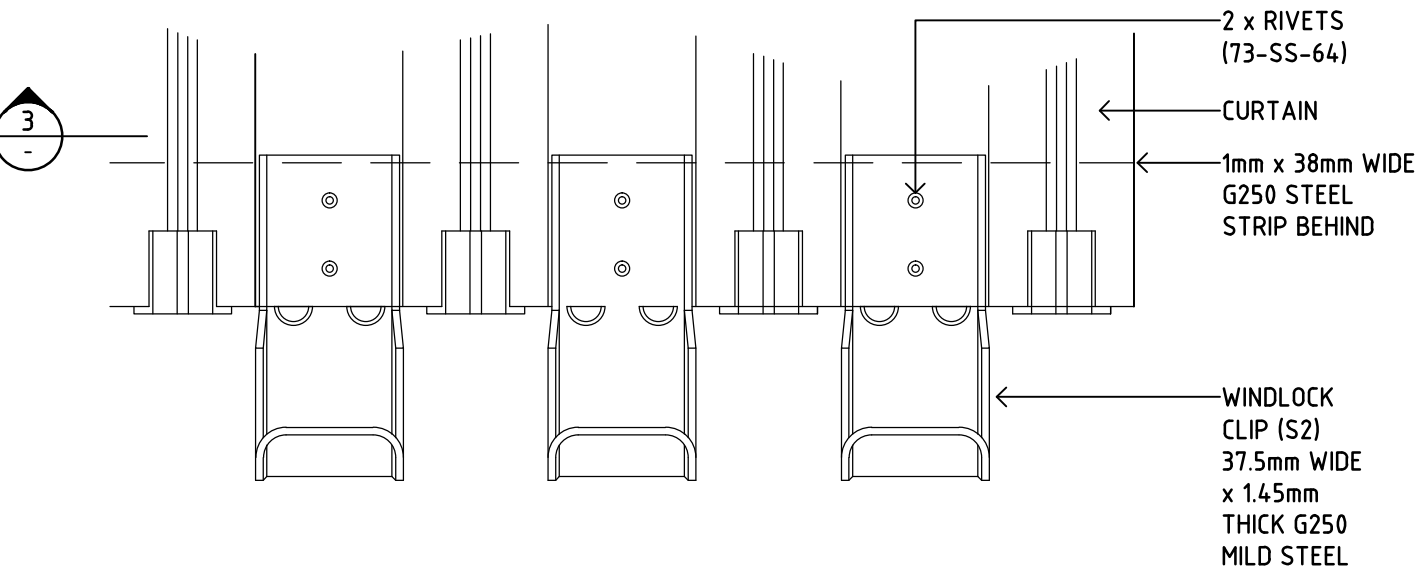


## SERIES 2 ROLL-A-DOOR ELEVATION - TYPICAL

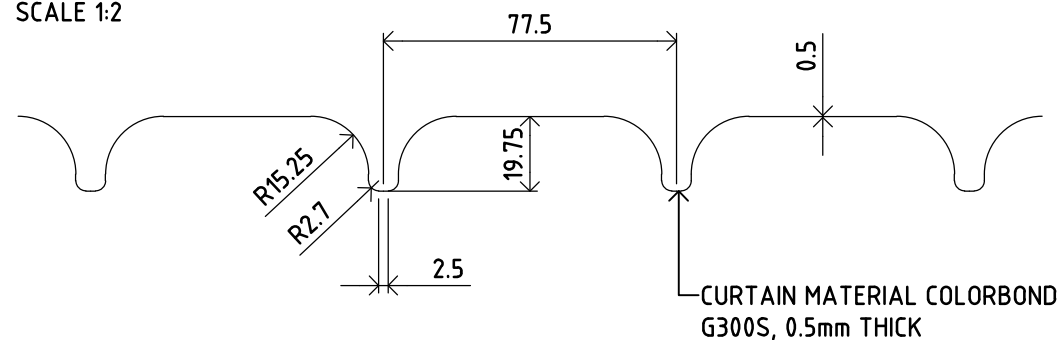
SCALE 1:50

CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS  
(REFER TO DRAWINGS S05, S08 & S09)



## CURTAIN MATERIAL AND WIND-LOCK CLIPS - PART PLAN

AS VIEWED FROM BACK FACE  
SCALE 1:2



SECTION  
SCALE = 1:2

### NOTES:

#### DESIGN CRITERIA

- (REGION C
- TERRAIN CATEGORY 2
- DOOR HEIGHT 5.1m MAX.
- INTERNAL PRESSURE COEFFICIENTS,  $C_{pi} = (-0.3, +0.6)$  NOMINAL
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED  $V_R = 69.3\text{m/s}$
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN OUTWARD WIND PRESSURE =  $3.01\text{ kPa}$  FOR A MAXIMUM ALLOWABLE CURTAIN WIDTH (L) OF 5500mm.
- FOR THE ABOVE DESIGN CRITERIA PROVIDE CLIPS AT EVERY FLAT AS SHOWN ON PART PLAN - CURTAIN MATERIAL AND WIND-LOCK CLIPS.
- CURTAIN HEIGHT = OPENING HEIGHT.
- OPENING WIDTH = CURTAIN WIDTH - CURTAIN OVERLAPS (REFER SECTION 4 ON DRAWINGS S05, S08 AND S09).
- CLIPS AT EVERY SECOND FLAT ARE TO BE ADOPTED ONLY FOR USE IN WIND REGIONS A & B BASED ON A MAXIMUM ALLOWABLE SPAN AND INTERNAL PRESSURE COEFFICIENTS AS NOMINATED IN TABLE 1.

#### 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 ( $f'_{uc}$ ) = 15 MPa (MIN.)
- CORE FILLING OF BLOCKWALL ( $f'_c$ ) = 15 MPa (MIN.)
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF SOLID CLAY MASONRY UNIT ( $f'_{uc}$ ) = 20 MPa (MIN.)
- MINIMUM MORTAR CLASSIFICATION = M3.
- THE STRUCTURE TO WHICH THE DOOR IS ATTACHED SHALL BE ASSESSED AND CERTIFIED INDEPENDENTLY AS REQUIRED BY A SUITABLY QUALIFIED 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 THE VALUES GIVEN IN FIGURE A.
- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURE RATINGS GIVEN IN FIGURE A.
- DOORS MAY BE POSITIONED AT ANY LOCATION ALONG THE BUILDING ENVELOPE INCLUDING ALL LOCAL PRESSURE ZONES (ie. CORNERS OF BUILDINGS), PROVIDED THE CALCULATED ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED THE VALUES IN FIGURE A.
- PROVIDE CLIPS AT EVERY FLAT OR EVERY SECOND FLAT AS REQUIRED (REFER TO FIGURE A AND TABLE 1).

#### NOTES COVERING BASIS OF DRAWINGS

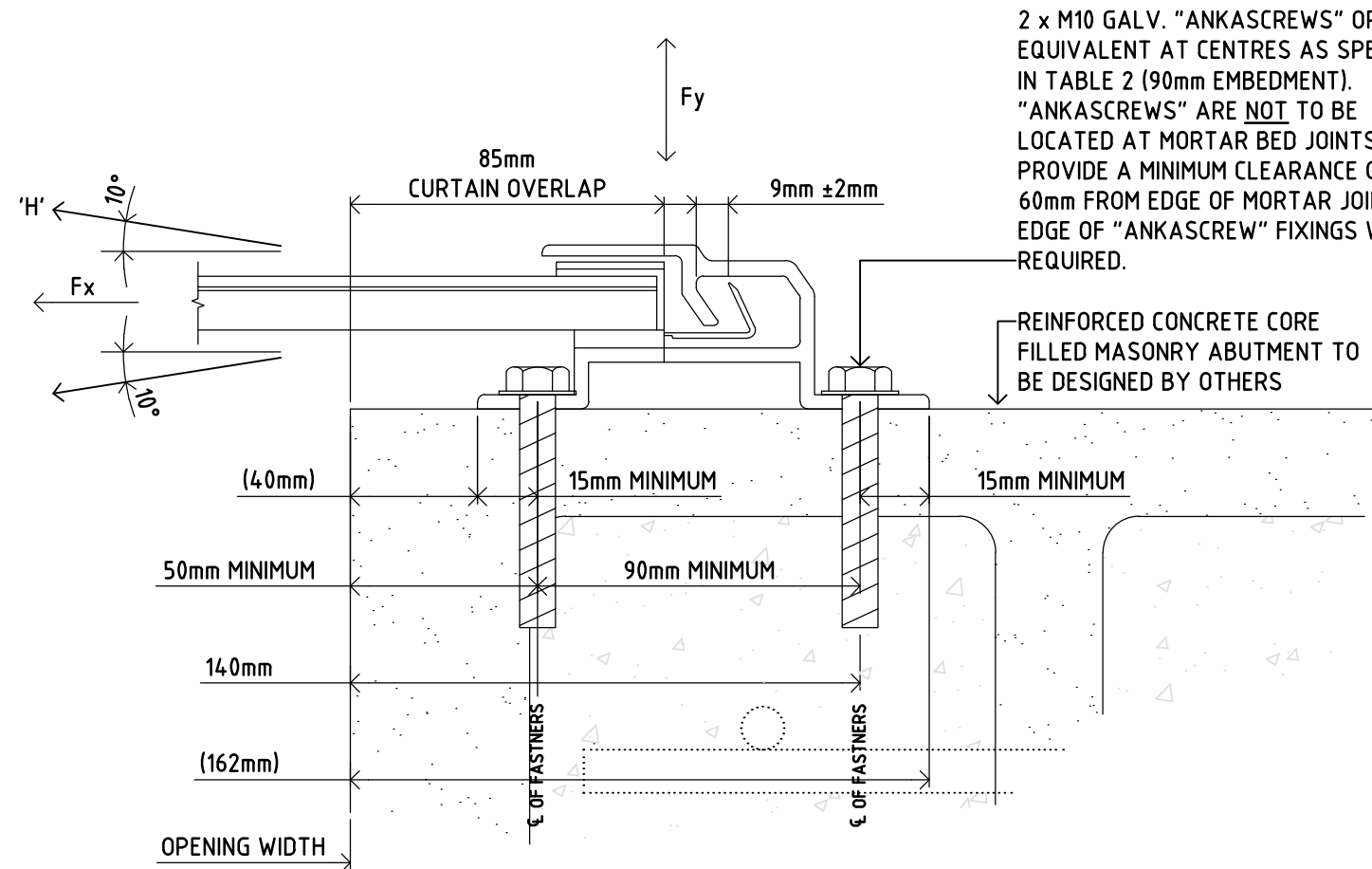
- TEST REPORT NO.'s TS895 AND TS907 (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS - PART 2: WIND ACTIONS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS - PART 0: GENERAL PRINCIPLES.
- AS/NZS 4505:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS 4100:1998 STEEL STRUCTURES.
- AS 3700:2001 MASONRY STRUCTURES.
- AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES.
- AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1 - LIMIT STATE DESIGN.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- AS 1720.1:2010 TIMBER STRUCTURES, PART 1 - DESIGN METHODS.
- ALL DOOR COMPONENTS TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 2 ROLL-A-DOOR MANUFACTURING.
- DOOR INSTALLATION TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 2 ROLL-A-DOOR INSTALLATION GUIDELINES.

ISSUE	DATE	AMENDMENTS
F	26.06.13	GENERAL REVISION
G	09.07.13	GENERAL REVISION
H	02.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	02.03.15	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 2 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

DRAWING	SERIES 2 ROLL-A-DOOR, ELEVATION PART PLAN, SECTION AND NOTES	SCALE	
	James Ellis & Associates	DESIGNED	J.E.
	Consulting Structural Engineers	DRAWN	AAB
		CHECKED & APPROVED	
		DATE	March 2015

DRAWING No.	S04 K
PROJECT No.	2289

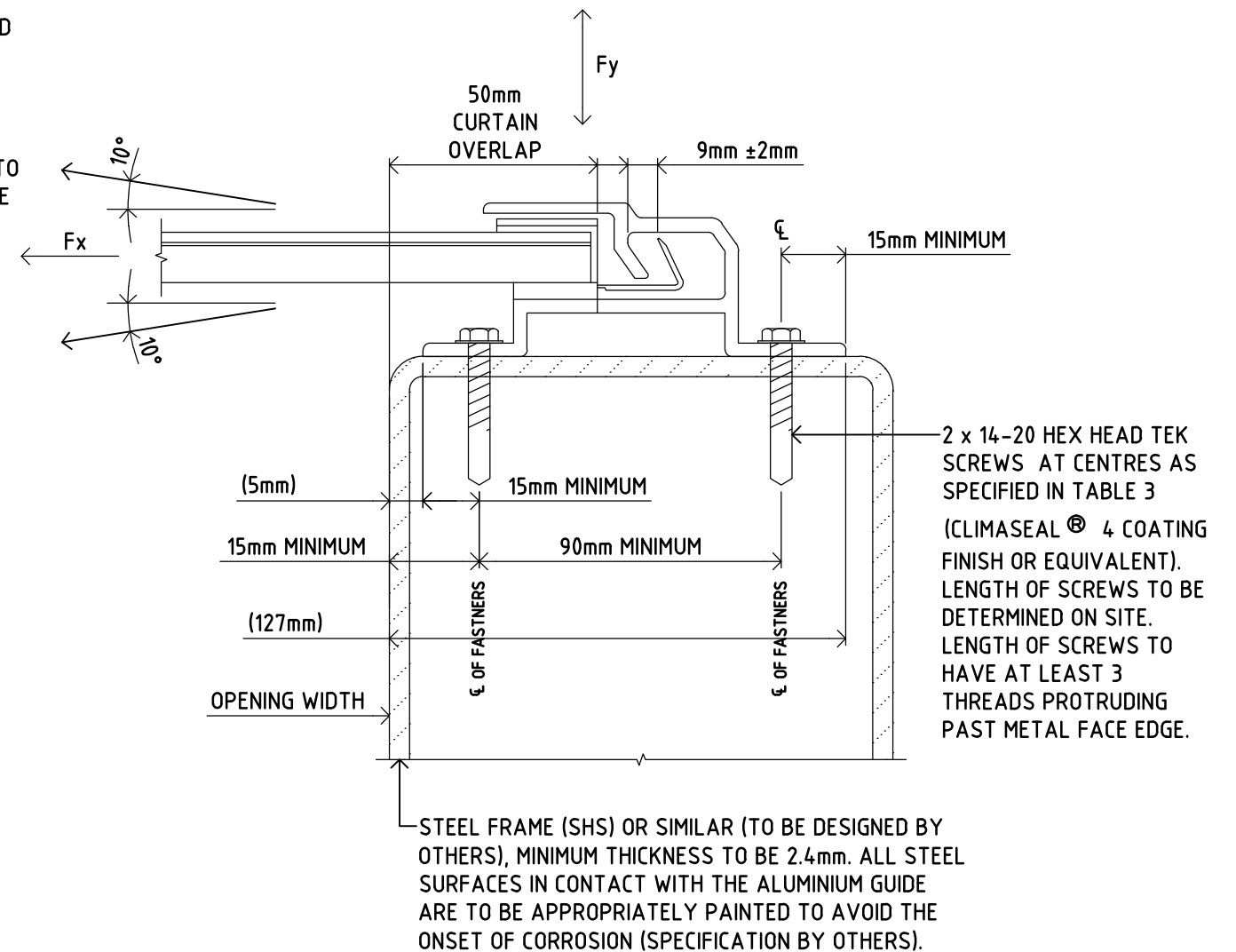


SECTION **4** PLAN  
SCALE = 1:2

GUIDE SUPPORTED BY REINFORCED CONCRETE CORE FILLED MASONRY ABUTMENTS (REFER TO TABLE 2 FOR DETAILS).

**NOTE:**

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 2.
- FIXINGS INTO REINFORCED CONCRETE CORE FILLED BLOCK WALL ABUTMENTS HAVE BEEN DESIGNED USING THE RAMSET-SPECIFIERS RESOURCE BOOK.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:  
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.  
AS 3700-2001 MASONRY STRUCTURES.



SECTION **4** PLAN  
SCALE = 1:2

GUIDE SUPPORTED BY STEEL FRAME (REFER TO TABLE 3 FOR DETAILS).

**NOTE:**

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 3.
- FIXINGS INTO STRUCTURAL STEEL ABUTMENTS HAVE BEEN DESIGNED USING THE TECHNICAL DATA PROVIDED BY BUILDEX FASTENERS.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:  
AS 4100:1998 STEEL STRUCTURES.  
AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES  
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.

ISSUE	DATE	AMENDMENTS
E	13.05.13	ISSUED FOR CONSTRUCTION
G	09.07.13	GENERAL REVISION
H	02.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	02.03.15	GENERAL REVISION

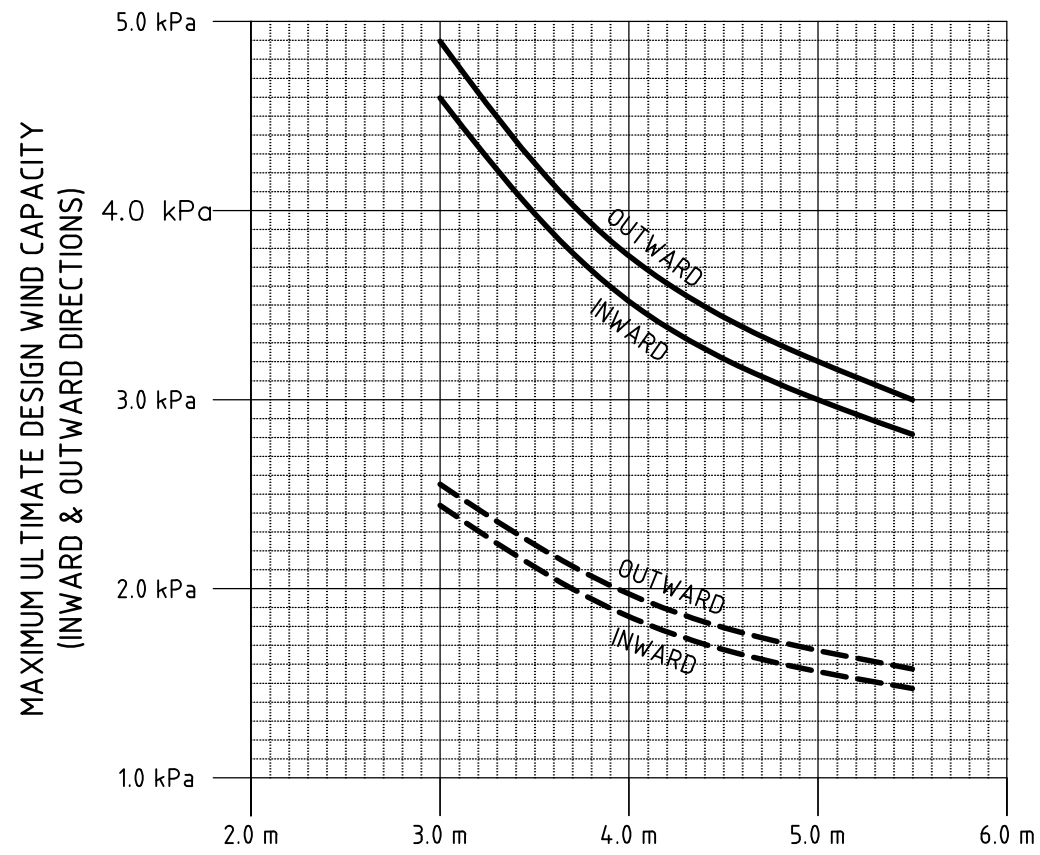
CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 2 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

DRAWING	SERIES 2 ROLL-A-DOOR SUPPORT SECTION DETAILS
James Ellis & Associates Consulting Structural Engineers	

SCALE	DESIGNED	J.E.
	DRAWN	AAB
	CHECKED & APPROVED	<i>[Signature]</i>
	DATE	March 2015

DRAWING No.	S05 K
PROJECT No.	2289

**FIGURE (A)**  
**ULTIMATE DESIGN WIND**  
**CAPACITY FOR A GIVEN SPAN**

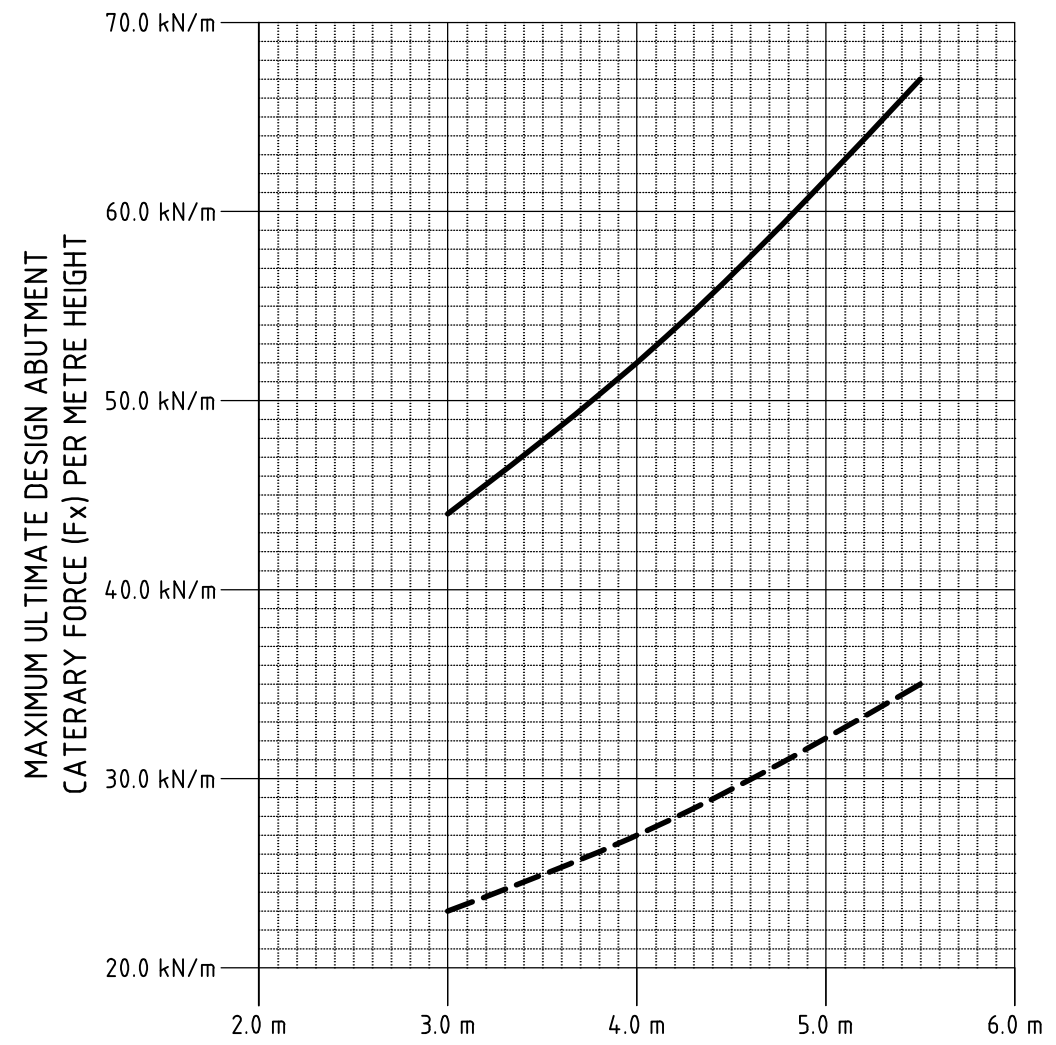


CURTAIN WIDTH (SPAN) (L)

- CLIPS AT EVERY FLAT
- CLIPS AT EVERY SECOND FLAT

NOTE: EXTRAPOLATION IS NOT PERMITTED  
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS

**FIGURE (B)**  
**ULTIMATE DESIGN CATENARY**  
**FORCE FOR A GIVEN SPAN**



CURTAIN WIDTH (SPAN) (L)

- CLIPS AT EVERY FLAT
- CLIPS AT EVERY SECOND FLAT

NOTE: DESIGN ABUTMENT FORCES HAVE BEEN DERIVED USING THE  
MAXIMUM ULTIMATE DESIGN WIND PRESSURE FOR THAT GIVEN SPAN.  
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS

NOTE:  $F_y = \frac{WL}{2}$   
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
E	13.05.13	ISSUED FOR CONSTRUCTION
G	09.07.13	GENERAL REVISION
H	02.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	02.03.15	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 2 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

DRAWING	SERIES 2 ROLL-A-DOOR DESIGN GRAPHS
James Ellis & Associates Consulting Structural Engineers	

SCALE	
DESIGNED	J.E.
DRAWN	AAB
CHECKED & APPROVED	<i>[Signature]</i>
DATE	March 2015

DRAWING No.	S06 K
PROJECT No.	2289

**TABLE 1**

QUICK REFERENCE GUIDE ON MAXIMUM ALLOWABLE SPANS FOR BUILDERS AND BUILDING CERTIFIERS

REGION	TERRAIN CATEGORY	UP TO 5.1m HIGH	
		CLIPS AT EVERY FLAT	CLIPS AT EVERY SECOND FLAT
A	2	5.5m	5.5m
	2.5	5.5m	5.5m
	3	5.5m	5.5m
B	2	5.5m	4.0m
	2.5	5.5m	4.5m
	3	5.5m	5.0m
C	2	5.5m	N/A
	2.5	5.5m	N/A
D	2	3.0m	N/A
	2.5	3.3m	N/A

NOTE:

- FOR WIND REGIONS A & B, INTERNAL PRESSURE COEFFICIENTS (C<sub>pi</sub>) OF -0.3 & +0.2 WERE ADOPTED.
- FOR WIND REGIONS C & D, INTERNAL PRESSURE COEFFICIENTS (C<sub>pi</sub>) OF -0.3 & +0.6 WERE ADOPTED.
- MAXIMUM ALLOWABLE SPANS = CURTAIN WIDTH.
- CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAPS (REFER DRAWINGS S05, S08 & S09).
- THE BUILDING DESIGN ENGINEER IS TO VERIFY THAT THE MAXIMUM ALLOWABLE SPANS GIVEN IN TABLE 1 FOR ANY GIVEN WIND REGION AND TERRAIN CATEGORY ARE WITHIN THE MAXIMUM ULTIMATE DESIGN WIND CAPACITY LIMITS GIVEN IN FIGURE A WHEN DETERMINING THE SITE SPECIFIC DESIGN WIND PRESSURES.

**TABLE 2**

QUICK REFERENCE GUIDE ON FASTENING SPECIFICATIONS INTO REINFORCED CONCRETE BLOCKWALL ABUTMENTS FOR BUILDERS AND BUILDING CERTIFIERS

FASTENING SPECIFICATION INTO BLOCKWALL ABUTMENTS		
SPAN	CLIPS AT EVERY FLAT	CLIPS AT EVERY SECOND FLAT
3000-3499mm	2 x M10 GAL ANKASCREW AT 275 CTS.	2 x M10 GAL ANKASCREW AT 400 CTS.
3500-3999mm	2 x M10 GAL ANKASCREW AT 250 CTS.	2 x M10 GAL ANKASCREW AT 400 CTS.
4000-4499mm	2 x M10 GAL ANKASCREW AT 225 CTS.	2 x M10 GAL ANKASCREW AT 400 CTS.
4500-4999mm	2 x M10 GAL ANKASCREW AT 200 CTS.	2 x M10 GAL ANKASCREW AT 375 CTS.
5000-5500mm	2 x M10 GAL ANKASCREW AT 175 CTS.	2 x M10 GAL ANKASCREW AT 350 CTS.

NOTE:

- SPAN = CURTAIN WIDTH
- CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAPS (REFER TO DRAWINGS S05, S08 & S09).
- FASTENING SPECIFICATIONS WERE DERIVED USING THE MAXIMUM ULTIMATE DESIGN WIND PRESSURE FOR EACH GIVEN SPAN AS NOMINATED IN FIGURE A.

**TABLE 4**

QUICK REFERENCE GUIDE ON FASTENING SPECIFICATIONS INTO TIMBER FRAMED ABUTMENTS FOR BUILDERS AND BUILDING CERTIFIERS

FASTENING SPECIFICATION INTO TIMBER FRAMED ABUTMENTS		
SPAN	CLIPS AT EVERY FLAT	CLIPS AT EVERY SECOND FLAT
3000-3499mm	2 x 14-10 TYPE 17 WOOD SCREWS AT 90 CTS.	2 x 14-10 TYPE 17 WOOD SCREWS AT 175 CTS.
3500-3999mm	2 x 14-10 TYPE 17 WOOD SCREWS AT 90 CTS.	2 x 14-10 TYPE 17 WOOD SCREWS AT 175 CTS.
4000-4499mm	2 x 14-10 TYPE 17 WOOD SCREWS AT 75 CTS.	2 x 14-10 TYPE 17 WOOD SCREWS AT 150 CTS.
4500-4999mm	2 x 14-10 TYPE 17 WOOD SCREWS AT 75 CTS.	2 x 14-10 TYPE 17 WOOD SCREWS AT 150 CTS.
5000-5500mm	2 x 14-10 TYPE 17 WOOD SCREWS AT 60 CTS.	2 x 14-10 TYPE 17 WOOD SCREWS AT 125 CTS.

NOTE:

- SPAN = CURTAIN WIDTH
- CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAPS (REFER TO DRAWINGS S05, S08 & S09).
- FASTENING SPECIFICATIONS WERE DERIVED USING THE MAXIMUM ULTIMATE DESIGN WIND PRESSURE FOR EACH GIVEN SPAN AS NOMINATED IN FIGURE A.

**TABLE 3**

QUICK REFERENCE GUIDE ON FASTENING SPECIFICATIONS INTO STEEL ABUTMENTS FOR BUILDERS AND BUILDING CERTIFIERS

FASTENING SPECIFICATION INTO 2.4mm (MINIMUM) THICK G250 STEEL ABUTMENTS		
SPAN	CLIPS AT EVERY FLAT	CLIPS AT EVERY SECOND FLAT
3000-3499mm	2 x 14-20 TEK SCREWS AT 250 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
3500-3999mm	2 x 14-20 TEK SCREWS AT 225 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
4000-4499mm	2 x 14-20 TEK SCREWS AT 200 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
4500-4999mm	2 x 14-20 TEK SCREWS AT 175 CTS.	2 x 14-20 TEK SCREWS AT 375 CTS.
5000-5500mm	2 x 14-20 TEK SCREWS AT 150 CTS.	2 x 14-20 TEK SCREWS AT 350 CTS.

NOTE:

- SPAN = CURTAIN WIDTH
- CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAPS (REFER TO DRAWINGS S05, S08 & S09).
- FASTENING SPECIFICATIONS WERE DERIVED USING THE MAXIMUM ULTIMATE DESIGN WIND PRESSURE FOR EACH GIVEN SPAN AS NOMINATED IN FIGURE A.

**TABLE 5**

QUICK REFERENCE GUIDE ON FASTENING SPECIFICATIONS INTO SOLID CLAY MASONRY ABUTMENTS FOR BUILDERS AND BUILDING CERTIFIERS

FASTENING SPECIFICATION INTO SOLID CLAY MASONRY ABUTMENTS		
SPAN	CLIPS AT EVERY FLAT	CLIPS AT EVERY SECOND FLAT
3000-3499mm	REFER TO COMMENT IN NOTES BELOW	2 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)
3500-3999mm	REFER TO COMMENT IN NOTES BELOW	2 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)
4000-4499mm	REFER TO COMMENT IN NOTES BELOW	REFER TO COMMENT IN NOTES BELOW
4500-4999mm	REFER TO COMMENT IN NOTES BELOW	REFER TO COMMENT IN NOTES BELOW
5000-5500mm	REFER TO COMMENT IN NOTES BELOW	REFER TO COMMENT IN NOTES BELOW

NOTE:

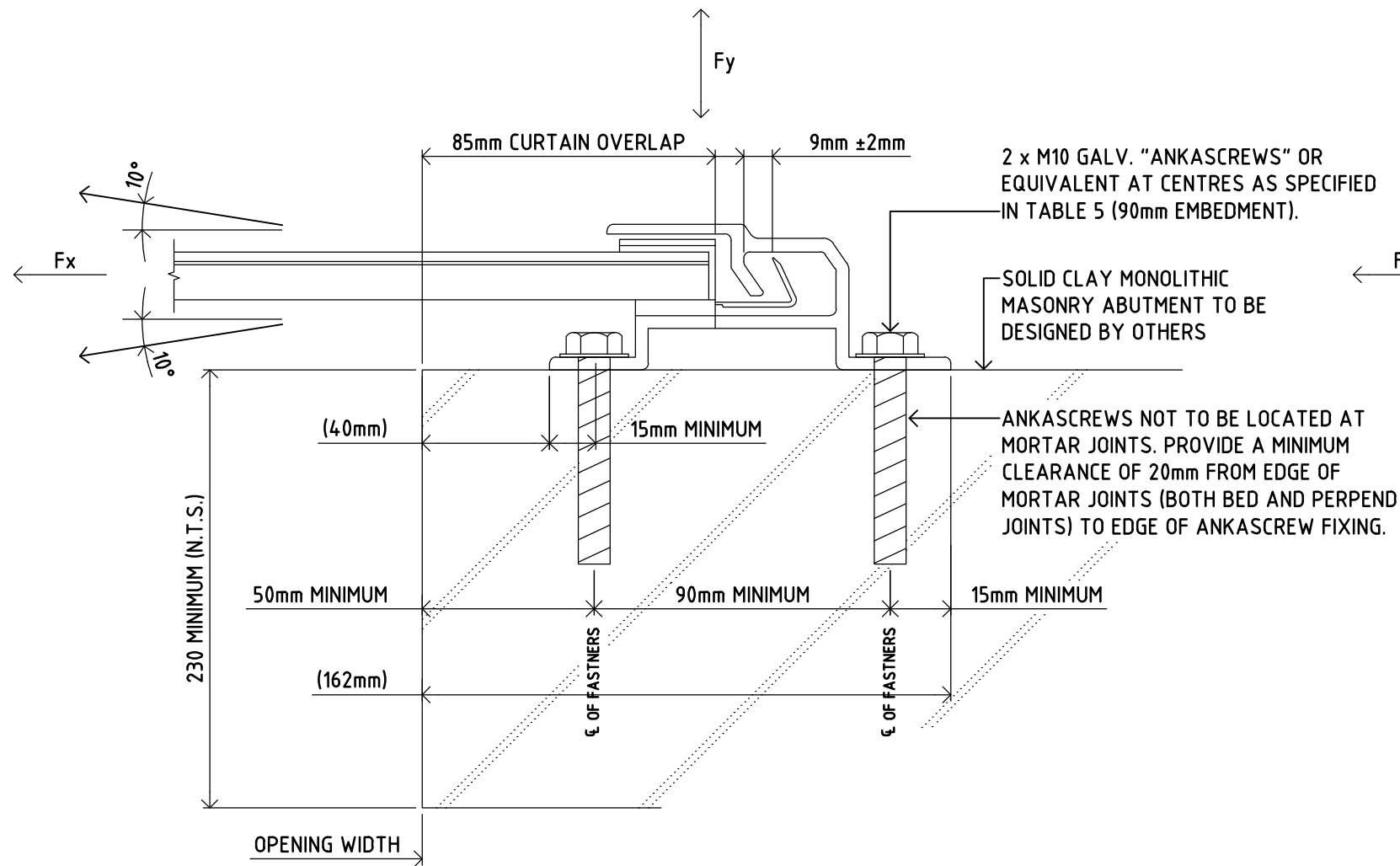
- SPAN = CURTAIN WIDTH
- CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAPS (REFER TO DRAWINGS S05, S08 & S09).
- FASTENING SPECIFICATIONS WERE DERIVED USING THE MAXIMUM ULTIMATE DESIGN WIND PRESSURE FOR EACH GIVEN SPAN AS NOMINATED IN FIGURE A.
- FOR CASES WHERE FASTENING SPECIFICATIONS INTO SOLID CLAY MASONRY ABUTMENTS HAVE NOT BEEN NOMINATED IN TABLE 5, THE CURTAIN GUIDES ARE TO BE FIXED TO A STEEL MULLION (IN ACCORDANCE WITH THESE DRAWINGS) AND SUBSEQUENTLY SECURED TO THE CLAY MASONRY ABUTMENTS IN ACCORDANCE WITH THE PROJECT ENGINEER'S DESIGN INSTRUCTIONS.

ISSUE	DATE	AMENDMENTS
E	13.05.13	ISSUED FOR CONSTRUCTION
G	09.07.13	GENERAL REVISION
H	02.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	02.03.15	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 2 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

DRAWING	SERIES 2 ROLL-A-DOOR SPAN AND FASTENING SPECIFICATION TABLES	SCALE	
	James Ellis & Associates	DESIGNED	J.E.
	Consulting Structural Engineers	DRAWN	AAB
		CHECKED & APPROVED	
		DATE	March 2015

DRAWING No.	S07 K
PROJECT No.	2289

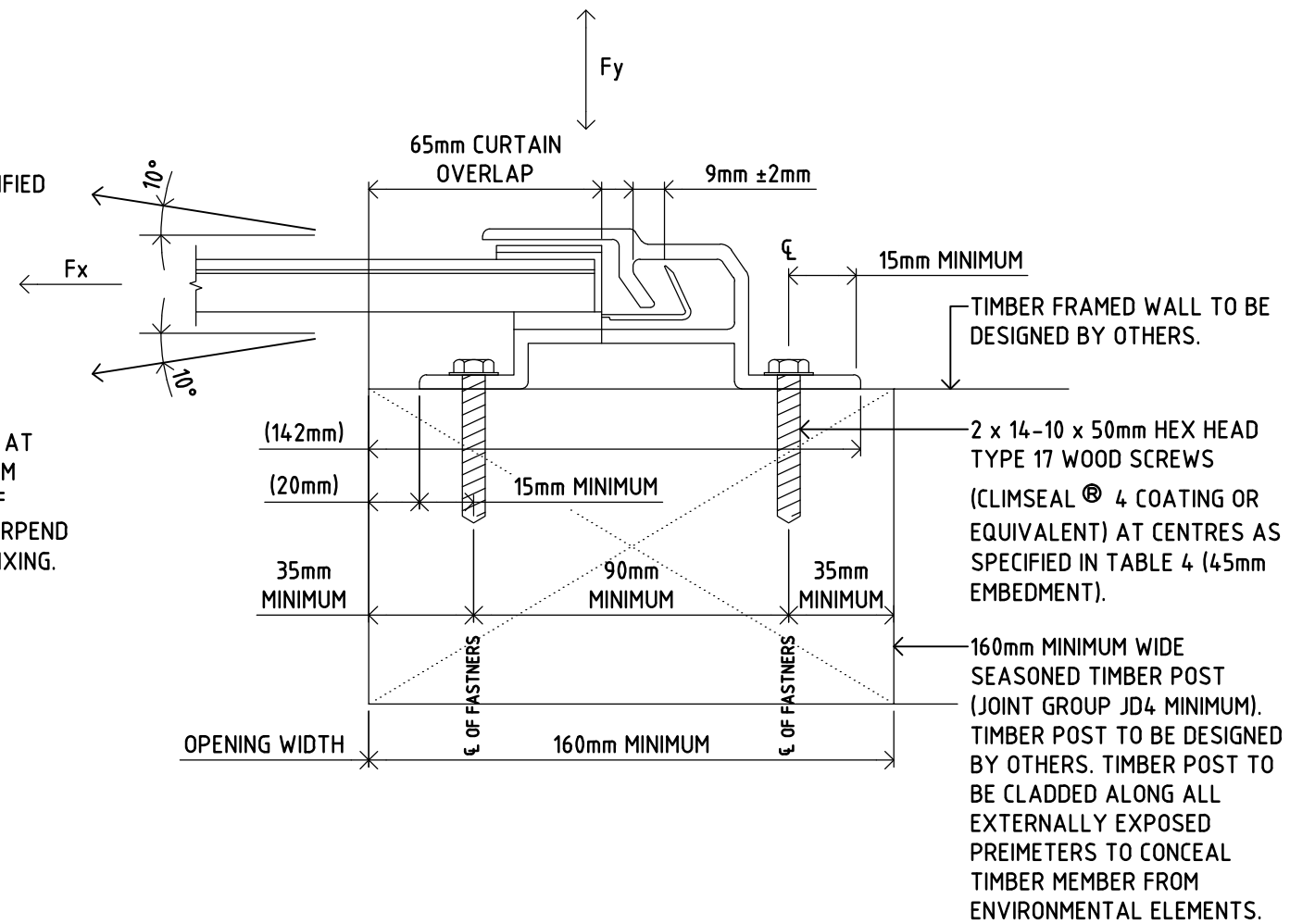


**SECTION 4 PLAN**  
SCALE = 1:2

GUIDE SUPPORTED BY SOLID CLAY MASONRY ABUTMENTS (REFER TO TABLE 5 FOR DETAILS).

**NOTE:**

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 5.
- FIXINGS INTO SOLID CLAY MASONRY ABUTMENTS HAVE BEEN DESIGNED USING THE RAMSET-SPECIFIERS RESOURCE BOOK.
- THE ABOVE FIXING DETAIL APPLIES TO THE USE OF SOLID CLAY MASONRY UNITS FOR THE CONSTRUCTION OF THE ABUTMENTS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:  
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.  
AS 3700-2001 MASONRY STRUCTURES.



**SECTION 4 PLAN**  
SCALE = 1:2

GUIDE SUPPORTED BY TIMBER FRAME (REFER TO TABLE 4 FOR DETAILS).

**NOTE:**

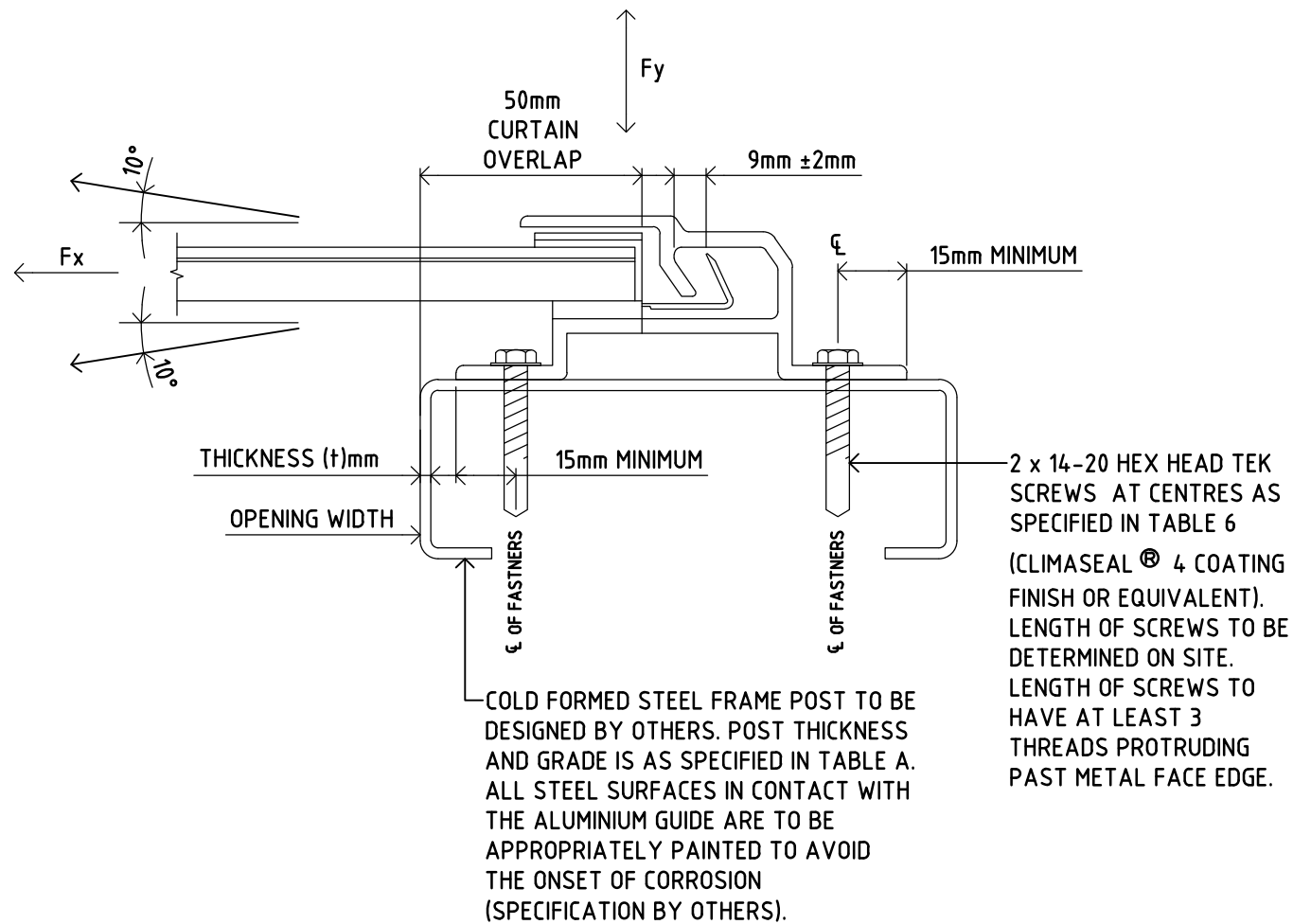
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 4.
- FIXINGS INTO TIMBER FRAMED ABUTMENTS HAVE BEEN DESIGNED USING THE TECHNICAL DATA PROVIDED BY BUILDEX FASTENERS.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:  
AS 1720.1-2010 TIMBER STRUCTURES PART 1: DESIGN METHODS.  
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.

ISSUE	DATE	AMENDMENTS
E	13.05.13	ISSUED FOR CONSTRUCTION
G	09.07.13	GENERAL REVISION
H	02.11.13	GENERAL REVISION
J	02.06.14	GENERAL REVISION
K	02.03.15	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 2 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

DRAWING	SERIES 2 ROLL-A-DOOR SUPPORT SECTION DETAILS	SCALE	
	James Ellis & Associates	DESIGNED	J.E.
	Consulting Structural Engineers	DRAWN	AAB
		CHECKED & APPROVED	<i>[Signature]</i>
		DATE	March 2015

DRAWING No.	S08 K
PROJECT No.	2289



**SECTION 4 PLAN**  
SCALE = 1:2

GUIDE SUPPORTED BY COLD FORMED STEEL FRAME (REFER TO TABLE 6 FOR DETAILS).

**NOTE:**

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS GIVEN IN TABLE 6.
- FIXINGS ONTO COLD FORMED STEEL ABUTMENTS HAVE BEEN DESIGNED USING THE TECHNICAL DATA PROVIDED BY BUILDEX FASTENERS.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:  
AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES  
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.

**TABLE 6**  
QUICK REFERENCE GUIDE ON FASTENING SPECIFICATIONS INTO COLD FORMED STEEL ABUTMENTS COMPLYING WITH AS 1397-1993

THICKNESS AND GRADE	SPAN	CLIPS AT EVERY FLAT	CLIPS AT EVERY SECOND FLAT
1mm (G550)	3000-3499mm	2 x 14-20 TEK SCREWS AT 125 CTS.	2 x 14-20 TEK SCREWS AT 225 CTS.
	3500-3999mm	2 x 14-20 TEK SCREWS AT 100 CTS.	2 x 14-20 TEK SCREWS AT 200 CTS.
	4000-4499mm	2 x 14-20 TEK SCREWS AT 100 CTS.	2 x 14-20 TEK SCREWS AT 175 CTS.
	4500-4999mm	2 x 14-20 TEK SCREWS AT 80 CTS.	2 x 14-20 TEK SCREWS AT 175 CTS.
	5000-5500mm	2 x 14-20 TEK SCREWS AT 80 CTS.	2 x 14-20 TEK SCREWS AT 150 CTS.
1.2mm (G500)	3000-3499mm	2 x 14-20 TEK SCREWS AT 150 CTS.	2 x 14-20 TEK SCREWS AT 275 CTS.
	3500-3999mm	2 x 14-20 TEK SCREWS AT 125 CTS.	2 x 14-20 TEK SCREWS AT 250 CTS.
	4000-4499mm	2 x 14-20 TEK SCREWS AT 125 CTS.	2 x 14-20 TEK SCREWS AT 225 CTS.
	4500-4999mm	2 x 14-20 TEK SCREWS AT 100 CTS.	2 x 14-20 TEK SCREWS AT 225 CTS.
	5000-5500mm	2 x 14-20 TEK SCREWS AT 100 CTS.	2 x 14-20 TEK SCREWS AT 200 CTS.
1.5mm (G450)	3000-3499mm	2 x 14-20 TEK SCREWS AT 175 CTS.	2 x 14-20 TEK SCREWS AT 350 CTS.
	3500-3999mm	2 x 14-20 TEK SCREWS AT 175 CTS.	2 x 14-20 TEK SCREWS AT 325 CTS.
	4000-4499mm	2 x 14-20 TEK SCREWS AT 150 CTS.	2 x 14-20 TEK SCREWS AT 300 CTS.
	4500-4999mm	2 x 14-20 TEK SCREWS AT 125 CTS.	2 x 14-20 TEK SCREWS AT 275 CTS.
	5000-5500mm	2 x 14-20 TEK SCREWS AT 125 CTS.	2 x 14-20 TEK SCREWS AT 275 CTS.
1.9mm (G450)	3000-3499mm	2 x 14-20 TEK SCREWS AT 250 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	3500-3999mm	2 x 14-20 TEK SCREWS AT 225 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	4000-4499mm	2 x 14-20 TEK SCREWS AT 200 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	4500-4999mm	2 x 14-20 TEK SCREWS AT 200 CTS.	2 x 14-20 TEK SCREWS AT 375 CTS.
	5000-5500mm	2 x 14-20 TEK SCREWS AT 175 CTS.	2 x 14-20 TEK SCREWS AT 350 CTS.
2.4mm (G450)	3000-3499mm	2 x 14-20 TEK SCREWS AT 250 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	3500-3999mm	2 x 14-20 TEK SCREWS AT 225 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	4000-4499mm	2 x 14-20 TEK SCREWS AT 200 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	4500-4999mm	2 x 14-20 TEK SCREWS AT 200 CTS.	2 x 14-20 TEK SCREWS AT 400 CTS.
	5000-5500mm	2 x 14-20 TEK SCREWS AT 175 CTS.	2 x 14-20 TEK SCREWS AT 375 CTS.

**TABLE A**  
MINIMUM STRENGTHS OF STEEL COMPLYING WITH AS 1397-1997

THICKNESS (t)mm	GRADE	YEILD STRENGTH	TENSILE STRENGTH
1mm	G550	550 MPa	550 MPa
1.2mm	G500	500 MPa	520 MPa
1.5mm	G450	450 MPa	480 MPa
1.9mm	G450	450 MPa	480 MPa
2.4mm	G450	450 MPa	480 MPa

ISSUE	DATE	AMENDMENTS
H	12.11.13	ISSUED FOR CONSTRUCTION
J	02.06.14	GENERAL REVISION
K	02.03.15	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 2 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

DRAWING	SERIES 2 ROLL-A-DOOR SUPPORT SECTION DETAIL AND TABLE	SCALE	
	James Ellis & Associates	DESIGNED	J.E.
	Consulting Structural Engineers	DRAWN	AAB
		CHECKED & APPROVED	<i>[Signature]</i>
		DATE	March 2015

DRAWING No.	S09 K
PROJECT No.	2289