

**NOTES :**

**DESIGN CRITERIA**

- REGION C
- TERRAIN CATEGORY 2
- DOOR HEIGHT 3.0M MAX.
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED VR = 66m/s
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE = 3.26 kPa FOR A MAXIMUM ALLOWABLE CURTAIN WIDTH (L) OF 3150mm.
- INTERNAL PRESSURE COEFFICIENTS  
C<sub>pi</sub> = +0.55 AND C<sub>pi</sub> = -0.55

**LIMITATIONS**


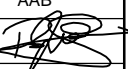
- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A MINIMUM STRESS GRADE OF G250 U.N.O.
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK WALL UNIT (f<sub>uc</sub>) = 15 MPa (MIN.).
- CORE FILLING OF BLOCKWALL (f<sub>c</sub>) = 15 MPa (MIN.).
- THE STRUCTURE TO WHICH THE DOOR GUIDES ARE ATTACHED SHALL BE ASSESSED AND CERTIFIED INDEPENDENTLY AS REQUIRED BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER.
- ALTERNATIVE DESIGN PARAMETERS TO WHAT ARE SPECIFIED ON THESE DRAWINGS ALONG WITH ALTERNATIVE SITE SPECIFIC LOCAL PRESSURE FACTORS MAY BE ADOPTED PROVIDED THE CALCULATED ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED 3.26 kPa.
- THE BUILDING DESIGN STRUCTURAL ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE MAXIMUM ULTIMATE DESIGN WIND PRESSURE RATING OF 3.26 kPa.
- DOORS MAY BE POSITIONED AT ANY LOCATION ALONG THE BUILDING ENVELOPE INCLUDING ALL LOCAL PRESSURE ZONES (ie. CORNERS OF BUILDINGS), PROVIDED THE CALCULATED MAXIMUM ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED 3.26 kPa.

**BASIS OF DESIGN DRAWINGS**

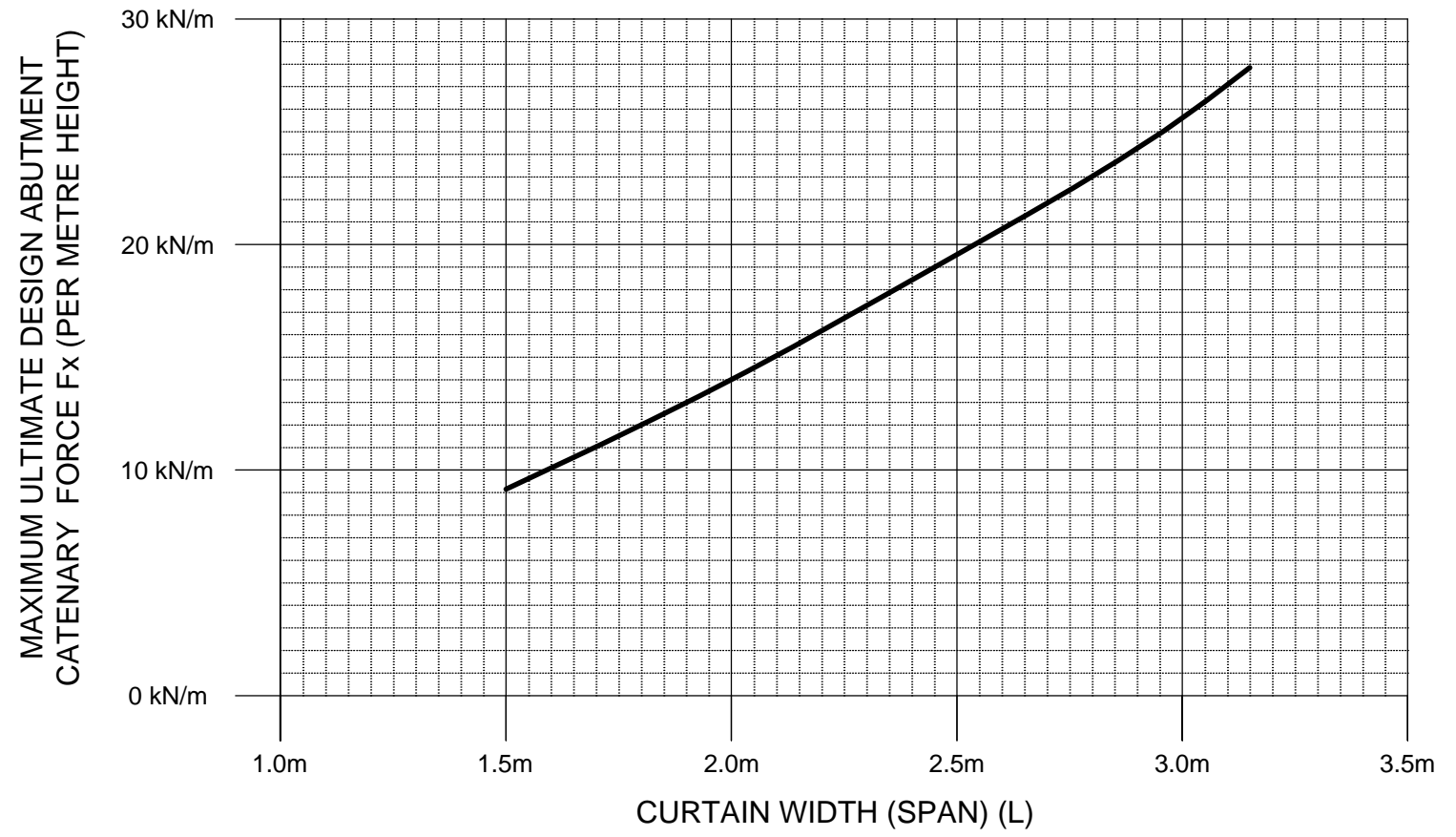
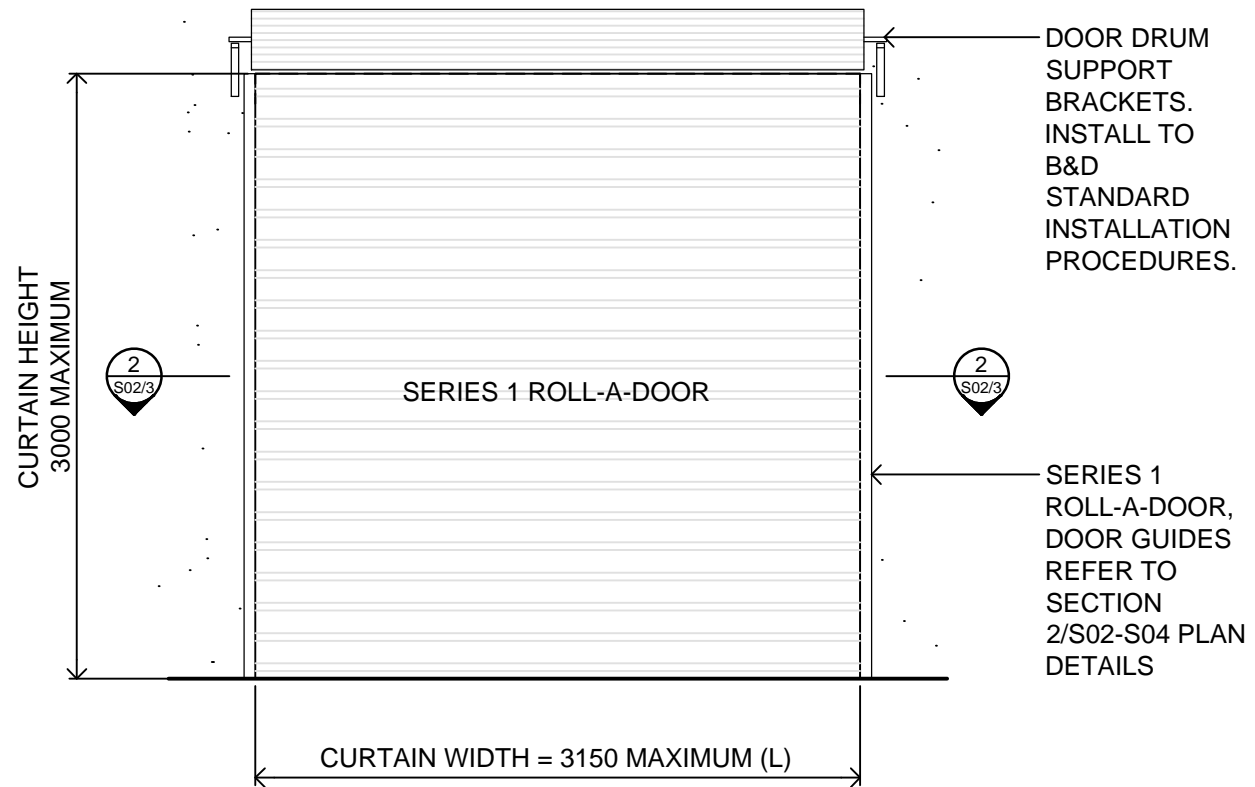
- TEST REPORT NO. TS894 REVISION A (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- AS/NZS 1170.2:2021 STRUCTURAL DESIGN ACTIONS-PART 2: WIND ACTIONS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS-PART 0:GENERAL PRINCIPLES.
- AS/NZS 4505:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS 4100:2020 STEEL STRUCTURES.
- AS 3700:2018 MASONRY STRUCTURES.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- AS/NZS 4600:2018 COLD FORMED STRUCTURES.
- AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1:LIMIT STATE DESIGN.
- AS 1720.1-2010 TIMBER STRUCTURES PART 1:DESIGN METHODS.
- AS 4055:2021 WIND LOADS FOR HOUSING.
- THE SERIES 1 ROLL-A-DOORS INCLUDE THE FOLLOWING B&D PRODUCT/MODEL NAMES:  
a) SQUARELINE™ DELUXE ROLL-A-DOOR® (MODEL R1D)  
b) FIRMADOOR (MODEL R1F)  
c) ROLLMASTA (MODEL R1R)  
d) ROLL-A-DOOR™ MINI WAREHOUSE MODEL (MODEL R1M)  
e) ROLL-A-DOOR™ MINI WAREHOUSE (R1ME)
- ALL DOOR COMPONENTS TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 1 ROLL-A-DOOR MANUFACTURING.
- DOOR INSTALLATION TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 1 ROLL-A-DOOR INSTALLATION GUIDELINES.

ISSUE	DATE	AMENDMENTS
M	20.04.23	FOR CONSTRUCTION

CLIENT	<b>B&amp;D AUSTRALIA PTY LTD</b>
PROJECT	<b>B&amp;D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2</b>

DRAWING	<b>SERIES 1 ROLL-A-DOOR NOTES</b>	SCALE	
 <b>JAMES ELLIS &amp; ASSOCIATES</b> Consulting Structural Engineers	www.jamesellisengineers.com.au PO Box 251, Padstow NSW 2211 Ph: 8764 1035	DESIGNED	J.E.
		DRAWN	AAB
		CHECKED & APPROVED	
		DATE	Apr 2023

DRAWING No.	<b>S00 M</b>
PROJECT No.	<b>2212</b>

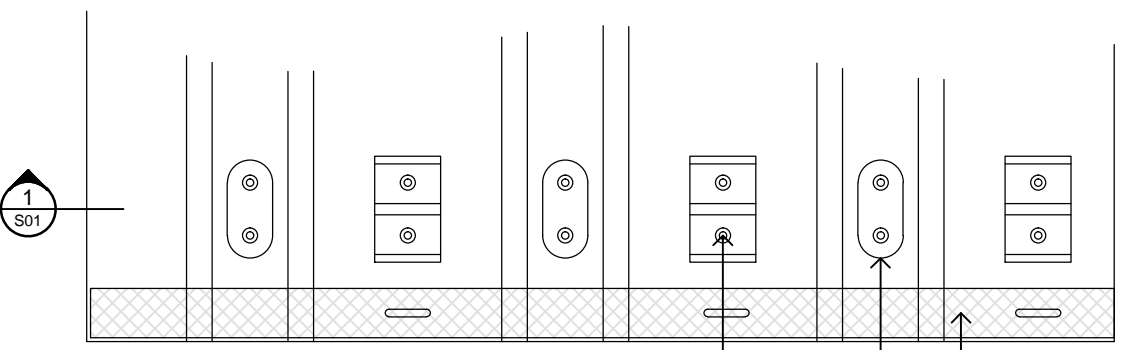


**SERIES 1 ROLL-A-DOOR ELEVATION - TYPICAL**

SCALE 1:50

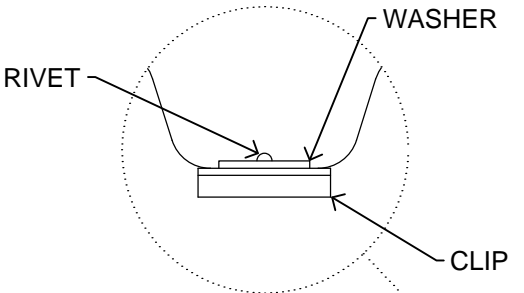
NOTE:

- CURTAIN HEIGHT = OPENING HEIGHT
- OPENING WIDTH = CURTAIN WIDTH - CURTAIN OVERLAP (REFER SECTION 2 ON DRAWINGS S02, S03 & S04)



**CURTAIN MATERIAL AND WINDCLIPS - PART PLAN**

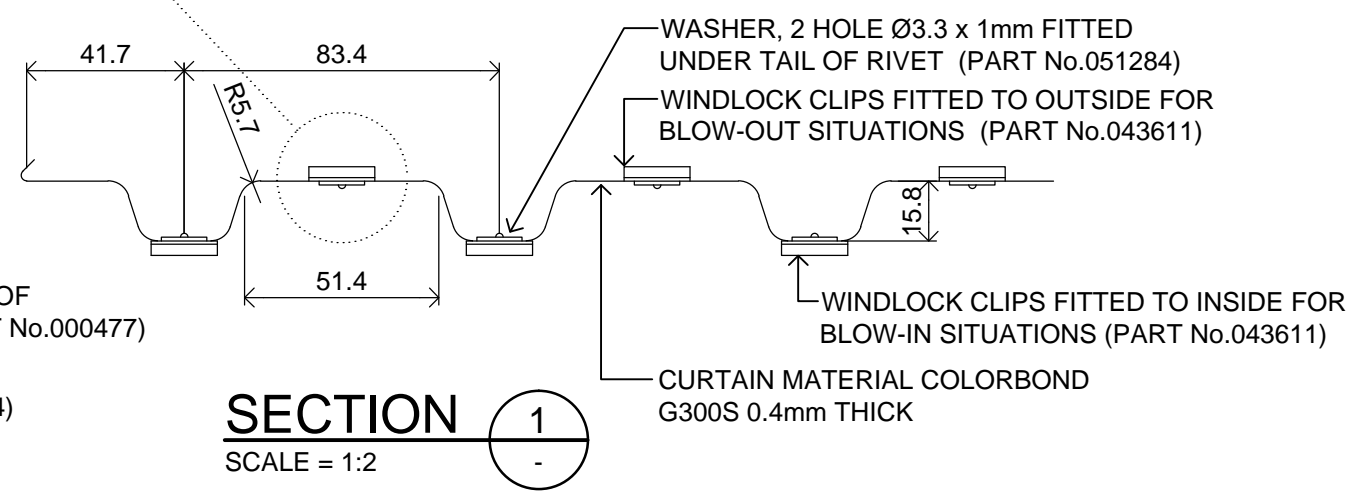
SCALE 1:2



NOTE: CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAP  
**MAXIMUM ULTIMATE DESIGN ABUTMENT CATENARY FORCE Fx (PER METRE HEIGHT) FOR VARIOUS SPANS IN REGION C, TC2 AND UP TO A MAXIMUM ULTIMATE DESIGN WIND PRESSURE OF 3.26 kPa**

NOTE 1:  $F_y = \frac{WL}{2}$   
 WHERE

$F_y$  = MAXIMUM OUT OF PLANE ULTIMATE DESIGN ABUTMENT FORCE (PER METRE HEIGHT)  
 $W$  = ULTIMATE DESIGN WIND PRESSURE (kPa)  
 $L$  = CURTAIN WIDTH (SPAN) (m)



ISSUE	DATE	AMENDMENTS
H	01.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	24.12.14	GENERAL REVISION
L	14.10.21	GENERAL REVISION
M	20.04.23	GENERAL REVISION

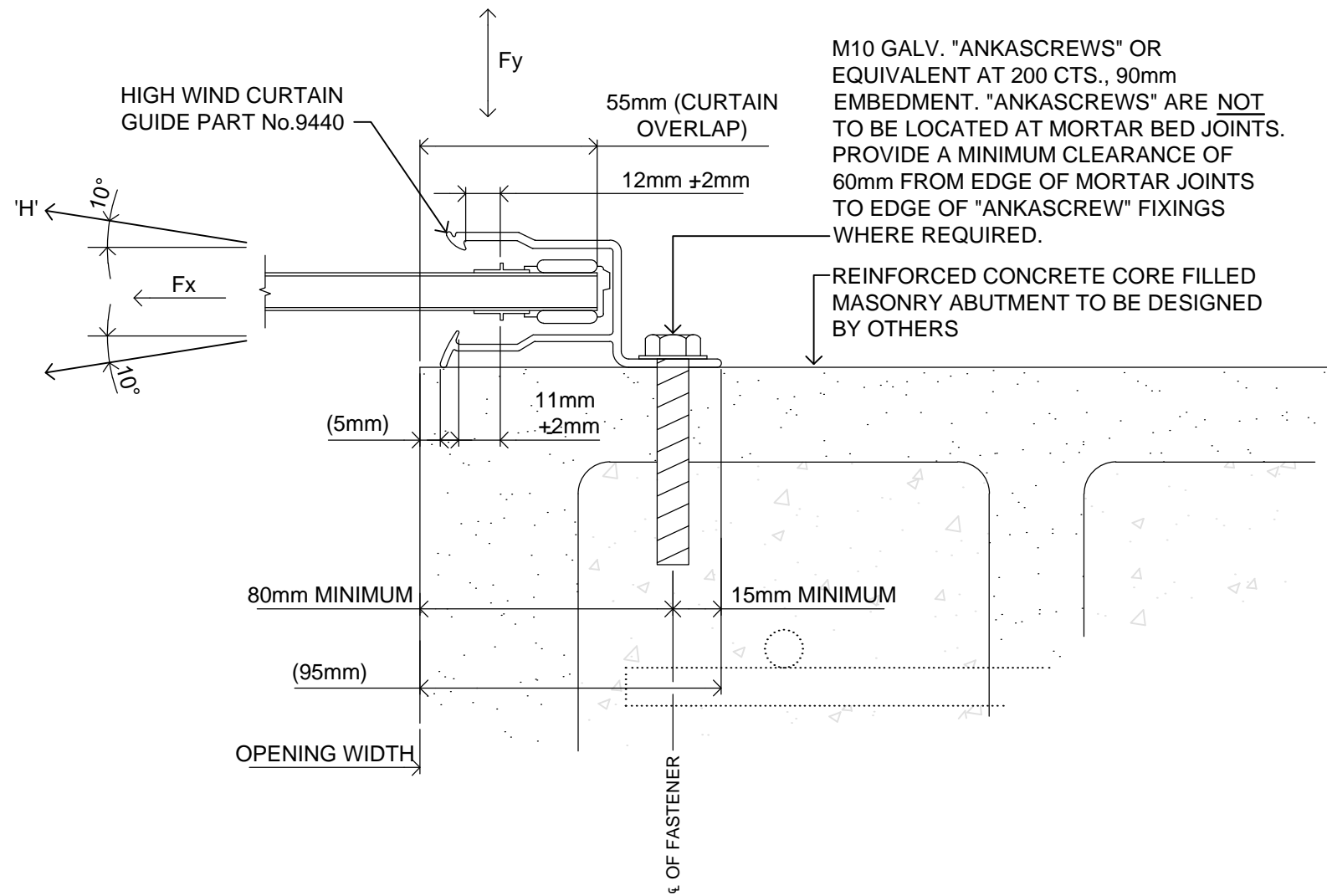
CLIENT	<b>B&amp;D AUSTRALIA PTY LTD</b>
PROJECT	<b>B&amp;D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2</b>

DRAWING **SERIES 1 ROLL-A-DOOR ELEVATION, PART PLAN. SECTION DETAIL, GRAPH**

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SCALE	
DESIGNED	J.E.
DRAWN	AAB
CHECKED & APPROVED	
DATE	Apr 2023

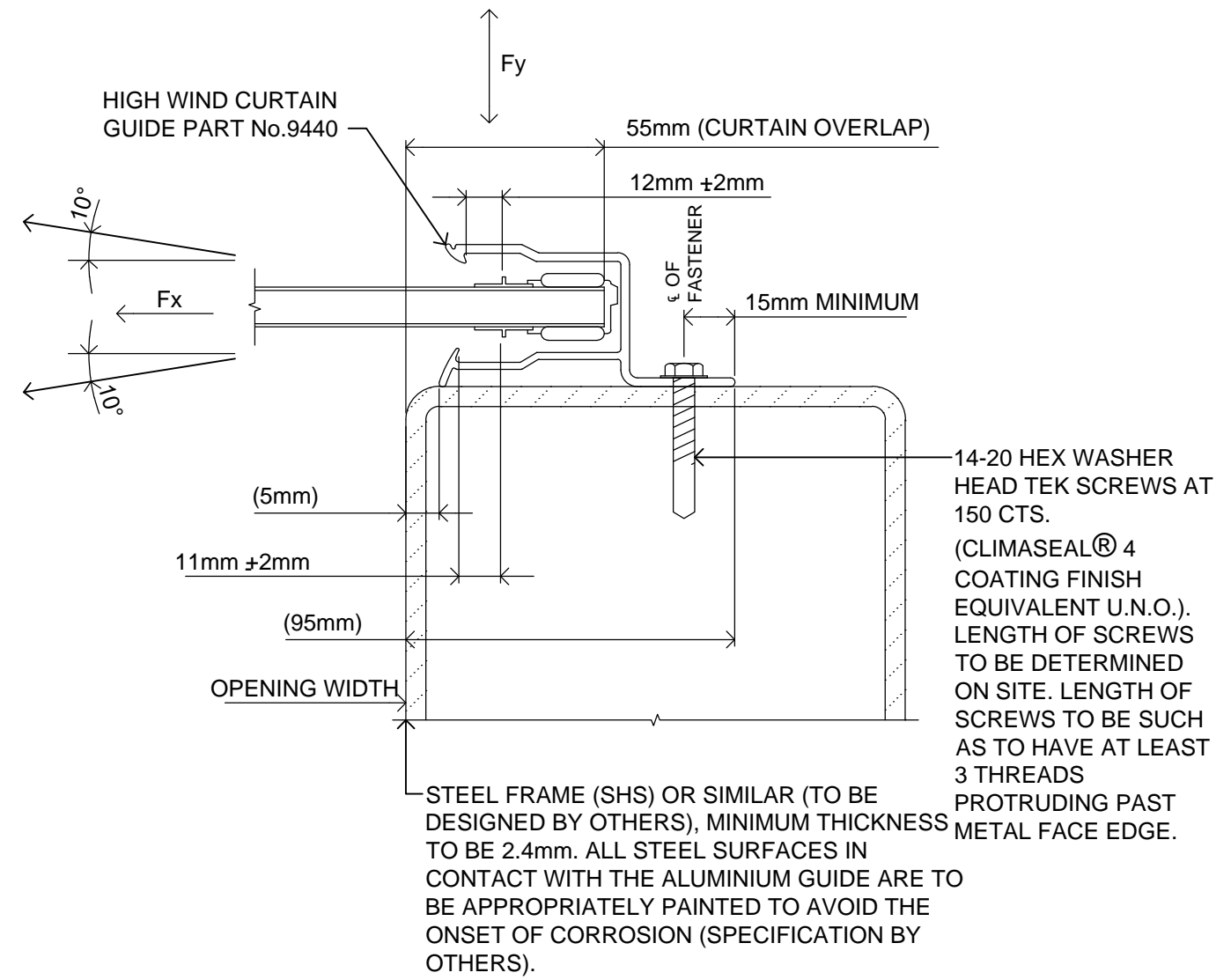
DRAWING No.	<b>S01 M</b>
PROJECT No.	<b>2212</b>



**SECTION 2 PLAN**  
SCALE = 1:2

GUIDE SUPPORTED BY REINFORCED CONCRETE CORE FILLED MASONRY UNITS FOR A MAXIMUM DOOR SPAN (L) OF 3150mm IN REGION C TC2 AND UP TO A MAXIMUM ULTIMATE DESIGN WIND PRESSURE OF 3.26 kPa.

- NOTE:**
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN (L) OF 3150mm.



**SECTION 2 PLAN**  
SCALE = 1:2

GUIDE SUPPORTED BY MILD STEEL FRAME FOR A MAXIMUM DOOR SPAN (L) OF 3150mm IN REGION C TC2 AND UP TO A MAXIMUM ULTIMATE DESIGN WIND PRESSURE OF 3.26 kPa.

- NOTE:**
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN (L) OF 3150mm.
  - STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.

ISSUE	DATE	AMENDMENTS
H	01.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	24.12.14	GENERAL REVISION
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CLIENT  
**B&D AUSTRALIA PTY LTD**

PROJECT  
**B&D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2**

DRAWING **SERIES 1 ROLL-A-DOOR SUPPORT SECTION**

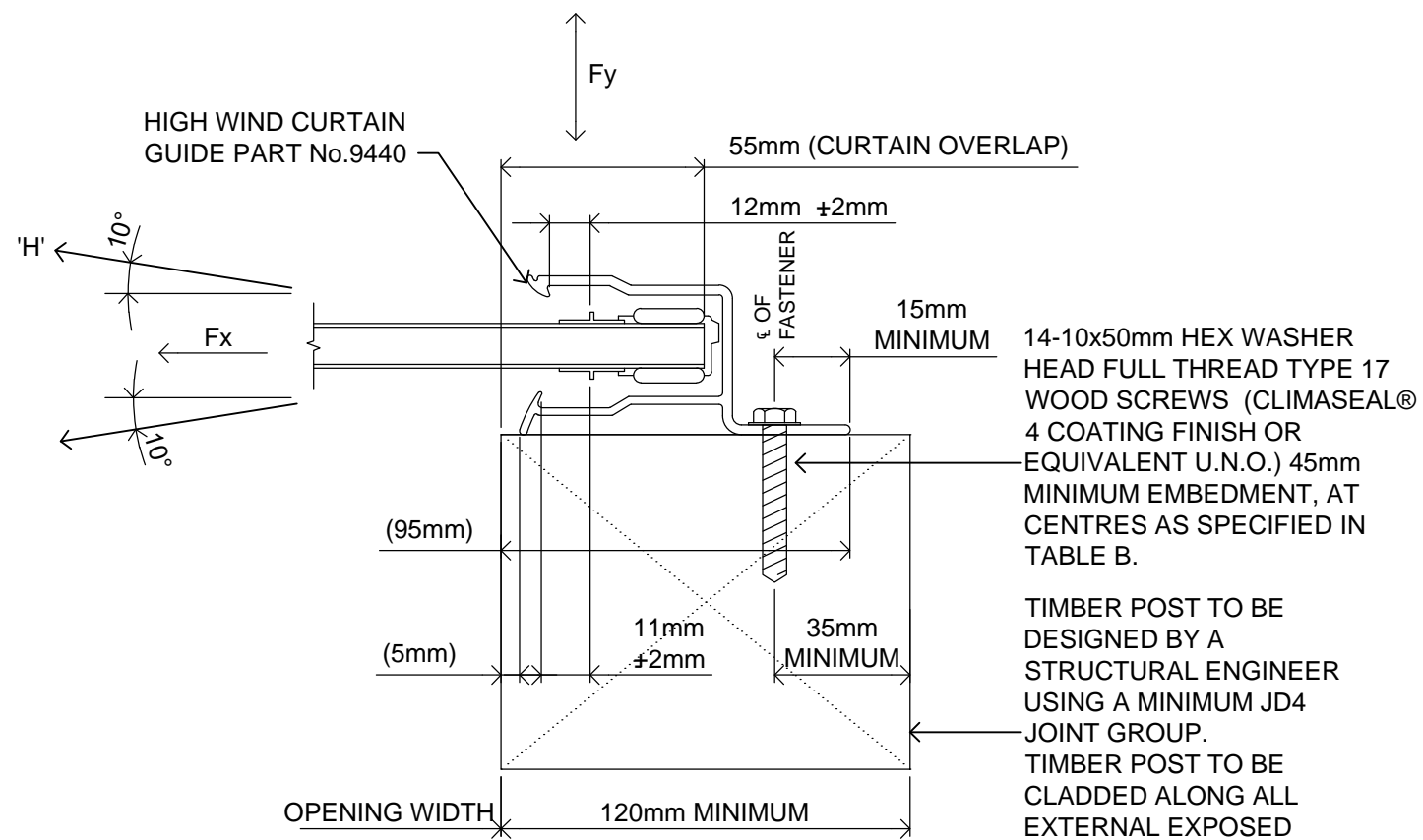
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SCALE  
DESIGNED J.E.  
DRAWN AAB  
CHECKED & APPROVED [Signature]  
DATE Apr 2023

DRAWING No.  
**S02 M**

PROJECT No.  
**2212**



**SECTION 2 PLAN**  
SCALE = 1:2  
S01

14-10x50mm HEX WASHER HEAD FULL THREAD TYPE 17 WOOD SCREWS (CLIMASEAL® 4 COATING FINISH OR EQUIVALENT U.N.O.) 45mm MINIMUM EMBEDMENT, AT CENTRES AS SPECIFIED IN TABLE B.

TIMBER POST TO BE DESIGNED BY A STRUCTURAL ENGINEER USING A MINIMUM JD4 JOINT GROUP.

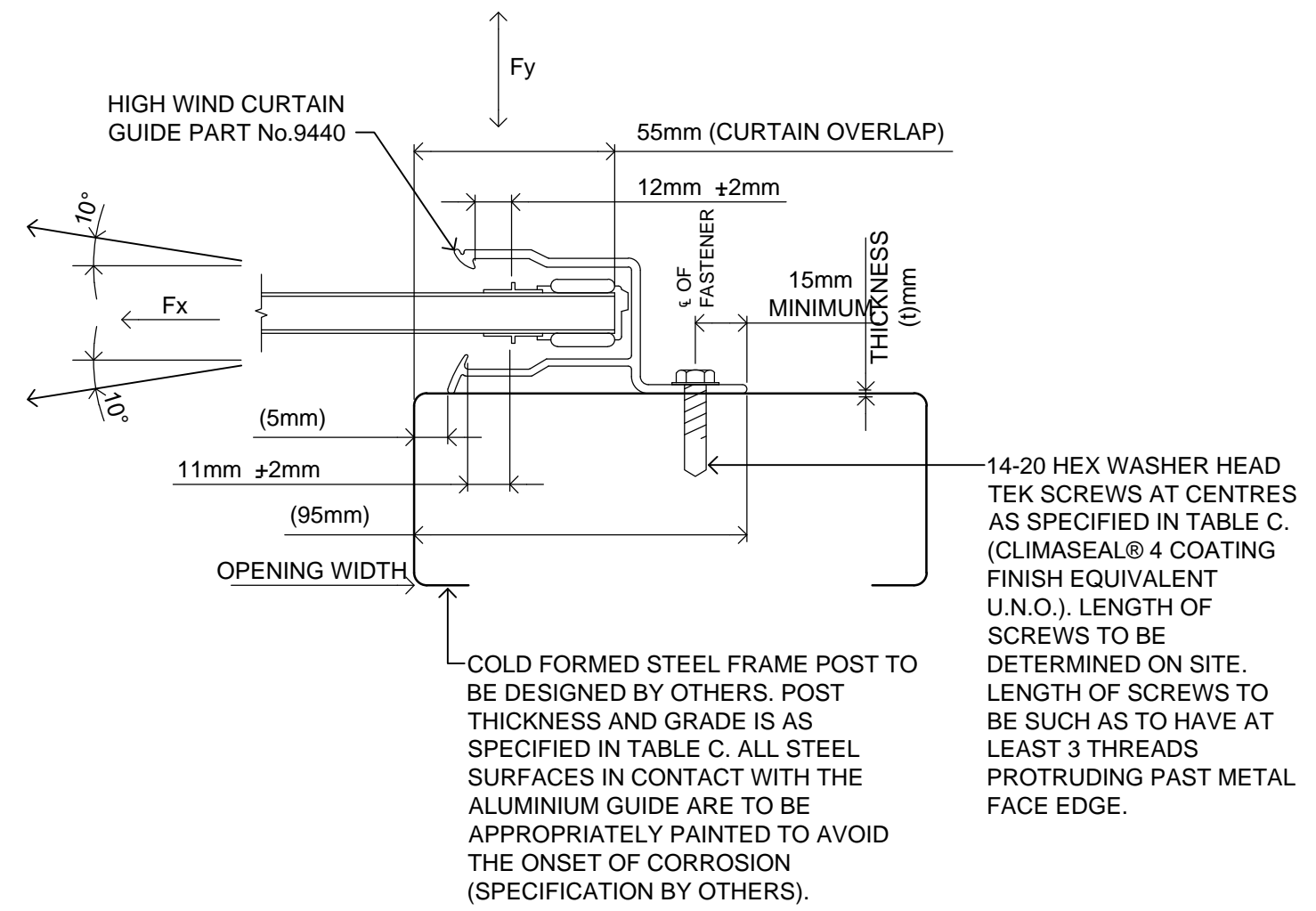
TIMBER POST TO BE CLADDED ALONG ALL EXTERNAL EXPOSED PERIMETERS TO CONCEAL TIMBER MEMBER FROM ENVIRONMENTAL ELEMENTS.

GUIDE SUPPORTED BY TIMBER FRAMED WALLS FOR A MAXIMUM DOOR SPAN (L) OF 3150mm IN REGIONS A(0-5), B1, B2 AND C, IN TERRAIN CATEGORY TC2 AND UP TO A MAXIMUM ULTIMATE DESIGN WIND PRESSURE AS NOMINATED IN TABLE B.

**TABLE B**  
FASTENING SPECIFICATIONS INTO TIMBER FRAMED ABUTMENTS

WIND REGION	TERRAIN CATEGORY	MAXIMUM DESIGN WIND PRESSURE (kPa)	SPACING (mm)
A(0-5)	TC2	1.22 kPa	250mm
B1	TC2	1.77 kPa	160mm
B2	TC2	2.17 kPa	130mm
C	TC2	3.26 kPa	90mm

- NOTE:**
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN (L) OF 3150mm.
  - STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.



**SECTION 2 PLAN**  
SCALE = 1:2  
S01

14-20 HEX WASHER HEAD TEK SCREWS AT CENTRES AS SPECIFIED IN TABLE C. (CLIMASEAL® 4 COATING FINISH EQUIVALENT U.N.O.). LENGTH OF SCREWS TO BE DETERMINED ON SITE. LENGTH OF SCREWS TO BE SUCH AS TO HAVE AT LEAST 3 THREADS PROTRUDING PAST METAL FACE EDGE.

COLD FORMED STEEL FRAME POST TO BE DESIGNED BY OTHERS. POST THICKNESS AND GRADE IS AS SPECIFIED IN TABLE C. ALL STEEL SURFACES IN CONTACT WITH THE ALUMINIUM GUIDE ARE TO BE APPROPRIATELY PAINTED TO AVOID THE ONSET OF CORROSION (SPECIFICATION BY OTHERS).

GUIDE SUPPORTED BY COLD FORMED STEEL FRAME FOR A MAXIMUM DOOR SPAN (L) OF 3150mm IN REGION C TC2 AND UP TO A MAXIMUM ULTIMATE DESIGN WIND PRESSURE OF 3.26 KPa.

- NOTE:**
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN OF 3150mm.
  - STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.

**TABLE C**  
FASTENING SPECIFICATIONS INTO COLD FORMED STEEL ABUTMENT SUPPORTS COMPLYING WITH AS 1397-2021

THICKNESS (t)mm	GRADE	YIELD STRENGTH	TENSILE STRENGTH	SPACING (mm)
1mm	G550	550 MPa	550 MPa	100mm
1.2mm	G500	500 MPa	520 MPa	125mm
1.5mm	G450	450 MPa	480 MPa	150mm
1.9mm	G450	450 MPa	480 MPa	150mm

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CLIENT  
**B&D AUSTRALIA PTY LTD**

PROJECT  
**B&D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2**

DRAWING **SERIES 1 ROLL-A-DOOR SUPPORT SECTION DETAIL**

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DATE	Apr 2023

DRAWING No.  
**S03 M**

PROJECT No.  
**2212**