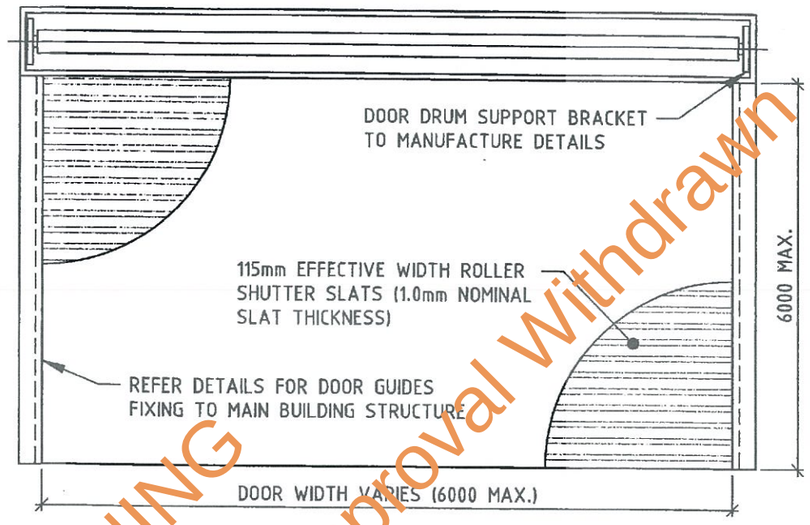
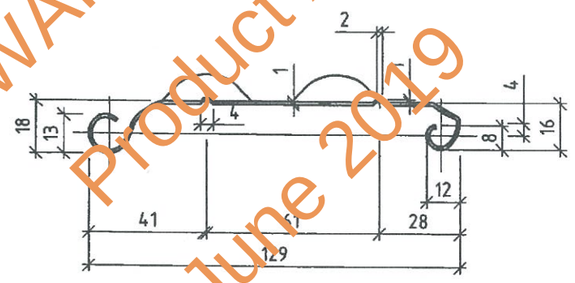
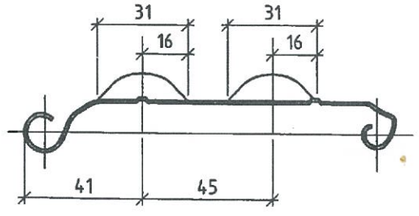
**IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.**




TYPICAL ROLLER SHUTTER ELEVATION (INSIDE VIEW)

SCALE N.T.S.



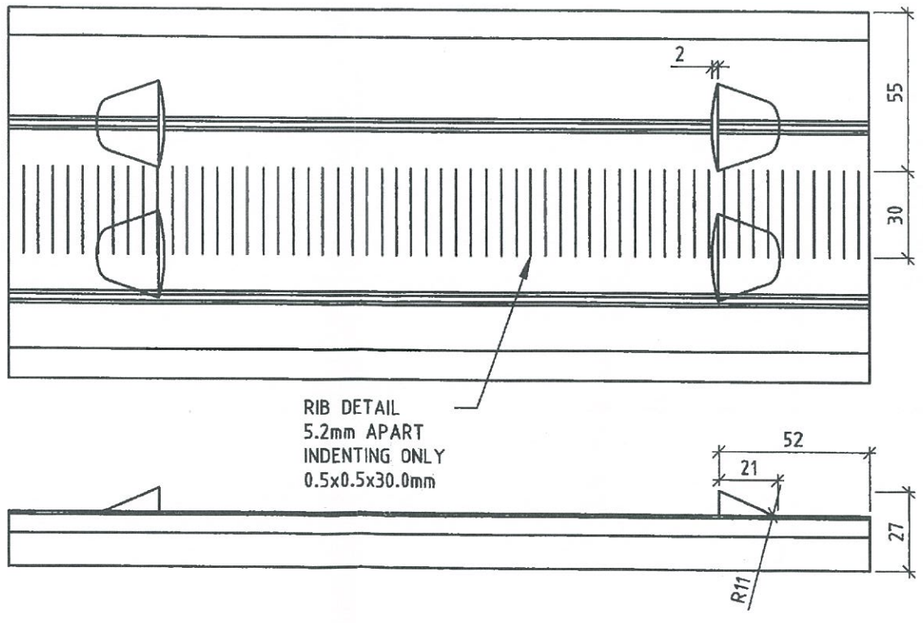




TYPICAL ROLLER SHUTTER SLAT

SCALE 1:2

NOTES:-

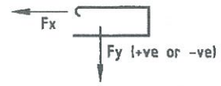
1. APPROXIMATE COVER WIDTH TO SLAT 115mm.
2. SLAT SHALL BE COLD ROLLED FROM 0.95mm BMT G250 Z275 GALVABOND STEEL STRIP.




## DOOR GUIDE REACTIONS AND FIXING DETAILS

| DOOR WIDTH (mm) | Fx (kN/m) | Fy (kN/m) | CONCRETE FIXING | BOLTED TO STEEL | WELDED TO STEEL |
|---|---|---|---|---|---|
| 2500 | NIL | 4.2 | M12-450 | M12-600 | HIT 50, MISS 550 |
| 3000 | 8.0 | 5.1 | M12-450 | M12-600 | HIT 50, MISS 550 |
| 3500 | 16.2 | 5.9 | M12-450 | M12-600 | HIT 50, MISS 550 |
| 4000 | 23.6 | 6.7 | M12-450 | M12-600 | HIT 50, MISS 550 |
| 4500 | 27.3 | 6.8 | M12-450 | M12-450 | HIT 50, MISS 400 |
| 5000 | 33.9 | 7.6 | M12-300 | M12-450 | HIT 50, MISS 400 |
| 5500 | 40.4 | 8.4 | M12-300 | M12-450 | HIT 50, MISS 400 |
| 6000 | 47.1 | 9.1 | M12-300 | M12-450 | HIT 50, MISS 400 |

1. Fx AND Fy ARE ULTIMATE LIMIT STATE IN-PLANE AND OUT OF PLANE DOOR GUIDE REACTIONS (PER LINEAL METRE) BASED ON C2 WIND LOADS.




2. FOR ANCHOR SPECIFICATIONS REFER TO DOOR GUIDE FIXING DETAILS ON SHEET 2.

**Product name**
EZIROLL ROLLER SHUTTER 115 STEEL
1.0mm WITH STANDARD WIND LOCKS

**Product Description**
ROLLER SHUTTER DOORS
WITH PRESSED WIND LOCKS

**Manufacturer's Name**
EZIROLL DOORS AUSTRALIA PTY LTD
PH (07) 3260-1080

## Design Criteria

1. THE DOORS MEET THE DESIGN WIND PRESSURES SPECIFIED IN TABLE 5-2 OF AS4505-2012 FOR A C2 WIND CLASSIFICATION.

   DOOR WIDTH >4m (+2.92 KPa, -3.04 KPa)
   DOOR WIDTH <4m (+2.92 KPa, -3.37 KPa)

2. THE INSTALLED ROLLER SHUTTER 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 CURTAIN AS INDICATED IN THE TABLE. THE REACTIONS IN THE TABLE ARE BASED ON THE ULTIMATE DESIGN RESISTANCE OF THE DOOR FOR C2 WIND LOADS.
   - FOR RIGID WALL SYSTEMS SUCH AS REINFORCED CONCRETE MASONRY OR PRECAST CONCRETE PANELS THE IN-PLANE LOADING (Fx) DOES NOT VARY ALONG THE HEIGHT OF THE DOOR.
   - FOR FRAMED (NON-RIGID) WALL SYSTEMS IT IS CONSERVATIVE TO DESIGN THE JAMBS FOR THE FULL IN-PLANE LOADING (Fx) INDICATED IN THE TABLE, HOWEVER AN ITERATIVE APPROACH MAY BE ADOPTED WHERE THE IN-PLANE LOADS ARE REDUCED DUE TO THE FLEXIBILITY OF THE JAMBS (REFER AUSTRALIAN STEEL INSTITUTE - A METHOD FOR ESTIMATING IN-PLANE FORCES ON ROLLER SHUTTER DOOR GUIDES). THE DESIGNER SHOULD CONSIDER RHS SECTIONS AS DOOR JAMBS DUE TO THE TORSIONAL EFFECT INDUCED BY IN-PLANE FORCES IN THE DOOR CURTAIN
3. THE DOORS HAVE BEEN TESTED FOR DEBRIS IMPACT AS INDICATED IN AS/NZS1170.2-2011. REFER JAMES COOK UNIVERSITY TEST REPORT No. TS900.

## Limitations

1. 6000mm MAX DOOR HEIGHT
2. 6000mm MAX DOOR WIDTH
3. END FLOATS MUST BE SET AS INDICATED IN TABLE.
4. THE ROLLER SHUTTER INSTALLATION SHALL BE SURFACE TREATED AS REQUIRED IN ORDER TO COMPLY WITH THE DURABILITY REQUIREMENTS OF THE BCA FOR THE ACTUAL SITE EXPOSURE CONDITIONS.
5. PROPRIETARY MASONRY ANCHORS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.

**Accepted for Inclusion**

DTCM ref: M/422/1 SHEET 1 OF 2

Chairman's Signature:

Chairman's Name: ~~STEVEN J EHRLICH~~

Date of Approval: 5-6-14 Expiry Date: 5-6-19

**Notes covering basis of DTC (Relevant test report etc)**

REFER TO NJA CONSULTING REPORT - REFERENCE No. 12106-048-01:DMcD

REFER TO JAMES COOK UNIVERSITY - CYCLONE TESTING STATION - REPORT No. TS904 "SIMULATED WIND LOAD TESTING OF EZIROLL ROLLER SHUTTER 115 STEEL 1.0mm WITH STANDARD WIND LOCKS" AND TS900 "SIMULATED WINDBORNE DEBRIS IMPACT TESTING OF EZIROLL SHUTTER 115 STEEL 1.0mm WITH STANDARD WIND LOCKS".

****Certifying Engineer's Certification**

Name: RONALD A. BELL
Registration Number: 60596 ES
Date: 10FEB2014
Signature:

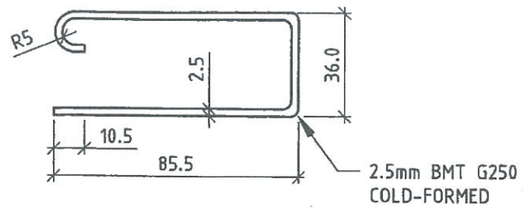
**registered as a structural engineer in Northern Territory*

***Design Engineer's Certification**

Name: DARREN McDONALD
Registration Number: 24619 ES
Date: 10 FEB 2014
Signature:

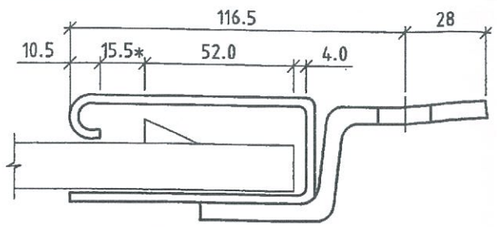
**registered as a structural engineer in Australia*

**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.**

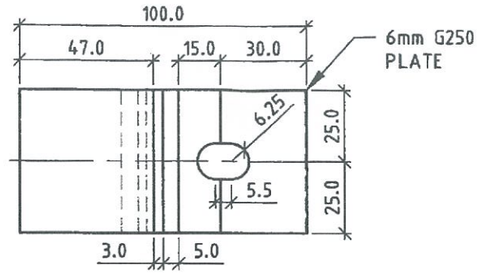



GUIDE PROFILE

SCALE 1:2

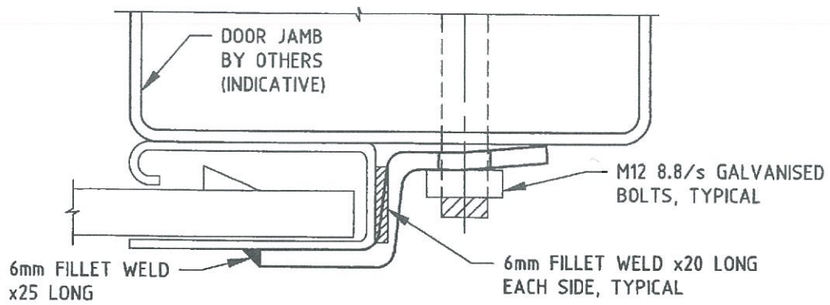



* DENOTES END FLOAT (15.5mm MIN.)




GUIDE LUG

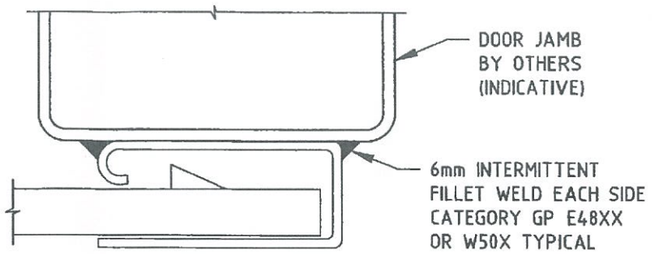
SCALE 1:2




BOLTED FIXING TO STEEL JAMB

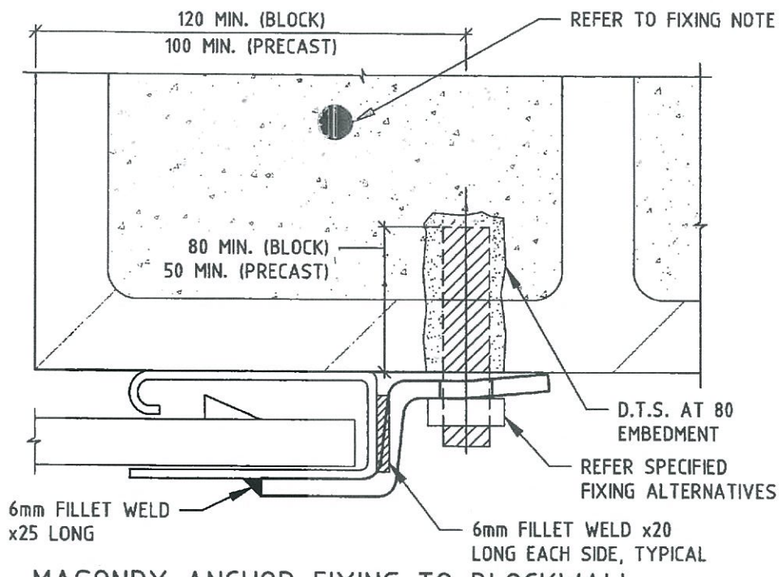
SCALE 1:2

NOTE: NO WELDING REQUIRED




WELDED FIXING TO STEEL JAMB

SCALE 1:2




MASONRY ANCHOR FIXING TO BLOCKWALL OR PRECAST PANEL

SCALE 1:2

FIXING TO BLOCKWALL (MIN 200 SERIES)
M12 GALV. TRUBOLTS, RAMSET PART # T12140GH.
M12 GALV. ANKASCREWS, RAMSET PART # AS12100HGH.
M12 GALV. CHEMSETS, RAMSET PART # CS12160GH.
M12 8.8/s GALVANISED THROUGH BOLTS WITH 50x3 PLATE WASHERS

FIXING TO PRECAST PANEL (MIN 125THK)
M12 GALV. TRUBOLTS, RAMSET PART # T12100GH
M12 GALV. ANKASCREWS, RAMSET PART # AS12075HGH.
M12 GALV. CHEMSETS, RAMSET PART # CS12160GH.
M12 8.8/s GALVANISED THROUGH BOLTS WITH 50x3 PLATE WASHERS

FIXING NOTES:
1. FOR FASTENER SPACINGS REFER DOOR MATERIALS TABLE ON SHEET 1.
2. OTHER PROPRIETARY ANCHOR SYSTEMS MAY BE USED PROVIDING THAT THEY CAN SUPPLY THE REACTIONS SPECIFIED ON SHEET 1.
3. A VERTICAL REINFORCING BAR SHALL BE LOCATED BETWEEN THE FASTENER AND THE DOOR DAYLIGHT OPENING, REFER TO ENGINEER IF OTHERWISE.
4. CHEMSET ANCHORS SHALL BE INSTALLED USING MAXIMA SPIN CAPSULES OR CHEMSET 801 EPOXY ADHESIVE.
5. THIS DRAWING DOES NOT PRECLUDE FIXING OF THE DOOR GUIDES TO OTHER FORMS OF PRIMARY BUILDING STRUCTURE INCLUDING COLD-FORMED STEEL. SUBJECT TO THE ADJACENT DESIGN CRITERIA

GENERAL 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 ZINCALUME, GALVANISING OR OTHER APPROVED COATING SYSTEM.
5. ALL WELDED CONNECTIONS SHALL BE COLD GALVANISED

**Product name**
EZIROLL ROLLER SHUTTER 115 STEEL 1.0mm WITH STANDARD WIND LOCKS

**Product Description**
ROLLER SHUTTER DOORS WITH PRESSED WIND LOCKS

**Manufacturer's Name**
EZIROLL DOORS AUSTRALIA PTY LTD
PH (07) 3260-1080

## Design Criteria

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## Limitations

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4. THE ROLLER SHUTTER INSTALLATION SHALL BE SURFACE TREATED AS REQUIRED IN ORDER TO COMPLY WITH THE DURABILITY REQUIREMENTS OF THE BCA FOR THE ACTUAL SITE EXPOSURE CONDITIONS.
5. PROPRIETARY MASONRY ANCHORS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.

**Accepted for Inclusion**

DTCM ref: m/422/2 SHEET 2 OF 2

Chairman's Signature:

Chairman's Name: STEVEN J. EHRLICH

Date of Approval: 5-6-14 Expiry Date: 5-6-19

**Notes covering basis of DTC (Relevant test report etc)**

REFER TO NJA CONSULTING REPORT - REFERENCE No. 12106-048-01:DMcD

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