B&D STORM SHIELD HIGH WIND SECTIONAL DOOR - ELEVATION

MAXIMUM DOOR WIDTH = 5.5m

NOTE: DOOR WIDTH (SPAN) = OPENING WIDTH – CURTAIN OVERLAP
DOOR HEIGHT = OPENING HEIGHT + TOP PANEL OVERLAP
1:30

DESIGN CRITERIA:
(REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)

1. FOR DOOR WIDTHS LESS THAN 4m
   • ULTIMATE DESIGN INWARD WIND PRESSURE = 2.92kPa.
   • ULTIMATE DESIGN OUTWARD WIND PRESSURE = 3.04kPa.

2. FOR DOOR WIDTHS GREATER THAN 4m
   • ULTIMATE DESIGN INWARD WIND PRESSURE = 2.92kPa.
   • ULTIMATE DESIGN OUTWARD WIND PRESSURE = 3.04kPa.

LIMITATIONS:
• STEEL ABUTMENT SUPPORT POSTS TO BE 3.0mm (MIN.) AND A MINIMUM STRESS GRADE OF 250 MPa U.N.O.
• CHARACTERISTIC UNCONFINED COMpressive STRENGTH OF BLOCK WALL UNIT (f'uc) = 15 MPa (MIN.)
• ALL DOOR COMPONENTS TO BE IN ACCORDANCE WITH STANDARD B&D STORM SHIELD HIGH WIND SECTIONAL DOOR MANUFACTURING.

LIMITATIONS (continued):
• THE MAXIMUM ULTIMATE DESIGN ABUTMENT CATEenary FORCE Fx = 18.5KN PER METRE HEIGHT OF DOOR FOR ALL SPANS UP TO 5.5m.
• ALTERNATIVE DESIGN PARAMETERS TO WHAT ARE SPECIFIED ON THESE DRAWINGS ALONG WITH ALTERNATIVE SITE SPECIFIC LOCAL PRESSURE FACTORS MAY BE ADOPTED PROVIDED THE CALCULATED SITE SPECIFIC ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURE RATINGS SPECIFIED IN THE DESIGN CRITERIA.

NOTES COVERING BASIS OF DRAWINGS
• REPORT No. TS1026 Revision A (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
• PRINCIPLES OF MECHANICS.
• AS/NZS 1170.2:2011-STRUCTURAL DESIGN ACTIONS, PART 2: WIND ACTIONS.
• AS/NZS 1170.1:2002-STRUCTURAL DESIGN ACTIONS, PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
• AS/NZS 1170.0:2002-STRUCTURAL DESIGN ACTIONS, PART 0: GENERAL PRINCIPLES.
• AS 4100:1998-STEEL STRUCTURES.
• AS 1720.1:2010-TIMBER STRUCTURES, PART 1: DESIGN METHODS.
• AS/NZS 4600:2005-COLD FORMED STEEL STRUCTURES.
• AS 3700:2001-MASONRY STRUCTURES
• AS/NZS 1664.1:1997-ALUMINIUM STRUCTURES, PART 1: LIMIT STATE DESIGN.
• AS/NZS 4505:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
• AS 3600:2009 CONCRETE STRUCTURES.
• BUILDEX FASTENERS-TECHNICAL SPECIFICATION.
• RAMSET-SPECIFIERS RESOURCE BOOK.
• REFER TO DESIGN CRITERIA & LIMITATIONS.
THEIR WRITTEN CONCENT. THE CONTRACTOR SHALL VERIFY ALL ANY DISCREPANCIES BEFORE DIMENSIONS ON SITE AND REPORT PROCEEDING WITH THE WORK.

REPRODUCED IN ANY WAY WITHOUT THESE DOCUMENTS AND THE DESIGN PREFERENCE OVER SCALED DIMENSIONS.

TABLE 1

<table>
<thead>
<tr>
<th>MATERIAL THICKNESS (mm)</th>
<th>GRADE</th>
<th>YIELD STRENGTH (MPa)</th>
<th>TENSILE STRENGTH (MPa)</th>
<th>SPACING (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0mm</td>
<td>S550</td>
<td>550</td>
<td>550</td>
<td>125mm</td>
</tr>
<tr>
<td>1.2mm</td>
<td>S550</td>
<td>550</td>
<td>520</td>
<td>150mm</td>
</tr>
<tr>
<td>1.5mm</td>
<td>S450</td>
<td>450</td>
<td>450</td>
<td>200mm</td>
</tr>
<tr>
<td>2.0mm</td>
<td>S450</td>
<td>450</td>
<td>450</td>
<td>225mm</td>
</tr>
</tbody>
</table>

James Ellis & Associates Consulting Structural Engineers
Ph: 0413 123 123 Tel: 1300 1300 Email: info@jes.com.au 2017

B&D AUSTRALIA PTY LTD

B&D STORM SHIELD HIGH WIND SECTIONAL DOOR

DETAILS

S02 D

2422/A1

Mar 2017

ISSN A

DRAWN

CHECKED &

ISSUED FOR DISCUSSION 06.11.15

ISSUED FOR CONSTRUCTION 13.11.15

ISSUED FOR CONSTRUCTION 30.03.16

ISSUED FOR CONSTRUCTION 04.03.17

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NOTE: $F_y = \frac{W}{L}$
WHERE $F_y = \text{MAXIMUM OUT OF PLANE ULTIMATE DESIGN ABUTMENT FORCE PER METRE}$
$W = \text{ULTIMATE DESIGN WIND PRESSURE (kPa)}$
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