NOTES :

DESIGN CRITERIA

- WIND REGIONS A0-A5 & B1
- TERRAIN CATEGORY 2, 2.5 & 3 (AS/NZS 1170.2:2021)
- DOOR HEIGHT 3m MAX.
- OPENING WIDTH (L) = 3040mm
- BUILDING IMPORTANCE = LEVEL 2
- REGIONAL WIND SPEEDS:
  REGIONS A0-A5: V_R = 45m/s
  REGIONS B1: V_R = 57m/s
- INTERNAL PRESSURE COEFFICIENTS Cpi = +0.2 AND Cpi = -0.3
- DOOR ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE OF:

WIND REGIONS		WIND DIRECTIONS	
		INWARD	OUTWARD
A0-A5	TC2	1.10 kPa	1.06 kPa
A1-A5	TC2.5	1.00 kPa	0.97 kPa
B1	TC2	1.61 kPa	1.71 kPa
	TC2.5	1.47 kPa	1.56 kPa

- OPENING WIDTH = CURTAIN WIDTH - CURTAIN OVERLAPS (REFER SECTIONS 2 ON DRAWINGS S03, S04, S05 & S06).
- THE MAXIMUM OUT OF PLANE ABUTMENT FORCES (Fy) PER METRE HEIGHT CAN BE CALCULATED AS FOLLOWS:
  $Fy = \frac{WL}{2}$
  WHERE W = ULTIMATE DESIGN WIND PRESSURE (kPa)
  L = OPENING WIDTH (SPAN) m
- MAXIMUM ULTIMATE DESIGN CATENARY FORCE (Fx) PER METRE HEIGHT BASED ON A MAXIMUM ALLOWABLE OPENING WIDTH OF 3040mm IS AS FOLLOWS:
  REGION A0-A5 (TC2 - TC3) Fx = 6.5kN/m
  REGION B1 (TC2 - TC3) Fx = 7.5kN/m

LIMITATIONS

- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A MINIMUM STRESS GRADE OF 250.
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF CONCRETE HOLLOW MASONRY UNITS (f'uc) = 15 MPa (MIN.).
- CORE FILLING OF CONCRETE HOLLOW MASONRY UNITS (f'c) = 20 MPa (MIN.).
- THE BUILDING DESIGN STRUCTURAL ENGINEER IS TO ENSURE THAT THE STRUCTURAL LINTEL OVER THE DOOR OPENING CAN ALSO LATERALLY SUPPORT THE RELEVANT ULTIMATE DESIGN WIND PRESSURE RATINGS GIVEN IN THE DESIGN CRITERIA OF THE NOTES.
- THE STRUCTURE TO WHICH THE DOOR GUIDES ARE ATTACHED SHALL BE DESIGNED AND CERTIFIED INDEPENDENTLY AS REQUIRED BY A SUITABLY QUALIFIED ENGINEER.
- ALTERNATIVE DESIGN PARAMETERS TO WHAT ARE NOMINATED 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 PROVIDED IN THE DESIGN CRITERIA OF THE NOTES.
- THE BUILDING DESIGN STRUCTURAL ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURE RATINGS PROVIDED IN THE DESIGN CRITERIA OF THE NOTES.
- DOORS MAY BE POSITIONED AT ANY LOCATION ALONG THE BUILDING ENVELOPE INCLUDING ALL LOCAL PRESSURE ZONES (ie. CORNERS OF BUILDINGS), PROVIDED THE SITE SPECIFIC ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED THE VALUES PROVIDED IN THE DESIGN CRITERIA OF THE NOTES.
- THE SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS INCLUDE THE FOLLOWING B&D PRODUCT/MODEL NAMES.
  a) SQUARLINE DELUXE ROLL-A-DOOR® (MODEL R1D).
  b) ROLLMASTA (MODEL R1P)

BASIS OF DRAWINGS

- EXPERIMENTS CONDUCTED ON THE 16th, 17th & 19th FEBRUARY 2021, AS WELL AS THE 5th, 8th & 17th MARCH 2021 AS DOCUMENTED IN REPORTS 2511-2021-Rep 1 & 2511-2021-Rep 2.
- 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 1170.1:2002 STRUCTURAL DESIGN ACTIONS PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- AS/NZS 4505:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS
- AS 3700:2018 MASONRY STRUCTURES
- AS 3600-2018 CONCRETE STRUCTURES
- AS/NZS 4600:2018 COLD FORMED STEEL STRUCTURES
- AS 4100:2020 STEEL STRUCTURES.
- AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1:LIMIT STATE DESIGN.
- AS 1720.1:2010 TIMBER STRUCTURES PART 1:DESIGN METHODS.
- ALL DOOR COMPONENTS TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS.
- DOOR INSTALLATION TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 1, NON-CYCLONIC WIND RATED ROLLING DOOR INSTALLATION GUIDELINES.

TABLE E

NUMBER OF AND LOCATIONS OF CURTAIN WIND CLIPS

OPENING HEIGHTS UP TO	NUMBER OF WINDCLIPS ALONG EACH ABUTMENT EDGE	TOTAL NUMBER OF WINDCLIPS PER DOOR	POSITION OF WINDCLIPS FROM BOTTOM DOOR RAIL				
			1st	2nd	3rd	4th	5th
2.4m	3	6	950mm	1200mm	1450mm	-	-
3.0m	5	10	950mm	1200mm	1450mm	1950mm	2200mm

ISSUE	DATE	AMENDMENTS
A	30.06.21	PRELIMINARY ISSUE
B	07.07.21	CERTIFICATION ISSUE
C	14.10.21	GENERAL REVISION
D	22.04.23	GENERAL REVISION

CLIENT
B&D AUSTRALIA PTY LTD

PROJECT
B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS

DRAWING B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS NOTES. DRAWING 1 OF 6

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SCALE
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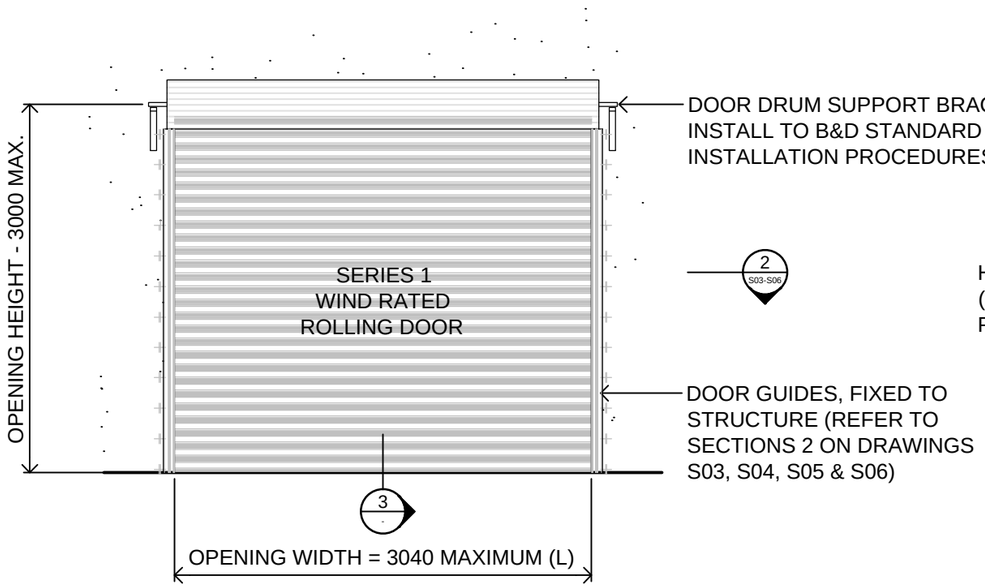
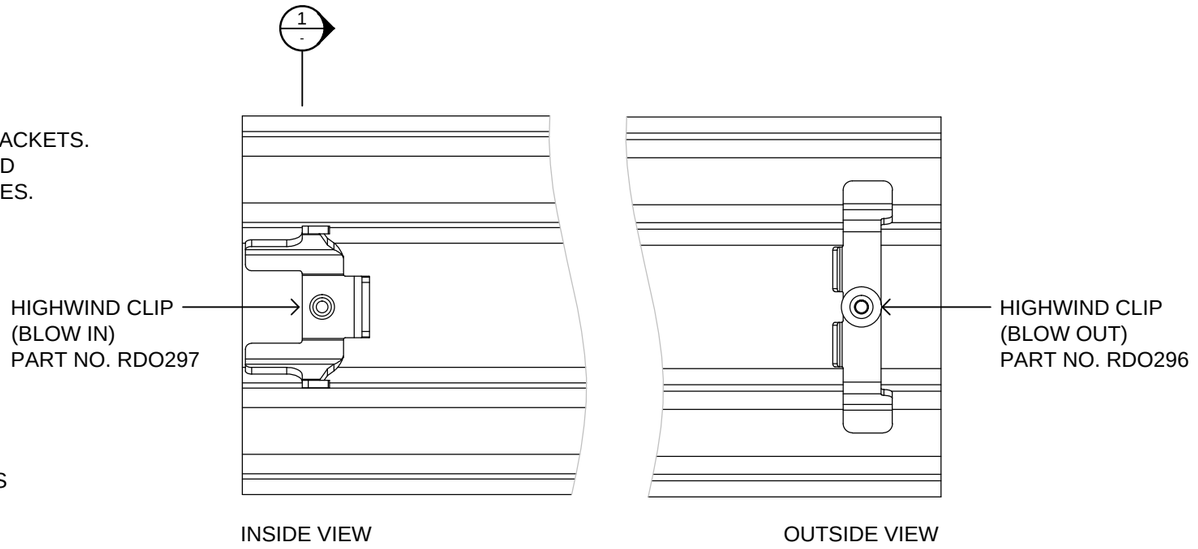
DRAWING No.
S01 D

PROJECT No.
2511



SERIES 1 WIND RATED ROLLING DOOR ELEVATION - TYPICAL

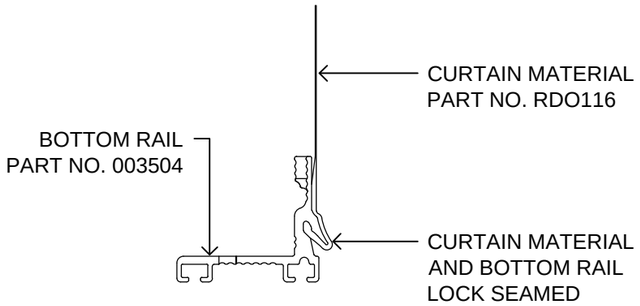
SCALE 1:50



CURTAIN MATERIAL AND WINDCLIPS - PART PLANS

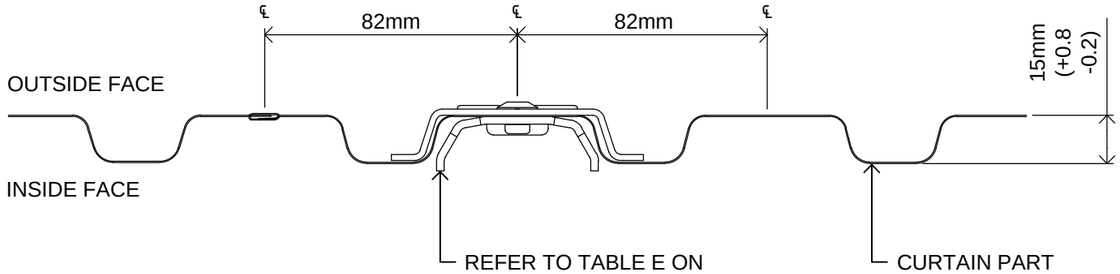
SCALE 1:2

NOTE: REFER TO TABLE E ON DRAWING S01 FOR NUMBER OF AND LOCATIONS OF CURTAIN WINDCLIPS



SECTION 3

SCALE = 1:2



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ISSUE	DATE	AMENDMENTS
A	30.06.21	PRELIMINARY ISSUE
B	07.07.21	CERTIFICATION ISSUE
C	14.10.21	GENERAL REVISION
D	22.04.23	GENERAL REVISION

CLIENT: B&D AUSTRALIA PTY LTD

PROJECT: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS

DRAWING: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS DETAILS. DRAWING 2 OF 6

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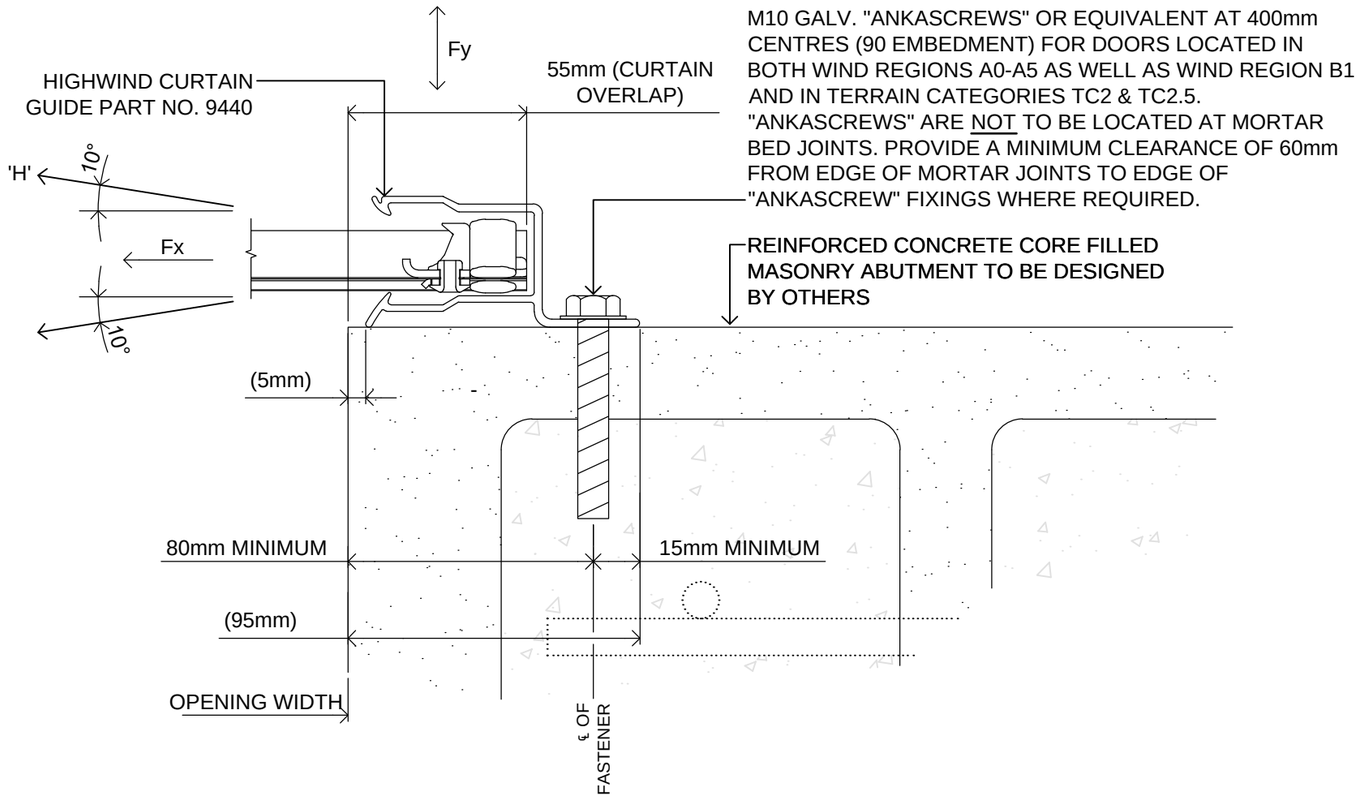

SECTION 2 / S02 PLAN

SCALE = 1:2

GUIDE SUPPORTED BY REINFORCED CONCRETE CORE FILLED MASONRY UNITS FOR A MAXIMUM DOOR OPENING WIDTH (L) OF 3040mm IN WIND REGIONS A0-A5 AS WELL AS WIND REGION B1 AND IN TERRAIN CATEGORIES TC2 & TC2.5 AND UP TO THE MAXIMUM ULTIMATE DESIGN WIND PRESSURES AS PROVIDED IN THE DESIGN CRITERIA OF THE NOTES ON DRAWING S01.

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM OPEN WIDTH (L) OF 3040mm.
- SAME DETAIL APPLIES WHEN FIXING INTO REINFORCED CONCRETE PANELS.

ISSUE	DATE	AMENDMENTS
A	30.06.21	PRELIMINARY ISSUE
B	07.07.21	CERTIFICATION ISSUE
C	14.10.21	GENERAL REVISION
D	22.04.23	GENERAL REVISION

CLIENT: B&D AUSTRALIA PTY LTD

PROJECT: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS

DRAWING: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS DETAILS. DRAWING 3 OF 6

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DRAWING No. S03 D

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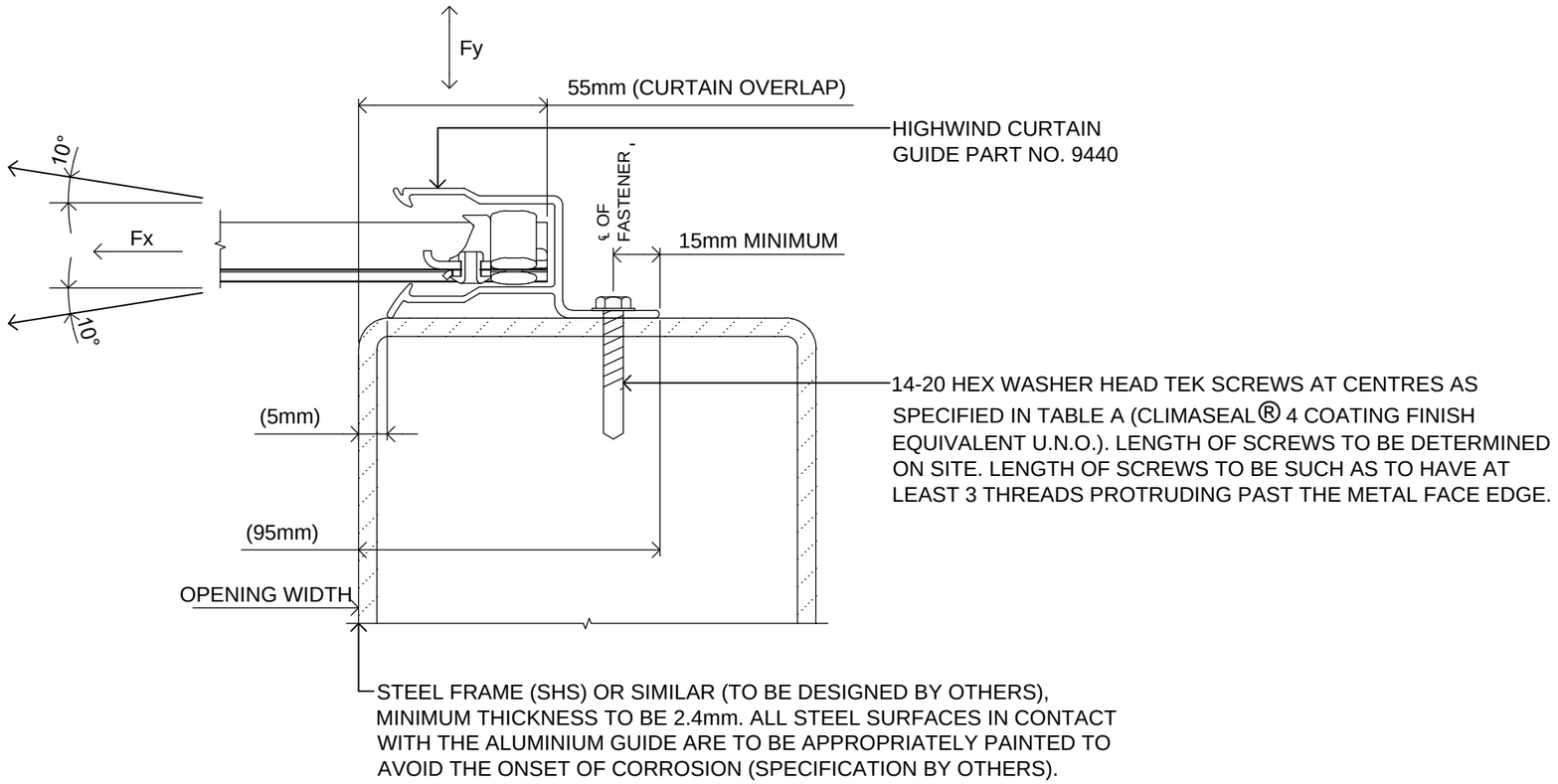

SECTION 2/S02 PLAN

SCALE = 1:2

GUIDE SUPPORTED BY MILD STEEL FRAME FOR A MAXIMUM DOOR OPENING WIDTH (L) OF 3040mm IN WIND REGIONS A0-A5 AS WELL AS WIND REGION B1 AND IN TERRAIN CATEGORIES TC2 & TC2.5 AND UP TO THE MAXIMUM ULTIMATE DESIGN WIND PRESSURES AS PROVIDED IN THE DESIGN CRITERIA OF THE NOTES ON DRAWING S01 AND TABLE A.

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM OPENING WIDTH (L) OF 3040mm.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.

TABLE A

FASTENING SPECIFICATIONS ONTO MILD STEEL ABUTMENTS

WIND REGION	TERRAIN CATEGORY	MAXIMUM DESIGN WIND PRESSURE (kPa)	SPACING (mm)
A0-A5	TC2	1.10 kPa	300mm
A1-A5	TC2.5	1.00 kPa	300mm
B1	TC2	1.71 kPa	250mm
	TC2.5	1.56 kPa	250mm

ISSUE	DATE	AMENDMENTS
A	30.06.21	PRELIMINARY ISSUE
B	07.07.21	CERTIFICATION ISSUE
C	14.10.21	GENERAL REVISION
D	22.04.23	GENERAL REVISION

CLIENT: B&D AUSTRALIA PTY LTD

PROJECT: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS

DRAWING: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS DETAILS. DRAWING 4 OF 6

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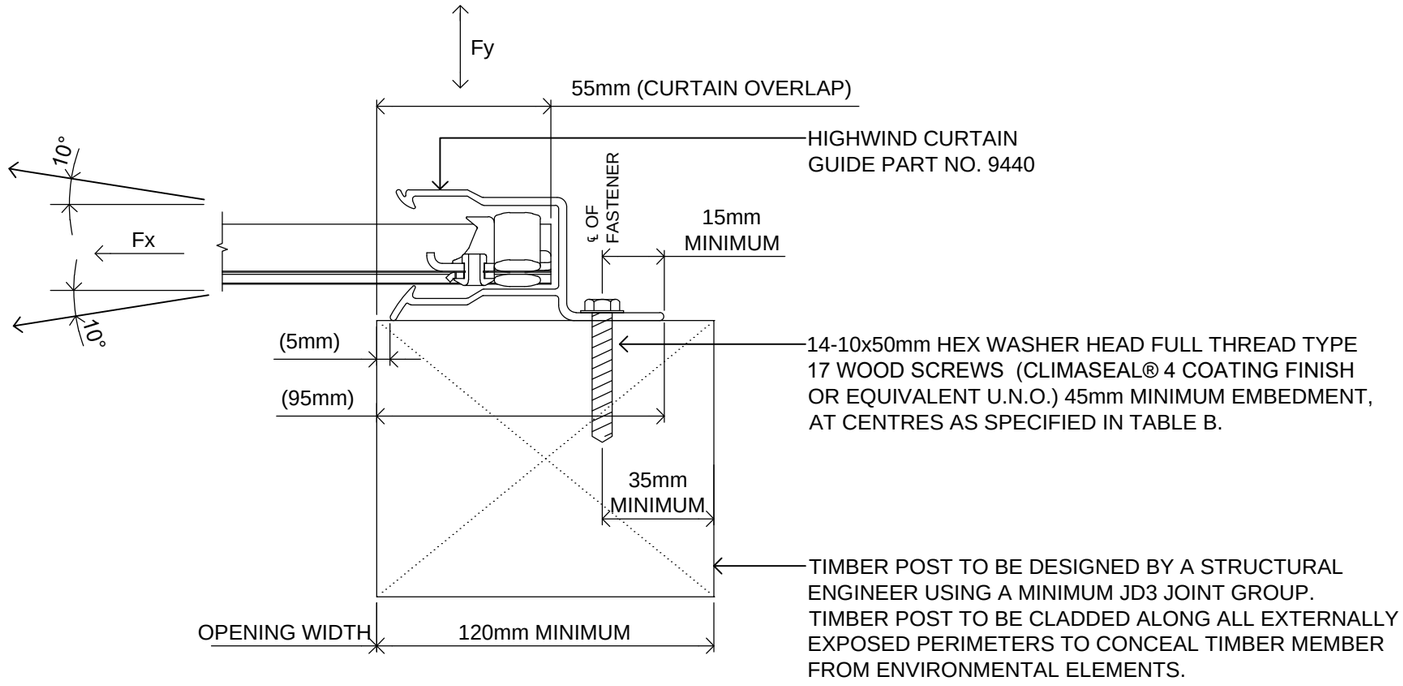

SECTION 2/S02 PLAN

SCALE = 1:2

GUIDE SUPPORTED BY TIMBER FRAMED WALLS FOR A MAXIMUM DOOR OPENING WIDTH (L) OF 3040mm IN WIND REGIONS A0-A5 AS WELL AS WIND REGIONS B1 AND IN TERRAIN CATEGORIES TC2 & TC2.5 AND UP TO THE MAXIMUM ULTIMATE DESIGN WIND PRESSURES AS PROVIDED IN THE DESIGN CRITERIA OF THE NOTES ON DRAWING S01 AND TABLE B.

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM OPENING WIDTH (L) OF 3040mm.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.

TABLE B

FASTENING SPECIFICATIONS INTO TIMBER FRAMED ABUTMENTS

WIND REGION	TERRAIN CATEGORY	MAXIMUM DESIGN WIND PRESSURE (kPa)	SPACING (mm)
A0-A5	TC2	1.10 kPa	250mm
A1-A5	TC2.5	1.00 kPa	250mm
B1	TC2	1.71 kPa	200mm
	TC2.5	1.56 kPa	200mm

ISSUE	DATE	AMENDMENTS
A	30.06.21	PRELIMINARY ISSUE
B	07.07.21	CERTIFICATION ISSUE
C	14.10.21	GENERAL REVISION
D	22.04.23	GENERAL REVISION

CLIENT: B&D AUSTRALIA PTY LTD

PROJECT: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS

DRAWING: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS DETAILS. DRAWING 5 OF 6

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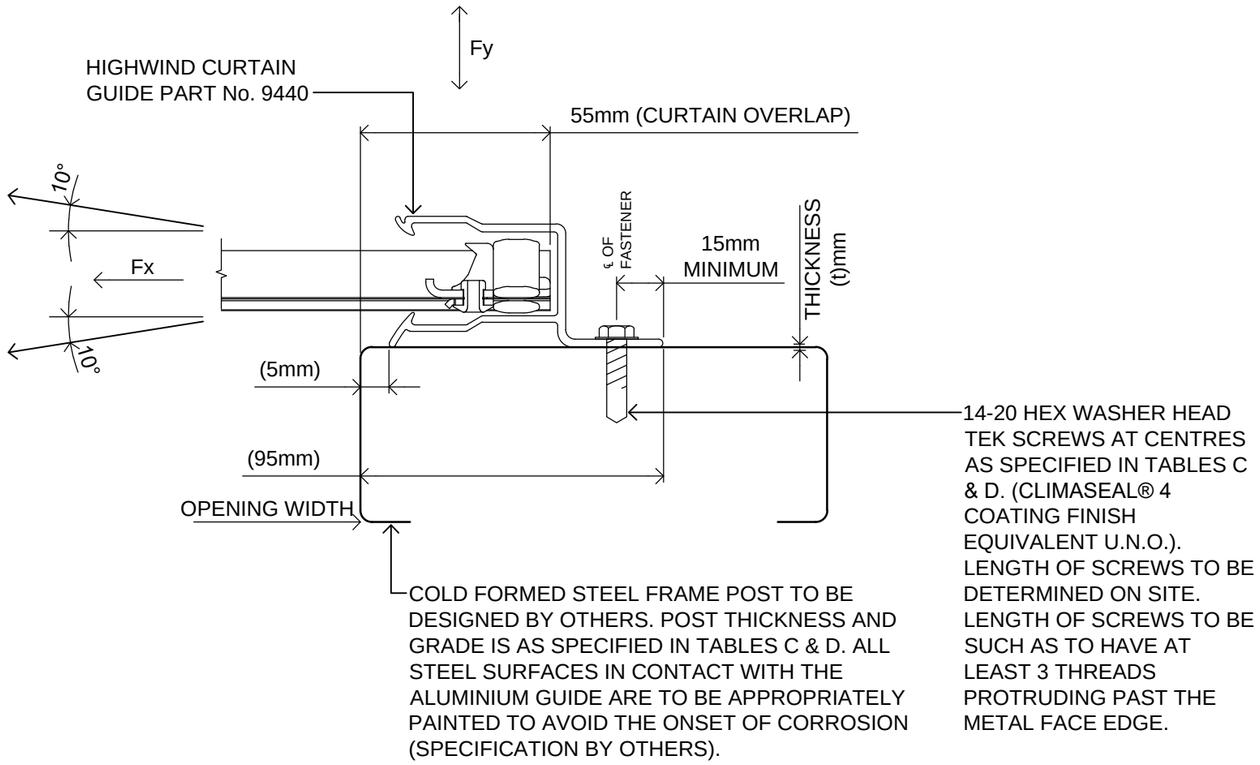

SECTION 2 PLAN

SCALE = 1:2 S02

GUIDE SUPPORTED BY COLD FORMED STEEL FRAME FOR A MAXIMUM DOOR OPENING WIDTH (L) OF 3040mm IN WIND REGIONS A0-A5 AS WELL AS WIND REGION B1 AND IN TERRAIN CATEGORIES TC2 & TC2.5 AND UP TO THE MAXIMUM ULTIMATE DESIGN WIND PRESSURES AS PROVIDED IN THE DESIGN CRITERIA OF THE NOTES ON DRAWING S01.

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM OPENING WIDTH OF 3040mm.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.

TABLE C

REGION A

FASTENING SPECIFICATIONS ONTO COLD FORMED STEEL ABUTMENT SUPPORTS COMPLYING WITH AS 1397-2021

THICKNESS (t)mm	GRADE	YIELD STRENGTH	TENSILE STRENGTH	SPACING (mm)
1.2mm	G500	500 MPa	520 MPa	250mm
1.5mm	G450	450 MPa	480 MPa	300mm
1.9mm	G450	450 MPa	480 MPa	300mm

TABLE D

REGION B

FASTENING SPECIFICATIONS ONTO COLD FORMED STEEL ABUTMENT SUPPORTS COMPLYING WITH AS 1397-2021

THICKNESS (t)mm	GRADE	YIELD STRENGTH	TENSILE STRENGTH	SPACING (mm)
1.2mm	G500	500 MPa	520 MPa	200mm
1.5mm	G450	450 MPa	480 MPa	250mm
1.9mm	G450	450 MPa	480 MPa	250mm

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CLIENT: B&D AUSTRALIA PTY LTD

PROJECT: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS

DRAWING: B&D SERIES 1 NON-CYCLONIC WIND RATED ROLLING DOORS DETAILS. DRAWING 6 OF 6

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