Boundaryline

PS1

DURAPANEL

Rev: 3.0
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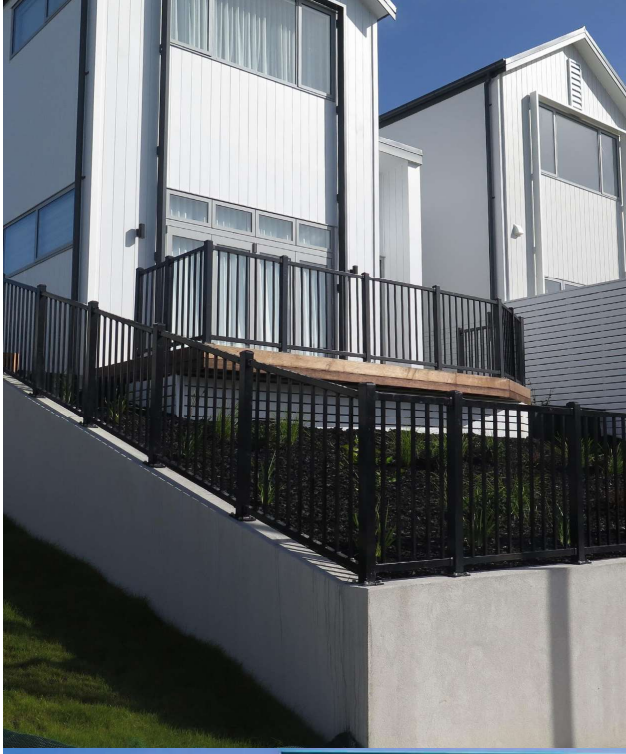
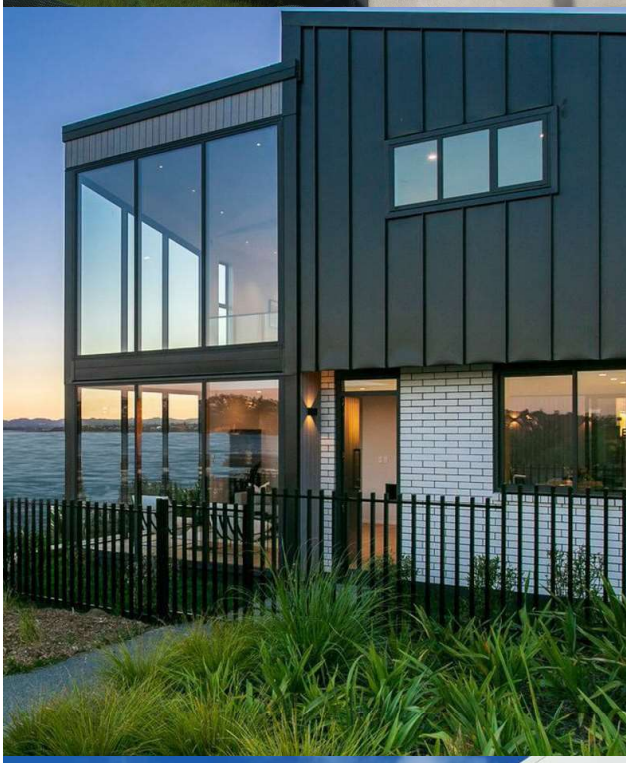




Application

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 statements 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, note the maximum wind zone this can be installed in, then follow the colours and drawing numbers to see the approved post fixing details, for the Loading and Panel Style for your application.

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

Table 1 - Barrier Loading Selection

cont. on next page

Occupancy type	Building code clause	Specific use	Horizontal design loading	Minimum overall barrier height
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

Barrier Panel Selection

		Height	Code	Maximum Post Centre			Page
				F9 Pool Fencing	F4 – 0.35kN/m	F4 – 0.75kN/m	
Eco		1200mm	DEP1224-BK	2450mm	N/A	N/A	4
Delta		950mm	DDP9522-BK	N/A	1175mm	1175mm	5
		1200mm	DDD1222-BK	2300mm*	1175mm	1175mm	5
Delta Raking		950mm	DDR9524-BK	N/A	1175mm	1175mm	5
		1200mm	DDR1224-BK	N/A	1175mm	1175mm	5
Vecta		1200mm	DVP1222-BK	2300mm*	1175mm	1175mm	6
		1500mm	DVP1522-BK	2300mm*	1175mm	1175mm	6
Vecta Raking		1200mm	DVR1224-BK	N/A	1175mm	1175mm	6
		1500mm	DVR1524-BK	N/A	1175mm	1175mm	6
Polo		1200mm	DPP1222-BK	2300mm*	1175mm	1175mm	7
		1500mm	DPP1522-BK	2300mm*	1175mm	1175mm	7
		1800mm	DPP1822-BK	N/A	1175mm	1175mm	8
Polo Raking		1200mm	DPR1224-BK	N/A	1175mm	1175mm	7
		1500mm	DPR1524-BK	N/A	1175mm	1175mm	7
		1800mm	DPR1824-BK	N/A	1175mm	1175mm	8
Axis		1200mm	DXP1222-BK	2275mm*	1075mm	1075mm	9

Table 2 - Barrier Panel Selection
**See Page 11 for typical pool fence installation and requirements*

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 comply with a specified wind zone, you can find the maximum wind zone for each panel and install scenario on the Panel drawing pages (4 to 9) in this document. 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.

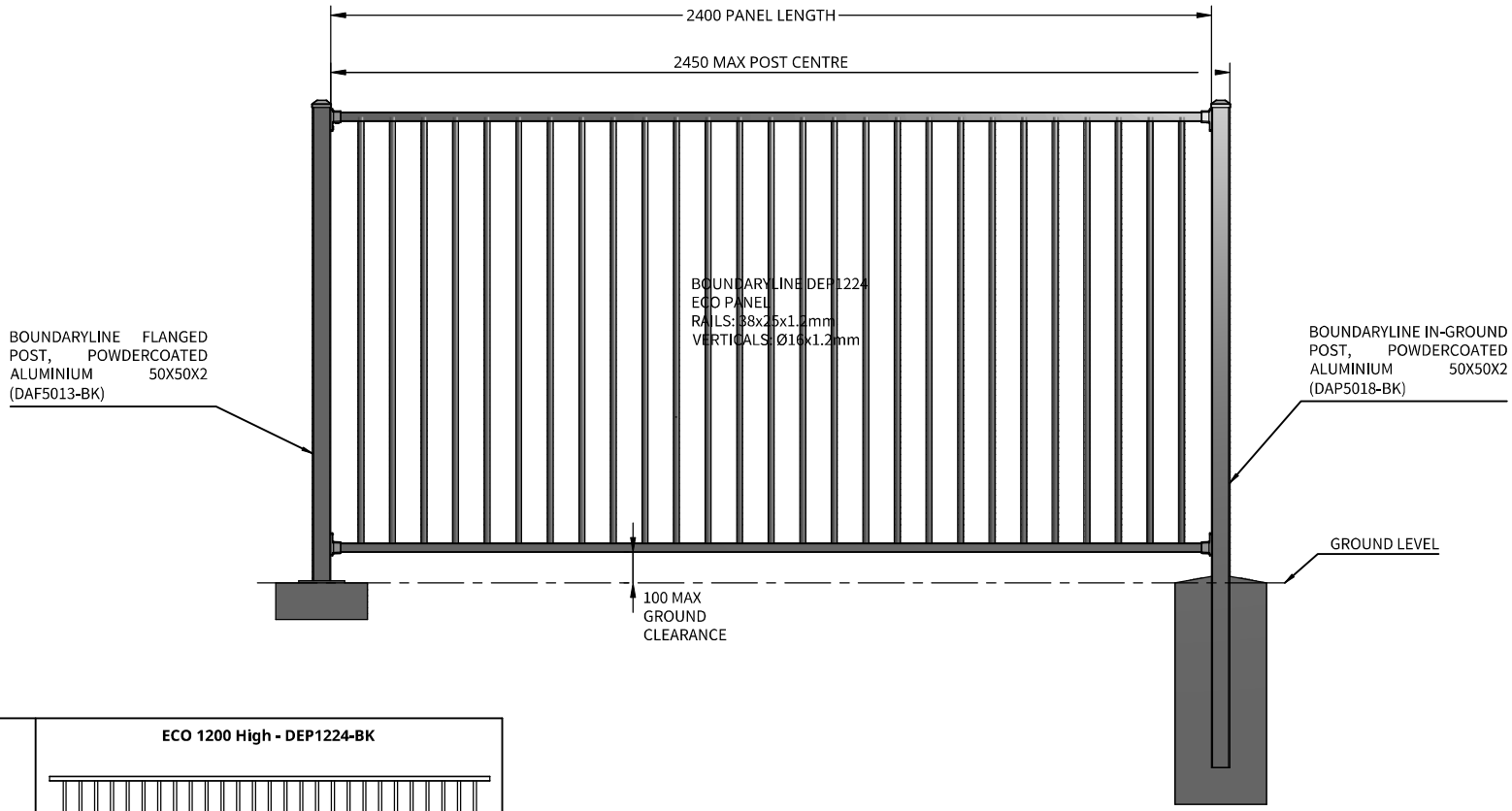
Fixing types

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 3 - Fixing Types

BOUNDARYLINE DURAPANEL ECO FENCE FOR F9 (POOL FENCE) APPLICATIONS



Panel Type	ECO 1200 High - DEP1224-BK		
Loadings	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	2450mm	N/A	N/A
In-Ground Post Options	50x50mm DAP5018	N/A	N/A
Flanged Post Options	50x50mm DAF5013	N/A	N/A
Maximum Wind Loading	Medium Wind Loading - 37m/s	N/A	N/A
Applicable Fixing Details	DPA503301 DPA503302 DPA503303	N/A	N/A

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.

Boundaryline

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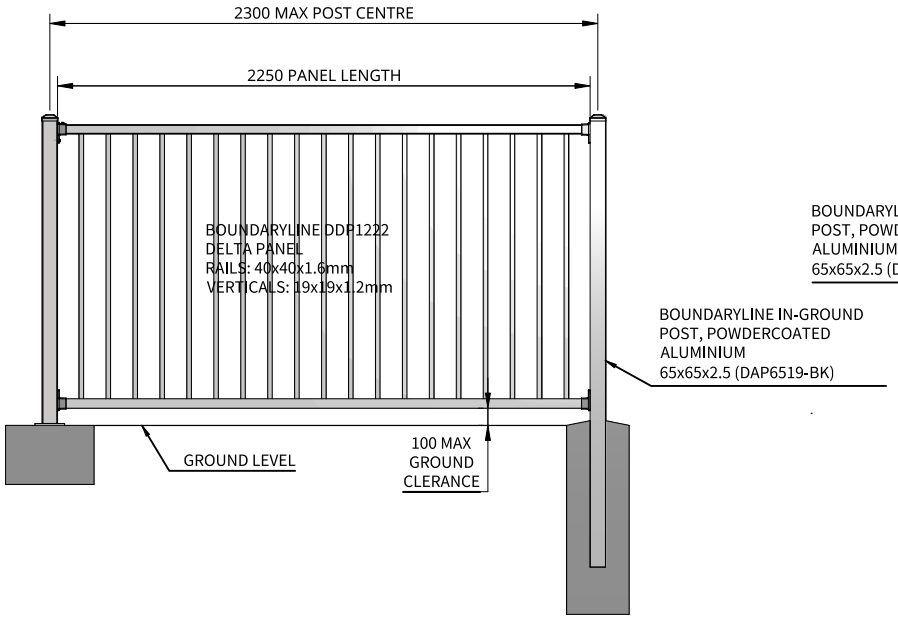
TITLE

BOUNDARYLINE DURAPANEL ECO

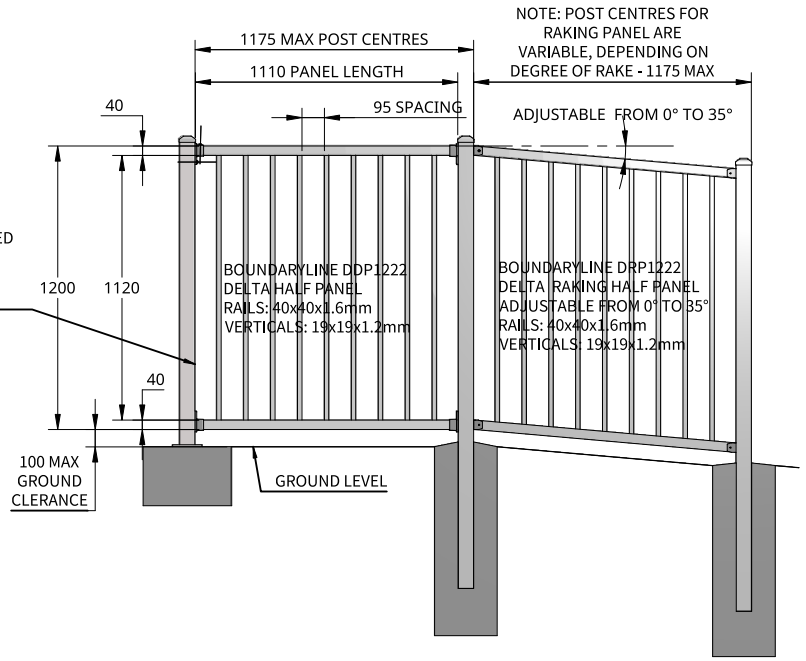
SCALE	SIZE	DRAWING NO
1:20	A4	DEP01

REV.	DATE ISSUED	SHEET
A	2023-12-11	4

BOUNDARYLINE DURAPANEL DELTA FENCE FOR F9 (POOL FENCE) APPLICATIONS



BOUNDARYLINE DURAPANEL DELTA 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 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

Panel Type	Delta 950 High - DDP9522-BK IMPORTANT NOTE: For 950mm Panels, minimim barrier height is 1000mm above finished ground level			Delta Raking 950 High - DDR9522-BK IMPORTANT NOTE: For 950mm Panels, minimim barrier height is 1000mm above finished ground level			Delta 1200 High - DDP1222-BK			Delta Raking 1200 High - DDR1222-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)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	N/A	1175mm	1175mm	N/A	1175mm	1175mm	2300mm	1175mm	1175mm	N/A	1175mm	1175mm
In-Ground Post Options	N/A	65x65mm DAP6519-BK	65x65mm DAP6519-BK	N/A	65x65mm DAP6519-BK	65x65mm DAP6519-BK	50x50mm DAP5018-BK	65x65mm DAP6519-BK	65x65mm DAP6519-BK	N/A	65x65mm DAP6519-BK	65x65mm DAP6519-BK
Flanged Post Options	N/A	65x65mm DAF6513-BK	65x65mm DAF6513-BK	N/A	65x65xmm DAF6513-BK	65x65mm DAF6513-BK	50x50xmm DAF5013-BK	65x65mm DAF6513-BK	65x65mm DAF6513-BK	N/A	65x65mm DAF6513-BK	65x65mm DAF6513-BK
Maximum Wind Loading	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	Medium Wind Loading - 37m/s	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s
Applicable Fixing Details	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	DPA503301 DPA503302 DPA503303	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503

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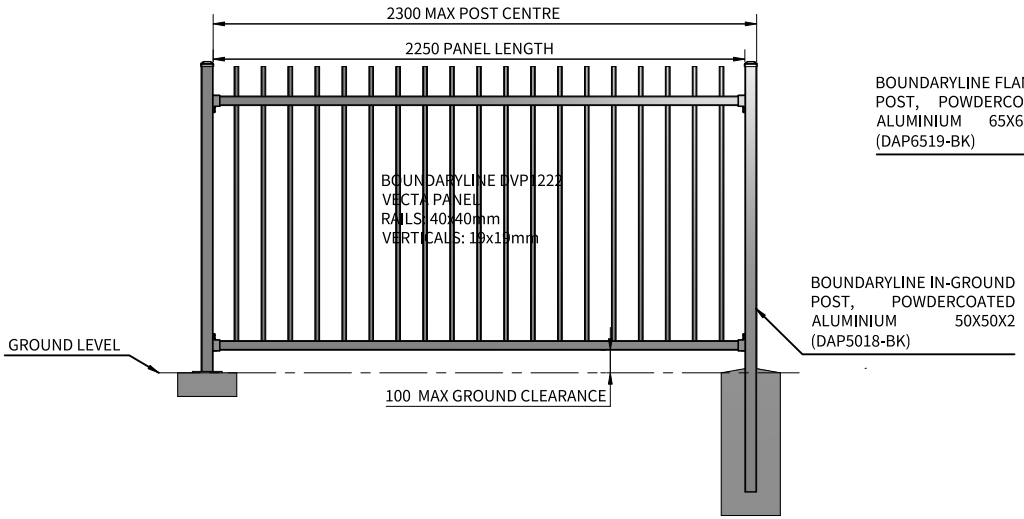
TITLE
BOUNDARYLINE DURAPANEL DELTA

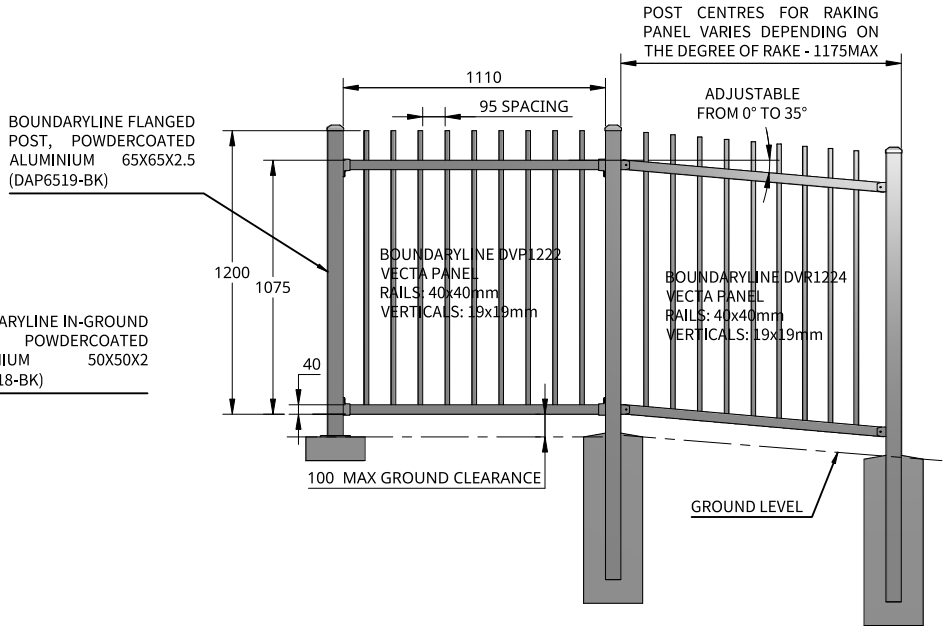
SCALE	SIZE	DRAWING NO
1:32	A4	DDP01

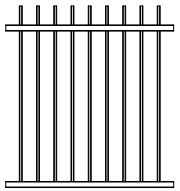
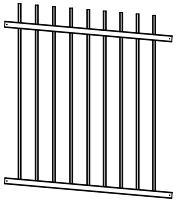
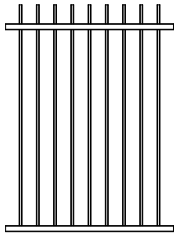
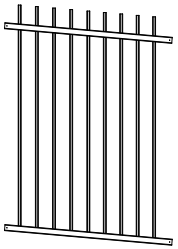
REV.	DATE ISSUED	SHEET
A	2023-12-11	5

BOUNDARYLINE DURAPANEL VECTA FENCE FOR F9 (POOL FENCE) APPLICATIONS



BOUNDARYLINE DURAPANEL VECTA FENCE FOR F4 - (FALL RESTRAINT BARRIER) APPLICATIONS



Panel Type	Vecta 1200 High - DVP1222-BK			Vecta Raking 1200 High - DVR1224-BK			Vecta 1500 High - DVP1522-BK			Vecta Raking 1500 High - DVR1524-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)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	2300mm	1175mm	1175mm	N/A	1175mm	1175mm	2300mm	1175mm	1175mm	N/A	1175mm	1175mm
In-Ground Post Options	50x50mm DAP5018	65x65mm DAP6519	65x65mm DAP6519	N/A	65x65mm DAP6519	65x65mm DAP6519	50x50mm DAP5021	65x65mm DAP6522	65x65mm DAP6522	N/A	65x65mm DAP6522	65x65mm DAP6522
Flanged Post Options	50x50mm DAF5013	65x65mm DAF6513	65x65mm DAF6513	N/A	65x65mm DAF6513	65x65mm DAF6513	50x50mm DAF5016	65x65mm DAF6519	65x65mm DAF6519	N/A	65x65mm DAF6519	65x65mm DAF6519
Maximum Wind Loading	Medium Wind Loading - 37m/s	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	Low Wind Loading - 32m/s	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s
Applicable Fixing Details	DPA503301 DPA503302 DPA503303	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	DPA503301 DPA503302 DPA503303	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503

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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 DURAPANEL VECTA

SCALE	SIZE	DRAWING NO
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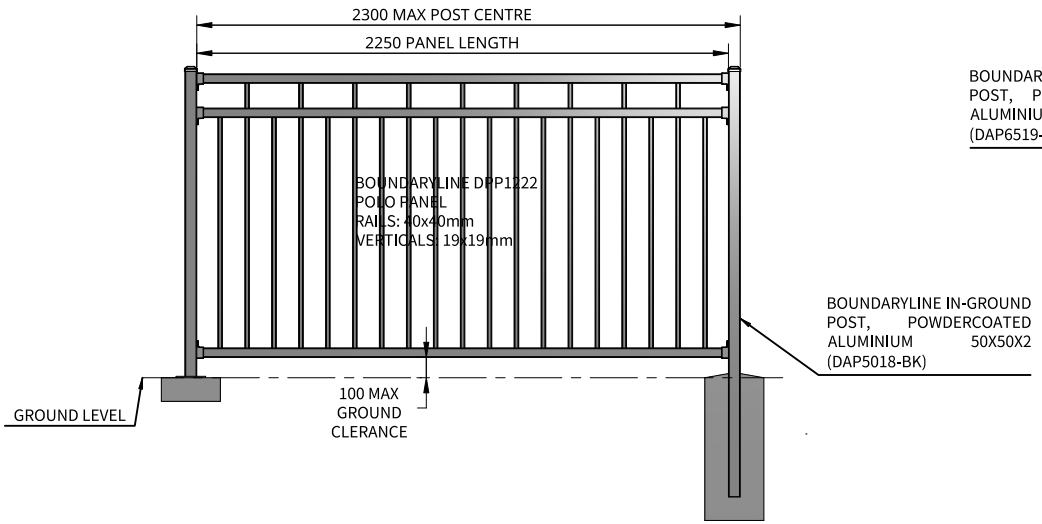
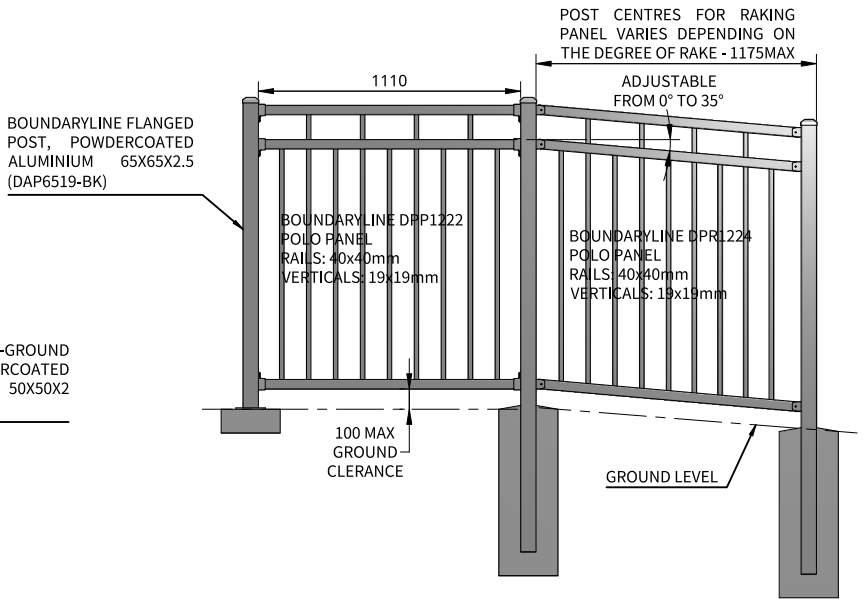
A	2023-12-11	6

BOUNDARYLINE DURAPANEL POLO FENCE FOR F9 (POOL FENCE) APPLICATIONS



BOUNDARYLINE DURAPANEL POLO FENCE FOR F4 - (FALL RESTRAINT BARRIER) APPLICATIONS



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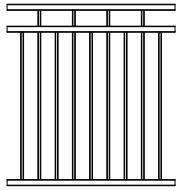
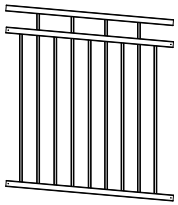
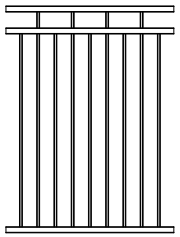
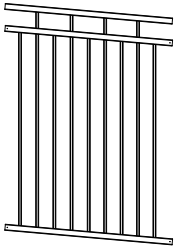
Panel Type	POLO 1200 High - DPP1222-BK			POLO Raking 1200 High - DPR1224-BK			POLO 1500 High - DPP1522-BK			POLO Raking 1500 High - DPR1524-BK		
												
Loadings	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	2300mm	1175mm	1175mm	N/A	1175mm	1175mm	2300mm	1175mm	1175mm	N/A	1175mm	1175mm
In-Ground Post Options	50x50mm DAP5018-BK	65x65mm DAP6519-BK	65x65mm DAP6519-BK	N/A	65x65mm DAP6519-BK	65x65mm DAP6519-BK	50x50mm DAP5021-BK	65x65mm DAP6522-BK	65x65mm DAP6522-BK	N/A	65x65mm DAP6522-BK	65x65mm DAP6522-BK
Flanged Post Options	50x50mm DAF5013-BK	65x65mm DAF6513-BK	65x65mm DAF6513-BK	N/A	65x65mm DAF6513-BK	65x65mm DAF6513-BK	50x50mm DAF5016-BK	65x65mm DAF6519-BK	65x65mm DAF6519-BK	N/A	65x65mm DAF6519-BK	65x65mm DAF6519-BK
Maximum Wind Loading	Medium Wind Loading - 37m/s	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	Medium Wind Loading - 37m/s	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s
Applicable Fixing Details	DPA503301 DPA503302 DPA503303	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	DPA503301 DPA503302 DPA503303	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503

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

Boundaryline

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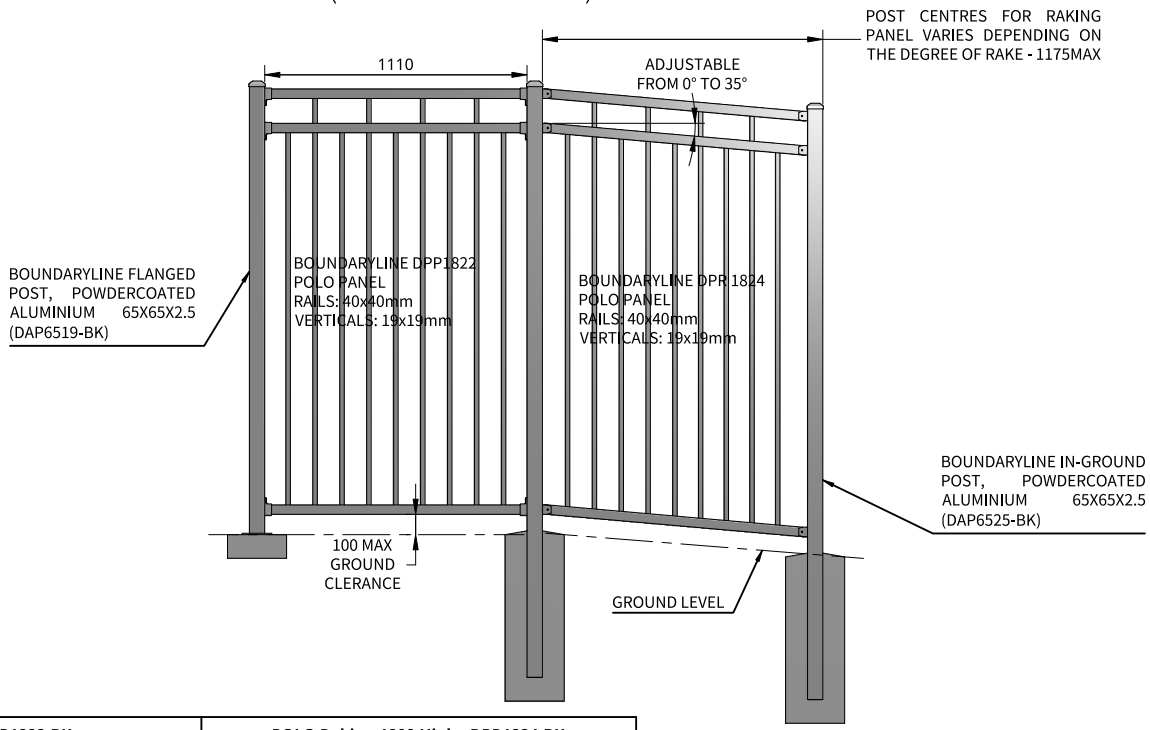
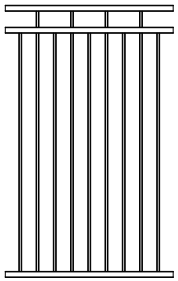
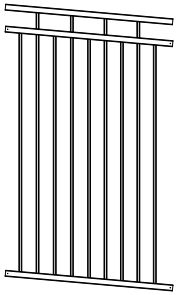
TITLE
BOUNDARYLINE DURAPANEL POLO

SCALE	SIZE	DRAWING NO
1:32	A4	DPP01

REV.	DATE ISSUED	SHEET
A	2023-12-11	7

BOUNDARYLINE DURAPANEL POLO FENCE FOR F4 - (FALL RESTRAINT BARRIER) APPLICATIONS



Panel Type	POLO 1800 High - DPP1822-BK			POLO Raking 1800 High - DPR1824-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	N/A	1175mm	1175mm	N/A	1175mm	1175mm
In-Ground Post Options	N/A	65x65mm DAP6525-BK	65x65mm DAP6525-BK	N/A	65x65mm DAP6525-BK	65x65mm DAP6525-BK
Flanged Post Options	N/A	65x65mm DAF6519-BK	65x65mm DAF6519-BK	N/A	65x65mm DAF6519-BK	65x65mm DAF6519-BK
Maximum Wind Loading	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s	N/A	Extra High Wind Loading - 56m/s	Extra High Wind Loading - 56m/s
Applicable Fixing Details	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503	N/A	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503

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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.

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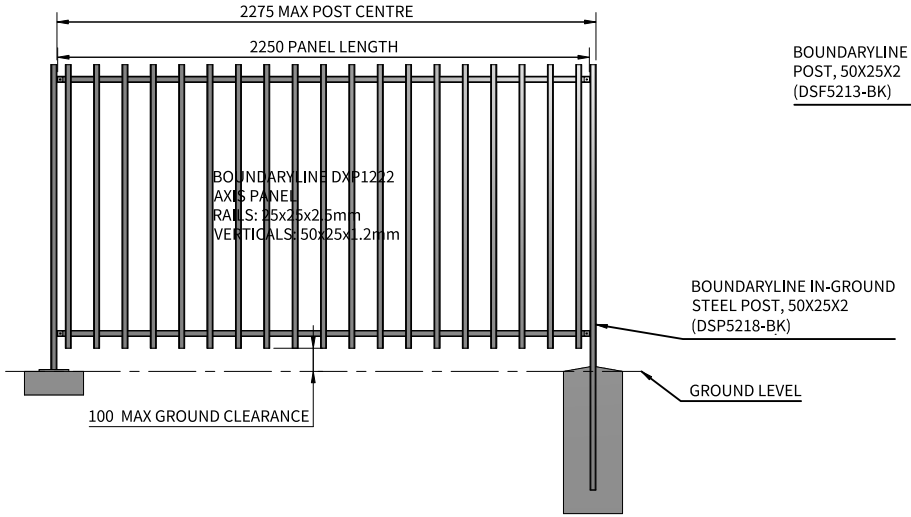
TITLE

BOUNDARYLINE DURAPANEL POLO

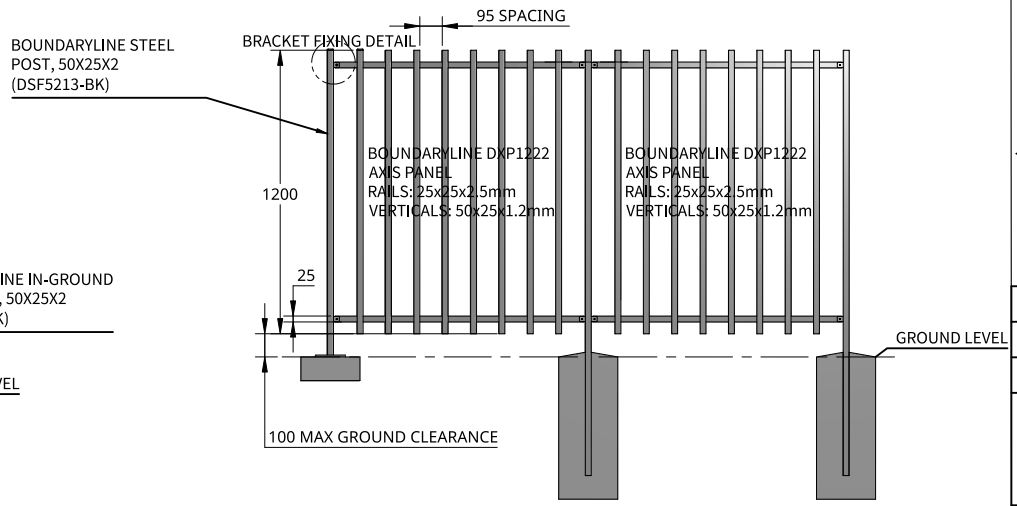
SCALE	SIZE	DRAWING NO
1:32	A4	DPP02

REV.	DATE ISSUED	SHEET
A	2023-12-11	8

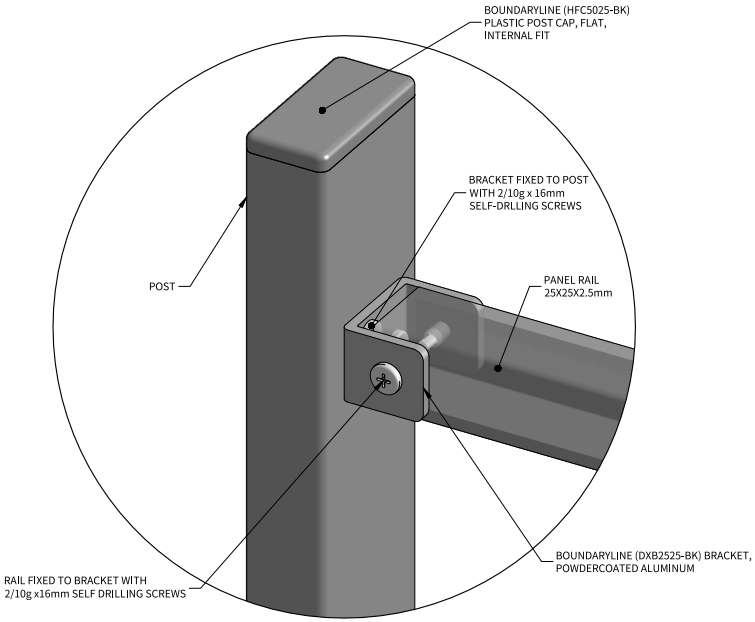
BOUNDARYLINE DURAPANEL AXIS FENCE FOR F9 (POOL FENCE) APPLICATIONS



BOUNDARYLINE DURAPANEL AXIS FENCE FOR F4 - (FALL RESTRAINT BARRIER) APPLICATIONS



Panel Type	AXIS 1200 High - DXP1222-BK		
Loadings	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	2275mm	1075mm	1075mm
In-Ground Post Options	50x25mm DAP5218-BK	50x25mm DSP5218-BK	50x25mm DSP5218-BK
Flanged Post Options	50x25mm DAF5213-BK	50x25mm DSF5213-BK	50x25mm DSF5213-BK
Maximum Wind Loading	Medium Wind Loading - 37m/s	Very High Wind Loading - 50m/s	Very High Wind Loading - 50m/s
Applicable Fixing Details	DPA527501 DPA527502 DAP527503	DPA657501 DPA657502 DPA657503	DPA657501 DPA657502 DPA657503



BRACKET FIXING DETAIL
1:2

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.

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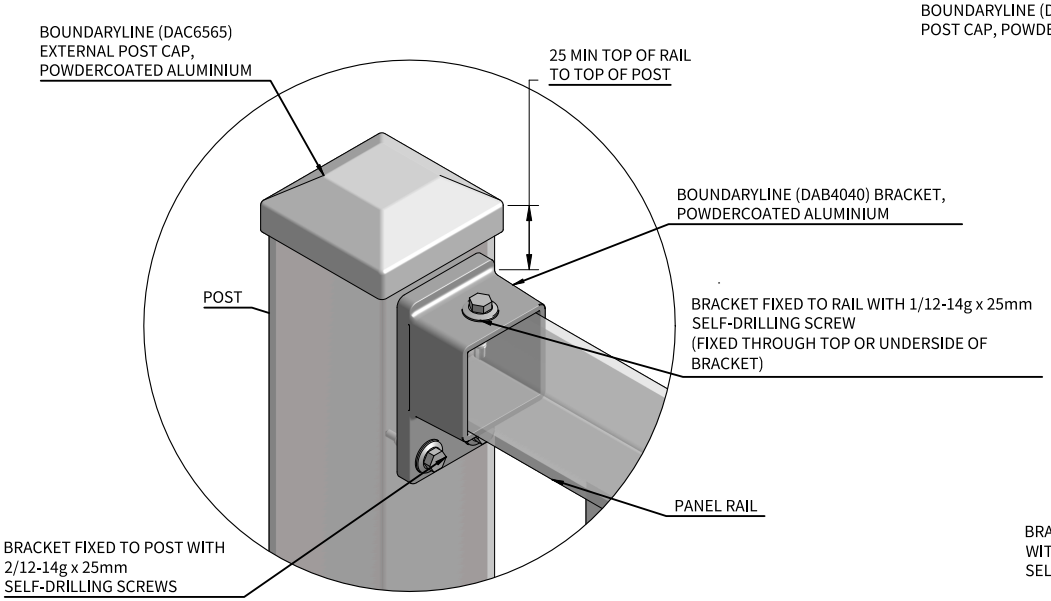
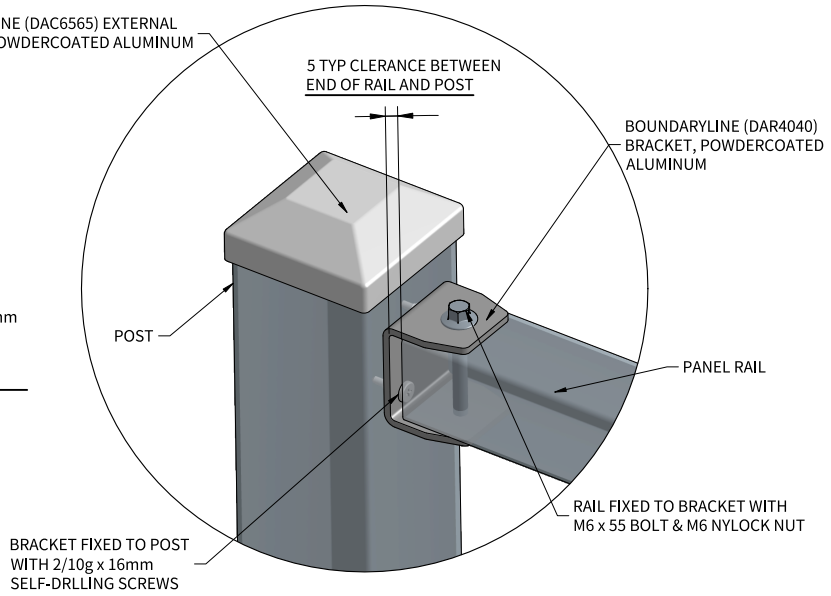
TITLE
BOUNDARYLINE DURAPANEL AXIS

SCALE	SIZE	DRAWING NO
1:32	A4	DXP01
REV.	DATE ISSUED	SHEET
A	2023-12-11	9

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

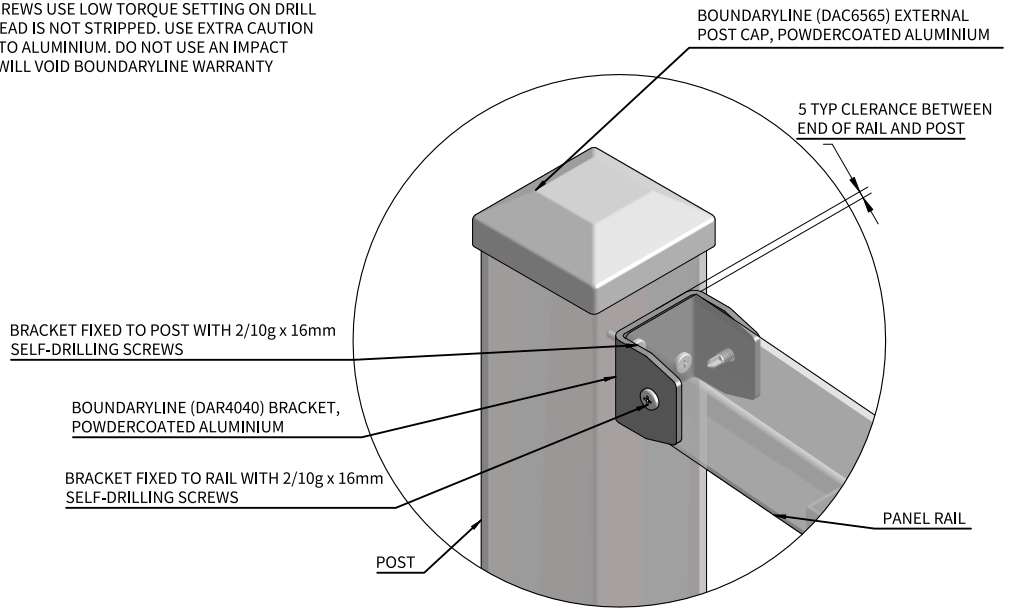


STANDARD PANEL BRACKET FIXING DETAIL
SCALE: 1:3.5
1:3



DIRECTIONAL PANEL BRACKET FIXING DETAIL SCALE: 1:3.5
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 SCALE: 1:3.5
1:3

General Notes
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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.

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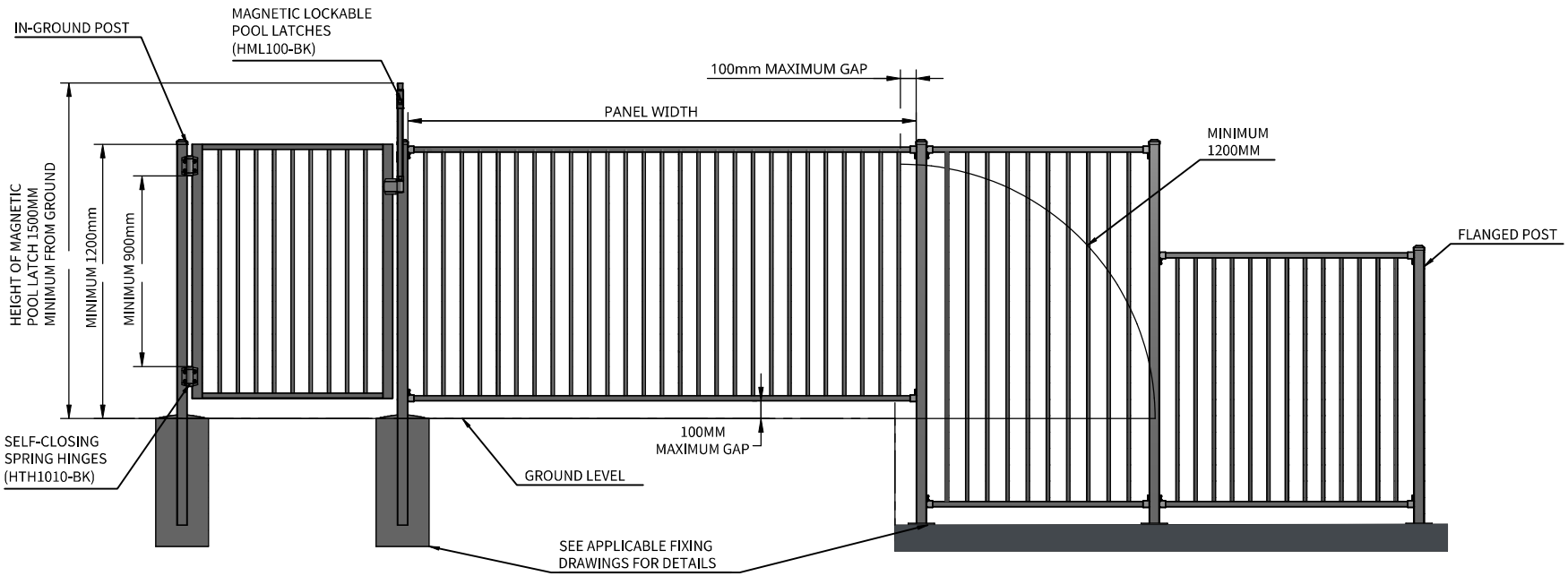
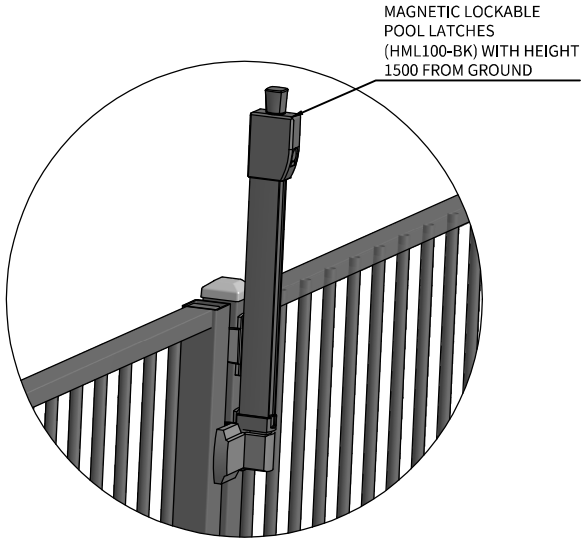
TITLE
BOUNDARYLINE DURAPANEL DELTA RAIL BRACKET DETAILS

SCALE	SIZE	DRAWING NO
1:25	A4	DDB01

REV.	DATE ISSUED	SHEET
A	2023-12-11	10

BOUNDARYLINE DURAPANEL FENCE FOR F9 (POOL FENCE) APPLICATIONS





MAGNETIC LOCKABLE LATCHES (HML100-BK)
1:10

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

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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

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

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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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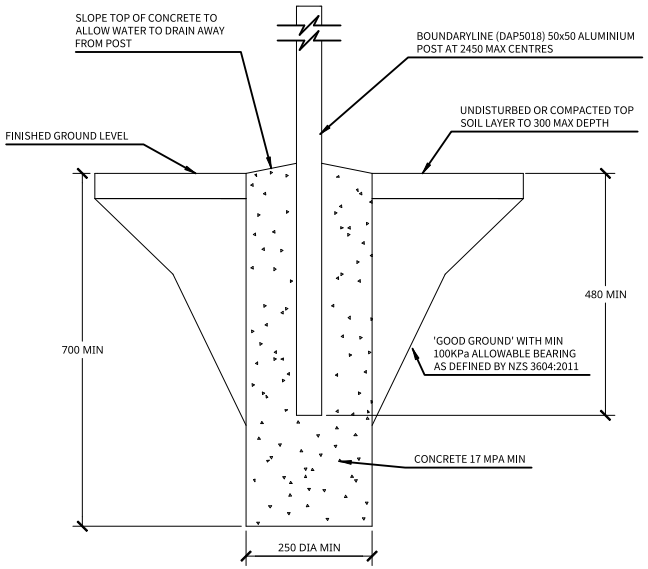
TITLE

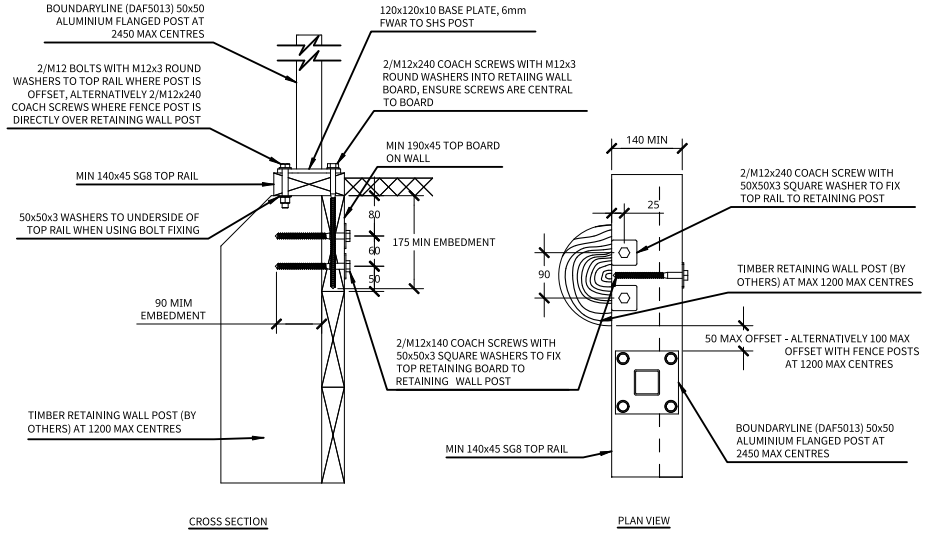
BOUNDARYLINE DURAPANEL TYPICAL POOL FENCE INSTALL

SCALE	SIZE	DRAWING NO
1:32	A4	PFI01

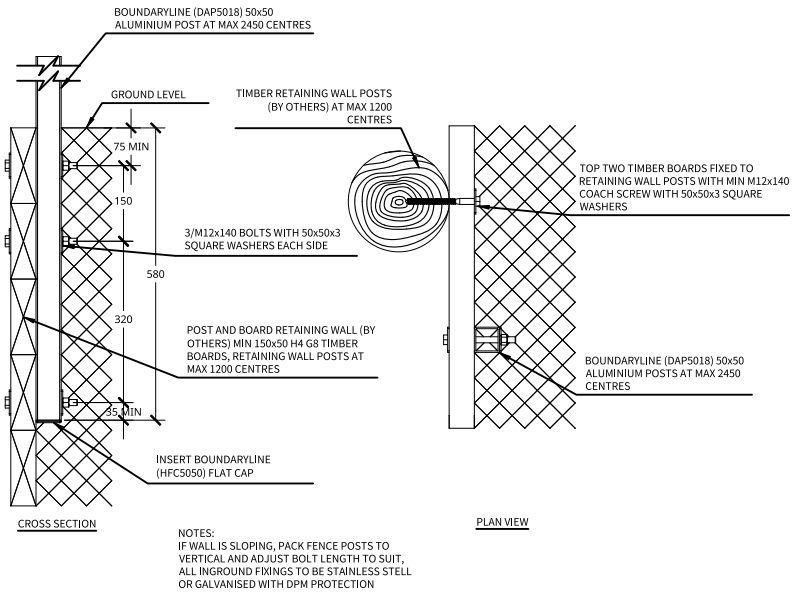
REV.	DATE ISSUED	SHEET
A	2023-12-11	11



DRAWING NO: ICA503324
APPLICATION: CONCRETE IN-GROUND
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s

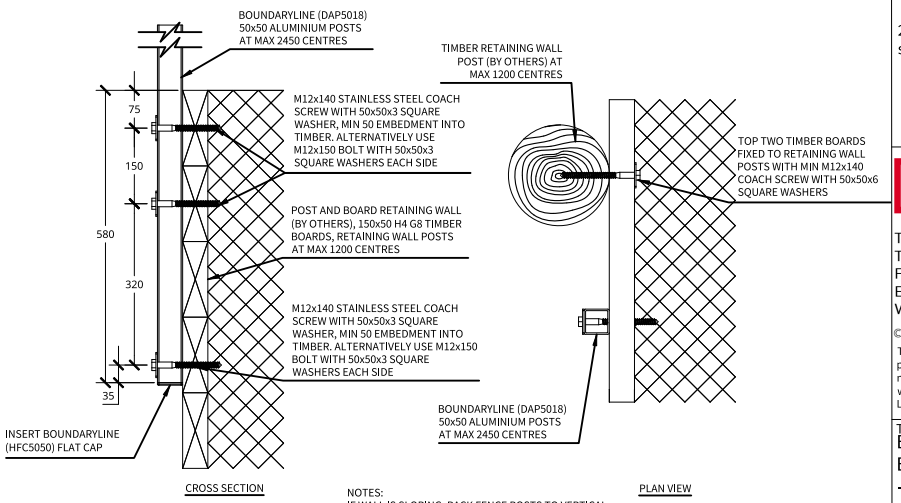


DRAWING NO: TRA503324
APPLICATION: TOP-FIX TO TIMBER RETAINING WALL
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



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

DRAWING NO: SRA503324-A
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES MAX WINDZONE = LOW 32m/s



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

DRAWING NO: SRA503324-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES MAX WINDZONE = LOW 32m/s

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

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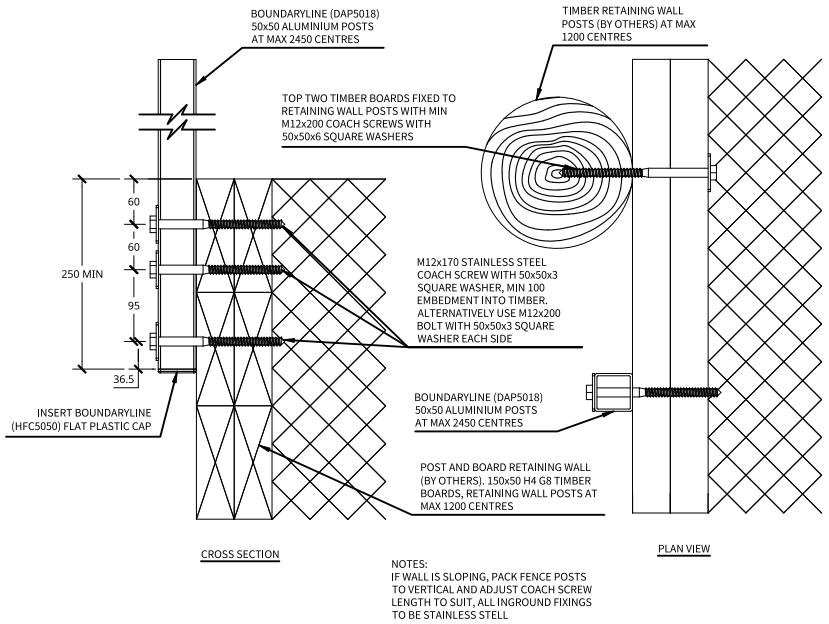
TITLE
BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:
- CONCRETE IN-GROUND
- TIMBER RETAINING WALL

FOR 0.33kN POINT LOADING

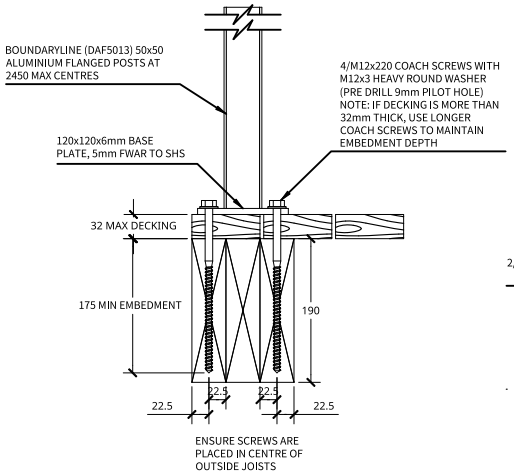
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:15	A4	DPA503301

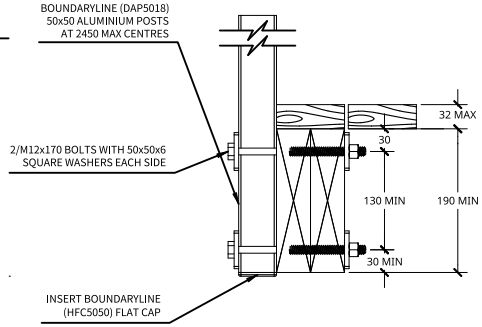
REV.	DATE ISSUED	SHEET
A	2023-12-11	12



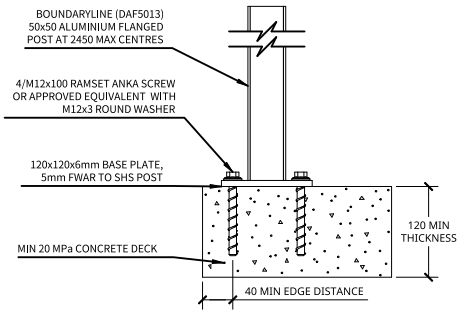
DRAWING NO: SRB503324-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL - DOUBLE BOARD
(POST ON OUTSIDE OF RETAINING WALL)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



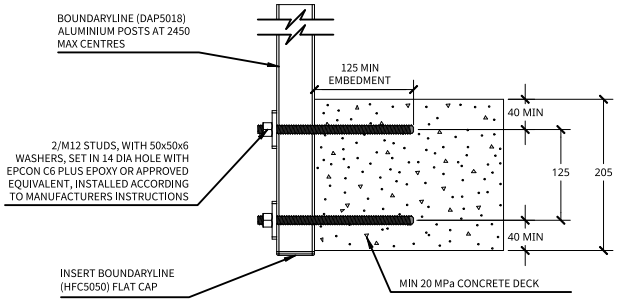
DRAWING NO: TTA503324
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



DRAWING NO: STA503324
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



DRAWING NO: TDA503324
APPLICATION: TOP-FIX TO CONCRETE DECK
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



DRAWING NO: SDA503324-A
APPLICATION: SIDE-FIX TO CONCRETE DECK (205mm THICKNESS)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s

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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 '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

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Boundaryline

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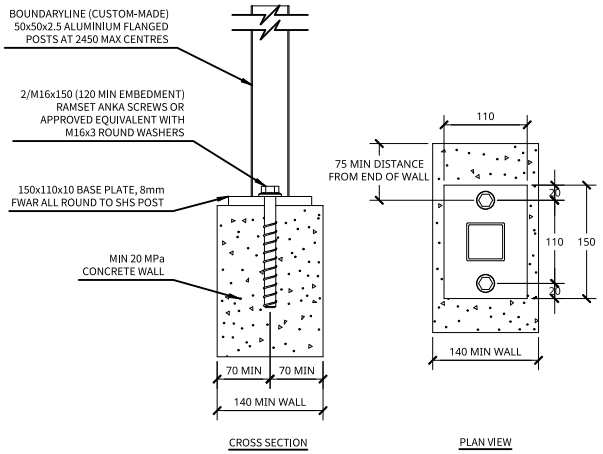
TITLE:
BOUNDARYLINE DURAPANEL BARRIER
FIXING DESIGNS FOR:
- TIMBER RETAINING WALL (DOUBLE BOARD)
- TIMBER DECK
- CONCRETE DECK

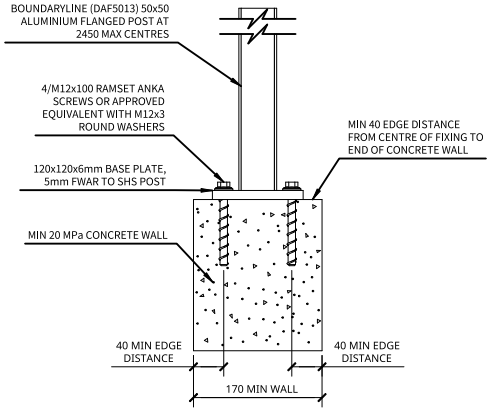
FOR 0.33kN POINT LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	DPA503302

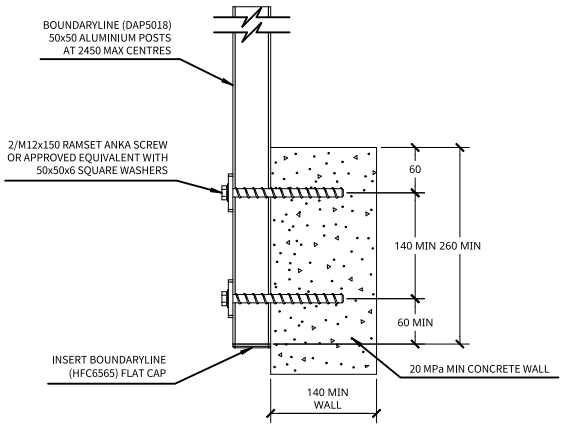
REV.	DATE ISSUED	SHEET
A	2023-12-11	13



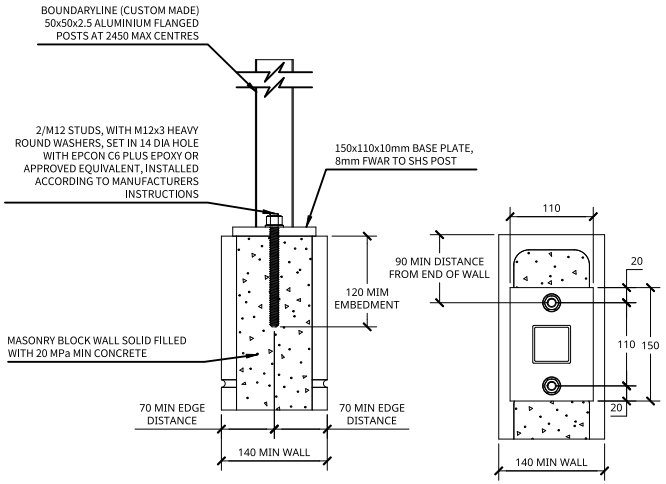
DRAWING NO: TWA503324-A
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



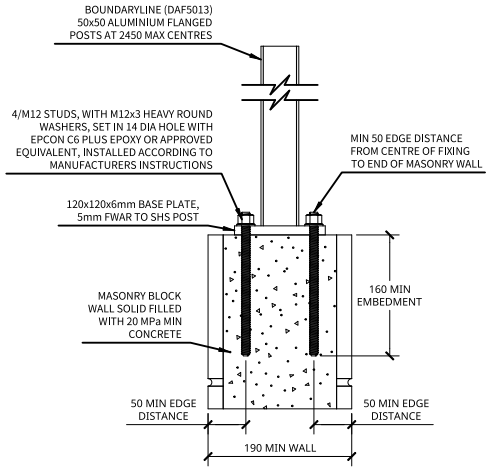
DRAWING NO: TWA503324-B
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



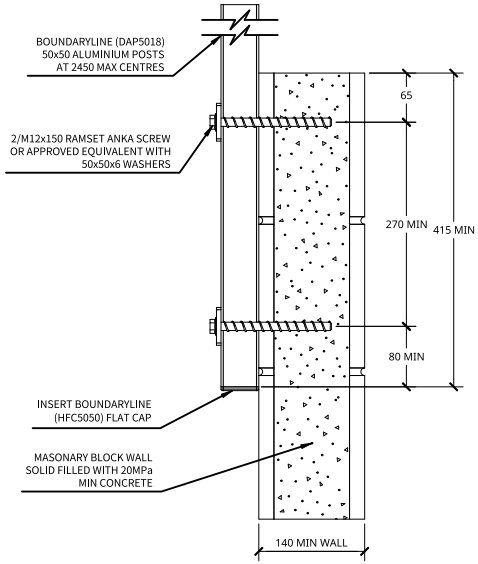
DRAWING NO: SWA503324
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



DRAWING NO: TMA503324-A
APPLICATION: TOP-FIX TO MASONARY WALL (15 SERIES)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



DRAWING NO: TMA503324-B
APPLICATION: TOP-FIX TO MASONARY WALL (20 SERIES)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s



DRAWING NO: SMA503324
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 1200H: 0.33kN POINT LOAD AT MAX 2450 POST CENTRES
MAX WINDZONE = MEDIUM 37m/s
LOADING: 1500H: 0.33kN POINT LOAD AT MAX 2300 POST CENTRES
MAX WINDZONE = LOW 32m/s

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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 3603:1993

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

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Zone	Risk Level & Location	Fixing Type
Zone B	Low risk	Hot-dip Galvanised
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Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Sturcture

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

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Website: www.boundaryline.co.nz

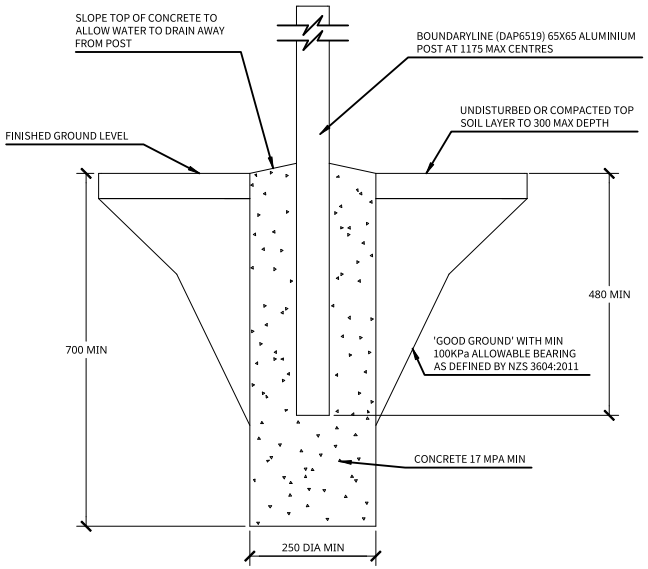
TITLE
BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:
- CONCRETE WALL
- MASONARY WALL

FOR 0.33kN POINT LOADING

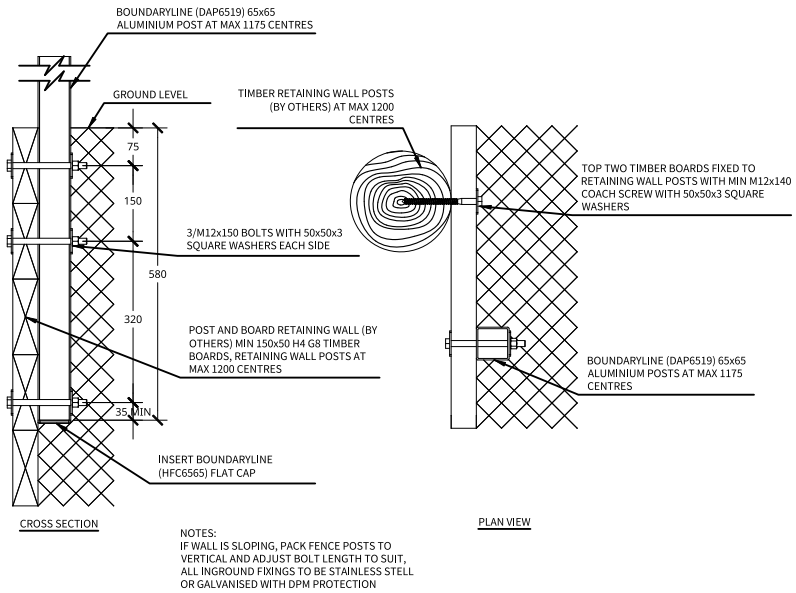
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	DPA503303

REV.	DATE ISSUED	SHEET
A	2023-12-11	14

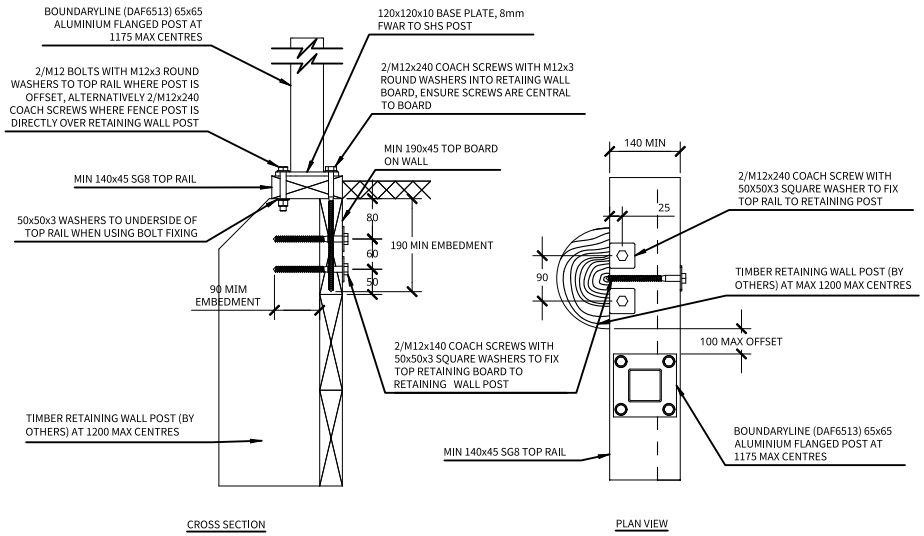


DRAWING NO: ICA657512
APPLICATION: CONCRETE IN-GROUND
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800

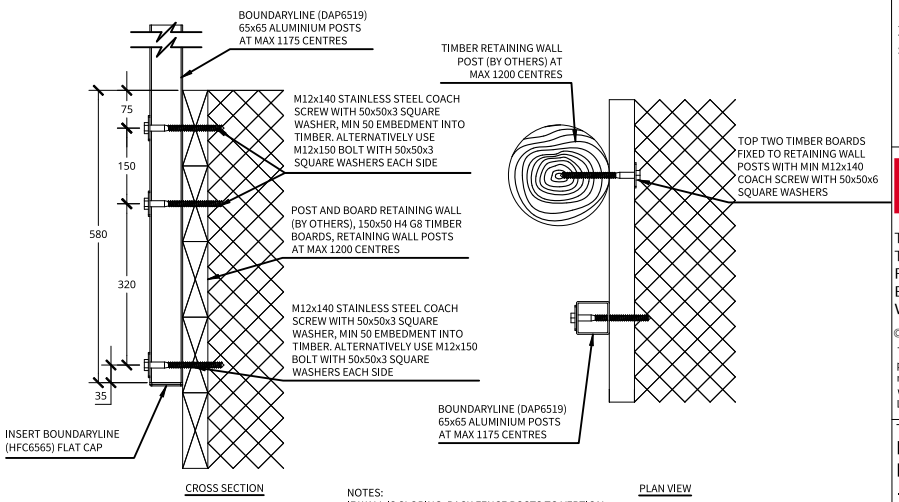


NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST BOLT LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STELL OR GALVANISED WITH DPM PROTECTION

DRAWING NO: SRA657512-A
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: TRA657512
APPLICATION: TOP-FIX TO TIMBER RETAINING WALL
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 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 STELL

DRAWING NO: SRA657512-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800

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Zone C	Medium risk	Hot-dip Galvanised
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Existing Support Sturcture

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Website: www.boundaryline.co.nz

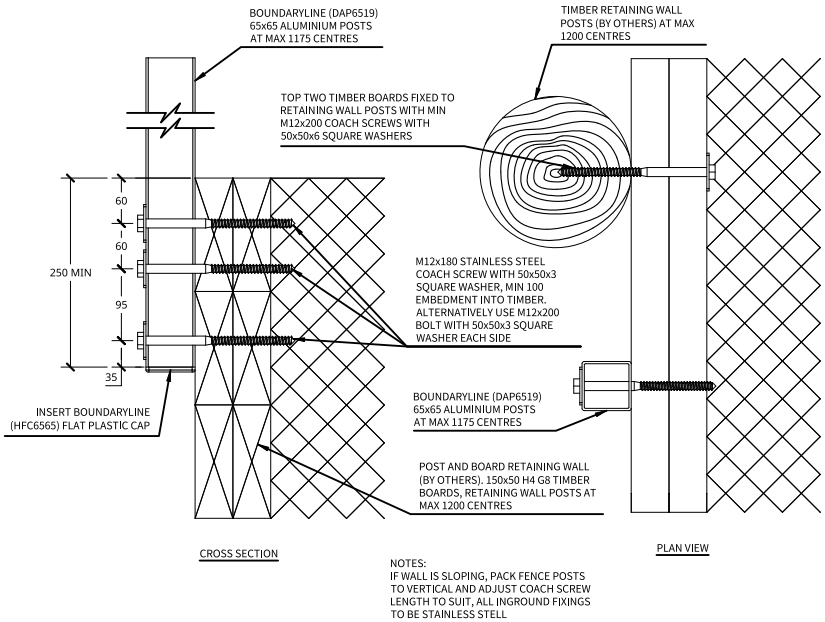
TITLE
BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:
- CONCRETE IN-GROUND
- TIMBER RETAINING WALL

FOR 0.35kN/m & 0.75kN/m HORIZONTAL LOADING

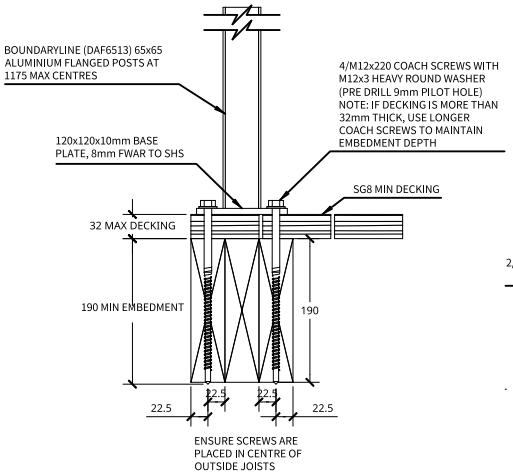
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:15	A4	DPA657501

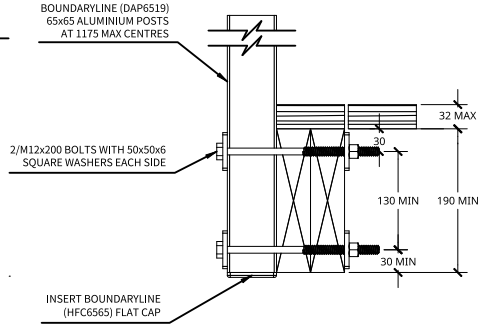
REV.	DATE ISSUED	SHEET
A	2023-12-11	15



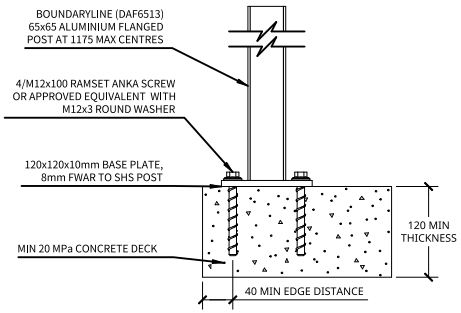
DRAWING NO: SRB657512-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL - DOUBLE BOARD (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



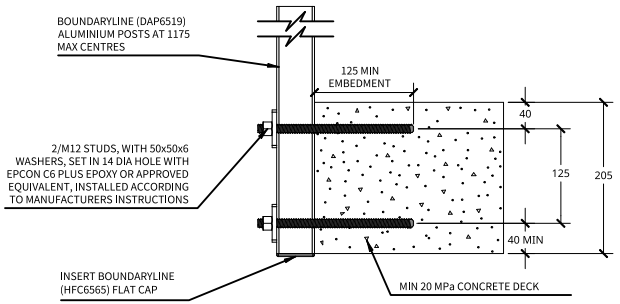
DRAWING NO: TTA657512
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: STA657512
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: TDA657512
APPLICATION: TOP-FIX TO CONCRETE DECK
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: SDA657512-A
APPLICATION: SIDE-FIX TO CONCRETE DECK (205 mIn THICKNESS)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE =
EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX WINDZONE =
EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800

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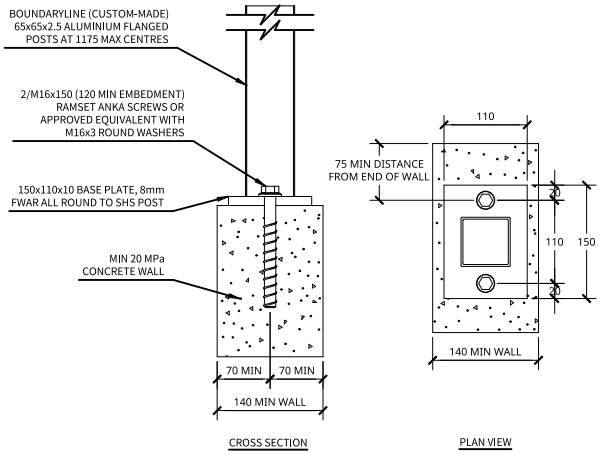
TITLE:
BOUNDARYLINE DURAPANEL BARRIER
FIXING DESIGNS FOR:
- TIMBER RETAINING WALL (DOUBLE BOARD)
- TIMBER DECK
- CONCRETE DECK

FOR 0.35kN/m & 0.75kN/m HORIZONTAL LOADING

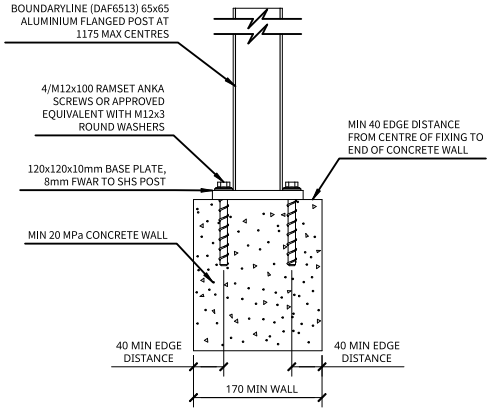
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	DPA657502

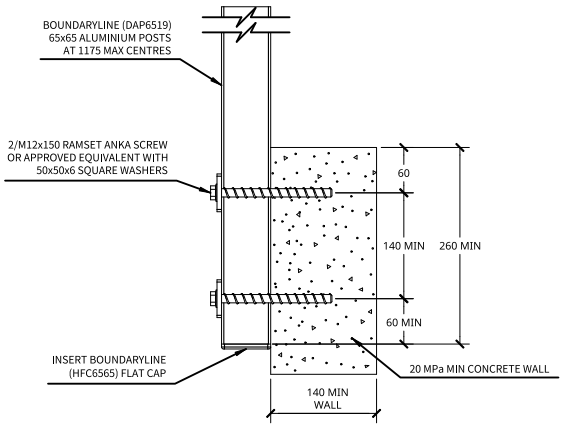
REV.	DATE ISSUED	SHEET
A	2023-12-11	16



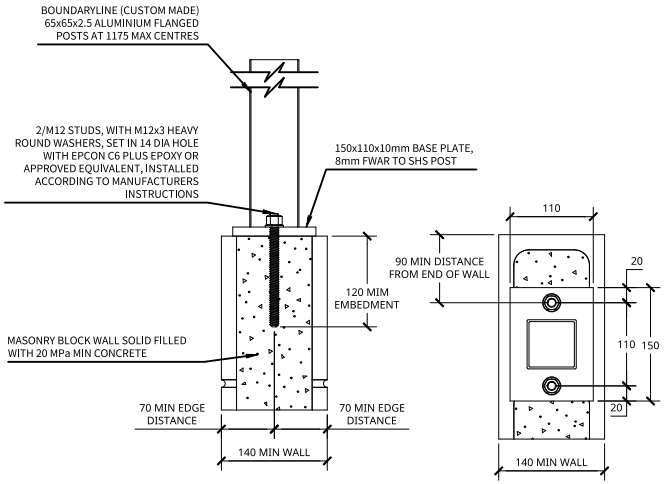
DRAWING NO: TWA657512-A
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



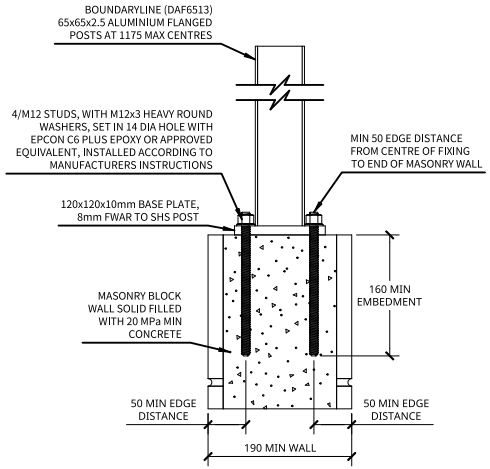
DRAWING NO: TWA657512-B
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



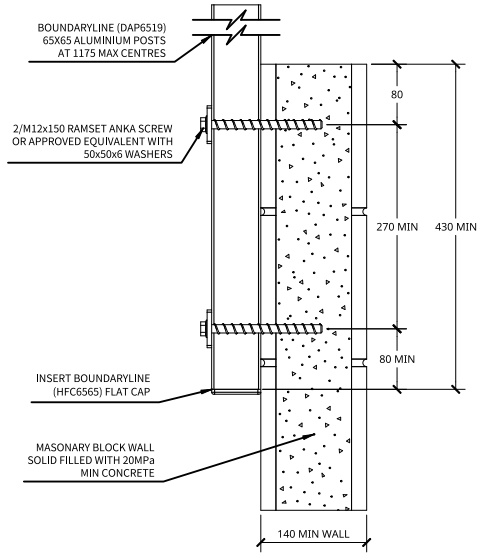
DRAWING NO: SWA657512
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES,
MAX WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: TMA657512-A
APPLICATION: TOP-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: TMA657512-B
APPLICATION: TOP-FIX TO MASONARY WALL (20 SERIES)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800



DRAWING NO: SMA657512
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.35kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
LOADING: 0.75kN/m AT MAX 1175 POST CENTRES, MAX
WINDZONE = EXTRA HIGH 56m/s
HEIGHTS: 1200, 1500, 1800

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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

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

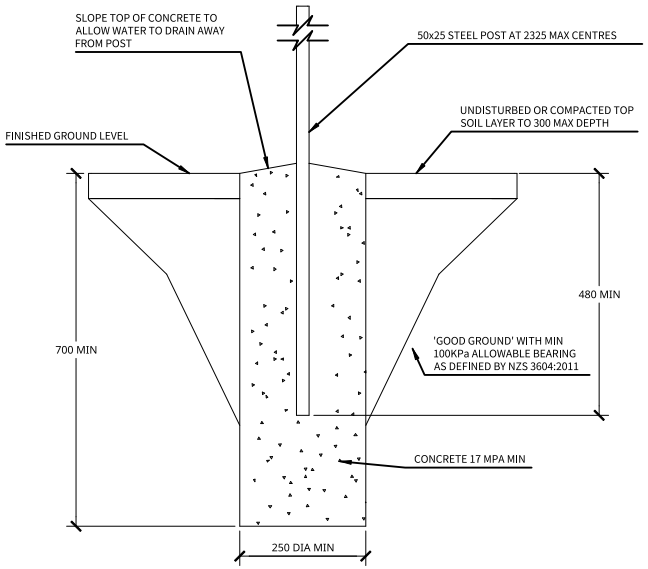
TITLE
BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:
- CONCRETE WALL
- MASONARY WALL

FOR 0.35kN/m & 0.75kN/m HORIZONTAL LOADING

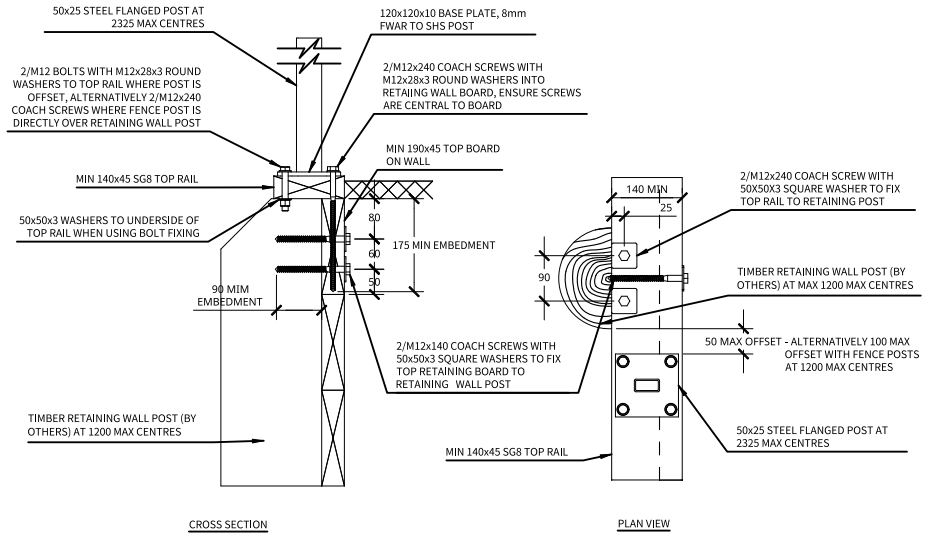
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	DPA657503

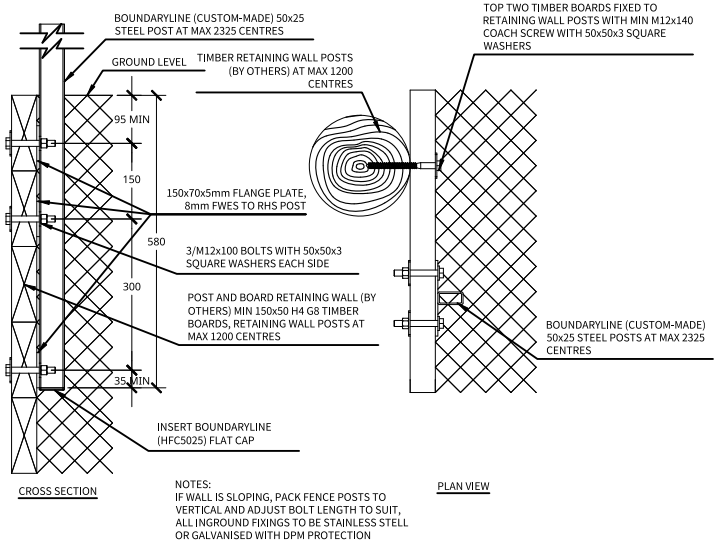
REV.	DATE ISSUED	SHEET
A	2023-12-11	17



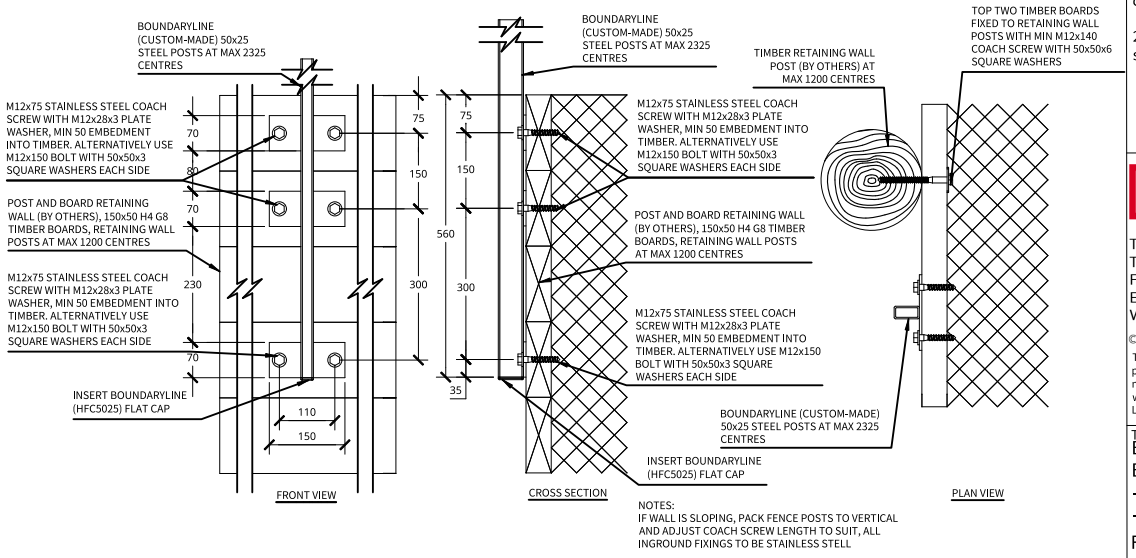
DRAWING NO: ICA527511
APPLICATION: CONCRETE IN-GROUND
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: TRA527511
APPLICATION: TOP-FIX TO TIMBER RETAINING WALL
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: SRA527511-A
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: SRA527511-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY

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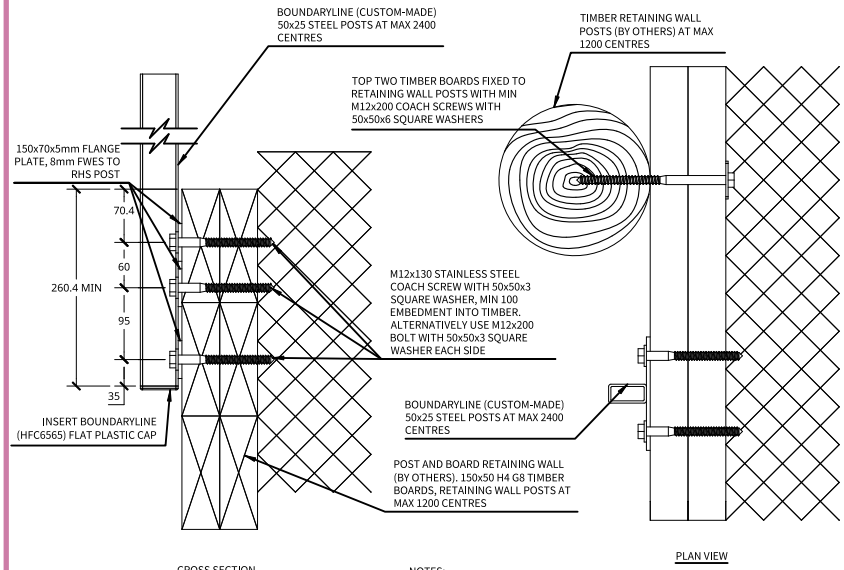
Website: www.boundaryline.co.nz

TITLE
BOUNDARYLINE DURAPANEL AXIS BARRIER FIXING DESIGNS FOR:
- CONCRETE IN-GROUND
- TIMBER RETAINING WALL

FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

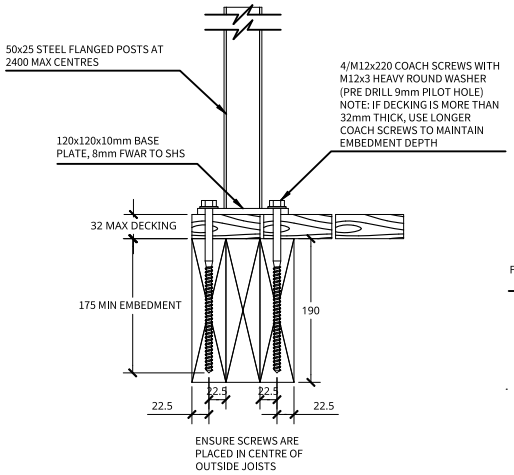
SCALE	SIZE	DRAWING NO
1:15	A4	DPA527501

REV.	DATE ISSUED	SHEET
A	2023-12-11	18

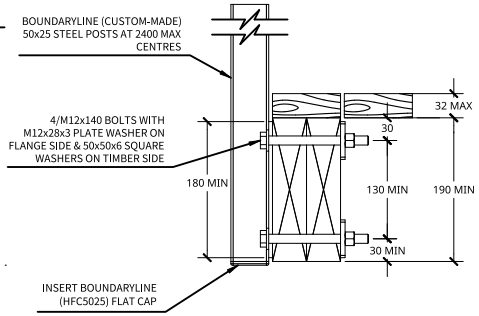


NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST COACH SCREW LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STELL

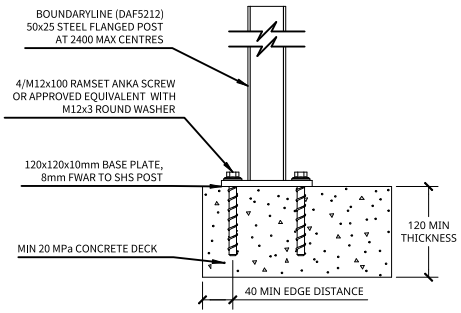
DRAWING NO: SRB527511-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL - DOUBLE BOARD (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



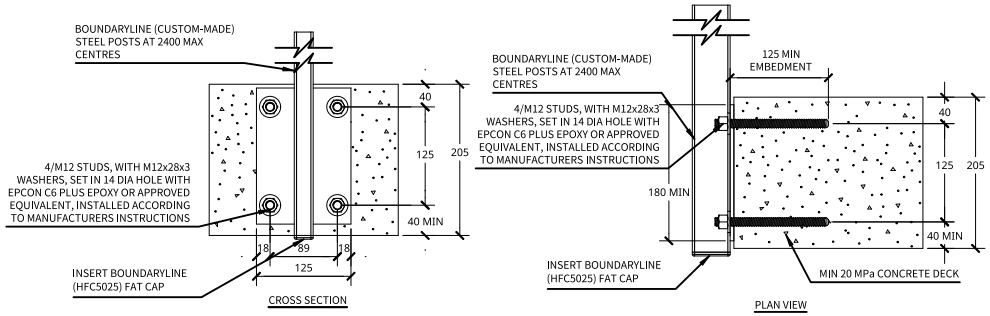
DRAWING NO: TTA527511
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: STA527511
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: TDA527511
APPLICATION: TOP-FIX TO CONCRETE DECK
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: SDA527511-A
APPLICATION: SIDE-FIX TO CONCRETE DECK (180 min THICKNESS)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY

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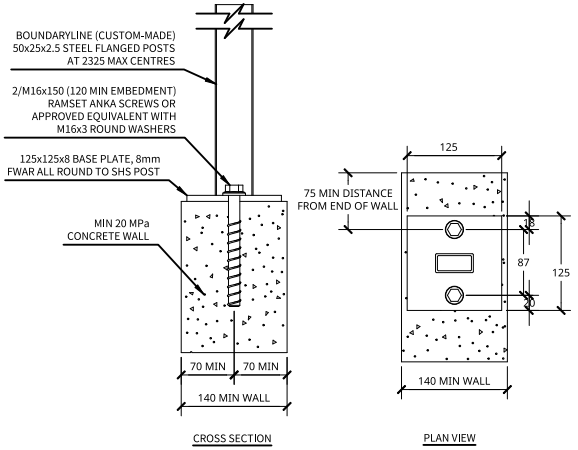
Website: www.boundaryline.co.nz

TITLE:
BOUNDARYLINE DURAPANEL AXIS BARRIER FIXING DESIGNS FOR:
- TIMBER RETAINING WALL (DOUBLE BOARD)
- TIMBER DECK
- CONCRETE DECK

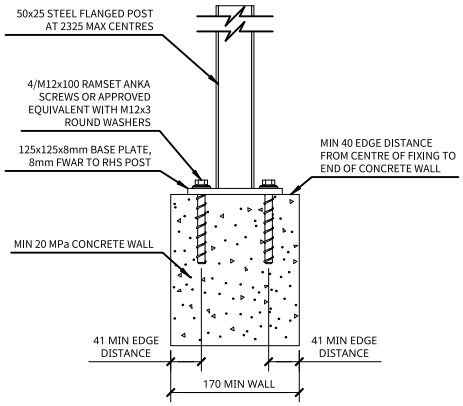
FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	DPA527502

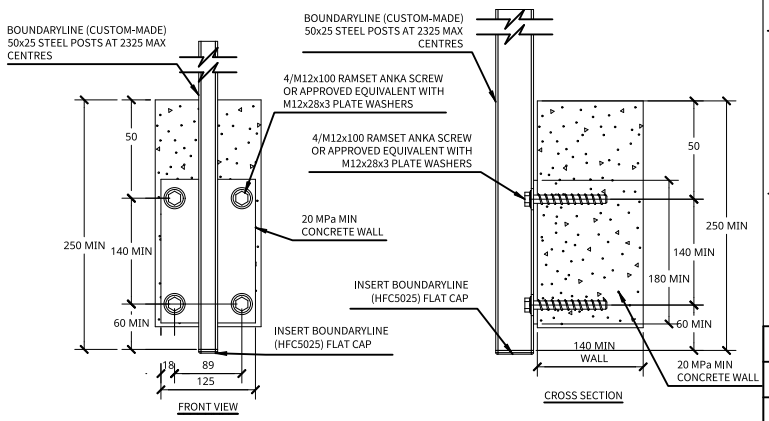
REV.	DATE ISSUED	SHEET
A	2023-12-11	19



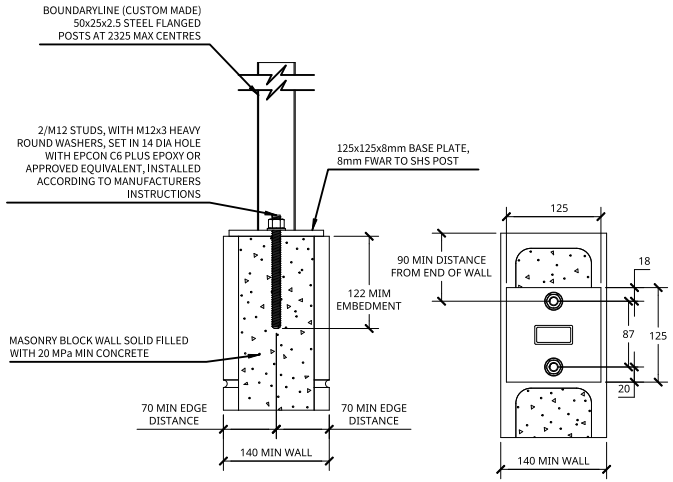
DRAWING NO: TWA527511-A
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: TWA527511-B
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: SWA527511
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: TMA527511-A
APPLICATION: TOP-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
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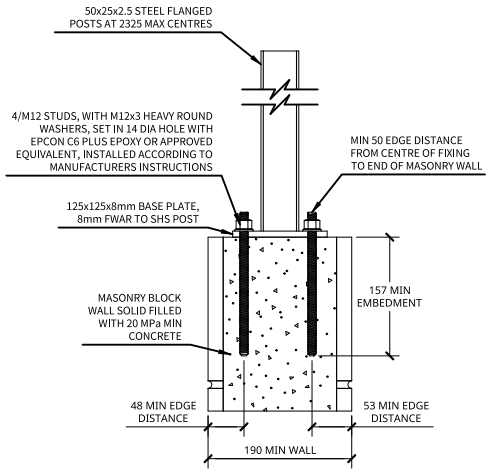
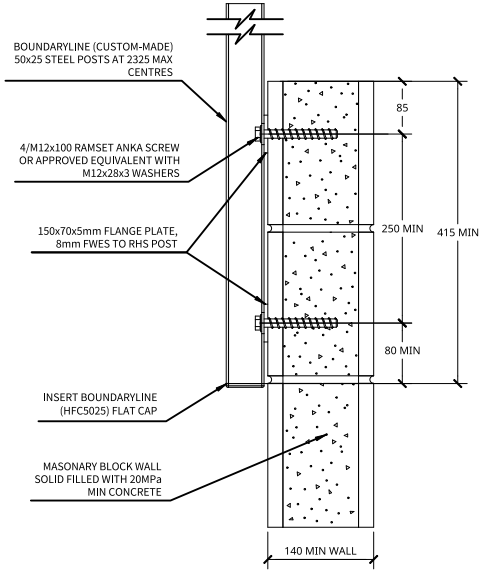


DRAWING NO: TMA527511-B
APPLICATION: TOP-FIX TO MASONARY WALL (20 SERIES)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
LOADING: 0.35kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY



DRAWING NO: SMA527511
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.33kN POINT LOAD AT MAX 2325 POST CENTRES, MAX WINDZONE = MEDUM 37m/s
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LOADING: 0.75kN/m AT MAX 1075 POST CENTRES, MAX WINDZONE = VERY HIGH 50m/s
HEIGHT: 1200 ONLY

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- CONCRETE WALL
- MASONARY WALL

FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	DPA527503

REV.	DATE ISSUED	SHEET
A	2023-12-11	20

PRODUCER STATEMENT – PS1
DESIGN

BUILDING CODE CLAUSE(S): B1 F4 F9 **JOB NUMBER:** S89-0189
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: BALUSTRADE AND SCREEN
(Description of Building Work)
AT: VARIOUS LOCATIONS ACROSS NEW ZEALAND
(Address, Town/City)
LEGAL DESCRIPTION: **N/A** ☐

We have been engaged by the owner/developer referred to above to provide *(Extent of Engagement)*:
VERIFICATION OF DURAPANEL 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 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 the CM 2 level of **construction monitoring**.

I, *(Name of Engineering Design Professional)* TINUS SMITH , am:

- ☑ 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 Date: 26/01/24

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 to PS1

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

PS1 VALID FROM 26 JANUARY 2024 TO 25 JANUARY 2025

P.1 - Cover Page
P.2 - Barrier specification selection guide
P.3 to P.4 - Specification (Wind, Fixing Types)
P.5 to P.21 - Drawings and Details
P.22 to P.24 - PS1
P.25 - Last Page

GUIDANCE ON USE OF PRODUCER STATEMENTS

Information on the use of Producer Statements and Construction Monitoring Guidelines can be found on the Engineering New Zealand website
https://www.engineeringnz.org/engineer-tools/engineering-documents/producer-statements/

Producer statements were first introduced with the Building Act 1991. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects (NZIA), Institution of Professional Engineers New Zealand (now Engineering New Zealand), Association of Consulting and Engineering New Zealand (ACE NZ) in consultation with the Building Officials Institute of New Zealand (BOINZ). The original suite of producer statements has been revised at the date of this form to ensure standard use within the industry.

The producer statement system is intended to provide Building Consent Authorities (BCAs) with part of the reasonable grounds necessary for the issue of a Building Consent or a Code Compliance Certificate, without necessarily having to duplicate review of design or construction monitoring undertaken by others.

PS1 DESIGN Intended for use by a suitably qualified independent engineering design professional in circumstances where the BCA accepts a producer statement for establishing reasonable grounds to issue a Building Consent;

PS2 DESIGN REVIEW Intended for use by a suitably qualified independent engineering design review professional where the BCA accepts an independent design professional's review as the basis for establishing reasonable grounds to issue a Building Consent;

PS3 CONSTRUCTION Forms commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:2013 or Schedules E1/E2 of NZIA's SCC 2011[2]

PS4 CONSTRUCTION REVIEW Intended for use by a suitably qualified independent engineering construction monitoring professional who either undertakes or supervises construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code Compliance Certificate.

This must be accompanied by a statement of completion of building work (Schedule 6).

The following guidelines are provided by ACE New Zealand and Engineering New Zealand to interpret the Producer Statement.

Competence of Engineering Professional
This statement is made by an engineering firm that has undertaken a contract of services for the services named, and is signed by a person authorised by that firm to verify the processes within the firm and competence of its personnel.

The person signing the Producer Statement on behalf of the engineering firm will have a professional qualification and proven current competence through registration on a national competence-based register such as a Chartered Professional Engineer (CPEng).

Membership of a professional body, such as Engineering New Zealand provides additional assurance of the designer's standing within the profession. If the engineering firm is a member of ACE New Zealand, this provides additional assurance about the standing of the firm.

Persons or firms meeting these criteria satisfy the term "suitably qualified independent engineering professional".

Professional Indemnity Insurance
As part of membership requirements, ACE New Zealand requires all member firms to hold Professional Indemnity Insurance to a minimum level.

The PI Insurance minimum stated on the front of this form reflects standard practice for the relationship between the BCA and the engineering firm.

Professional Services during Construction Phase
There are several levels of service that an engineering firm may provide during the construction phase of a project (CM1-CM5 for engineers[3]). The building Consent Authority is encouraged to require that the service to be provided by the engineering firm is appropriate for the project concerned.

Requirement to provide Producer Statement PS4
Building Consent Authorities should ensure that the applicant is aware of any requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the Design Firm's engagement.

Refer Also:

1. Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2013
2. NZIA Standard Conditions of Contract SCC 2011
3. Guideline on the Briefing & Engagement for Consulting Engineering Services (ACE New Zealand/Engineering New Zealand 2004)
4. PN01 Guidelines on Producer Statements

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