

- Pg 3 Glass Fencing and Balustrade Fixings
- Pg 4 Tekapo Wind & Fixing Information
- Pg 10 Rakaia Wind & Fixing Information
- Pg 14 Milford Wind & Fixing Information
- Pg 19 Kaweka Wind & Fixing Information
- Pg 23 Aoraki Wind & Fixing Information





Timber Fixings:





Countersunk Timber Screw 140mm Long Stainless Steel 316 (Hex head drive) Order Code: SCETCSK

- Self tapping 140mm length with M8 diameter screw
- · Spigots: Tekapo, Rakaia Channel

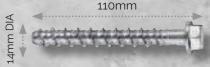
Concrete Fixings:



M8 Countersunk Concrete Screw ANCHOR 95mm Long Stainless Steel 316 (Torx head drive)

Order Code: SCECCSA
Self tapping 95mm length with 10mm outer; M8 diameter screw

- Spigots: Tekapo, Rakaia Channel
- · Drill a 8mm Hole



M12 Concrete Screw Anchor 110mm Long Stainless Steel 316 (Hex head drive)

Order Code: SCECHSA

- Self tapping 110mm length with 14mm outer;
 M12 diameter screw
- · Spigots: Milford, Kaweka
- · Drill a 12mm hole



Threaded rod Stainless Steel 316 (Hex head drive)

M10 Order Code: SCETHR10 (for Rakaia Channel)

M12 Order Code: SCETHR12 (for Milford, Kaweka and Aoraki Spigots)

- Ideal for fixing to concrete and timber
- Chemset also supplied for concrete applications ask our sales team for more info
- Drill a 14mm hole when using Chemset



Chemset: SCECHEM Chemset Used with SCETHR12 Stainless threaded rod into concrete



M12 Coachscrew Timber Screw 135mm Stainless Steel 316 (Hex head drive) 135mm Order Code: SCETHX (for Kaweka spigots)

- · Self tapping 135mm length with M12 diameter screw
- · Spigots: Kaweka, Milford

140mm & 150mm

Expression 140mm & 150mm

M10 Timber Lag Screw 140mm Long Stainless Steel 316 (Hex head drive) Order Code: SCELAG140 (Rakaia Channel) Order Code: SCELAG150 (Aoraki Spigots)

- Self tapping 140mm length with M10 diameter screw
- 2 x M12 nuts
- Spigots: Aoraki, Rakaia Channel (Bottom Fixing)

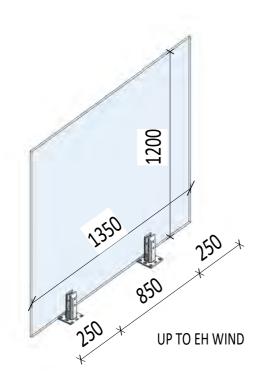


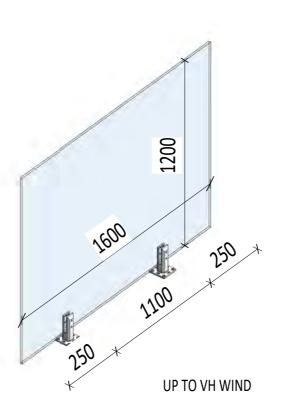
...make it your own!

| | Max Panel Sizes for <u>VH</u> Wind Zones Balustrade | | | | | | | | | | |
|---|---|-----|-------------------|-------------------|-------------------|----------|-------------------|-------------------|------------------------|---------------|----------|
| 1 | Spigot Spigot | | | | | | | | Edge distance | Edge Distance | |
| 1 | | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete |
| | Tekapo Balustrade | 2 | 1600W | 1400W | Engineers Aproval | A,B,E,C3 | M8 x 140 Spax | M8 x 140 Spax | M8 x 85 Concrete Screw | 22 | 55 |
| 1 | | 2 | | | 1250W (1600W 3 | | | | | 22 | 55 |
| П | Tekapo Pool Fence | _ | N/A | 1600W | Spigots) | | M8 x 140 Spax | M8 x 140 Spax | M8 x 85 Concrete Screw | 22 | 55 |

| | Max Panel Sizes for <u>EH</u> Wind Zones Balustrade | | | | | | | | | | |
|-------------------|---|-------------------|---------------------------|-------------------|----------|-------------------|-------------------|------------------------|---------------|---------------|--|
| | Spigot | | | | | | | | Edge distance | Edge Distance | |
| | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | |
| Tekapo Balustrade | 2 | 1600W | 1600W (3 Spigots) | Engineers Aproval | A,B,E,C3 | M8 x 140 Spax | M8 x 140 Spax | M8 x 85 Concrete Screw | 22 | 55 | |
| Tekapo Pool Fence | 2 | N/A | 1350W (1600 3 Spigots) | Engineers Aproval | | M8 x 140 Spax | M8 x 140 Spax | M8 x 85 Concrete Screw | 22 | 55 | |

BelAire Tekapo Pool Fencing Wind Zones

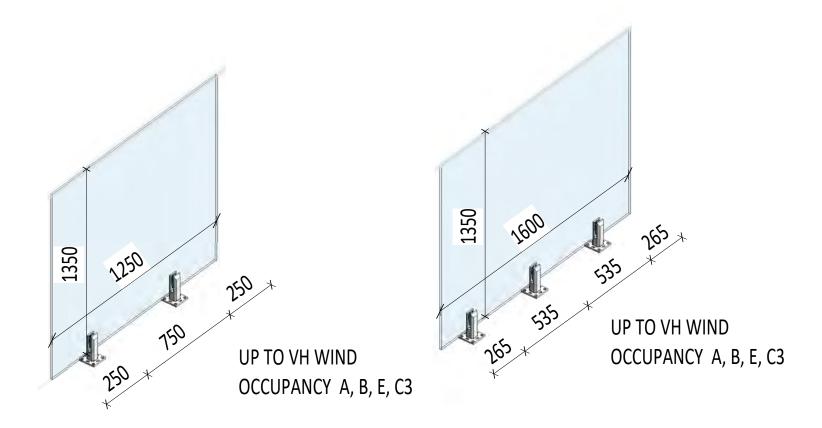




Client: STORETECH LIMITED Project: TEKAPO FIXING SPIGOT Drawing: PANEL SIZES - POOL FENCE 1

| REF. | DESCRIPTION | | | | | | DATE | |
|---------------|---------------|-------------|---------|---|----------------------|------------------------|------|-----|
| R.2 | MINOR AMEN | DMENTS | | | | | 2205 | 525 |
| R.3 | FIXING REVISE | 220816 | | | | | | |
| R.4 | CONCRETE FIX | ING REVISED | | | | | 2212 | 202 |
| scale: @A3 | drawn: | checked: PM | status: | P | project no: 20073 | drg no: TF01 | rev: | R.4 |

BelAire Tekapo Pool Fencing Wind Zones

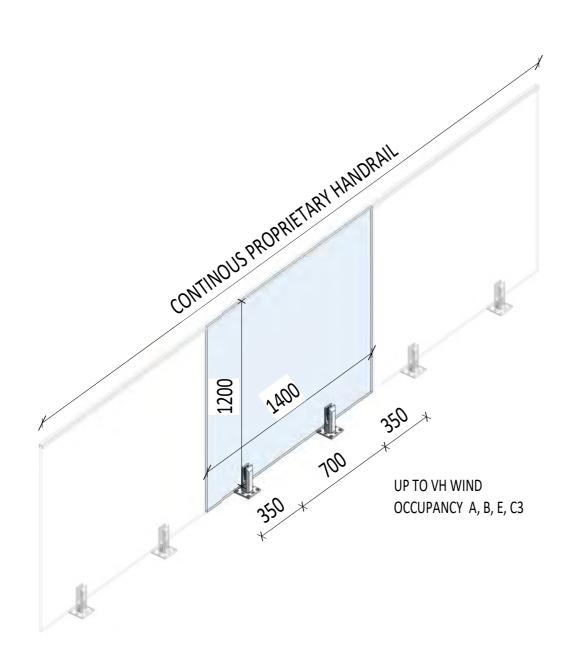


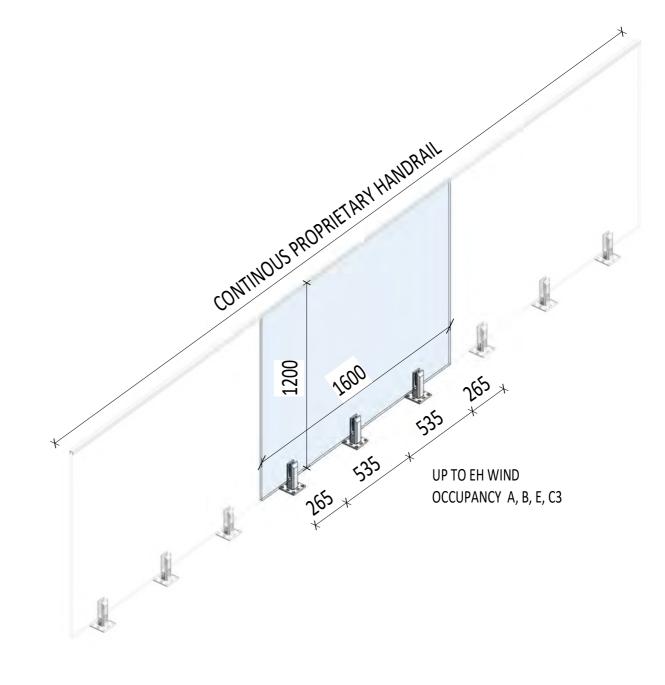


Client: STORETECH LIMITED Project: TEKAPO FIXING SPIGOT 1350mm High glass Drawing: PANEL SIZES - POOL FENCE 1

| REF. | DESCRIPTION | | | | | | DA | TE |
|---------------|-------------|-------------|---------|---|----------------------|------------------------|------|-----|
| R.1 | INFORMATION | l | | | | | 220 | 328 |
| | | | | | | | | |
| | | | | | | | | |
| scale: @A3 | drawn: | checked: PM | status: | Р | project no: 21098 | drg no: TF02 | rev: | R.1 |

BelAire Tekapo Balustrade Wind Zones



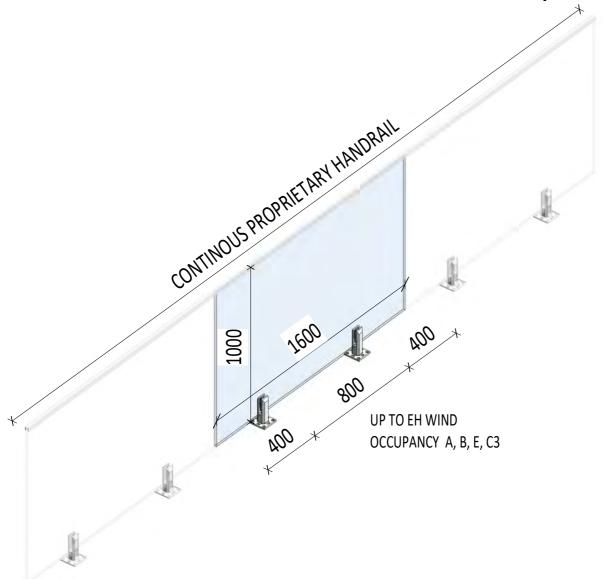




Client: STORETECH LIMITED Project: TEKAPO FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | DATE | | | | |
|---------------|---------------|----------------|---------|---|----------------------|-----------------|--------|------|--|--|--|
| R.2 | MINOR AMEN | DMENTS | | | | | 220525 | | | | |
| R.3 | FIXING REVISE | FIXING REVISED | | | | | | | | | |
| R.4 | CONCRETE FIX | ING REVISED | | | | | 22 | 1202 | | | |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: TB01 | rev: | R.4 | | | |

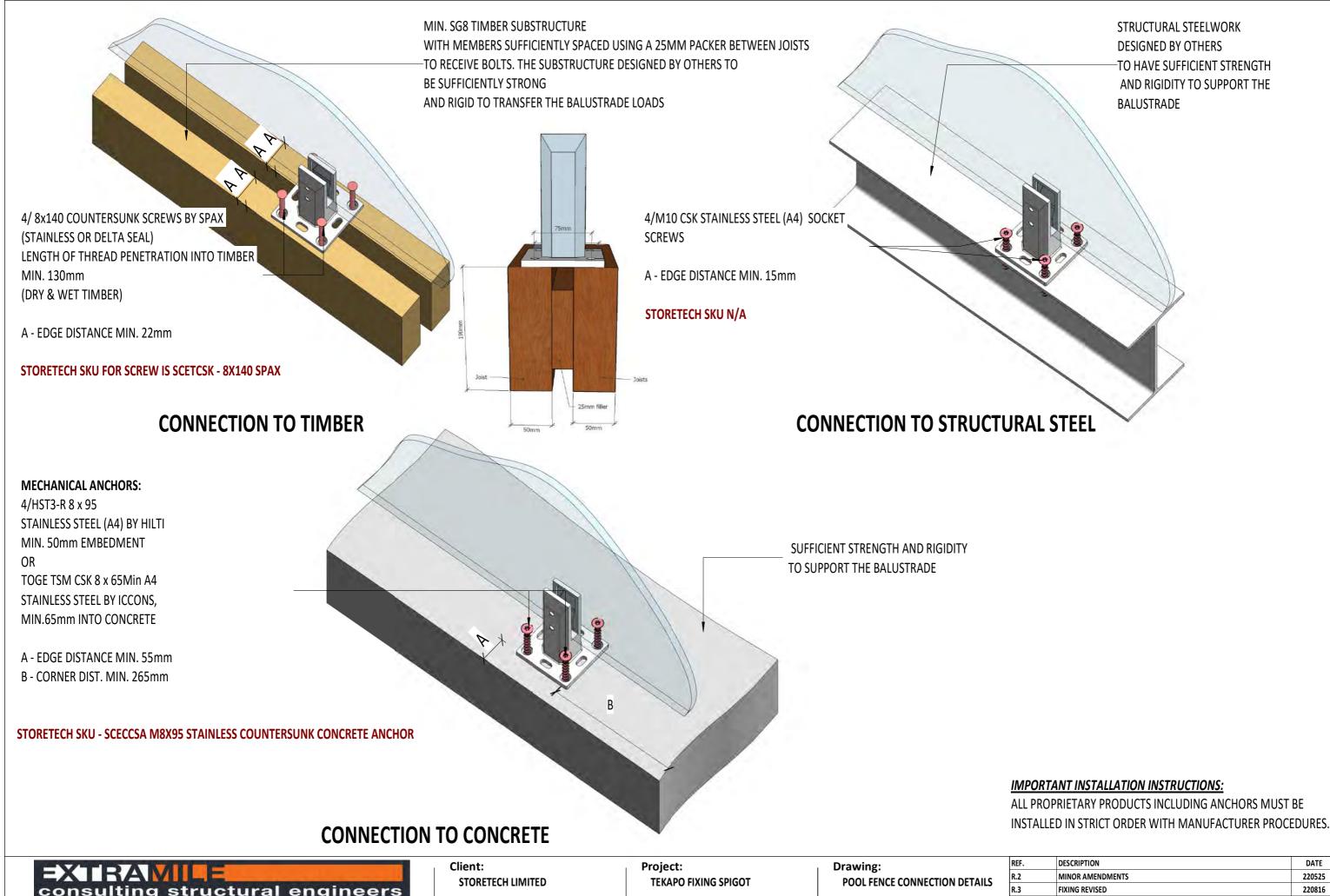
BelAire Tekapo Balustrade Wind Zones





Client: STORETECH LIMITED Project: TEKAPO FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | DATE | |
|---------------|---------------|-------------|---------|---|----------------------|------------------------|------|-----|
| R.2 | MINOR AMEN | DMENTS | | | | | 220 | 525 |
| R.3 | FIXING REVISE | | 220816 | | | | | |
| R.4 | CONCRETE FIX | ING REVISED | | | | | 2217 | 202 |
| scale: @A3 | drawn: | checked: PM | status: | Р | project no: 20073 | drg no: TB02 | rev: | R.4 |



consulting structural engineers m. 0210398833, m.0211099712 7 Market Street Napier. 4110 www.extra-mile.co.nz, info@extra-mile.co.nz

DATE 220525 220816 R.4 CONCRETE FIXING REVISED 221202 scale: @A3 checked: roject no: **20073**



Wind and Fixing Specifications

1600W

1600W

1600W

1600W

Rakaia Balustrade

Rakaia Pool Fence

Channel 1600W

Channel 1600W

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40

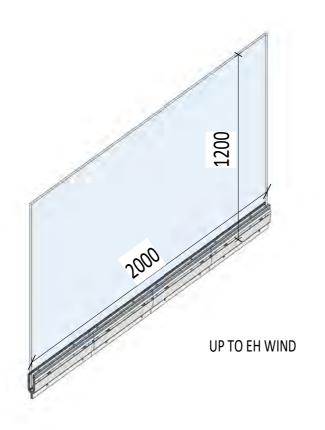
| | Channel | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Edge distance Timber | Edge Distance Concrete |
|-------------------|---------|-------------------|-------------------|-------------------|----------|--|----------------------------|----------|-------------------------|---------------------------|
| Rakaia Balustrade | Channel | 1600W | 1600W | 1600W | A,B,E,C3 | | | | 40 | 50 |
| Rakaia Pool Fence | Channel | | 1600W | | | fixing M10 x 140 Lag Screw bottom fixing | M10 x 70 Threaded rod with | 40 | 50 | |

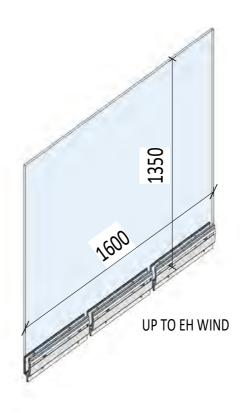
A.BE.C3

M8 x 140 Spax top M8 x 140 Spax top M8 x 75 Concrete Screw top fixing

fixing M10 x 140 Lag fixing M10 x 140 Lag M10 x 70 Threaded rod with

BelAire Rakaia Pool Fencing Wind Zones





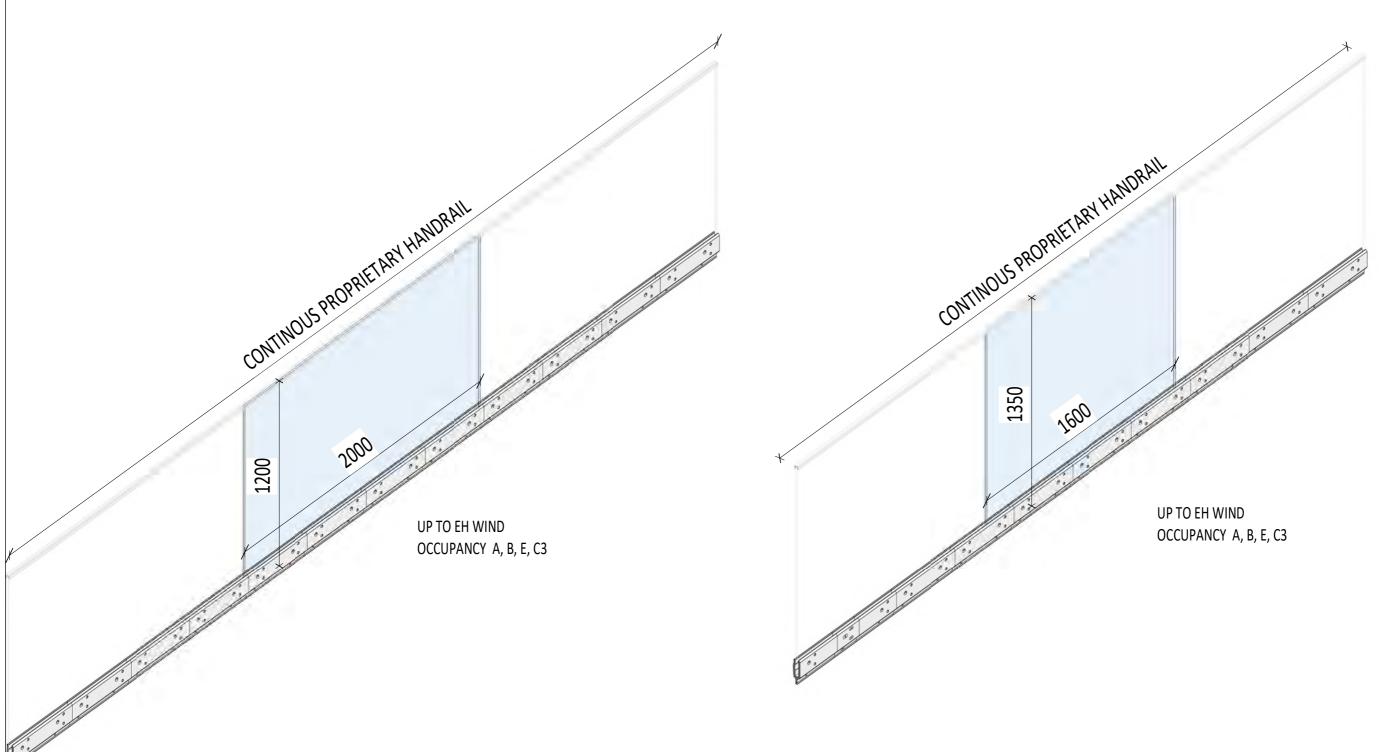


Client: STORETECH LIMITED Project:
RAKAIA CHANNEL

Drawing: PANEL SIZES - POOL FENCE

| REF. | DESCRIPTION | | | | | | DATE | |
|---------------|---------------|-------------|---------|---|----------------------|------------------------|--------|-----|
| R.1 | MINOR AMEN | DMENTS | | | | | 220525 | |
| R.2 | FIXING ADDED | | 220919 | | | | | |
| R.3 | ONCRETE FIXIN | NG REVISED | | | | | 221 | 202 |
| scale: @A3 | drawn: | checked: PM | status: | Р | project no: 20073 | drg no: RF01 | rev: | R.3 |

BelAire Rakaia Balustrade Wind Zones



| consulting | | engineers |
|-----------------|-----------|--------------------|
| 7 Market Street | m. 021039 | 8833. m.0211099712 |

www.extra-mile.co.nz, info@extra-mile.co.nz

Napier. 4110

Client: STORETECH LIMITED Project:
RAKAIA CHANNEL

Drawing: PANEL SIZES

| REF. | DESCRIPTION | | | | | | DATE | | | | |
|--------|--------------|--------------|---------|---|----------------------|---------|--------|------|--|--|--|
| R.1 | MINOR AMEN | DMENTS | | | | | 220525 | | | | |
| R.2 | FIXING ADDED | FIXING ADDED | | | | | | | | | |
| R.3 | ONCRETE FIXI | NG REVISED | | | | | 22 | 1202 | | | |
| scale: | drawn: | checked: | status: | Р | project no: 20073 | drg no: | rev: | R.3 | | | |

MIN. SG8 TIMBER BY DESIGNED BY **OTHERS** TO BE SUFFICIENTLY STRONG AND

STIFF TO SUPPORT THE BALUSTRADE

M10 TREADED ROD STAINLESS STEEL (A4) 2/NUTS E/S OF THE CHANNEL AND 2/NUTS+SQ. WASHERS E/S OF TIMBER

BY SPAX (STAINLESS OR DELTA SEAL) LENGTH OF THREAD PENETRATION -INTO TIMBER MIN. 100mm

Storetech Sku for screw is SCETCSK - 8X140 Spax

MIN. 40mm EDGE DISTANCE

SEPARATION BETWEEN BOLT

HEAD AND GLASS TO BE

MAINTAINED.

8x140 COUNTERSUNK SCREWS

M10 X 140 LAG SCREW HEX DRIVE STAINLESS STEEL (A4)

MIN. SG8 TIMBER BY DESIGNED BY

TO BE SUFFICIENTLY STRONG AND

STIFF TO SUPPORT THE BALUSTRADE

OTHERS

2/NUTS E/S OF THE CHANNEL LENGTH OF THREAD PENETRATION INTO TIMBER MIN. 85mm

STORETECH SKU FOR SCREW IS SCELAG140 - 10X140 SPAX OPTION 2

8x140 COUNTERSUNK SCREWS BY SPAX (STAINLESS OR DELTA SEAL) LENGTH OF THREAD PENETRATION -INTO TIMBER MIN. 100mm

Storetech Sku for screw is SCETCSK - 8X140 Spax

MIN. 40mm EDGE DISTANCE

SEPARATION BETWEEN BOLT HEAD AND GLASS TO BE MAINTAINED.

OPTION 1

STORETECH SKU FOR SCREW IS SCETHR10

MECHANICAL ANCHORS:

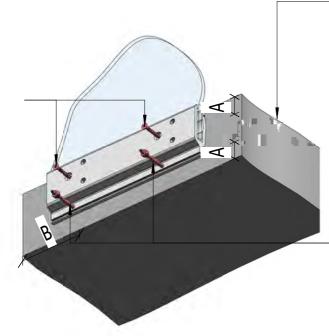
HUS-CR 8 x 75 STAINLESS STEEL (A4) BY HILTI MIN. 80mm EMBEDMENT OR TOGE TSM CSK 8 x 65 A4 STAINLESS STEEL BY ICCONS. MIN.65mm INTO CONCRETE

STORETECH SKU - SCECCSA M8X95 STAINLESS COUNTERSUNK CONCRETE **ANCHOR**

A - EDGE DISTANCE MIN. 50mm B - CORNER DIST. MIN. 100mm

SEPARATION BETWEEN BOLT HEAD AND GLASS TO BE MAINTAINED.

Napier. 4110



CONNECTION TO CONCRETE

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CONNECTION TO TIMBER

MIN. 25MPA CONCRETE MIN. 190mm THK. -DESIGNED BY OTHERS TO HAVE SUFFICIENT STRENGTH AND RIGIDITY TO SUPPORT THE BALUSTRADE

CHEMICAL ANCHORS:

HIT-HY 200-R V3 INJECTION MORTAR + HAS-U M10 x 95 TREADED ROD STAINLESS STEEL(A4) BY HILTI MIN. 60mm EMBEDMENT OR -B+BTec BIS-HY GEN2 INJECTION MORTAR +

M10 THREADED RODS 316/A4-70 STAINLESS STEEL BY ICCONS, MIN.60mm INTO CONCRETE

STORETECH SKU FOR SCREW IS SCECHEM -**CHEMSET THREADED ROD SCETHR10**

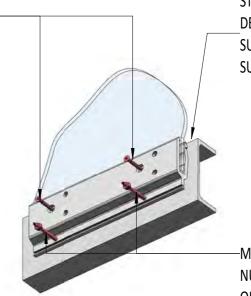
A - EDGE DISTANCE MIN. 50mm B - CORNER DIST. MIN. 100mm

M10 CSK STAINLESS STEEL SOCKET SCREWS

MIN. EDGE DISTANCE 15mm

SEPARATION BETWEEN BOLT HEAD AND GLASS TO BE MAINTAINED.

STORETECH SKU N/A



STRUCTURAL STEELWORK **DESIGNED BY OTHERS TO HAVE** SUFFICIENT STRENGTH AND RIGIDITY TO SUPPORT THE BALUSTRADE

-M10 STAINLESS STEEL (A4) BOLTS, NUT E/S OF THE CHANNEL AND E/S OF SUPPORTING STEEL

CONNECTION TO STRUCTURAL STEEL

IMPORTANT INSTALLATION INSTRUCTIONS:

ALL PROPRIETARY PRODUCTS INCLUDING ANCHORS MUST BE INSTALLED IN STRICT ORDER WITH MANUFACTURER PROCEDURES.



Client: STORETECH LIMITED Project: **RAKAIA CHANNEL** Drawing: **BALUSTRADE CONNECTION DETAILS**

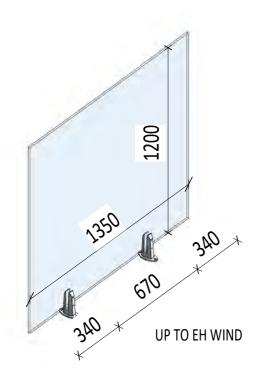
| REF. | DESCRIPTION | | | | | | D/ | ATE | | | |
|--------|--------------|------------------|---------|---|-------------|---------|------|------|--|--|--|
| R.1 | MINOR AMEN | MINOR AMENDMENTS | | | | | | | | | |
| R.2 | FIXING ADDED | FIXING ADDED | | | | | | | | | |
| R.3 | ONCRETE FIXI | NG REVISED | | | | | 221 | L202 | | | |
| scale: | drawn: | checked: | status: | Р | project no: | drg no: | rev: | R.3 | | | |

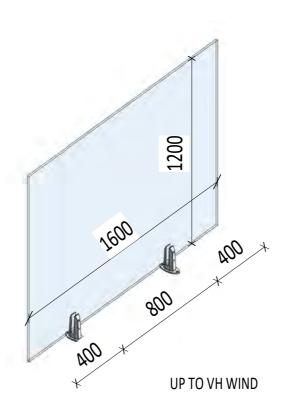


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| | Max Panel Sizes for <u>VH</u> Wind Zones Balustrade | | | | | | | | | | |
|--------------------|---|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------------|---------------|---------------|--|
| | Spigot | | | | | | | | Edge distance | Edge Distance | |
| | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | |
| | 2 | | | | | M12 x 130 Coach | M12 x 130 Coach | | 23 | 65 | |
| Milford Balustrade | 2 | 1600W | 1400W | Engineers Aproval | A,B,E,C3 | Screw | Screw | M12 x 110 Concrete Screw | 23 | 05 | |
| | 2 | | | 1250W (1600W 3 | | M12 x 130 Coach | M12 x 130 Coach | | 23 | 65 | |
| Milford Pool Fence | 2 | N/A | 1600W | Spigots) | | Screw | Screw | M12 x 110 Concrete Screw | 23 | 05 | |
| | | | | May Panel Size | s for FH \X | /ind Zones Balus | trade | | | | |
| | Spigot | | | Plax I affet Size. | 5 101 <u>L11</u> W | Tha Zones Batas | | | Edge distance | Edge Distance | |
| | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | |
| | 2 | | | | | M12 x 130 Coach | M12 x 130 Coach | | 22 | 6- | |
| Milford Balustrade | 2 | 1600W | 1600W (3 Spigots) | Engineers Aproval | A,B,E,C3 | Screw | Screw | M12 x 110 Concrete Screw | 23 | 65 | |
| | 2 | | 1350W (1600 3 | | | M12 x 130 Coach | M12 x 130 Coach | | 22 | 65 | |
| Milford Pool Fence | 2 | N/A | Spigots) | Engineers Aproval | | Screw | Screw | M12 x 110 Concrete Screw | 23 | 65 | |

BelAire Milford Pool Fence Wind Zones

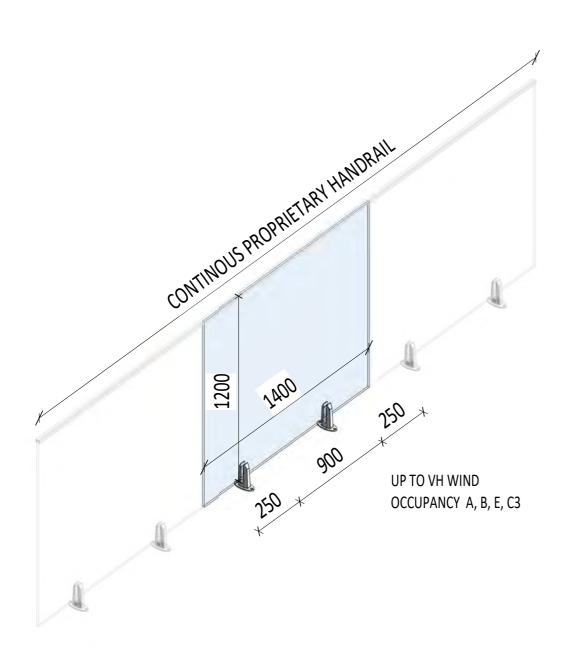


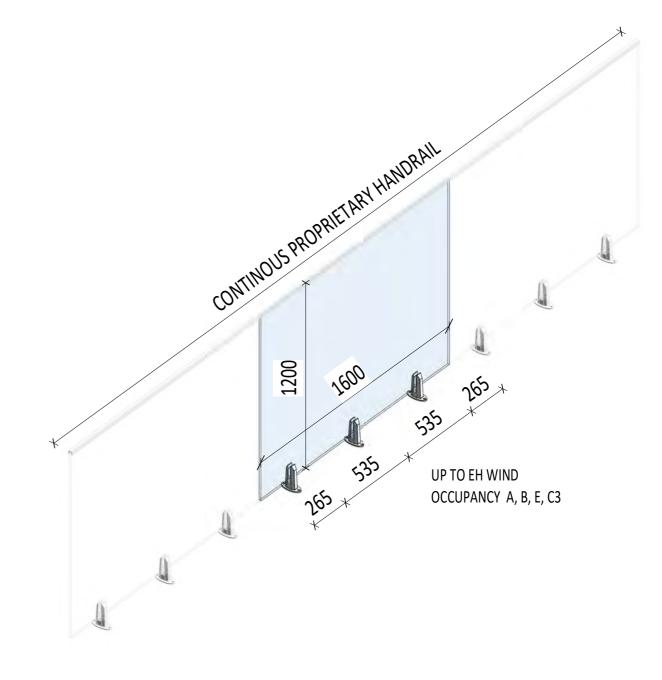


Project:

| REF. | DESCRIPTION | | | | | | DATE | | | | | |
|---------------|--------------|------------------------------|---------|---|----------------------|-----------------|------|-----|--|--|--|--|
| R.0 | INFORMATION | I | | | | | 220 | 525 | | | | |
| R.1 | CHEMICAL FIX | CHEMICAL FIXING ADDED 220810 | | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 221 | 202 | | | | |
| scale: @A3 | drawn: | checked: PM | status: | Р | project no: 20073 | drg no: MF01 | rev: | R.2 | | | | |

BelAire Milford Balustrade Wind Zones



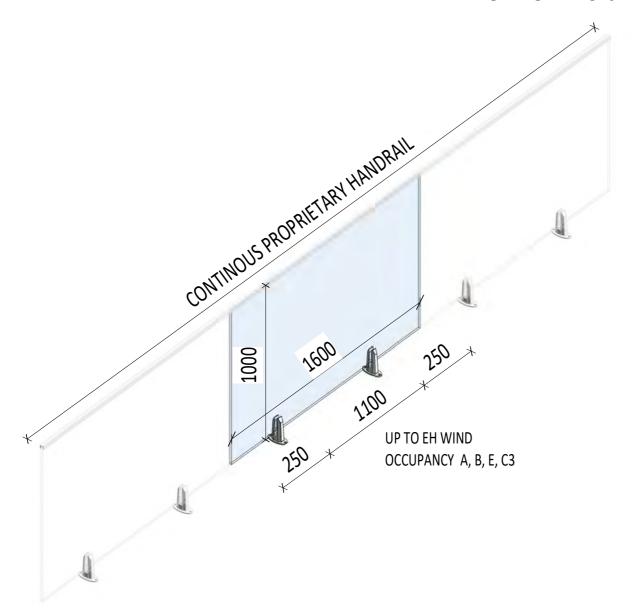




Client: STORETECH LIMITED Project:
MILFORD FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | DATE | | | | | |
|---------------|--------------|-----------------------------|--|--|--|--|------|------|--|--|--|--|
| R.0 | INFORMATION | ORMATION | | | | | | | | | | |
| R.1 | CHEMICAL FIX | HEMICAL FIXING ADDED 220810 | | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 221 | L202 | | | | |
| scale: @A3 | drawn: | | | | | | | R.2 | | | | |

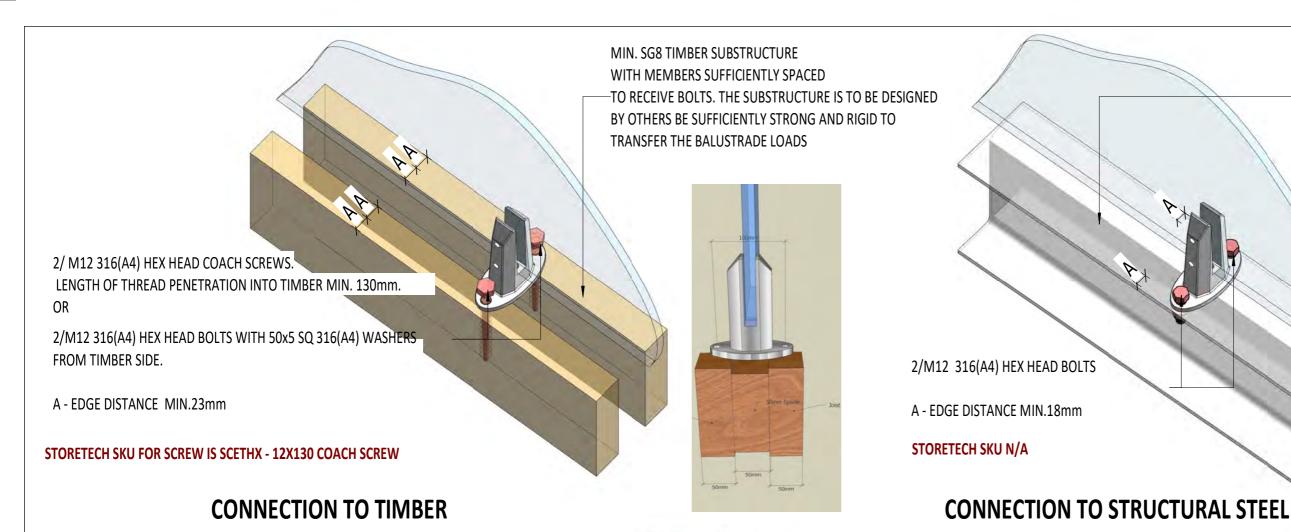
BelAire Milford Balustrade Wind Zones





Client: STORETECH LIMITED Project:
MILFORD FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | DA. | ΓE | | | |
|---------------|--------------|----------------------------|---------|---|----------------------|-----------------|------|-----|--|--|--|
| R.0 | INFORMATION | l | | | | | 2205 | 25 | | | |
| R.1 | CHEMICAL FIX | EMICAL FIXING ADDED 220810 | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 2212 | 202 | | | |
| scale: @A3 | drawn: | checked: PM | status: | P | project no: 20073 | drg no: MB02 | rev: | R.2 | | | |



MECHANICAL ANCHORS:

 $2/\mbox{HUS-HR}$ 10 x 105 STAINLESS STEEL(A4) BY HILTI WITH DOME NUT, MIN.90mm INTO CONCRETE

\ K

ŒUU =-Œ=-°) 'U 'Œ '° 'ou' &/O oo'ou--O"' ' '∉#\Vo U &/ U U '&/u\ '#\V#k-u-

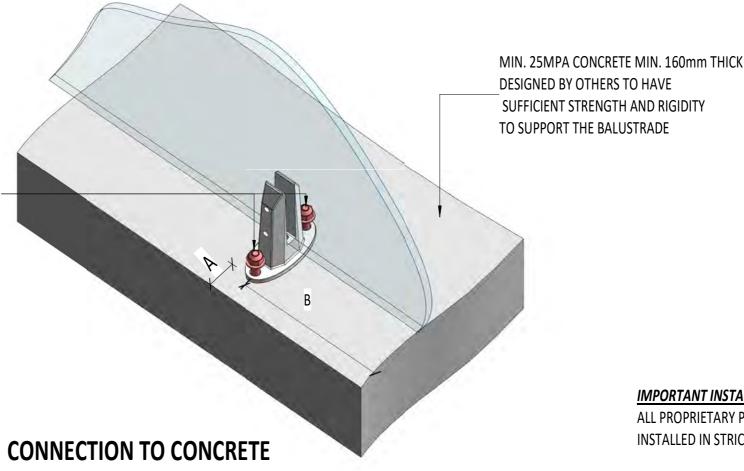
STORETECH SKU SCECHSA

CHEMICAL ANCHORS:

Napier. 4110

HIT-HY-200-R V3 170 INJECTION MORTAR + 2/HAS-U M10 x 115 (A4) STAINLESS STEEL BY HILTI WITH DOME NUT,

- A EDGE DISTANCE MIN. 65mm.
- B CORNER DISTANCE MIN. 265mm



IMPORTANT INSTALLATION INSTRUCTIONS:

ALL PROPRIETARY PRODUCTS INCLUDING ANCHORS MUST BE INSTALLED IN STRICT ORDER WITH MANUFACTURER PROCEDURES.

STRUCTURAL STEELWORK

TO HAVE SUFFICIENT STRENGTH

AND RIGIDITY TO SUPPORT THE

DESIGNED BY OTHERS

BALUSTRADE

consulting structural engineers

7 Market Street

m. 0210398833, m.0211099712

www.extra-mile.co.nz, info@extra-mile.co.nz

Client: STORETECH LIMITED Project:
MILFORD FIXING SPIGOT

Drawing:
BALUSTRADE CONNECTION
DETAILS

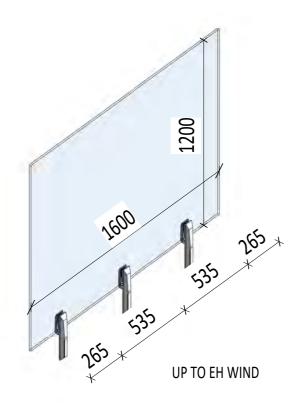
| REF. | DESCRIPTION | | | | | | D | ATE | | | | |
|--------|--------------|-------------------------|---------|---|----------------------|-----------------|------|------|--|--|--|--|
| R.0 | INFORMATIO | V | | | | | 220 | 0525 | | | | |
| R.1 | CHEMICAL FIX | EMICAL FIXING ADDED 220 | | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 22 | 1202 | | | | |
| scale: | drawn: | checked: | status: | Р | project no: 20073 | drg no: MB03 | rev: | R.2 | | | | |

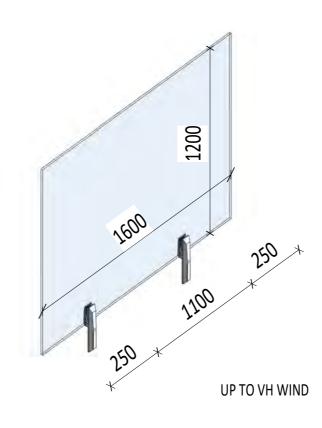


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| | Max Panel Sizes for VH Wind Zones Balustrade | | | | | | | | | | | |
|-------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------------|---------------|---------------|--|--|
| | Spigot | | | | | | | | Edge distance | Edge Distance | | |
| | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | | |
| | 2 | | | | | M12 x 130 Coach | M12 x 130 Coach | | 50 | 65 | | |
| Kaweka Balustrade | | 1600W | 1400W | Engineers Aproval | A,B,E,C3 | Screw | Screw | M12 x 110 Concrete Screw | 50 | 05 | | |
| | 2 | | | 1250W (1600W 3 | | M12 x 130 Coach | M12 x 130 Coach | | 50 | 65 | | |
| Kaweka Pool Fence | | N/A | 1600W | Spigots) | | Screw | Screw | M12 x 110 Concrete Screw | 50 | 05 | | |
| | | | | Max Panel Size | s for <u>EH</u> W | /ind Zones Balus | trade | | | | | |
| | Spigot | | | | | | | | Edge distance | Edge Distance | | |
| | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | | |
| | 2 | | | | | M12 x 130 Coach | M12 x 130 Coach | | 50 | 65 | | |
| Kaweka Balustrade | 2 | 1600W | 1600W (3 Spigots) | Engineers Aproval | A,B,E,C3 | Screw | Screw | M12 x 110 Concrete Screw | 50 | 05 | | |
| | 2 | | 1350W (1600 3 | | | M12 x 130 Coach | M12 x 130 Coach | | 50 | 65 | | |
| Kaweka Pool Fence | 2 | N/A | Spigots) | Engineers Aproval | | Screw | Screw | M12 x 110 Concrete Screw | 50 | 05 | | |

BelAire Kaweka Pool Fence Wind Zones

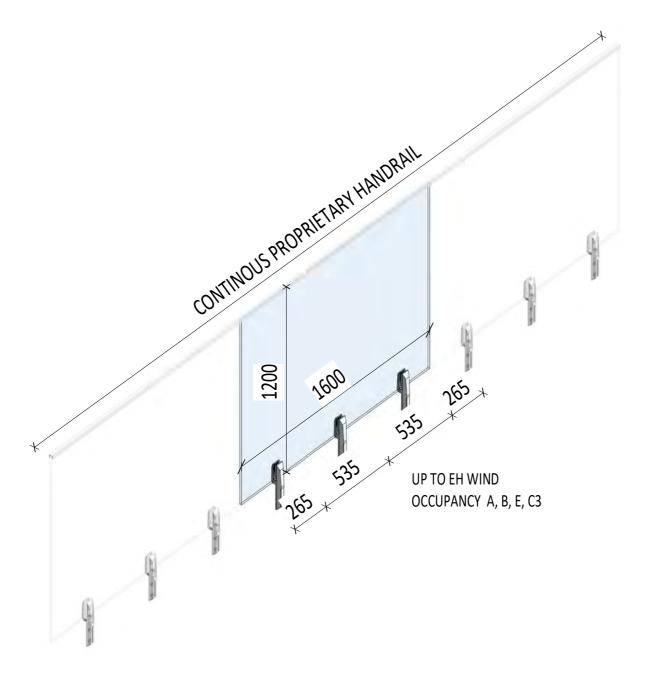


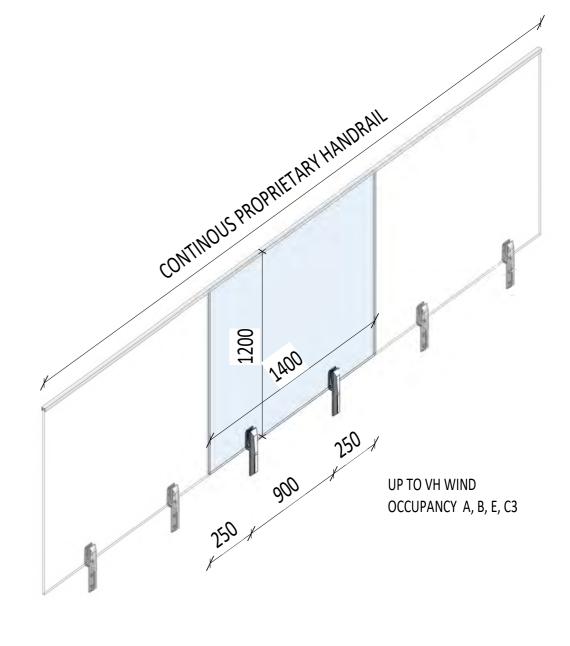


Client: STORETECH LIMITED Project: KAWEKA FIXING SPIGOT Drawing: PANEL SIZES - POOL FENCE 1

| REF. | DESCRIPTION | | | | | | DATE | | | | | |
|---------------|--------------|-----------------------------|---------|---|----------------------|-----------------|------|------|--|--|--|--|
| R.0 | INFORMATION | ORMATION | | | | | | | | | | |
| R.1 | CHEMICAL FIX | HEMICAL FIXING ADDED 220919 | | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 22 | 1202 | | | | |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: KF01 | rev: | R.2 | | | | |

BelAire Kaweka Balustrade Wind Zones







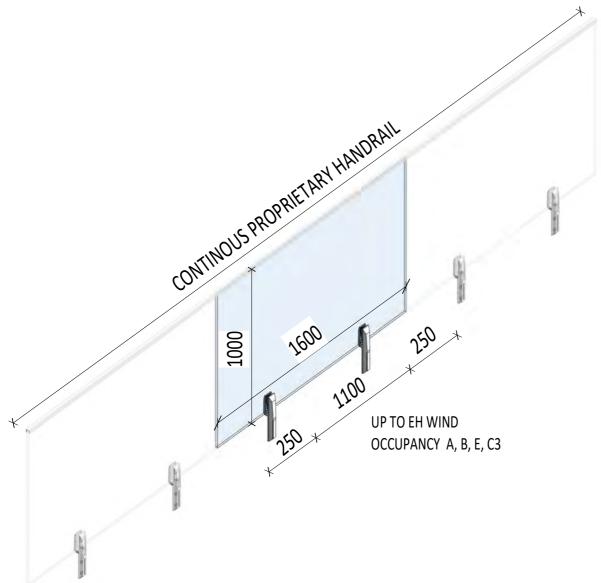
www.extra-mile.co.nz, info@extra-mile.co.nz

Napier. 4110

Client: STORETECH LIMITED Project: KAWEKA FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | D | ATE | | | | |
|---------------|--------------|------------------------------|---------|---|----------------------|-----------------|------|------|--|--|--|--|
| R.0 | INFORMATION | I | | | | | 220 | 719 | | | | |
| R.1 | CHEMICAL FIX | CHEMICAL FIXING ADDED 220919 | | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 22 | L202 | | | | |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: KB01 | rev: | R.2 | | | | |

BelAire Kaweka Balustrade Wind Zones



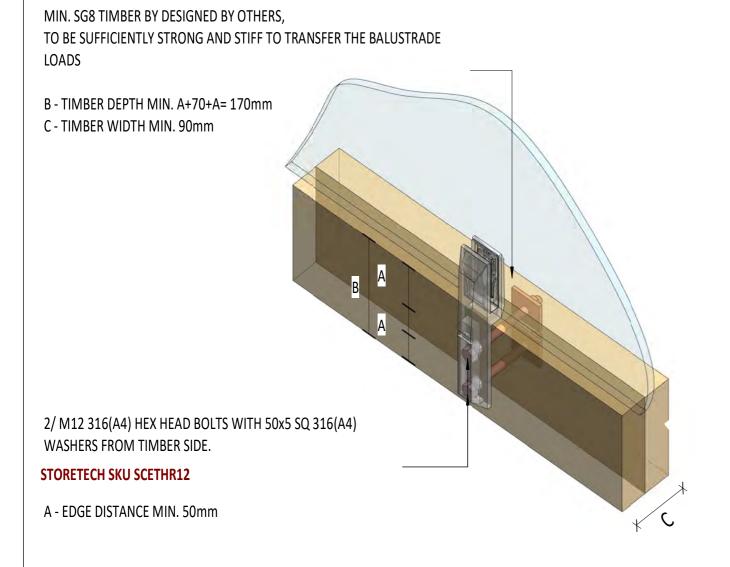


www.extra-mile.co.nz, info@extra-mile.co.nz

Napier. 4110

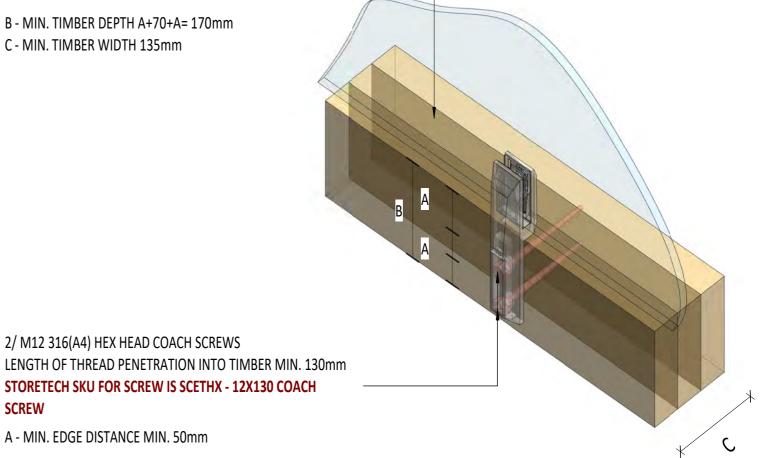
Client: STORETECH LIMITED Project: KAWEKA FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | DATE | | | | | |
|---------------|--------------|---------------------------|---------|---|----------------------|-----------------|------|------|--|--|--|--|
| R.0 | INFORMATIO | N | | | | | 220 | 719 | | | | |
| R.1 | CHEMICAL FIX | MICAL FIXING ADDED 220919 | | | | | | | | | | |
| R.2 | CONCRETE FIX | (ING REVISED | | | | | 22 | L202 | | | | |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: KB02 | rev: | R.2 | | | | |



MIN. SG8 TIMBER BY DESIGNED BY OTHERS, TO BE SUFFICIENTLY STRONG AND STIFF TO TRANSFER THE BALUSTRADE LOADS

C - MIN. TIMBER WIDTH 135mm



OPTION 1 OPTION 2

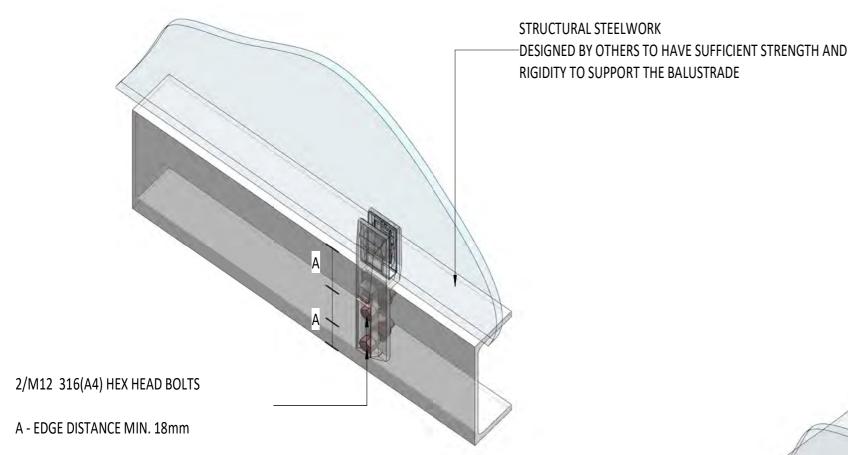
CONNECTION TO TIMBER

SCREW



Client: STORETECH LIMITED Project: KAWEKA FIXING SPIGOT Drawing: **BALUSTRADE CONNECTION DETAILS** SHEET 1

| | REF. | DESCRIPTION | | | | | DA | \TE |
|---|---------------|--------------|-------------|---------|----------------------|-----------------|------|------|
| | R.0 | INFORMATION | I | | | | 220 | 719 |
| ' | R.1 | CHEMICAL FIX | NG ADDED | | | | 220 | 919 |
| | R.2 | CONCRETE FIX | ING REVISED | | | | 221 | .202 |
| | scale: @A3 | drawn: | checked: | status: | project no: 20073 | drg no: KF03 | rev: | R.2 |



STORETECH SKU N/A (Available on request)

CONNECTION TO STRUCTURAL STEEL

MECHANICAL ANCHORS:

2/HSA-R M12 x 115 (A4) STAINLESS STEEL BY HILTI, Or

2/ XTM HEX HEAD M12 X 110 (A4) STAINLESS STEEL BY ICCONS

Min.80mm INTO CONCRETE

STORETECH SKU SCECHSA

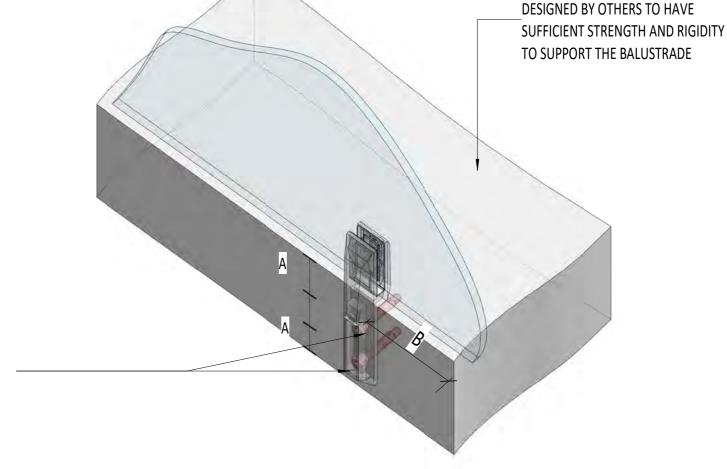
STORETECH SKU SCETHR12 THREADED ROD AND NUT

STORETECH SKU CHEMSET SCECHEM

CHEMICAL ANCHORS:

HIT-HY 170 INJECTION MORTAR + 2/HAS-U M12 x 110 TREADED RODS (A4) STAINLESS STEEL BY HILTI,

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A - EDGE DISTANCE MIN. 65mm,

Napier. 4110

B - CORNER DISTANCE MIN. 265mm

CONNECTION TO CONCRETE

IMPORTANT INSTALLATION INSTRUCTIONS:

MIN. 25MPA CONCRETE MIN. 200mm THICK

ALL PROPRIETARY PRODUCTS INCLUDING ANCHORS MUST BE INSTALLED IN STRICT ORDER WITH MANUFACTURER PROCEDURES.



Client: STORETECH LIMITED Project: KAWEKA FIXING SPIGOT Drawing:
BALUSTRADE CONNECTION DETAILS
SHEET 2

| REF. | DESCRIPTION | | | | | | D | ATE | | | | |
|---------------|--------------|-----------------------------|---------|---|----------------------|-----------------|------|------|--|--|--|--|
| R.0 | INFORMATIO | V | | | | | 220 | 0719 | | | | |
| R.1 | CHEMICAL FIX | HEMICAL FIXING ADDED 220919 | | | | | | | | | | |
| R.2 | CONCRETE FIX | ING REVISED | | | | | 22 | 1202 | | | | |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: KF04 | rev: | R.2 | | | | |

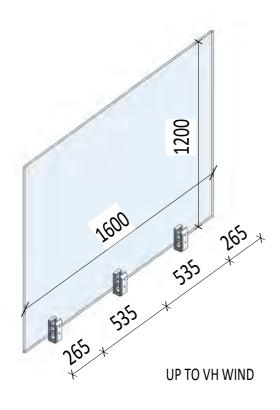


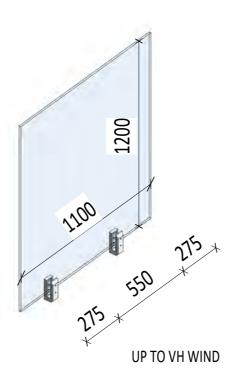
...make it your own!

| | Max Panel Sizes for VH Wind Zones Balustrade | | | | | | | | | | | | |
|---------------------|--|-------------------|-------------------|-------------------|----------|-------------------|-------------------|----------------------------|---------------|---------------|--|--|--|
| | Spigot | | | | | | | | Edge distance | Edge Distance | | | |
| | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | | | |
| | 2 | 1100W (1600W 3 | | | | M12 x 150mm Lag | M12 x 150mm Lag | M12 x 115 Threaded rod and | 50 | 65 | | | |
| Aoraki Balustrade | ۷ | Spigots) | (1400W 3 Spigots) | Engineers Aproval | A,B,E,C3 | Screw | Screw | chemset | 50 | 65 | | | |
| | 2 | | 1100W (1600W 3 | | | M12 x 150mm Lag | M12 x 150mm Lag | M12 x 115 Threaded rod and | 50 | 65 | | | |
| Aoraki Pool Fencing | 2 | N/A | Spigots) | Engineers Aproval | | Screw | Screw | chemset | 50 | 65 | | | |

| | Max Panel Sizes for EH Wind Zones Balustrade | | | | | | | | | | | | |
|---|--|--------|-------------------|-------------------|-------------------|----------|-------------------|-------------------|----------------------------|---------------|---------------|--|--|
| | | Spigot | | | | | | | | Edge distance | Edge Distance | | |
| | | Qty | 1000mm high Glass | 1200mm High Glass | 1350mm High Glass | Ocupancy | Fixing Wet Timber | Fixing Dry Timber | Concrete | Timber | Concrete | | |
| | | 2 | | | | | M12 x 150mm Lag | M12 x 150mm Lag | M12 x 115 Threaded rod and | 50 | 65 | | |
| A | Aoraki Balustrade | 2 | N/A | N/A | N/A | A,B,E,C3 | Screw | Screw | chemset | 50 | 65 | | |
| | | 2 | | | | | M12 x 150mm Lag | M12 x 150mm Lag | M12 x 115 Threaded rod and | 50 | 65 | | |
| A | Aoraki Pool Fencing | 2 | N/A | N/A | N/A | | Screw | Screw | chemset | 50 | 65 | | |

BelAire Aoraki Pool Fence Wind Zones



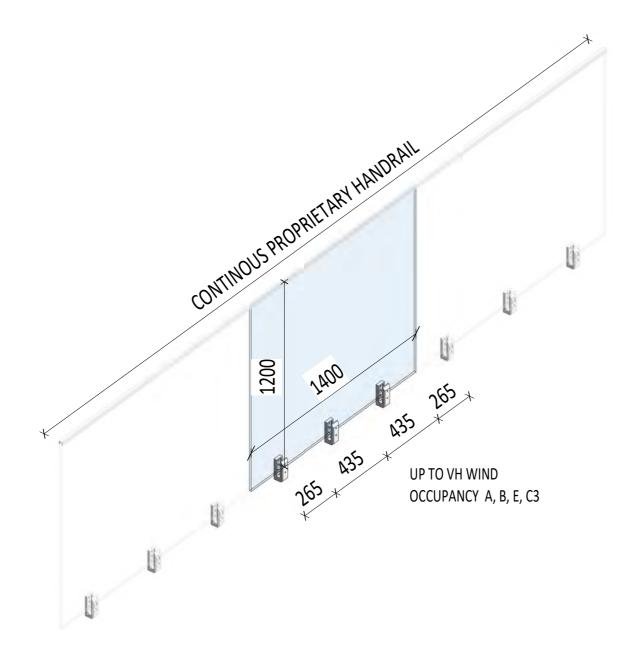


Client: STORETECH LIMITED Project:
AORAKI FIXING SPIGOT

Drawing: PANEL SIZES - POOL FENCE 1

| REF. | F. DESCRIPTION | | | | | | | TE | |
|---------------|-------------------------|-------------|---------|---|----------------------|------------------------|--------|--------|--|
| R.0 | INFORMATION | I | | | | | 220525 | | |
| R.1 | FIXING ADDED | | | | | | | 220919 | |
| R.2 | CONCRETE FIXING REVISED | | | | | | 2211 | 102 | |
| scale: @A3 | drawn: | checked: PM | status: | P | project no: 20073 | drg no: AF01 | rev: | R.2 | |

BelAire Aoraki Balustrade Wind Zones

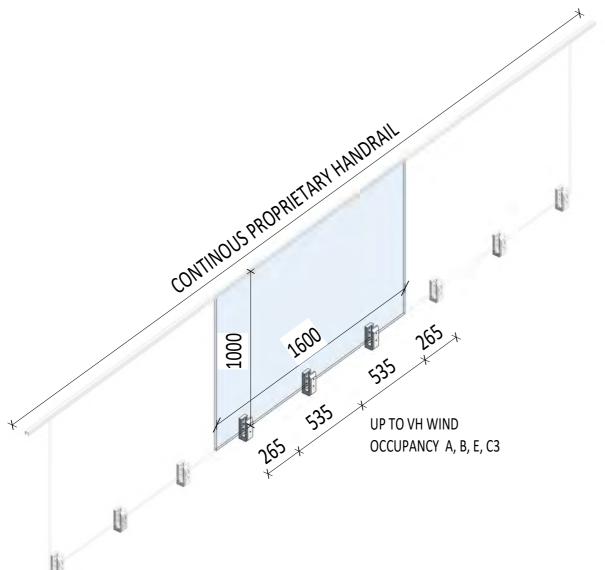


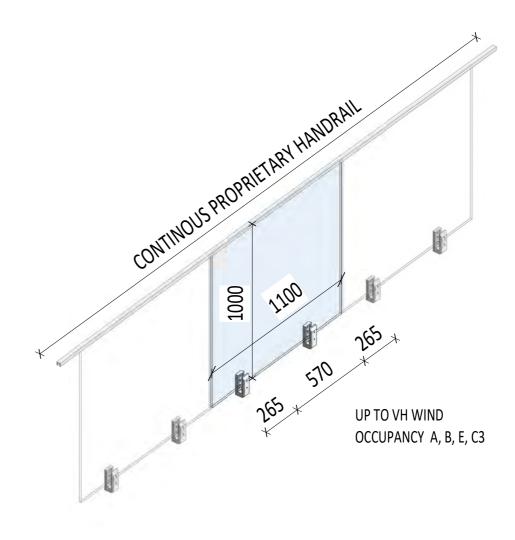


Client: STORETECH LIMITED Project:
AORAKI FIXING SPIGOT

| REF. | DESCRIPTION | | | | | | | |
|---------------|--------------|-------------------------|---------|---|----------------------|-----------------|--------|-----|
| R.0 | INFORMATION | I | | | | | 220525 | |
| R.1 | FIXING ADDED | FIXING ADDED | | | | | | |
| R.2 | CONCRETE FIX | CONCRETE FIXING REVISED | | | | | | 102 |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: AB01 | rev: | R.2 |

BelAire Aoraki Balustrade Wind Zones





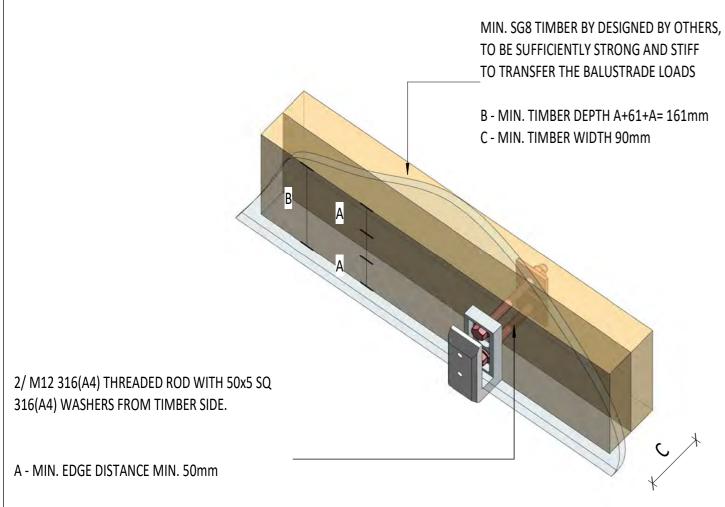


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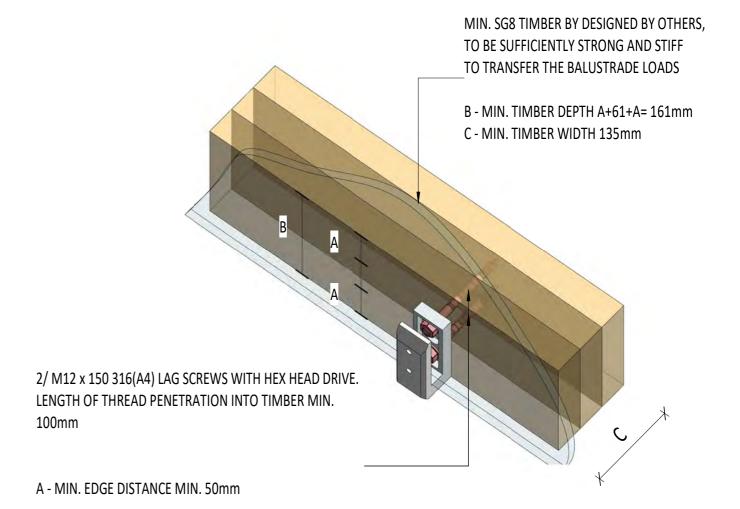
Client: STORETECH LIMITED Project:
AORAKI FIXING SPIGOT

| DEE | DESCRIPTION | | | | | | | |
|---------------|--------------|-------------------------|---------|---|----------------------|-----------------|--------|------|
| REF. | DESCRIPTION | | | | | | DATE | |
| R.0 | INFORMATION | V | | | | | 220525 | |
| R.1 | FIXING ADDED | FIXING ADDED | | | | | | |
| R.2 | CONCRETE FIX | CONCRETE FIXING REVISED | | | | | | L102 |
| scale: @A3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: AB02 | rev: | R.2 |



SEPARATION BETWEEN BOLT HEAD AND GLASS TO BE MAINTAINED.

STORETECH SKU - SCETHR12



SEPARATION BETWEEN BOLT HEAD AND GLASS TO BE MAINTAINED.

STORETECH SKU SCELAG150

OPTION 1 OPTION 2

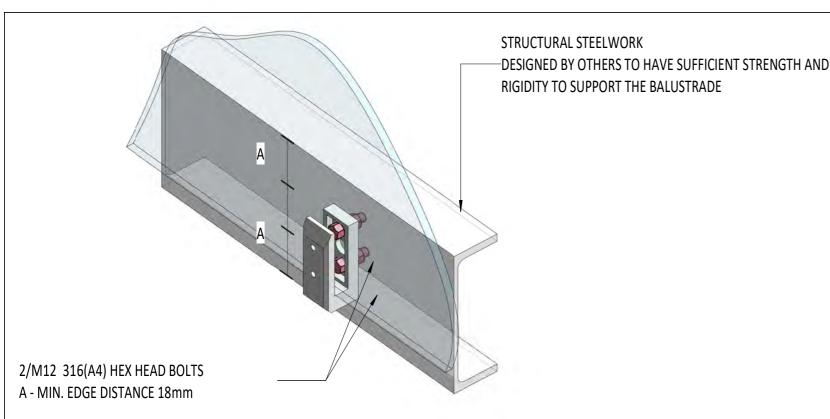
CONNECTION TO TIMBER



Client: STORETECH LIMITED Project:
AORAKI FIXING SPIGOT

Drawing:
BALUSTRADE CONNECTION
DETAIL SHEET 1

| EF. | DESCRIPTION | DATE | | | | | | | |
|--------------|-------------------------|----------|---------|---|----------------------|-----------------|-------|-----|--|
| .0 | INFORMATION | l | | | | | 22052 | 25 | |
| .1 | FIXING ADDED 220919 | | | | | | | | |
| .2 | CONCRETE FIXING REVISED | | | | | | |)2 | |
| cale: PA3 | drawn: | checked: | status: | Р | project no: 20073 | drg no: AF03 | rev: | R.2 | |



SEPARATION BETWEEN BOLT HEAD AND GLASS TO BE MAINTAINED.

CONNECTION TO STRUCTURAL STEEL

MECHANICAL ANCHORS:

2/HSA-R M12 x 115 (A4) STAINLESS STEEL BY HILTI, MIN.80mm INTO CONCRETE

CHEMICAL ANCHORS:

HIT-HY 170 INJECTION MORTAR + 2/HAS-U M12 x 110 TREADED RODS (A4) STAINLESS STEEL BY HILTI, MIN.70mm INTO CONCRETE (SCETHR12 & SCECHEM)

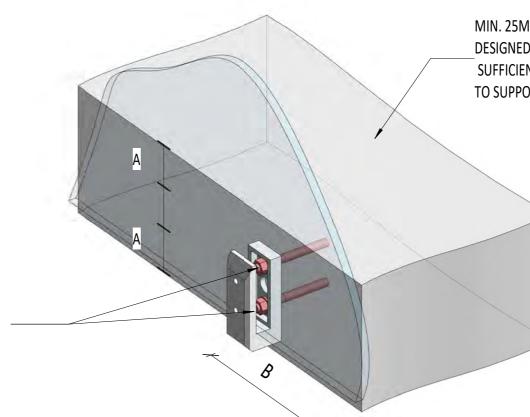
OR

B+BTec BIS-HY GEN2 INJECTION MORTAR + 2/M12 THREADED RODS 316/A4-70 STAINLESS STEEL BY ICCONS, MIN.90mm INTO CONCRETE

ROD TO BE FULLY EMBEDDED INTO NUT. SEPARATION BETWEEN END OF ROD AND THREADED ROOD/NUT AND GLASS TO BE MAINTAINED.

A - EDGE DISTANCE MIN. 65mm,

B - CORNER DISTANCE MIN. 265mm



MIN. 25MPA CONCRETE MIN. 190mm THICK
DESIGNED BY OTHERS TO HAVE
SUFFICIENT STRENGTH AND RIGIDITY
TO SUPPORT THE BALUSTRADE

CONNECTION TO CONCRETE

IMPORTANT INSTALLATION INSTRUCTIONS:

ALL PROPRIETARY PRODUCTS INCLUDING ANCHORS MUST BE INSTALLED IN STRICT ORDER WITH MANUFACTURER PROCEDURES.

Client:

STORETECH LIMITED

Project:
AORAKI FIXING SPIGOT

Drawing:
POOL FENCE CONNECTION DETAIL
SHEET 2

| REF. | DESCRIPTION | DESCRIPTION | | | | | | | |
|---------------|--------------|-------------------------|---------|---|----------------------|-----------------|------|--------|--|
| R.0 | INFORMATION | | | | | | | 220525 | |
| R.1 | FIXING ADDED | FIXING ADDED | | | | | | | |
| R.2 | CONCRETE FIX | CONCRETE FIXING REVISED | | | | | | | |
| scale: @A3 | drawn: | checked: PM | status: | Р | project no: 20073 | drg no: AF03 | rev: | R.2 | |

Consulting structural engineers

7 Market Street
Napier. 4110

m. 0210398833, m.0211099712
www.extra-mile.co.nz, info@extra-mile.co.nz