SAGGA
South African Glass and Glazing Association
E:Mail: sagga@aaamsa.co.za
www.sagga.co.za

AAAMSA Group
Tel: (011) 805-5002 Fax: (011) 805-5033
E:Mail: aaamsa@iafrica.com www.aaamsa.co.za

SASEMA
SA Shower Enclosure Manufacturers Association

SANS 10400-N:2012 Edition 3.1 requires glazing (framing and glazing materials) to comply with all the requirements of SANS 613 in respect of wind and impact loads, water penetration and air leakage. Upon completion of project provide appropriate Performance Test Certificates confirming compliance with all the requirements of SANS 613.
Installations of glass panes will be inspected in accordance with SANS 10400-Part N:2012 Edition 3.1.

1. EXTERNAL VERTICAL GLAZING – Structures not exceeding 10m in height (3 storeys) Single Glazing

Vertical Glazing supported all round							
	Maximum Pane sizes in sq. m						
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	0.75	1.5	2.1	3.2	4.6	6.0	6.0
Patterned Annealed & Wired Glass	-	0.75	1.2	1.9	2.6	3.4	-
Laminated Annealed Safety Glass	-	-	-	2.9	4.3	5.7	5.7
Toughened Safety Glass	-	1.9	3.0	4.5	8.0	8.0	8.0

Vertical Glazing - two opposite sides supported							
	Maximum Span between support in m						
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	-	0.4	0.5	0.6	0.85	1.0	1.3
Patterned Annealed & Wired Glass	-	0.25	0.3	0.35	0.5	0.6	-
Laminated Annealed Safety Glass	-	-	-	0.55	0.8	0.95	1.2
Toughened Safety Glass	-	0.55	0.7	0.85	1.15	1.3	1.8

2. INTERNAL VERTICAL GLAZING – Single Glazing

Vertical Glazing all round supported							
	Maximum Pane sizes in sq. m						
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	0.75	1.5	2.1	3.2	4.6	6.0	6.0
Patterned Annealed & Wired Glass	-	0.75	1.2	1.9	2.6	3.4	-
Laminated Annealed Safety Glass	-	-	-	4.1	6.0	7.2	7.2
Toughened Safety Glass	-	3.0	4.2	6.4	9.2	9.2	9.2

Vertical Glazing – Two opposite sides supported							
	Maximum Span between support in m						
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	-	0.65	0.8	0.95	1.3	1.55	2.0
Patterned Annealed & Wired Glass	-	0.4	0.48	0.57	0.78	0.9	-
Laminated Annealed Safety Glass	-	-	-	0.9	1.25	1.5	1.95
Toughened Safety Glass	-	0.9	1.1	1.3	1.75	2.0	2.7

3. VERTICAL DOUBLE GLAZING (SIGU) – External (up to 3 storey) and Internal applications

Double Glazing (SIGU) all round supported only							
Type of glass	Maximum pane area in sq. m						
	Nominal glass thickness weakest light						
	3	4	5	6	8	10	12
Monolithic annealed glass	1.00	2.00	2.80	4.27	6.13	8.00	8.00
Patterned annealed & wired glass	-	1.00	1.60	2.53	3.47	4.53	-
Laminated annealed safety glass	-	-	-	3.87	5.73	7.60	7.60
Toughened safety glass	-	2.53	4.00	6.00	10.67	10.67	10.67

Deviations from the above must be approved by Competent Person (Glazing) including applications in excess of three storeys.

Two-edge supported SIGU (double glazing) must be done in consultation with the manufacturer of the SIGU and approved by Competent Person (Glazing).

4. GLASS FIN DIMENSIONS

Minimum Glass Fin Dimensions			
Fin Height in m	Internal	External	
1.5	150 x 12	150 x 15	**Note**: A butt joint is assumed to have no structural strength. Accordingly panels, which incorporate a butt joint, are not considered to be supported on four sides. A glass fin is necessary to provide the support at the joint so that the pane can be considered to be supported along four sides. Should no fin be in place selection of glass must be in accordance with Tables 1 or 2 above. Butt joints are not recommended for SIGU.
2	150 x 12	150 x 19	
2.5	150 x 12	175 x 19	
3	175 x 15	200 x 25	
3.5	225 x 15	275 x 25	
4	275 x 15	300 x 25	

4.4 SAFETY GLAZING (Obtain SAGGA Certificate of Conformance confirming compliance).

4.4.1 The performance of safety glazing material shall be in accordance with the requirements of SANS 1263-1 and the individual panes of safety glazing material shall be permanently marked by the installer in such a manner that the markings are visible after installation.

4.4.2 Safety glazing materials that comply with SANS 1263-1 shall be used where:

a) doors and sidelights form part of any entrance up to 2100mm from finished floor level;
b) a window has a sill height of less than 500mm from the floor or external ground level;
c) a window has a sill height of less than 800mm from the floor or external ground level without any permanent barrier that prevents persons from coming into contact with the glass panel, and is so placed that persons are likely, on normal traffic routes, to move directly towards such window.

NOTE: A barrier could be any feature, i.e. a heavy bar across a window or a flower box placed in front of the window, that will provide a physical or visual barrier between the glass and a person.

d) a bath enclosure or shower cubicle is glazed, or where glazing occurs immediately above and within a distance of 1800mm horizontally or vertically from a bath or shower;
e) glazing is used in any shop front or display window within 2100mm from the finished floor level;
f) glazing is used in any wall or balustrade to (or immediately adjacent to) a stairway, ramp, landing, pathway, patio, veranda or balcony;
g) glazing is used within 1800mm of the pitch line of a stairway or the surface of a ramp, landing, pathway, patio, veranda or balcony;
h) glazing applications are sloped or horizontal;
i) a mirror is installed as a facing to a cupboard door less than 800mm above floor level and there is no solid backing;
j) glazing is used around areas such as swimming pools and ice rinks; and
k) glazing is used in internal partitions, within 2100mm of floor level.

4.4.3 All glazing for occupancy or building classification is A3 (places of instruction), E1 (place of detention), E2 (hospital), E3 (other institutional (residential buildings) and H2 (dormitory), where such is associated with a building of occupancy classification A3, E1, E2 or E3 (see SANS 10400-A) shall be safety glazing material that complies with the requirements of SANS 1263-1.

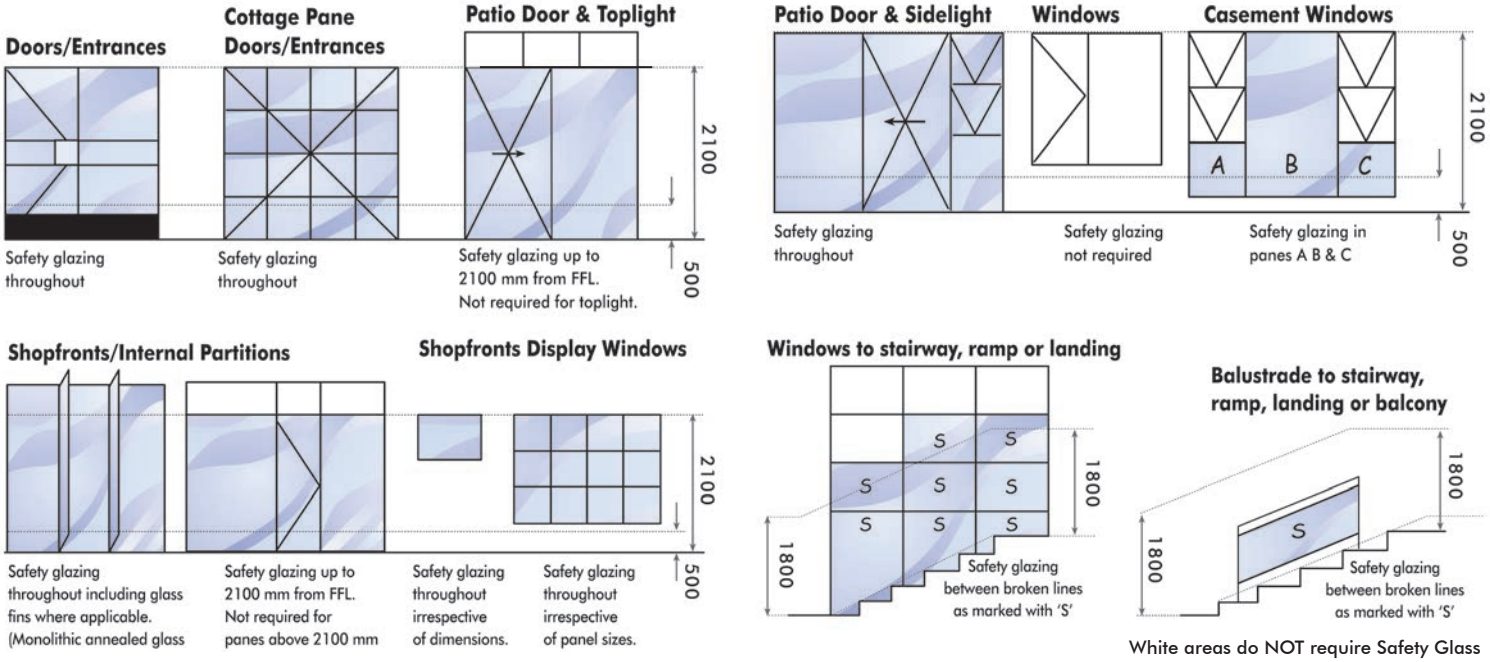
4.4.4 Glass in balustrades shall be toughened safety glass unless rigidly supported on all sides. Glazing material in balustrades is subject to impact and line loads determined in accordance within the requirements of SANS 10160-2.

4.4.5 Glass in horizontal or sloping applications shall be laminated safety glass or toughened safety glass. Toughened safety glass shall only be used where individual panes are framed on all sides.

4.4.6 Wired glass having two-edge support may be used in vertical glazing in sawtooth roofs.

4.4.7 The thicknesses and maximum panel dimensions of frameless bath and shower enclosures shall be as given in table below.

Dimensions for flat frameless glass shower enclosures		
Toughened safety glass thickness mm	**Maximum panel size in sq. m**	
	Doors and panels supporting doors	**Fixed panels**
6	1.6	2.1
8	2.0	3.3
10	2.2	4. 0
Note: This table does not apply to curved glass		



White areas do NOT require Safety Glass

GENERAL

Glazing installations not covered by or deviating from the items above such as, but not limited to, external glazing in structures in excess of 10m in height, overhead or sloped glazing, glass flooring, three and one edge supported glass, toughened glass assemblies and entrances, glass for balustrading etc. must be signed off and approved in writing by Competent Person (Glazing) or Structures. The SAGGA Certificate of Conformance does NOT cover water penetration, air leakage and wind load capacity of framing.

HANS A SCHEFFERLIE FSAGI (EXECUTIVE DIRECTOR) **OCTOBER 2015**