

4.5. Lowrise Building Fire Protection Systems

- 4.5.3.** Lowrise buildings having building height of up to 15 m and low depth underground buildings or basements but single exit stair shall be provided with Fire protection Systems in compliance with **Table 9.21.c.** and Auxiliary Rooms Fire Protection Systems as per **Table 9.30.**

Table 9.21.c.: Lowrise Building Fire Protection Systems

PREDOMINANT OCCUPANCY	SYSTEM REQUIREMENTS	COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES
A. RESIDENTIAL GROUP A (APARTMENTS) WITH SINGLE EXIT STAIR COMPLYING TO CHAPTER 3, Table 3.24.2.1. B. BUSINESS GROUP A, B, C WITH SINGLE EXIT STAIR COMPLYING TO CHAPTER 3, Table 3.19. 2. C. MERCANTILE GROUP A, B WITH SINGLE EXIT STAIR COMPLYING TO CHAPTER 3, Table 3.32.5. D. HOTEL GROUP A, B, C. WITH SINGLE EXIT STAIR	1. IF BUILT-UP GROUND FLOOR AREA IS UP TO 500 m² i. Hose Reel System shall be provided throughout the building as per Section 3.3. ii. Dry landing valves shall not be required.	1. IF BUILT-UP GROUND FLOOR AREA IS UP TO 500 m² iii. Capacity of the fire pump set shall be 50 gpm at pressure as required to satisfy 4.5 bar at the most remote Hose Outlet. iv. Water tank shall have capacity of 30 minutes of operation, complete with low water level detection, dedicated direct breeching inlet for refilling and instantaneous refilling arrangement for utility water supply. v. Fire Pump and/or Fire water tank shall be permitted to be installed on the roof, if existing structure is capable of accommodating such additional load.
	2. IF BUILT-UP GROUND FLOOR AREA IS MORE THAN 500 m² i. Sprinklers shall be provided throughout the building including basements and podiums (open as well as closed) as per Section 3.5. ii. Auxiliary rooms and various areas of the building shall be protected as per Table 9.30. iii. Hose Reel System shall be provided throughout the building as per Section 3.3. iv. Dry landing valves shall not be required.	2. IF BUILT-UP GROUND FLOOR AREA IS MORE THAN 500 m² v. Capacity of the fire pump set shall be 300 gpm at pressure as required to satisfy 4.5 bar at the most remote Hose Outlet. vi. Water tank shall have capacity of 30 minutes of operation, complete with low water level detection, dedicated direct breeching inlet for refilling and instantaneous refilling arrangement for utility water supply. vii. Fire Pump and/or Fire water tank shall be permitted to be installed on the roof, if existing structure is capable of accommodating such additional load.