

ELECTRICAL / MECHANICAL / PLUMBING NOTES

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

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

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

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

CARBON MONOXIDE ALARMS

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

RECEPTACLES SHALL,

(A) NOT BE OVER 6' FROM OPENINGS INCLUDING ANY WALL SPACE 2' OR WIDER.

(B) NOT BE MORE THAN 12' O.C. INCLUDING SLIDING GLASS DOORS.

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

(D) HAVE WATERPROOF COVERS WHEN INSTALLED OUTDOORS.

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

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

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

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

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

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

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

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

SMOKE DETECTORS SHALL BE INTERCONNECTED 110V WITH BATTERY BACKUP, WHICH ARE AUDIBLE IN ALL SLEEPING AREAS AT THE FOLLOWING LOCATIONS:

- (1) ALL BEDROOMS; (2) HALLWAYS LEADING TO BEDROOMS, (4) AT LEAST ONE AT EVERY LEVEL AND (5) FARTHER THAN 5 FEET HORIZONTAL DISTANCE FROM THE BATHROOM DOOR CONTAINING A BATHTUB OR SHOWER. PER C.R.C. R314.3, R314.4, R314.5.

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

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

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

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

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

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

All lighting requirements shall follow the California Energy Efficiency Standards 150.0(k)

All lighting fixtures shall be controlled by either a dimmer switch or by a vacancy sensor switch that requires a manual on activation (does not automatically turn on) and automatically turns off within 30 minutes after the room is vacated.

Except that bathrooms, laundry room, garages, and utility rooms shall have one light fixture controlled by a vacancy sensor. All other lighting in these rooms shall be controlled by a vacancy sensor or a dimmer switch.

All light fixtures shall contain bulbs that are labeled as JA8-2016 (JA8-2016-E for sealed lens or recessed fixture). Screw base bulbs are permitted, except in recessed lighting fixtures.

Recessed lighting shall be listed as IC (zero clearance to insulation) and AT (air tight), be sealed/caulked between the fixture housing and ceiling, shall not contain a screw base socket, and contain bulbs marked with JA8-2016-E efficiency label.

Note that all outdoor lighting shall be controlled by a manual ON and OFF switch and controlled by photocell and motion sensor.

All kitchen receptacles shall meet all of the following requirements:
Per - CEC 210.8, 210.12, 210.23, 210.52, 406.12

Islands/peninsulas shall have at least one receptacle mounted not more than 12 inches below the countertop and where the countertop does not extend more than 6 inches beyond its base. CEC 210.52

Electric stoves and ovens shall be supplied with a 40- or 50- amp branch circuit. CEC 210.23

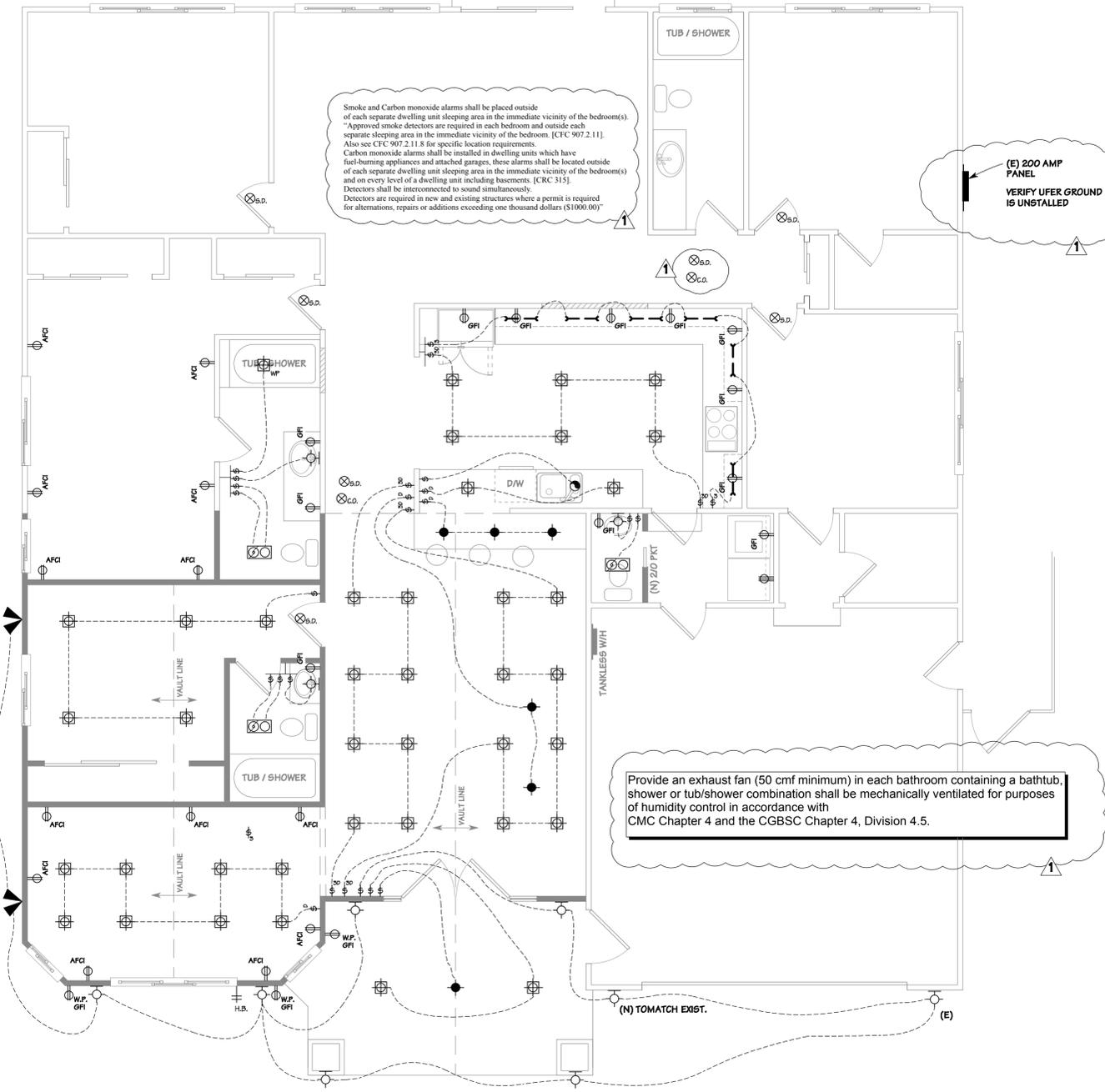
Bathrooms shall require the following:

- A) New or reconfigured shower stalls shall be a minimum finished interior of 1,024 square inches, be capable of encompassing a 30 inch diameter circle. Any doors shall swing out of the enclosure have a clear opening of 22 inches minimum. Per - CPC 408.5, 408.6
- B) Shower stalls and bathtubs with shower heads installed, shall have walls finished with a nonabsorbent surface for a minimum of 6 feet above the floor. CBC 1210 and CRC R307.2
- C) The water closet shall have a clearance of 30 inches wide (15 inches on center) and 24 inches in front. (CPC 402.5)
- D) Where the water closet (or other plumbing fixture) comes into contact with the wall or floor, the joint shall be caulked and sealed to be watertight. Per - CPC 402.2

Smoke and Carbon monoxide alarms shall be placed outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).
Approved smoke detectors are required in each bedroom and outside each separate sleeping area in the immediate vicinity of the bedroom. [CFC 907.2.11]
Also see CFC 907.2.11.5 for specific location requirements.
Carbon monoxide alarms shall be installed in dwelling units which have fuel-burning appliances and attached garages, these alarms shall be located outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s) and on every level of a dwelling unit including basements. (CRC 315)
Detectors shall be interconnected to sound simultaneously.
Detectors are required in new and existing structures where a permit is required for alterations, repairs or additions exceeding one thousand dollars (\$1000.00)

(E) 200 AMP PANEL
VERIFY UFER GROUND IS INSTALLED

Provide an exhaust fan (50 cmf minimum) in each bathroom containing a bathtub, shower or tub/shower combination shall be mechanically ventilated for purposes of humidity control in accordance with CMC Chapter 4 and the CGBSC Chapter 4, Division 4.5.



ELECTRICAL/MECHANICAL SYMBOL LEGEND

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

ELEC./MECH./PLUMB. PLAN

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

OWNER: MR & MRS SHRIVASTAVA
4188 EGGERS DRIVE
FREMONT, CA. 94536

DESIGN BY: PACIFIC BLUE DEVELOPMENTS
35 Collins Way
San Francisco, CA 94108
(415) 564-6265



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	PER CITY COMMENTS DATED 02/04/2020

ELEC. / MECH. / PLUMB. PLANS
PLAN NOTES

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PBD

JOB NO.
19-16

DATE
06/16/2020

SCALE
AS SHOWN

SHEET

A-5