CORAL SPRINGS
BUILDING DIVISION
www.CoralSprings.org/building

Development Services Department
Building Division
9500 West Sample Road, Coral Springs, FL 33065
Mon-Thurs: 7:30AM - 5PM, Fri: 7:30AM - 2:30PM
Phone: 954-344-1025 • Inspections: 954-345-2132
Fax: 954-344-5948 or 954-344-5909

Electrical Plan Review
Tenant Improvement Critique List

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The following plan review critique issues are the most frequent causes for tenant improvement permits to be rejected. If you or your design professional have any questions concerning these critique issues, please contact the appropriate discipline's contact person.

1. An electrical permit is required when doing any type of electrical installation or renovation. (FBC 105.3.1.4.5)

2. Electrical plans are required when doing any type of electrical installation or renovation. (FBC 107.1)

    a. Plans must be signed and sealed by the architect or engineer. (FBC 107.3.4.0.1)

    b. Plans may also be designed, and signed by qualifier (EC, ER, EF, ET). Put qualifying numbers next to notarized signature. (FBC 107.3.4.0.8)

3. Show total load, size and rating for main service. Service entrance conductors shall carry full loads as computed. [NEC 230.42, & 220.40 & FBC 107.3.5 (B)(1-10)]

4. Show total load for each panel. Show total load for service. Add total load so service entrance conductors can be sized properly. (FBC 107.3.5 (B)(6) NEC 230.31 & 230.42)

5. AIC (fault current) calculations required for service equipment and AIC rating for equipment. (FBC 107.3.5 (B)(3), NEC 110.9 & 110.10)

6. Neutral conductor calculation required when not sized the same as current carrying conductors. (NEC 220.61)

7. Show motor HP and load. [NEC 220.14 (C)]

8. Continuous duty loads shall be calculated at 125% X the load of that circuit. (NEC 100 Definition)

9. The first 10 KVA or less demand factor X 100% Remainder over 10 KVA X 50%. (Demand Tables for Non-dwelling Receptacles. NEC TABLE 220.44)

10. For track lighting in other than dwelling units, an additional load of 150 VA shall be included for every 2' of lighting track or fraction thereof. [NEC 220.43 (B)]

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11. Each receptacle in other than dwelling units shall be calculated at not less than 180 VA per outlet. [NEC 220.14 (I)]

12. Branch-circuit conductors shall have an ampacity not less than the maximum load to be served. [NEC 220.18 (A-C)]

13. The calculation of a feeder or service load for existing installations shall be permitted to use actual maximum demand to determine the existing load under the following conditions:

    a. The maximum demand data is available for (1) one year period.

    b. The maximum demand 125% plus the new load does not exceed the ampacity of the feeder or rating of the service. (NEC 220.87)

14. Ground-fault protection of equipment shall be provided for solidly grounded Wye electrical services of more than 150 volts to ground but not exceeding 600 volts phase-to-phase for each service disconnect, 1000 amps or more. (NEC 230.95)

15. Service grounding conductors shall be detailed or sized properly. [NEC 250.24 (D) TABLE 250.66 & FBC 107.3.5 (B)(5)]

16. Grounding electrode conductor shall be sized properly. See note #1 exception #2 for parallel conductors. The equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set. (NEC 250.66 & Table 250.66)

17. Grounding electrode conductor shall be terminated correctly. The connection shall be made at any accessible point from the load end of the service drop or service lateral to and including the terminal or bus to which the grounded service conductor is connected at the service disconnecting means. [NEC 250.24 (A)(1)]

18. Equipment grounding conductor shall be sized properly. Where ungrounded conductors are increased in size, equipment grounding conductors, where installed, shall be increased in size proportionately according to circular mil area of the ungrounded conductors. [NEC 250.122 (A), (B)]

19. Panels must be individually protected with over-current protection on the supply side not greater than that of the panel board (panel). (NEC 408.36)

20. Show complete riser diagram, conduit wire main and panel sizes. [FBC 107.3.5 (B)(2)]

21. Show main disconnect and sub-panel(s) on floor plans. [FBC 107.3.5 (B)(6)]

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22. Show circuitry (numbers) of all outlets, lighting, and any 1-Pole, 2-Pole, 3-Pole equipment. [FBC 107.3.5(B)(3)]

23. Service disconnects (2-6) must be grouped in one location. [NEC 230.72 (A)]

24. Maximum number (6) disconnects allowed per service. [NEC 230.71 (A)]

25. Show detail for protection of service equipment, panels and any other live parts. [NEC 110.27(B)]

26. Doors within 25' of equipment rated 800 amps or more shall open in the direction of egress and be equipped panic hardware. [NEC 110.26(C)]

27. Equipment rated 1200 amps or more and over 6' wide shall have two exits that open in the direction of egress and be equipped panic hardware. [NEC 110.26(C)]

28. Neutral conductor required to each service. [NEC 250.24 (C)]

29. Feeder taps shall be sized properly. [NEC 240.21 (B)]

30. Conductors shall be sized properly. [NEC 310.15 (B)(16) & Table 310.15(B)(7)]

31. Conduits shall be sized properly. (NEC Chapter 9)

32. Required to use adjusting factor for over 3 conductors in raceway. [NEC Table 310.15 (B)(3)(a)]

33. The branch circuit feeding EM lights shall be the same branch circuit as that serving the normal lighting in the area and connected ahead of any local switched. The branch circuit that feeds EM lights shall be clearly identified at the distribution panel. [NEC 700.12 (F)]

34. EM lighting required in all patient care areas. (NEC 517.25)

35. A WP GFCI outlet shall be installed within 25' of AC equipment and located at the same level as equipment. (NEC 210.63)

36. An outlet shall be installed within 50' of electrical service equipment. (NEC 210.64)

37. Receptacles installed in commercial bathrooms shall be GFCI. [NEC 210.8 (B)]

38. At least one receptacle outlet shall be installed within 18" of top show window for each 12' or major fraction thereof of show window area measured horizontally at its maximum width. For show window lighting, a load of not less than 200 VA/linear foot shall be included for show window measured horizontally along its base. [NEC 210.62 & 220.14 (G)]

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39. Each commercial building and each commercial occupancy, accessible to pedestrians shall be provided with at least one outlet in an accessible location at each entrance to each tenant space for sign(s). The outlet(s) shall be supplied by a 20A branch circuit that supplies no other load. Show load for sign(s) circuit(s) and disconnect. (NEC 600.5 (A-C) & 600.6)

40. Provide exit light at exit discharge access and corridors leading to exits. (FBC Chapter 10)

41. Provide emergency light for enclosed stairways, enclosed corridors and at exits access and discharge (if possible). (FBC Chapter 10)

42. Fire Alarm devices to meet Florida accessibility code (if applicable). (FS 553.501 & FBC 2014 Accessibility)

43. Provide fire alarms, pull stations, horns etc., when applicable. (NFPA 72 & FBC Chapter 9)