

SECTION 30 BUILDING CONSTRUCTION – 12 HOURS**BASIC – 0 Hours****INTERMEDIATE – 0 Hours****ADVANCED – 12 Hours**

- 30-03.01** Trainee shall describe the relationship of building construction to fire behavior by:
- A. identifying the types of loads placed on a structure
 - B. identifying loads as to the direction in which they are placed on structural members
 - C. describing the effect of loads on various materials
 - D. identifying terms associated with building construction
- 30-03.02** Trainee shall identify the various types of building construction characteristics:
- A. wood
 - B. ordinary
 - C. steel
 - D. fire resistive
 - E. heavy timber
 - F. non-combustible
- 30-03.03** Trainee shall describe the various structural elements in building construction by:
- A. defining fire resistance,
 - B. identifying foundation assemblies, foundation walls, floor assemblies, ceilings and ceiling assemblies, various types of wall construction, roof types, roof coverings, roof supports, and
 - C. identifying potential hidden spaces in structural elements that would allow for communication of fire and smoke
- 30-03.04** Trainee shall identify the various building services for:
- A. movement of people throughout a structure; elevators and stairways,
 - B. mechanical operations of a building; heating, ventilating and air conditioning systems, utility chases and vertical shafts, and
 - C. emergency accessibility in buildings; windowless walls, access panels, roof hatches, smoke and heat vents, and skylights.
- 30-03.05** Trainee shall identify door and window assemblies by:
- A. various types
 - B. describing fire doors and their method of operation
 - C. identifying typical types of door construction
 - D. identifying various window assemblies
 - E. identifying types of windows
- 30-03.06** Trainee shall identify signs of potential collapse of a structure:
- A. cracks in walls
 - B. sagging roof
 - C. walls out of line
- 30-03.07** Trainee shall identify causes of potential collapse in buildings:
- A. deterioration
 - B. forces associated with the violence of a fire
 - C. structural modifications found during prefire planning
- 30-03.08** Trainee shall describe at least three (3) hazards associated with light-weight truss construction.
- 30-03.09** Trainee shall describe the effects of fire and fire suppression activities on the following building materials:
- A. wood
 - B. masonry, i.e. brick, block, stone
 - C. cast iron
 - D. steel
 - E. reinforced concrete
 - F. gypsum wall board
 - G. glass
 - H. plaster on lathe
- 30-03.10** Trainee shall define the following terms as they relate to building construction:
- A. veneer wall (exterior)
 - B. party wall
 - C. fire wall
 - D. partition wall
 - E. cantilever or unsupported wall
 - F. load bearing