS), FIRE SPRINKLER SYSTEMS, FIRE ALARM SYSTEMS OR OTHER FIRE PROTECTION SYSTEMS PRIOR TO PLAN APPROVAL. CONTRACTORS WHO ENGAGE IN SUCH ACTIVITIES MAY BE CITED AND THE PROJECT WILL BE RED TAGGED.

All underground fire service (including on site fire hydrants), fire sprinkler systems, fire alarm systems, fire pumps, COMMERCIAL HOOD & DUCT SYSTEMS, OTHER FIRE PROTECTION SYSTEMS REQUIRE SEPARATE PLANS, APPLICATION, REVIEW, PERMIT AND FEE. ANY OF THE ABOVE NAMED SYSTEMS INCLUDED WITH APPLICATION AND SHOWN OR NOTED ON THESE PLANS ARE TO BE USED FOR BID PURPOSES ONLY.

FIRE ALARM SYSTEM AND ALL COMPONENTS SHALL CONFORM TO NFPA 72 MINIMUM STANDARDS AND SHALL BE REVIEWED AND APPROVED BY THE FIRE DEPARTMENT PRIOR TO INSTALLATION. STAMPED, APPROVED PLANS MUST BE KEPT ON SITE FOR THE FIRE INSPECTOR. FIRE ALARM CONTRACTOR MUST PICK UP SUBMITTAL PACKET PRIOR TO SUBMITTAL FROM FIRE DEPT. COMPLETED PACKET MUST BE INCLUDED WITH All FIRE ALARM PLAN SUBMITTAL. DOCUMENTATION OF FIRE ALARM MONITORING AND SERVICE MUST BE

All SITE INSPECTIONS REQUIRE A MINIMUM 24 HOURS NOTICE. ALL FIRE DEPARTMENT INSPECTIONS ARE TO BE REQUESTED THROUGH THE PERMIT CENTER, PLEASE BE SPECIFIC AS TO TYPE OF INSPECTION.

FIRE SAFETY DURING CONSTRUCTION SHALL FOLIOW CFC CHAPTER 33. FIRE EXTINGUISHERS SHALL BE PROVIDED. THE AUTOMATIC FIRE SPRINKLERS SYSTEM IS TO REMAN IN SERVICE AT All TIMES. UNDER NO CIRCUMSTANCE SHALL THE FIRE SPRINKLER SYSTEM BE LEFT OUT OF SERVICE OVERNIGHT. FIRE DEPARTMENT ACCESS ROADS SHALL BE ESTABLISHED & MAINTAINED IN ACCORDANCE WITH SECTION 503.

### ROOFING

1. ROOFS SHALL COMPLY WITH THE REQUIREMENTS OF CRC §R337 & R901. ROOFS SHALL HAVE A ROOFING ASSEMBLY INSTALLED IN ACCORDANCE WITH ITS LISTING AND THE MANUFACTURE'S INSTALLATION INSTRUCTIONS. CLASS A ROOF ASSEMBLY'S ARE REQUIRED.

2. ROOF COVERINGS: WHERE THE ROOF PROFILE ALLOWS A SPACE BETWEEN THE ROOF COVERING AND ROOF DECKING, IHE SPACES SHALL BE CONSTRUCTED TO PREVENT THE INTRUSION OF FLAMES AND EMBER, BE FIRE STOPPED WITH APPROVED MA TE MATERIALS OR HA VE ONE LA YER OF NO. 72 LBS. CAPSHEET INSTALLED OVER THE COMBUSTIBLE DECKING. CRC \$R337.5.2.(C) 3. ROOF VALLEYS: WHEN PROVIDED, VALLEY FLASHINGS SHALL BE NOT LESS THAN 0.019-INCH (NO. 26 GALVANIZED SHEET GAGE) CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36" WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 LBS. CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY. CRC §R37.5.3.(C)

4. ROOF GUTTERS: ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. CRC \$R337.5.4. EXCEPTION: AREAS DESIGNATED AS SRA

### ATTIC- EAVE - SOFFIT - UNDERFLOOR VENTILATION

5. EAVE/ SOFFIT / ATTIC/ PORCH/ UNDERFLOOR PROTECTION: OPENINGS THEREIN SHALL BE A MINIMUM OF 1/16" AND SHALL NOT EXCEED 1/8" AND MATERIALS SHALL BE NON-COMBUSTIBLE ANDCORROSION RESISTANT. CRC §R337.6.2.

6. VENTS COMPLYING WITH THE REQUIREMENTS OF R327.6.3 MAY BE INSTALLED IF ATTIC IS FULLY SPRINKLED OR THE EXTERIOR WALL COVERING OR UNDERSIDE OF EAVE EAVES ARE OF IGNITION RESISTANT MATERIAL PER SFM-12-7 A-5 AND LOCATED MORE THAN 12' FROM THE GROUND OR WALKING SURFACE CRC §R337.6.3.

### EXTERIOR WALLS

7. EXTERIOR WALLS SHALL BE APPROVED NON-COMBUSTIBLE OR IGNITION-RESISTANT MATERIAL, HEAVY TIMBER, OR LOG WALL CONSTRUCTION, OR SHALL PROVIDE PROTECTION FROM THE INTRUSION OF FLAMES AND EMBERS IN ACCORDANCE WITH STANDARD SFM 12-7A-1. CRC §R337.7.3.

RAFTERS AT ALL ROOF OVERHANGS, OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE. CRC §R337.7.3. l. 9. WINDOW GLAZING: EXTERIOR WINDOWS, GARAGE DOORS, GLAZED DOORS, AND GLAZED OPENINGS WITHIN EXTERIOR DOORS SHALL BE INSULATING-GLASS UNITS WITH A MINIMUM OF ONE TEMPERED

8, EXTERIOR WALL COVERINGS: EXTERIOR WALL COVERINGS SHALL EXTEND FROM THE TOP OF THE FOUNDATION TO THE ROOF, AND TERMINATE AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN

PANE, OR GLASS BLOCK UNITS, OR HAVE A FIRE-RESISTIVE RATING OF NOT LESS THAN 20 MINUTES. CRC §R337.8. 10. EXTERIOR DOOR ASSEMBLIES; EXTERIOR DOOR ASSEMBLIES SHALL CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7 A-2 OR SHALL BE APPROVED NONCOMBUSTIBLE CONSTRUCTION, OR SOLID CORE WOOD HAVING STILES AND RAILS NOT LESS THAN 1-3/8" THICK, OR SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 20-MINUTES. CRC §R327.8.

### DECKING FLOORS AND UNDERFLOOR PROTECTION

11. WALKING SURFACE: MATERIALS OF DECKS, PORCHES, BALCONIES, STAIR TREADS, RISERS, AND LANDINGS WHERE ANY PORTION OF SUCH SURFACE IS WITHIN 10' OF THE BUILDING SHALL COMPLY WITH 12. DECK SURFACES: SHALL BE CONSTRUCTED OF IGNITION-RESISTANT MATERIALS AND PASS THE PERFORMANCE REQUIREMENTS OF SFM 12-7A-4. CRC §R337.9.3

### UNDERFLOOR AND APPENDAGES PROTECTION

13. UNDERSIDE OF APPENDAGES AND FLOOR PROJECTIONS: THE UNDERSIDE OF CANTILEVERED AND OVERHANGING APPENDAGES AND FLOOR PROJECTIONS SHALL MAINTAIN THE IGNITION-RESISTANT INTEGRITY OF EXTERIOR WALLS, OR THE PROJECTION SHALL BE ENCLOSED TO THE GRADE. CRC §R337.7.9.

14. UN-ENCLOSED UNDERFLOOR PROTECTION: BUILDINGS SHALL HAVE ALL UNDERFLOOR AREAS ENCLOSED TO THE GRADE THE SAME AS EXTERIOR WALL REQUIREMENTS. (EXCEPTION) THE COMPLETE ENCLOSURE OF UNDER FLOOR AREAS MAY BE OMITTED WHERE THE UNDERSIDE OF ALL EXPOSED FLOORS, EXPOSED STRUCTURAL COLUMNS, BEAMS AND SUPPORTING WALLS ARE PROTECTED AS REQUIRED WITH EXTERIOR IGNITION-RESISTANT MATERIAL CONSTRUCTION OR BE HEAVY TIMBER. CRC §R337.7.8.

15. PRIOR TO BUILDING PERMIT FINAL APPROVAL THE PROPERTY SHALL BE IN COMPLIANCE WITH THE VEGETATION CLEARANCE REQUIREMENTS PRESCRIBED IN CALIFORNIA PUBLIC RESOURCES CODE 4291 CALIFORNIA GOVERNMENT CODE SECTION 51182. CRC §R337.1.5.

16. THE ENFORCEMENT OF DEFENSIBLE SPACE AND INSPECTION SHALL BE PERFORMED BY THE LOCAL FIRE DEPARTMENT OR THE AUTHORITY HAVING JURISDICTION. CRC §R337.1.5. 17. SEE CAL-FIRE HANDOUTS FOR HOW TO OBTAIN DEFENSIBLE SPACE ZONES WHICH INCLUDE: FIREBREAK WITHIN 30' AND 100' OF EACH BUILDING OR STRUCTURE, DEAD AND DYING WOODY SURFACE FUELS SHALL BE REMOVED, DOWN LOGS OR STUMPS, FUEL SEPARATION, AND DEFENSIBLE SPACE WITH CONTINUOUS TREE CANOPY.

EXTERIOR WINDOWS, SKYLIGHTS AND EXTERIOR GLAZED DOOR ASSEMBLIES SHALL COMPLY WITH ONE OF THESE:

18. BE CONSTRUCTED OF MULTIPANE GLAZING WITH A MINUMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING OR,

19. BE CONSTRUCTED OF GLASS BLOCK UNITS OR,

20. HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 20 MINUTED WHEN TESTED ACCORDING TO NFPA 257, OR,

21. BE TESTED TO MEET THE PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2.

OPERABLE SKYLIGHTS SHALL BE PROTECTED BY A NON-COMBUSTIBLE MESH SCREEN WHERE THE DIMENSIONS OF THE OPENINGS IN THE SCREEN SHALL NOT EXCEED 1/8"

EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING:

22. THE EXTERIOR SURFACE OR CLADDING SHALL BE OF NON COMBUSTIBLE MATERIAL

23. THE EXTERIOR SURFACE OR CLADDING SHALL BE OF IGNITION RESISTANT MATERIAL 24. THE EXTERIOR DOOR SHALL BE CONSTRUCTED OF SOLID CORE WOOD THAT COMPLIES WITH THE FOLLOWING:

A. STILES AND RAILS SHALL NOT BE LESS THAN 1 3/8" THICK

B. PANELS SHALL NOT BE LESS THAN 1 1/4" THICK, EXCEPT FOR THE EXTERIOR PERIMETER OF THE PANEL THAT SHALL BE PERMITTED TO TAPER TO A TONGUE NOT LESS THAN 3/8" THICK 25. THE EXTERIOR DOOR ASSEMBLYSHALL HAVE A FIRE RESISTANCE RATING OF NOT LESS THAN 20 MINUTED WHEN TESTED ACCORDING TO NFPA 252.

26. THE EXTERIOR SURFACE OR CLADDING SHALL BE TESTED TO MEET THE PERFORMANCE REQUIREMENTS OF SECTION 707A.3.1 WHEN TESTED IN ACCORDANCE WITH ASTM E2707

27. THE EXTERIOR SURFACE OR CLADDING SHALL BE TESTED TO MEET THE PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1.

### GLAZING IN EXTERIOR DOORS SHALL COMPLY WITH SECTION 708A.2, LISTED ABOVE

EXTERIOR GARAGE DOORS SHALL RESIST THE INTRUSION OF EMBERS FROM ENTERING BY PREVENTING GAPS BETWEEN DOORS AND DOOR OPENINGS, AT THE BOTTOM, SIDES AND TOPS OF DOORS, FROM EXCEEDING 1/8". GAPS BETWEEN DOORS AND DOOR OPENINGS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING METHODS:

A. WEATHER STRIPPING PRODUCTS MADE OF CODE SECTION COMPLIANT MATERIALS OR

B. DOOR OVERLAPS ONTO JAMBS AND HEADER OR C. JAMBS AND HEADERS COVERED WITH METAL FLASHING.

FIRE BLOCKING - WUI NOTES

REVISIONS BY Ionday, June 3, 202

ON THESE DRAWINGS ARE THE PROPERTY OF THE DESIGNER. DEVISED SOLEY FOR THIS PROJECT. PLANS SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN



roje

Matilija 16431

CHECKED Monday, June 3, 2024 AS SHOWN

JOB NO.

PAGE: