

Exhibit C Design Review Guidelines

January 2003

Included in this Exhibit for Design Guidelines includes:

- Electrical Design Guidelines
- Electrical and Mechanical /Plumbing Construction Requirements
- Temporary Barricade Construction

City Standards and Specifications may be purchased from the Department of Public Works Central Files at City Hall, telephone (408) 277-5297.

Electrical Design Guidelines

In all cases, energy saving measures should be incorporated in the project.

Comply with all codes: All construction and alterations must comply with all applicable city, state and federal guidelines, including:

- Uniform Building Code and the current State of California Amendments
- National Fire Protection Administration and State Fire Marshall requirements
- City of San Jose Department of Public Works Standard Specifications and Standard Details
- All Airport Design and Sign Standards

Electrical Permits:

- If a new electrical circuit is added, a Public Works electrical inspector will need to inspect. A fee will be collected before the job can start.
- If the existing electrical conduits are re-used (i.e., an electrical outlet is moved from one location to another without an increase in capacity), the electrical inspection will be done by Airport electricians and no fee assessed. However, the tenant still requires a construction permit.

Lighting

- Use T-8, or T-5 32-watt fluorescent lamps with electronic ballast with occupancy sensor control in all small rooms or small areas.
- For all out door and canopy lighting photo cell and time of day control are required so that during daylight and non-operational hours the lights will be off.
- For all lighting with the exception of emergency lighting time of day timers are required so that the lighting will automatically shut off during non operational hours.

Additional Guidelines

- Verify all branch circuits based upon field investigation.
- The tenant engineer is required to insure that capacity is available and determine source. The tenant engineer is responsible to hire any needed electrical contractor to take test reading for capacity and to field check any and all needed circuits.
- Any outdoor lighting changes or additions, including temporary construction lighting, must be coordinated with Airport Operations to ensure there are no impacts to Air Traffic Control Tower visibility.

Electrical and Mechanical/ Plumbing Construction Requirements

(source: Master Plan Team DESIGN GUIDE (2))

There are a number of Airport/ Master Plan Team requirements relating to the actual construction work for Tenant Improvement Projects or other airport projects in general. These are as follows:

PERMITS

Electrical and Mechanical/Plumbing Construction Permits are required for any projects that involve these disciplines. These permits must be obtained prior to the start of any construction work. Typically, these permits may be issued after the Master Plan Team completes a Code Review, and all code and life safety related issues have been satisfactorily addressed and resolved. The Master Plan Team issues all permits for Airport projects. For questions and issues relating to these permits, please contact the Master Plan Team at 408/501-7680. Refer also to “Code Reviews” above for additional information.

INSPECTIONS

Inspections by Master Plan Team inspectors are required for all Airport projects that include work associated with the Electrical and Mechanical/Plumbing disciplines. Work should not be covered until approved by the inspector. The inspector should be consulted with respect to any questions regarding proper, acceptable installation methods. Inspections can be arranged and coordinated by calling the Master Plan Team at 408/501-7680.

SUBMITTALS

Material and /or equipment submittals may be required during construction. For Tenant Improvement projects, submittals are not typically required, but may be requested if there is a concern by the inspector regarding appropriateness, code compliance or life safety.

TESTING RESULTS

All testing results for electrical and mechanical/plumbing systems shall be submitted to the inspector. Testing results should be legible, and should clearly identify the parameters and results of the testing. Incorrectly performed tests and/or unclear testing results may require clarification and resubmittal, as well as a repeat of the testing.

DESIGN DRAWINGS

Following items are expected on the drawings:

- 1. All professional engineers are required to obtain a seal or stamp. The seal or stamp must conform to the design specified in the State of California Professional Engineers Act and may be a rubber stamp, embossing type or computer generated. The seal may not be less than one and one-half inches in diameter. Electrical engineers are required by California law to include the expiration date of their registration when they sign, seal or stamp all electrical design documents produced for the City of San Jose respectively. Unregistered or unlicensed persons are allowed to perform engineering and design work only if they are working under the responsible charge and direct supervision of a registered professional engineer.**

2. Show north arrow and graphic scale(s) for all scaled plans and details.
3. Identification of all branch circuits based on field verification. Relying on record drawings alone is discouraged.
4. Locating of pertinent branch circuit panelboard, which is the source of electricity.
5. Modified One-Line diagram.
6. Lighting:
 - a. Use T-8, 32-watt fluorescent lamps with electronic ballasts with occupancy sensor control.
 - b. Provide dual level switching.
 - c. Provide daylight sensor control where practicable.
 - d. Use of metal halide lamp will require an auxiliary quartz lamp to prevent total darkness during the restrike period.
 - e. Use of emergency battery pack for emergency lights and exit signs is not the excepted practice at the San Jose International Airport. The emergency circuits shall be connected directly to an emergency engine-generator set.
 - f. Use LED type exit signs.
7. Wiring:
 - a. Use minimum 3/4 inch conduit for all wiring.
 - b. Call out a neutral conductor for each circuit when running multiple circuits in the same conduit.
 - c. Use minimum No. 12 AWG "THWN" insulation for power circuits.
 - d. Use minimum No., 14 AWG "THW" insulation for control circuit.
8. Use local UPS unit in lieu of central unit if ne cessary.
9. Software used for various systems:
 - a. Fire alarm - Honeywell
 - b. EMCS - ESUSA

SPECIFICATIONS

1. Use CSI format if separate specification is prepared. Do not duplicate notes on the drawings.
2. May use notes on the drawings if a separate specification is not prepared.
3. Specify UL standards for all equipment.
4. Specify NEMA, ANSI, IEEE standard numbers where applicable.
5. Proprietary specification may be acceptable.
6. Labeling of branch circuit number on the cover plates of all receptacle outlets, switches and telephone outlets.
7. Branch circuit labeling of all wires in the junction boxes.
8. Require contractor to submit as-built drawing showing exact routing of concealed wiring.
9. Require contractor to perform conduit tracing before concrete floor is core drilled.
10. Require contractor to perform ground resistance test and submit test result. The City's minimum ground resistance level is 25 ohms.

Temporary Barricade Construction

All work shall comply with applicable provisions of Federal, State, and Municipal safety laws and building codes. It shall be accomplished with a constant effort to eliminate unnecessary noise, dust, and other annoyances premises and adjoining and shall not encumber premises and adjoining areas with material, equipment, or parking of cars.

Interior

- a) Barricades: Contractor shall provide and maintain minimum 8-foot high solid barricade within the terminal where the public can view project.
- b) Material: Barricades must be constructed of minimum 5/8-inch thick gypsum board, taped, painted, sanded and installed with vinyl base to match surrounding areas.
- c) Colors: Paint barricades, two coats application in colors to match surrounding areas.
Paint on record with Kelly-Moor Paints 710 Auzerais Av, San Jose,
Airport light gray, flat 1650-97-1186

Exterior

- a) Barricades: Contractor shall provide and maintain minimum 8-foot high solid barricade within the terminal where the public can view project.
- b) Material: Barricades must be constructed of minimum 3/8-inch thick plywood smooth with smooth finish exposed to public (rough cut CDX or OSB plywood is not acceptable), and installed with vinyl base to match surrounding areas if needed.
- c) Colors: Paint barricades, minimum two coats application in colors to match surrounding areas.
Paint on record with Kelly-Moor Paints 710 Auzerais Av, San Jose
Exterior flat 1650-97-1463