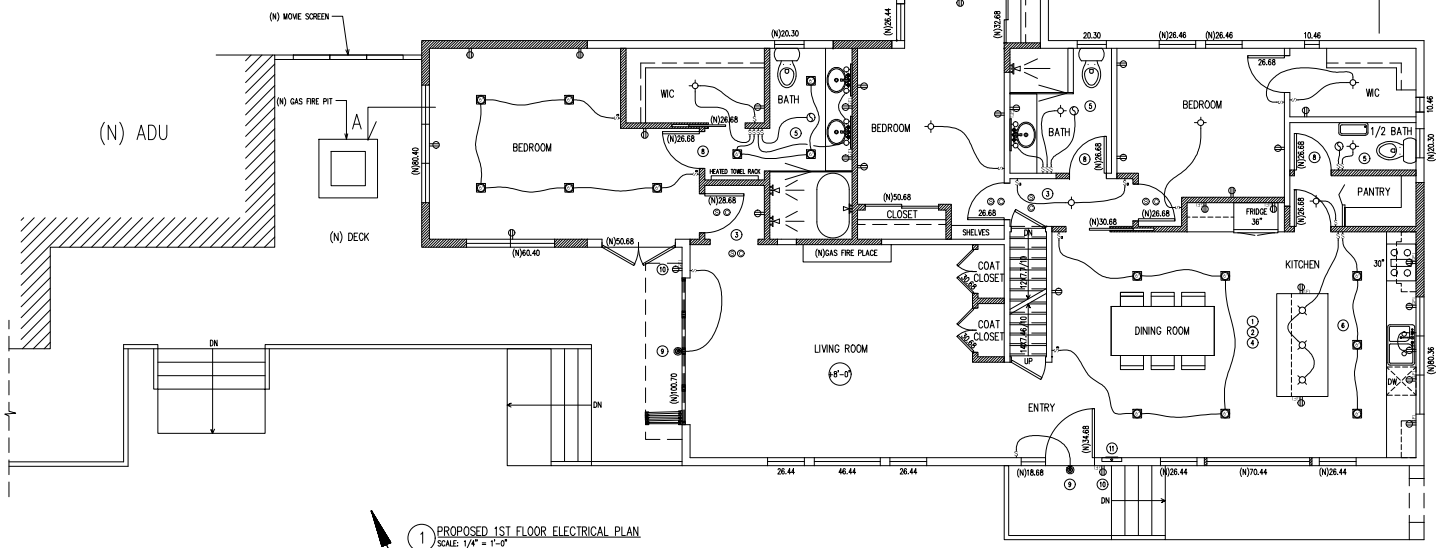
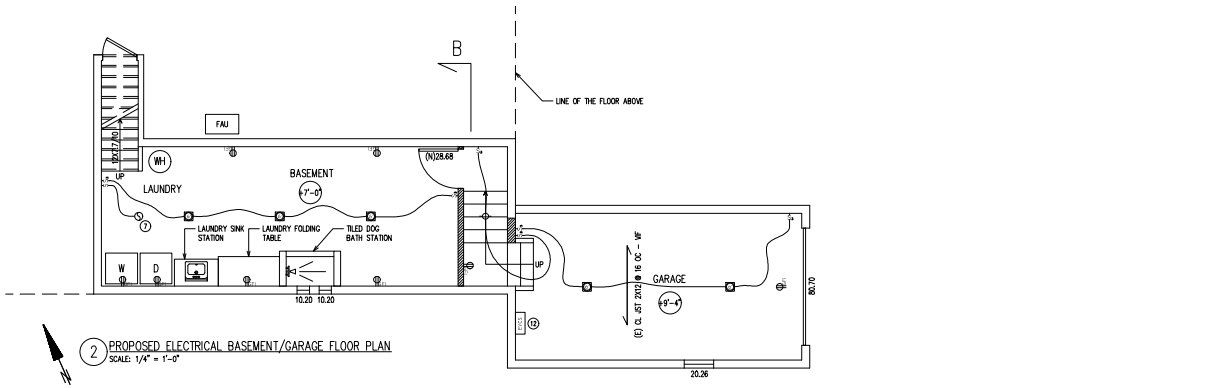


1 PROPOSED 1ST FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



2 PROPOSED ELECTRICAL BASEMENT/GARAGE FLOOR PLAN
SCALE: 1/4" = 1'-0"

VERIFY ALL DIMENSIONS IN FIELD, IN CASE OF DISCREPANCY, GC TO CONTACT ARCHITECT PRIOR TO CONTINUATION OF WORK.

0' 5' 10' 15' 20' 25'

KEY NOTES

1. SEE ATTACHED MANDATORY MEASURES TO BE FOLLOWED ON AND DONE DURING CONSTRUCTION PER 2019 CBC
2. APPROVED ADDRESS NUMBER FOR EACH UNIT TO BE CONTRAST W/ BACKGROUND COLOR, MIN 4" HIGH, MIN STROKE OF ½" AND BE ILLUMINATED, AND CLEARLY VISIBLE FROM THE STREET
3. NEW CARBON MONOXIDE ALARMS AND SMOKE DETECTOR SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH A BATTERY BACK-UP. THEY SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
SMOKE ALARMS SHALL BE INSTALLED A MINIMUM OF 20 FEET FROM A PERMANENTLY INSTALLED COOKING APPLIANCE. IONIZATION SMOKE ALARMS AND PHOTOELECTRIC SMOKE ALARMS ARE PERMITTED TO BE INSTALLED 10 FEET OR GREATER FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
4. ARC FAULT CIRCUIT INTERRUPTERS IN ALL ROOMS – UON
5. (N) BATHROOM
PROVIDE AT LEAST ONE 20-AMP CIRCUIT AT BATHROOM; CIRCUIT SHALL HAVE NO OTHER OUTLETS.
LUMINAIRES INSTALLED IN WET OR DAMP LOCATIONS MUST BE MARKED – SUITABLE FOR WET/DAMP LOCATIONS.
MECHANICAL VENTILATION (EXHAUSTED FAN) IS REQUIRED IN ALL BATHROOMS.
BATHROOM EXHAUST FANS WHICH EXHAUST DIRECTLY FROM BATHROOMS SHALL COMPLY WITH CGBS 4.506.1 AND SHALL INCLUDE THE FOLLOWING: HAVE AN EXHAUST RATE OF MIN 50 CFM AND BE ENERGY STAR COMPLIANT AND HAVE A BACKDRAFT DAMPER.
UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE.
HUMIDISTAT CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY OF 50% TO 80%. THE CONTROL MAY BE A SEPARATE COMPONENT OR INTEGRAL TO THE EXHAUST FAN. BATHROOM EXHAUST FAN CONTROLS MUST COMPLY WITH ONE OF THE FOLLOWING:
ALL LIGHTING SHALL BE SWITCHED SEPARATELY FROM EXHAUST FANS. FOR AN EXHAUST FAN WITH AN INTEGRAL LIGHTING SYSTEM, IT SHALL BE POSSIBLE FOR THE LIGHTING SYSTEM TO BE MANUALLY TURNED ON AND OFF WHILE ALLOWING THE FAN TO CONTINUE TO OPERATE FOR AN EXTENDED PERIOD OF TIME.
IF FAN IS PART OF INTERMITTENTLY WHOLE HOUSE FAN VENTILATION SYSTEM PER ASHRAE 62.2, MAXIMUM SOUND RATING OF 3-SONES IS ALLOWED AT 100 CFM.
LIGHTS AT BATHROOM ROOMS SHALL BE HIGH EFFICACY AND CONTROLLED BY VACANCY SENSORS.
EXHAUST FAN SHOWING IN THE BATHROOMS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEM. (CENC 150.0(K) 2 (B)).
6. (N) KITCHEN
TWO SMALL APPLIANCE OUTLET CIRCUITS, 20-AMP EACH, ARE REQUIRED IN KITCHEN CIRCUITS SHALL BE BALANCED AND HAVE NO OTHER OUTLETS. PROVIDE INDIVIDUAL DEDICATED CIRCUITS, MINIMUM 15 AMPS EACH, FOR ALL MAJOR APPLIANCES AND AS FOLLOW: DISHWASHER, GARBAGE DISPOSAL, HOOD, REFRIGERATOR, ETC.
KITCHEN RECEPTACLE OUTLETS SERVING COUNTERTOPS SHALL BE INSTALLED IN EACH COUNTER WALL 12 INCHES OR WIDER SO NO POINT ALONG THE WALL IS MORE THAN 24 INCHES. SHALL BE INSTALLED IN EACH WALL SPACE SEPARATED BY RANGE TOPS, REFRIGERATORS OR SINKS. SHALL BE INSTALLED NOT MORE THAN 20 INCHES ABOVE THE COUNTERTOP. AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND AND EACH PENINSULA COUNTER SPACE WITH A LONG DIMENSION OF 24 INCHES MINIMUM AND A SHORT DIMENSION OF 12 INCHES OR GREATER; PENINSULA COUNTER TOPS ARE MEASURED FROM THE CONNECTING EDGE.
THE KITCHEN EXHAUST SYSTEM SHALL BE DUCTED WITH A SMOOTH METAL INTERIOR DUCT, VENTED TO OUTDOORS, HAVE A MINIMUM EXHAUST RATE OF 100 CFM AND BE PROVIDED WITH A BACK-DRAFT DAMPER.
EXHAUST FANS AND UNDER CABINET LIGHTING SHALL BE SWITCHED SEPARATELY FROM LIGHTING SOURCE.
KITCHEN SHALL HAVE AN EXHAUST FAN DUCTED TO THE OUTSIDE WITH A MINIMUM VENTILATION RATE OF 100 CFM. THE DUCTING SHALL BE SIZED ACCORDING TO ASHRAE STANDARD 62.2 TABLE 7.1. ([150(O) CENC)
KITCHEN HOOD SHALL HAVE A MINIMUM 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, MAXIMUM SOUND RATING OF 3-SONES IS ALLOWED AT 100 CFM.
7. (N) LAUNDRY ROOM
PROVIDE AT LEAST ONE 20-AMP CIRCUIT AT LAUNDRY ROOM; CIRCUIT SHALL HAVE NO OTHER OUTLETS.
LUMINAIRES INSTALLED IN WET OR DAMP LOCATIONS MUST BE MARKED – SUITABLE FOR WET/DAMP LOCATIONS.
LIGHTS AT LAUNDRY ROOMS, AND UTILITY ROOMS SHALL BE HIGH EFFICACY AND CONTROLLED BY VACANCY SENSORS.
PROVIDE 1 EXHAUST FAN DUCTED TO THE OUTSIDE WITH A MINIMUM VENTILATION RATE OF 50 CFM. THE DUCTING SHALL BE SIZED ACCORDING TO ASHRAE STANDARD 62.2 – TABLE 7.1. ([150(O) CENC)
8. VACANCY SENSOR
9. OUTDOOR LIGHTING SHALL BE CONTROLLED BY MANUAL ON/OFF SWITCH AND CONTROLLED BY PHOTOCELL AND MOTION SENSOR OR PHOTOCONTROL TIME SWITCH CONTROL/ASTRONOMICAL TIME CLOCK/ENERGY MANAGEMENT CONTROLS SYSTEM.
10. WEATHERPROOF EXTERIOR GRADED OUTLET
11. (N) 200 AMP PANEL
12. ELECTRICAL VEHICLE CHARGING STATION:
GC TO PROVIDE CONDUIT AND A RESERVED SPACE ON THE SERVICE PANEL FOR A DEDICATED 40A BRANCH CIRCUIT AND OVERCURRENT PROTECTION FOR EVE EV CHARGING.
INSTALL A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE IN A LISTED CABINET, BOX, OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF THE EV CHARGER. THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE. [CALGREEN]

ELECTRICAL NOTES:

– AFCI PROTECTION IS REQUIRED FOR ALL RECEPTACLES EXCEPT FOR THOSE LOCATED OUTSIDE, IN BATHROOMS, GARAGES, ATTICS AND BASEMENTS.
– TAMPER RESISTANT RECEPTACLES ARE REQUIRED IN ALL LOCATIONS EXCEPT AT OUTLETS LOCATED MORE THAN 5 1/2 FEET ABOVE THE FLOOR, OUTLETS THAT ARE A PART OF A LUMINAIRE, OUTLETS DEDICATED TO APPLIANCES THAT CANNOT BE EASILY MOVED AND AT OUTLETS LOCATED IN ATTICS.
– GFCI PROTECTION REQUIRED FOR RECEPTACLES LOCATED OUTDOORS, IN BATHROOMS, UNFINISHED BASEMENTS, CRAWL SPACES, KITCHEN AND WET BAR COUNTER TOP SURFACES, GARAGES, ACCESSORY BUILDINGS NOT INTENDED AS HABITABLE ROOMS.
– RECEPTACLES LOCATED IN DAMP OR WET LOCATIONS SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF AND SHALL BE LISTED BY SOURCE TYPE.
– CLAMSHY RECEPTACLE OUTLET LOCATIONS:
A) RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR IN ANY WALL SPACE IS OVER 6 FEET FROM THE RECEPTACLE
(ALLOWING 12 FEET MAX. BETWEEN RECEPTACLES ON THE SAME WALL).
B) RECEPTACLES SHALL BE LOCATED ALONG ANY WALL THAT IS 2 FEET OR MORE IN LENGTH.
C) RECEPTACLE OUTLETS SHALL BE INSTALLED AT EACH WALL COUNTER SPACE THAT IS 12 INCHES OR WIDER. NO POINT ALONG THE WALL LINE IS MORE THAN 24 INCHES MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE.
– ALL INSTALLED LUMINAIRES SHALL BE HIGH EFFICACY AND SHALL BE LISTED BY SOURCE TYPE.
– SCREW BASED LUMINAIRES SHALL MEET ALL THE FOLLOWING:
A) SHALL NOT BE RECESSED DOWN LIGHT LUMINAIRES IN CEILINGS; AND
B) SHALL CONTAIN LAMPS THAT COMPLY WITH CEC REFERENCE JOINT APPENDIX JA8; AND
C) THE INSTALLED LAMPS SHALL BE MARKED WITH JA8-2019 OR JA8-2019-E.
– LUMINAIRES RECESSED INTO CEILINGS MUST MEET ALL THE REQUIREMENTS FOR:
INSULATION CONTACT (IC) LABELING, SEALED WITH A GASKET OR CAULKED BETWEEN HOUSING AND CEILING, AND SHALL BE CERTIFIED TO COMPLY WITH SECTION 110.9 AND ALLOW BALLAST MAINTENANCE AND REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCUPANTS FROM BELOW, BE RATED FOR ELEVATED TEMPERATURE, MUST BE INSTALLED BY FINAL INSPECTION.
–AT LEAST ONE LIGHT IN BATHROOMS, GARAGES, LAUNDRY AND UTILITY ROOMS SHALL BE CONTROLLED BY A VACANCY SENSOR CERTIFIED TO COMPLY WITH SECTION 119(D) THAT DOES NOT TURN ON AUTOMATICALLY OR HAVE AN ALWAYS ON OPTION. (150(K)3)
– DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8 (INCLUDING CEILING RECESSED DOWNLIGHT LUMINAIRES AND GU-24 SOCKETS CONTAINING LED LIGHT SOURCES) AND THEY SHALL COMPLY WITH SECTION 119(D) AND NOT TURN ON AUTOMATICALLY OR HAVE AN ALWAYS ON OPTION. EXCEPTIONS: LUMINAIRES IN CLOSETS LESS THAN 70 SQUARE FEET; LUMINAIRES IN HALLWAYS.
–RECESSED LIGHT FIXTURES SHOULD BE BOXED IN.
–DOOR BELL AND CHIME SHALL BE PROVIDED AS A STANDARD ITEM. PROVIDE ALL ELECTRICAL FIXTURES AND APPLIANCES AS SELECTED BY OWNERS – GC TO VERIFY ALL FIXTURE MEET CODE.
–FOR REMODELED AREAS: SPECIFY RECEPTACLE OUTLETS IN THE FOLLOWING LOCATIONS, AS SHOWN ON PLANS, 12' O.C. MAX, AND WITHIN 6" FROM THE ENDS OF WALLS, ANY WALL SPACE 2 OR MORE FEET WIDE.
– AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED AT OUTDOOR ENTRANCES.
– MANUAL ON AND OFF SWITCHES MUST NOT OVERRIDE THE AUTOMATIC CONTROL FUNCTIONS LISTED ABOVE AND ANY CONTROL THAT OVERRIDES THE AUTOMATIC CONTROLS TO ON MUST AUTOMATICALLY REACTIVATE THOSE CONTROLS WITHIN SIX HOURS.
– RESIDENTIAL OUTDOOR LIGHTING PERMANENTLY MOUNTED TO THE DWELLING OR TO OTHER BUILDINGS ON THE SAME LOT SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH AND CONTROLLED BY A PHOTOCELL AND MOTION SENSOR OR BY PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL OR BY ASTRONOMICAL TIME CLOCK CONTROL THAT AUTOMATICALLY TURNS THE OUTDOOR LIGHTING OFF DURING DAYLIGHT HOURS OR BY ENERGY MANAGEMENT CONTROL SYSTEM.
– LUMINAIRES RECESSED IN INSULATED CEILINGS SHALL COMPLY WITH THE FOLLOWING:
SHALL BE ZERO CLEARANCE IC LISTED AND CERTIFIED AIR TIGHT, BE SEALED WITH GASKET OR CAULK BETWEEN LUMINAIRE HOUSING AND CEILING AND AT ALL AIR LEAK PATHS BETWEEN CONDITIONED AND UNCONDITIONED SPACES. SHALL NOT CONTAIN SCREW BASE SOCKETS
– ALL LIGHTING SHALL BE HIGH EFFICACY AND MEET THE REQUIREMENTS OF SECTION 150.0 (K) AND JOINT APPENDIX JA8. MANUFACTURERS MUST TEST THEIR PRODUCTS AT AN ACCREDITED TEST LABORATORY AND SUBMIT TEST RESULTS TO THE CALIFORNIA ENERGY COMMISSION TO GAIN JA8 CERTIFICATION. A LIST OF COMPLIANT PRODUCTS CAN BE FOUND AT HTTPS://CACENTRAPPLIANCES.ENERGY.CA.GOV.
– ALL ELECTRICAL INSTALLATION SHALL MEET THE MINIMUM OR MAXIMUM ALLOWED IN THE 2019 MANDATORY MEASURES – NO EXCEPTION.
– GAS LINE SIZING CALCULATIONS TO BE A DEFERRED SUBMITTAL ITEM AND PROVIDED BY GC.
DUCT SIZING AND DUCT LAYOUT TO BE A DEFERRED SUBMITTAL ITEM AND PROVIDED BY GC.
– IC RATED, ELECTRONIC BALLAST AND AIR-TIGHT (AT) FIXTURES FOR RECESSED LUMINAIRES
– ALL ADDED/REPLACED BRANCH CIRCUITS THAT SUPPLY 120 VOLT, SINGLE PHASE, 15 AND 20 AMPERE OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAY, OR SIMILAR ROOMS OR AREA SHALL BE ARC-FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTED.
ALL ADDED/REPLACED 125-VOLT, 15- AND 20-AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.

ELECTRICAL SYMBOLS:

SWITCH	VANITY LIGHTING
DIMMER SWITCH	CEILING FAN
RECEPTACLE	CEILING FAN W/LIGHT
220 RECEPTACLE	TRACK LIGHTING
GROUND FAULT INTERRUPTER	SMOKE ALARM
RECESSED LIGHTING	CARBON MONOXIDE ALARM
CHANDELIER	FAN
CLG MOUNT	WATER PROOF EXT. LIGHT
WALL MOUNT	EV CHARGING STATION
HANGING LIGHT	GARAGE MOTOR
FLUORESCENT LIGHT	ELECTRICAL PANEL
	WIRING

REVISIONS
1 05/16/2022
2
3
4
5

LICENSED ARCHITECT
ROMAIN CURTIS
C-35019
REN. 07/31/23
STATE OF CALIFORNIA

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PROPOSED
ELECTRICAL PLANS

DRAWN BY
PLG
CHECKED BY
PLG
ISSUE DATE
03/29/2022
SCALE
1/4"=1'-0"
JOB NO
22-014
SHEET
A-4