

SMARTWALL

PS1

FOR: **BALUSTRADE FOR EXTERNAL BALCONIES**

Engineering Specifications and Installation Details for compliance with **NZBC B1, F4, F9**





association of
consulting and
engineering

Building Code Clause(s) B1, F4, F9

PRODUCER STATEMENT – PS1 – DESIGN

ISSUED BY: Hadley Consultants Limited
(Design Firm)

TO: Terranota Limited
(Owner/Developer)

TO BE SUPPLIED TO:
(Building Consent Authority)

IN RESPECT OF: Boundaryline SmartWall Fence Balustrades for 0.35kN/m and 0.75kN/m loading as specified
(Description of Building Work)

AT:
(Address)

Town/City: **LOT** **DP** **SO**
(Address)

We have been engaged by the owner/developer referred to above to provide:

Structural design checking for the Boundaryline Smart Wall fence system as a balustrade for loading up to 0.75kN/m and located >1km from the coast at various locations throughout New Zealand, subject to the attached schedule and BCA verification of the location and applicability. Note: BCA & address details above not entered by Hadley Consultants Limited.

(Extent of Engagement)

services in respect of the requirements of Clause(s) B1, F4, F9 of the Building Code for:

All or Part only (as specified in the attachment to this statement), 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 VM1/AS1 or
(verification method/acceptable solution)

Alternative solution as per the attached schedule.....

The proposed building work covered by this producer statement is described on the drawings titled:

SmartWall, refer attached schedule and numbered refer attached schedule; together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions refer attached schedule
- (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

CM1 CM2 CM3 CM4 CM5 (Engineering Categories)

I, Andrew Duncan Morris am: CPEng # 237078
(Name of Design Professional)

I am a member of: Engineering New Zealand and hold the following qualifications: BE(Hons), CMEngNZ, CPEng.....

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Firm is a member of ACE New Zealand:

SIGNED BY Andrew Duncan Morris (Signature) 
(Name of Design Professional)

ON BEHALF OF Hadley Consultants Limited Date 08/06/2021
(Design Firm)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), 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.
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACE NEW ZEALAND AND ENGINEERING NEW ZEALAND

PS1 – Design Producer Statement Schedule

Project : Terranota Producer Statements
Location : Throughout New Zealand, $\geq 1\text{km}$ from the coast
Job Number : 132469
Date : 08 June 2021

Description of Building Works Designed:

Structural design checking for the Boundaryline SmartWall Fencing system as balustrades up to 0.35kN/m and 0.75kN/m loading and Medium and High Wind Zones, at various locations throughout New Zealand and as referenced below.

The applicable requirements of the New Zealand Building Code, in particular, Clauses B1, F4 and F9 have, where the provisions of these Clauses are applicable, been met in the design. The structural design has been prepared using the following New Zealand Standards as Verification Methods and/or Acceptable Solutions as set out in the Building Code. These New Zealand Standards are NZS1170, NZS3404, NZS3603 and general engineering principles.

B2 Durability:

The design life of structural elements is 50 years. There is no effective verification method for B2 contained within the Building Code. Durability provisions of structural elements covered under B1 are achieved as follows:

Steel All structural members are Colourbond G550 steel. All steelwork is to be located so that it is easy to inspect and maintain the protective coating and replace elements if necessary.
Timber All timber is Micro Pro® treated timber and is covered by a 50 year Koppers® wood treatment guarantee.

Schedule of Documentation:

Refer attached detail by Boundaryline, Model name: Smartwall, dated: 24.04.2019.

Conditions:

The attached PS1 is also subject to;

1. This statement is based on generic design of the specified products, without specific knowledge of the location or intended use of the product at the site referred to. The Owner/Developer and Building Consent Authority must be satisfied the specified product and the corresponding Producer Statement and manufacturer's specifications are applicable to the situation in which the product is to be used,
2. Any ground at the site directly supporting the balustrade providing an allowable working bearing capacity of 100kPa minimum and meeting the definition of good ground as set out in NZS3604,
3. The heights of all fencing meeting the requirements of F4 (1m min for private domestic and 1.1m min elsewhere) and F9 (1.2m min to adjacent ground level at any angle) where required.
4. Any structure supporting the balustrade or retaining the ground to be in accordance with the Building Code Acceptable Solutions or subject to specific design,
5. The work covered by this statement being carried out in accordance with the manufacturer's installation specifications,
6. The work covered by this statement being inspected at appropriate times during construction by an approved Council Building Inspector as part of typical inspection regime,
7. Normal maintenance being carried out to maintain the steelwork protective coating throughout the 50yr design life, with particular care paid to the base of posts.

If you have any queries on any of the above please contact the undersigned in the first instance.

Hadley Consultants Ltd



Andrew Morris

CHARTERED PROFESSIONAL ENGINEER

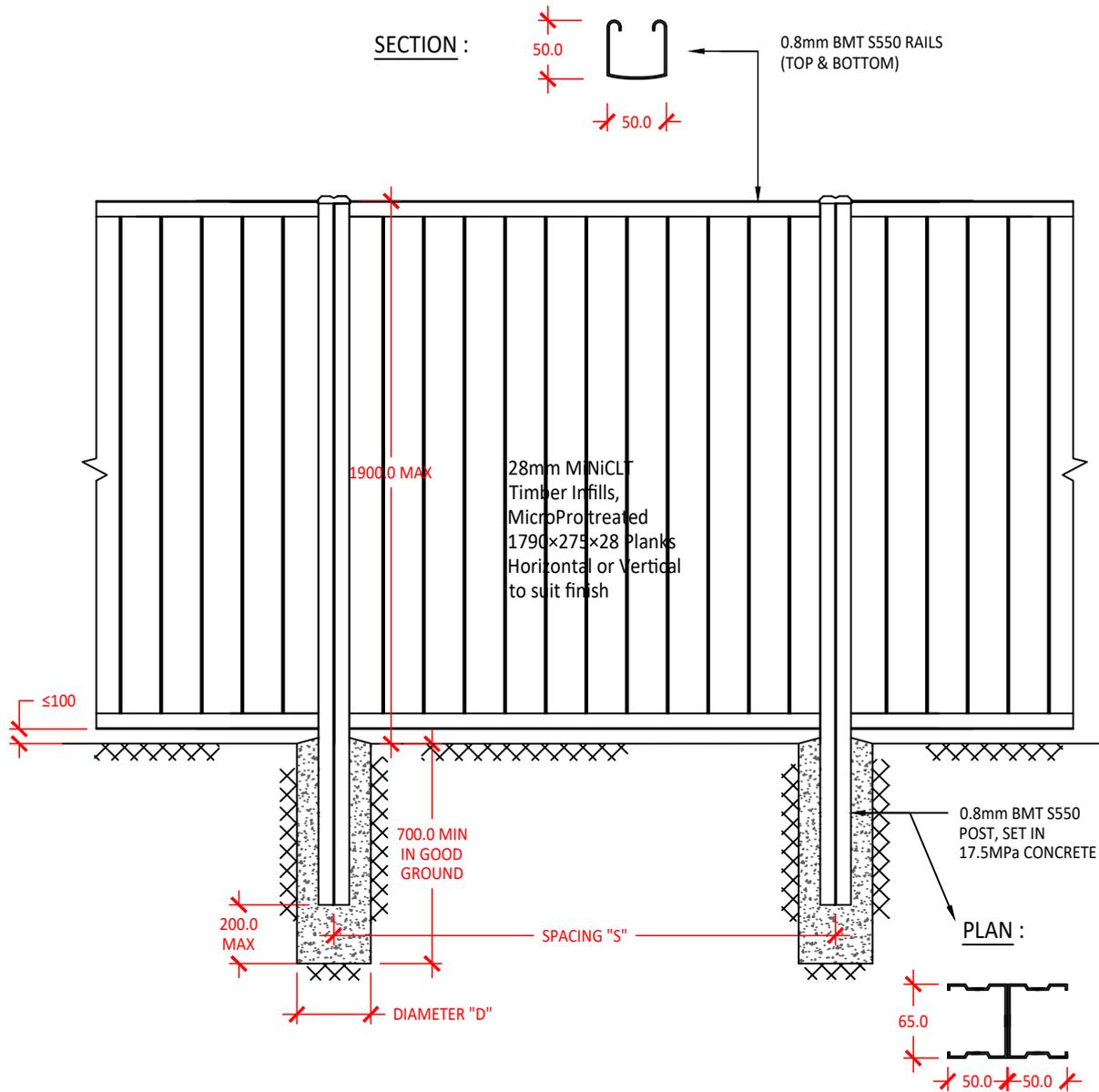


TABLE :

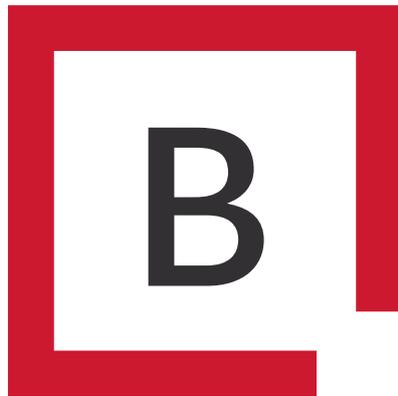
Wind Zone:	Barrier Load:	Spacing "S" (mm)	Diameter "D" (mm)
Low & Medium	0.35kN/m	$\leq 2250^*$	≥ 250
	0.75kN/m	≤ 1830	≥ 250
High	0.35kN/m & 0.75kN/m	≤ 1600	≥ 300

*Planks vertical if spacing $> 1.8\text{m}$

NOTES :

- 0.35kN/m, Type A, B & E, for access areas only, not adjacent decks or fences.
- 0.75kN/m, Type A, B, C3 & E, not suitable for non-residential susceptible to over crowding.
- SmartWall fence to be installed in strict accordance with Boundaryline Installation guide.
- Fence ends to have 65x65x2mm steel posts, or alternatively be $\leq 1.2\text{m}$ high or alternatively to have end spacing $\leq 1.2\text{m}$.

<p>Terranota Ltd. P.O. Box 1703 Invercargill 9703 Telephone: 0800 003 006 Email: enquiries@boundaryline.co.nz Website: www.boundaryline.co.nz</p>	MODEL					Issue Date	scale
	SmartWall					08-06-2021	1:16@A3
						Unless Otherwise specified	Revision
						All units in Millimeters Linear Tolerance +/- 0.5mm overall Angular Tolerance +/- 0.5mm overall	



 Boundaryline

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