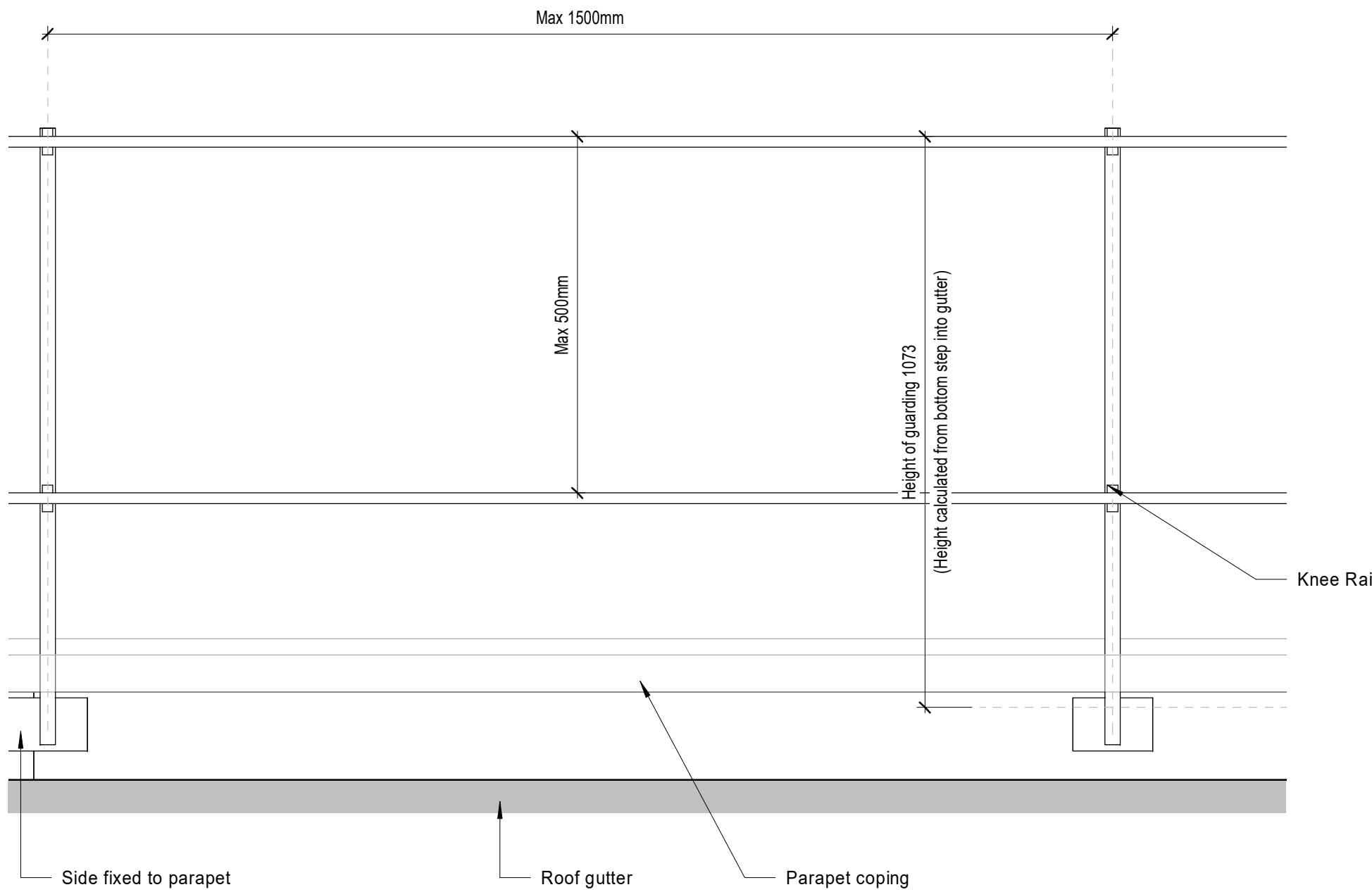
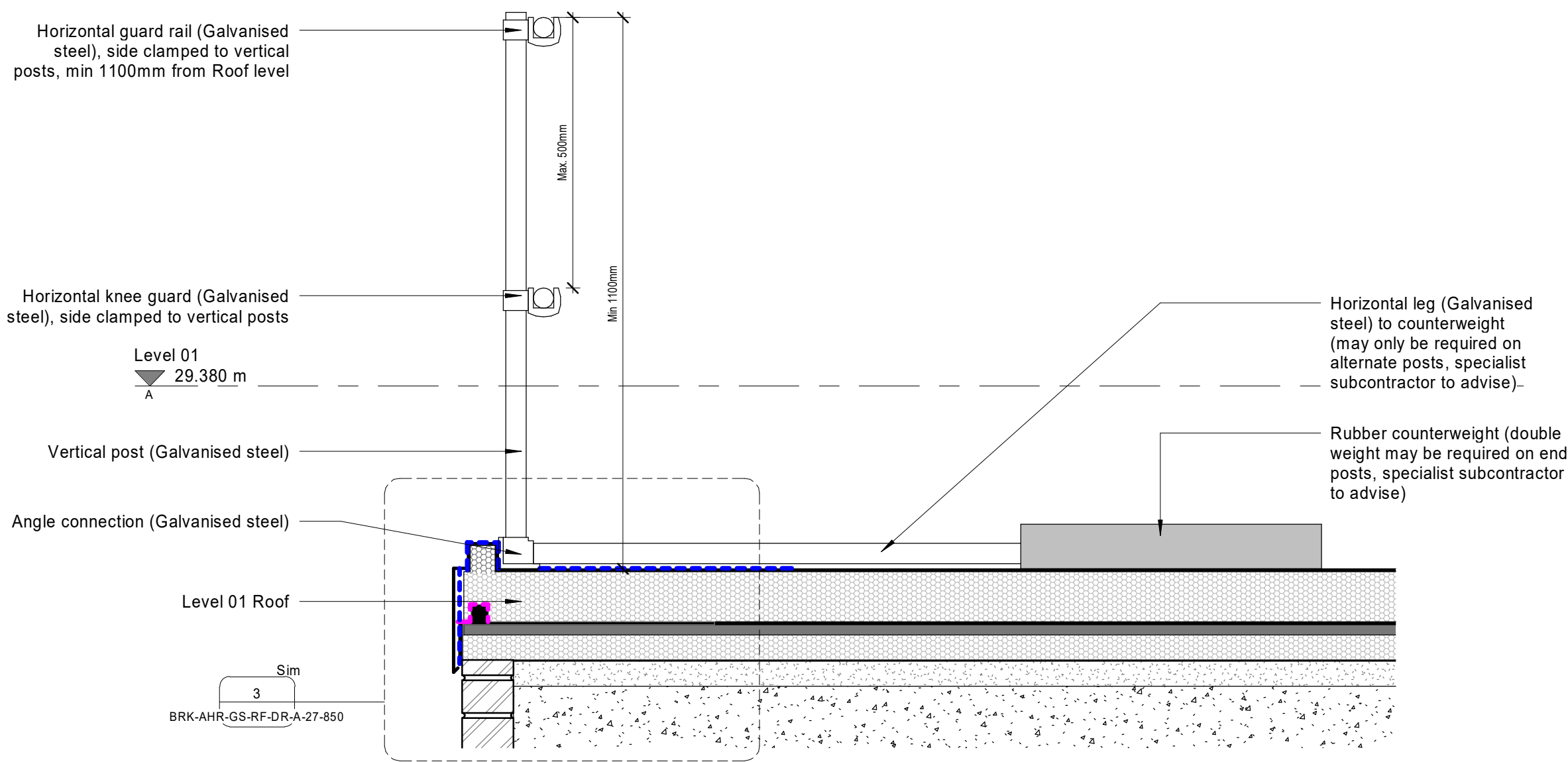


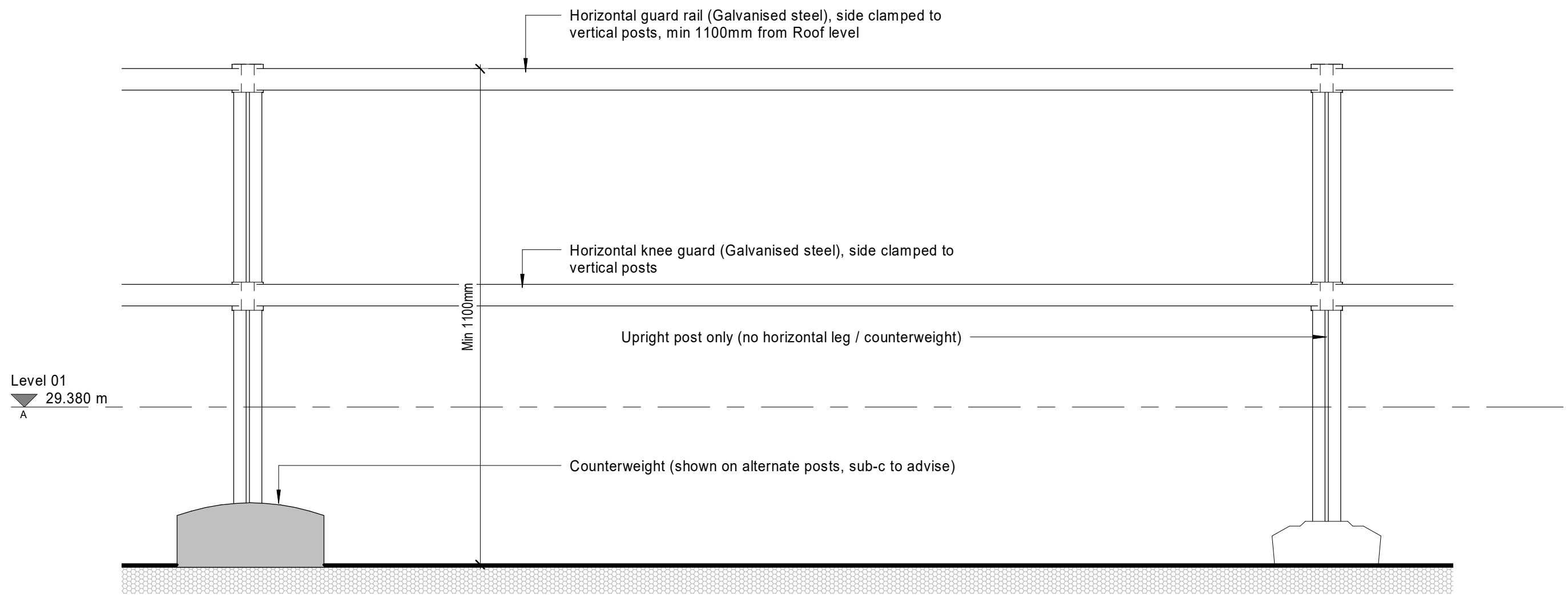
1. Planning - Roof Guarding Section - Level 04 Roof
1 : 10



2. Planning - Roof Guarding Elevation - Level 04 Roof
1 : 10



3. Planning - Roof Guarding Section - Level 01
1 : 10



4. Planning - Roof Guarding Elevation - Level 01
1 : 10

NOTES:

Roof guarding designed to comply with Industrial stairs and ladders guidance of BS EN ISO 14122-3:2016, replacing BS 5395-3:1985, AND Approved document Part K: 2013.

Minimum heights of 1100mm to top of guarding calculated from specific levels noted on drawing.

To be read in conjunction with roof safety and maintenance strategy (BRK-AHR-GS-RF-DR-A-65-001).

Structural Eng. to confirm existing parapet and roof guarding fixing requirements

All windows and doors with cills below 1100affl to be fitted with window restrictors. First Floor balcony doors to be fitted with restrictors and to be used for maintenance only

P06	(S3) Roof Guarding Application Submission	20.12.21	JH	FC
P05	(S3) Listed Building Application Submission	18.11.21	JH	GO
P04	(S3) Listed Building Application update for client approval	16.11.21	JH	GO
P03	(S3) Listed Building Application update for client approval	03.11.21	JH	GO
P02	(P1) Planning Submission	22.09.2020	AM	GO
P01	(S3) Pre planning application issue for client sign approval	21.07.2020	KW	HT
Rev	Description	Date	Dr by	App by
original by	AS	date created 07/16/20	approved by	GO



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client name	Birkbeck University of London
project	Gordon Square, London
drawing	Planning - Roof guarding types
computer file	C:\Rev\Projects\BRK-AHR-GS-X01-M3-A-Central_Jonathan Horvath
project number	2019.00916.000
scale	As indicated@A1
drawing number	BRK-AHR-GS-RF-DR-A-27-552
rev	P06
issue status	S3
This drawing is to be read in conjunction with all related drawings. All dimensions must be checked and verified on site before commencing any work or producing shop drawings. The originator should be notified immediately of any discrepancy. This drawing is copyright and remains the property of AHR.	

Freestanding VersiRail® System

Overview

A freestanding VersiRail system is designed to offer collective protection and is used for:

- protection against falls from height,
- access protection,
- perimeter protection,
- demarcation route.

Freestanding VersiRail should be used exclusively as a way of securing roofs, terraces or platforms. A VersiRail system should only be used as described in standards EN 13374 or EN ISO 14122-3.

About the System

Freestanding VersiRail systems consist of a number of freestanding aluminium upright posts which are curved, inclined, straight or folding in style. The uprights are preassembled ready to be connected together by 40 mm diameter aluminium handrails and kneerails supplied in either 3 m or 6 m lengths. The handrail is always located at 1100 mm high and the kneerail should be arranged so that the space between the handrail and the kneerail is no greater than 470 mm (EN 13374) or 500 mm (EN ISO 14122-3). The hand and kneerails are

held in place with EZ-FIX clamps allowing fast assembly of the rails with the flexibility of accurate kneerail height adjustment (where required).

Counterweights are attached to each upright post to ensure stability. A freestanding VersiRail system can be installed to a wide range of configurations by using various junction, corner and end components.

VersiRail toeboard must be installed where:

- 1 No parapet exists, or
- 2 The parapet does not comply with the minimum toeboard height as per the relevant standard.

Applications

It is essential to check, prior to installation, that the surface you are installing the Freestanding VersiRail onto, can withstand the load of the system. In addition, when installing onto a single ply roof, ensure that the system is compatible with the roof covering as a isolation layer may be required. Before freestanding VersiRail can be situated on a single ply membrane there must be a 1.6 x 0.6 m rectangular additional layer of membrane heat welded, ensuring that there is a 1.3 x 0.3 m sheet of fleece. This additional layer of membrane must be fitted underneath all uprights and counterweights.



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A freestanding system is designed to be mounted directly on top of roof surfaces between 0° and 10° pitch. There is no need to penetrate the roof system, therefore maintaining roof integrity.

Conformity

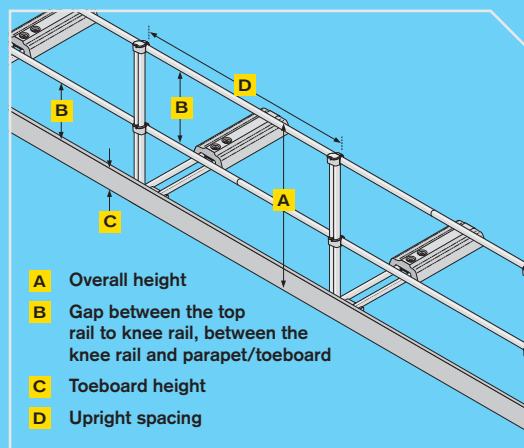
A freestanding VersiRail system ensures that new and existing buildings are safe. It conforms to the safety rules described in the European Directive 2001/45/CE of 27 June 2001, covering the use and provision of protection equipment for temporary work at height, calling for a protection system to be used as soon as there is a risk of fall from a height exceeding 500 mm. The entire system is manufactured under ISO 9001:2008 quality control in agreement with the industrial standards.

There are two European standards (EN 13374 and EN ISO 14122-3) that are applicable to the design and testing of freestanding guardrail systems and to which freestanding VersiRail complies.

Therefore, to determine the correct system specification, it is the responsibility of others to establish which standard is applicable for each project.

The requirements of the standards are as follows:

Standard	A	B	C	D
EN 13374	≥ 1.0 m	≤ 0.47 m	≥ 0.15 m	≤ 2.5 m
EN ISO 14122-3	≥ 1.1 m	≤ 0.5 m	≥ 0.1 m	≤ 1.5 m



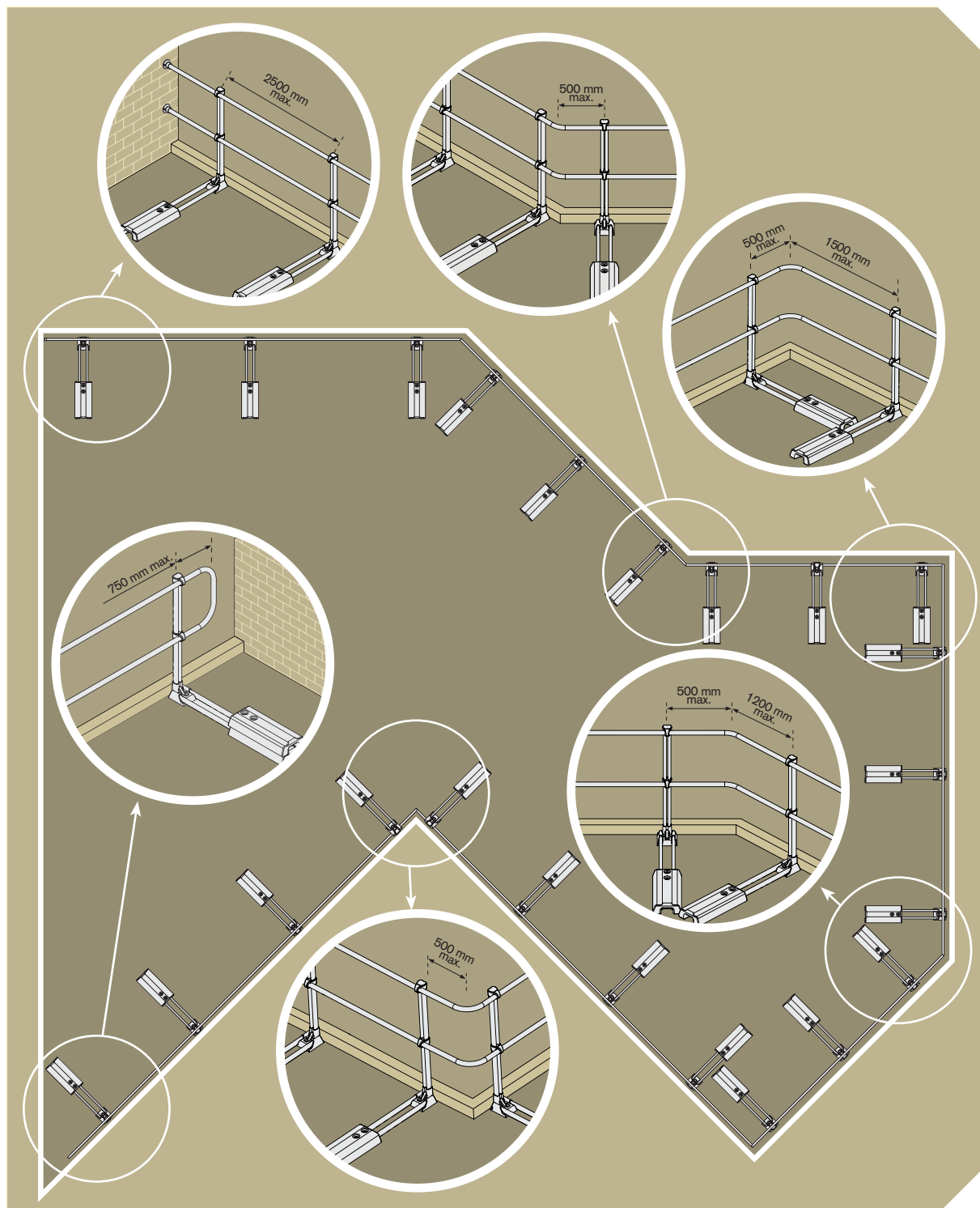
VersiRail toeboard must be installed where:

- 1 No parapet exists, or
- 2 The parapet does not comply with the minimum toeboard height as per the relevant standard.

In addition to this, the materials used must be capable of resisting any corrosion caused by ambient atmospheric conditions. Freestanding VersiRail is maintenance free and under normal conditions of use requires no annual inspection. All aluminium within the VersiRail system is fully recyclable.

Freestanding **VersiRail®** System

Example Layout Plan



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Example NBS Specification

L30 Freestanding Aluminium Safety Guardrail system

Manufacturer and Reference

Latchways plc, Hopton Park, Devizes, Wiltshire, SN10 2JP
Tel: +44 (0)1380 732700 Fax: +44 (0)1380 732701
Email: info@latchways.com Web: www.latchways.com

L30 Freestanding Aluminium Safety Guardrail system

Product Description

VersiRail Freestanding safety guardrail system for use on new and existing buildings with working platforms, roofs or technical terraces having slopes between 0° and 10° and no public access. Folding option available; contact Latchways.

Comprising straight, curved or inclined aluminium uprights, with hand and kneerails, all connected via EZ-FIX clamping system to allow fast assembly and accurate level adjustment. No requirement for drilling, the system is mounted directly on the platform.

Complies with requirements of EN 13374 and EN ISO 14122-3 and conforms to European Directive 2001/45/CE.

Component Breakdown for the example:

- 23 x 22000-00—POL—Straight, vertical, 1100 mm high including freestanding weight.
- 15 x 22016-00—Aluminium Handrail (and Kneerail) tube Ø40 mm, length of 6 m.
- 15 x 22060-00—Junction part for Ø40 mm handrail.
- 6 x 22061-00—Standard 90° corner assembly.
- 6 x 22066-00 (135°)—Made to order corner section.
- 23 x 22088-00—Standard PVC Protection sole.
- 2 x 22063-00—Wall End Piece.
- 1 x 22064-00—Closure Bend.

Technical Product Specification

Uprights:

- Straight; 1100 mm high. Maximum centres between uprights: 2.5 m to EN 13374 or 1.5 m to EN ISO 14122-3.

Connecting elements:

- Junction part; connects lengths linearly.

Handrails:

- 40 mm diameter aluminium in 6 m lengths.

Corner sections:

- 90° corner section; for use where right angles are required in handrails.
- Made to order corner sections of 135° to be fabricated to order.

End Components:

- Closure bend; for use where handrail terminates but cannot be attached to building. Connects handrail to kneerail. Can also form designated opening in rail. Requires installation of an upright with two counterweights (22030-00 for single counterweight; 22031-00 for additional counterweight).
- Wall end piece; for termination at supporting wall, parapet or other structure. Fixing is by 4 no. M5 diameter screws.

Access gates:

Not required.

Toeboards:

Not required.

Finishes:

- Polished: -'POL'.

Freestanding VersiRail® System

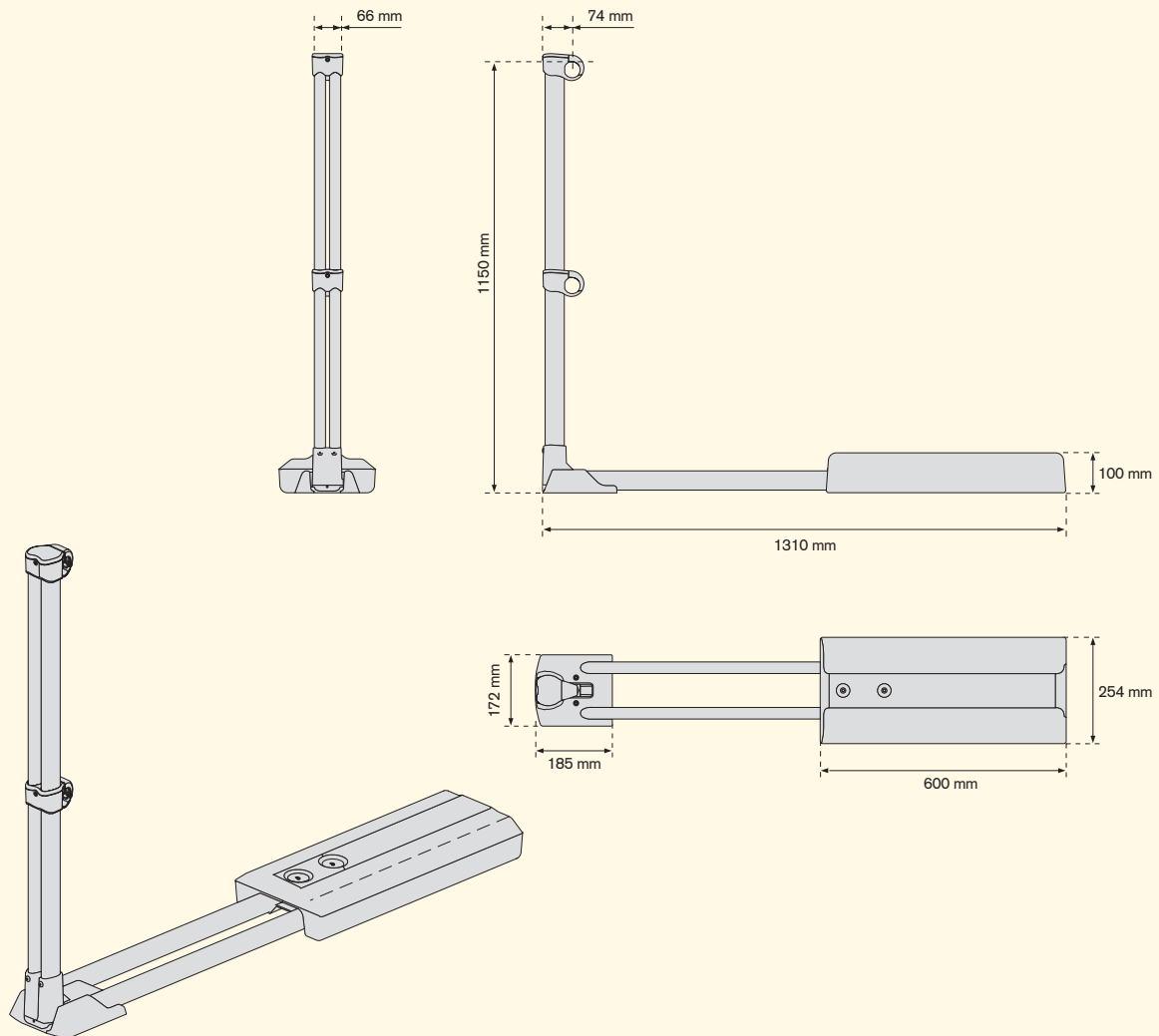
Straight Upright

The straight upright style is a simple but traditional design which fits in perfectly with the clean lines and angles of a building. The straight upright system is particularly suitable for protection at access points and marking out walkways.

The straight uprights are supplied preassembled to the foot bracket (ready to lock into position) and then require the necessary counterweight(s) attaching. Further information on the counterweights is available on see page 3:14.

When used in a freestanding VersiRail system, the straight upright is designed to be mounted directly on top of roof surfaces between 0° and 10° pitch.

Straight uprights are available in a choice of three finishes: natural, polished or powder coated to a specific RAL colour.



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NB— Items shown are not to scale.

Straight Upright

Height	Part Code
1100 mm:	22000-00

NB: The above part code is for a natural finish. For a polished finish please add '-POL' to the end of the code. For powder coated please add '-RAL' to the end of the code and state RAL colour required.

Handrail/kneerail

Length	Material	Weight	Part Code
3000 mm:	Aluminium	2.25 kg	22013-00
6000 mm:	Aluminium	4.5 kg	22016-00

NB: Hand/kneerails will automatically be supplied to match the finish/colour specified on the uprights within the same order.

