CITY OF MILPITAS
Building & Safety Department
455 E. Calaveras Blvd.
Milpitas, CA 95035
408-586-3240
www.ci.milpitas.ca.gov

COMMERCIAL ROUGH & FINAL ELECTRICAL INSPECTION CHECKLIST

- □ Use rigid non metallic conduit in corrosive areas CEC352.10
- □ Seal all unused openings in J-boxes CEC110.12
- □ All equipment and bussing shall not have paint on them CEC110.12
- □ Terminals used for more than 1 conductor or aluminum shall be identified CEC110.4(a)
- □ All equipment shall be listed and labeled or 3rd party inspected CEC110.3
- □ Equipment shall have adequate working space about it minimum 30x36 also height of 6 ½' CEC110.26
- □ Provide clear space over equipment no other trade within the 6' CEC110.26
- □ Electrical equipment not to exceed 6" in front of other equipment CEC110.26(a)(3)
- □ 1200 amp service or more requires 2 exits 1 at each end with panic hardware CEC110.26(c)
- □ #6 or smaller grounded conductor requires continuous white or grey color CEC200.6
- □ Use 6-12 rule for all offices per the COM
- □ Check all grounding and bonding (UFER, water bonding, and gas use table 250.66 for water and 250.122 for gas bond, ½" rebar or #4 bare copper in footing for GEC size use 250.66 for size
- □ Service panel complete. Check clearance 30 min wide by 36" deep. Makeup with brand name breakers installed and made tight. Identify branch circuit max height for breakers is 6'7"
- □ No panel boards in bathrooms
- □ Antioxidant installed on all aluminum wires
- □ Check insulation for damage and type of wire used per plan
- □ Use proper bending ratios not more than 5 times the diameter of cable
- □ Check that all recessed can lights in unconditioned space are Air tight and IC rated if in contact with insulation
- □ Above ceiling (a) Grid wires to fixtures, (b) Attach fixture to grid , (c) Independent support for raceway/wires, (d) Box support & seal around, (e) Seal all penetrations through rated walls, (f) Plenum rated cables where applicable
- □ Check sub panel for ground, and neutral to be separated only ok to be tied together in main service panel
- □ Check metal boxes for ground screws, and no metal mud rings with plastic boxes unless bonding jumper installed
- □ 3 way switch required at stairs 6 or more risers controlled from top and bottom
- □ Receptacle required for every 12' of show window CEC210.62
- □ Cord and plug receptacles to be 80% of FLA . CEC210.21(b)
- □ If counting floor receptacle for wall space receptacle to be within 18" of wall CEC210.52
- □ Receptacle required to be within 25' of equipment CEC210.63
- □ Lighting switch required for equipment room or space CEC210.70
- □ Breaker has to be 125% of continuous load running more than 3 hours CEC210.19
- □ 1000 amp service requires GFCI protected breaker shall be tested by 3rd party prior to energizing use city list CEC215.10
- □ Feeders to building shall have disconnect outside or immediately inside where conductors pass through CEC225.32
- □ Each occupant shall have access to own disconnect CEC225.35
- □ Seal underground conduits that have a potential of water entering enclosure CEC230.8
- □ Breakers used for switching shall be labeled SWD, or HID CEC240.83
- □ Remove any paint on panel before installing ground lug
- □ Size main bonding jumper per CEC250.66
- □ Bond steel if any in area of the new transformer per CEC250.66
- □ Equipment grounding conductors sized per CEC250.122
- □ When using main water service as grounding electrode within 5' of entering building must also have supplemental electrode
- □ Connection of GEC must be accessible
- □ Expansion fitting must have continuous ground
- □ Bond water and steel per CEC250.66 and gas with 250.122
- □ #4 wire and bigger shall have bushing to protect wire CEC300.4
- □ At cooler location seal hole to j-box for difference in temperature change CEC 300.7
- □ No sheet metal screw for ground screw
- □ Use bond bushing at concentric KO for circuits over 250 volts

- □ Conductors and raceways shall be marked sunlight resistant outdoors
- □ Box fill per CEC314.16(a)
- □ Check mud rings for proper size to sheetrock being used
- □ Use strain relief on pendant hung cords from boxes no cords through ceiling or walls

- □ Straight pull boxes shall be 8 times conduit size for wire #4 and larger
- □ All metal covers shall comply with grounding
- □ Secure MC 12" from box and every 6' no breaks or tight bends
- □ No more than 4- 90 degree bends in conduit run
- □ Plastic bushings required on plastic male adapters
- □ Ream conduit before installing
- □ Check conductor fill on raceway per CEC chapter 9 annex C

Final Electrical

- □ Panel labeled and clear space in front
- □ AFCI/GFCI breakers installed
- □ Test all GFCI outlets and outlets fed by GFCI
- □ Grounding/ Bonding installed rod or Ufer
- □ Emergency lights installed and provide enough light for egress
- □ Exit signs in right locations per plan and tested
- □ Test GFI breaker 1000 amp 2771480 volt or more 3rd party
- □ All disconnects in place with correct fuse sizes and clearances
- □ All unused openings closed
- □ Cover plates installed, check for goof rings at granite back splash at kitchen max ¼" back from noncombustible surface to box
- □ All fire rated penetrations sealed
- □ Equipment installed listed and/or approved
- □ Bubble covers in wet locations
- □ Receptacle within 25ft of equipment
- □ Light and receptacle in attic access

Service Change

- □ Correct size and type of wire sunlight resistant and wet location
- □ Installed per manufacture and listed
- □ Correct size Switch gear per plan
- □ Clearance over roof, road, and pool
- □ Secure riser above panel
- □ Breakers to match panel type
- □ Check existing Ufer, ground rod, or water pipe in place as Grounding Electrode
- □ Size Grounding Electrode conductor per 250.66
- □ Bond water, gas, steel
- □ Label breakers and identify emergency circuit Address service
- □ Check torque on bussing and anchor bolts on enclosure
- □ Test on any new Breaker over 1000 amp 277/480
- □ Maximum 6 disconnects at 1 service
- □ Conductors ran from lateral underground shall be protected
- □ Verify field markings on Series rated equipment