Section 5

BUILDING CHARACTERISTICS

The various design alternatives are based on the following building characteristics and design criteria.

EXHAUST AIR SYSTEMS

Separate exhaust air systems should be required for the following spaces:

- Toilet exhaust fans;
- Exhaust fans for kitchen area;
- Miscellaneous general exhaust fans to serve electrical rooms, storage rooms, and similar areas; and
- Potentially, a smoke evacuation system.

ACOUSTICAL TREATMENT

The following design goals, as expressed in Table 4 in relation to mechanical system generated noises, should be used for the occupied spaces.

Table 4
Noise Coefficient Design Goals

space	*design goal*
Offices Areas	NC-35
Stack Areas	NC-35
Toilets	NC-45
Break Area	NC-40

PLUMBING SYSTEMS

Plumbing systems should be designed and provided in accordance with the requirements of the International Plumbing and Building Codes and other applicable laws, rules, regulations, codes, and authorities having jurisdiction over the project.

Sanitary Drainage System

A complete and minimal maintenance sanitary drainage system to convey soil and waste from fixtures and equipment should be provided. The sanitary stacks should connect to the sanitary house sewers exiting the building and should discharge into the municipal sewer. Vent piping extended from fixtures, drains, equipment, and sanitary stacks to a point of termination above the roof should be provided. Sanitary waste from

fixtures below the gravity house drain should be evacuated by duplex sewage ejector pumps discharging into the sanitary house drain.

Storm Drainage System

A complete storm system conveying storm water from roof drains should be provided. Duplex sump pumps should be provided to convey clear water waste from drains located below the gravity storm drainage elevation. Sump pumps, where required, should discharge to the gravity storm drainage system. Storm water ***must*** be managed in accordance with the local Watershed Management Requirements.

Domestic Water Supply and Distribution

A complete domestic water system of cold and hot water circulation to all fixtures and equipment requiring it should be provided. A metered water service should be supplied from the municipal water main.

PLUMBING FIXTURES

All fixtures should be in compliance with International Plumbing Code and good library design criteria. Handicapped accessible fixtures should be provided where required. Tamperproof and vandal resistant hardware should be used throughout.

Water closets should be vitreous china, elongated bowl, siphon jet, wall hung on chair carrier with low flow flush valve, and open front solid plastic white seats, less cover. Water closets for use by the physically challenged should be installed a distance above the finished floor to meet ADA and code requirements. Urinals should be vitreous china, wall hung products as described in the Library Program Building Standard Guidelines in more detail, mounted the required distance above the finished floor. Fixtures that promote water conservation should be installed.

Lavatories should be vitreous china type, recessed in a counter, with a faucet providing 0.5 gallons per minute (GPM) flow restricting aerator and open grid waste. All lavatories should be installed at a constant height above the finished floor to accommodate both the physically challenged and non-handicapped customers. All faucets should accommodate use by people with disabilities.

DRINKING FOUNTAINS

Provide drinking fountains designed for adults and people with disabilities. Locate drinking fountains adjacent to the public and staff restrooms. Push plate operation is suggested. Consider a unit that directs water back into the fountain housing mounted on the wall to prevent overspill. Floor-mounted units are unacceptable.

LEED™

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