

TECHNICAL CRITERIA

Electrical System Design

Landlord shall furnish a main electrical service disconnect fusible switch and a telephone back-board at a central distribution point located within Landlord's main electrical room. Tenant shall design and install an electrical/telephone system to serve the Tenant space based on 480/277V 3 phase, 4 wire system.

Landlord Work

1. Landlord shall provide for Tenant's electrical service equipment located outside the Tenant space with a capacity of 12 WATTS per square foot.
2. Landlord shall provide fuses (60 amp minimum) for Tenant's use at Landlord's metering switchboard at Tenant's expense.
3. Landlord shall provide empty electrical/telephone conduits w/pull strings from Landlord's switchboard metering room to a location within the Tenant's demised premises as determined by Landlord.
4. If Tenant requires a different size main electrical switch or service conduits, Landlord may furnish same, if available, at Tenant's expense. Tenant's electrical engineer shall notify Landlord in writing of any switch or conduit size or conduit size requirements of Tenant's that are larger than those existing prior to plan submittal.

Tenant's Work

Tenant shall engage any/all Landlord approved contractors, at Tenant's sole expense, and Tenant/Tenant's General Contractor shall pay all costs

directly to such a contractor.

1. Apply for a meter per the local utility and as directed by Landlord.
2. Tenant shall extend Landlord's electrical/telephone and provide feeder and telephone wires as required to Tenant's main disconnect switch, transformer, panel board and/or telephone board.
3. Tenant's electrical system shall be designed in accordance with Landlord's criteria (see attached Main Criteria Manual, the latest adopted editions of the NEC and the requirements of all local authorities have jurisdiction. Material, electrical products and equipment, including all components shall be new and appear on the Underwriters Laboratories list of approved items.

Plumbing Criteria

System Design

Tenant shall design and develop a complete system with all the necessary facilities to serve the demised premises. This includes installing a vent and waste system, and a domestic hot and cold water system. Tenant shall make all connections to the existing utility services provided by Landlord.

Waterproofing must be installed in all "wet areas" such as kitchens, restrooms, mop sinks, drinking fountains, etc. The waterproof membrane must extend 6" vertically on all demising walls. This membrane will be water tested by the General Contractor and inspected and signed off by Mall Personnel. If the membrane fails the water test, it must be replaced.

For spaces greater than 1499 square feet, Tenant shall design, furnish and install minimum of one (1) handicapped accessible toilet room facility for Tenant's employees meeting both local and ADA requirements. Toilet room shall include at least one (1) water closet (water closets shall be flush tank type), one (1) hand sink (with hot and cold water provisions) one (1) floor drain w/ seepage pan and one (1) sanitary floor clean out. **It is the Tenant Architect's responsibility to verify restroom requirements with local authorities**

Landlord Work

1. A cold water service distribution system and valved outlet connection shall be provided for the Tenant's space. The outlet shall be valved, sized from above (within Tenant's space) and placed at a location determined by the Landlord.
2. A sanitary sewer service main line and a 4" plugged "Y" connection shall be provided for the demised premise to a 5'x5' block location and invert elevation as selected by the Landlord.

Tenant's Work

Tenant shall engage any/all Landlord approved contractors for roofing or waterproofing (at Tenant's sole expense) work and Tenant/Tenant's General Contractor shall pay all costs directly to such contractor.

1. Tenant shall connect to and extend all piping from all existing locations, sanitary sewer and domestic water piping, to the necessary locations within the leased premises.
2. Tenant shall provide and install required vent-



TECHNICAL CRITERIA (continued)

- ing/exhaust using Landlord's approved contractors as required, e.g. roofing.
- All work shall comply with the latest edition of the prevailing codes.
 - Tenant's contractor shall saw cut all slab penetrations, patch/repair with new concrete (per mall specifications) and ensure that they are smooth, properly sealed and remain watertight.
 - Tenant shall ensure that all slab penetrations within the Tenant space (and through the roof) are properly sealed and remain watertight to prevent possible water leakage and/or damage. Any damages caused from failure to do so shall be at Tenant's sole risk and expense.
 - All roof and slab penetrations made by the Tenant are subject to Landlord's approval as to location and construction details. Landlord's authorized roofing contractor shall perform weatherproofing of any roof penetrations. Tenant's General Contractor shall pay all costs directly to such roofing contractor.
 - All piping, clamps, supports, etc. shall be fastened to joists or beams. Do not attach anything directly to the deck or ductwork above. Furnish seismic support in compliance with all applicable codes.
 - Shutoff valves shall be provided at all connections to fixtures.
 - Tenant shall provide steel sleeves when passing pipe through concrete slabs or walls sections.
 - All materials shall be new and of commercial grade and bear the Underwriters label(s),

where such labeling applies.

- A licensed plumbing contractor shall perform the entire installation in a first-class, workman-like manner.
- Low flow water closets, urinals, lavatories and sinks, etc., as approved by the Building Department, are to be used.

Fire Protection/Sprinkler Design Criteria System Design

Tenant shall connect a fire protection system, to either Landlord's sprinkler main or branch line connection to the demised premises, using approved mechanical fittings. Tenant shall furnish all branch piping and sprinklers required to complete the sprinkler system within the Tenant's premises.

Tenant's sprinkler system design shall be based upon a single source of supply, ordinary hazard pipe schedule system as outlined in NFPA pamphlet #13 and Landlord's insurance carrier's requirements. A hydraulically calculated sprinkler system is required:

- Schedule 10 with mechanical cut groove type pipe couplings and fittings.
- Group II Occupancy with a sprinkler density of 0.16/3000 square feet in stock areas.
- All systems shall be designed to high protection risk (H.P.R.) requirements.

Landlord Work

Sizing of the service main into Tenant's demised premises with a 10'x13' grid (NFPA pamphlet #13) plugged or sprung up as required by local codes.

Modifications shall be completed by Tenant at Tenant's sole expense.

Tenant's Work

Tenant shall engage the services of the Landlord's approved sprinkler contractor (at Tenant's sole expense). Those expenses are to be paid by the Tenant's General Contractor directly to contractor. A contact may be obtained from Tenant Coordination.

- Tenant's sprinkler system shall be connected to the Mall mains. Tenant shall attach a tamper switch and interface with the Mall's fire alarm system.
- Tenant's sprinkler heads shall be quick response type, semi-concealed or fully concealed (the same brand and type as installed by the Landlord in the common Mall areas), UL listed, Factory Mutual approved. Sprinklers in the Tenant's design control area (the first 6'-0" from the face of the storefront into Tenant's space) must be concealed type of head.
- All piping shall be supported from beams/joists above only. Do not attached anything directly to the deck above. Fastening and/or suspension devices shall be attached to the building structure only.
- All piping shall be designed in accordance with NFPA #13 and installed per Landlord's insurance carrier's requirements. All piping shall be threaded schedule 40 black steel meeting ASTM A135. All pipe fitting are required to be pressure class 175
- All hangers are to be of an approved type and spaced in accordance with NFPA #13. Seismic bracing to be installed per local code and state



TECHNICAL CRITERIA (continued)

- codes.
6. Tenant shall furnish and install a vane-type water flow detector in the main sprinkler line immediately after connection to Landlord's main. A flow detector shall be installed, per the manufacturer's instructions and shall be designed to detect any water flow that equals or exceeds 10 g.p.m. Detector switch mechanism shall incorporate an instantly recycling mechanical retard element with an adjustable range of 0-60 seconds. The Detector Enclosure shall be dust tight, the Switch Enclosure shall be tamper proof and the Flow Switch shall be connected to Mall fire system.
 7. Tenant shall provide appropriate-type fire extinguishers in stock room areas and elsewhere throughout the demised premises, as required by all local authorities having jurisdiction and Landlord's insurance carrier. Fire extinguishers shall be furnished, as directed by the Fire Marshal and be easily accessible. As a matter of routine practice, fire extinguishers shall be serviced and inspected monthly.
 8. All materials and equipment under this section shall be new and listed by Underwriters Laboratories, Inc. and Factory Mutual for fire protection system installation and approved by all local authorities having jurisdiction and governing codes.
 9. Final connection to the Landlord's sprinkler main shall not be made until the entire system within the demised premises is pressure-tested and ready for service.
 10. Tenant shall not be permitted to stock the

Tenant space until the entire sprinkler system has been inspected, approved and put into operation. All stocking must be approved by Tenant Coordinator and local jurisdictional authorities, as required.

11. The entire installation shall be performed by a licensed sprinkler contractor in a first-class manner

Drawing Requirements

Tenant's sprinkler drawings shall include, but are not limited to the following:

- A reflected ceiling plan at 1/4"=1'-0" scale, including all sprinkler locations, pipe sizes and locations with final plan submission.
- Specifications, including all details, materials and equipment.
- Sprinkler shop drawings, as prepared by Tenant's sprinkler contractor, sealed by a California professional engineer

Sprinkler Shop Drawing Submittal

1. The Tenant's sprinkler contractor shall submit (2) copies of the sprinkler shop drawings to the Tenant Design Coordinator for review and approval. Sprinkler system shop drawings must be approved by the local authorities having the proper jurisdiction prior to the installation. Sprinkler system must comply with all applicable sections of the NFPA #13.
2. Landlord's insurance carrier may review the plans and forward their comments to Landlord's Tenant Coordinator, who shall then forward the comments to the sprinkler contractor. Tenant's sprinkler contractor shall implement

any modifications as part of Tenant work.

3. Landlord's Tenant Coordinator shall distribute Landlord approved sprinkler drawings to the following:
 - Sprinkler Contractor-3 copies
 - Landlord's insurance carrier-2 copies-if required-Verify with on Site Tenant Coordinator
 - Center Management-1 copy
 - Tenant Construction Coordinator-2 copies

Fire Alarm System Design Criteria

System Design

Buildings "S" & "T" utilize an addressable system. Tenant-installed addressable monitor devices shall be compatible with this system.

Landlord Work

1. A central Sprinkler Monitoring System service Buildings "S" & "T".
2. The panel will be located in Building "S" Fire Sprinkler Room.
3. Each Tenant Space will be equipped with tamper switch on the shut-off valve.
4. Each Tenant Space will be provided with a junction box for connection of Tenant's wiring.

Tenant Work

1. Tenant shall provide all code-required devices (duct smoke detectors, smoke/fire dampers, etc.) and wire them to the Landlord-provided J-Box.
2. All devices shall be compatible with the Landlord's Fire Sprinkler Monitoring System.



TECHNICAL CRITERIA (continued)

3. Final connection to the Landlord-provided J-Box is by Landlord's Contractor at Tenant's expense.
4. All work within Tenant's premises affecting this system shall be by Landlord-approved Contractor at the Tenant's expense

HVAC System Design Criteria

Tenant shall furnish and install air conditioning, heating and ventilation equipment that shall serve the Tenant space at all times during business hours. Prior to design, the Tenant's engineer is to field verify existing conditions within the premises.

Tenants with grease, odor or smoke producing operations may be required to install pollution control equipment at Tenant's expense. Such systems shall be submitted for Landlord's approval. Tenants who choose not to install such equipment and are found to, Landlord's sole discretion, have caused related problems with neighboring tenants or main mall system, shall be required to retrofit their exhaust system to include pollution control at the tenant's sole expense.

System Design

All Tenants can utilize either a split design or roof top packaged unit. These units shall be located on the roof in an approved location as designated by the on site Tenant Coordinator.

Tenant shall design and install an air conditioning and heating system to serve the demised premises, based upon the following design conditions:

- Summer: Outside temperature: 101 degrees F (DB), 73 degrees F (WB)

- Summer: Inside temperature: 75 degrees F (DB) 50% R.H.
- Actual inside lighting, people and equipment loads
- Ventilation load per governing codes
- Minimum outside air quantities shall be based on 0.25 CFM/O for retail per square foot of floor area and/or as required by governing codes, whichever is greater
- Winter: Outside temperature: 28 degree F (DB)
- Winter: Inside temperature: 70 degree (DB) (minimum throughout the demised space). Provide supplementary heating as required and in compliance with all applicable codes.
- "U" factor of roof is .057 max btuh/square foot. "U" factor for walls is .182 btuh/square foot.
- Tenant's engineer is to design and Tenant's contractor is to install the entire Mechanical System. Any and all rooftop equipment must be located within the allocated roof top space as designated by the site Tenant Coordinator.

Landlord Work

Landlord will provide a structurally enhanced bay for the location of Tenant's units. Final locations are to be coordinated with the on site Tenant Coordinator.

Tenant Work

Tenant shall engage any/all Landlord approved contractors, at Tenant's sole expense, and Tenant/Tenant's General Contractor shall pay all costs directly to such contractor.

1. Tenant's mechanical installation to be completed per all governing codes and all materials shall be new and of commercial grade and bear Underwriter's Laboratories, Inc. label(s), where such labeling applies. A licensed Mechanical Contractor shall perform installation, in first class, workmanlike manner.
2. All work shall comply with the latest edition of the California Mechanical Code, and all other codes as may be applicable within this jurisdiction.
3. Tenant's HVAC system shall be designed and installed to include all areas of the Tenant space.
4. Tenant shall furnish complete data indicating system air balance in the demised premises and a certified third party balance report no more than thirty (30) days after opening.
5. Smoke evacuation will be per local codes if required.
6. Tenant Fire Life Safety system will be per local codes and shall interface with the building sprinkler monitoring system as described in the Fire Alarm Criteria.
7. Tenant shall use Landlord's roofing contractor for all re-roofing, weatherproofing, flashing and patching procedures. Tenant's general contractor shall provide temporary weatherproofing of all roof penetrations until Landlord's roofing contractor has made the final patch. Weatherproofing of all Tenants roof installation shall be performed by Landlord's authorized roofing contractor. Tenant's general contractor shall pay all costs directly to such roofing contractor.



TECHNICAL CRITERIA (continued)

8. Locations of all roof penetrations shall be reviewed and approved by Landlord in writing.
9. Roof equipment plan design drawings shall include:
 - The exact locations dimensioned to Mall column grid lines, parapets, etc.
 - The penetration opening size and required reinforcement of roof deck.
 - The exact size and outline of all curbs with the actual weight bearing on the roof at each location (including that of equipment, ducts, shafts, etc.).
 - Location of existing Mall structure and additional reinforcement required by Tenant's equipment weight.
 - Details of curbs for Landlord approval.
 - Dimensioning of all required clearances.
1. All conduit or pipe penetrations shall be made within the confines of the roof curb servicing the equipment platform bases shall be as per the Landlord's details.
2. No wood sleepers of any kind shall be allowed.
3. No fans, vents, ducts or other devices or equipment shall be installed, outside of Tenant's premises, in any demising partitions or on exterior walls without Landlord approval. Coordinate final locations, if approved, with the on site Tenant Coordinator.
4. No roof mounted refrigerant, electrical or water piping can be installed horizontally over five feet (5'-0") total length.
5. Conduit may not run horizontally on the roof

surface.

6. Condensation lines for refrigeration and/or air conditioning shall be copper pipes. Such pipes shall terminate in accordance with the requirements of local authorities and Landlord (in accordance with the requirements of local authorities and Landlord (in accordance with all local and state codes).
7. Access to the Mall roof is restricted to Landlord personnel and Landlord's designated contractors only. Authorization to access roof must be obtained from the on site Tenant Coordinator.

Structural

1. Tenant shall, at Tenant's sole expense, engage the services of a structural engineer.
2. Tenant's structural engineer shall provide plans, details and calculations showing the device(s) or equipment location(s) and opening(s).
3. It is the Tenant's responsibility to patch/repair any fireproofing damaged during construction to maintain the original fire rating.

Equipment

1. All air handling units, heating equipment, water heaters and other equipment located within the demised premises shall be floor-mounted, located over the toilet or storage areas on supports or suspended from structural beams within Tenant's space (not to exceed live load-refer to structural drawings provided to Tenant)
2. Tenant is responsible for isolation of all equipment so that vibrations and noises are not transmitted. Any noises deemed objectionable by

on site Tenant Coordinator shall be corrected at Tenant's sole expense.

3. Tenants are required to install a 7 day time clock for controlling their HVAC system.
4. Tenant shall provide air conditioning system with all necessary controls and devices and shall be compatible with the fire alarm system. All controls shall be in conduit.
5. Tenants that have odor-producing operations shall install a forced-draft ventilation system to maintain a negative pressure within the Tenant space and discharge into the atmosphere via the roof area. Tenant is responsible for proper diffusion of the exhaust in such a manner so as to prevent odors from entering air intakes of other ventilation system.

Ductwork

1. Hanger wires, duct-straps, fastening devices, etc. shall be fastened to joints and/or beams above and conform to the Mechanical Code, SMACNA, and all ordinances and regulations having jurisdiction. Do not attach anything directly to the roof deck above. All ductwork shall be seismically supported per code.
2. All air-conditioning ductwork systems shall be designed as low velocity and low pressure. All distribution ducts are to be per SMACNA low velocity standards and details, including insulated supply air distribution to all supply diffusers. Flexible ducts are to be used only for termination of duct run to ceiling device and shall not exceed six feet (6') in length.
3. All ductwork shall be fabricated from galvanized sheet-metal, stainless steel or black steel



TECHNICAL CRITERIA (continued)

in accordance with the standards of American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and Sheet Metal and Air Conditioning Contractors National Association (SMACNA) for low pressure, low velocity ductwork. Plaster liner ductwork with internal wire reinforcement is not permitted.

4. Branches from main low-velocity trunk ductwork shall be furnished with splitters, dampers or similar balancing devices in accordance with the standards of SMACNA and the Associated Air Balancing Council. Dampers shall be provided as required.
5. Supply and return ductwork shall be insulated with a minimum of one-inch (1") thick blanket-type insulation with a vapor barrier. Acoustical liner may be furnished, as required per NFPA standards, Landlord's insurance carrier's requirements and be UL rated. Flame spread shall not exceed twenty-five (25) and smoke developed shall not exceed fifty (50).
6. Air distribution supply registers and/or diffusers shall be designed and specified not to exceed NC level of 30.
7. No combustible materials of any type can be allowed above suspended ceilings.

