



# CITY OF LOS ANGELES ELECTRICAL PLAN CHECK CORRECTION LIST

Plan Check/PCIS Application No.: \_\_\_\_\_

Job Address: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Applicant Name: \_\_\_\_\_ Description: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Plan Check Engineer: \_\_\_\_\_ Review Date: \_\_\_\_\_  
(Print first / last name)

Telephone: \_\_\_\_\_ E-mail: [firstname.lastname@lacity.org](mailto:firstname.lastname@lacity.org)

Your application for a permit, together with plans and specifications, has been examined and the issuance of a permit is withheld for the reasons set forth. The approval of plans and specifications does not permit the violation of any section of the Building Code, or other local ordinance or state law.

NOTE: Numbers in parenthesis ( ) refer to Code sections of the 2011 edition of the City of Los Angeles Electrical Code (based on 2010 California Electrical Code with adopted portions of 2008 National Electrical Code), 2008 and 2011 L.A. Building Code (LABC), 2008 and 2011 L.A. Mechanical Code (LAMC), 2007 National Fire Alarm Code (NFPA 72), 2011 L.A. Green Code (LAGC) and 2008 Title 24 California State Energy Regulations which was Effective January 1, 2010.

### INSTRUCTIONS:

- Corrections with circled item numbers apply to this plan check.
- In the left hand margin of the circled corrections, please indicate the sheet number and detail or note number on the plans where the corrections are made. Resubmit marked original plans and one corrected set of plans, calculations and this plan review list.
- Incomplete or unreadable drawings or calculations will not be accepted.
- Incorporate all comments as marked on the checked set of plans and calculations and this corrections sheet.
- **Call the plan check engineer for appointment when the plans are ready for re-submittal.**
- **Appointments are required to schedule for conferences and verifications.**

**PLEASE BRING THE MARKED UP PLANS TO THE VERIFICATION APPOINTMENT.**

Your feedback is important; please visit our website to complete a Customer Survey at [www.ladbs.org/LADBSWeb/customer-survey.jsf](http://www.ladbs.org/LADBSWeb/customer-survey.jsf).

**SEE MARKED UP PLANS FOR CLARIFICATIONS OF CORRECTIONS.**

**A. GENERAL REQUIREMENTS**

1. The plans shall bear the signature and registration number of a State of California: (93.0206(a))
  - a. Registered Electrical Engineer, or
  - b. Licensed Architect, or
  - c. Licensed Electrical Contractor (C-10), or
  - d. \_\_\_\_\_
2. Provide two sets of corrected plans along with the original marked up plan prior to the plan's approval. \_\_\_\_\_ (93.0206(c))
3. a. Indicate the job address on the plan(s).  
b. Indicate the suite number of the tenant. \_\_\_\_\_ (93.0207(n))
4. Submit a separate plan check application for permitting of each building. \_\_\_\_\_ (93.0210)
5. Provide the site plan. \_\_\_\_\_ (93.0207(n))
6. Indicate the use of each room/area. \_\_\_\_\_ (93.0207(n), T-24)
7. Provide a layout of the proposed electrical system including all required details. \_\_\_\_\_ (93.0207(a))
8. Indicate scale used on drawings. \_\_\_\_\_ (93.0206(e))
9. Plans shall be legible. \_\_\_\_\_ (93.0206(e))
10. Provide luminaire schedule(s). \_\_\_\_\_ (93.0207(n))
11. Provide a legend of all symbols used. \_\_\_\_\_ (93.0207(n))
12. Electrical equipment shall be listed by a City of Los Angeles recognized electrical testing laboratory or approved by the Department. Provide a note on the plans. \_\_\_\_\_ (93.0402)
13. Clarify the scope of work, new, modified and existing on the plans. \_\_\_\_\_ (93.0207)
14. Provide load schedules for panel boards, distribution boards, motor control centers, and switchboards. \_\_\_\_\_ (93.0207(l))
15. Show movable and relocatable partitions, office modules and office furnishings which contain electric wiring, including lighting and receptacles, on the plans(s). \_\_\_\_\_ (93.0207(n))
16. Provide evidence that the available voltage drop, including 8.3% maximum expected DWP nominal voltage drop, does not exceed the nominal operating voltage of the equipment as specified in the listing and manufacturer's installation instructions; OR Conductors for branch circuit(s) and feeder(s) from the furthest outlet to their source, shall be sized to prevent voltage drops exceeding 3% and 2% respectively (or vice versa); \_\_\_\_\_ (110.3(B), 210.19(A), 215.2(A)(3))
17. Indicate the % voltage drop for feeders and the available fault current values at each distribution board, panel, ATS, and other equipment. \_\_\_\_\_ (93.0207(d))
18. Indicate the short circuit withstand/interrupting rating of switchboards, panels, ATS, circuit breakers, fuses, and the % impedance of transformers. \_\_\_\_\_ (110.9, 110.10)
19. Submit the following information: \_\_\_\_\_ (93.0207(n))
20. Correct the following inconsistencies: \_\_\_\_\_ (93.0207(n))
21. An additional plan check fee of \$ \_\_\_\_\_ is due. (93.0233)

**SINGLE LINE DIAGRAM:**

22. Provide single line diagram. (93.0207(n), 215.5)
23. Indicate the electrical rating of transformers, buses, circuit breakers, panel boards, motors, \_\_\_\_\_ (93.0207(l) & (j))
24. Unless listed otherwise, the ampacity of 600 Volts or less conductors shall be based on the terminals not to exceed 60°C (140°F) for conductor size 14 through 1AWG or 75°C (167°F) for conductor sizes over 1 AWG. \_\_\_\_\_ (110.14(C))
25. Indicate the loads on: \_\_\_\_\_ (93.0207(l) & (m))

**WORK CLEARANCE AND DEDICATED SPACES:**

26. No piping, ducts or equipment foreign to electrical equipment shall be permitted to be located within the dedicated space above the electrical equipment. Provide a note on the plans. \_\_\_\_\_ (110.26(F))
27. Provide and maintain required work space, adequate illumination, access to work space and head room about electrical equipment. \_\_\_\_\_ (110.26)
28. For electrical equipment rated 1200 amperes or more and over 6 feet wide:
  - a. There shall be one entrance not less than 24 inches (610 mm) wide and 6-1/2 feet (1.98 m) high at each end. \_\_\_\_\_
  - b. The door(s) within 25 ft. of the nearest edge of work space shall open in the direction of egress and be provided with approved panic bars. \_\_\_\_\_ (110.26(C)(3))
29. Provide protection from physical damage for switchboards, panelboards and other electrical equipment. \_\_\_\_\_ (110.27(B))
30. Equipment in a plenum such as a fan room shall be noncombustible and only serve the loads that are permitted in such areas. \_\_\_\_\_ (LAMC 602.2, 300.22(B))
31. See attached **SUPPLEMENTAL CORRECTIONS:**
  - a. Electrical Fire Pump System
  - b. Fire Alarm System.
  - c. Methane Mitigation System.
  - d. Photovoltaic System.
  - e. \_\_\_\_\_

**B. BRANCH CIRCUITS**

1. Indicate circuit designations near outlets, luminaires, equipment and identify all home-runs. \_\_\_\_\_ (93.0207(n))
2. Provide a receptacle outlet within six feet (1.83 m) of any point along walls in livable rooms of dwelling occupancies. \_\_\_\_\_ (210.52(A))
3. Provide a dedicated 20-ampere circuit for receptacles in dwelling unit bathroom(s). \_\_\_\_\_ (210.11(C)(3))
4. Provide arc-fault circuit interrupter (AFCI), combination type protection on branch circuits serving outlets in dwelling units except in kitchens, bathrooms, garage, unfinished basement, and crawl space. \_\_\_\_\_ (210.12)
5. Provide ground fault circuit interrupter (GFCI) protection for personnel on receptacle(s) located in: (210.8)
  - a. Kitchens, bathrooms, garages, outdoors, crawl-spaces, and unfinished basements of dwelling units.
  - b. Within 6 feet of laundry, utility and wet bar sinks in dwelling units.
  - c. Bathrooms, commercial and institutional kitchens, and roof tops of any occupancy.
  - d. Outdoors in public spaces.

- e. Accessory building to dwelling units with inhabitable room at or below grade level.
- 6. All 125 volts 15 and 20 ampere receptacles as required in Section 210.52 in dwelling units shall be tamper-resistance. \_\_\_\_\_ (406.11)
- 7. Provide show window lighting(s) and receptacle branch circuit(s). The receptacle outlets shall be within 18 inches from the top of a show window. \_\_\_\_\_ (210.62, 220.43(A))
- 8. A single receptacle installed on an individual branch circuit shall have an ampere rating of not less than that of the branch circuit. Indicate the receptacle rating. \_\_\_\_\_ (210.21(B)(1))
- 9. Provide receptacle outlets wherever cord connected equipment will be used. \_\_\_\_\_ (210.50(B))

**C. FEEDERS**

- 1. A building or structure shall be supplied by one feeder or branch circuit. \_\_\_\_\_ (225.30)
- 2. The following feeders are undersized. \_\_\_\_\_ (225.5, 310.15, 110.14(c), 240.4)

**D. BRANCH CIRCUITS & FEEDER CALCULATIONS**

- 1. Branch circuit loads were incorrectly calculated or omitted: \_\_\_\_\_ (220.14)
- 2. Feeder loads shall include 150 VA of load for every 2 feet of track lighting. \_\_\_\_\_ (220.43(B))
- 3. Provide proper feeder, panel board and branch circuit ampacity for general lighting load as required for the particular occupancy. \_\_\_\_\_ (220.12, 220.40, 215.2)
- 4. Provide a dedicated branch circuit for exterior sign or outline lighting system calculated at a minimum of 1200 VA. \_\_\_\_\_ (220.14(F), 600.5(A))
- 5. Provide a dedicated branch circuit for the light, receptacle(s), auxiliary lighting power source and ventilation on each elevator car. \_\_\_\_\_ (620.22(A))
- 6. Provide a dedicated branch circuit for the air conditioning and heating units on each elevator car. \_\_\_\_\_ (620.22(B))
- 7. Feeder loads were incorrectly calculated or omitted: \_\_\_\_\_ (220.40)
- 8. Provide a minimum of 200 VA for each linear foot of show window supplied by a branch circuit. \_\_\_\_\_ (220.14(G))
- 9. Feeder and branch circuit rating shall be based on not less than noncontinuous loads and 125% of continuous loads. \_\_\_\_\_ (210.19(A), 215.2(A)(1))
- 10. Provide 180 VA of load for each general use receptacle. \_\_\_\_\_ (220.14(I) & (L))
- 11. Small Appliance branch circuits shall be rated at 1500 VA each. \_\_\_\_\_ (220.52(A))

**E. SERVICES**

- 1. Show the service conductor routing from the utility service point. \_\_\_\_\_ (93.0207(o) & (n))

- 2. Provide a copy of the utility company's service report indicating the available fault current, voltage, amperes and phase at the service. \_\_\_\_\_ (93.0207(k))
- 3. Provide an elevation drawing of the service equipment. Indicate dimensions and show each section, meter, and disconnect. \_\_\_\_\_ (93.0207(k))
- 4. Service disconnect(s) shall be located nearest the point of entrance of the service conductors. \_\_\_\_\_ (230.70(A))
- 5. No more than six service disconnecting means is permitted at any one location. \_\_\_\_\_ (230.71(A))
- 6. The two to six disconnects as permitted in section 230.71 shall be grouped and each shall be marked to indicate the load served. \_\_\_\_\_ (230.72(A))
- 7. No more than one service disconnecting means is permitted for motor control centers. \_\_\_\_\_ (430.95)
- 8. The service equipment shall have a rating not less than the load served. This load shall be calculated per Article 220. \_\_\_\_\_ (230.79)
- 9. Ground fault protection is required on each 1000 amperes or more, 4W, 277/480 volts wiring system of a service or a feeder disconnecting means. \_\_\_\_\_ (230.95, 215.10)
- 10. Except as permitted in section 230.2(A), a building or other structure shall be supplied by only one service. \_\_\_\_\_ (230.2)
- 11. When more than one building or other structure is on the same property and under single management, each building or structure shall be provided with means for disconnecting all ungrounded conductors. \_\_\_\_\_ (225.31)
- 12. Equipment shall not be connected to the supply side of the service disconnecting means. \_\_\_\_\_ (230.82)
- 13. In a multiple occupancy building, each occupant shall have access to their service disconnecting means. \_\_\_\_\_ (230.72(C))
- 14. Provide service load calculation. \_\_\_\_\_ (230.42, 93.0207(n))
- 15. Provide service load calculations for 120/240 V, 3 phase, 4W, delta system in accordance with Los Angeles Electrical Code (Excerpts Section). \_\_\_\_\_ (93.0207(n))
- 16. Service and feeder demand load calculation shall be in accordance with Article 220.87. \_\_\_\_\_
- 17. \_\_\_\_\_

**F. OVERCURRENT PROTECTION AND SHORT CIRCUIT PROTECTION**

- 1. Submit overcurrent coordination study. \_\_\_\_\_ (240.12, 620.62, Table 685.3)
- 2. Indicate the provisions to ensure the proper operation of Ground Fault Protection equipment on a separately grounded service and generator system. \_\_\_\_\_ (215.10, 230.95(C), 240.13, 110.26)
- 3. Provide proper overcurrent protection for conductors on circuits: \_\_\_\_\_ (240.4)

4. Overcurrent devices shall be connected at the supply point of ungrounded conductors. \_\_\_\_\_ (240.21)
5. Fuses shall be provided with rejection type fuse holders. Provide notes on the plan. \_\_\_\_\_ (240.60(B))
6. Provide short circuit analysis including motor contribution. Fuse let-thru is not acceptable. \_\_\_\_\_ (110.9 & 10, 93.0207)
7. If series rating is used for short circuit protection:
  - a. Indicate the series combination interrupting rating of overcurrent devices. Identify on the plan, the fuse class and the circuit breaker manufacturer, model designation, type and electrical rating used as part of series rating. Include manufacturer specification sheet(s).
  - b. Series combination interrupting rating shall not be used when the second device in the series is subjected to a total connected full load motor current of more than 1% of it's AIC rating.
  - c. Motor circuit protectors shall not be used as part of a series combination interrupting rating. \_\_\_\_\_ (110.3, 93.0402)
  - d. If series combination ratings are used, provide a cautionary label to the series rated device cover stating "Caution - Series Rated System \_\_\_\_\_ A available. Identified replacement component required." (240.86, 110.3, 110.22, 93.0402, UL Recognition Directory)
  - e. \_\_\_\_\_

## **G. GROUNDING**

1. The service shall be grounded. \_\_\_\_\_ (250.20)
2. Provide properly sized grounding electrode conductor(s) to connect the equipment grounding conductor(s) and the grounded conductor(s) to the grounding electrode(s). \_\_\_\_\_ (100, 250.26, 250.66, Table 250.66)
3. Separately derived systems shall be separately grounded. \_\_\_\_\_ (250.20(D) & 30(A))
4. Where more than one building or structure is supplied by a feeder or branch circuit, an equipment grounding conductor shall be run from the main service with the supply conductors and connected to each building or structure disconnecting means and to the grounding electrode(s). \_\_\_\_\_ (250.32(A) & (B))
5. All services, feeders or branch circuits supplying a building shall have common grounding electrode system. \_\_\_\_\_ (250.58)
6. Provide properly sized equipment grounding conductor(s). \_\_\_\_\_ (250.122)
7. All grounding electrodes that are present at each building or structure shall be bonded together. \_\_\_\_\_ (250.50, 250.52(A))
8. All equipment fastened in place or connected by permanent wiring method shall be grounded. \_\_\_\_\_ (250.110 & 112)
9. Where the phase conductors are increased in size (e.g., for voltage drop compensation), equipment grounding conductor shall be increased in size proportionately according to circular mil area of the phase conductors. \_\_\_\_\_ (250.122(B))
10. Provide an insulated equipment grounding conductor between service and remote panelboard serving swimming pool equipment. \_\_\_\_\_ (680.25(B))

11. Provide equal potential bonding for all pool related equipment, including the perimeter surface that is within 3 feet horizontally from the inside wall of the pool. \_\_\_\_\_ (680.26)
12. Patient care area receptacles shall be grounded by an insulated copper equipment grounding conductor. \_\_\_\_\_ (517.13(B))
13. Panelboards serving power to the same individual patient care vicinity area shall be bonded together with minimum 10 AWG insulated copper conductor. \_\_\_\_\_ (517.14)

## **H. WIRING METHODS**

1. Conductors rated over 600 volts shall not occupy the same wiring enclosure, raceway or cable with conductors of 600 volts or less. \_\_\_\_\_ (300.3(C)(2))
2. In dwelling units and guest rooms of hotels, motels and similar occupancies, the lighting and outlet circuit voltage shall not exceed 120 volts nominal. \_\_\_\_\_ (210.6(A))
3. Indicate the burial depth of underground conduits and conductors and specify the cover material. \_\_\_\_\_ (Table 300.5)
4. Portions of raceways and cable sleeves that are exposed to widely different temperatures, such as coolers, freezers or service entrance conductors, shall be sealed to prevent circulation of air and/or moisture. \_\_\_\_\_ (300.7(A))
5. Provide expansion fittings for raceways subject to thermal expansion and contraction. \_\_\_\_\_ (300.7(B), 352.44, 355.44)
6. Provide cable supports on vertical runs. \_\_\_\_\_ (300.19)
7. Identify the cable trays used, dimensions, conductor types, and provide cable tray fill calculations per Article 392.
8. Wiring methods beneath the raised floors shall comply with all requirements of Article 645. \_\_\_\_\_
9. Provide a ground fault circuit interrupter on the pool light circuit operating above 15 volts. \_\_\_\_\_ (680.23(A)(3))
10. \_\_\_\_\_

## **I. CONDUCTORS FOR GENERAL WIRING**

1. Provide the proper wire type (temperature rating) for use in the following applications: \_\_\_\_\_ (310.13)
2. The following branch circuit/feeder conductors are improperly sized: \_\_\_\_\_ (310.15)
3. Where the number of conductors in a raceway or cable exceeds three, or where over 24 inches of single conductors or multiconductor cables are installed together without any spacings in between them and are not installed in a raceway, the allowable ampacity of each conductor shall be reduced per table 310.15(B)(2)(a). \_\_\_\_\_ (310.15(B)(2))
4. Where the ambient temperature is over 30°C, (86°F), the referenced correction factors shall apply to conductors. \_\_\_\_\_ (93.0600, Table 310.16 to 19)
5. Types NM, NMC and NMS cable(s) cannot be used for \_\_\_\_\_ (334.12)
6. Types NM, NMC and NMS cable(s) is permitted in Type I and II construction when installed in approved raceway(s). \_\_\_\_\_ (334.12(A)(1)Exception)

**J. CONDUIT, RACEWAYS, J-BOXES, ETC.**

1. Indicate the number of conductors in raceways \_\_\_\_\_  
\_\_\_\_\_ (300.17, Chapter 9 Table 1)
2. Provide proper conduit size on \_\_\_\_\_  
\_\_\_\_\_ (Chapter 9, Tables 4, 5 & 5A)
3. A separate grounding conductor shall be installed in non-metallic conduit runs. \_\_\_\_\_  
\_\_\_\_\_ (352.60, 353.60, 354.60, 355.60, 356.60, 362.60, 378.60, and 388.60)
4. Exit signs shall not be used as J-boxes. Show location of required junction boxes. \_\_\_\_\_  
\_\_\_\_\_ (700.9)
5. Indicate type of conduit(s) used. \_\_\_\_\_  
\_\_\_\_\_ (Chapter 9, table 4, Appendix C, 93.0207(n))
6. The following outlet, pull or junction boxes are inadequately sized: \_\_\_\_\_  
\_\_\_\_\_ (314.16, 314.28, 314.71)
7. Unless permitted otherwise, the highest operable part of all controls, dispensers, receptacles shall be placed within not less than 15 inches above floor and no more than 48 inches above floor. \_\_\_\_\_  
\_\_\_\_\_ (LABC 1117B.6.3)

**K. SWITCHES, PANELS, & ROOF EQUIPMENT**

1. Provide permanent access to roof mounted equipment. \_\_\_\_\_  
\_\_\_\_\_ (P/MC 2011-006, 240.24, 430.102, 440.14)
2. Switches, circuit breakers, fuses shall be readily accessible. \_\_\_\_\_  
\_\_\_\_\_ (404.8(A), 240.24, 430.102, 440.14)
3. Provide individual overcurrent protection on the supply side of panel board(s). \_\_\_\_\_ (408.36(A))
4. Provide weather proof, GFCI protected outlets within 25 feet of heating, air conditioning, or refrigeration equipment. \_\_\_\_\_  
\_\_\_\_\_ (210.63, 210.8(B)(3))
5. Circuit breakers used as switches in 120 and 277 volt fluorescent lighting circuits shall be listed and marked "SWD" or "HID". \_\_\_\_\_  
\_\_\_\_\_ (240.83(D))

**L. MOTORS**

1. Provide the nameplate current rating of the following:
  - a. Locked-rotor current of Torque motors.
  - b. AC adjustable voltage motors.
  - c. Low Speed (1200 RPM or Less) motors.
  - d. Multi-speed motors.
  - e. Noncontinuous duty motors.
  - f. \_\_\_\_\_ (430.6, 430.22, Table 430.250)
2. Indicate the Duty-Cycle service and design of motors. This information should include the motors duty and time rating. \_\_\_\_\_  
\_\_\_\_\_ (430.22, Table 430.22(E))
3. Provide proper conductor size for motor(s) \_\_\_\_\_  
\_\_\_\_\_ (430.22, 430.24, 430.26)
4. Provide overload protection for the following motor(s) \_\_\_\_\_  
\_\_\_\_\_ (430.31, 430.32)

5. Provide proper short circuit ground fault protection for motor(s). (Specify breaker/fuse type). \_\_\_\_\_  
\_\_\_\_\_ (430.52, 430.62)
6. An individual branch circuit is required for each motor over one horsepower or 6 amperes of full load current. \_\_\_\_\_  
\_\_\_\_\_ (430.53(A))
7. Provide properly located disconnects, types and size on motor(s) \_\_\_\_\_  
\_\_\_\_\_ (430.102, 103, 109 & 110)
8. \_\_\_\_\_  
\_\_\_\_\_

**M. TRANSFORMERS**

1. Provide overcurrent protection on the primary of the transformer. \_\_\_\_\_ (450.3)
2. Provide overcurrent protection for the secondary conductors of transformer. \_\_\_\_\_ (240.21)
3. Indicate transformer(s) secondary tap length(s). \_\_\_\_\_ (240.21)
4. Provide adequate ventilation in transformer room(s). \_\_\_\_\_ (450.9)
5. Indoor dry type transformers over 112.5kVA shall be installed in minimum 1-hour fire rated room. \_\_\_\_\_ (450.21(B))
6. Transformers over 50kVA shall not be installed in hollow spaces, ceiling spaces of the building. \_\_\_\_\_ (450.13(B))
7. Indicate transformer type (dry, liquid, ventilated, etc) and provide its nameplate marking. This information should also include the transformer impedance value for 25 KVA or larger transformers. \_\_\_\_\_ (450.11, 450.3, 450.21, through 27)
8. \_\_\_\_\_

**N. HAZARDOUS AREAS**

1. Provide hazardous classification by class, division or zones and group, and show boundaries of the hazardous area(s). \_\_\_\_\_  
\_\_\_\_\_ (Art. 500, 505, 511.3, 513.3, 514.3, 515.3, 516.3)
2. Wiring in hazardous areas shall comply with the Code provisions for such areas. \_\_\_\_\_ (Art. 500 thru 516)
3. Provide conduit seals at boundaries of hazardous areas. \_\_\_\_\_ (501.15, 504.70, 505.16, 506.16, 511.9, 513.9, 514.9, 515.9)
4. Provide a conduit seal between dust-ignition proof enclosure and regular enclosure located in class II, Division 1 or 2 areas. \_\_\_\_\_ (502.15)
5. Maximum permitted cross-section fill of seals shall not exceed 25% of the cross-sectional area of a conduit of the same trade size unless specifically approved. \_\_\_\_\_ (501.15(c)(6))

6. Submit details of the natural or mechanical ventilation provided in garage area(s). \_\_\_\_\_ (511.3(C), (D), or (E))
7. Provide GFCI protection for outlets in repair garages. \_\_\_\_\_ (511.12)
8. Classify the pits in the garage areas. \_\_\_\_\_ (511.3(B))
9. A manually operated remote control installed at an approved location shall be provided to shut off fans or blowers installed as part of ventilation system that are located in flammable vapor or dust systems. \_\_\_\_\_ (LAMC 503.1)
10. Electrical equipment located in operations that generate explosive or flammable vapors, fumes or dust shall be interlocked with the ventilation system so that the equipment can not be operated unless the ventilation fans are in operation. \_\_\_\_\_ (LAMC 503.1)

**O. CLINICS**

1. Indicate type of clinic(s). \_\_\_\_\_ (LABC 1226)
2. Provide a list of equipment to be installed. \_\_\_\_\_ (93.0207)
3. Equipment classified for life-support purpose shall be supplied from an essential system as required per sections 517.31 through 517.45.
4. Indicate if the clinic is or will be licensed by the State of California. \_\_\_\_\_ (LABC 1226.2)
5. Clarify if a generator is to be installed to supply all the loads in the ambulatory surgical clinics. \_\_\_\_\_ (517.45(D.1))
6. Clarify if wiring installation within an ambulatory surgical or hemodialysis clinics are in accordance with 517.45(F) and (G).
7. Provide a nurse call system in the birthing clinic. \_\_\_\_\_ (LABC 1226.16)
8. Provide minimum of 100 fc at working surface in a birthing clinic. \_\_\_\_\_ (LABC 1226.16)
9. Operating room of a surgical clinic shall include a clock and elapsed timer and an x-ray film illuminator. (LABC 1226.17.1)
10. If Ethylene Oxide sterilizers are supplied from emergency power, the exhaust system shall also be supplied from the emergency power. \_\_\_\_\_ (LABC 423A.4.4)

**P. FIRE PUMP**

1. Fire pump circuit conduits shall be encased in no less than 2 inches of concrete. \_\_\_\_\_ (695.6)
2. Show the routing of the fire pump feeder. \_\_\_\_\_ (93.0207, 695.6)
3. Overcurrent protection for fire pump services shall provide short circuit protection and shall be set to carry fire pump motor \_\_\_\_\_ locked \_\_\_\_\_ rotor \_\_\_\_\_ current indefinitely. \_\_\_\_\_ (695.4(B)(1))
4. Provide an emergency source of power for fire pump. \_\_\_\_\_ (695.3(B), 700.12)
5. No disconnecting means shall be installed within the fire pump feeder circuit. \_\_\_\_\_ (695.4(A))
6. Transfer of power shall take place within the fire pump room. \_\_\_\_\_ (695.12(A))
7. \_\_\_\_\_

**Q. EMERGENCY SYSTEMS**

1. Provide (a) properly sized emergency power source(s) for required emergency load(s). \_\_\_\_\_ (700.5)
2. A completely independent raceway, switchboards and wiring system shall be installed for emergency circuits including generator control wiring. \_\_\_\_\_ (700.9)
3. The means of egress illumination level shall not be less than 1 foot-candle at the walking surface level. \_\_\_\_\_ (LABC 1006.2)
4. Emergency lights shall be provided in all means of egress as defined in section 1006.3. \_\_\_\_\_ (LABC 1006.3)
5. The emergency luminaires shall provide an initial average illumination level of at least 1 foot-candle but at any point it shall not be less than 0.1 foot-candle along the path of egress at floor level. \_\_\_\_\_ (LABC 1006.4)
6. At the end of the required emergency source time duration, the emergency luminaires shall provide an average illumination level of at least 0.6 foot-candle but at any point it shall not be less than 0.06 foot-candle along the path of egress at floor level. \_\_\_\_\_ (LABC 1006.4)
7. The emergency illumination level shall have a minimum-to-maximum emergency illumination uniformity ratio that does not exceed 40 to 1. \_\_\_\_\_ (LABC 1006.4)
8. Emergency exit illumination shall be supplied from:
  - a. generator, b. storage battery, c. UPS, d. Fuel Cell with storage battery, or e. unit equipment. (LABC 1006.3, 700.12)
9. Provide exit signs. \_\_\_\_\_ (LABC 1011.1)
10. Provide low level exit path marking. \_\_\_\_\_ (LABC 1011.6)
11. Provide battery capacity calculation. \_\_\_\_\_ (700.5, 700.12(A))
12. Storage batteries shall comply with Article 480. \_\_\_\_\_
13. Provide selective overcurrent protection. \_\_\_\_\_ (700.27)
14. Exit signs shall be supplied by two circuits, one from normal source and one from emergency source. \_\_\_\_\_ (700.17, 700.3, 110.3, LABC 11011.4 & 1011.5.3)
15. Provide a lock-on device for circuits supplying emergency unit equipment. \_\_\_\_\_ (700.12(E) Exception)
16. The branch circuit feeding the unit equipment (emergency light with self-contained rechargeable battery) shall be the same branch circuit as that serving the normal lighting in the area and connected ahead of any local switches or time clocks. Indicate the correct circuit wiring diagram on the plans. \_\_\_\_\_ (700.12(F))
17. Provide Coordination study for all emergency and legally required standby systems overcurrent protective devices. \_\_\_\_\_ (700.27, 701.18)
18. Provide 4 pole automatic transfer switch to transfer normal to emergency power under any of following conditions:
  - a. Ground fault protected service or feeder supplying the transfer switch. \_\_\_\_\_ (700.27)
  - b. Ground fault indicating for the emergency source and Ground fault protected service or feeder. \_\_\_\_\_ (700.6) or
  - c. Two levels of ground fault protection on normal supply side. \_\_\_\_\_ (700.6)
19. Emergency generator(s) shall not be located in a room or an area used for any other purpose other than equipment and controls related to the generation and distribution of emergency power. This room shall be separated from the remainder of the building by a one-hour fire barrier, or two hours if installed in a new high rise building. \_\_\_\_\_ (LABC 432.2.1, 432.2.3, 403.4.7.1)

**R. FIRE PROTECTIVE SIGNALING SYSTEMS**

1. Submit a variance to separate fire warning system or provide the following information in this section. \_\_\_\_\_ (93.206(b)(8))
2. Provide a fire warning system. \_\_\_\_\_ (LABC 907)
3. The fire warning system shall be approved by the Fire Department before the approval of the final plans. (93.0206)
4. The fire warning system shall be supplied from an approved source. \_\_\_\_\_ (NFPA 72)
5. An individual multi-wire branch circuit is required to supply the fire warning system unless a primary battery supplies the trouble signal devices of the signaling system.\_\_\_\_ (NFPA 72)
6. Fire warning equipment shall be listed by a city recognized testing laboratory and shall be approved by the State Fire Marshall. \_\_\_\_\_ (93.0402)
7. Fire warning system conductors shall be installed in metal raceways unless they are specifically approved for exposed installation. \_\_\_\_\_ (760.46)
8. Except as permitted, power limited fire alarm circuit conductors or cables shall run separately from any other circuit other than Class 2 or 3 circuits. \_\_\_\_\_ (760.136)
9. Provide catalog cut sheets showing the electrical ratings for FACP, power expanders, annunciators, and devices. (93.0207)
10. Provide a worst case DC voltage drop calculation using chapter 9, table 8 of NEC for the notification appliance circuits, (based on 85% backup battery voltage and minimum appliance operating voltage). \_\_\_\_\_ (93.0402, 110.3(b), NFPA 72, 4.5.1.1)
11. Indicate type of fire protective signaling systems. (Power or Non-Power limited) \_\_\_\_\_ (760.15)
12. Fire protective signaling systems shall be equipped with approved control panel(s) and annunciator(s). \_\_\_\_ (NFPA 72)
13. Provide battery load calculation. \_\_\_\_\_ (NFPA 72)
14. The secondary battery load calculation shall include the total system supervisory and alarm loads. \_\_\_\_\_ (NFPA 72, 4.4.1.5.3.2)
15. Provide approved strobes in common corridors or hallways. \_\_\_\_\_ (NFPA 72)
16. Provide a fire control center, fire alarm and fire warning system, public address system and two way communication system. \_\_\_\_\_ (NFPA 72, LABC 907)
17. Provide protection to ensure survivability of critical circuits. \_\_\_\_\_ (NFPA 72, 760.81(F), 760.82(G))

**S. MACHINERY ROOM**

1. A readily accessible control switch shall be provided immediately adjacent to and outside of each machinery room exit to shut off all electrically operated machinery in machinery room(s). \_\_\_\_\_ (LAMC 1109.4)
2. No electrical equipment other than specified in Los Angeles Mechanical Code Section 1109.1 shall be located in machinery room(s). \_\_\_\_\_
3. Purging fans and associated equipment in a refrigerant room containing refrigerants other than group A1 or B1 shall comply with the requirements of Article 500 Class I, Division 1 area. \_\_\_\_\_ (LAMC 1108.8)
4. Provide a readily accessible emergency "off"-only fan control switch outside of machinery room(s). \_\_\_\_\_ (LAMC 1109.4)
5. Provide a readily accessible machinery room fan ventilation system switch outside of the room's main entrance. \_\_\_\_\_ (LAMC 1108.6)
6. Machinery rooms shall have approved refrigerant vapor detectors and shall activate visual and audible alarms when the concentration of refrigerant vapor exceeds 25 percent of the LFL. \_\_\_\_\_ (LAMC 1107.4)
7. Refrigerant detection and alarm systems shall be powered and supervised as required for fire alarm systems in accordance with the Fire Code. \_\_\_\_\_ (LAMC 1121.2)
8. The detection and alarm systems shall be annunciated at an approved location in accordance with the fire code. \_\_\_\_\_ (LAMC 1121.3)

9. Provide sufficient illumination and service receptacles to safely perform required tasks in the machinery rooms. \_\_\_\_\_ (LAMC 1106.4, & 308)

**T. SMOKE & CARBON MONOXIDE DETECTORS**

1. Unless a fire alarm system with smoke detectors is installed within the occupancies, single- or multiple- station smoke detector alarms supplied from a circuit ahead of any disconnect switch, (detectors with built-in battery) shall be installed in the following locations: \_\_\_\_\_ (2011 LABC 907.2.8.3, 907.2.9.2, 907.2.10.3, 907.2.11, NFPA 72) and (2008 LABC 907.2.8.3, 907.2.10)
  - a. In each story within a sleeping/dwelling unit including basement of Group R-1, R-2, R-2.1, R-3, R-3.1, and R-4 occupancies.
  - b. In enclosed common stairwells of multiple dwelling complexes. (LABC 907.2.10.1.1.4)
  - c. In sleeping areas in Group R-1 and rooms used for sleeping in Groups R-2, R-2.1, R-3, R-3.1, and R-4 occupancies.
  - d. In every room in the path of means of egress from the sleeping area to the door leading from the sleeping unit (Group R-1 occupancy).
  - e. In the immediate vicinity outside of separate sleeping areas of Groups R-2, R-2.1, R-3, R-3.1, R-4, and I-1 occupancies.
  - f. In the enclosed common stairwells of apartments and multi-dwelling complexes. (LABC 907.2.10.1.2.4)
  - g. In dwellings, dwelling or sleeping units with split levels and without an intervening door between the adjacent levels, the detector shall be installed on the upper level, provided that the lower level is less than one full story, otherwise it shall be installed at each level of Groups R-2, R-2.1, R-3, R-3.1, and R-4 occupancies.
  - h. Throughout habitable areas of Group R-3.1 occupancy, except in kitchens.
2. Install a single or multi station carbon monoxide detector alarm with built in battery supplied from a circuit ahead of any disconnect switch, within Group R-1, R-2, R-2.1, R-3, R-3.1, and R-4 occupancies at each gas fuel burning appliance \_\_\_\_\_ (2011 LABC 420.4)

**U. OVER 600 VOLTS**

1. Medium voltage equipment shall be listed by a qualified city recognized testing laboratory or approved by the Department. \_\_\_\_\_ (110.2, 93.0402)
2. Provide detail, specifications, and evidence of listings for the following: \_\_\_\_\_ (110.2, 93.0402)
  - a. Cables.
  - b. Overcurrent protective devices (electrical ratings, listing, type, AIC rating, close-and-latch rating, breakers "K" factor, MVA rating, continuous current rating, fuse time-current curves, etc.)
  - c. Transformer(s) (rating, listing, etc.)
  - d. Raceway(s) (size, material, etc.)
  - e. Terminations and Splices.
  - f. Pull boxes and Manholes.
  - g. Disconnect devices (type, size, electrical rating, magnetizing current interrupting ratings, cable charging rating, fault close rating, etc.)
  - h. Switchgear(s), Substation(s), Unitsubstation(s).
  - i. Grounding Impedance (continues and watt rating, etc.)
  - j. Bracing.
  - k. Basic impulse level.
  - l. Surge protector.
  - m. \_\_\_\_\_ (110.8, 93.0207(n))
3. Provide proper type and size of overcurrent protection for high voltage feeders. \_\_\_\_\_ (240.100)

4. Select proper feeder ampacity per Duct bank Details in 310.60.  
\_\_\_\_\_
5. Clarify the grounding method used. Include information on size and termination method. \_\_\_\_\_  
\_\_\_\_\_ (Art. 250, 93.0207(n))
6. Provide detail on high impedance grounding. \_\_\_\_\_  
\_\_\_\_\_ (Art. 250, 93.0207(n))
7. Provide cable pull calculation. \_\_\_\_\_  
\_\_\_\_\_ (93.0207(n), 300.17)
8. Provide detailed short circuit analysis including a coordination study. The analysis should reflect the three and single phase fault as well as ground fault and line to line to ground fault (when applicable). \_\_\_\_\_  
\_\_\_\_\_ (110.9 & 10, 240.12, 93.0207(n))
9. Provide a coordinated protection for the motor circuit. This coordination shall include the fault current, overload, circuit conductors and motor control apparatus. \_\_\_\_\_  
\_\_\_\_\_ (430.225)
10. Provide means to discharge the stored energy in capacitors and provide a warning sign and discharge instructions on the equipment. \_\_\_\_\_ (460.28)

#### **V. LOW VOLTAGE POWER CIRCUITS**

1. Identify all Class 2 and Class 3 circuits. \_\_\_\_\_  
\_\_\_\_\_ (725.41)

#### **W. STATE ENERGY REGULATIONS (Title 24, Part 6, California Code of Regulation)**

T-24 Standards, Design Manuals, Forms and Tables are available at the California Energy Commission website: [www.energy.ca.gov](http://www.energy.ca.gov)

#### **DOCUMENTATION:**

1. The 2008 certificate(s) of compliance forms LTG-1C (Pages 1 to 4) for interior lighting and OLTG-1C (Pages 1 to 4) for outdoor lighting shall be printed on plans. \_\_\_\_\_  
\_\_\_\_\_ (10-103(a)(2)(A))
2. The certificate(s) of compliance shall be completed, signed and dated by the person responsible for its preparation prior to plan check approval. \_\_\_\_\_  
\_\_\_\_\_ (10-103(a)(1))
3. Submit lighting calculations on 2008 lighting compliance forms for:
  - a. New and altered indoor lighting to be installed on LTG forms. \_\_\_\_\_ (146, 149(I)(1, 4))
  - b. New and altered outdoor lighting to be installed on OLTG forms. \_\_\_\_\_ (147, 149(J))
  - c. For conditioned buildings using the Performance Approach, the interior lighting budget and the lighting TDV energy use shall be calculated on the prescriptive LTG forms. \_\_\_\_\_  
\_\_\_\_\_ (141(a)(2)(C), 141(b)(2))
  - d. There shall be no lighting power trade offs between conditioned and unconditioned areas of a building. \_\_\_\_\_  
\_\_\_\_\_ (146(b))
4. The mandatory lighting controls to be installed shall be listed on the LTG-1C (Page 3 of 4) and the OLTG-1C (Page 2 of 4) forms respectively. \_\_\_\_\_  
\_\_\_\_\_ (10-103(a)(2)(A))
5. The appropriate sections and check boxes on form LTG and OLTG shall be filled as required. \_\_\_\_\_  
\_\_\_\_\_ (93.0207)
6. The control type and designated space on the LTG-2C form and the plan shall agree with Table 146-C. \_\_\_\_\_  
\_\_\_\_\_ (146(a)(2))
7. Provide evidence that the lighting control devices and equipment are certified by the California Energy Commission. \_\_\_\_\_  
\_\_\_\_\_ (119)

#### **EFFICACY:**

8. Submit copies of luminaires catalog cut sheets to verify their efficacy and maximum relamping rated wattage: \_\_\_\_\_  
\_\_\_\_\_ (130(d))
9. Except as permitted, high efficacy luminaires in low-rise residential buildings shall meet Table 150-C below: 150(k)(1)

Lamp or LED System Power Rating	Minimum Lamp or LED System Efficacy
5 Watts or less	30 lumens per watt
over 5 watts to 15 watts	40 lumens per watt
over 15 watts to 40 watts	50 lumens per watt
over 40 watts	60 lumens per watt

10. At least 50% of total rated wattage of permanently installed lighting in dwelling unit kitchens shall be high efficacy. \_\_\_\_\_  
\_\_\_\_\_ (150(k)(8))
11. Luminaire power shall be determined as follows:
  - a. The wattage of luminaires with line voltage lamp holders shall be the maximum relamping wattage as indicated on the luminaire factory installed label. \_\_\_\_\_ (130(d)(1))
  - b. The wattage of luminaires with permanently installed or remotely installed ballasts or transformers shall be the input wattage rating of the lamp / ballast or lamp / transformer combination. \_\_\_\_\_  
\_\_\_\_\_ (130(d)(2), 130(d)(4))
  - c. The wattage of line voltage lighting track and plug-in busway shall be determined based on the ampere rating of the lighting track and plug-in busway. Submit completed LTG-5C form pages 1 and 2. \_\_\_\_\_  
\_\_\_\_\_ (130(d)(3)(A,B))
  - d. The wattage of light emitting diode luminaires shall be the maximum rated input wattage of the system as indicated on the factory installed label. \_\_\_\_\_ (130(d)(5))
12. Lamps with GU-24 bases shall be high efficacy and the luminaire wattage shall be the operating wattage as indicated on the factory installed label. \_\_\_\_\_ (130(e))
13. Outdoor luminaires:
  - a. Outdoor luminaires listed for lamps over 100 watts shall have a lamp efficacy of minimum 60 lumens per watt or controlled by a motion sensor. \_\_\_\_\_ (132(a))
  - b. Outdoor luminaires listed for lamps over 175 watts shall be designated Cutoff for light distribution. \_\_\_\_\_  
\_\_\_\_\_ (132(b))
14. Signs:
  - a. For internally illuminated signs, the maximum allowed lighting power shall be 12 watts per square feet of sign area. For double faced signs, only the area of a single face shall be used to calculate the allowed lighting power. \_\_\_\_\_  
\_\_\_\_\_ (148(a)(1))
  - b. For externally illuminated signs, the maximum allowed lighting power shall be 2.3 watts per square feet of illuminated sign area. \_\_\_\_\_ (148(a)(2))
  - c. As an alternative to items a and b above, sign(s) shall be illuminated by one or more of following light sources:  
high pressure sodium, metal halide, neon, cold cathode, light emitting diodes, fluorescent lamps, or be equipped with electronic ballasts with a fundamental output frequency not less than 20kHz. \_\_\_\_\_  
\_\_\_\_\_ (148(b))
15. Electric resistance heating systems shall not be used for space heating. \_\_\_\_\_  
\_\_\_\_\_ (144(g), 151(f)(6))
16. Unless permitted under energy budget, electric water heating shall not be used for water heating in new or addition to an existing residential and hotel/motel building. \_\_\_\_\_  
\_\_\_\_\_ (145(b), 149(a)1, 151(f)(8))
17. Recessed luminaires in insulated ceilings shall be tested and listed for zero clearance insulation cover (IC) and air-tight (AT) by a recognized testing laboratory. \_\_\_\_\_ (150(k)(12))



**INDOOR CONTROLS:**

- 18. Permanently installed low efficacy luminaires in dwelling units and Hotel/Motel guest rooms bathrooms, garages, laundry rooms, closets larger than 70 square feet, and utility rooms shall be controlled by a certified manual-on occupant sensor. \_\_\_\_\_ (150(k)(10), 130(b))
- 19. Permanently installed low efficacy luminaires in other than kitchens, bathrooms, garages, laundry rooms, closets, utility rooms, and detached storage building over 1000 square feet in dwelling units shall be controlled by certified dimmers or manual-on occupancy sensors. \_\_\_\_\_ (150(k)10)
- 20. High efficacy and low efficacy luminaires in residential units shall be separately switched. All exhaust fans shall be separately switched from luminaires. \_\_\_\_\_ (150(k)7)
- 21. Provide an independent switching or control device for each area enclosed by ceiling-height partitions. \_\_\_\_\_ (131(a)1)
- 22. Switching or control devices shall be readily accessible, located so that a person using the device or switch can see the lights or area controlled, or annunciate the area being lit. \_\_\_\_\_ (131(a)1A&B)
- 23. Provide multi-level lighting control for the general lighting in enclosed spaces of 100 square feet or larger with a connected lighting load exceeding 0.8 watts per square feet. \_\_\_\_\_ (131(b))
- 24. For enclosed spaces larger than 250 square feet that have windows and or skylights, show and identify the primary sidelight and skylit daylight areas on the plan. \_\_\_\_\_ (131(c)2A)
- 25. Where the combined daylight area(s) within an enclosed space exceeds 250 square feet, 50% of the general lighting in the daylight areas shall be separately controlled from the other lighting in the area. Luminaires in sidelight and skylit areas shall be separately controlled. \_\_\_\_\_ (131(c)(2)(A))
- 26. Provide an automatic daylighting control for enclosed areas with a total skylit daylight area of greater than 2500 sq ft, and show the daylight area(s) on the plan. \_\_\_\_\_ (131(c)2B)
- 27. Provide an automatic shut-off control for all indoor lighting system, and show the control wiring diagram. \_\_\_\_\_ (131(d)1)
- 28. Show the locations of automatic time clock override switches on the plan and show the area of coverage, not exceeding \_\_\_\_\_ sq. ft. per floor. \_\_\_\_\_ (131(d)2)
- 29. Offices 250 square feet or smaller, multipurpose rooms less than 1000 square feet, and classrooms or conference rooms of any size, shall be equipped with occupant sensor(s) and manual area control switches to shut off the lighting in accordance with 131(a). \_\_\_\_\_ (131(d)(4))
- 30. Display lighting shall each be separately switched on circuits that are 20 amperes or less. \_\_\_\_\_ (131(e))
- 31. Provide demand responsive lighting controls for retail buildings with sales floor areas greater than 50,000 square feet. \_\_\_\_\_ (131(g))

**OUTDOOR CONTROLS:**

- 32. Outdoor low efficacy luminaires shall be controlled by a manual on/off switch, a motion sensor without override or bypass switch and one of methods as described in exception 1 to section 150(k)13. \_\_\_\_\_ (150(k)13)
- 33. Except as permitted, all permanently installed outdoor luminaires with lamps over 100 watts shall either have a lamp efficacy of at least 60 lumens/ watt, or controlled by a motion sensor. \_\_\_\_\_ (132(a))

- 34. Outdoor lighting shall be controlled by a photo-control or astronomical time switch when daylight is available. \_\_\_\_\_ (132(c)1)
- 35. Except as permitted, lighting of building facades, parking lots, all outdoor sales areas, and student pickup/drop-off zones shall be provided with an automatic time switch that is capable of turning off the lights when not needed, and either reduce the lighting wattage power by at least 50% but not exceeding 80% or provide continuous dimming reduction for the same range. \_\_\_\_\_ (132(c)2)

**X. GREEN BUILDING CODE**

**New Low-Rise Residential Buildings:**

- 1. Single, Duplex and Townhouse Dwellings:
  - a. Provide either one 208/240 V 40 amp branch circuit supplying a grounded AC outlet or, panel capacity and conduit (terminated to a j-box) for the future installation of a 208/240V 40 amp branch circuit supplying a grounded AC outlet. \_\_\_\_\_ (LAGBC 4.106.6.1)
  - b. The outlet or conduit termination shall be located adjacent to the parking area. \_\_\_\_\_ (LAGBC 4.106.6.1)
- 2. In all other low-rise residential occupancies provide electrical vehicle charging in the common parking area as follows: (LAGBC 4.106.6.2)
  - a. A minimum number of 208/240 V 40 amp, grounded AC outlets equal to 5 percent (rounded to the next whole number) of the total number of parking spaces. The outlets shall be located within the parking area, or
  - b. Panel capacity and conduit for future installation of electrical outlets. The panel capacity and conduit size shall be designed to accommodate the future installation, and allow the simultaneous charging, of a minimum number of 208/240 V 40 amp, grounded AC outlets, that is equal to 5 percent of the total number of parking spaces. The conduit shall terminate within the parking area, and Additional service capacity, space for future meter, and conduit for future installation of electrical outlets. The service capacity and conduit size shall be designed to accommodate the future installation, and allow the simultaneous charging, of a minimum number of 208/240 V 40 amp, grounded AC outlets, that is equal to 5 percent of the total number of parking spaces. The conduit shall terminate within the parking area.
- 3. Provide a note on the plan indicating appliances provided and installed meets ENERGY STAR if an ENERGY STAR designation is applicable for that appliance and is subject to field verification. \_\_\_\_\_ (93.0207, LAGBC 10.210.1)

**New High-Rise Residential and All Other Non-Residential Buildings:**

- 4. Provide a minimum number of 208/240 V 40 amp, grounded AC outlets that is equal to 5 percent (rounded to the whole number) of the total number of parking spaces. \_\_\_\_\_ (LAGBC 5.106.5.3.1)
- 5. Unless the building is designed and constructed with a solar photovoltaic system or an alternate on-site renewable energy generating source, provide conduit installation for future photovoltaic system from the building roof, eave, or other locations to the electrical service equipment. \_\_\_\_\_ (LABGC 5.211.4)
- 6. If battery storage is anticipated for the future photovoltaic system, conduit shall run to a location within the building that is weather-proof and separated from occupied. \_\_\_\_\_ (LABGC 5.211.4.1)
- 7. Provide a note on the plan indicating appliances provided and installed meets ENERGY STAR if an ENERGY STAR designation is applicable for that appliance and subject to field verification. \_\_\_\_\_ (93.0207, LAGBC 5.210.1)

**Alterations with Building Valuation of Over \$200,000 or Additions to Low- Rise Residential Buildings:**

8. Unless the building is designed and constructed with a solar photovoltaic system or an alternate on-site renewable energy generating source, if the addition results in more than 2000 square feet of new roof area show the following:
  - a. An electrical conduit adequately sized but not less than 1 inch is provided from the electrical service to a suitable space in the attic or other location suitable for future connection to a solar system. And, the electrical panel and conduit are adequately sized to accommodate the installation of a future electrical solar system. \_\_\_\_\_ (LAGBC 9.211.4)
  - b. Provide a minimum of 250 square feet of contiguous unobstructed roof area suitable for the installation of future solar panels. \_\_\_\_\_ (9.211.4.1)
  - c. Provide a note on the plan indicating new residential grade appliances provided and installed meets ENERGY STAR if an ENERGY STAR designation is applicable for that appliance and subject to field verification. \_\_\_\_\_ (93.0207, LAGBC 9.210.1)

**Alterations with Building Valuation of Over \$200,000 or Additions to High-Rise Residential and All Other Non-Residential Buildings:**

9. All exterior luminaire shall be shielded or be cutoff as defined in section 132(b) of California Energy Code. \_\_\_\_\_ (LABGC 10.106.8)
10. Unless the building is designed and constructed with a solar photovoltaic system or an alternate on-site renewable energy generating source, If the addition results in more than 2000 square feet of new roof area provide an adequately sized electrical conduit from the building roof, eave, or other locations approved by the Department to the electrical service equipment. \_\_\_\_\_ (LAGBC 10.211.4)
11. If battery storage is anticipated for the future photovoltaic system, conduit shall run to a location within the building that is weather-proof and separated from occupied spaces. \_\_\_\_\_ (LABGC 10.211.4.1)
12. Provide a note on the plan indicating new residential grade appliances provided and installed meets ENERGY STAR if an ENERGY STAR designation is applicable for that appliance and subject to field verification. \_\_\_\_\_ (93.0207, LAGBC 10.210.1)

**Y. ADDITIONAL CORRECTIONS**

**Code Sec. No**
