

## BS VIGNETTE PROGRAM:

A reflected ceiling plan for an architect's office is to be prepared. The space is in a multistory building and is enclosed by leasable office space on one side, a corridor on another, and two exterior walls. The client wants flexibility for furniture placement, efficient lighting levels, and a comfortable environment.

Comply with the following requirements to develop the reflected ceiling plan:

### SUSPENDED CEILING SYSTEM

1. Provide a 2ftX4ft grid with lay-in acoustical tiles in all spaces.
2. All ceilings heights are 9ft above the finished floor.
3. Typical walls terminate 6 inches above the finished ceiling; bearing walls are fire-rated extend to the bottom of the floor deck above.

### LIGHTING SYSTEM

Lighting layouts should be efficient and should minimize overlighting and underlighting.

1. For all spaces, use only recessed fluorescent fixtures to provide uniform light distribution with a light level of approximately 50 footcandles measure at desk level (3ft above the finished floor).
2. In addition to the fluorescent fixtures required above, provide recessed accent light fixtures.
  - a. Locate the accent light fixtures along the west wall of the Architect's office so that the direct light level on the wall at a height of 5ft above the floor is 80 footcandles.
  - b. Space the accent light fixtures so that the light level between the fixtures at 5ft above the floor is 80 foot candles.
  - c. The accent light fixtures should not be considered in determining the accent light levels.

### HVAC SYSTEM

The space is served by the supply and return risers within the shaft indicated on the floor plan. The HVAC system should provide for uniform air distribution with an economical duct layout conforming to the following restrictions:

1. Provide minimum of one supply diffuser and one return-air grille in each space. An acceptable air distribution pattern includes one supply diffuser and one return-air grille for every 144ft<sup>2</sup> of floor area (or portion thereof) in each space.
2. Connect each supply diffuser to the rigid supply duct system with flexible duct. (Do not exceed 10 ft for flexible duct lengths).
3. Return-air grilles are open to the ceiling space, which serves as a return-air plenum. (Connect the plenum to the return riser with rigid duct.
4. Protect duct openings in fire-rated walls with fire dampers.
5. Flexible ducts fit through joist webs.
6. Rigid ducts fit under beams, in space between joists, and in a zone that extends 2ft on either side of beams and bearing walls in plan view. (Rigid ducts do not fit through joists or between the bottom of joists and the ceiling.