

Industrial Buildings and Plant Layout

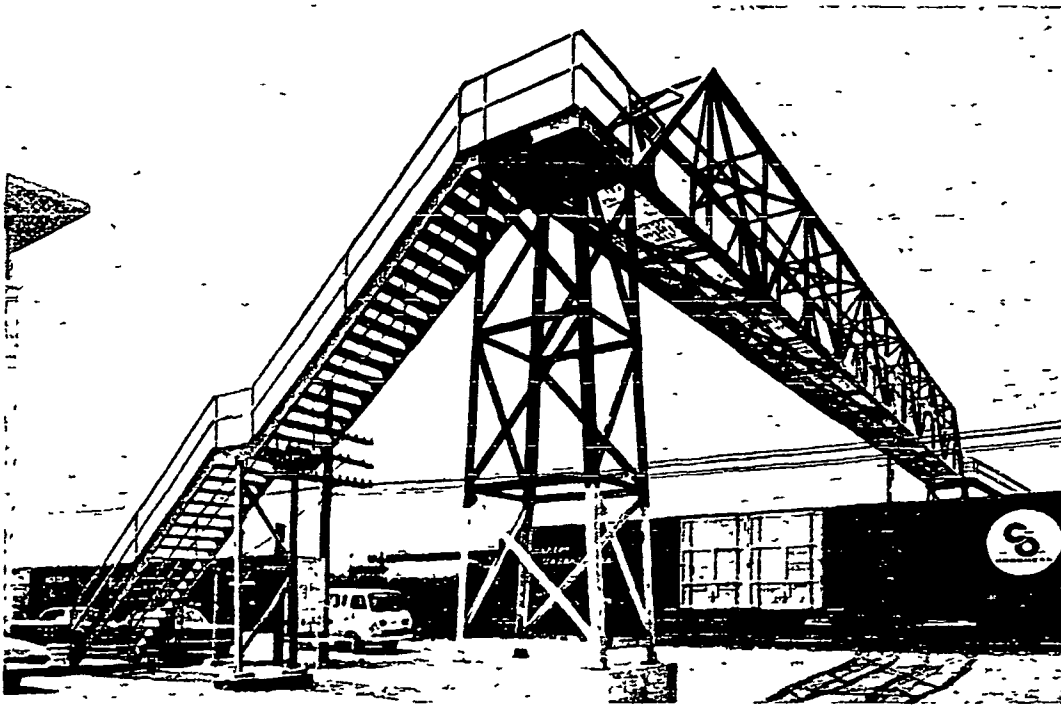


FIG 16-1 — A bridge provides safe crossover of a freight yard. Be sure construction and personnel protection are adequate

Courtesy Guardian Engineering & Development Co

Floors, walkways, stairs, ramps, platforms
Storage facilities, including those for explosives and flammable materials, for harmful substances, for finished products, and yard storage

Electric wiring and installation

Illumination

Mechanical handling equipment cranes, conveyors, industrial trucks

Elevators

Boilers and other pressure equipment

Ventilation, heating, and air conditioning

Fire control

Health and safety water, waste disposal, first aid, personal protective equipment, distribution and repair facilities, isolation of excessively noisy operations

Water supply adequate for fire fighting

Personal service facilities parking, restaurants, rest rooms, employment, and training

Site Planning

Selection of a site involves consideration of a number of factors possible hazards to the community and their relationship to climate and terrain, space requirements, type and size of buildings, necessary facilities, transportation, market, and labor supply. Of the factors listed, those of direct concern to the safety professional are discussed below. While the safety professional is not directly responsible for specialized plant and process engineering and design, still it is his duty to keep the engineers and architects as safety conscious as possible, and to anticipate potential safety hazards and try to have them "designed out" of the system before the construction stage begins.

Location, climate, and terrain

Plants producing or using highly flammable or toxic substances in bulk should be located