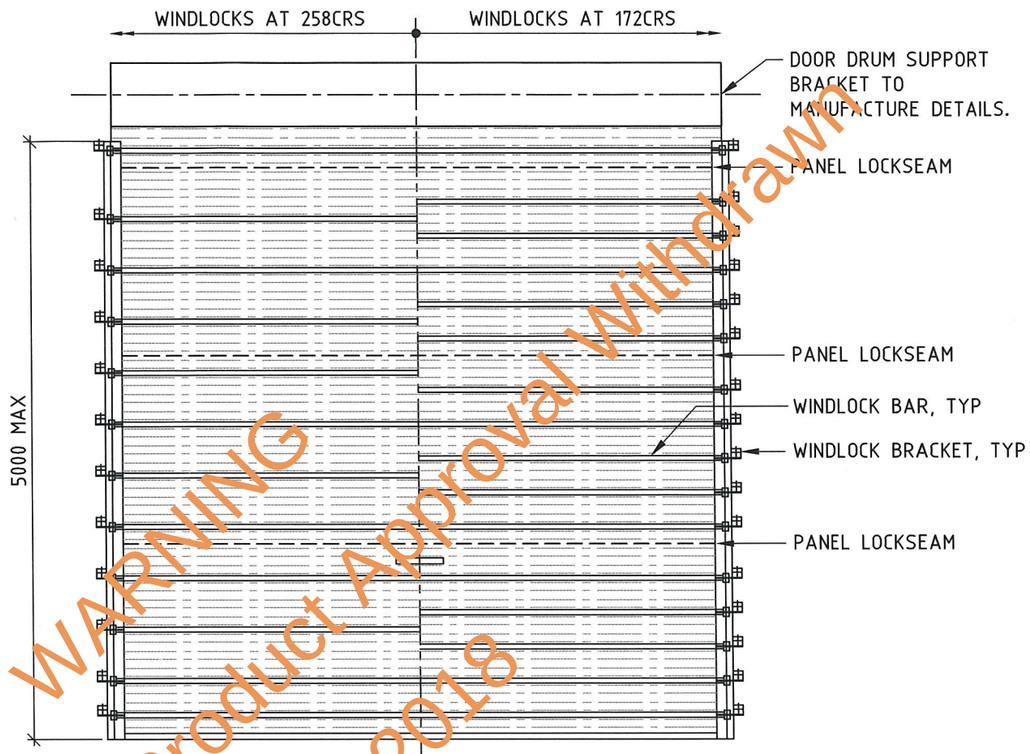
IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



TYPICAL ROLLER DOOR ELEVATION (INSIDE VIEW)
SCALE 1:30

DOOR CURTAIN MATERIAL - 0.40 BMT G300.

DOOR MATERIAL TABLE

DOOR WIDTH (m)	WIND LOCK SPACING (mm)	ULTIMATE DESIGN RESISTANCE (kPa)	ULTIMATE REACTIONS (kN/m)
UP TO 2.0	258	8.70	X=42.4, Y=8.8
2.0-2.5	258	6.35	X=42.6, Y=8.0
2.5-3.0	172	7.33	X=64.1, Y=11.1
2.5-3.0	258	4.88	X=42.7, Y=7.4
3.0-3.5	172	5.64	X=64.2, Y=9.9
3.0-3.5	258	3.76	X=42.7, Y=6.6
3.5-4.0	172	4.48	X=64.2, Y=9.0
3.5-4.0	258	2.98	X=42.7, Y=6.0
4.0-4.5	172	3.88	X=64.3, Y=8.7
4.0-4.5	258	2.58	X=42.8, Y=5.8
4.5-5.0	172	3.66	X=64.3, Y=8.6
4.5-5.0	258	2.43	X=42.9, Y=5.7
5.0-5.3	172	3.52	X=72.2, Y=9.4
5.0-5.3	258	2.32	X=48.1, Y=6.3

X = HORIZONTAL REACTION IN PLANE OF DOOR
Y = HORIZONTAL REACTION PERPENDICULAR TO PLANE OF DOOR
BASED ON ULTIMATE DESIGN RESISTANCE

NOTES:
1. THE MAIN BUILDING DESIGNER MAY REDUCE THE REACTIONS PROPORTIONATELY (FOR A GIVEN DOOR WIDTH) WHEN THE CALCULATED DESIGN WIND PRESSURE IS LESS THAN THE ULTIMATE DESIGN RESISTANCE SPECIFIED IN THE TABLE.
2. FOR ANCHOR TYPE REFER TO DOOR GUIDE FIXING DETAIL ON SHEET 2.
3. FOR DOORS WITH WINDLOCKS AT 172CRS (EVERY 2ND RIB) THE SPACING MAY BE INCREASED TO 258mm ADJACENT TO THE PANEL LOCKSEAM.
4. FOR INTERMEDIATE DOOR WIDTHS LINEAR INTERPOLATION OF THE TABLE IS ALLOWED.

Product name
ROLLER DOORS WITH WIND LOCKS

Product Description
STEEL-LINE GARAGE DOORS AUSTRALIA

Manufacturer's Name
STEEL-LINE GROUP 51 PERIVALE STREET
PH (07) 37176666 DARRA QLD

Design Criteria
1. ROLLER DOOR SUPPORT STRUCTURE TO BE DESIGNED BY MAIN BUILDING DESIGN ENGINEER FOR LOADING INDICATED. SEPARATE SECTION 40 CERTIFICATE IS REQUIRED FOR MAIN BUILDING DESIGN.
2. SUITABILITY OF DOOR FOR ACTUAL SITE CONDITIONS TO BE MADE BY MAIN BUILDING DESIGN ENGINEER.
3. THE INSTALLED ROLLER DOOR IMPOSES SIGNIFICANT FORCES ON THE MAIN BUILDING STRUCTURE. THE IMMEDIATE SUPPORTING STRUCTURE MUST BE DESIGNED TO RESIST THE LOADINGS APPLIED AT EACH END OF THE DOOR AS INDICATED IN THE TABLE. THE REACTIONS IN THE TABLE ARE BASED ON THE INDICATED ULTIMATE DESIGN RESISTANCE OF THE DOOR AND MAY BE REDUCED PROPORTIONATELY IF THE CALCULATED DESIGN WIND PRESSURE IS LESS THAN THE DESIGN ULTIMATE RESISTANCE. A SEPARATE SECTION 40 CERTIFICATE SHALL BE OBTAINED COVERING THE IMMEDIATE SUPPORTING STRUCTURE.
4. THE RATED DESIGN WIND LOAD RESISTANCE FOR EACH DOOR WIDTH IS AS INDICATED IN THE TABLE. THE STRUCTURAL ENGINEER INVOLVED WITH THE MAIN BUILDING DESIGN SHALL VERIFY THAT THE STATED DESIGN RESISTANCE EXCEEDS THE SITE SPECIFIC DESIGN WIND LOADING.
5. THE DOORS HAVE NOT BEEN TESTED FOR DEBRIS IMPACT AS INDICATED IN AS1170.2. THE BUILDING SHALL BE DESIGNED ON THE BASIS THAT THE DOOR CAN BECOME A DOMINATE OPENING. INTERNAL PRESSURES FOR THE MAIN BUILDING DESIGN SHALL BE SELECTED FROM TABLE 5.1(B) OF AS1170.2.

Limitations
1. 5000mm MAX DOOR HEIGHT
2. 5300mm MAX DOOR WIDTH
3. THE DOOR MAY BE POSITIONED AT ANY LOCATION ON THE BUILDING STRUCTURE INCLUDING LOCAL PRESSURE ZONES (CORNERS OF BUILDINGS), PROVIDING THAT THE MAXIMUM ULTIMATE DESIGN RESISTANCE OF THE DOORS IS NOT EXCEEDED AND THE MAIN BUILDING FRAME CAN SUSTAIN THE DOOR GUIDE REACTIONS
4. ALL WELDED CONNECTIONS SHALL BE COLD GALVANISED.
5. THE ROLLER DOOR INSTALLATION SHALL BE TREATED AS REQUIRED IN ORDER TO COMPLY WITH THE DURABILITY REQUIREMENTS OF THE BCA FOR THE ACTUAL SITE EXPOSURE CONDITIONS.

Accepted for Inclusion

DTCM ref: M/419/01 SHEET 1 OF 2

Chairman's Signature:

Chairman's Name: STEVEN J EHRLICH

Date of Approval: 12 JUNE 2013 Expiry Date: 12 JUNE 2018.

Notes covering basis of DTC (Relevant test report etc)

REFER TO NJA CONSULTING REPORT - REFERENCE No. 09208-001-07

THE MAXIMUM DOOR DESIGN RESISTANCE & APPLIED GUIDE FORCES HAVE BEEN CALCULATED BY EXTRAPOLATING TEST DATA FROM PHYSICAL LOAD TESTING OF A 5.30m WIDE WIND LOCKED ROLLER DOOR UNDERTAKEN BY JAMES COOK UNIVERSITY. REPORT No. TS839 DATED 23 MARCH 2012

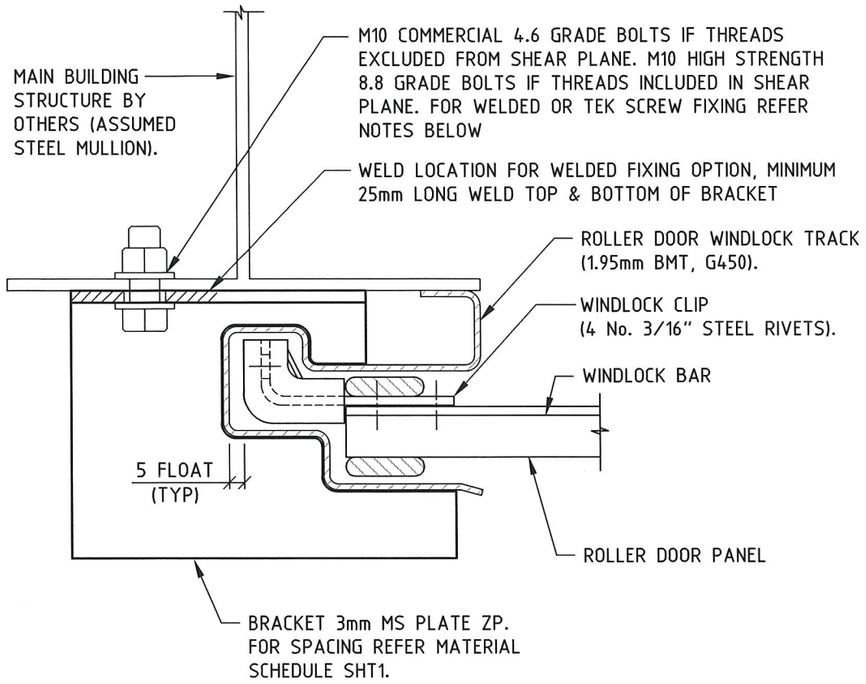
****Certifying Engineer's Certification**

Name: RONALD A. BELL
Registration Number: 60596 ES
Date: 04JUNE 2013
Signature:
***registered as a structural engineer in Northern Territory*

***Design Engineer's Certification**

Name: DARREN McDONALD
Registration Number: 24619 ES
Date: 6 JUNE 2013
Signature:
**registered as a structural engineer in Australia*

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

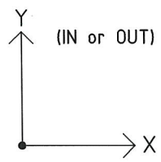


TYPICAL ROLLER DOOR GUIDE DETAIL

NTS

NOTES:

- FOR WELDED FIXING PROVIDE 3mm FILLET WELD x 50 LONG TO EACH BRACKET, CATEGORY GP E48xx OR W50x.
- FOR TEK SCREWED FIXING PROVIDE 3 No.14-20x25mm TEK SCREWS TO EACH BRACKET.

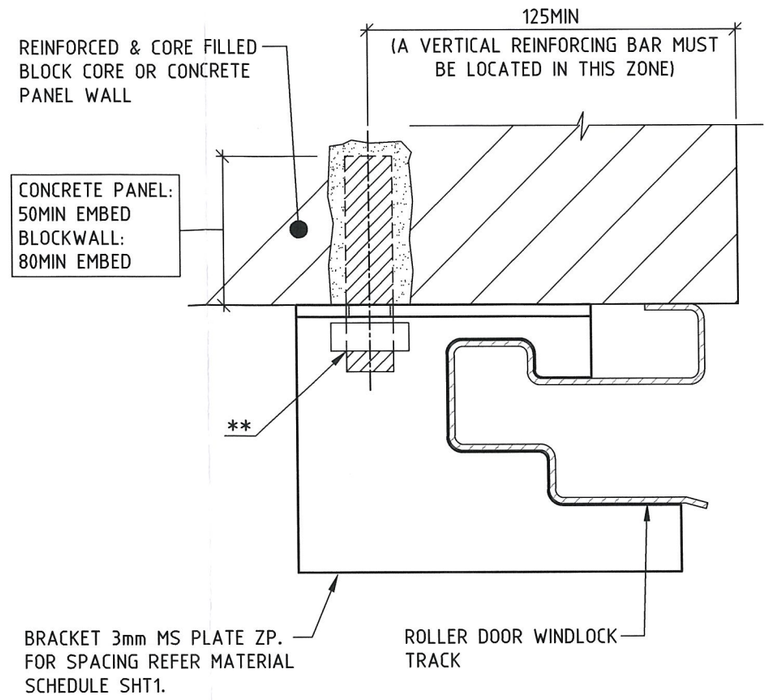


REACTIONS ON DOOR GUIDE

REFER DOOR MATERIAL TABLE ON SHEET 1

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. TREAT ALL WELD AFFECTED SURFACES WITH CORROSION RESISTANT COATING SYSTEM AS REQUIRED.
3. LOCATE MASONRY ANCHORS AS NEAR AS PRACTICABLE TO CENTRE OF VERTICAL REINFORCED CORES.
4. ALL DOOR COMPONENTS TO BE SUITABLY PROTECTED AGAINST CORROSION INCLUDING ZINCALUM GALVANISING OR OTHER APPROVED COATING SYSTEM.



ROLLER DOOR GUIDE TO BUILDING FIXING

NTS - (FIXING TO BLOCKWORK OR CONCRETE)

** FIXING TO BLOCKWALL (MIN 190THK)
M12 GALV. DYNABOLTS, RAMSET PART # DP12100GH.
M12 GALV. CHEMSETS, RAMSET PART # CS12160GH.
FIXING TO PRECAST CONCRETE (MIN 125THK)
M12 GALV. DYNABOLTS, RAMSET PART # DP12070GH.
M12 GALV. CHEMSETS, RAMSET PART # CS12160GH.

NOTES:

1. FOR FASTENER SPACINGS REFER DOOR MATERIALS TABLE & ELEVATION ON SHEET 1.
2. OTHER PROPRIETARY ANCHOR SYSTEMS MAY BE USED PROVIDING THAT THEY CAN SUPPLY THE REACTIONS SPECIFIED IN THE TABLE ON SHEET 1. THE REACTIONS MAY BE REDUCED PROPORTIONATELY (FOR A GIVEN DOOR WIDTH) WHEN THE CALCULATED DESIGN WIND PRESSURE IS LESS THAN THE ULTIMATE DESIGN RESISTANCE SPECIFIED IN THE TABLE. THE DEFAULT FASTENERS SPECIFIED ABOVE MEET THE REQUIREMENTS AT THE FULL ULTIMATE DESIGN WIND PRESSURE.
3. A VERTICAL REINFORCING BAR SHALL BE LOCATED IN WALL BETWEEN THE FASTENER AND THE DOOR OPENING, REFER TO ENGINEER IF OTHERWISE.
4. CHEMSET ANCHORS SHALL BE INSTALLED USING MAXIMA SPIN CAPSULES OR CHEMSET 801 EPOXY ADHESIVE.
5. ALL MASONRY ANCHORS TO BE GALVANISED.
6. ALL FIXINGS TO BE CLASS 4 FINISH.

Product name
ROLLER DOORS WITH WIND LOCKS

Product Description
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Manufacturer's Name
STEEL-LINE GROUP
PH (07) 37176666
51 PERIVALE STREET
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Accepted for Inclusion

DTCM ref: m/419/02 SHEET 2 OF 2

Chairman's Signature:

Chairman's Name: STEVEN J EHRLICH

Date of Approval: 12 JUNE 2013

Expiry Date: 12 JUNE 2018

Notes covering basis of DTC (Relevant test report etc)

REFER TO NJA CONSULTING REPORT - REFERENCE No. 09208-001-07

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