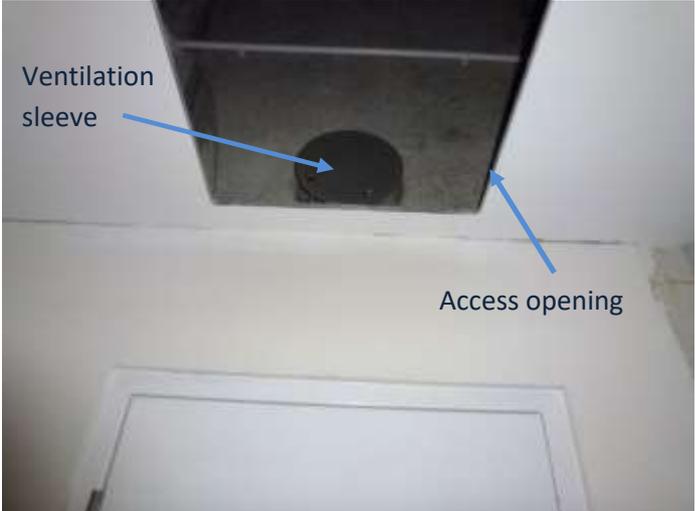
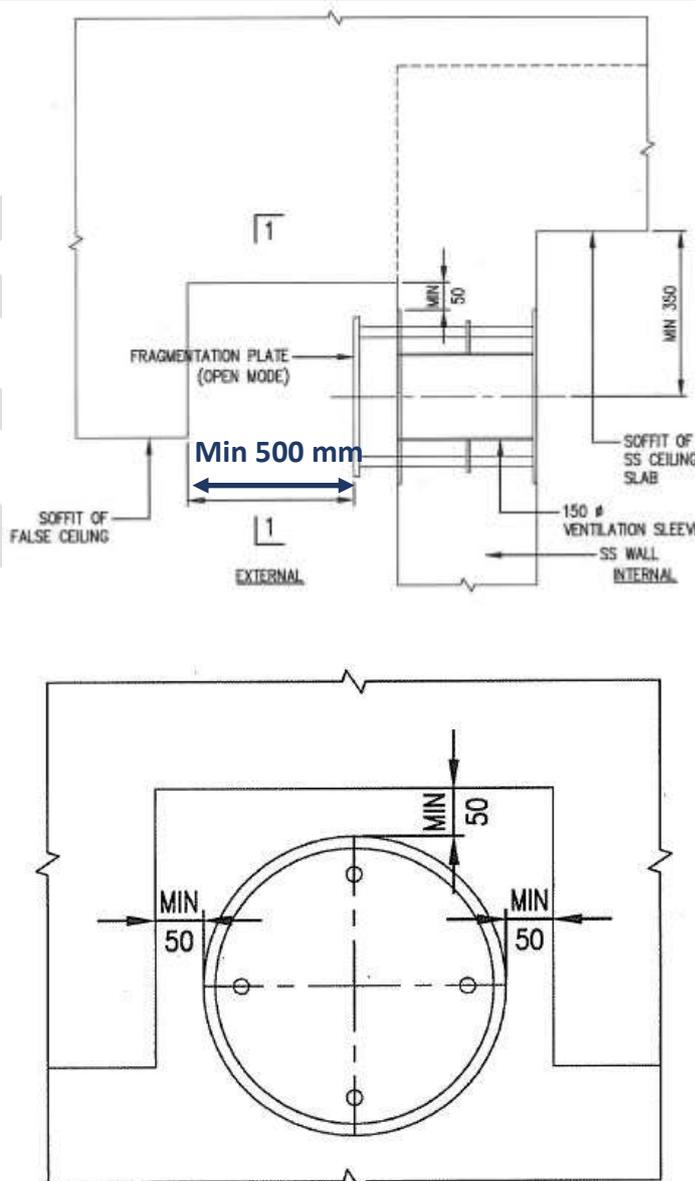


Sample checklist for Commissioning of Staircase Shelter(S/C SS)

S/No	Items	Sample photos
<p>A 1</p>	<p>Readiness condition of S/C SS To apply for commissioning inspection, S/C SS must be completed (see attached photo) in compliance with technical requirements. (e.g. setback distance, services, CD door, blast hatch, MV shaft, ventilation sleeves, internal/external floor finish level and no plastering on the internal wall.)</p>	
<p>2</p>	<p>The sloping face of the staircase flight soffit shall be extended over the vertical face of the RC wall (see photo) to achieve required thickness. [This is where the staircase flight projected beyond the vertical face of the RC wall.]</p>	

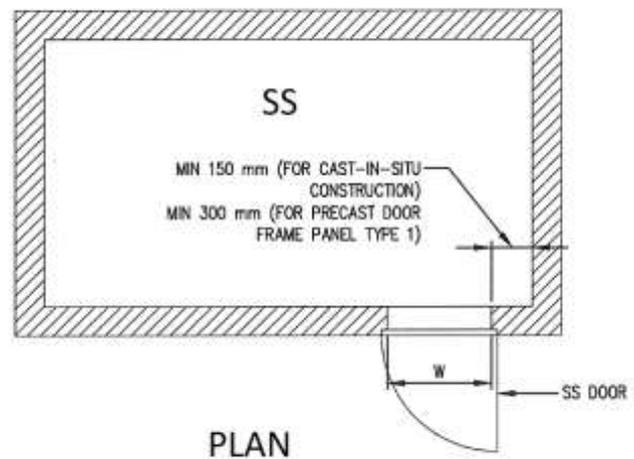
S/No	Items	Sample photos
<p>B</p> <p>MV Duct opening</p> <p>Air inlet at the top of the MV shaft</p> <p>1 Gasket for blast hatch must be properly installed so that it can be closed and opened without obstruction. (Hinges must be on the longer side of the blast hatch if it is rectangular.)</p> <p>Safety hook, safety steel mesh, light and light switch, single power socket outlet shall be provided.</p>		
<p>2</p> <p>A minimum setback distance of 2900 mm shall be provided for the protection of blast hatch opening for air inlet at the top of MV shaft.</p>		
<p>3</p> <p>Air inlet at the bottom of the MV shaft</p> <p>Gasket for blast hatch must be properly installed so that it can be closed and opened without obstruction.</p>		

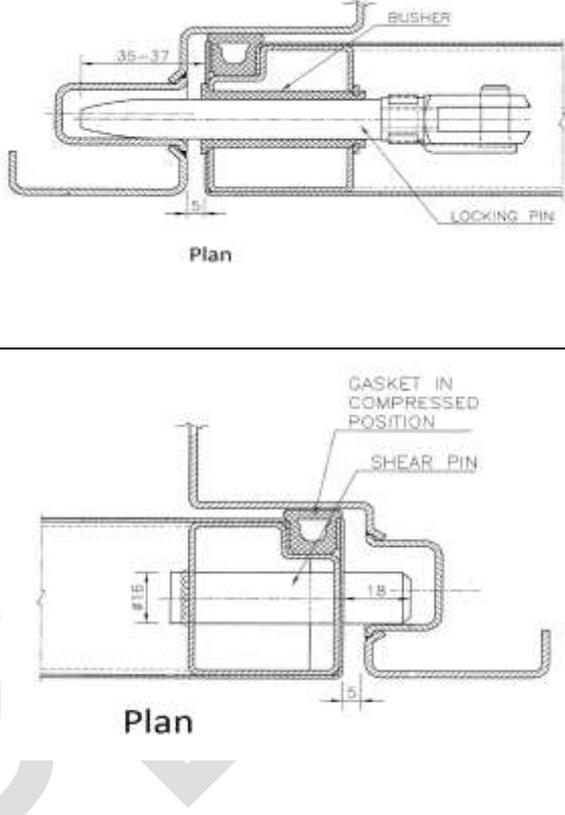
S/No	Items	Sample photos
C 1	<p>Ventilation Sleeves</p> <p>Both external and internal face of ventilation sleeve shall be cleared and free of cement grout and paint.</p>	 <p data-bbox="884 562 1331 595">External view of ventilation sleeve</p>
2	Screw threaded holes on the internal flange of ventilation sleeve shall be cleared and free of cement grout.	 <p data-bbox="831 1115 1294 1149">Internal flange of ventilation sleeve</p>
3	The inner flange of ventilation sleeve shall be flushed with internal face of SS wall.	 <p data-bbox="831 1115 1294 1149">Internal flange of ventilation sleeve</p>
4	<p>Ventilation sleeve (inside SS) shall be positioned such that the centre of the sleeves shall be:</p> <ul style="list-style-type: none"> a) minimum 350 mm from any wall or ceiling slab. b) minimum 1900 mm and maximum 3550 mm above finished floor level. c) minimum 1000 mm apart. 	

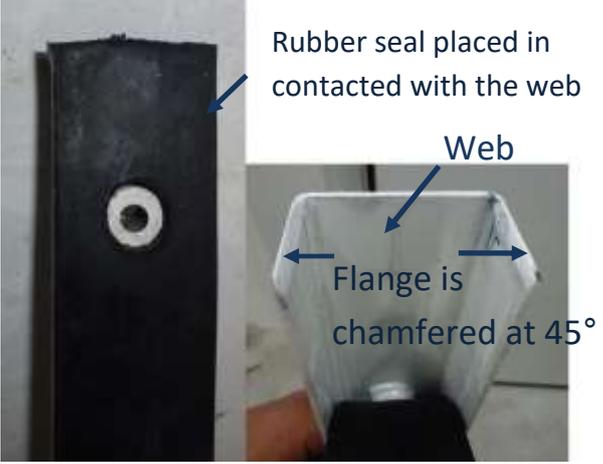
S/No	Items	Sample photos
5	For ventilation sleeve above false ceiling (outside SS wall), access opening shall be covered by access panel of 600 mm X 600 mm.	<p style="text-align: center;">Sample photos</p> 
6	Fragmentation plate of the ventilation sleeve above false ceiling (outside SS wall) must be able to close and open without obstruction.	
7	False ceiling (outside SS wall) fronting the ventilation sleeves shall have a minimum clear distance of 500 mm away from the fragmentation plate in open position.	 <p style="text-align: center;">SECTION 1 - 1</p>

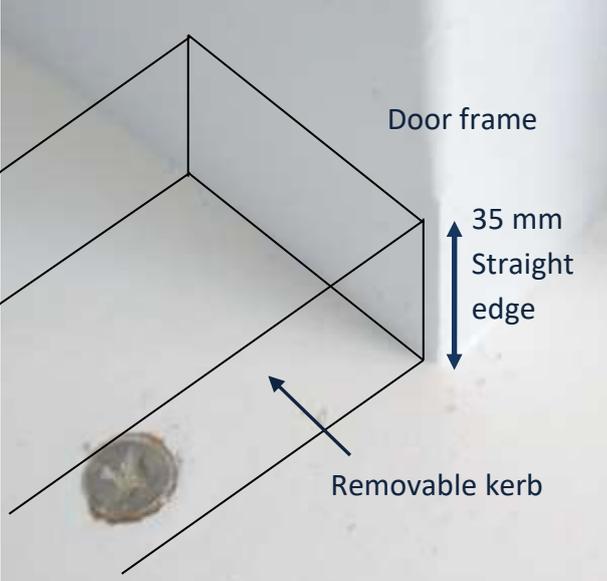
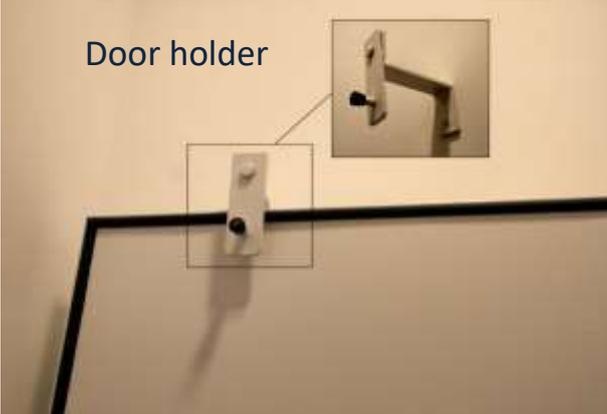
S/No	Items	Sample photos
<p>D 1</p>	<p><u>SS Door and frame</u> PLS label and SS door notice shall be pasted on the door.</p>	 <p>The top photograph shows a white door with a yellow rectangular notice pasted on it. A blue arrow points from the text 'Door notice' to the notice. The bottom photograph shows a close-up of the door frame with two small blue labels pasted on it. A blue arrow points from the text 'PLS label' to the labels.</p>

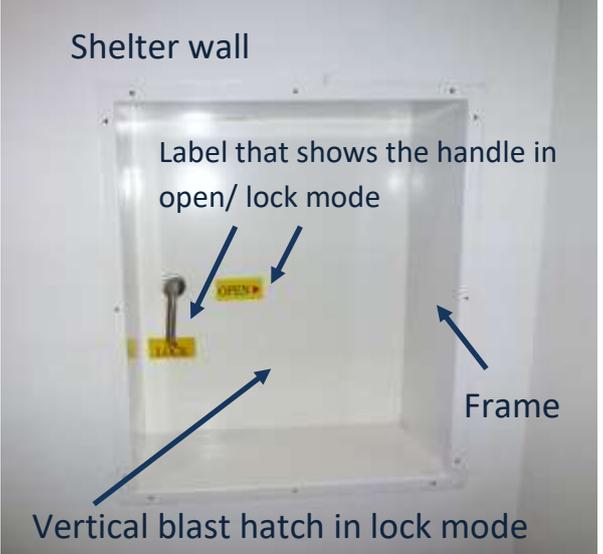
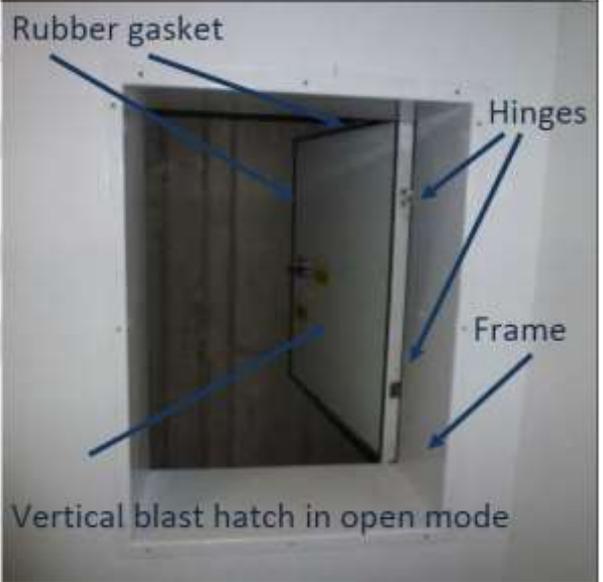
S/No	Items	Sample photos
2	<p>SS door and door frame shall be completed with final painting. (Note: rubber gasket, Door hinges, locking pins and shear pins shall not be painted over.)</p>	
	<p>SS door shall be able to close and lock in CD mode as indicated in the door notice.</p>	
	<p>External floor finish shall be clear from the bottom edge of the SS door to ensure unimpeded opening of SS door.</p>	
	<p>There shall be a minimum 150 mm reinforced concrete nib next to the nearest vertical edge of the SS door frame.</p>	

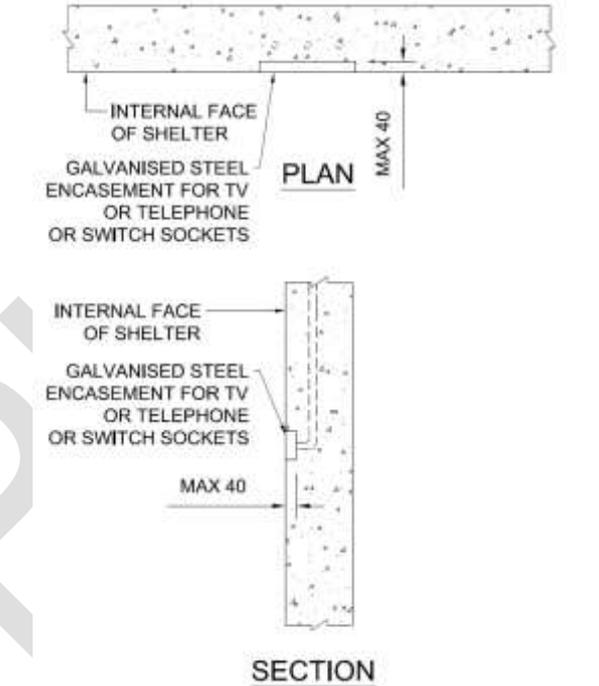
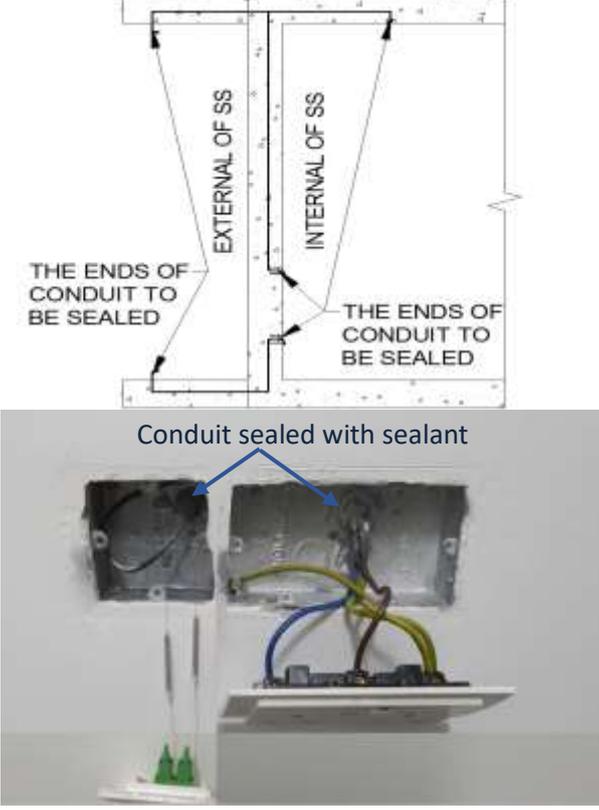


S/No	Items	Sample photos
3	<p>The locking pin and pin hole on the door frame shall be aligned so that the door can be engaged in CD mode easily.</p>	
4	<p>The design gap between the door and door frame is 5mm.</p> <p>The maximum gap allowable shall not more than:</p> <ul style="list-style-type: none"> - 6mm along door with hinges - 7mm along door with locking pins <p>Maximum total gap (hinges side + locking pin side) Shall not exceed 13mm or</p> <p>Maximum clear width of doorframe for net door opening of 900mm, 950mm, 1000mm shall not exceed 1003mm, 1053mm and 1103mm respectively.</p>	

S/No	Items	Sample photos
5	Rubber gasket shall be fully secured into the recess along the sides of the door panel.	
6	Removable kerb is affixed at top of door frame during inspection.	
7	Removable kerb can be installed on the threshold of door frame during inspection such that the gap between the door frame and the two ends of the kerb is 3 mm.	
8	The edge of the flange at two ends of the removable kerb must be chamfered.	

S/No	Items	Sample photos
9	The bottom corner of door frame next to removable kerb must have a 90° straight edge of 35mm in height.	
10	Handle shall be secured properly such that it is not loose or jammed when turning.	
11	A door holder shall be provided to hold the SS door in open position.	

S/No	Items	Sample photos
E 1	<p><u>Blast Hatch and frame</u></p> <p>Label shall be provided to indicate the handle position where the blast hatch is in open mode (peacetime) and in CD locked mode as shown in photos.</p>	 <p>Shelter wall</p> <p>Label that shows the handle in open/ lock mode</p> <p>Frame</p> <p>Vertical blast hatch in lock mode</p>
2	<p>Rubber gasket shall be fully secured into the recess along the sides of the door panel.</p>	 <p>Rubber gasket</p> <p>Hinges</p> <p>Frame</p> <p>Vertical blast hatch in open mode</p>
3	<p>Handle shall be secured properly such that it is not loose or jammed from turning.</p>	 <p>Vertical blast hatch in open mode</p>

S/No	Items	Sample photos
F 1	Services The following electrical and communication fixtures shall be provided in each SS: Three (3) 13A switch socket outlets; Lighting switch; Fibre Termination Point (FTP).	
2	Galvanised steel encasement for Fibre Termination Point (FTP), power point and lighting switch shall be placed within 40 mm measured from internal surface.	
3	All open ends of conduit at internal and external of SS shall be sealed with sealant to a minimum depth of 100mm.	

S/No	Items	Sample photos
<p>G</p> <p>1</p>	<p><u>Commissioning Testing (Trial)</u></p> <p>The pressure difference of 250 Pa between inside and outside of HS shall shows more than or equal to 50 Pa after 45 seconds.</p> <p>Note: Trial testing shall be carried out at the site by a competent site representative for all shelter units prior to application for commissioning inspection.</p>	
<p>2</p>	<p><u>Chalk mark test</u></p> <p>To apply chalk to the part of the door frame where the door seal will come into contact with when the door is closed.</p> <p>The test is considered to have passed if there is an unbroken and uniform transfer of the chalk markings onto the door seal when the door is closed and re-opened.</p>	