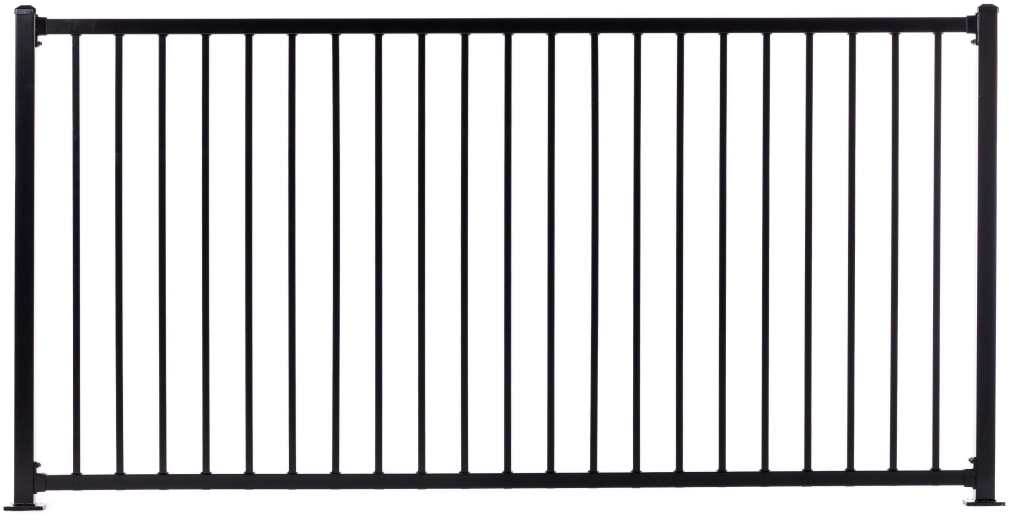
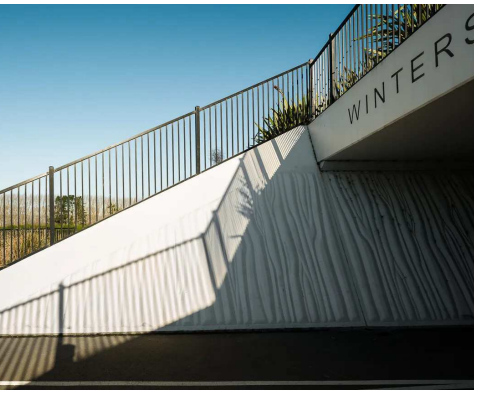
Producer Statement - PS1

UrbanGroup™

Premier Panel
PS1

FOR: **Pool Fencing**





Structural Engineers New Zealand

STRUCTURAL ENGINEERS NEW ZELAND
CONSULTING STRUCTURAL ENGINEERS

RESIDENTIAL, COMMERCIAL, INDUSTRIAL
SEISMIC, TEMPORARY WORKS

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AUCKLAND 2161
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055-092
ALUMINIUM POOL FENCES FOR URBAN GROUP

ANY LOCATION IN NEW ZEALAND
SENZ STUCTURAL PS1
Dec 2023

STRUCTURAL ENGINEERS NZ PS1

BUILDING CODE CLAUSE(S): B1 JOB NUMBER: 055-092

ISSUED BY: STRUCTURAL ENGINEERS NZ LTD
(Engineering Design Firm)

TO: URBAN GROUP
(Owner/Developer)

TO BE SUPPLIED TO: Any Teritorial or Consenting Authority
(Building Consent Authority)

IN RESPECT OF: Structural Design Of Aluminium Pool Fences
(Description of Building Work)

AT: Any Location In New Zealand,
(Address, Town/City)

LEGAL DESCRIPTION: LOT: DP: N/A ☑

We have been engaged by the owner/developer referred to above to provide *(Extent of Engagement)* :
Structural Engineering Services As Per Attached Calculations & Drawings
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/AS1, VM4 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: Schedule to PS1 and inspection schedule appended
- 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.

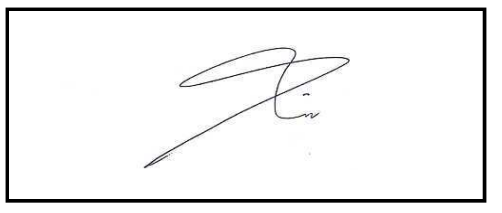
I recommend the CM1 level of **construction monitoring**.

I, Sadeer Kattan , am:
(Name of Engineering Design Professional)
- CPEng number 1013983
- and hold the following qualifications: BE(Hons), CMEngNZ(Structural), CPEng

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: Sadeer Kattan
(Name of Engineering Design Professional)

(Signature):



ON BEHALF OF: STRUCTURAL ENGINEERS NZ LTD DATE: 20/12/2023

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.

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

www.acenz.org.nz
www.engineeringnz.org

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Project:	ANY LOCATION IN NEW ZEALAND				Job Reference: 055-092	
Section:	PS1				Revision: A	
Calculation by:	Date:	Checked by:	Date:	Approved by:	Date:	Template Rev:
USER	20/12/2023	SADEER KATTAN	Dec 2023	SADEER KATTAN	Dec 2023	1.01

SCHEDULE TO PRODUCER STATEMENT - PS1 DESIGN

Alternative Solutions

SENZ Documentation

1) Engineering calculations for job 055-092
2) Urban Group Drawings: ASS12-PFS. PRE12-PFS & PLA12-PFS rev 1

Design assumptions, Proprietary products and Other exclusions:

1) Site verification of the following design assumptions:

   Good ground based on NZS3604:2011

   Inspections as per SENZ schedule and all SED elements including the provision for a corresponding PS4.

2) All proprietary products meeting their performance specification requirements; in particular this Producer Statement excludes:

   Proprietary Timber Brackets/Fixings
   Proprietary Roof Trusses

3) Other exclusions; this producer statement excludes all aspects of:

   The supporting structure, as designed by others, is able to withstand the applied loads. This must be effectively communicated with the building owner or manager.
   The pool fence has only been designed against the loads outlined in section 4 and Appendices D & E of NZS 8500:2006. I.e., the fence is not suitable as a fall prevention barrier.
   The pool fence is limited to areas up to “Very High” wind zone only, as defined in NZS 3604:2011. Purchaser shall be responsible for verifying the site wind zone.

The Producer Statements issued should not be relied on to establish compliance with the building code clauses E1, E2, E3.
Weathertightness and waterproofing design, materials, proprietary products, construction and/or inspections are specifically excluded from these producer statements.

To the Building Official,

Any Teritorial or Consenting Authority

Structural Design Of Aluminium Pool Fences At Any Location In New Zealand

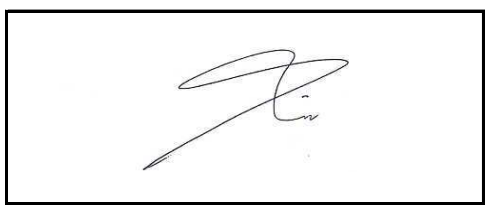
Compliance with the Building Code Clause B2 - Durability

The purpose of this letter is to demonstrate how compliance with Clause B2 (Durability) of the Building Code will be achieved for the above project. We can confirm that for specifically designed structural elements that are included within our design documentation:

Material	Means of Compliance	Details
Reinforced Concrete	B2/AS1	Concrete cover to reinforcing has been selected in accordance with NZS3101, Part 1, Section 3
Aluminium	B1/VM1	Aluminium protection (painting and separation from dissimilar metals), shall be specified in accordance with clauses 6.6 and 6.7 of AS/NZS 1664.1

Yours faithfully,

Sadeer Kattan



For and on behalf of

STRUCTURAL ENGINEERS NZ LTD

Structural Maintenance Schedule

Project: Structural Design Of Aluminium Pool Fences At Any Location In New Zealand,

This schedule of ongoing inspection and maintenance of structural elements shall be included with the Operations and Maintenance manuals and provided to the Owner/Body Corporate and building managers.

Inspection/maintenance timeframe and item	
Half-yearly	Wash down all exposed steelwork that is not in a fully interior environment including: • Veranda steelwork • Steel Carpark structure (beams, columns, braces etc) • Deck and balcony steelwork • Exposed façade steelwork, both primary and secondary structure • Plantrooms and plenums with fresh-air intakes • External structural components such as Buckling Restrained Braces, Viscous Dampers, Eccentrically Braced Frames and the like • Sub-ground floor mild-steel structures such as beams, isolation bearings etc.
(b) 5 yearly	Inspect and repair sealant that encloses structural mild-steel components and/or timber with mild-steel fixings
(c) 10 yearly	Check exposed timber fixings for corrosion, repair as required.
	Inspect/replace sealant that encloses structural mild-steel components and/or timber with mild-steel fixings. This will typically include sealants around the perimeter of precast panels. Note that 10 years is the expected useful life for many sealants
	Check exposed structural steel within plantrooms and plenums for corrosion. Repair protective coatings as required.
	Check all exposed steelwork that is not in a fully interior environment for signs of corrosion. Repair protective coatings as required.
	Audit of damage to exposed intumescent coatings. Repair as required.
(d) 25 yearly	Inspect samples of structural steel that is hidden from view but not enclosed within a vapour barrier, and repair protective coatings as necessary. A typical example is a veranda with built-in steelwork. (Such steelwork should typically have duplex protective coatings). Inspection may typically require removal of claddings and/or the drilling of holes for borescope access. Repair as required.
	Inspect all exposed, external timber. Repair as required.
	Inspect all exposed, external reinforced concrete for signs of spalling or cracking. Repair as required.
	Audit of damage to enclosed intumescent coatings. Repair as required.
Following fit-out or alterations	Audit of damage to intumescent coatings. Repair as required.
Following seismic shaking > SLS1 event	Inspections and repair as per b), c) and d) above

The durability of structural building work is reliant on protection from external water and moisture being achieved and maintained throughout the life of the building or structure. Protection against external water and moisture is dependent on appropriate detailing, materials, proprietary products and construction practices which SENZ does not design/inspect for compliance with the requirements of the building code.

SENZ accepts no liability in contract, tort, or otherwise (including negligence) for the failure of the building or structure to meet or perform to the requirements of the Building Act 2004 (or any subsequent Act) and any regulations made there under (or any amendment or substitution thereof) in relation to: External water and/or moisture, the loss of structural durability or strength to the building or sturcture as a result of external moisture entering the building or structure, or the effects thereof.

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Project:	ANY LOCATION IN NEW ZEALAND				Job Reference: 055-092	
Section:	PS1				Revision: A	
Calculation by: USER	Date: 20/12/2023	Checked by: SADEER KATTAN	Date: Dec 2023	Approved by: SADEER KATTAN	Date: Dec 2023	Template Rev: 1.01

Construction Monitoring Schedule

Schedule of inspections for:

Address: Any Location In New Zealand,

The inspections required are also dependant on the conditions of the building consent as per local building authority requirements. We would advise checking with council when in doubt.

We confirm that SENZ have been engaged to undertake construction monitoring of the specific engineering design items to an Engineering New Zealand/ACENZ CM1 level and propose to undertake at least the following site inspections:

Inspections to be completed by:

Geotechnical Inspections		Geotech as engaged by the developer/owner	By SENZ
Site scrape	Inspection to confirm topsoil removal and subgrade/strength and/or sub/base compaction as per the geotechnical report.	☐	☐
Engineered fill or Gravel raft	Site geotextile and/or geogrid as required by design drawings and certify compaction as per design and geotechnical report.	☐	☐
Bridging parameters (if applicable)	Site geotextile and/or geogrid as required by design drawings and certify compaction as per design and geotechnical report.	☐	☐

No.	Item of inspection	Timeframe
1	Foundation beams, pads and slabs	Pre-pour with reinforcing in place
2	SED Fence	As built inspection

Notes:

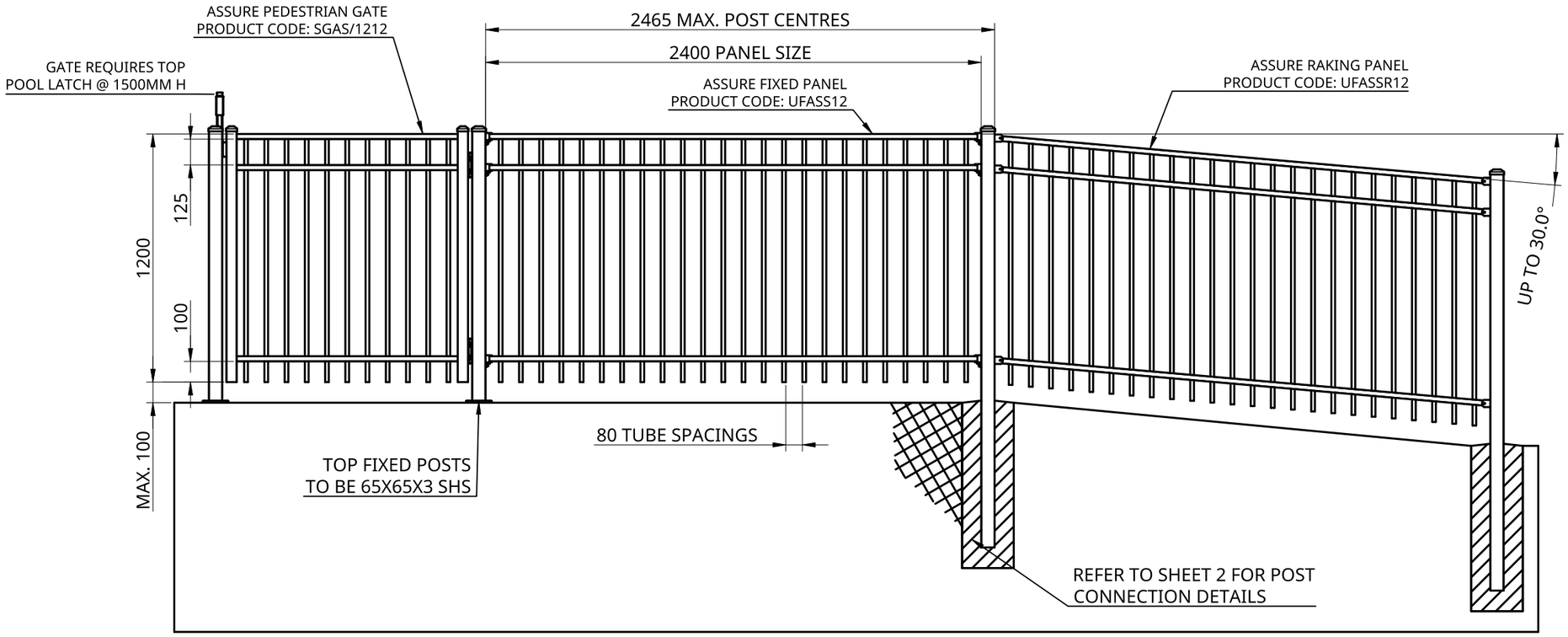
a) The above items of inspection are the minimum required to enable STRUCTURAL ENGINEERS NZ LTD to issue a PS4 - Producer Statement Construction Review for the specific engineering design items.

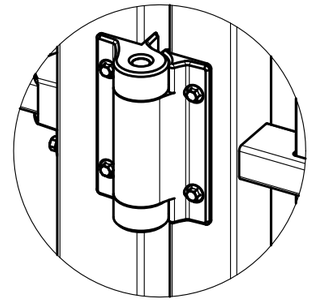
b) The above items of inspection do not cover work constructed in accordance with NZS 3604:2011, for which inspections are to be undertaken by the Building Consent Authority.

c) The Contractor/Builder is to provide STRUCTURAL ENGINEERS NZ LTD at least 24 hours' notice of the requirement for an inspection. The above timeframes are indicative, the Engineer and Contractor are to agree the timing of inspection prior to work commencing on site.

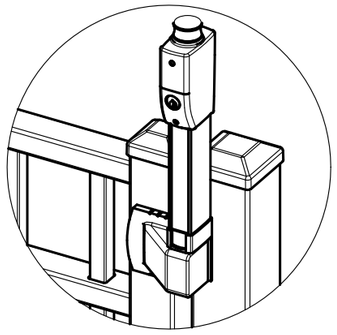
d) A copy of this inspection schedule is to be held on site during the works, and the Contractor/Builder is to provide reasonable and safe access to enable works to be inspected according to the schedule.

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

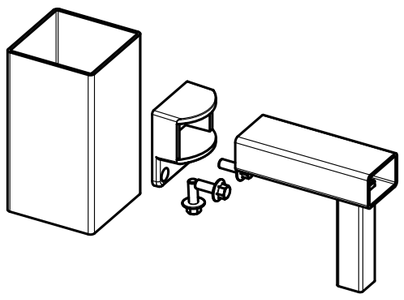




TRU-CLOSE HINGES
ON PED GATE
1:4



TOP POOL LATCH
1:6



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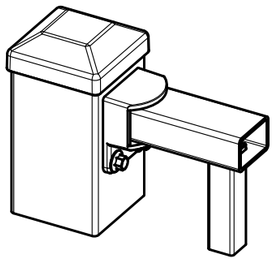

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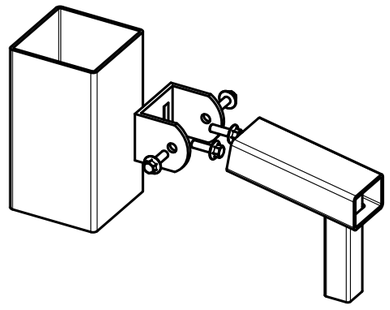

RAKING PANEL TO POST DETAIL
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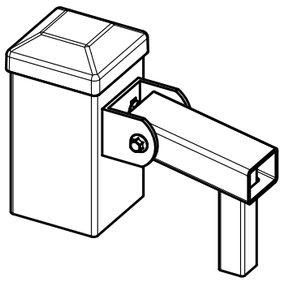

RAKING PANEL TO POST DETAIL
1:4

NOTES

1. POOL FENCE SHALL BE ALUMINIUM ALLOY, NON WELDED EXCEPT WHERE THE VERTICAL BALUSTERS WELDING UNLESS NOTED OTHERWISE.
2. ISOLATION RUBBER OR SIMILAR SHALL BE PROVIDED BETWEEN ALUMINIUM AND GALVANIZED STEEL.
3. ALL CONNECTIONS SHALL BE STAINLESS STEEL OR HOT DIP GALVANISED.
4. EXISTING STRUCTURE IS ASSUMED TO BE ADEQUATE TO RESIST THE APPLIED HANDRAIL LOADS.
5. EXISTING OR NEW CONCRETE FOOTINGS SHALL HAVE A MINIMUM 17.5 MPA COMPRESSIVE STRENGTH.
6. DESIGN OF PILES IS BASED ON "GOOD GROUND" SOIL CONDITIONS AS DEFINES IN NZS3604.
7. THE FENCE IS SUITABLE FOR WIND LOADING UP TO "HIGH" WIND ZONES

PANEL CODE	DESCRIPTION	POST SIZE	BRACKET CODE	HEIGHT	WIDTH	PANEL RAKE	HORIZONTALS	VERTICALS	TUBE SPACINGS
UFASS12	ASSURE FENCE PANEL	65X65X2 SHS (UNO)	HBKT38	1200	2400	N/A	38X25X2 RHS 6061 T6	18X18X1.1 SHS	80 (98 CENTRES)
UFASSR12	ASSURE RAKING FENCE PANEL	65X65X2 SHS (UNO)	HBKTR38	1200	2400	30 DEGREES	38X25X2 RHS 6061 T6	18X18X1.1 SHS	80 (98 CENTRES)
SGAS/1212	ASSURE PEDESTRIAN GATE	65X65X2 SHS (UNO)	N/A	1200	1170	N/A	38X25X2 RHS 6061 T6	18X18X1.1 SHS	80 (98 CENTRES)

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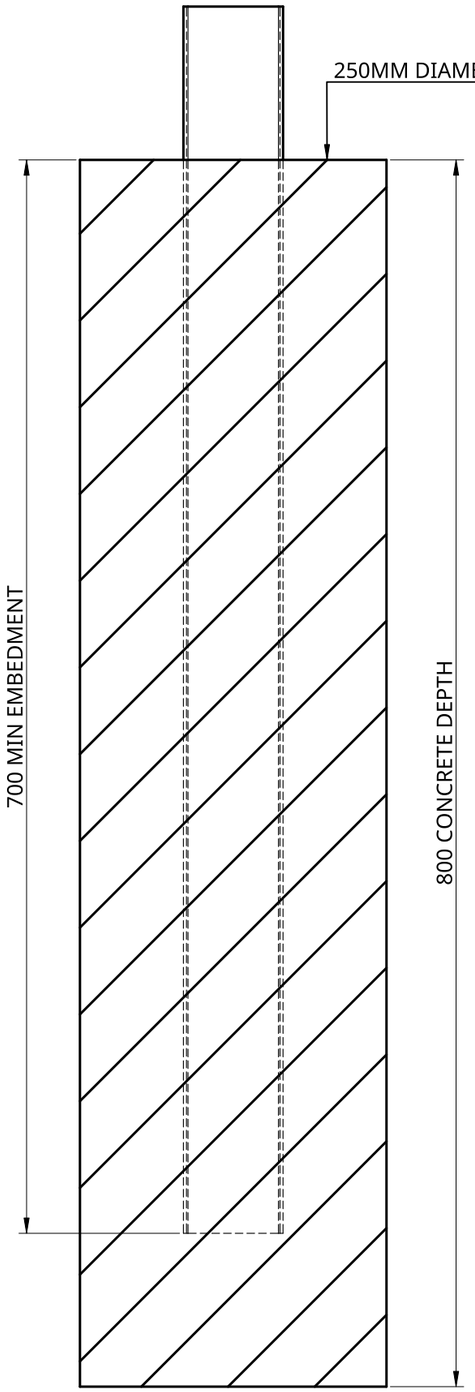
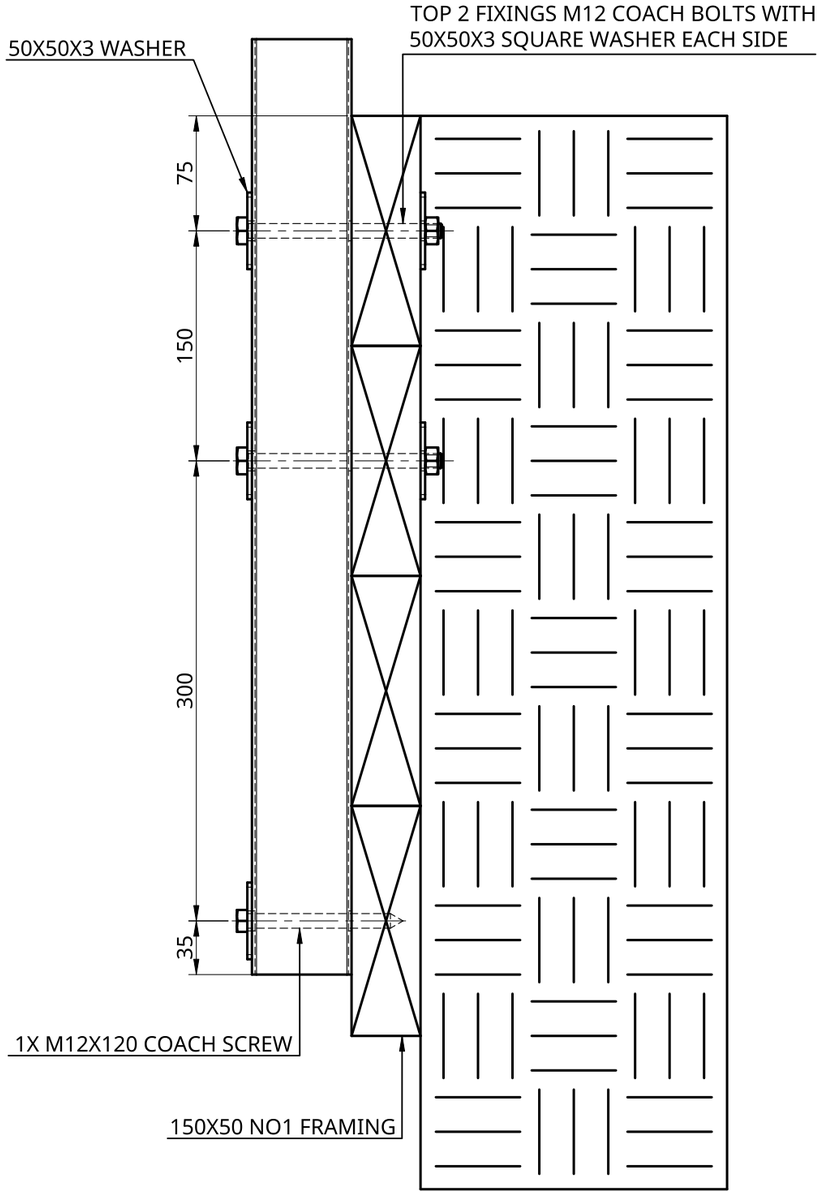
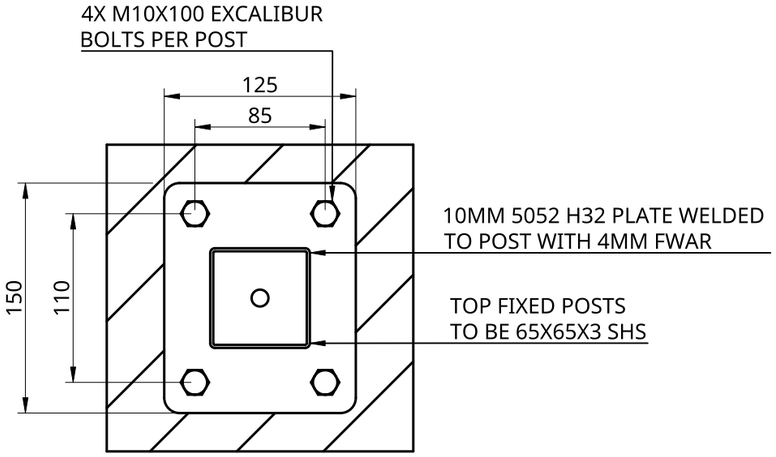
DATE ISSUED: 2023-12-19	SHEET: 1 OF 2



IN GROUND POST
CONNECTION



SIDE FIX TO TIMBER
RETAINING WALL
CONNECTION



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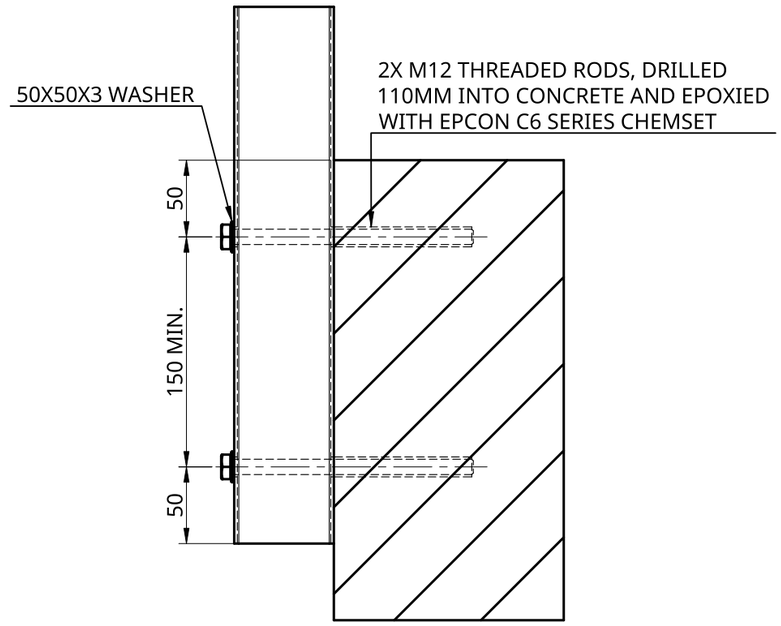
CONNECTION



SIDE FIX TO CONCRETE
CONNECTION

UrbanGroup™

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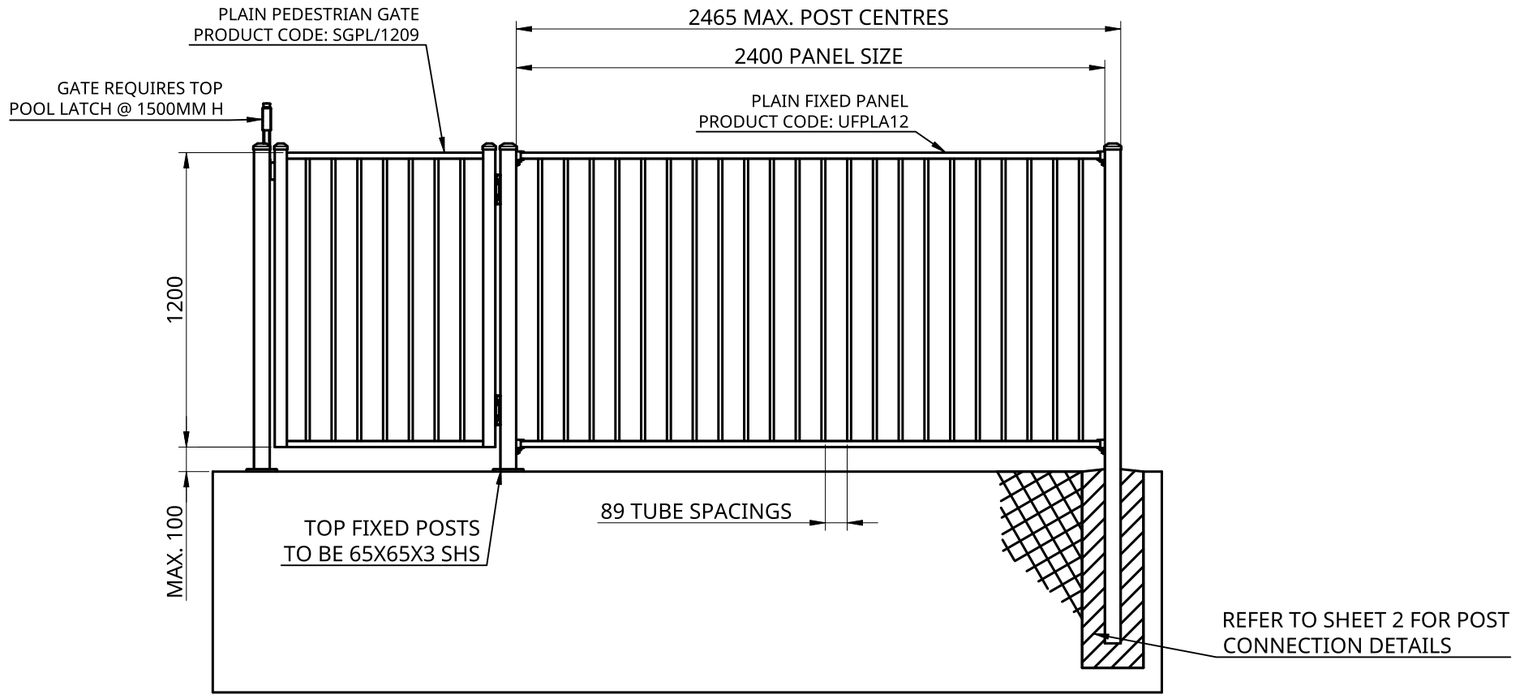
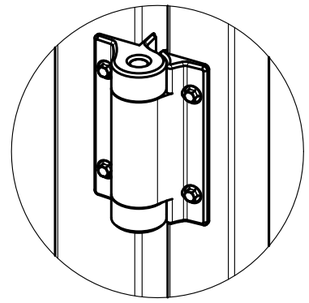
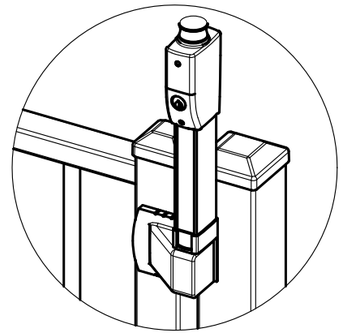
DATE ISSUED: 2023-12-19	SHEET: 2 OF 2

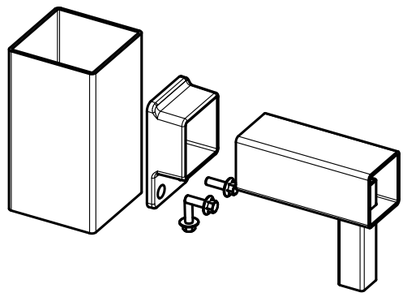




TRU-CLOSE HINGES
ON PED GATE
1:4



TOP POOL LATCH
1:6



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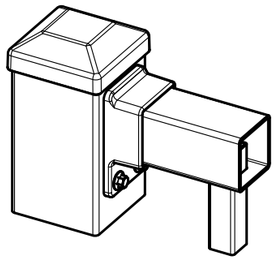

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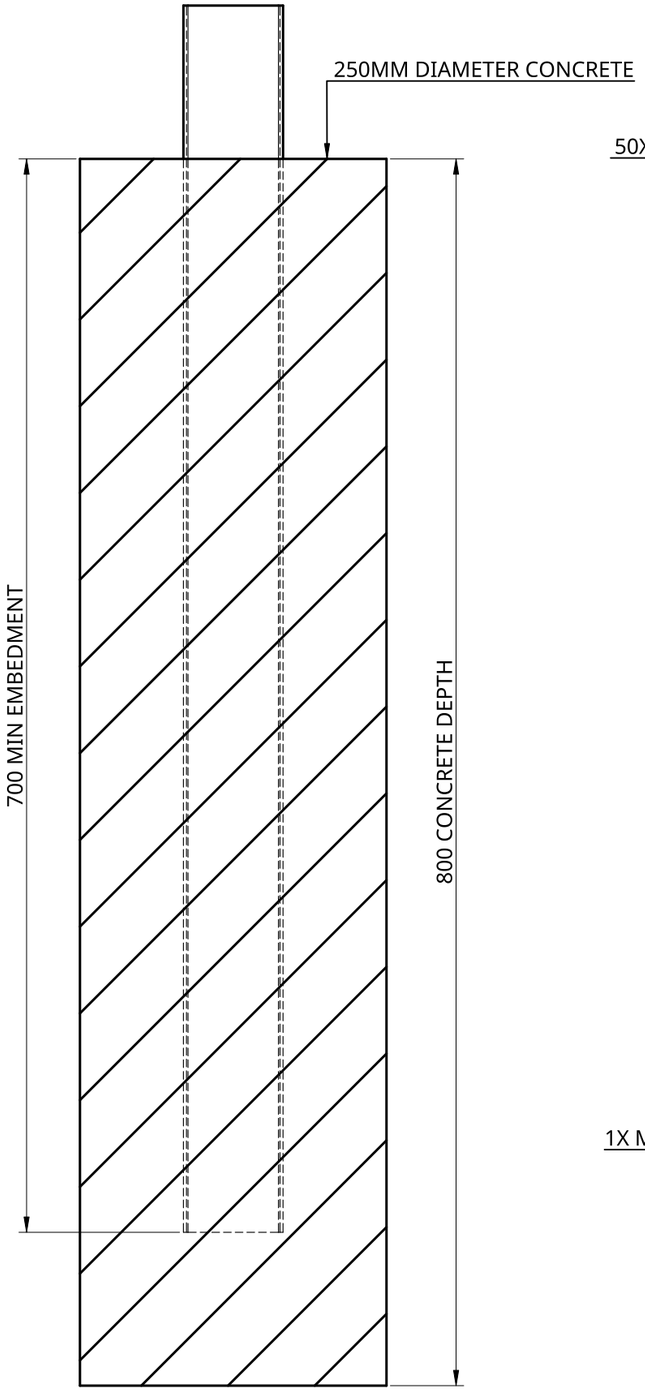
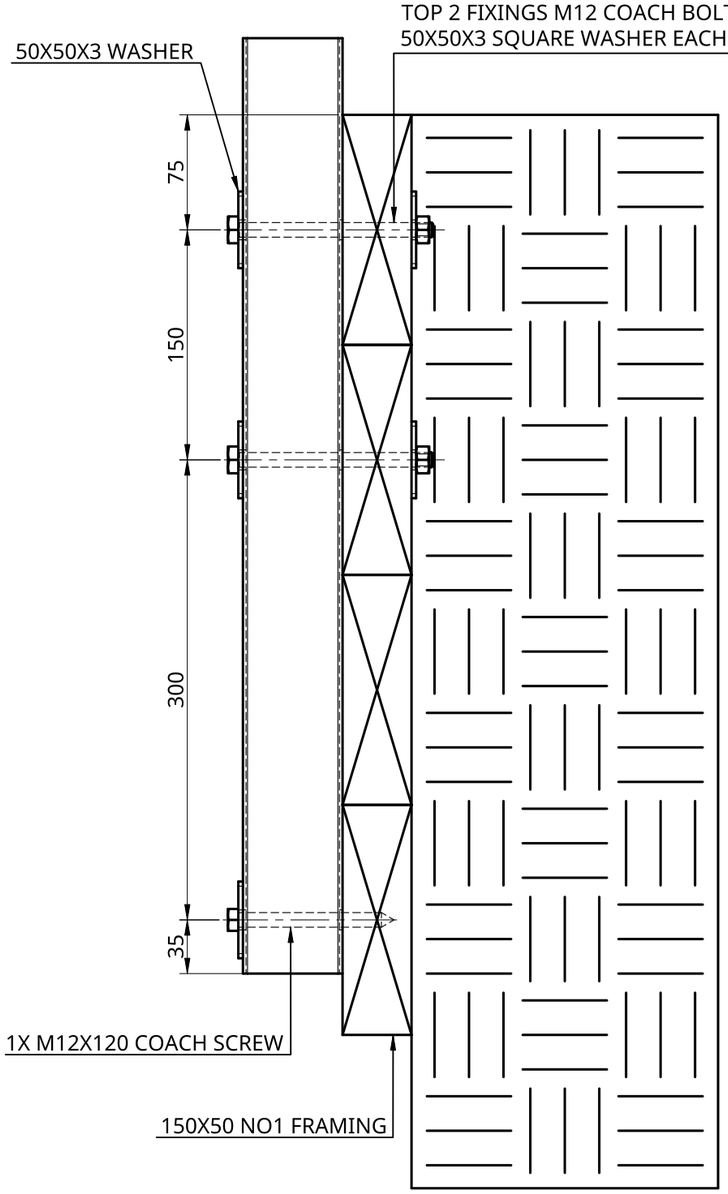
UFPLA12	PLAIN FENCE PANEL	65X65X2 SHS (UNO)	HBKT38	1200	2400	N/A	38X25X2 RHS 6061 T6	16X1.5 TU	89 (105 CENTRES)
SGPL/1209	PLAIN PEDESTRIAN GATE	65X65X2 SHS (UNO)	N/A	1200	900	N/A	38X25X2 RHS 6061 T6	16X1.5 TU	89 (105 CENTRES)

UrbanGroup™

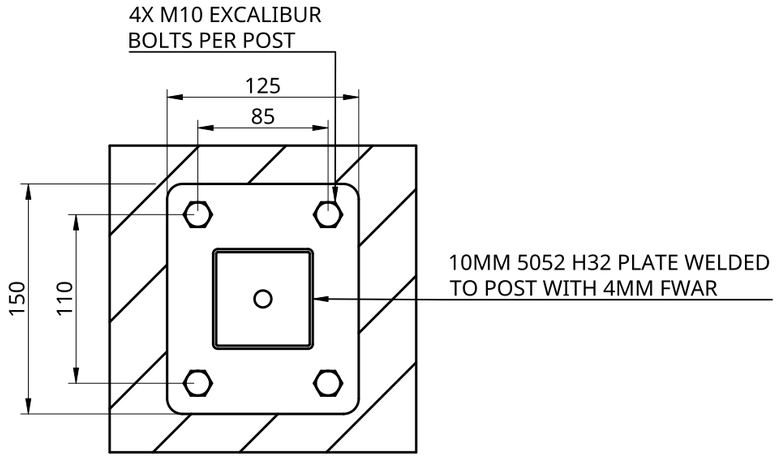
SIZE: A3	SCALE: 1:25
DRAWING NO: PLA12 - PFS	REVISION: 01
DATE ISSUED: 2023-12-19	SHEET: 1 OF 2



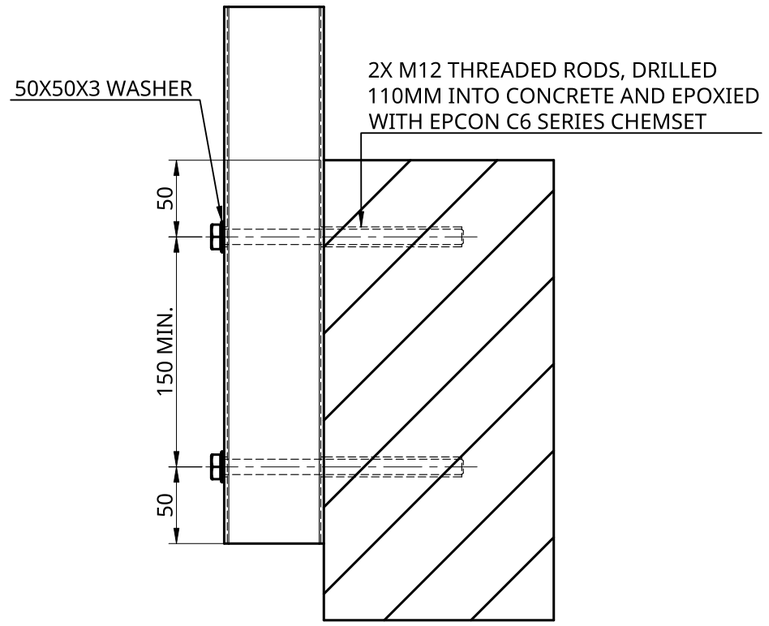
IN GROUND POST CONNECTION



SIDE FIX TO TIMBER RETAINING WALL CONNECTION



BASEPLATED POST CONNECTION



SIDE FIX TO CONCRETE CONNECTION

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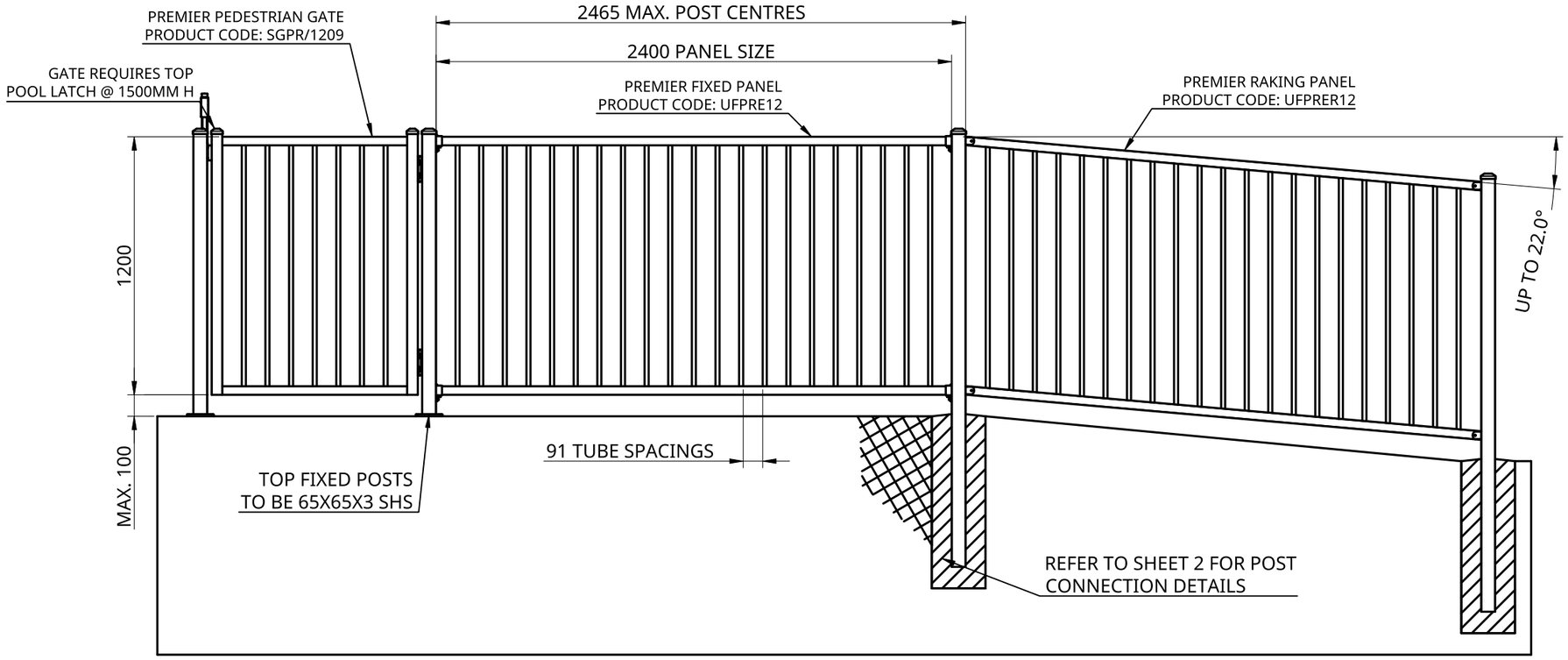
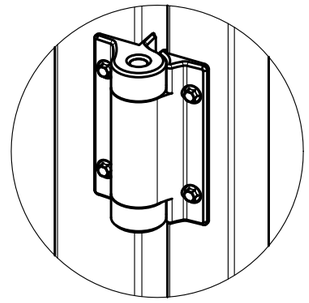
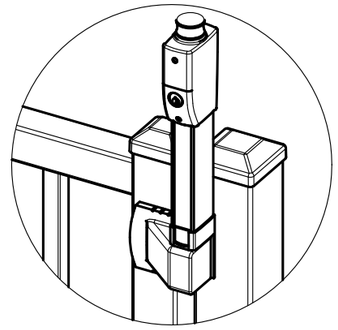
SIZE: A3	SCALE: 1:4
DRAWING NO: PLA12 - PFS	REVISION: 01
DATE ISSUED: 2023-12-19	SHEET: 2 OF 2

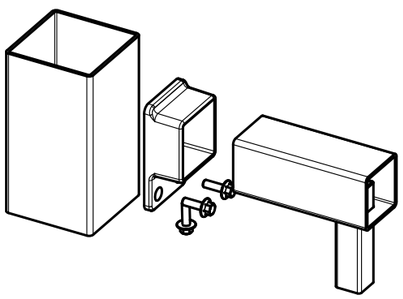




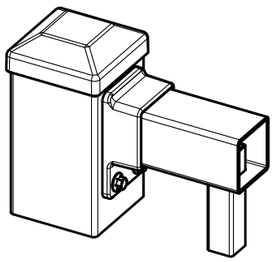
TRU-CLOSE HINGES
ON PED GATE
1:4



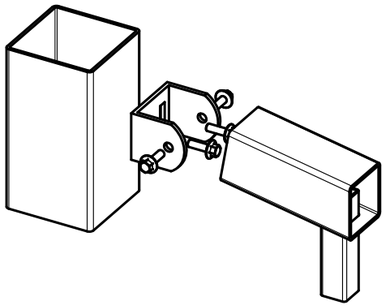
TOP POOL LATCH
1:6



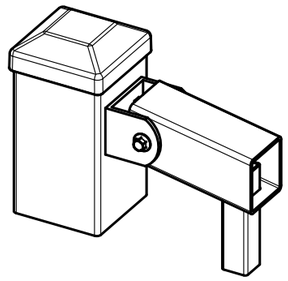
FIXED PANEL TO POST DETAIL
1:4



FIXED PANEL TO POST DETAIL
1:4



RAKING PANEL TO POST DETAIL
1:4



RAKING PANEL TO POST DETAIL
1:4

NOTES

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5. EXISTING OR NEW CONCRETE FOOTINGS SHALL HAVE A MINIMUM 17.5 MPA COMPRESSIVE STRENGTH.
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7. THE FENCE IS SUITABLE FOR WIND LOADING UP TO "HIGH" WIND ZONES

PANEL CODE	DESCRIPTION	POST SIZE	BRACKET CODE	HEIGHT	WIDTH	PANEL RAKE	HORIZONTALS	VERTICALS	TUBE SPACINGS
UFPRE12	PREMIER FENCE PANEL	65X65X2 SHS (UNO)	HBKT40	1200	2400	N/A	40X40X2 SHS	19X19X1.5 SHS	91 (110 CENTRES)
UFPRER12	PREMIER RAKING FENCE PANEL	65X65X2 SHS (UNO)	HBKTR40	1200	2400	22 DEGREES	40X40X2 SHS	19X19X1.5 SHS	91 (110 CENTRES)
SGPR/1209	PREMIER PEDESTRIAN GATE	65X65X2 SHS (UNO)	N/A	1200	960	N/A	40X40X2 SHS	19X19X1.5 SHS	91 (110 CENTRES)

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SIZE: A3	SCALE: 1:25
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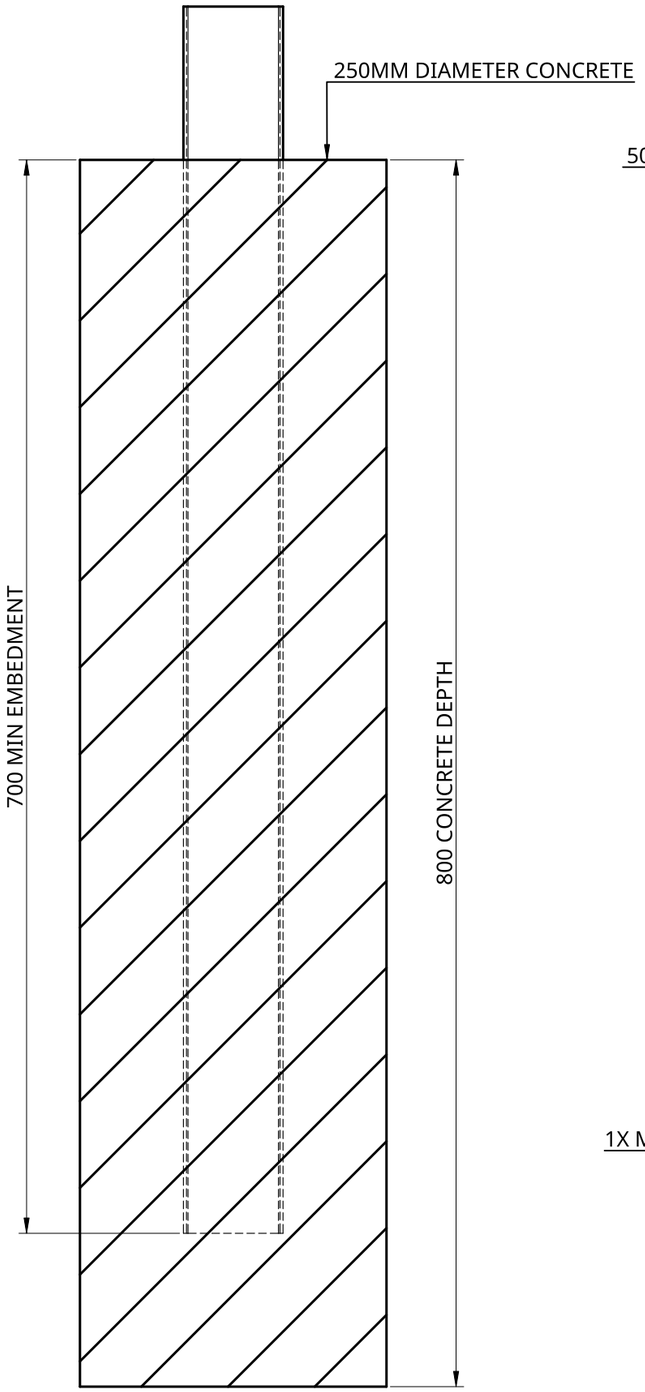
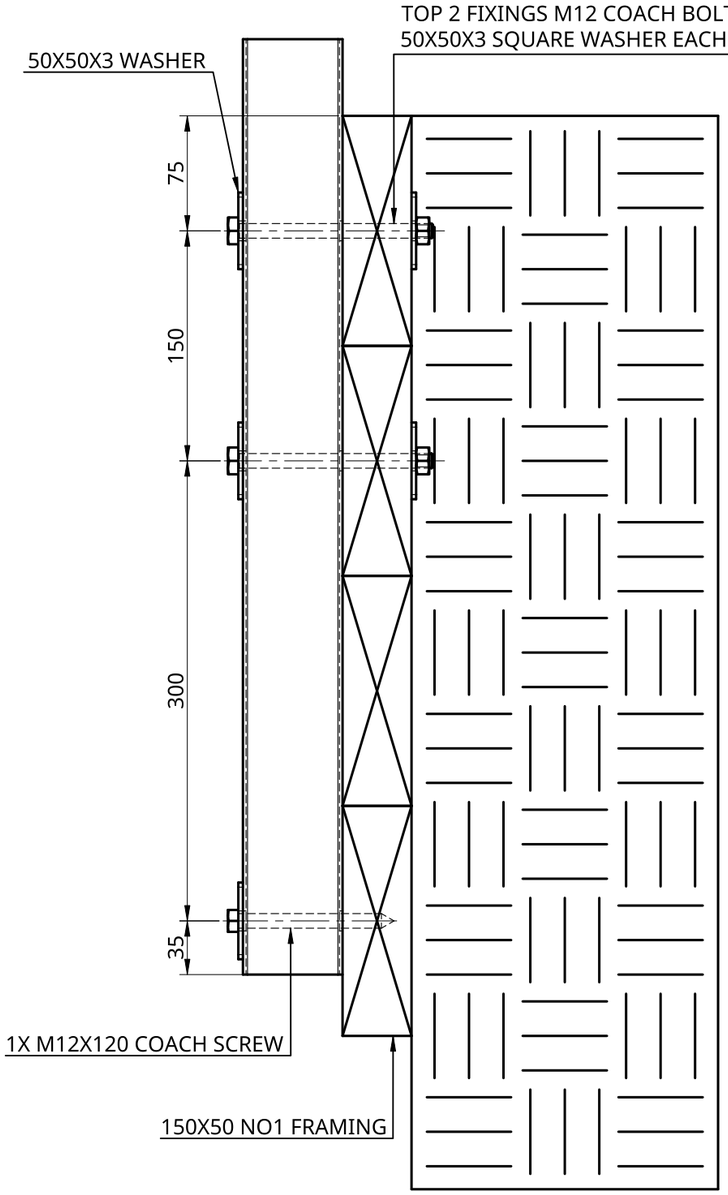
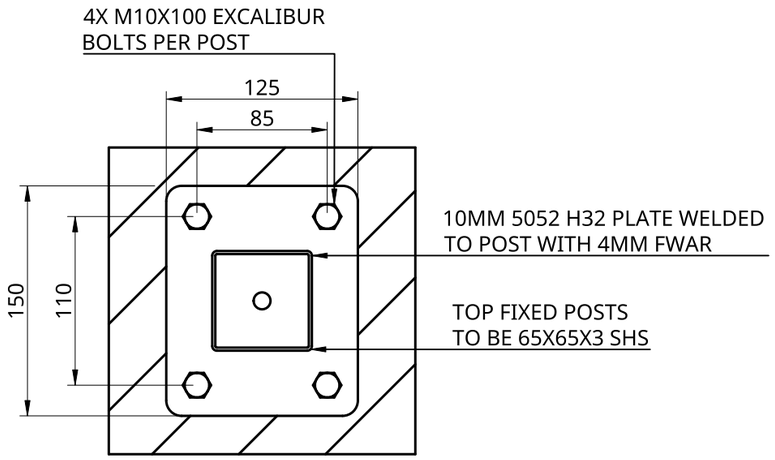


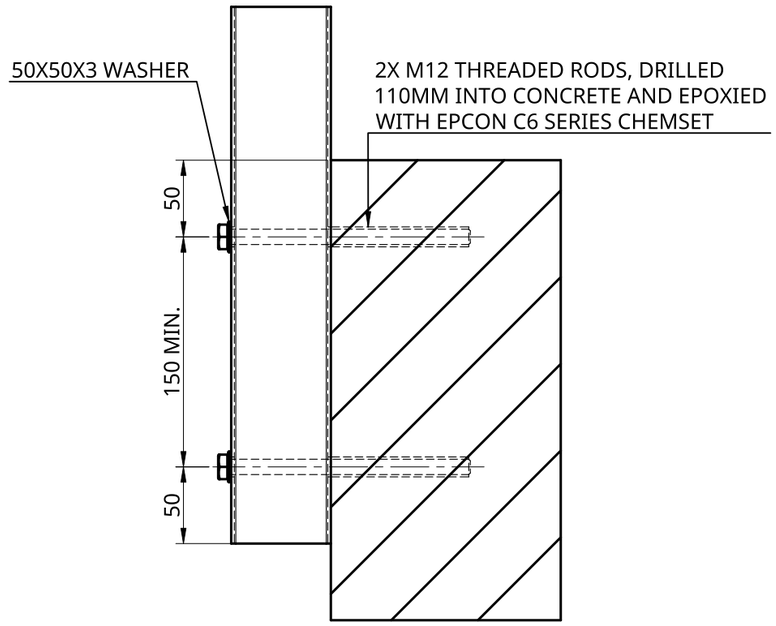
IN GROUND POST CONNECTION



SIDE FIX TO TIMBER RETAINING WALL CONNECTION



BASEPLATED POST CONNECTION



SIDE FIX TO CONCRETE CONNECTION

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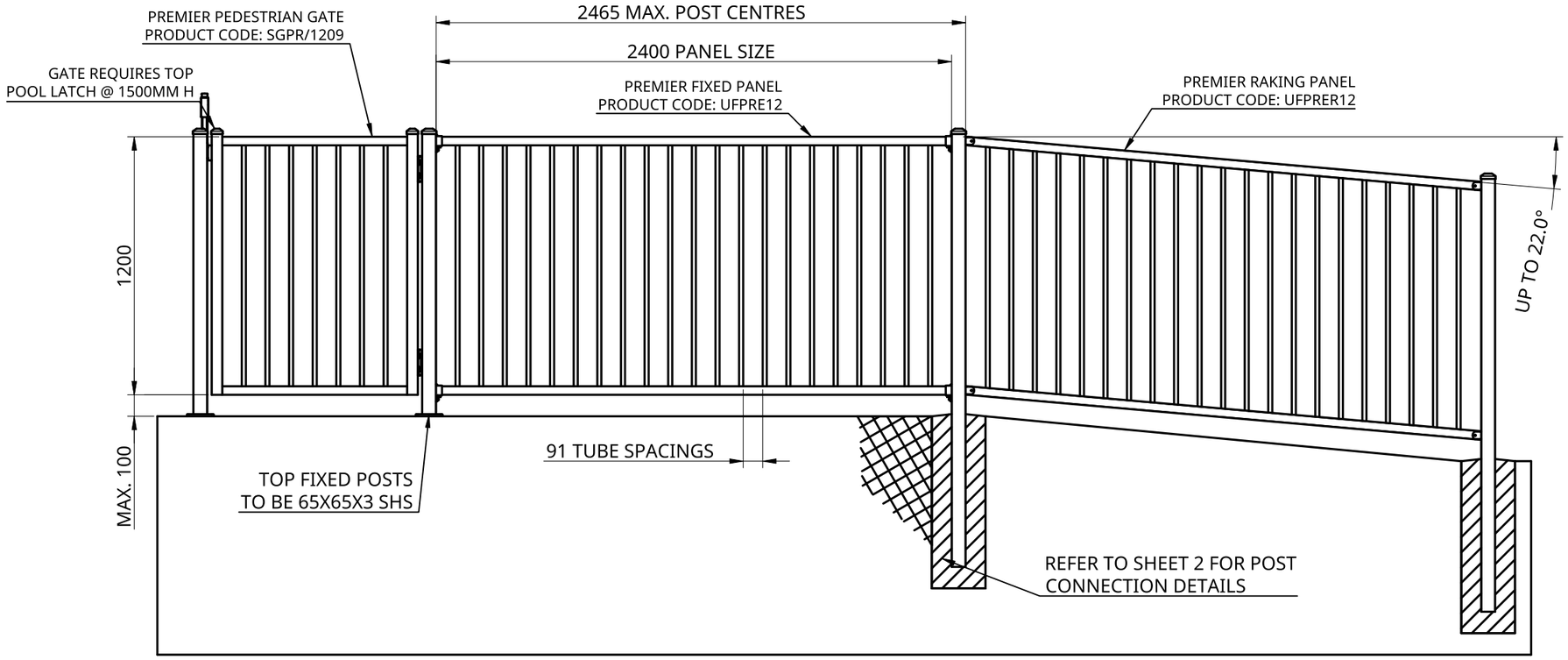
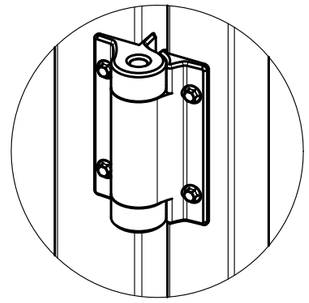
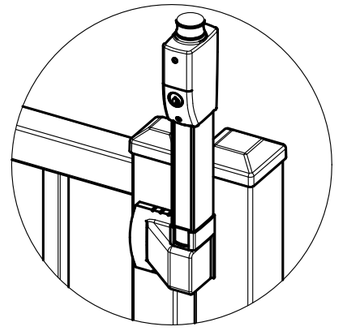
SIZE: A3	SCALE: 1:4
DRAWING NO: PRE12 - PFS	REVISION: 01
DATE ISSUED: 2023-12-19	SHEET: 2 OF 2

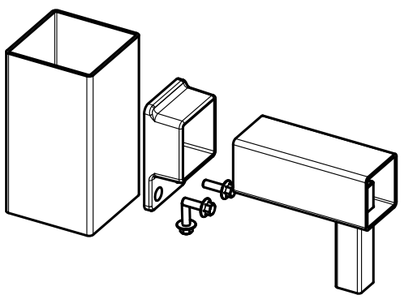




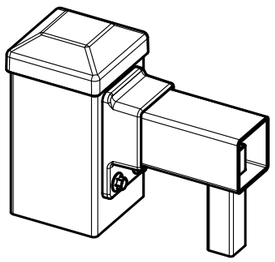
TRU-CLOSE HINGES
ON PED GATE
1:4



TOP POOL LATCH
1:6



FIXED PANEL TO POST DETAIL
1:4



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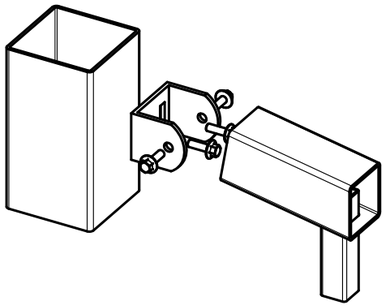
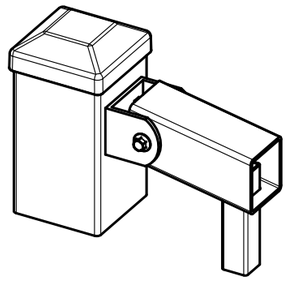


RAKING PANEL TO POST DETAIL
1:4



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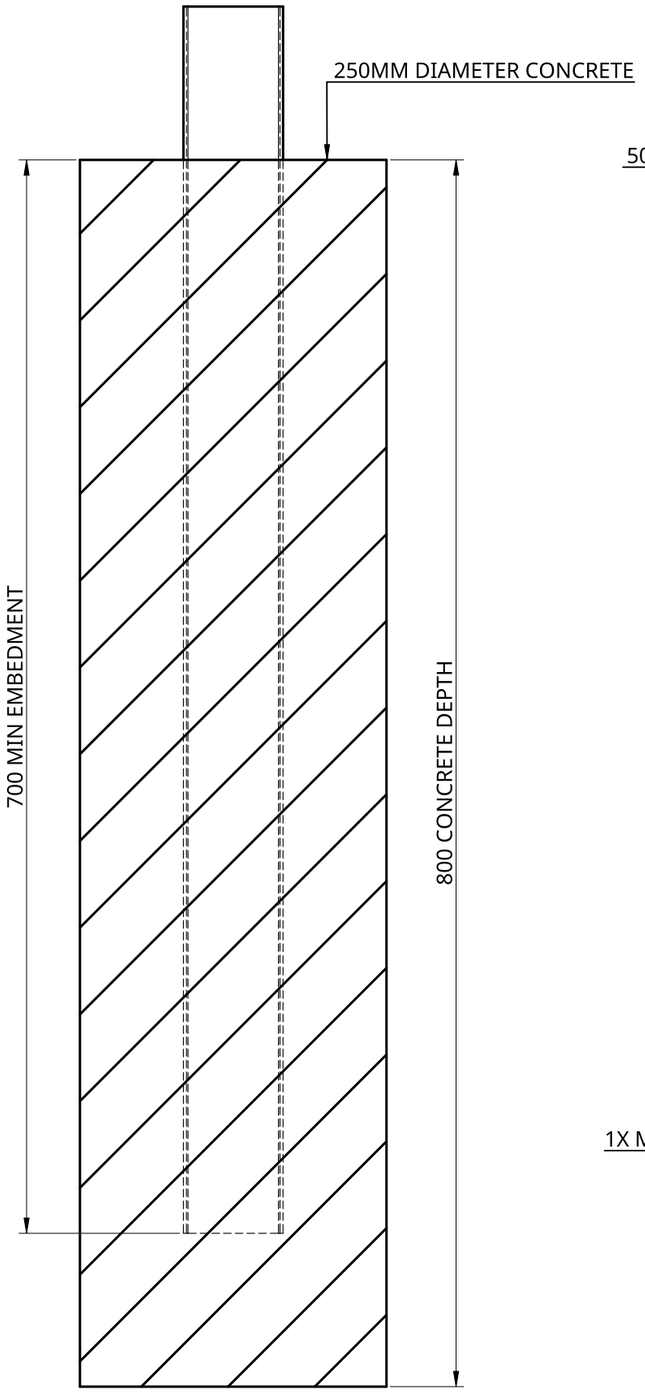
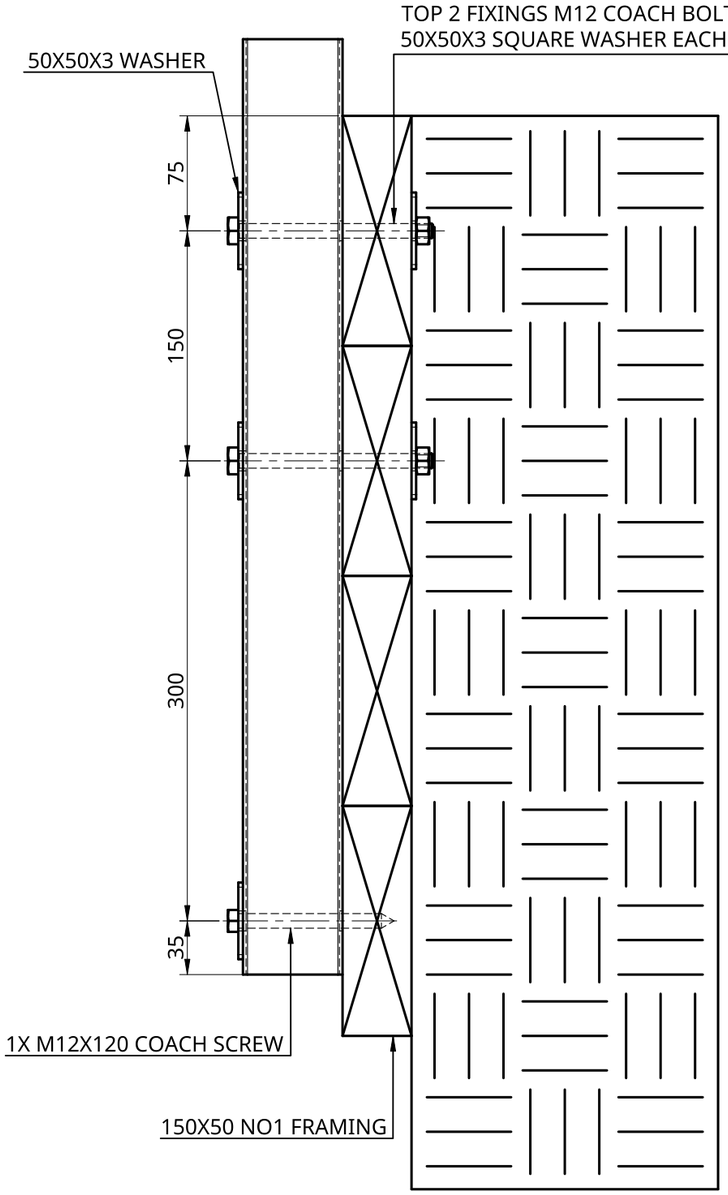
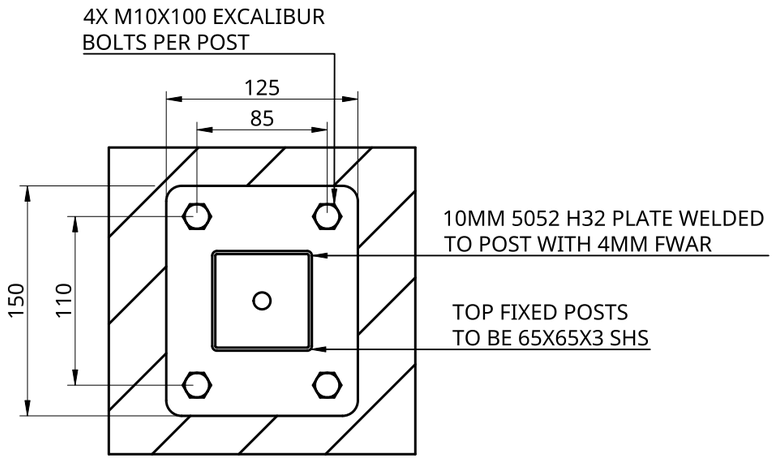


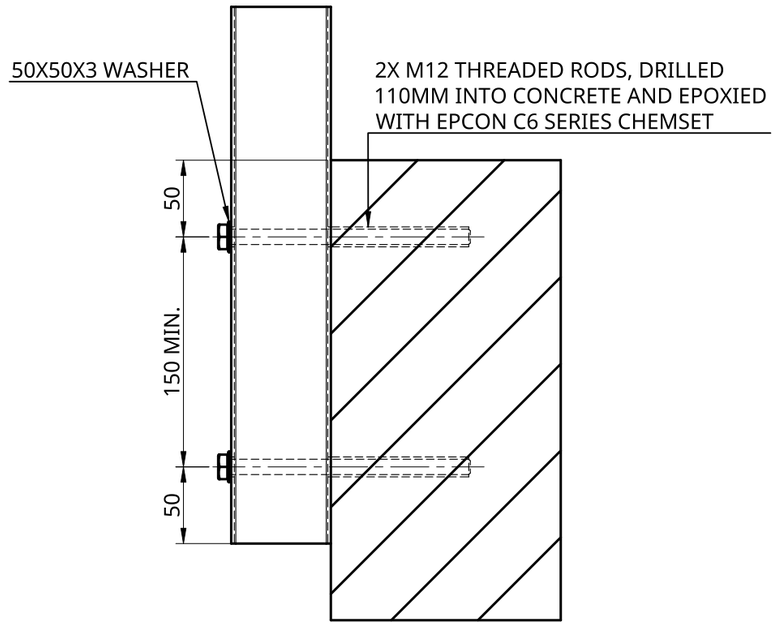
IN GROUND POST CONNECTION



SIDE FIX TO TIMBER RETAINING WALL CONNECTION



BASEPLATED POST CONNECTION



SIDE FIX TO CONCRETE CONNECTION

UrbanGroup™

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