Boundaryline

Colour**Panel PS1**

Rev: 2.0
Issue Date: 04/02/2025

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.

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.building.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 and terraces, e.g., walkways, stairs and landings, and 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 and landings	0.35kN/m	1.1m
B & E - Offices & work areas including storage	F4	Areas including balconies, decks and 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 and landings, balconeis, decks and terraces not susceptible to overcrowding, including parks and reserves	0.75kN/m	1.1m

Table 1 - Barrier Loading Selection

Wind Zones

There are five main Wind Zones in New Zealand: Low, Medium, High, Very High, and Extra High. All details in this Producer Statement have been engineered to high wind zone. If your property falls into a higher wind zone, please contact Boundaryline to discuss a custom-engineered solution to meet your requirements.

To identify the wind zone at your site location, search for BRANZ Maps, turn on the 'Wind Regions' layer, and search your site address. If it is unclear what wind zone applies to your site, please contact your engineer to calculate the wind zone for your property.

For properties that fall into a high or very high wind zone, but are in a built-up area, it may be beneficial to engage a Professional Engineer to calculate the specific wind zone for your site, as terrain and adjacent structures can impact the wind zone applicable to your particular site. A means of determining the wind zone for a specific location is in detailed in NZS 3604:2011.

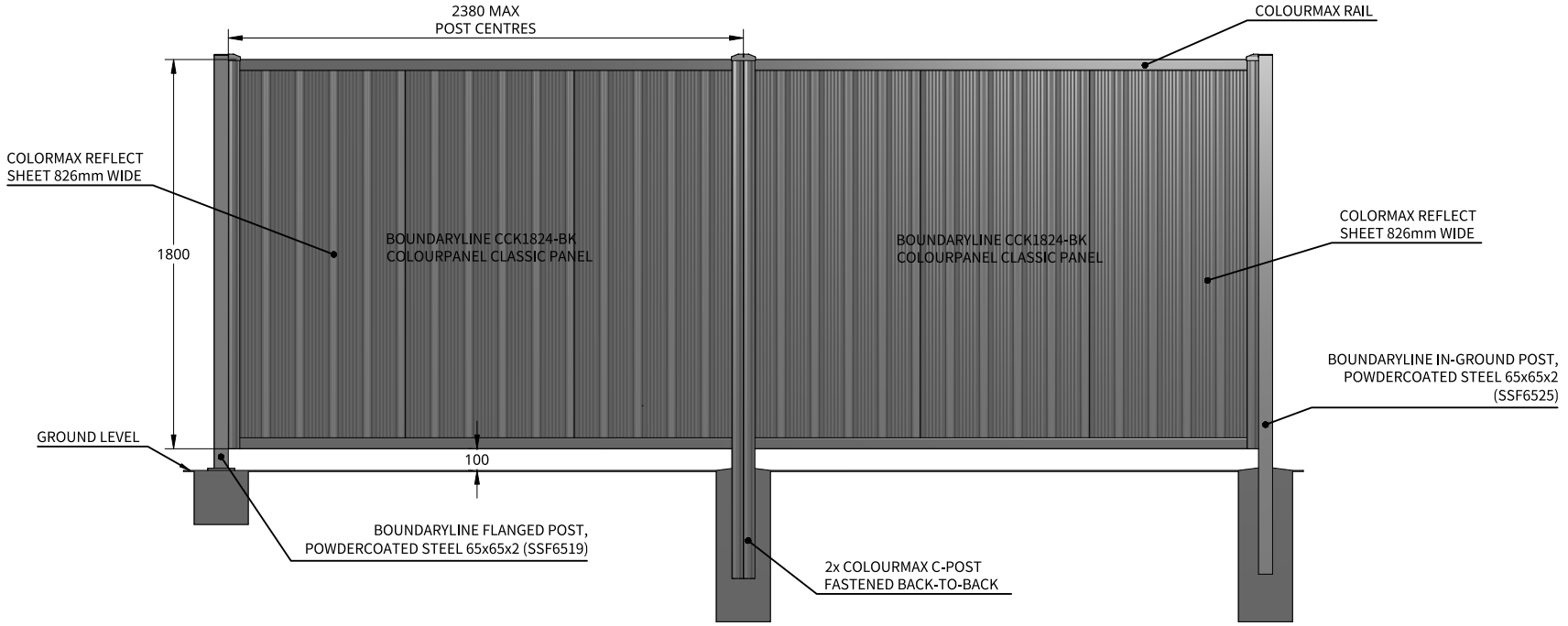
Fixing types

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

BOUNDARYLINE COLOURPANEL CLASSIC PANEL
-CODE: CCK1824-BK, COLOURPANEL CLASSIC FENCE PANEL



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.

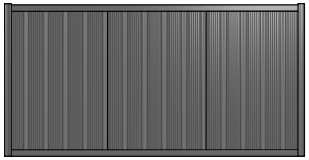
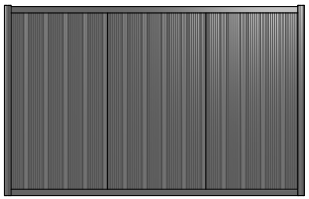
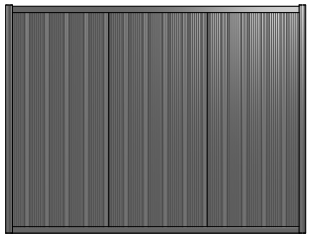
Corrosion Zones
There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search *'BRANZ Maps'*) to determine the corrosion zone of the installation location and appropiate fixing option required.

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. 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.

Panel Type *	COLOURPANEL CLASSIC 1200 High - CCK1224-BK			COLOURPANEL CLASSIC 1500 High - CCK1524-BK			COLOURPANEL CLASSIC 1800 High - CCK1824-BK		
									
Loadings	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	2380mm	2380mm	2380mm	2380mm	2380mm	2380mm	2380mm	2380mm	2380mm
In-Ground Post Options / **Flanged Post Options**	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS
Maximum Wind Loading	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Applicable Fixing Details	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505

DESIGN ENGINEER
The structural elements designated * on this drawing have been designed by
KIRK ROBERTS CONSULTING

Job No. #2410171
Date 28/02/2025 Signed

Boundaryline
Terranota Ltd. P.O. Box 1703 Invercargill 1703
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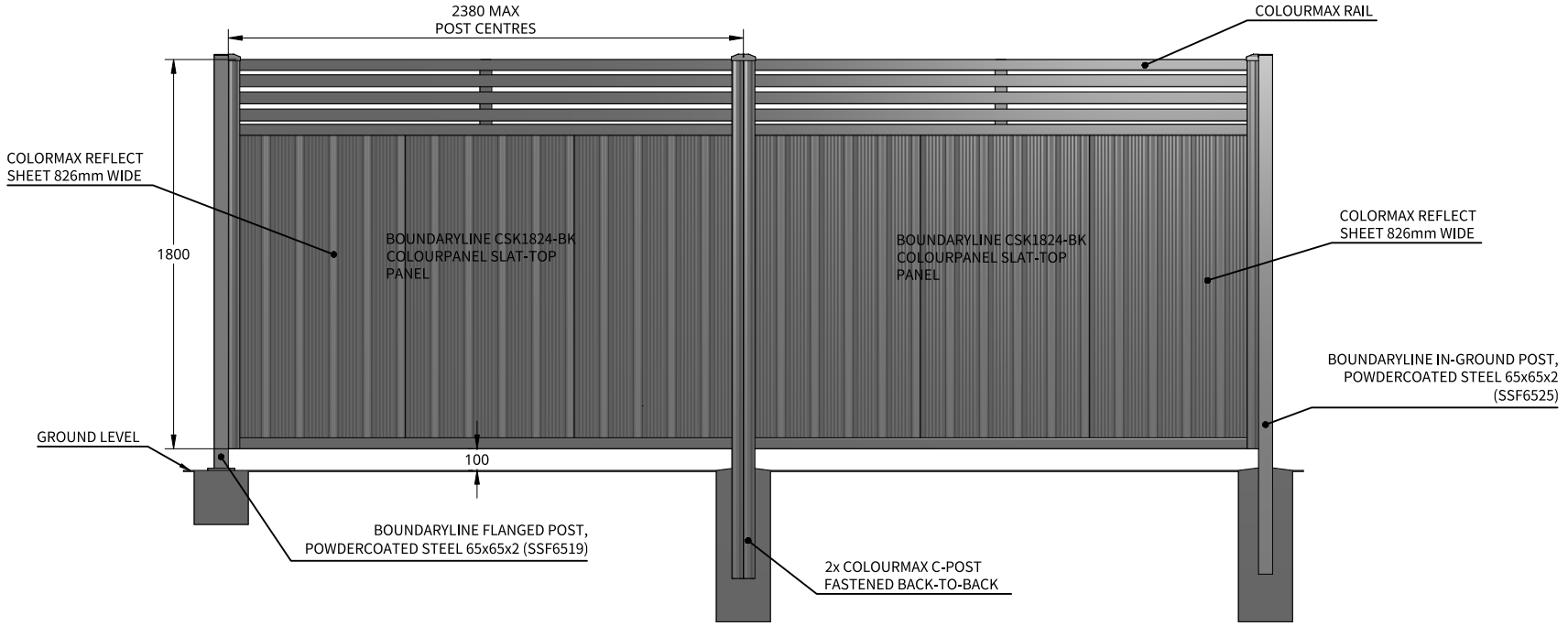
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz

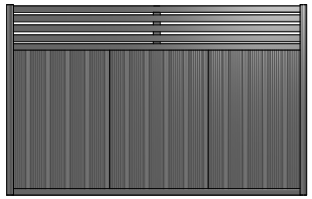
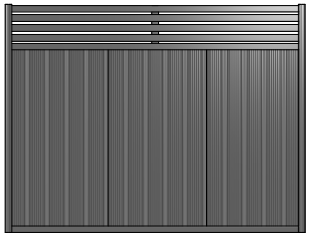
TITLE
BOUNDARYLINE
COLOURPANEL CLASSIC
CODE: CCK1824-BK

SCALE	SIZE	DRAWING NO
1:32	A4	CCP01
REV.	DATE ISSUED	SHEET
A	4/02/2025	4

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

BOUNDARYLINE COLOURPANEL SLAT-TOP PANEL
-CODE: CSK1824-BK, COLOURPANEL SLAT-TOP FENCE PANEL



Panel Type *	COLOURPANEL SLAT-TOP 1500 High - CSK1524-BK			COLOURPANEL SLAT-TOP 1800 High - CSK1824-BK		
						
Loadings	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	2380mm	2380mm	2380mm	2380mm	2380mm	2380mm
In-Ground Post Options	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS
Flanged Post Options						
Maximum Wind Loading	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Applicable Fixing Details	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505

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General Notes

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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

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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

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TITLE

BOUNDARYLINE
COLOURPANEL SLAT-TOP
CODE: CSK1824-BK

SCALE	SIZE	DRAWING NO
1:32	A4	CSP01

REV.	DATE ISSUED	SHEET
A	4/02/2025	5

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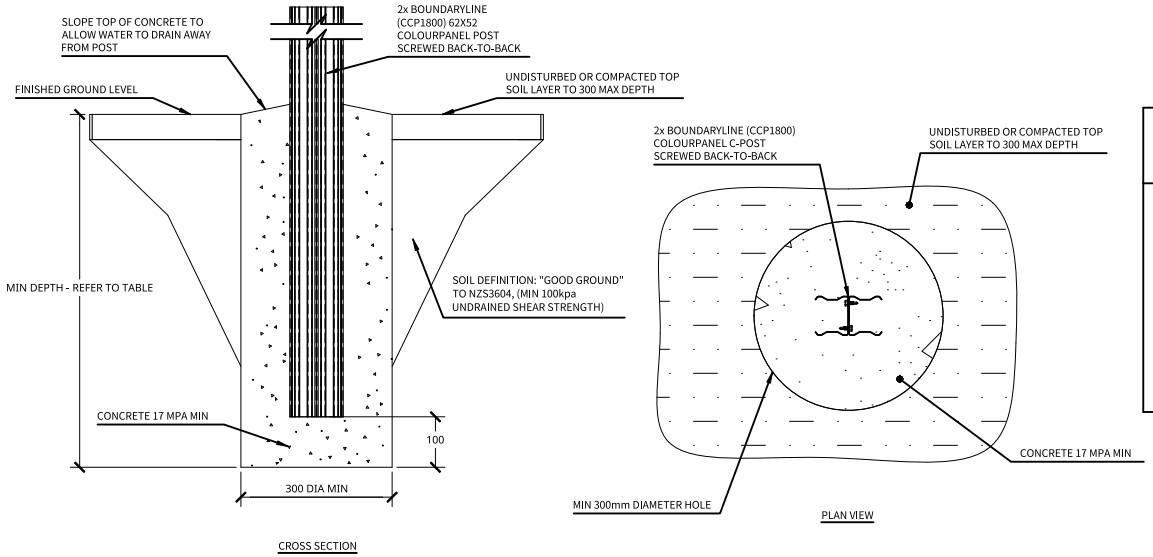

* DRAWING NO: ICA667524-A
APPLICATION: C POSTS ONLY, CONCRETE IN-GROUND
LOADING: 0.75kN/m

*		Maximun Post Centre		
		1.2m	1.6m	2.25m
Maximun Panel Height	1200mm	600mm Min Depth	700mm Min Depth	800mm Min Depth
	1500mm	600mm Min Depth	700mm Min Depth	Not Available - Use detail below
	1800mm	700mm Min Depth	Not Available - Use detail below	Not Available - Use detail below
	2100mm	Not Available - Use detail below	Not Available - Use detail below	Not Available - Use detail below

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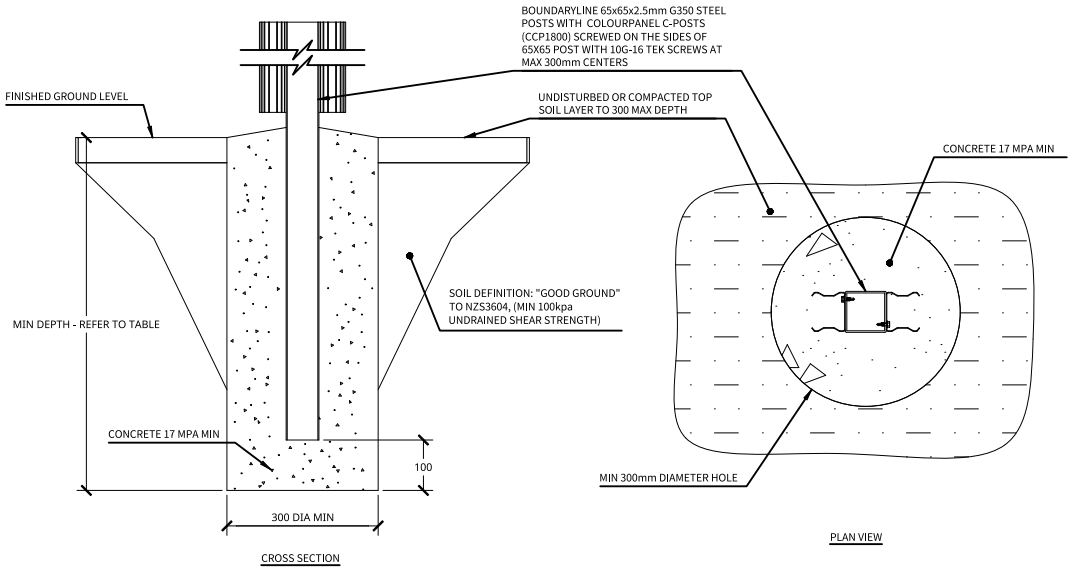

* DRAWING NO: ICA667524-B
APPLICATION: 65mm STEEL POST (WITH C-POSTS) CONCRETE IN-GROUND
LOADING: 0.75kN/m

*		Maximun Post Centre		
		1.2m	1.6m	2.25m
Maximun Panel Height	1200mm	Use detail above	Use detail above	Use detail above
	1500mm	Use detail above	Use detail above	900mm Min Depth
	1800mm	Use detail above	800mm Min Depth	1100mm Min Depth
	2100mm	800mm Min Depth	1100mm Min Depth	Not Available

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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 appropiate 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.

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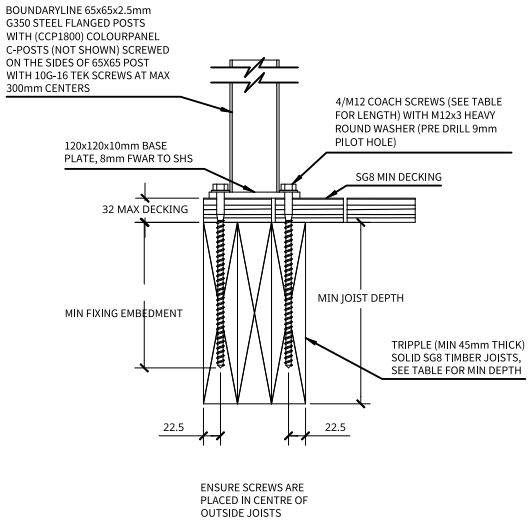
Website: www.boundaryline.co.nz

TITLE
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- CONCRETE IN-GROUND

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:15	A4	CTS657501

REV.	DATE ISSUED	SHEET
A	4/02/2025	6



* DRAWING NO: TTA657512
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 0.75kN/m

	*	Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min joist depth: 190mm	Min joist depth: 240mm	Min joist depth: 360mm*
		Min fixing embedment: 160mm	Min fixing embedment: 220mm	Min fixing embedment: 310mm
	1500mm	Min joist depth: 240mm	Min joist depth: 360mm*	Not available
		Min fixing embedment: 220mm	Min fixing embedment: 310mm	
	1800mm	Min joist depth: 360mm*	Not available	Not available
		Min fixing embedment: 310mm		
*LVL (LAMINATED) TIMBER BEAM REQUIRED				

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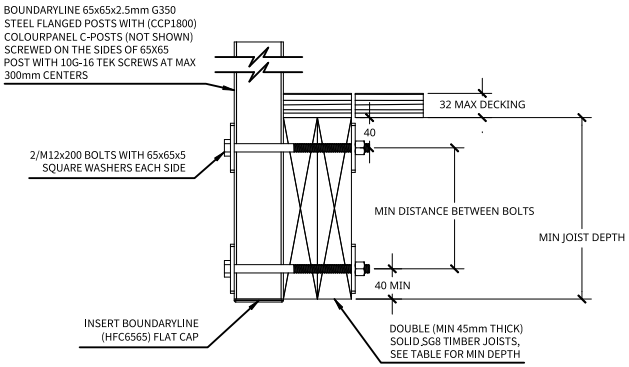
Date 28/02/2025 Signed



* DRAWING NO: STA657512
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 0.75kN/m

	*	Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min joist depth: 240mm	Min joist depth: 240mm	Min joist depth: 290mm
		Min distance between bolts: 160mm	Min distance between bolts: 160mm	Min distance between bolts: 180mm
	1500mm	Min joist depth: 240mm	Min joist depth: 240mm	Min joist depth: 360mm*
		Min distance between bolts: 160mm	Min distance between bolts: 160mm	Min Distance between bolts: 270mm
	1800mm	Min joist depth: 290mm	Min joist depth: 360mm*	Not available
		Min distance between bolts: 180mm	Min distance between bolts: 270mm	
*LVL (LAMINATED) TIMBER BEAM REQUIRED				

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

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.

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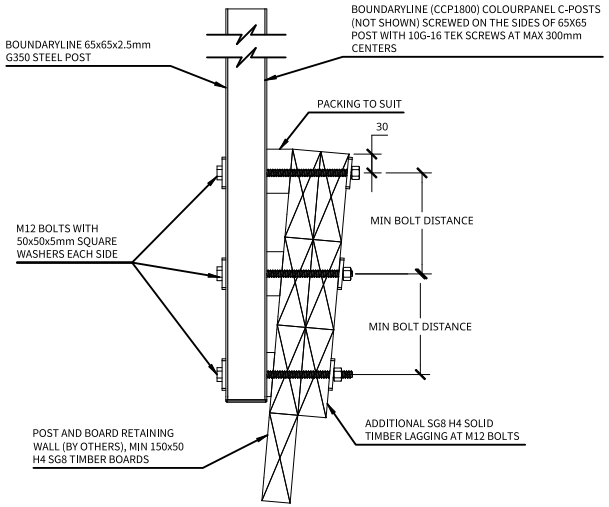
Website: www.boundaryline.co.nz

TITLE:
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- TIMBER DECK

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	CTS657503

REV.	DATE ISSUED	SHEET
A	4/02/2025	7



* DRAWING NO: SRS657524-A
APPLICATION: SIDE-FIX (BOLTED) TO TIMBER RETAINING WALL (POSTS ON OUTSIDE OF RETAINING WALL)
LOADING: 0.75kN/m

*		Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min bolt distance: 60mm	Min bolt distance: 90mm	Min bolt distance: 120mm
	1500mm	Min bolt distance: 90mm	Min bolt distance: 120mm	Min bolt distance: 160mm
	1800mm	Min bolt distance: 120mm	Min bolt distance: 160mm	Min bolt distance: 230mm
	2100mm	Min bolt distance: 160mm	Min bolt distance: 230mm	Min bolt distance: 320mm

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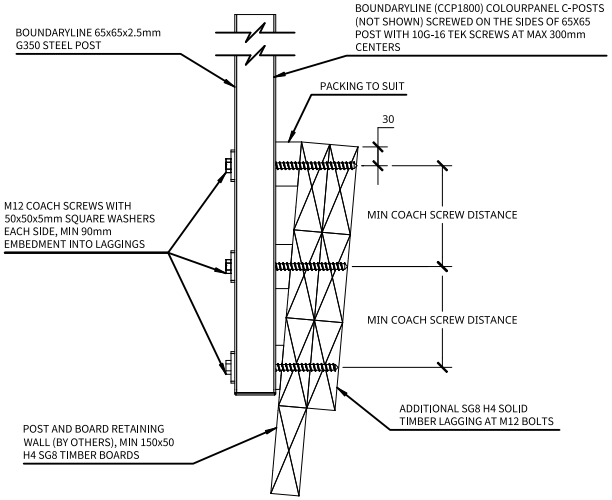

* DRAWING NO: SRS657524-B
APPLICATION: SIDE-FIX (COACH SCREWED) TO TIMBER RETAINING WALL (POSTS ON OUTSIDE OF RETAINING WALL)
LOADING: 0.75kN/m

*		Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min coach screw distance: 140mm	Min coach screw distance: 180mm	Min coach screw distance: 240mm
	1500mm	Min coach screw distance: 180mm	Min coach screw distance: 240mm	Not available
	1800mm	Min coach screw distance: 240mm	Not available	Not available

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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 *'BRANZ Maps'*) to determine the corrosion zone of the installation location and appropiate 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.

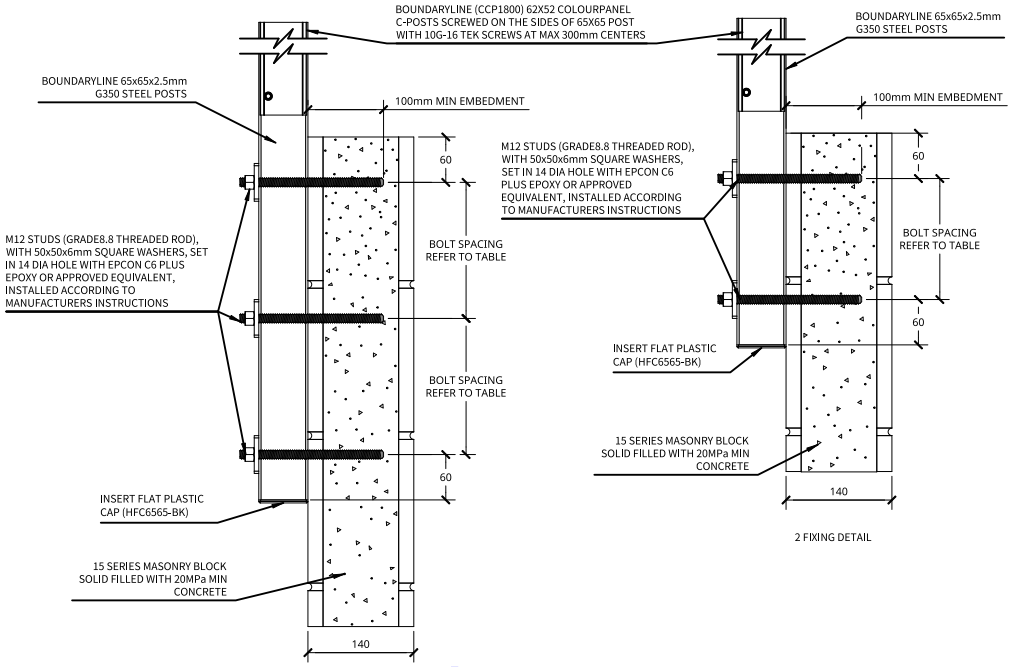
Boundaryline
Terranota Ltd. P.O. Box 1703 Invercargill 1703
Telephone: 0800 003 006
Fax: 03 215 8248
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz

TITLE
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- TIMBER RETAINING WALL

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:12	A4	CTS657503

REV.	DATE ISSUED	SHEET
A	4/02/2025	8

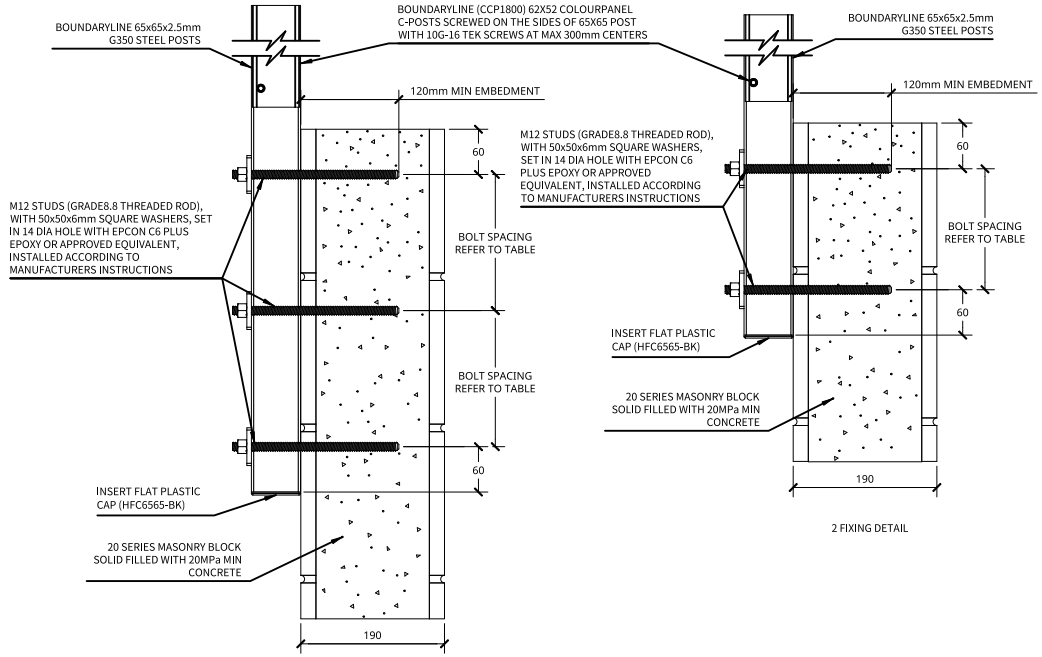


* DRAWING NO: SMA657524-A
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.75kN/m

	*	Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min number of fixings: 2	Min number of fixings: 2	Min number of fixings: 3
		Bolt spacing: 110mm	Bolt spacing: 160mm	Bolt spacing: 120mm
	1500mm	Min number of fixings: 2	Min number of fixings: 3	Min number of fixings: 3
		Bolt spacing: 160mm	Bolt spacing: 120mm	Bolt spacing: 180mm
	1800mm	Min number of fixings: 3	Min number of fixings: 3	Min number of fixings: 3
		Bolt spacing: 120mm	Bolt spacing: 180mm	Bolt spacing: 250mm
	2100mm	Min number of fixings: 3	Min number of fixings: 3	Not available
		Bolt spacing: 180mm	Bolt spacing: 250mm	

DESIGN ENGINEER
The structural elements designated *
on this drawing have been designed by
KIRK ROBERTS CONSULTING

Job No. #2410171
Date 28/02/2025 Signed



* DRAWING NO: SMA657524-B
APPLICATION: SIDE-FIX TO MASONARY WALL (20 SERIES)
LOADING: 0.75kN/m

	*	Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min number of fixings: 2	Min number of fixings: 2	Min number of fixings: 2
		Bolt spacing: 90mm	Bolt spacing: 120mm	Bolt spacing: 180mm
	1500mm	Min number of fixings: 2	Min number of fixings: 2	Min number of fixings: 3
		Bolt spacing: 120mm	Bolt spacing: 180mm	Bolt spacing: 130mm
	1800mm	Min number of fixings: 2	Min number of fixings: 3	Min number of fixings: 3
		Bolt spacing: 180mm	Bolt spacing: 130mm	Bolt spacing: 180mm
	2100mm	Min number of fixings: 3	Min number of fixings: 3	Not available
		Bolt spacing: 130mm	Bolt spacing: 180mm	

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

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 appropiate 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.

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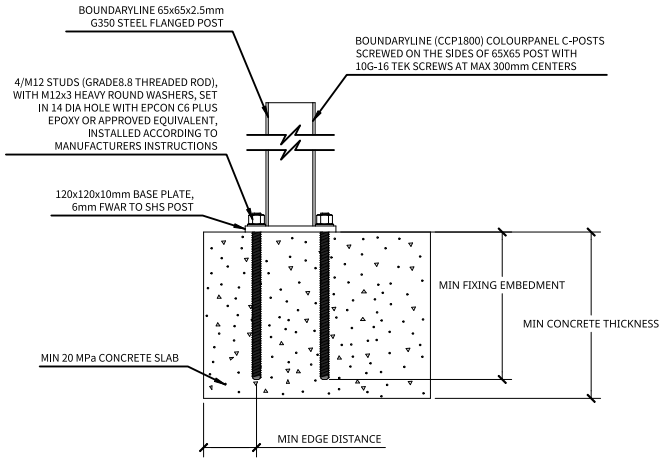
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz

TITLE:
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- MASONARY WALL

FOR 0.75kN/m
HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	CTS657504

REV.	DATE ISSUED	SHEET
A	4/02/2025	9



	*	Maximum Post Centre		
		1.2m	1.6m	2.25m
Panel Height	1200mm	Min concrete thickness: 150mm	Min concrete thickness: 220mm	Min concrete thickness: 300mm
		Min fixing embedment: 120mm	Min fixing embedment: 190mm	Min fixing embedment: 190mm
		Min edge distance: 55mm	Min edge distance: 70mm	Min edge distance: 120mm
	1500mm	Min concrete thickness: 220mm	Min concrete thickness: 300mm	Min concrete thickness: 300mm
		Min fixing embedment: 190mm	Min fixing embedment: 190mm	Min fixing embedment: 190mm
		Min edge distance: 70mm	Min edge distance: 120mm	Min edge distance: 210mm
	1800mm	Min concrete thickness: 300mm	Min concrete thickness: 300mm	Not available
		Min fixing embedment: 190mm	Min fixing embedment: 190mm	
		Min edge distance: 120mm	Min edge distance: 210mm	

* DRAWING NO: TDA657524
APPLICATION: TOP-FIX TO CONCRETE DECK
LOADING: 0.75kN/m

DESIGN ENGINEER
The structural elements designated *
on this drawing have been designed by
KIRK ROBERTS CONSULTING

Job No. #2410171

Date 28/02/2025 Signed

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 appropiate 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

Terranota Ltd. P.O. Box 1703 Invercargill 1703
Telephone: 0800 003 006
Fax: 03 215 8248
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz

TITLE:
BOUNDARYLINE SMARTWALL FIXING DESIGNS FOR:
- CONCRETE DECK

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	CTS657505

REV.	DATE ISSUED	SHEET
A	4/02/2025	10

Building Code Clause(s) B1

PRODUCER STATEMENT – PS1 – DESIGN

ISSUE:A

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

ISSUED BY: Kirk Roberts Consulting Engineers Ltd. (Design Firm) PROJECT NO:2410171

TO: Boundaryline (Owner/Developer)

TO BE SUPPLIED TO: Various councils across New Zealand (Building Consent Authority)

IN RESPECT OF: Boundaryline ColourPanel (Description of Building Work)

AT:Various locations across New Zealand (Address, Town/City)

We have been engaged by the client referred to above to provide **Structural Engineering Design** services in respect of the requirements of Clause(s) **B1/VM1, B1/VM4** of the Building Code for;

Colour panel wall fixing (items designated (*) only as shown on the attached drawings, countersigned by myself and Kirk Roberts drawings dated 28/02/25

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, B1/VM4** (verification method / acceptable solution) and/or

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

The proposed building work covered by this producer statement is described in the drawings specified in Schedule 1, together with the specification, and other documents set out in Schedule 1 attached to this statement.

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

(i) Site verification of the following design assumptions
An ultimate foundation bearing capacity of 300 kPa in accordance with NZS 3604:2011

(ii) **All proprietary products meeting their performance specification requirements;**

(iii) **Unless specifically noted, compliance of the drawings to Non Specific codes such as NZS 3604 and NZS 4229 have not been checked by this practice;**

(iv) **Structural design loads are based on a 50 year design life and Importance Level 2 structure (normal structures and structures not in other importance levels) as defined in AS/NZS 1170.0 2004 clause 3.3**

(v) **Design for up to high wind zone areas in accordance with NZS 3604.**

(vi) **This certificate does not cover weather-tightness;**

(vii) **This Producer Statement - Design is valid for a building consent issued within 1 year from the date of issue;**

I **believe on reasonable grounds** that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in Schedule 1, will comply with the relevant provisions of the Building Code specified above; 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:~~
~~(Refer note above)~~
~~[ ] CM1 [ ] CM2 [X] CM3 [ ] CM4 [ ] CM5 (Engineering Categories) or [ ] as per agreement with owner/developer (Architectural)~~

I, **Aidan Hynes**
CPEng number **1150262**

- and hold the following qualifications: **B.E.(Hons), CMEngNZ, CPEng**

The Engineering 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: **Aidan Hynes**

Digitally signed by Aidan Hynes
DN: C=NZ, E=aidanh@kirkroberts.co.nz, O=Kirk Roberts Consulting Limited, OU=Specifi, CN=Aidan Hynes
Date: 2025.02.28 14:59:24+13'00'

(Signature)..... Date: 28/02/2025

ON BEHALF OF : Kirk Roberts Consulting Engineers Ltd.
(Design Firm)

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.

SCHEDULE 1 ISSUE:A

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

Engineering Calculations titled; Boundaryline ColourPanel Kirk Roberts project number 2410171
Architectural drawings titled; Boundaryline ColourPanel and countersigned with Kirk Roberts project number 2410171

Limited Scope of Engagement

We have been engaged by Boundaryline referred to above to provide services in respect of the requirements of the Clause(s) B1/VM1, B1/VM4 of the Building Code specified above for the following parts of the proposed building work:

Colour panel wall fixing (items designated (*) only as shown on the attached drawings, countersigned by myself and Kirk Roberts drawings dated 28/02/25

Verification Method References

The design carried out by us has been prepared in accordance with:
AS/NZS 1170 Structural Design Actions
NZS 3101 Part 1 2006 Concrete Structures Standard
NZS 3404L Part 1 1997 Steel Structures Standard
NZS_3603.1993 Timber Structures Standard
B1 building code guidance on barrier design

CONSTRUCTION MONITORING SCHEDULE ISSUE:A

Schedule of monitoring for:

AT: Various locations across New Zealand SO

(Address, Town/City)

We confirm that Kirk Roberts Consulting Engineers Ltd have been engaged to undertake construction monitoring of the specific engineering design items to an Engineering New Zealand/ACENZ **CM3** level and propose that at least the following site monitoring is undertaken:

	Item of monitoring	Timeframe requirement	To be monitored by
1.	Steel post fixings	Following installation prior to closing in while all connections are clearly visible	Authority Council

Notes:

a) The above items of monitoring are the minimum required to enable Kirk Roberts Consulting Engineers Ltd to issue a PS4 – Producer Statement Construction Review for the specific engineering design items.

b) The above items of monitoring do not cover work constructed in accordance with NZS 3604:2011, for which monitoring is to be undertaken by the Building Consent Authority.

c) The Contractor/Builder is to provide Kirk Roberts Consulting Engineers Ltd at least 48 hours' notice of the requirement for monitoring. The above timeframes are indicative, the Engineer and Contractor are to agree the timing of monitoring prior to work commencing on site.

d) A copy of this monitoring schedule is to be held on site during the works, and the Contractor/Builder is to provide reasonable and safe access to enable works to be monitored according to the schedule.

e) The above schedule does not necessarily represent the actual number of monitoring inspections to be undertaken. The number of inspections will depend on the construction method, sequence of the works and whether or not unforeseen conditions or difficulties are encountered on site.

Boundaryline

Auckland
43 Noel Burnside Road
09 250 1144

Christchurch
22 Islington Avenue
03 347 3191

Invercargill
60 Basstian Street
03 211 5145

0800 003 006
boundaryline.co.nz