

## 3.2. Highrise Buildings

- 3.2.1.** Highrise buildings, having building height more than 23 m but less than 90 m from the fire access level shall be provided with smoke control systems in accordance with **Table 10.20.**

**Table 10.20.: Highrise Building Smoke Control System Requirements**

LOCATION	SYSTEM REQUIREMENTS
<b>1. EXIT STAIRS</b>	<ul style="list-style-type: none"> <li>i. Stair Pressurization shall be provided in accordance with <b>Section 2.6.</b></li> <li>ii. Multiple injection arrangement shall be provided for buildings exceeding 30.5 m.in height. Such stair pressurization shall extend to stairs connecting all levels of the building, including basements.</li> </ul>
<b>2. PASSENGER ELEVATOR LOBBY</b>	<p><b><u>1. BUILDINGS WITH PASSENGER ELEVATOR LOBBY</u></b></p> <ul style="list-style-type: none"> <li>i. Elevators with lobby shall be arranged with smoke barriers as follows.</li> <li>ii. Barriers forming the elevator lobby shall have a minimum 1-hour fire resistance rating.</li> <li>iii. The elevator lobby door assemblies shall confirm to the transmitted temperature at the end point not exceeding 250°C above ambient at the end of 30 minutes of the fire exposure.</li> <li>iv. Elevator lobby door leaves shall be self-closing or automatic-closing.</li> <li>v. The elevator lobby door leaves shall close in response to a signal from a smoke detector located directly outside the elevator lobby adjacent to or on each door opening.</li> <li>vi. The elevator lobby door leaves shall be permitted to close in response to a signal from the building fire alarm system.</li> <li>vii. No smoke control shall be required for lobby complying to <b>Table 10.20.2.</b></li> </ul> <p><b><u>2. BUILDINGS WITHOUT PASSENGER ELEVATOR LOBBY</u></b></p> <ul style="list-style-type: none"> <li>i. A lift hoistway pressurization shall be provided in accordance with <b>Section 2.19.</b></li> </ul>
<b>3. FIREMAN'S LIFT LOBBY (FIREFIGHTING LOBBY)</b>	<ul style="list-style-type: none"> <li>i. Every highrise building shall have A fireman's lift.</li> <li>ii. Such fireman's lift shall extend to stairs connecting all levels of the building, including basements.</li> </ul> <p><b><u>1. BUILDINGS WITH FIREFIGHTING LIFT LOBBY</u></b></p> <ul style="list-style-type: none"> <li>i. Where provided with a fire firefighting lift lobby, such lobby shall be in accordance with <b>Chapter 1.</b></li> <li>ii. The firefighting lobby enclosure shall be constructed of smoke partitions, enclosed in one hour fire-resistance rating and shall be arranged as smoke barriers.</li> <li>iii. Smoke control or smoke purge shall not be required for the firefighting lift shafts when the fire man's lift is provided with a firefighting lobby.</li> <li>iv. Firefighting stairs shall be pressurized in accordance with <b>Table 10.19.1.</b></li> </ul> <p><b><u>2. BUILDINGS WITHOUT FIREFIGHTING LIFT LOBBY</u></b></p> <ul style="list-style-type: none"> <li>i. A lift hoistway pressurization shall be provided for the fireman's lift in accordance with <b>Section 2.19.</b></li> </ul>
<b>4. ENCLOSED EXIT AND EXIT ACCESS CORRIDORS</b>	<ul style="list-style-type: none"> <li>i. Corridor and open circulation areas shall be provided with a smoke management system in accordance with <b>Section 2.8.</b></li> <li>ii. The smoke exhaust shall not be at intermediate levels of the building. The smoke exhaust shall only be from roof, open to sky. Make up air is permitted to be drawn from intermediate levels.</li> </ul>