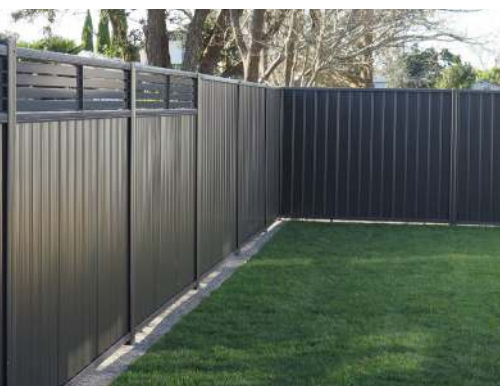


COLOURPANEL™
PS1

FOR: **POOL FENCING & FALL RESTRAINT BARRIERS**

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





Building Code Clause(s) B1, F4, F9

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.engineeringnz.org)

ISSUED BY: Hadley Consultants Limited
(Design Firm)

TO: Terranota Limited
(Owner/Developer)

TO BE SUPPLIED TO:
(Building Consent Authority)

IN RESPECT OF: Boundaryline Colourpanel 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 Colourpanel fence system as a balustrade for loading up to 0.75kN/m and located >1km from the coast. Also refer attached schedule.

(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 B1/VM1 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:

Boundaryline Durapanel Specifications and numbered; 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) or as per agreement with owner/developer (Architectural)

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

I am a member of: Engineering New Zealand NZIA and hold the following qualifications: BE(Hons), CPEngNZ, 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 ACENZ:

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

ON BEHALF OF Hadley Consultants Limited Date 09/09/2019
(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 ACENZ, ENGINEERING NEW ZEALAND AND NZIA

PS1 – Design Producer Statement Schedule

Project : Terranota Producer Statements
Location : Throughout New Zealand, ≥ 1 km from the coast
Job Number : 132469
Date : 09 September 2019

Description of Building Works Designed:

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

The applicable requirements of the New Zealand Building Code, in particular, Clauses B1, F4 & 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, 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.

Schedule of Documentation:

0.35kN/m loading with posts @2.4m crs, refer attached detail numbered 132469 – SK25 – Rev D.
0.75kN/m loading with posts @1.6m crs, refer attached detail numbered 132469 – SK26 – Rev D.
0.75kN/m loading with posts @2.4m crs, refer attached detail numbered 132469 – SK28 – Rev C.

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 minimum heights of all fencing meeting the requirements of F4 (1m min for private domestic and 1.1m min elsewhere) and F9 (1.2m min) 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.

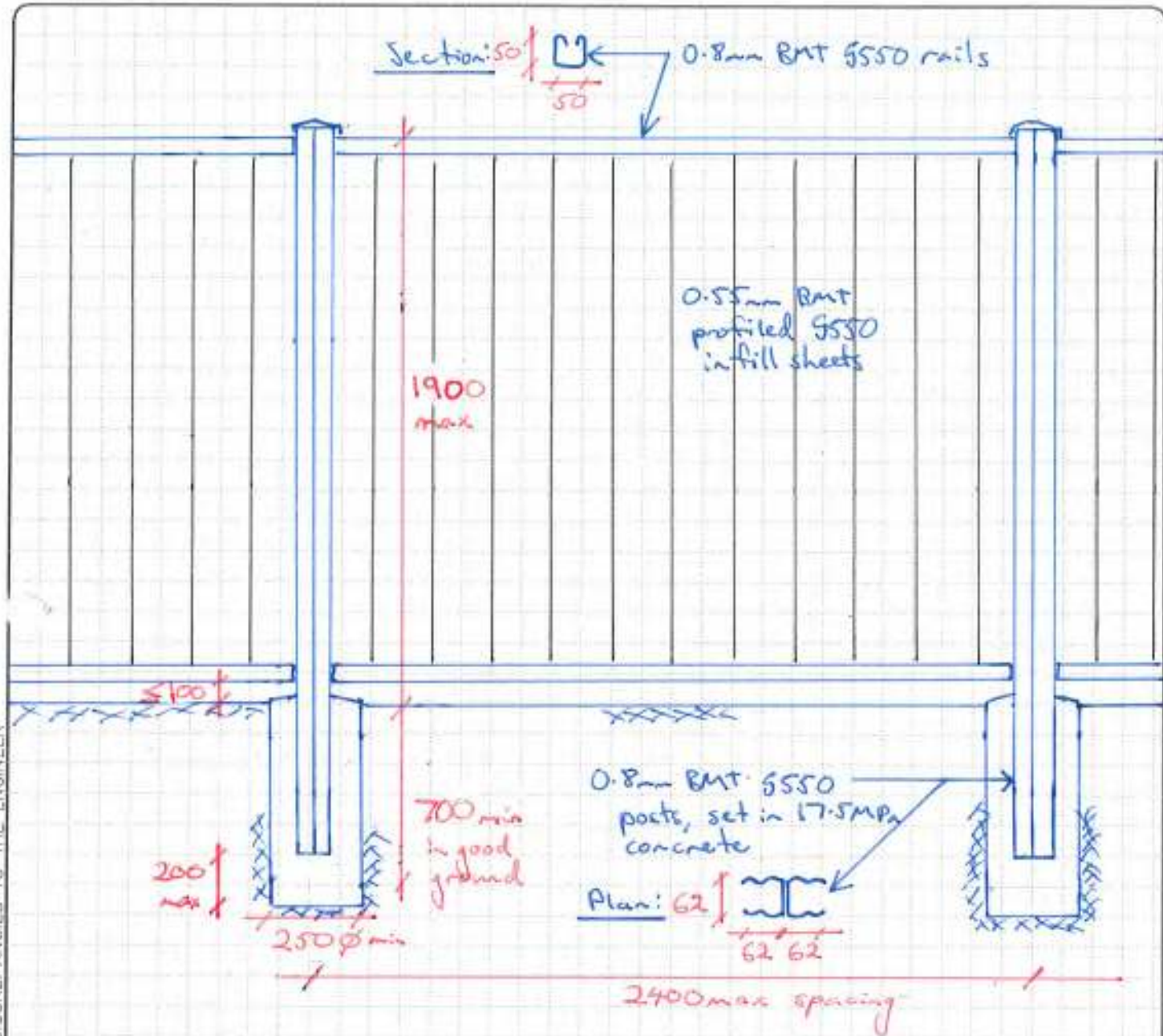
If you have any queries on any of the above please contact the undersigned in the first instance.

Hadley Consultants Ltd



Andrew Morris

CHARTERED PROFESSIONAL ENGINEER



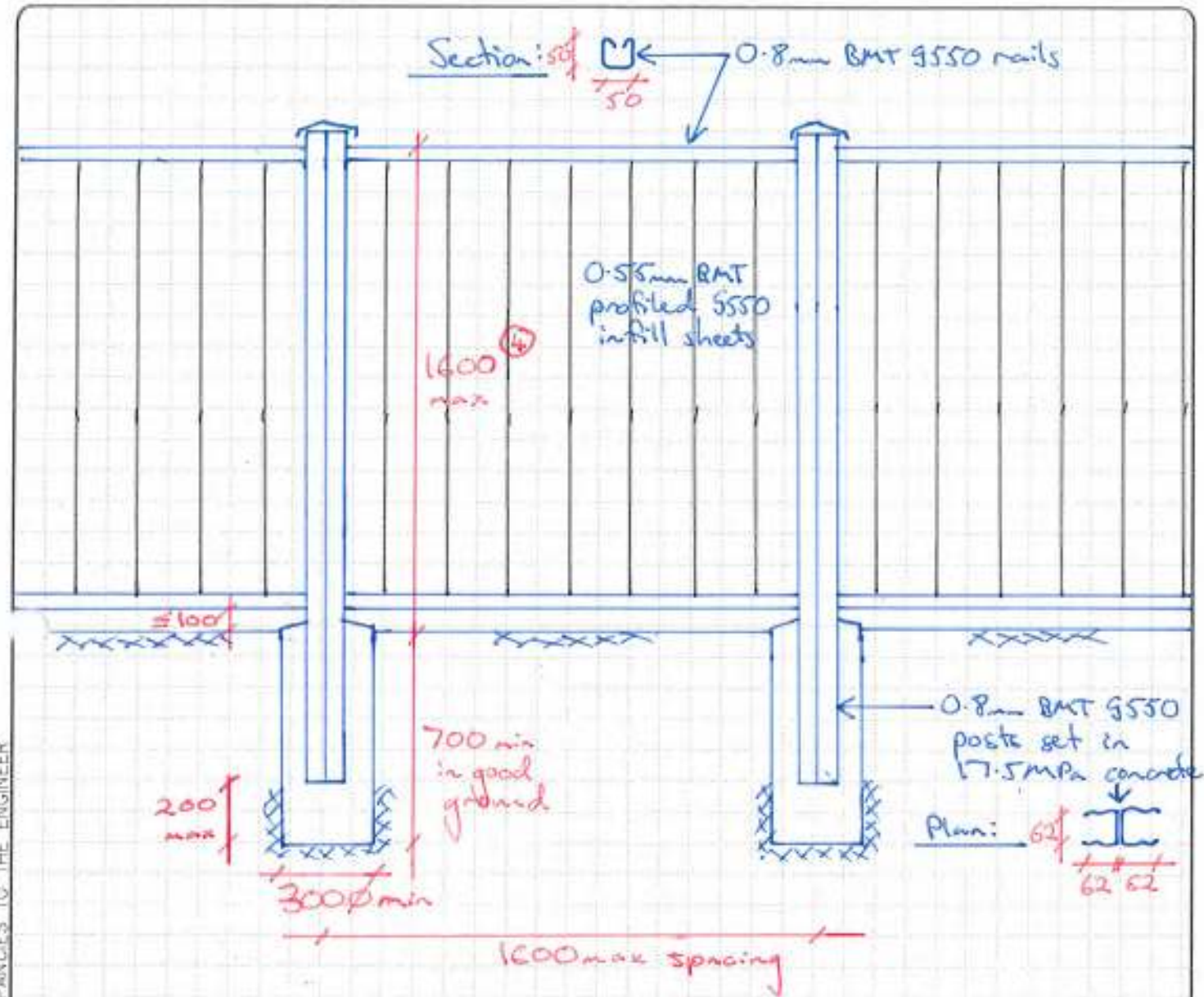
Notes:

- ① Barrier suitable for access areas of occupancy types A, B & E with $\leq 0.35 \text{ kN/m}$ top rail loading, not suitable adjacent decks or terraces susceptible to crowding.
- ② Colourpanel fence to be installed in strict accordance to Boundaryline Installation Guide.
- ③ Barrier suitable for wind zones Low & Medium. Free ends to have $65 \times 65 \times 2.0 \text{mm}$ steel posts, or be either $\geq 2 \text{m}$ high or endspacing to be $\geq 2 \text{m}$ wide

Date	Description	By	Rev
AOM 11/3/19	D Construction	AOM	1
AOM 28/11/18	C Construction	AOM	2
AOM 7/11/18	B Construction	AOM	3
AOM 17/10/18	A Construction	AOM	4

<p>Project: Boundaryline Barriers</p> <p>Site: Colourpanel 0.35kN/m Loading</p> <p>Client: Terracota Ltd</p>	 <p>CONSULTING ENGINEERS / STRUCTURAL / CIVIL / PROJECT MANAGEMENT / GEOTECHNICAL</p> <p>44 Rolston Road, PO Box 1316, Queenstown, New Zealand. P: +64 3 450 2140, F: +64 3 441 2813, W: www.hadley.com</p>	<p>This drawing is supplied on the understanding that the information contained herein will not be passed to any other party without written permission and being obtained from Hadley Consultants Ltd.</p>
<p>Drawn: AOM</p>	<p>Checked:</p>	<p>Scale: 1:20</p>
<p>Drawing No. 132469</p>		<p>Sheet: SK25 Total: D</p>

ORIGINAL SIZE A4 DO NOT SCALE. REFER ALL DISCREPANCIES TO THE ENGINEER



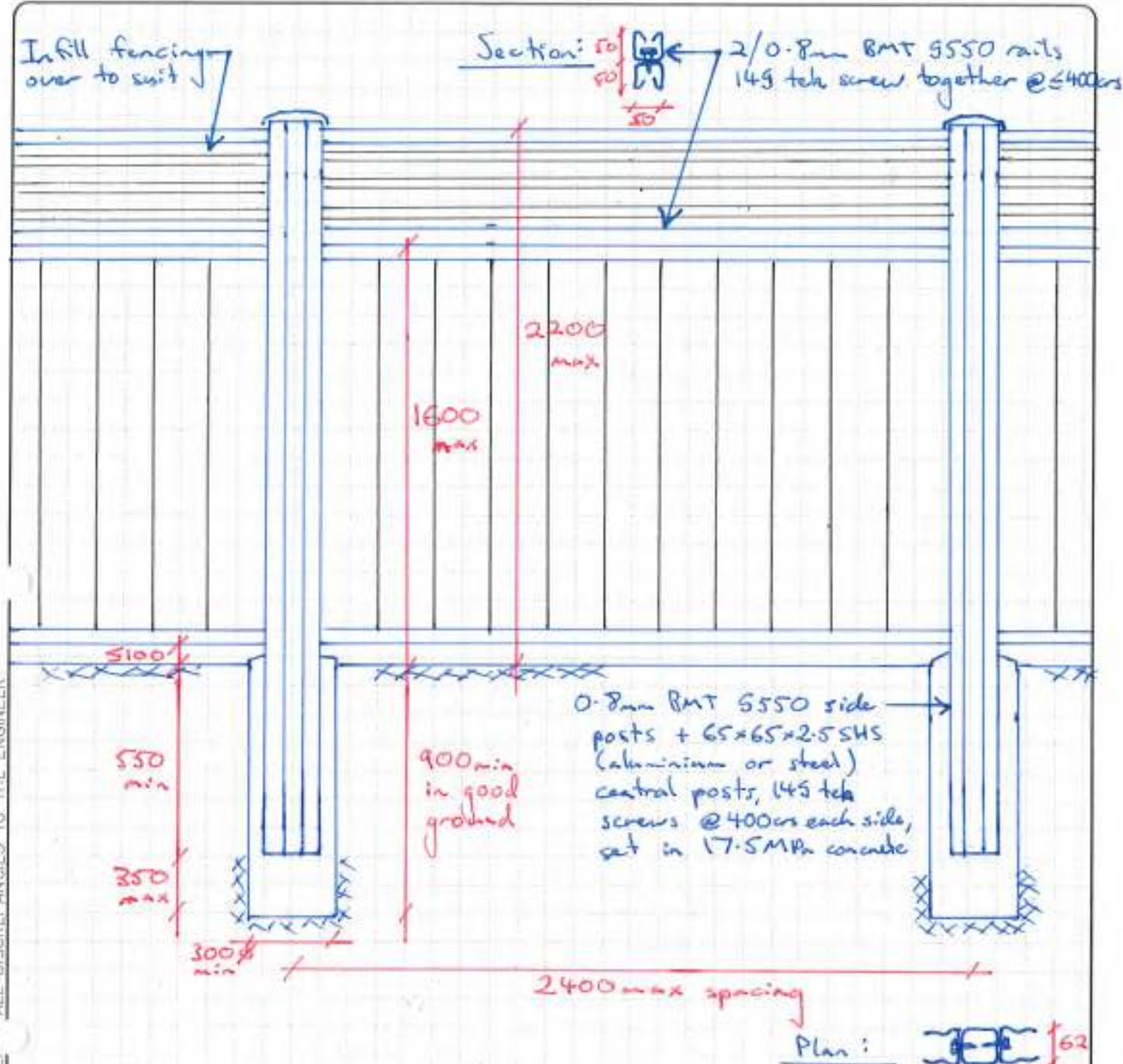
Notes:

- ① Barrier suitable for areas of occupancy types A, B, C3 & E with $\leq 0.75 \text{ kN/m}$ top rail loading, not suitable for non-residential areas susceptible to over crowding
- ② Coloupanel fence to be installed in strict accordance to Boundaryline Installation Guide.
- ③ Barrier suitable for wind zones Low, Medium & High. Free ends to have $65 \times 65 \times 2.0 \text{mm}$ steel posts, or alternatively be $\leq 1.2 \text{m}$ high or end spacing to be $\leq 1.2 \text{m}$ wide

D Construction	ADM 11/3/19
C Construction	ADM 28/11/18
B Construction	ADM 7/4/18
A Construction	ADM 17/10/18

Project: Boundaryline Barriers The: Coloupanel 0.75kN/m loading				This drawing is supplied on the understanding that the information contained herein will not be passed to any other party without written permission first being obtained from Hadley Consultants Ltd.	
Client: Terranote Ltd		hadley consultants LTD <small>ANALYSIS / DESIGN / STRUCTURAL / CIVIL / PROJECT MANAGEMENT / GEOLOGICAL</small> <small>42 Roling Road, PO Box 1004, Okara, New Zealand, P: +64 3 458 2148, F: +64 3 441 0010, W: www.hadley.co.nz</small>		Drawn: ADM Checked: Date: 1:20 Drawing No: 132469 Sheet: SK26 Issue: D	

ORIGINAL SIZE A4 DO NOT SCALE, REFⁿ ALL DISCREPANCIES TO THE ENGINEER

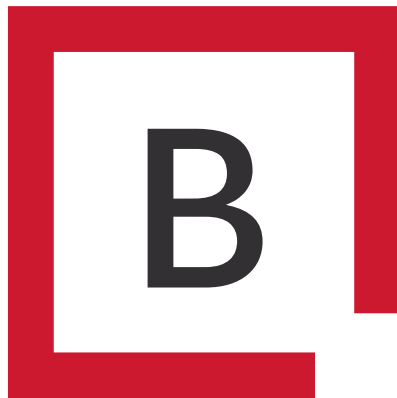


Notes:

- ① Barrier suitable for areas of occupancy types A, B, C3 & E with $\leq 0.75\text{kw/m}$ top rail loading, not suitable for non-residential areas susceptible to over crowding.
- ② Coloupanel fence to be installed in strict accordance to Boundaryline Installation Guide.
- ③ Barrier suitable for wind zones Low, Medium & High. Free ends to have 65x65x2.0mm steel posts or alternatively be $\leq 1.2\text{m}$ high or end spacing to be $\leq 1.2\text{m}$ wide

C Construction	ADM 11/3/19
B Construction	ADM 28/6/18
A Construction	ADM 7/4/18

Project: Boundaryline Barriers		<p>CONSULTING ENGINEERS / STRUCTURAL / CIVIL / PROJECT MANAGEMENT / GEO-TECHNICAL</p> <p>44 Pelican Road, PO Box 7536, Greenmeadows, New Zealand, P. +64 3 632 2100, F. +64 3 641 3313, W. www.hadley.co.nz</p>		This drawing is supplied on the understanding that the information contained herein will not be passed on to any other party without written permission. First being obtained from Hadley Consultants Ltd.		
Title: Coloupanel 0.75kw Loading @ 2.4m				Drawn: ADM	Scale: 1:20	Drawing No: 132469
Client: Terranota Ltd		Checked:	Issue:	Project:	Sheet:	Issue:



 Boundaryline

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