Notification

- Describe the requirements for visual notification appliances.

- Specify the appropriate locations for visual notification appliances.

- Distinguish between the different categories of notification appliances.

Graphic Fire Alarm Annunciator

- Building entrance

- Shows layout of building

- Shows zones

Notification Appliances

- Operating mode
  - Public operating mode
    - Intended for occupants or inhabitants of the protected area
    - Audible and visual signals by a fire alarm system, emergency voice alarm system, emergency communication system or mass notification system
  - Private operating mode
    - Intended for occupants directly concerned with implementation of emergency actions in the protected
    - Audible and visual signals communicated directly to personnel
- Operating mode affects selection and placement of notification appliances
  - In general, the requirements for private mode signaling are less stringent than public mode

Notification Appliances

- Audible
  - Horn
  - Bells
  - Other
  - Voice

- Visual
  - Strobes
  - Displays

- Other
  - Pagers
  - Bed shakers

Visible Appliances

- Typically are used in addition to audible appliances
  - Expect to have hearing impaired persons in the area
  - Required if ambient noise is over 105 dB
- Examples
  - Strobes
  - Scrolling Signs
  - Annunciators
- NFPA 101 and NFPA 72 contain requirements for visual notification under certain circumstances
  - Currently, only strobe lights are addressed
    - Must be synchronized
  - Revolving beacons and flashing of building lights are acceptable but no specific code requirements currently exist

Location

- **Audible**
  - ≥ 90 in above floor
  - ≥ 6 in below ceiling
- **Visual – text**
  - ≥ 40 in above floor

- **Visual - strobe**
  - Between 80 in to 96 in above finished floor
  - or ≤ 6 in of ceiling
  - ≤ 15 ft of end of corridor and every 100 ft
  - ≤ 16 ft of pillow
  - Concentrated viewing path

Strobe Spacing

Room Size (ft)	One Light (cd)	Four Lights (cd)
20x20	15	NA
30x30	34	NA
40x40	60	15
50x50	94	30
60x60	135	30
70x70	184	60
80x80	240	60
90x90	304	95
100x100	375	95

Corridors: 15 cd

Room Size (ft)	Max lens height (ft)	One light (cd)
20x20	10	15
30x30	10	30
40x40	10	60
44x44	10	75
20x20	20	30
30x30	20	45
44x44	20	75
46x46	20	80
20x20	30	55
30x30	30	75
50x50	30	95
55x55	30	115
63x63	30	150
70x70	30	185

Visible Appliances

- Factors affecting visible appliance performance
  - Source intensity
  - Illumination at some distance from the source
    - candela, (formally called "candle power") is measurement of a light appliance's output
    - Illumination is measured in lumens/ft^2 ("lux").
  - Because strobes flash, perceived brightness varies depending upon source strength and duration of flash

Illumination

$$E \sim I/d^2$$

Where:

$E =$ Illumination (lm/ft^2)

$I =$ Intensity (cd)

$d =$ Distance (ft^2)

- Peak

- Duration

Placement