

SentryPanel PS1

Rev: 4.0

Issue Date: 06/08/2025

DATE: 04/09/2025

JOB REF: 25072061-04

REVISION: C

CHECKED & APPROVED BY BREVITY LTD.

MATT BISHOP, CMENGNZ, CPENG

#243276

Brevity

Application

Engineering specifications & installation details for compliance with **NZBC B1, F4 & F9**

Barrier specification selection guide

Clause F4 'Safety from Falling' of the New Zealand Building Code requires building areas to be constructed to reduce the likelihood of accidental falls. Specifically, barriers are required where people could fall one metre or more.

Barriers need to be designed and constructed so that they are capable of providing the strength and stiffness necessary for the proposed location and occupancy type of the property which they serve. Evidence of the suitability of the barrier system for its proposed use, needs to be provided when making a

building consent application. This producer statement provides the assurance that Boundaryline product specifications and installation details have been pre-approved by Chartered Professional Engineers and comply with all NZBC B1, F4, F9 requirements.

It is important that your selected barrier design is appropriate to the specific installation location and intended use. Use this guide to determine your specific barrier design and installation details.

Generic Producer Statement

This is a generic Producer Statement, issued to Terranota Ltd, which provides the assurance that the proprietary products detailed in this document have been structurally engineered to comply with the New Zealand Building Code and the building code clauses as detailed, and for the application(s) as described in this document.

The fencing components detailed in this Producer Statement are proprietary products, engineered to comply with the requirements of the stated building code clause. Of equal importance is the detail of the fixing method to ensure the correct installation of the proprietary components. To this end, most common installation applications have been illustrated with appropriate details to ensure a safe and compliant fence/balustrade.

The structure (or ground conditions) to which the proprietary components are installed is the responsibility of the installer or end user, and it is recommended that an independent

engineer is engaged to confirm the compliance of the structure (or ground condition) with the New Zealand Building Code. Where relevant, and when critical to the compliance of the proprietary components, this producer statement details specific requirements of the structure (or ground conditions) as a minimum standard.

It is the installer or end user's responsibility to ensure the proprietary components are installed accurately to the detail provided. If your particular structure design or application is not covered in the details provided, then this generic producer statement cannot be applied to your installation. In this instance, please contact Boundaryline to discuss a custom-engineered solution that will meet your requirements.

How to use this document

This producer statement includes details for a variety of designs and applications, to ensure you get the right panel and fixing details for your application, please follow the instructions below:

- Step 1.** Check the Design Loading that applies to your application, (see Table 1). There are different design loadings and minimum barrier heights that apply to various occupancy types and scenarios.
- Step 2.** Using Table 2, you will be able to see what Panel styles are able to be used with the Loading identified in Step 1. This will also give you the Maximum post centre you can install this panel at and will direct you to the Panel Drawing page.
- Step 3.** On the applicable Panel drawing, take note of how the panel is installed and what posts you can use, then follow the drawing numbers to see the approved post fixing details for the applicable Loading and Panel Style.
- Step 4.** In these pages you will find the fixing drawings that we have designed for most common applications, if the application that you are needing isn't shown here, please let us know and we can find a custom solution for you.

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Barrier Loading Selection

Where a barrier serves multiple occupancies, default to the highest loading requirement from all location scenarios.
For more information, please refer to www.buildin.govt.nz

Occupancy type	Building code clause	Specific use	Horizontal design loading	Minimum overall barrier height
A - Domestic	F9	Pool fence only	0.33kN	1.2m
A - Domestic	F4	All areas serving one dwelling but excluding balconies, decks & terraces, e.g., walkways, stairs & landings, & retaining walls not adjacent to a deck or terrace	0.35kN/m	1.0m 0.9m for stairs only
A - Domestic	F4	External balcony, decks, terraces, retaining walls & walkways in a multi-dwelling application, including open public spaces	0.75kN/m	1.0m single dwelling 1.1m multi dwelling
B & E - Offices & work areas including storage	F4	Access walkways, stairs & landings	0.35kN/m	1.1m
B & E - Offices & work areas including storage	F4	Areas including balconies, decks & terraces not susceptible to overcrowding	0.75kN/m	1.1m
C - Areas without obstacles for moving people & where people might congregate	F4	Areas including walkways, stairs & landings, balconies, decks & terraces not susceptible to overcrowding, including parks and reserves	0.75kN/m	1.1m

Table 1 - Barrier Loading Selection

Fixing types

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. To determine the corrosion zone for your installation location, please check maps in Figure 4.2 in NZS3604:201 (or online search ‘BRANZ Maps’). Use the table below to determine the appropriate fixing types required for your particular location.

Zone	Risk level & location	Fixing type
Zone B	Low risk	Hot dip galvanised
Zone C	Medium risk	Hot dip galvanised
Zone D	High risk, all offshore locations within 500m of coastline, including harbours, locations within 100m of tidal estuaries & sheltered inlets	316 stainless steel
Zone E	Very high risk, locations described in Zone D, beachfronts & seaside locations	316 stainless steel

Table 2 - Fixing Types

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Barrier Panel Selection





SentryPanel	Height	Code	Maximum Post Centre			Page
			F9 Pool Fencing	F4 – 0.35kN/m	F4 – 0.75kN/m	
 School Panel	1500mm	SAE1522-BK	2320mm*	1195mm	1195mm	5
	1800mm	SAE1822-BK	2320mm**	1195mm	1195mm	5
 School Panel Raking	1500mm	SER1524-BK	N/A	1195mm	1195mm	5
	1800mm	SER1824-BK	N/A	1195mm	1195mm	5
 Flat Top	1500mm	SAF1522-BK	2320mm*	1195mm	1195mm	6
	1800mm	SAF1822-BK	2320mm*	1195mm	1195mm	6
 Flat Top Raking	1500mm	SFR1524-BK	N/A	1195mm	1195mm	6
	1800mm	SFR1824-BK	N/A	1195mm	1195mm	6

Table 3 – Barrier Panel Selection

*See Page 7 for typical pool fence installation and requirements.

**Although this is a 1800h Panel it doesn't comply when installed as a pool barrier on a property boundary. Refer to note 2.2.1 d) of Building Code Acceptable Solutions F9/AS1 and F9/AS2 document.

For pool fencing: In case of extreme wind events, the fences will need to be inspected to ensure F9 – “restricting access to residential pools” compliance. Damaged fence components must be replaced before the fence can be safely utilized. Studio89 and Boundaryline assumes no liability from extreme wind events.

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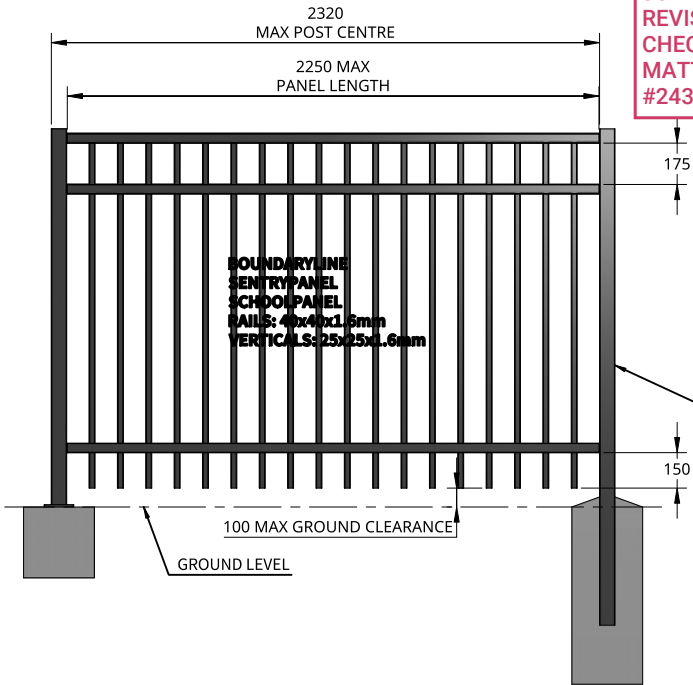
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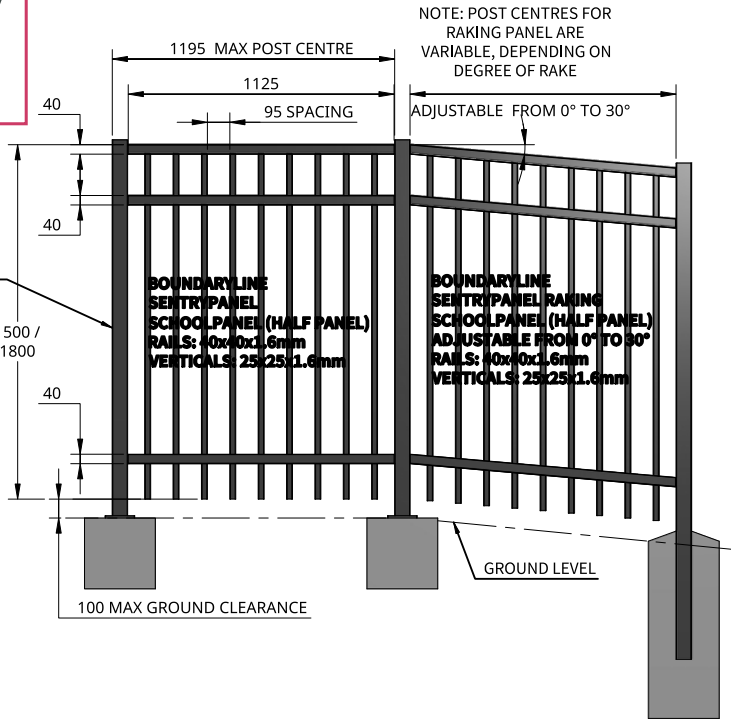
BOUNDARYLINE SENTRY PANEL SCHOOL PANEL
FENCE FOR F9 (POOL FENCE) APPLICATIONS

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BOUNDARYLINE SENTRY PANEL SCHOOL PANEL FENCE
FOR F4 - (FALL RESTRAINT BARRIER) APPLICATIONS



General Notes

1. All dimensions are in millimetres.
2. Drawings are not necessarily to scale
3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1997
2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

Corrosion Zones

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search 'BRANZ Maps') to determine the corrosion zone of the installation location and appropriate fixing option required.

Zone	Risk Level & Location	Fixing Type
Zone B	Low risk	Hot-dip Galvanised
Zone C	Medium risk	Hot-dip Galvanised
Zone D	High risk, all offshore islands, locations within 500m of coastline including harbours, locations within 100m of tidal estuaries and sheltered inlets.	316 Stainless Steel
Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Structure

1. Supporting structures as not covered by these drawings unless specific requirements are detailed.
2. Supporting structures are by others and must comply with the New Zealand Building Code.
3. If unsure of existing structure compliance, seek professional advice.



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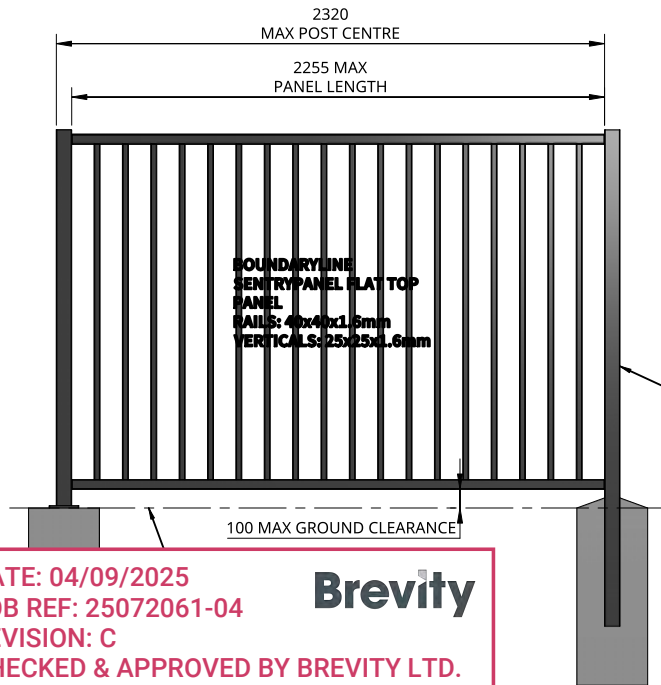
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TITLE
**BOUNDARYLINE
SENTRY PANEL
SCHOOL PANEL**

SCALE	SIZE	DRAWING NO
1:32	A4	SPS01
REV.	DATE ISSUED	SHEET
3	06/08/2025	5

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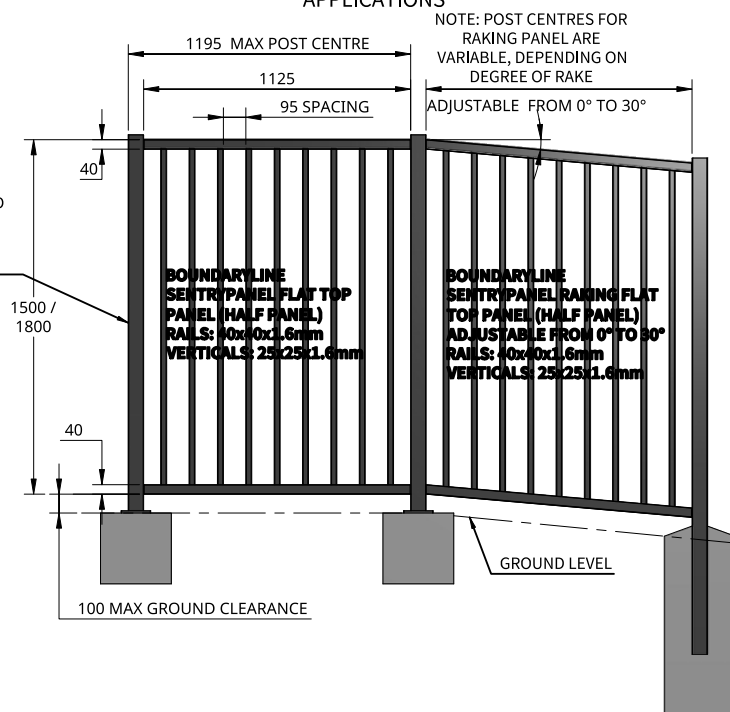
BOUNDARYLINE SENTRY PANEL FLAT TOP PANEL
FENCE FOR F9 (POOL FENCE) APPLICATIONS



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BOUNDARYLINE SENTRY PANEL FLAT TOP PANEL
FENCE FOR F4 - (FALL RESTRAINT BARRIER)
APPLICATIONS



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Fixing Notes

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2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

Corrosion Zones

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search 'BRANZ Maps') to determine the corrosion zone of the installation location and appropriate fixing option required.

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Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

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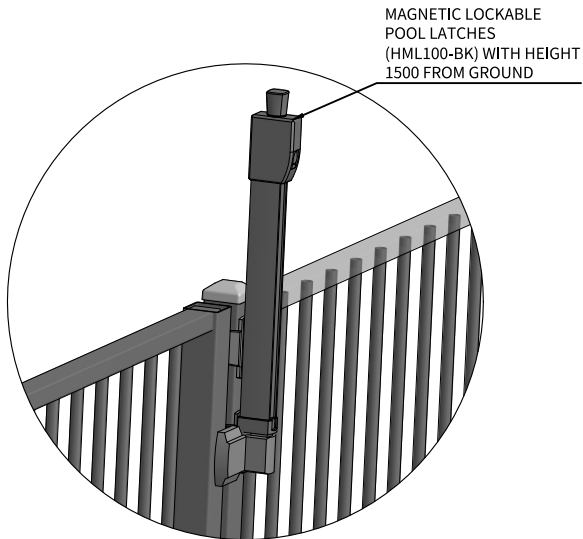
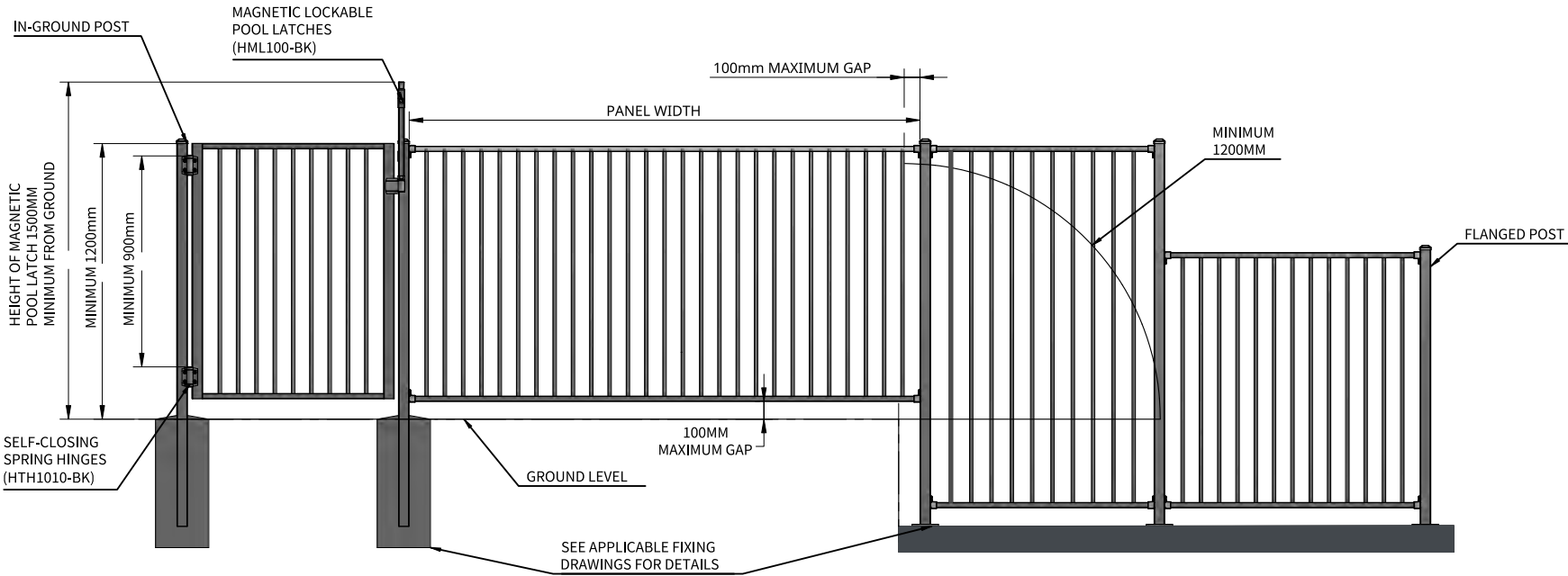
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TITLE
**BOUNDARYLINE
SENTRY PANEL FLAT TOP
PANEL**

SCALE	SIZE	DRAWING NO
1:32	A4	SPF01
REV.	DATE ISSUED	SHEET
3	06/08/2025	6

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BOUNDARYLINE SENTRY PANEL FENCE FOR F9
(POOL FENCE) APPLICATIONS



MAGNETIC LOCKABLE LATCHES (HML100-BK)
1:10

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Existing Support Structure

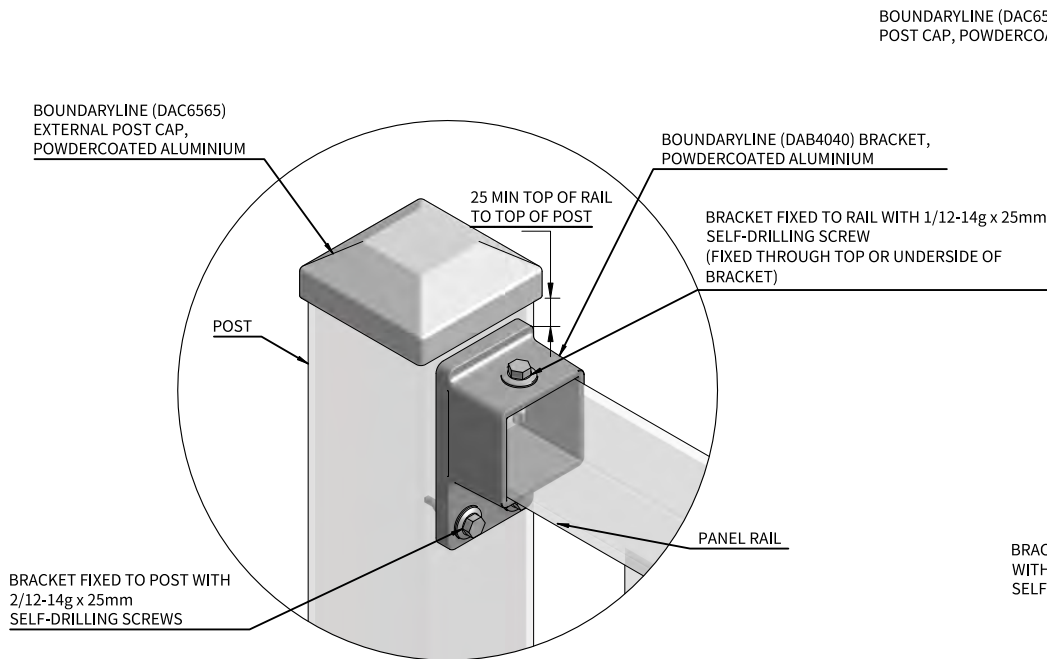
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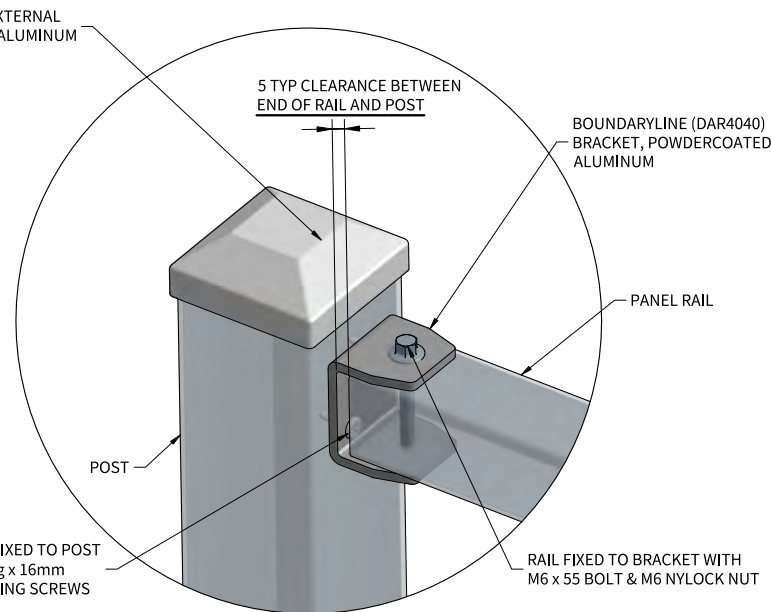
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TITLE
**BOUNDARYLINE
SENTRY PANEL TYPICAL
POOL FENCE INSTALL**

SCALE	SIZE	DRAWING NO
1:32	A4	PFI01
REV.	DATE ISSUED	SHEET
A	06/08/2025	7

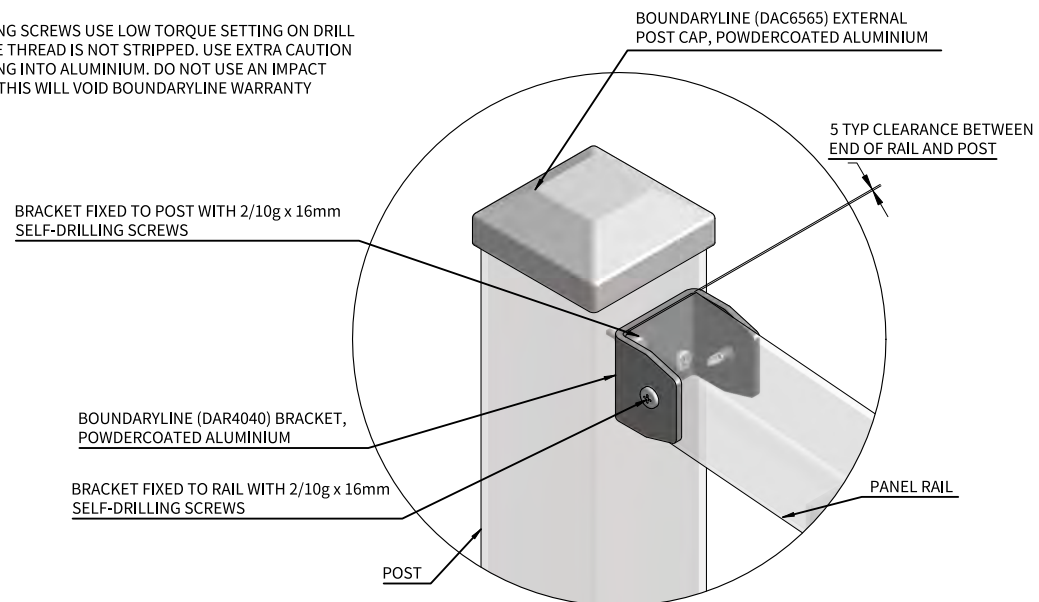


STANDARD PANEL BRACKET FIXING DETAIL
1:3



DIRECTIONAL PANEL BRACKET FIXING DETAIL
1:3

NOTE:
WHEN FIXING SCREWS USE LOW TORQUE SETTING ON DRILL
TO ENSURE THREAD IS NOT STRIPPED. USE EXTRA CAUTION
WHEN FIXING INTO ALUMINIUM. DO NOT USE AN IMPACT
DRIVER AS THIS WILL VOID BOUNDARYLINE WARRANTY



RAKING PANEL BRACKET FIXING DETAIL
1:3

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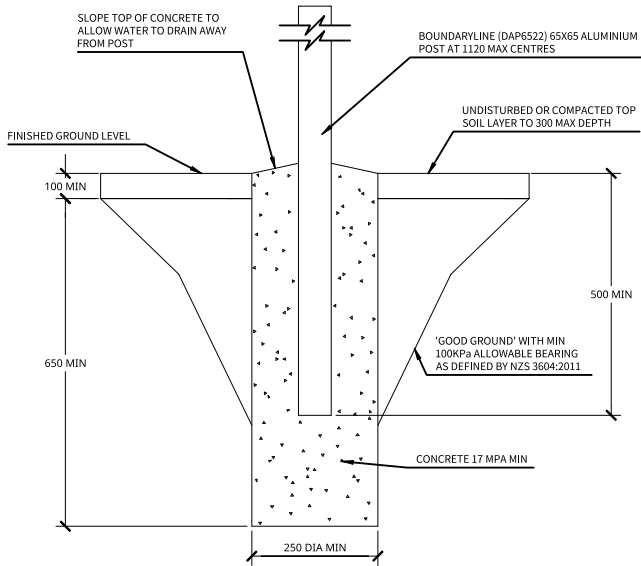
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TITLE

**BOUNDARYLINE
SENTRY PANEL RAIL
BRACKET DETAILS**

SCALE	SIZE	DRAWING NO
1:25	A4	SPB01
REV.	DATE ISSUED	SHEET
3	06/08/2025	8

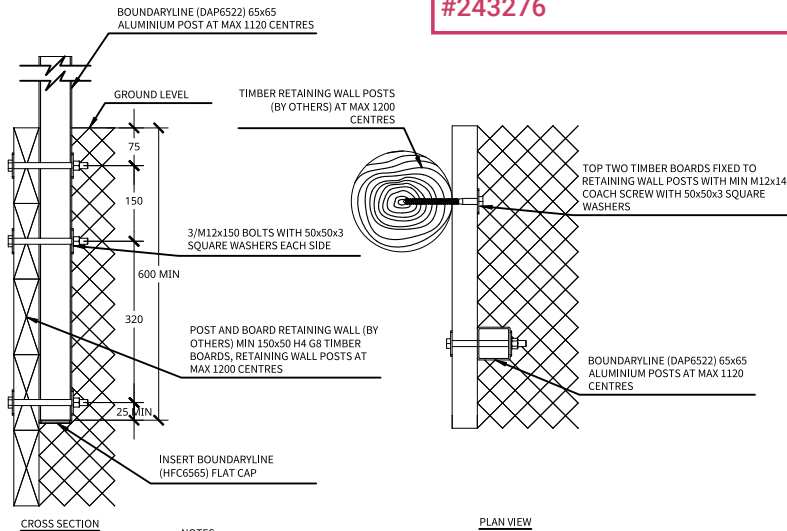


DRAWING NO: ICA657512
APPLICATION: CONCRETE IN-GROUND
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800

DATE: 04/09/2025
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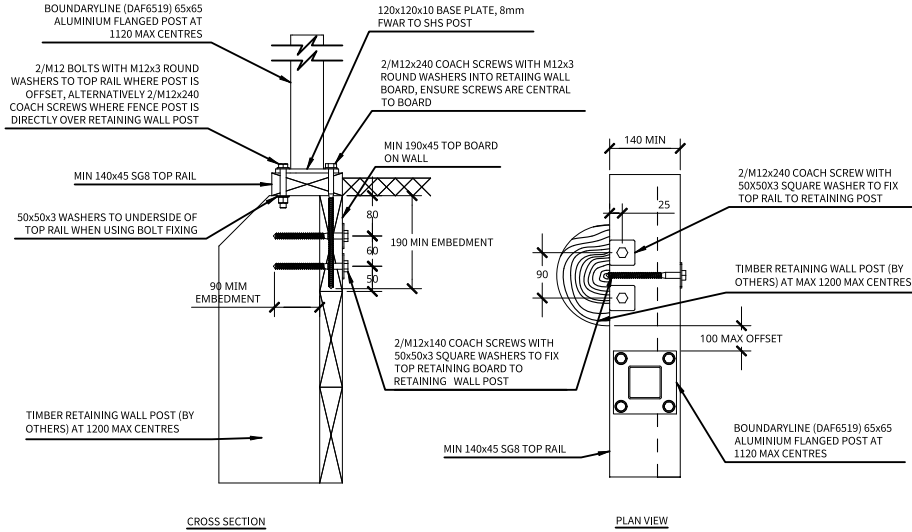
DRAWING NO: TRA657512
APPLICATION: TOP-FIX TO TIMBER RETAINING WALL
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST BOLT LENGTH TO SUIT.
ALL INGROUND FIXINGS TO BE STAINLESS STEEL OR GALVANISED WITH DPM PROTECTION

DRAWING NO: SRA657512-A
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800

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DRAWING NO: SRA657512-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800

NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST COACH SCREW LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STEEL

General Notes

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Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1993

2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

Corrosion Zones

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search 'BRANZ Maps') to determine the corrosion zone of the installation location and appropriate fixing option required.

Zone	Risk Level & Location	Fixing Type
Zone B	Low risk	Hot-dip Galvanised
Zone C	Medium risk	Hot-dip Galvanised
Zone D	High risk, all offshore islands, locations within 500m of coastline including harbours, locations within 100m of tidal estuaries and sheltered inlets.	316 Stainless Steel
Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Structure

1. All supporting structure by others and must comply with the New Zealand Building Code

2. If unsure of existing structure compliance, seek professional advice.

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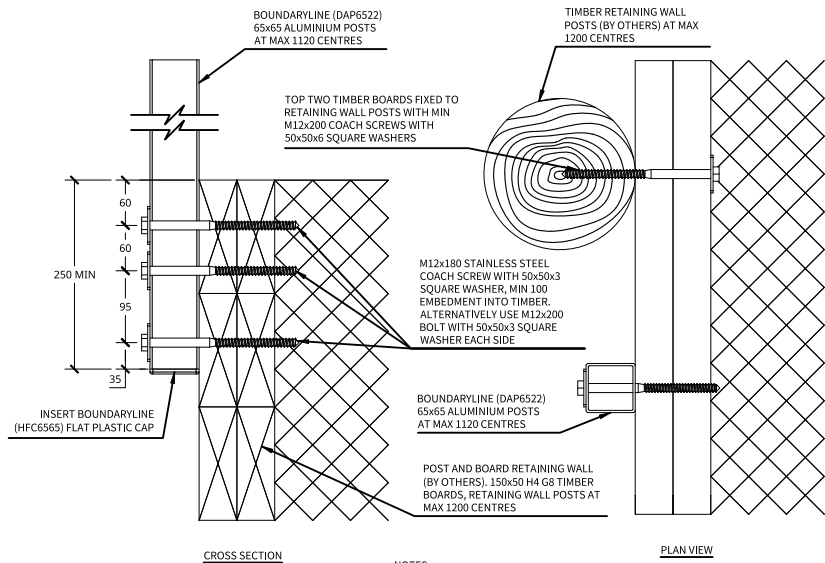
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TITLE
BOUNDARYLINE SENTRY PANEL
BARRIER FIXING DESIGNS FOR:
- CONCRETE IN-GROUND
- TIMBER RETAINING WALL

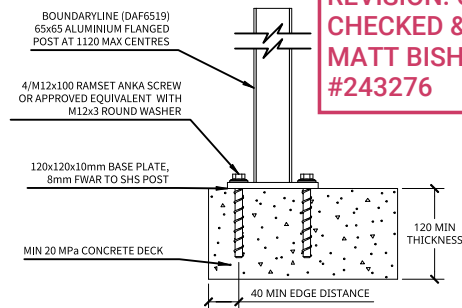
FOR 0.33kN, 0.35kN/m & 0.75kN/m LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

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1:15	A4	SEA657501
REV.	DATE ISSUED	SHEET
3	06/08/2025	9



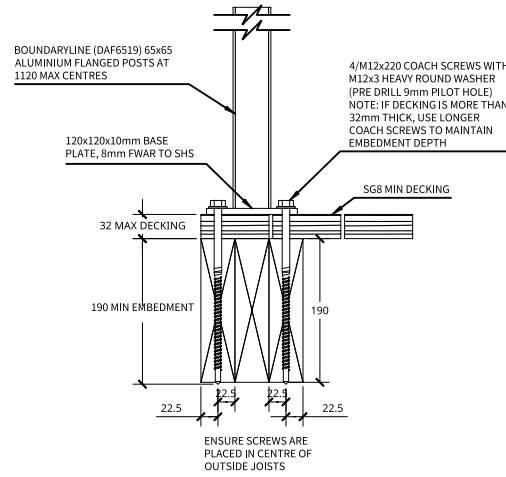
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APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL - DOUBLE BOARD (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



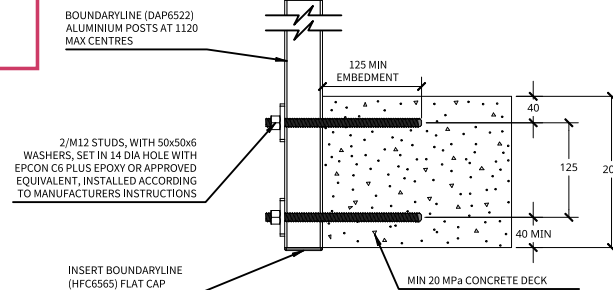
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APPLICATION: TOP-FIX TO CONCRETE DECK
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800

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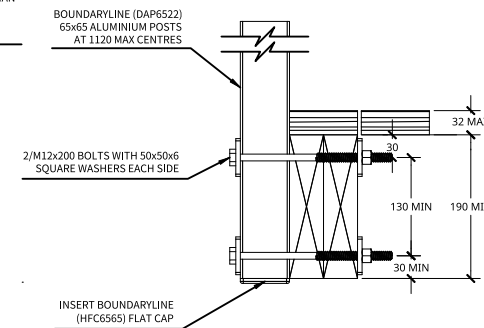
Brevity



DRAWING NO: TTA657512
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



DRAWING NO: SDA657512-A
APPLICATION: SIDE-FIX TO CONCRETE DECK (205 min THICKNESS)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



DRAWING NO: STA657512
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800

General Notes

1. All dimensions are in millimetres.

2. Drawings are not necessarily to scale

3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1993

2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

Corrosion Zones

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search 'BRANZ Maps') to determine the corrosion zone of the installation location and appropriate fixing option required.

Zone	Risk Level & Location	Fixing Type
Zone B	Low risk	Hot-dip Galvanised
Zone C	Medium risk	Hot-dip Galvanised
Zone D	High risk, all offshore islands, locations within 500m of coastline including harbours, locations within 100m of tidal estuaries and sheltered inlets.	316 Stainless Steel
Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Sturcture

1. All supporting structure by others and must comply with the New Zealand Building Code

2. If unsure of existing structure compliance, seek professional advice.

Boundaryline

Boundaryline Ltd.
60 Bastian Street, Invercargill
Phone: 0800 003 006
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz
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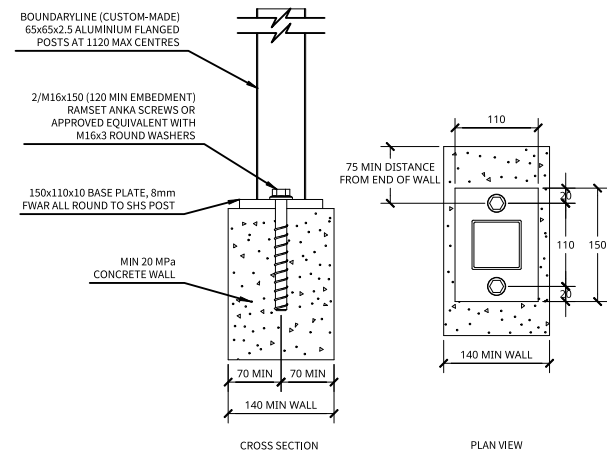
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TITLE:
BOUNDARYLINE SENTRY PANEL BARRIER
FIXING DESIGNS FOR:
- TIMBER RETAINING WALL (DOUBLE BOARD)
- TIMBER DECK
- CONCRETE DECK

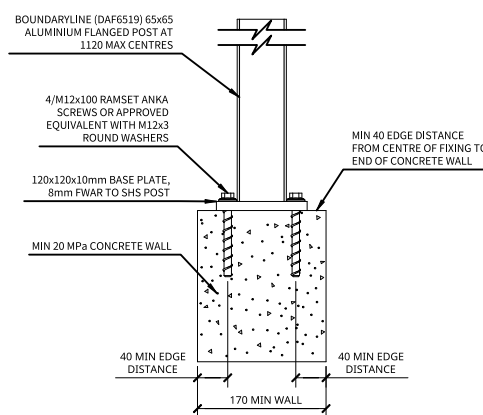
FOR 0.33kN, 0.35kN/m & 0.75kN/m LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

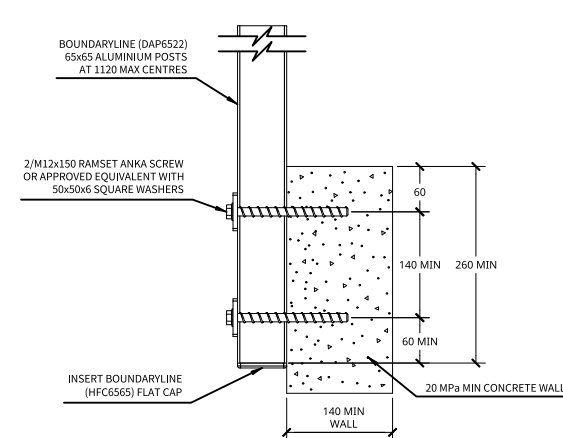
SCALE	SIZE	DRAWING NO
1:10	A4	SEA657502
REV.	DATE ISSUED	SHEET
3	06/08/2025	10



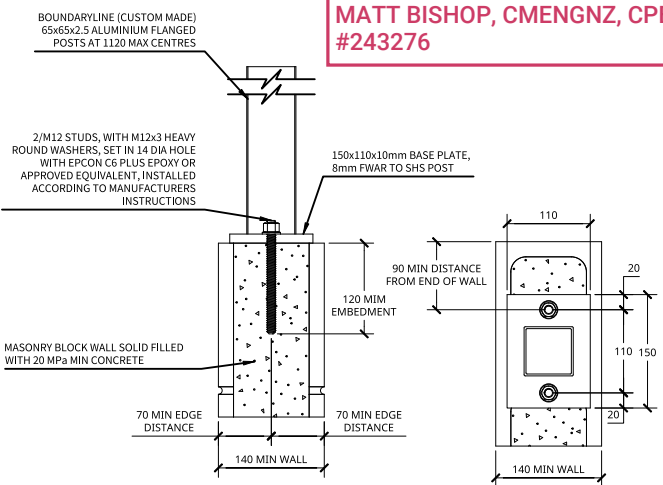
DRAWING NO: TWA657512-A
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



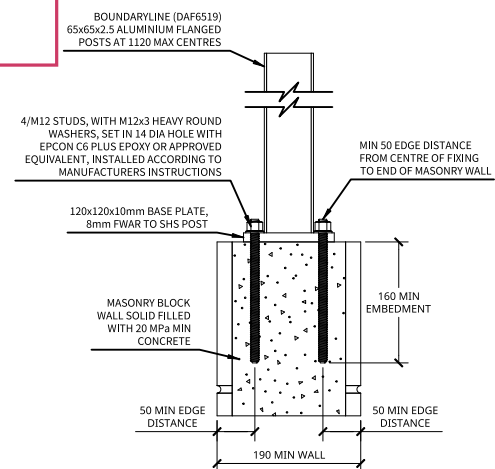
DRAWING NO: TWA657512-B
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



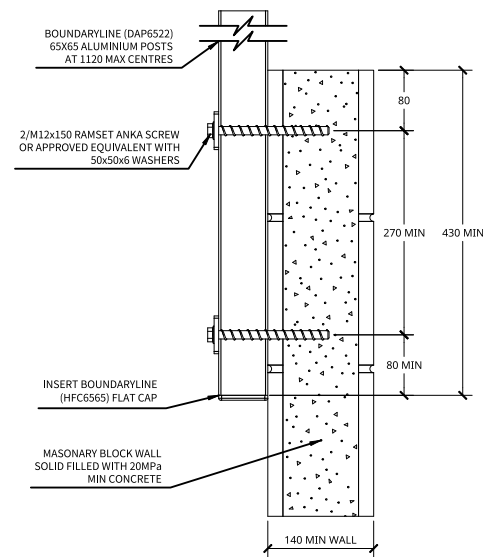
DRAWING NO: SWA657512
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



DRAWING NO: TMA657512-A
APPLICATION: TOP-FIX TO MASONRY WALL (15 SERIES)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



DRAWING NO: TMA657512-B
APPLICATION: TOP-FIX TO MASONRY WALL (20 SERIES)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800



DRAWING NO: SMA657512
APPLICATION: SIDE-FIX TO MASONRY WALL (15 SERIES)
LOADING: 0.33kN [F9] AT MAX 2320 POST CENTRES
LOADING: 0.35kN/m AT MAX 1195 POST CENTRES
LOADING: 0.75kN/m AT MAX 1195 POST CENTRES
HEIGHTS: 1500, 1800

DATE: 04/09/2025
JOB REF: 25072061-04
REVISION: C
CHECKED & APPROVED BY BREVITY LTD.
MATT BISHOP, CMENGNZ, CPENG
#243276

Brevity

General Notes

1. All dimensions are in millimetres.

2. Drawings are not necessarily to scale

3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1993

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There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search '*BRA NZ Maps*') to determine the corrosion zone of the installation location and appropriate fixing option required.

Zone	Risk Level & Location	Fixing Type
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Existing Support Sturcture

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2. If unsure of existing structure compliance, seek professional advice.

Boundaryline

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TITLE

BOUNDARYLINE SENTRY PANEL BARRIER
FIXING DESIGNS FOR:
- CONCRETE WALL
- MASONRY WALL

FOR 0.33kN, 0.35kN/m & 0.75kN/m
LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	SEA657503
REV.	DATE ISSUED	SHEET
3	06/08/2025	11

DATE: 04/09/2025
JOB REF: 25072061-04

Brevity

REVISION: C
CHECKED & APPROVED BY BREVITY LTD.
MATT BISHOP, CMENG NZ, CPENG
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[boundaryline.co.nz](https://www.boundaryline.co.nz)



NZBC Clause B1 Structure - Design

Design Review of Aluminum Balustrades

Project number: 25072061-04C

Client name: Boundaryline Limited

Date: 04/09/2025

Expiry Date: 04/09/2026

Location: Various Locations

Level 9, 4 Williamson Avenue, Ponsonby
Cider Building, Auckland 1021, New Zealand

p: +64 9 216 7104
e: info@teambrevity.com



association of
consulting
engineers



PRODUCER STATEMENT – PS1 DESIGN

BUILDING CODE CLAUSE(S): B1, F4 & F9

JOB NUMBER: 25072061-04C

ISSUED BY: Brevity Ltd

(Engineering Design Firm)

TO: Boundaryline Limited

(Owner/Developer)

TO BE SUPPLIED TO: -

(Building Consent Authority)

IN RESPECT OF: Brevity Report # 25072061-04C Design of Boundaryline DuraPanel Sentry Panel

(Description of Building Work)

AT: Various Location

(Address, Town/City)

LEGAL DESCRIPTION: Lot no. -

DP no. -

N/A ☐

We have been engaged by the owner/developer referred to above to provide (Extent of Engagement): Design Consultancy for Structural and Seismic Design of Boundaryline DuraPanel Sentry Panel

in respect of the requirements of the Clause(s) of the Building Code specified above for Part only, as specified in the Schedule, of the proposed building work.

The design carried out by us has been prepared in accordance with:

- ☒ Compliance documents issued by the Ministry of Business, Innovation & Employment (Verification method/acceptable solution) B1/VM1 - F4/AS1 - F9/AS1 and/or;
- ☒ Alternative solution as per the attached Schedule.

The proposed building work covered by this producer statement is described on the drawings specified in the Schedule, together with the specification, and other documents set out in the Schedule.

On behalf of the Engineering Design Firm, and subject to:

- Site verification of the following design assumptions: refer to attached report
- All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that:

- the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the Schedule, will comply with the relevant provisions of the Building Code and that;
- the persons who have undertaken the design have the necessary competency to do so.

I recommend the CM 2 level of **construction monitoring**.

I, (Name of Engineering Design Professional) **Matt Bishop**, am:

- ☒ CPEng number 243276

and hold the following qualifications **BE (Hons)**

The Engineering Design Firm holds a current policy of Professional Indemnity Insurance no less than \$200,000

The Engineering Design Firm is a member of ACE New Zealand.

SIGNED BY (Name of Engineering Design Professional): Matt Bishop

(Signature below):

Issue Date 04/09/2025

Expiry Date: 04/09/2026

ON BEHALF OF (Engineering Design Firm): Brevity Ltd

Note: This statement has been prepared solely for the Building Consent Authority named above and shall not be relied upon by any other person or entity. Any liability in relation to this statement accrues to the Engineering Design Firm only. As a condition of reliance on this statement, the Building Consent Authority accepts that the total maximum amount of liability of any kind arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in tort or otherwise, is limited to the sum of \$200,000.

This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.

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2. Design Methodology and Loading	4
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Document Revision History

Rev	Date	Revision details	Author	Approved
A	27/08/2025	For Consent	CE	MB
B	02/09/2025	Updated Document	RK	MB
C	04/09/2025	Updated Company Name	CE	MB

1. Overview

Brevity has been engaged by Terranota Ltd T/a Fentec Group Limited to provide a Chartered Engineer's PS1 – Design Review for the Aluminum Balustrades for Global Design, for various locations in New Zealand. This report summarizes the engineering design criteria and records, key decisions, and outcomes as per NZ standards.

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This report has been prepared by Brevity on the specific instructions of our client. It is solely for our client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Brevity has not given its prior written consent, is at that person's risk.

2. Design Methodology and Loading

In accordance with the New Zealand Building Code Section B1 by Specific Engineering Design to B1, F4, and F9 by specific engineering design to VM1 and AS1 the engineering system was checked to the following loading standards:

- AS/NZS 1170 Series
- NZS 3404: Part 1:1997
- AS/NZS 1664.1 :1997
- AS/NZS 1720.1:2022.

Based on the previous project for this type of structure, wind is the key factor influencing the design.

4. Our Contact Details

Engineer's contact details for this report

Contact	Contact details
This report was prepared by	Chrismagne Elikana
Email	engineering@teambrevity.com

Auckland office

Contact	Contact details
Main office phone	+64 9 216 7104
Email for all enquiries	info@teambrevity.com
Mailing address	Level 9, 4 Williamson Avenue, Ponsonby Cider Building, Auckland 1021, New Zealand