Boundaryline

SentryPanel PS1

Rev: 3.0 Issue Date: 20/06/2024

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.

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, balconeis, 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 galvinised			
Zone C	Medium risk	Hot dip galvinised			
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					

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







IMPORTANT: THIS DESIGN AND ASSOCIATED DESIGN PRODUCER STATEMENTS ARE ONLY RELEVENT FOR PROPRIETARY BOUNDARYLINE PRODUCTS; ANY PRODUCT SUBSTITUTIONS WILL INVALIDATE THE PRODUCER STATEMENT

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DRAWING NO: TMA657512-A APPLICATION: TOP-FIX TO MASONARY 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 MASONARY 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 MASONARY WALL (15 SERIES) LOADING: 0.33kN [P9] 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

3 2024-06-18 11

DATE ISSUE

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

Α4

DRAWING NO

SEA657503

LOADING

1:10

SCALE

REV

General Notes





PRODUCER STATEMENT – PS1 DESIGN

BUILDING CODE CLAUSE(S): B1 F4 F9	JOB NUMBER: 589-0359	
ISSUED BY: STUDIO89 GROUP PTY LTD		
(Engineering Design Firm)		,
TO: BOUNDARYLINE		
(Owner/Developer)		
TO BE SUPPLIED TO: VARIOUS COUNCILS ACROSS NEW ZEALAND		
(Building Consent Authority)		,
IN RESPECT OF: FENCE AND BALUSTRADE - SENTRYPANEL		
(Description of Building Work)		
AT: VARIOUS LOCATIONS ACROSS NEW ZEALAND		
(Address, Town/City)		
LEGAL DESCRIPTION:	N	I/A 🗌

We have been engaged by the owner/developer referred to above to provide (Extent of Engagement): VERIFICATION OF SENTRYPANEL MEMBERS AND FIXINGS 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: SEE ATTACHED DOCUMENTS •
- 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 following level of construction monitoring: As per building consent as a minimum

I, (Name of Engineering Design Professional) TINUS SMITH • CPEng number 1163700

and hold the following qualifications B.ENG, M.ENG

The Engineering Design Firm holds a current policy of Professional Indemnity Insurance no less than \$200,000 The Engineering Design Firm is not a member of ACE New Zealand.

SIGNED BY (Name of Engineering Design Professional): TINUS SMITH (Signature below):

ON BEHALF OF (Engineering Design Firm): STUDIO89 GROUP PTY 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.

Date: VALID FROM 25/06/24

EXPIRES 24/06/25

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SCHEDULE to PS1

Please include an itemised list of all referenced documents, drawings, or other supporting materials in relation to this producer statement below:

P.1 - Cover Page

- P.2 Barrier specification selection guideP.3 Barrier loading guide
- P.4 Barrier panel selection
- P.5 to P.12 Drawings and Details P.12 P.13 PS1
- P.14 Last Page



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