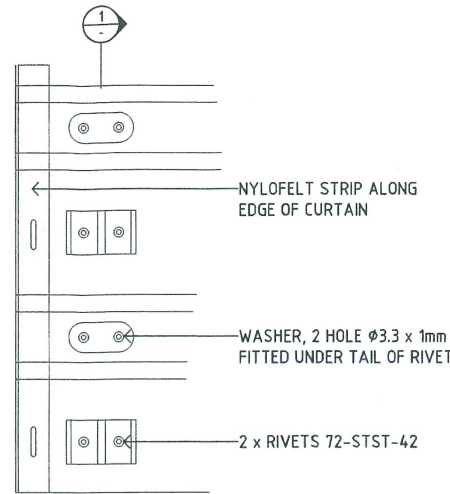
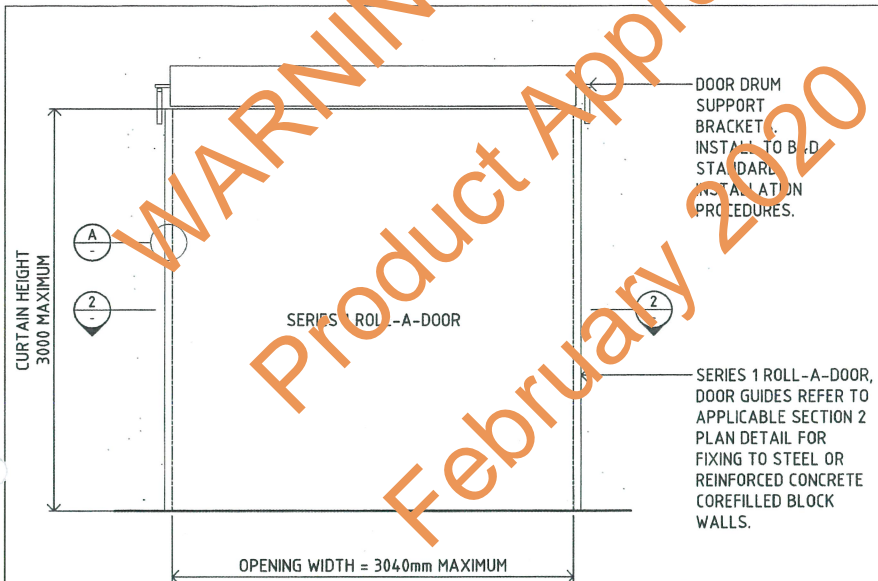
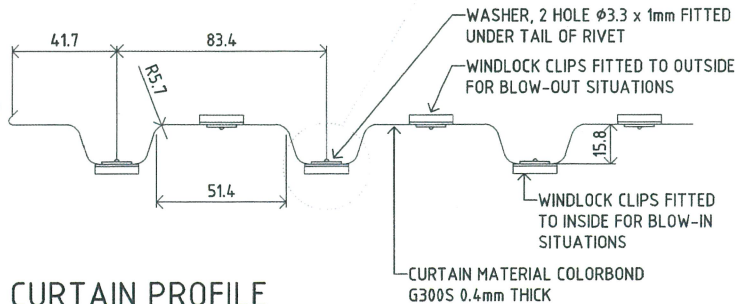
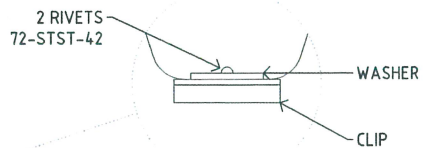


IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENTS P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



DETAIL (A) SCALE = 1:2
CURTAIN MATERIAL AND WINDCLIPS - PART ELEVATION

SERIES 1 ROLL-A-DOOR ELEVATION - TYPICAL
 SCALE 1:50



CURTAIN PROFILE SECTION 1
 SCALE = 1:2

Additional Notes Covering Basis of DTC

- 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.
- THE SERIES 1 ROLL-A-DOORS INCLUDE THE FOLLOWING B&D PRODUCT/MODEL NAMES:
 - SQUARELINE™ DELUXE ROLL-A-DOOR® (MODEL R1D)
 - FIRMADOOR (MODEL R1F)
 - ROLLMASTA (MODEL R1R)
 - ROLL-A-DOOR™ MINI WAREHOUSE MODEL (MODEL R1M)
 - ROLL-A-DOOR™ MINI WAREHOUSE (R1ME)

Product Name
 B&D SERIES 1 ROLL-A-DOOR

Product Description
 WINDLOCKED ROLLER DOOR

Manufacturer's Name
 B&D AUSTRALIA PTY LTD
 34-36 MARIGOLD STREET, REVESBY NSW 2212 PH: 136 263

Design Criteria

- REGION C
- TERRAIN CATEGORY 2.5
- DOOR HEIGHT 3.0M MAX.
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED VR = 69.3m/s
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE = 3.26kPa FOR A MAXIMUM ALLOWABLE OPENING WIDTH OF 3040mm
- AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS.
- AS/NZS 4505:2012 GARAGE DOORS & OTHER LARGE ACCESS DOORS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS - PART 0: GENERAL PRINCIPLES.
- AS 4100:1998 STEEL STRUCTURES
- AS 3700-2001 MASONRY STRUCTURES
- AS/NZS 4600: 2005 COLD FORMED STRUCTURES
- AS/NZS 1664.1:1997 ALUMINUM STRUCTURES PART 1: LIMIT STATE DESIGN
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)

Limitations

- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A MINIMUM STRESS GRADE OF G250 U.N.O. (REFER SECTIONS 2 ON DRAWINGS S03 AND S04).
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK WALL UNIT (f_{uc}) = 15 MPa (MIN.).
- CORE FILLING OF BLOCKWALL (f_c) = 15 MPa (MIN.).
- 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 3.26 kPa.
- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE 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 ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED 3.26 kPa.

Accepted for Inclusion

DTCM ref: M/429/01 DRAWING No. S01

Notes covering basis of DTC (Relevant test reports etc)

- REPORT No. TS894 REVISION A DATED 6th JUNE 2013 (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- REFER TO "ADDITIONAL NOTES COVERING BASIS OF DTC".

****Design Engineers Certification**

Name: JAMES ELLIS
 Registration Number: 47429ES
 Date: 03/02/2015
 Signature: [Signature]

****Certifying Engineers Certification**

HEINER STRUCTURAL ENGINEERING CONSULTANTS PTY LTD
 NT Registration Number: 52229ES
 Date: 03/02/2015
 Signature: [Signature]

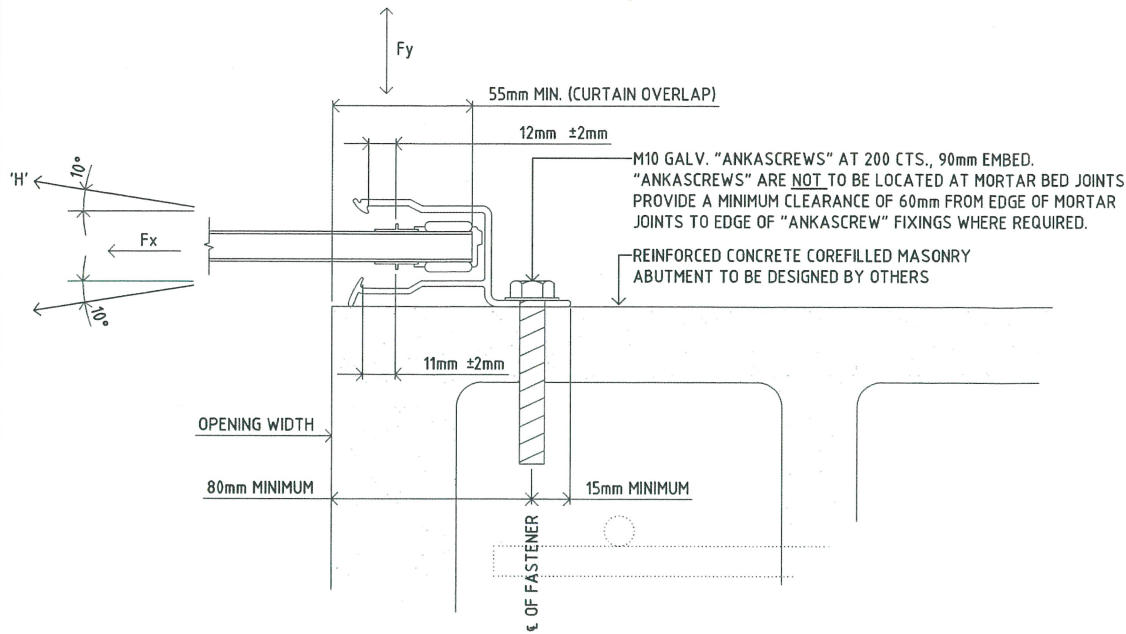
Chairman's Signature: [Signature]

Chairman's Name: STEVEN J. FERLICH

Date of Approval: 12/02/15 **Expiry Date:** 12/02/2020

**registered as a structural engineer in Australia **registered as a structural engineer in Northern Territory

IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENTS P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



FIXING TO BLOCKWORK

SECTION 2 PLAN
SCALE = 1:2 S01

GUIDE SUPPORTED BY REINFORCED CONCRETE COREFILLED MASONRY
UNITS FOR A MAXIMUM OPENING WIDTH OF 3040mm IN REGION C TC2.5
AND UP TO A MAXIMUM DESIGN WIND PRESSURE OF 3.26 kPa.

NOTE:

- FIXINGS INTO REINFORCED CONCRETE COREFILLED BLOCK WALL
ABUTMENTS HAVE BEEN DESIGNED USING THE
RAMSET-SPECIFIERS RESOURCE BOOK.

Additional Notes Covering Basis of DTC

- 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.
- THE SERIES 1 ROLL-A-DOORS INCLUDE THE FOLLOWING B&D
PRODUCT/MODEL NAMES:
 - SQUARELINE™ DELUXE ROLL-A-DOOR® (MODEL R1D)
 - FIRMADOOR (MODEL R1F)
 - ROLLMASTA (MODEL R1R)
 - ROLL-A-DOOR™ MINI WAREHOUSE MODEL (MODEL R1M)
 - ROLL-A-DOOR™ MINI WAREHOUSE (R1ME)

Product Name

B&D SERIES 1 ROLL-A-DOOR

Product Description

WINDLOCKED ROLLER DOOR

Manufacturer's Name

B&D AUSTRALIA PTY LTD

34-36 MARIGOLD STREET, REVESBY NSW 2212 PH: 136 263

Design Criteria

- REGION C
- TERRAIN CATEGORY 2.5
- DOOR HEIGHT 3.0M MAX.
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED VR = 69.3m/s
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE =
3.26kPa FOR A MAXIMUM ALLOWABLE OPENING WIDTH OF 3040mm
- AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2:WIND
ACTIONS.
- AS/NZS 4505:2012 GARAGE DOORS & OTHER LARGE ACCESS DOORS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS - PART 0:GENERAL
PRINCIPLES.
- AS 4100:1998 STEEL STRUCTURES
- AS 3700-2001 MASONRY STRUCTURES
- AS/NZS 4600: 2005 COLD FORMED STRUCTURES
- AS/NZS 1664.1:1997 ALUMINUM STRUCTURES PART1:LIMIT STATE
DESIGN
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1:
PERMANENT, IMPOSED AND OTHER ACTIONS.
- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)

Limitations

- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A
MINIMUM STRESS GRADE OF G250 U.N.O. (REFER SECTIONS 2 ON
DRAWINGS S03 AND S04).
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK
WALL UNIT (f_{uc}) = 15 MPa (MIN.).
- CORE FILLING OF BLOCKWALL (f_c) = 15 MPa (MIN.).
- 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 3.26 kPa.
- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE
SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE 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 ULTIMATE DESIGN WIND
PRESSURES DO NOT EXCEED 3.26 kPa.

Accepted for Inclusion

DTCM ref:

M/429/b2

DRAWING No. S02

Rev 1

Chairman's Signature:

Chairman's Name:

STEVEN J. EHRLICH

Date of Approval:

12/02/2015

Expiry Date: 12/02/2020

Notes covering basis of DTC (Relevant test reports etc)

- REPORT No. TS894 REVISION A DATED 6th JUNE 2013 (CYCLONE TESTING STATION,
SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- REFER TO "ADDITIONAL NOTES COVERING BASIS OF DTC".

**Design Engineers Certification

Name: JAMES ELLIS

Registration Number: 47429ES

Date: 03/02/2015

Signature:

**registered as a structural engineer in Australia

**Certifying Engineers Certification

Name: HEINER STRUCTURAL ENGINEERING
CONSULTANTS PTY LTD

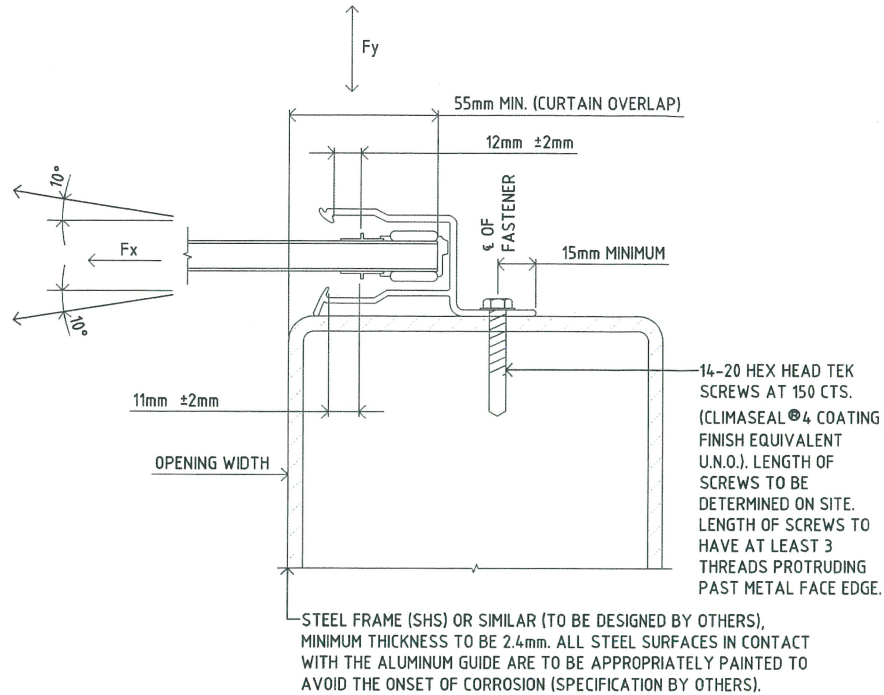
NT Registration Number: 52229ES

Date: 03/02/2015

Signature:

**registered as a structural engineer in Northern Territory

IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENTS P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



FIXING TO MILD STEEL MULLION

SECTION 2 S01 PLAN
SCALE = 1:2

GUIDE SUPPORTED BY MILD STEEL MULLION FRAME FOR A MAXIMUM OPENING WIDTH OF 3040mm IN REGION C TC2.5 AND UP TO A MAXIMUM DESIGN WIND PRESSURE OF 3.26 kPa.

NOTE:

- FIXINGS INTO STRUCTURAL STEEL ABUTMENTS HAVE BEEN DESIGNED USING 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.

Additional Notes Covering Basis of DTC

- 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.
- THE SERIES 1 ROLL-A-DOORS INCLUDE THE FOLLOWING B&D PRODUCT/MODEL NAMES:
 - SQUARELINE™ DELUXE ROLL-A-DOOR® (MODEL R1D)
 - FIRMADOOR (MODEL R1F)
 - ROLLMASTA (MODEL R1R)
 - ROLL-A-DOOR™ MINI WAREHOUSE MODEL (MODEL R1M)
 - ROLL-A-DOOR™ MINI WAREHOUSE (R1ME)

Product Name

B&D SERIES 1 ROLL-A-DOOR

Product Description

WINDLOCKED ROLLER DOOR

Manufacturer's Name

B&D AUSTRALIA PTY LTD

34-36 MARIGOLD STREET, REVESBY NSW 2212 PH: 136 263

Design Criteria

- REGION C
- TERRAIN CATEGORY 2.5
- DOOR HEIGHT 3.0M MAX.
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED VR = 69.3m/s
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE = 3.26kPa FOR A MAXIMUM ALLOWABLE OPENING WIDTH OF 3040mm
- AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2:WIND ACTIONS.
- AS/NZS 4505:2012 GARAGE DOORS & OTHER LARGE ACCESS DOORS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS - PART 0:GENERAL PRINCIPLES.
- AS 4100:1998 STEEL STRUCTURES
- AS 3700-2001 MASONRY STRUCTURES
- AS/NZS 4600: 2005 COLD FORMED STRUCTURES
- AS/NZS 1664.1:1997 ALUMINUM STRUCTURES PART1:LIMIT STATE DESIGN
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)

Limitations

- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A MINIMUM STRESS GRADE OF G250 U.N.O. (REFER SECTIONS 2 ON DRAWINGS S03 AND S04).
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK WALL UNIT (f_{uc}) = 15 MPa (MIN.).
- CORE FILLING OF BLOCKWALL (f_c) = 15 MPa (MIN.).
- 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 3.26 kPa.
- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE 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 ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED 3.26 kPa.

Accepted for Inclusion

DTCM ref: M/429/03 DRAWING No. S03 Rev 1

Chairman's Signature:

[Handwritten Signature]

Chairman's Name:

STEVEN J EHRLICH

Date of Approval: 12/02/2015 Expiry Date: 12/02/2020

Notes covering basis of DTC (Relevant test reports etc)

- REPORT No. TS894 REVISION A DATED 6th JUNE 2013 (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- REFER TO "ADDITIONAL NOTES COVERING BASIS OF DTC".

**Design Engineers Certification

Name: JAMES ELLIS
Registration Number: 47429ES
Date: 03/02/2015
Signature: *[Handwritten Signature]*

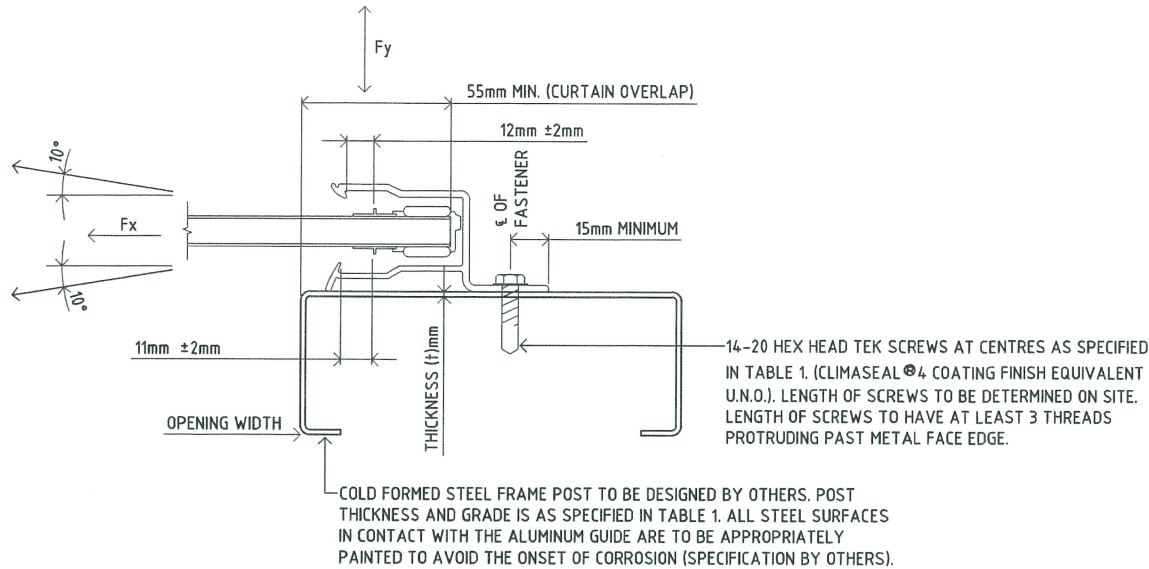
**registered as a structural engineer in Australia

**Certifying Engineers Certification

HEINER STRUCTURAL ENGINEERING CONSULTANTS PTY LTD
NT Registration Number: 52229ES
Date: 03/02/2015
Signature: *[Handwritten Signature]*

**registered as a structural engineer in Northern Territory

IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENTS P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



FIXING TO COLD FORMED MULLIONS

SECTION 2 PLAN
SCALE = 1:2 S01

GUIDE SUPPORTED BY COLD FORMED STEEL MULLION FRAME FOR A MAXIMUM OPENING WIDTH OF 3040mm IN REGION C TC2.5 AND UP TO A MAXIMUM DESIGN WIND PRESSURE OF 3.26 kPa.

NOTE:

- FIXINGS INTO COLD FORMED STEEL ABUTMENTS HAVE BEEN DESIGNED USING 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.

TABLE 1

FASTENING SPECIFICATIONS INTO COLD FORMED STEEL ABUTMENT SUPPORTS COMPLYING WITH AS 1397-1993

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

14-20 HEX HEAD TEK SCREWS AT CENTRES AS SPECIFIED IN TABLE 1. (CLIMASEAL®4 COATING FINISH EQUIVALENT U.N.O.). LENGTH OF SCREWS TO BE DETERMINED ON SITE. LENGTH OF SCREWS 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 1. ALL STEEL SURFACES IN CONTACT WITH THE ALUMINUM GUIDE ARE TO BE APPROPRIATELY PAINTED TO AVOID THE ONSET OF CORROSION (SPECIFICATION BY OTHERS).

Additional Notes Covering Basis of DTC

- 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.
- THE SERIES 1 ROLL-A-DOORS INCLUDE THE FOLLOWING B&D PRODUCT/MODEL NAMES:
 - SQUARELINE™ DELUXE ROLL-A-DOOR® (MODEL R1D)
 - FIRMADOOR (MODEL R1F)
 - ROLLMASTA (MODEL R1R)
 - ROLL-A-DOOR™ MINI WAREHOUSE MODEL (MODEL R1M)
 - ROLL-A-DOOR™ MINI WAREHOUSE (R1ME)

Notes covering basis of DTC (Relevant test reports etc)

- REPORT No. TS894 REVISION A DATED 6th JUNE 2013 (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- REFER TO "ADDITIONAL NOTES COVERING BASIS OF DTC".

**Design Engineers Certification

Name: JAMES ELLIS
Registration Number: 47429ES
Date: 03/02/2015
Signature:

**registered as a structural engineer in Australia

**Certifying Engineers Certification

HEINER STRUCTURAL ENGINEERING
Name: CONSULTANTS PTY LTD
NT Registration Number: 52229ES
Date: 03/02/2015
Signature:

**registered as a structural engineer in Northern Territory

Product Name

B&D SERIES 1 ROLL-A-DOOR

Product Description

WINDLOCKED ROLLER DOOR

Manufacturer's Name

B&D AUSTRALIA PTY LTD

34-36 MARIGOLD STREET, REVESBY NSW 2212 PH: 136 263

Design Criteria

- REGION C
- TERRAIN CATEGORY 2.5
- DOOR HEIGHT 3.0M MAX.
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED VR = 69.3m/s
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE = 3.26kPa FOR A MAXIMUM ALLOWABLE OPENING WIDTH OF 3040mm
- AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS.
- AS/NZS 4505:2012 GARAGE DOORS & OTHER LARGE ACCESS DOORS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS - PART 0: GENERAL PRINCIPLES.
- AS 4100:1998 STEEL STRUCTURES
- AS 3700-2001 MASONRY STRUCTURES
- AS/NZS 4600: 2005 COLD FORMED STRUCTURES
- AS/NZS 1664.1:1997 ALUMINUM STRUCTURES PART1: LIMIT STATE DESIGN
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)

Limitations

- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A MINIMUM STRESS GRADE OF G250 U.N.O. (REFER SECTIONS 2 ON DRAWINGS S03 AND S04).
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK WALL UNIT (f_{uc}) = 15 MPa (MIN.).
- CORE FILLING OF BLOCKWALL (f_c) = 15 MPa (MIN.).
- 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 3.26 kPa.
- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE 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 ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED 3.26 kPa.

Accepted for Inclusion

DTCM ref: M/429/04

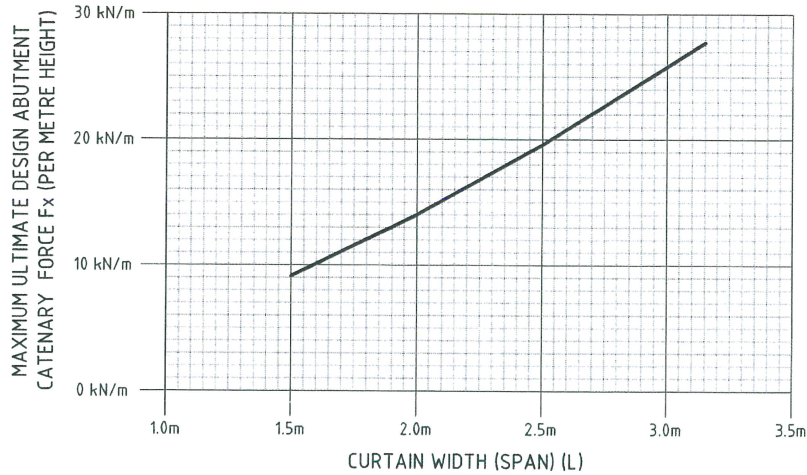
DRAWING No. S04
Rev 1

Chairman's Signature:

Chairman's Name: STEVEN J EHRLICH

Date of Approval: 12/02/2015 Expiry Date: 12/02/2020

IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENTS P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



NOTE: CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAPS

MAXIMUM ULTIMATE DESIGN ABUTMENT CATENARY FORCE F_x
(PER METRE HEIGHT) FOR VARIOUS SPANS IN REGION C, TC2.5
AND UP TO A MAXIMUM DESIGN WIND PRESSURE OF 3.26 kPa

NOTE 1: $F_y = \frac{W L}{2}$
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)

Additional Notes Covering Basis of DTC

- 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.
- 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)

Notes covering basis of DTC (Relevant test reports etc)

- REPORT No. TS894 REVISION A DATED 6th JUNE 2013 (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY).
- PRINCIPLES OF MECHANICS.
- REFER TO "ADDITIONAL NOTES COVERING BASIS OF DTC".

**Design Engineers Certification

Name: JAMES ELLIS
Registration Number: 47429ES
Date: 03/02/2015
Signature:

**registered as a structural engineer in Australia

**Certifying Engineers Certification

HEINER STRUCTURAL ENGINEERING
Name: CONSULTANTS PTY LTD
NT Registration Number: 52229ES
Date: 03/02/2015
Signature:

**registered as a structural engineer in Northern Territory

Product Name

B&D SERIES 1 ROLL-A-DOOR

Product Description

WINDLOCKED ROLLER DOOR

Manufacturer's Name

B&D AUSTRALIA PTY LTD

34-36 MARIGOLD STREET, REVESBY NSW 2212 PH: 136 263

Design Criteria

- REGION C
- TERRAIN CATEGORY 2.5
- DOOR HEIGHT 3.0M MAX.
- BUILDING IMPORTANCE = LEVEL 2
- REGION WINDSPEED VR = 69.3m/s
- DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE = 3.26kPa FOR A MAXIMUM ALLOWABLE OPENING WIDTH OF 3040mm
- AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2:WIND ACTIONS.
- AS/NZS 4505:2012 GARAGE DOORS & OTHER LARGE ACCESS DOORS.
- AS/NZS 1170.0:2002 STRUCTURAL DESIGN ACTIONS - PART 0:GENERAL PRINCIPLES.
- AS 4100:1998 STEEL STRUCTURES
- AS 3700-2001 MASONRY STRUCTURES
- AS/NZS 4600: 2005 COLD FORMED STRUCTURES
- AS/NZS 1664.1:1997 ALUMINUM STRUCTURES PART1:LIMIT STATE DESIGN
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS.
- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)

Limitations

- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) IN THICKNESS WITH A MINIMUM STRESS GRADE OF G250 U.N.O. (REFER SECTIONS 2 ON DRAWINGS S03 AND S04).
- CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK WALL UNIT (f_{uc}) = 15 MPa (MIN.).
- CORE FILLING OF BLOCKWALL (f'_c) = 15 MPa (MIN.).
- 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 3.26 kPa.
- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE 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 ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED 3.26 kPa.

Accepted for Inclusion

DTCM ref:

M/429/05

DRAWING No. S05

Rev 1

Chairman's Signature:

Chairman's Name:

STEVEN J. FURLICH

Date of Approval:

12/02/2015

Expiry Date:

12/02/2020