

## 4.4. Midrise Building Fire Protection Systems

- 4.4.1.** Midrise buildings (Assembly, Education, Healthcare, Mercantile, Hotel, Daycare, Mixed and Multiple and High depth underground buildings) having a building height from more than 15 m to less than 23 m shall be provided with Fire protection Systems in compliance with **Table 9.20.a.**, and Auxiliary Rooms Fire Protection Systems as per **Table 9.30.**

**Table 9.20.a.: Midrise Building Fire Protection Systems**

PREDOMINANT OCCUPANCY	SYSTEM REQUIREMENTS	COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES
<b>A. ASSEMBLY GROUP A, B, C.</b>	<b><u>1. IF PLOT AREA IS LESS THAN 20,000 m<sup>2</sup></u></b>	<b><u>1. IF PLOT AREA IS LESS THAN 20,000 m<sup>2</sup></u></b>
<b>B. EDUCATION GROUP A, B, C.</b>	i. Sprinklers shall be provided throughout the building including base-ments, podiums (Open as well as closed) as per <b>Section 3.5.</b>	v. The capacity of the fire pump set shall be 750 gpm if there are 2 standpipes, 1000 gpm if there are more than 2 standpipes at a pressure as required to satisfy 6.9 bar at the most remote landing valve.
<b>C. HEALTHCARE GROUP A</b>	ii. Auxiliary rooms and various areas of the building shall be protected as per <b>Table 9.30.</b>	vi. The water tank shall have a capacity of 45 minutes of operation, complete with low water level detection, dedicated direct breeching inlet for refilling and instantaneous refilling arrangement for utility water supply..
<b>D. MERCANTILE GROUP A, B</b>	iii. A wet riser System shall be provided throughout the building as per <b>Section 3.4.</b>	
<b>E. HOTEL GROUP A, B, C.</b>	iv. The wet risers shall be interconnected at the highest level.	
<b>F. DAY CARE GROUP A, B, C.</b>		
<b>G. MIXED AND MULTIPLE OCCUPANCIES</b>	<b><u>2. IF PLOT AREA IS MORE THAN 20,000m<sup>2</sup></u></b>	<b><u>2. IF PLOT AREA IS MORE THAN 20,000 m<sup>2</sup></u></b>
<b>H. HIGH DEPTH UNDERGROUND BUILDINGS OR BUILDINGS WITH 3 OR MORE BASEMENTS</b>	i. Sprinklers shall be provided throughout the building including base-ments, podiums (Open as well as closed) as per <b>Section 3.5.</b>	vi. Where a fire pump set is combined and serves yard hydrants and internal building systems, capacity of the fire pump set shall be 1000 gpm irrespective of number of standpipes at pressure as required to satisfy 6.9 bar at the most remote landing valve and the hydrant.
	ii. Auxiliary rooms and various areas of the building shall be protected as per <b>Table 9.30.</b>	vii. Where a fire pump set is combined and serves yard hydrants and internal building systems, the combined water tank shall have capacity of 60 minutes of operation, complete with low water level detection, dedicated direct breeching inlet for refilling and instantaneous refilling arrangement for utility water supply.
	iii. A wet riser System shall be provided throughout the building as per <b>Section 3.4.</b>	
	iv. The wet risers shall be interconnected at the highest level.	
	v. Yard Fire Hydrants shall be provided as per <b>Section 3.11.</b>	
	vi. Yard hydrants shall not be required where infrastructure yard hydrants are available within 60 m of such building. In this scenario, requirements of <b>Table 9.20.a.1.</b> shall apply.	