

## 4.5. Lowrise Building Fire Protection Systems

- 4.5.5.** Lowrise villas, business and mosques having commercial and mercantile outlets attached to it or in the same plot shall be provided with Fire protection Systems in compliance with **Table 9.21.e.** and Auxiliary Rooms Fire Protection Systems as per **Table 9.30.**

**Table 9.21.e.: Lowrise Building Fire Protection Systems**

| PREDOMINANT OCCUPANCY  | SYSTEM REQUIREMENTS  | COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES  |
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| <b>A. VILLAS (G+1)</b><br><br><b>HAVING COMMERCIAL OUTLETS ATTACHED TO IT OR IN THE SAME PLOT</b><br><br><b>B. BUSINESS (GROUP A, B, C)</b><br><br><b>HAVING COMMERCIAL OUTLETS ATTACHED TO IT OR IN THE SAME PLOT</b><br><br><b>C. MOSQUES</b><br><br><b>HAVING COMMERCIAL OUTLETS ATTACHED TO IT OR IN THE SAME PLOT</b> | <b>1. IF BUILT-UP GROUND FLOOR AREA OF THE COMMERCIAL OUTLET IS UPTO 900 M<sup>2</sup></b><br><br>i. Hose Reel System shall be provided throughout the building as per <b>Section 3.3.</b><br>ii. Dry landing valves shall not be required.<br>iii. Hose reels or dry landing valves shall not be required if the infrastructure yard hydrants are available and cover the commercial outlet.  | <b>1. IF BUILT-UP GROUND FLOOR AREA OF THE COMMERCIAL OUTLET IS UPTO 900 M<sup>2</sup></b><br><br>iv. 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.<br>v. Water tank shall have capacity of 30 minutes of operation, complete with low water level detection, dedicated direct breaching inlet for refilling and instantaneous refilling arrangement for utility water supply.<br>vi. Fire Pump and/or Fire water tank shall be permitted to be installed on the roof, if structure is capable of accommodating such additional load.           |
|  | <b>2. IF BUILT-UP GROUND FLOOR AREA OF THE COMMERCIAL OUTLET IS MORE THAN 900 M<sup>2</sup></b><br><br>i. Sprinklers shall be provided throughout the building including basements as per <b>Section 3.5.</b><br>ii. Auxiliary rooms and various areas of the building shall be protected as per <b>Table 9.30.</b><br>iii. Hose Reel System shall be provided throughout the building as per <b>Section 3.3.</b><br>iv. Dry landing valves shall not be required.<br>v. Hose reels or dry landing valves shall not be required if the infrastructure yard hydrants are available and cover the commercial outlet. | <b>2. IF BUILT-UP GROUND FLOOR AREA OF THE COMMERCIAL OUTLET IS MORE THAN 900 M<sup>2</sup></b><br><br>vi. 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.<br>vii. Water tank shall have capacity of 30 minutes of operation, complete with low water level detection, dedicated direct breaching inlet for refilling and instantaneous refilling arrangement for utility water supply.<br>viii. Fire Pump and/or Fire water tank shall be permitted to be installed on the roof, if structure is capable of accommodating such additional load. |