- 8. Other Finishes
 - General Other finishes shall be installed in accordance with manufacturer's directions.
 - b. Spray Texture

Apply where scheduled over new gypsum drywall, concrete, or previously finished ceilings.

Use type recommended by manufacturer for location.

Coarse texture, white.

CR10 SPECIALTIES:

1. Flagpoles

- a. Strength: Installed flagpole, flagged, shall safely withstand wind velocity of 100 MPH.
- b. Flagpole: Fabricate from seamless extruded aluminum tubing, alloy 6063-T6, cone tapered, one piece. Exposed height 30' unless noted otherwise. Provide natural clear anodized (0.7 mil.), mfr's. standard base, and fittings. Verify selection with Owner.

Toilet Accessories

- a. To the greatest extent possible toilet accessories shall be of matching design from a single mfr. Grab bars shall be concealed mounting type.
- b. Verify selection with Owner.
- Fire Extinguishers: Install fire extinguishers, enclosed in cabinets in public areas, wall mounted in service areas, so that extinguisher handle is no higher than 48" above finish

CR11 EQUIPMENT

- Cabinets (Provided under an allowance). See GR2.3, herein.
 - a. General

All manufactured factory finished cabinets shall comply with ANSI A161.1. "Recommended Minimum Construction and Performance Standards for Kitchen and Vanity Cabinets" or an equivalent standard.

All cabinets shall bear the label of an independent inspection agency. The label shall identify the manufacturer's name or symbol and indicate compliance with the applicable standards.

Construction and installation of job custom built cabinets shall be equivalent in quality and workmanship to cabinets meeting the ANSI A161.1 standard.

b. Counter Tops

Top material shall be securely bonded to a reinforced steel core or to 5/8" min. plywood or other equivalent material.

Top material shall be phenolic laminate, vinyl plastic covering, linoleum, ceramic tile, stainless steel or other material suitable for its intended use. A 4" back and end splash shall be provided against all abutting vertical surfaces which are not water and grease resistant. When back splash is omitted, joints at the juncture of counter top and vertical surfaces shall be tight and sealed.

Major Appliances (Owner furnished)

Every major electric appliance shall be installed in accordance with the approved testing and labeling agency requirements.

3. Sleeves For Air Conditioners in solid walls

When packaged air conditioners are to be used, i.e. those which are commonly installed in frames, install metal sleeves through the wall to permit installation of conditioners. The sleeves shall be of the type that may be closed tight if no equipment is installed.

CR12 FURNISHINGS (Not used)

CR13 SPECIAL CONSTRUCTION (Not used)

CR14 ELEVATORS

Provide elevator, equipment and installation which will assure a safe, convenient, dependable means or vertical transportation.

<u>Installation</u>

Safety Code

The entire installation shall conform to all applicable requirements of the latest edition of the American National Standard Safety Code AANSI A17.1, including Supplement 1b. Supplement 1b is mandatory except that return of cars shall be initiated by a smoke detector only, and not a heat sensor.

Warranty shall contain a statement that the entire installation conforms to ANSI A17.1.

Service for New Installation The elevator contractor shall provide maintenance service for 90 days after the installation is completed without cost to the owner. Maintenance shall consist of semi-monthly examinations of the installation by competent employees of the Elevator Installer, including all necessary adjustments, greasing, oiling and cleaning of all equipment and furnishing of all necessary supplies and parts except such parts as may have been damaged by misuse, accidents or negligence not caused by the Elevator Installer. All work shall be performed during regular working hours of regular working days except that emergency minor adjustment call-back service shall be available 24 hours a day, 7 days a week.

Car and Hoistway Doors Elevator car doors and hoistway doors shall be power operated horizontal sliding flush doors.

Controls and Operation Single and 2 Car Groups: Full Selective Collective Automatic Operation.

> The minimum system of operation shall be full selective collective automatic operation in both up and down directions. Each landing (Except terminal landings) shall be equipped with both an up and a down call button. With this system cars shall stop at corridor landings for up calls in the up direction and for down calls in the down direction.

Car Controls

- Each car for tenant use shall give not less than the following controls accessible to wheelchair users in accordance with ANSI All7.1.
- (1) An actuating control system having a vandal resistant type car button for each floor (numbered to correspond to the floors).
- (2) A door hold open button
- (3) At least one of the following emergency signals:
 - (a) A telephone connected to the police or a 24 hour rescue service, or the building switchboard if a 24 hour service is to be provided.
 - (b) An alarm button to activate a loud, clear bell at 6" dia. located inside the building and audible outside the hoistway. One bell may be used if operable from all cars in the group.
- (4) An emergency elevator stop switch, which will also operate either the alarm bell in paragraph above, or a similar bell located under the car platform.
- Car Position Indicator A position indicator shall be provided in the car of tenant elevators serving 3 or more floors which will

indicate by audible and visual signals the floor at which the car is stopped or is passing. Car Buttons

elevators which give a visual signal when a floor is Car or Hall Lanterns

Car buttons shall be provided in the car of tenant

Car or hall lanterns visible from the proximity of the hall call button shall be provided for tenant elevators which indicate by audible and visual signals the

arrival of the car and its direction of travel. Hall buttons shall be provided for tenant elevators

which give a visual signal when the car is called.

Machinery Room

Vibration and Noise Motors and other machinery shall be designed and mounted so as to avoid transmitting vibration to the

<u>Ventilation</u>

structure.

Machinery room temperatures shall be maintained between 40 deg. F and 110 deg. F at all times.

CR15 MECHANICAL

1. Air Conditioning

Provide mechanical systems which will assure safety of operation, convenience and comfort, protection from destructive elements, reasonable durability and economy, and adequate capacity and quality.

(1) Work Included:

Complete air conditioning system (heating, cooling and ventilating).

Providing starters for electric motors furnished under "Mechanical".

Temporary heat during construction.

Maintain system for 1 year after Substantial Completion.

Work Not Included: Wood platforms and curbs for fans and mechanical

Plumbing services and connections to units.

Electrical line voltage to units.

Openings, cutting and patching walls, roofs and ceilings for ductwork and piping.

Paying for temporary heat during construction, unless noted otherwise.

Changing filters after date of Substantial Completion (Owner's responsibility).

Within 15 days after contract execution, submit in manila-bound folders 3 brochures of the complete list of equipment and material.

Provide 3 manuals describing operation, servicing and maintenance requirements for each piece of equipment and material.

Standards

Except as modified on the drawings, the design, construction, installation, adjusting and labeling of all equipment, accessories and appurtenances for heating and air conditioning shall comply with recognized standards, including the National Standards for Field Measurements Instrumentation.

Electrical Equipment Work shall be installed in accordance with the Notional Electrical Code, enforced edition and NFPA 70.

Warm Air Heating System
Work shall be installed in accordance with NFPA Standards 90A, 31 and 54.

Electric Heating

Work shall be installed in accordance with the National Electric Code. When a recognized industry certification of testing program is available for heating units, systems and components (e.g. NEMA and UL), such equipment shall be labeled to show conformance.

Gas Fired Equipment

Equipment, including conversion burners, shall be labeled listed and installed in conformance with the appropriate ANSI, AGA or UL requirements.

All gas fired heaters shall be vented.

Vent materials including connectors shall be UL labeled and listed. They shall be installed in accordance with the listing, NFPA requirements and the manufacturer's instructions.

Except as provided above, no gas vent shall terminate less than 5 ft. in vertical height above the highest draft hood on connected appliances.

Mechanical Cooling

Suitable and durable means shall be provided to prevent transmission of objectionable noise or vibration generated by the system or equipment.

(2) Air Distribution Systems Duct systems shall be designed and installed in accordance with a recognized and acceptable method such as contained in the SMACCNA and NESCA manuals, and shall comply with NFPA 90A or 90B.

(3) Coolant Distribution Systems Distribution systems employing liquid media for cooling shall be designed in accordance with the applicable criteria contained in the ASHRAE Guide and shall be capable of producing summer comfort conditions within the concept of this standard. Refrigerant lines shall be insulated with a minimum 3/8 inch thick material having a moisture and thermal transmission rate not in excess of 0.1 and 0.28 respectively. Insulate chilled water lines with maximum conductance C of 0.6.

All exposed refrigeration piping located less than 6 ft. above any floor or outside grade shall be suitably protected to prevent damage to piping or injury to persons.

Where condenser cooling water is known to cause excessive corrosion, scaling or obstruction within the piping or equipment, suitable approved watertreatment means will be required. Dielectric connectors shall be used between ferrous and nonferrous piping in the cooling water circuit.

Suitable means shall be provided for the collection and disposal of condensate from cooling equipment. The condensate drain shall be constructed of at least 3/4" nominal pipe size copper, galv. steel, plastic or other corrosionresistant material.

Where the cooling coil or air-conditioning unit is located above a habitable space, or where structural damage may result from condensate overflow, an additional watertight pan of corrosion-resistant metal shall be installed beneath the cooling coil or unit to catch overflow condensate due to a clogged condensate drain; or one pan with standing overflow and separate drain may be provided in lieu of the second drain pan. The additional pan, or the standing overflow, shall be provided with a drain pipe, min. 3/4" nominal pipe size, discharging at a point which can be readily observed.

h. Electric Equipment

- (1) Motors shall conform to Standard for Air Conditioners, Central cooling UL 465.
- (2) All moving machinery shall be protected and guarded to comply with the current safety standards of ANSI B 15.1.
- (3) Manufacturer's wiring diagram shall be furnished for packaged units. For split systems a complete wiring diagram shall be furnished.
- Gas Equipment

All gas piping and gas fuel burning devices shall comply with NFPA 31.

Guarantee

- (1) Operating instructions and a performance guarantee shall be furnished by the installer.
- (2) Standard manufacturer's warranty shall be provided for all equipment and remain effective regardless of change of ownership.
- (3) Parts and service shall be provided without charge during the first year after Substantial Completion of the project.

RICHARD MOLENAAR ARCHITECT

SPECIFICATIONS

3-25-99