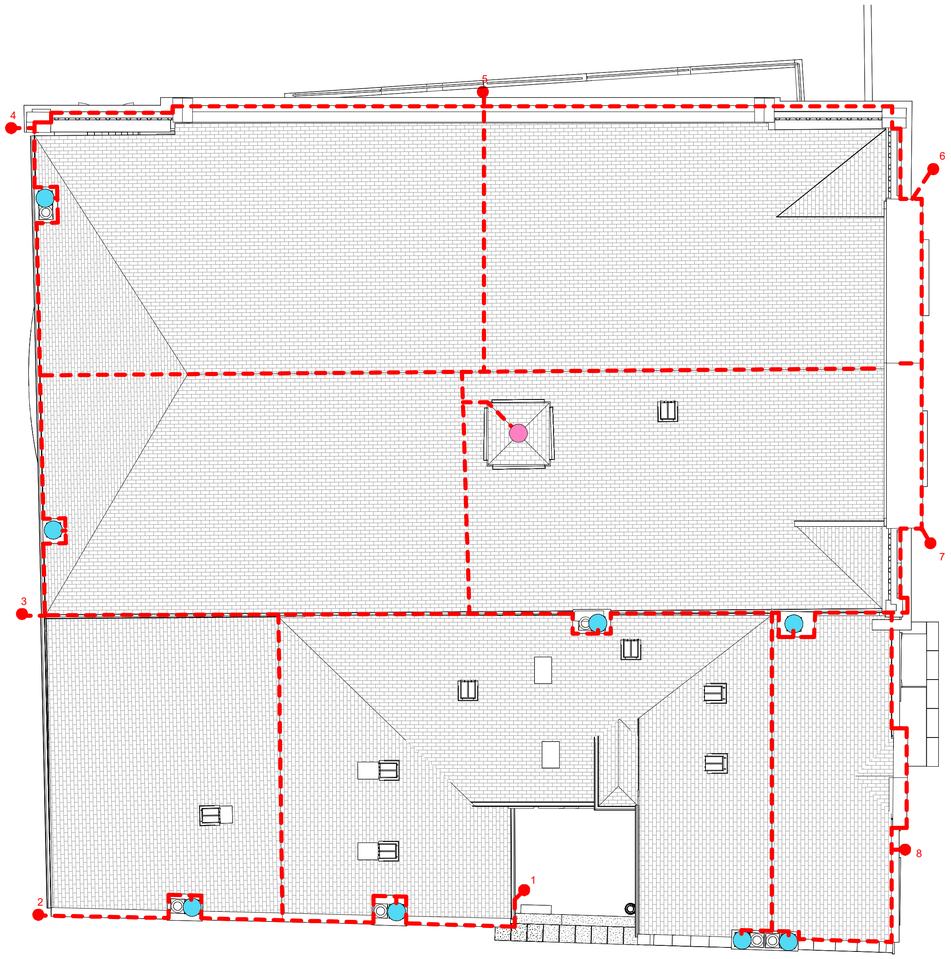
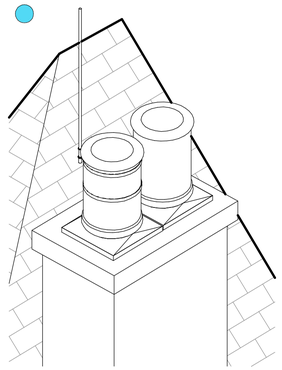
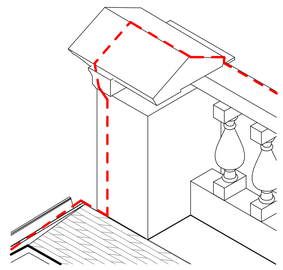


1 RF - Roof Copy 1

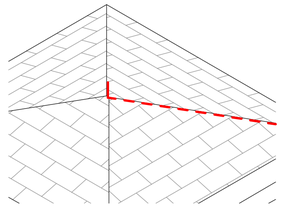
1 : 100



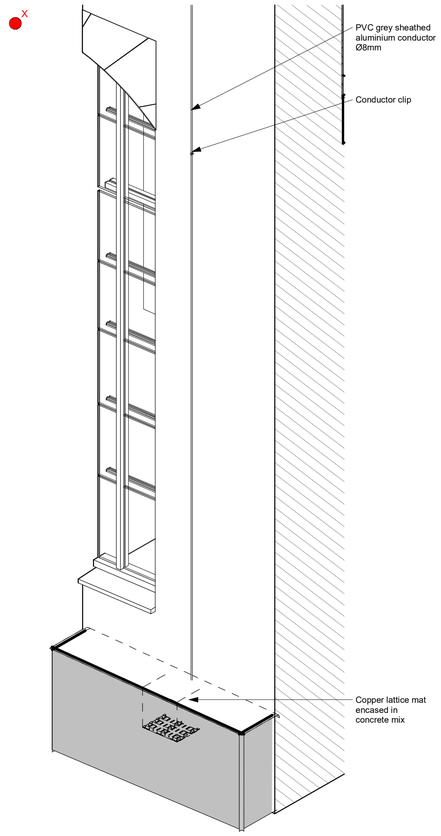
2 Detail lightning air rod chimney mount



3 Detail lightning strike point example



8 Detail lightning strike point on roof feature



9 Detail Lightning ground point

5.3.3 Positioning for a non-isolated LPS

For each non-isolated LPS the number of down-conductors shall be not less than two and should be distributed around the perimeter of the structure to be protected, subject to architectural and practical constraints.

An equal spacing of the down-conductors is preferred around the perimeter. Typical preferred values of the distance between down-conductors are given in Table 4.

NOTE The value of the distance between down-conductors is correlated with the separation distance given in 6.3.

Table 4 – Typical preferred values of the distance between down-conductors according to the class of LPS

Class of LPS	Typical distances m
I	10
II	10
III	15
IV	20

BS EN 62305 PART 3 PHYSICAL DAMAGE TO STRUCTURES AND LIFT HAZARD CL. 5.3.3 TABLE 4

Scale 1:100 (metres)

0 5

Scale 1:200 (metres)

0 10

Key

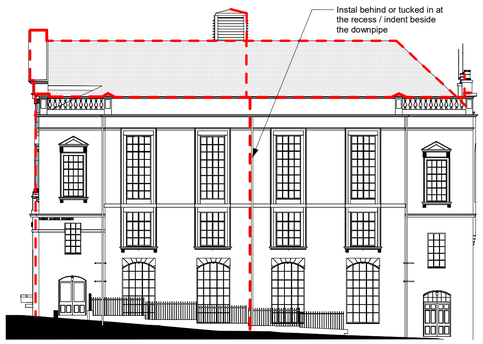
- PVC black sheathed aluminium conductor fixed to pitched slate roof via slate holdfast clips
- X — PVC grey sheathed aluminium conductor and copper lattice mat encased in concrete mix ' marconite' c/w supply only plastic pits for insertion by others
- Strike point on chimneys via conductor tie wrapped to pot
- Strike point on features

NOTES

Adequately rated surge protection devices (SPD's) are required for BSEN 62305 compliance

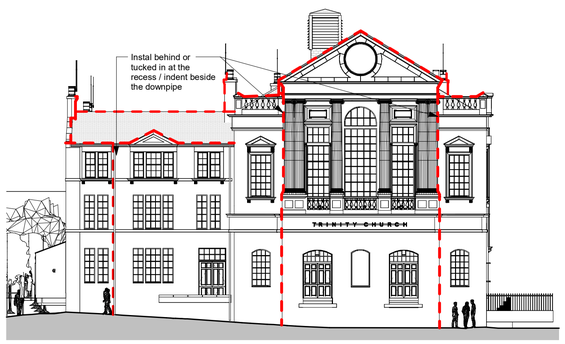
Drawing produced from information supplied by Burns Construction who are responsible for the design of the lightning system

OMEGA NOTES REGARDING THEIR DESIGN:
This building requires a level 4 system. Under BSEN 62305 part 3 (Physical damage to structures and life hazard) cl 5.3.3 and table 4 (extract to the left) explains that down conductors are required around the perimeter of a structure every 20m for a level 4 system.



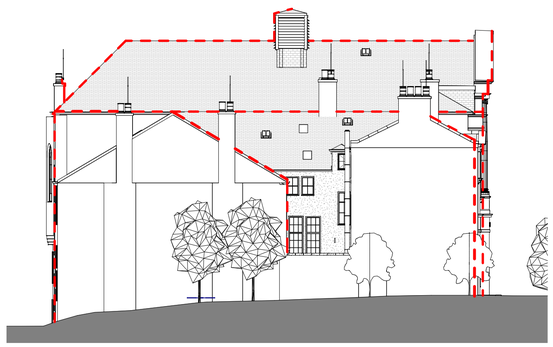
4 North Elevation Lightning Protection

1 : 200



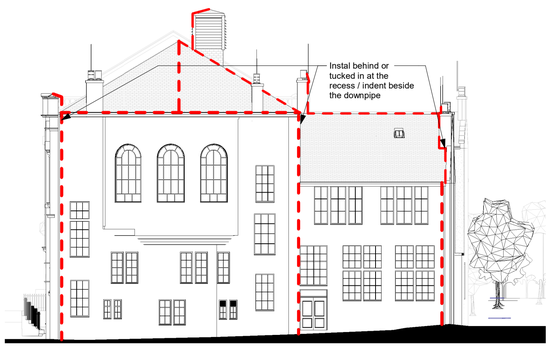
5 East Elevation Proposed lightning

1 : 200



6 South Elevation Lightning Protection

1 : 200



7 West Elevation Lightning Protection

1 : 200

Rev.	Description	Date	By
A	Omega note added regarding lightning protection	21.02.23	SL

RIBA Chartered Practice

WGA

Cruden Trust
Trinity Church
Queen Street, Aberdeen

CONSTRUCTION PHASE 1

Roof Plan - Lightning Protection Details

Project number:	Drawing No:		Rev.
15007	A-P-RF-G2-013		A
Date: 01.30.24	Drawn: GD	Checked: KS	Scale: As indicated@A1

www.wga.ltd

GLASGOW: 137 Sauchiehall St. Glasgow G2 3EW
t/ +44 0141 331 0377

LONDON: 86-90 Paul St. London EC2A 4NE
t/ +44 020 3011 2343

BELFAST: 7 Donegall Square, Belfast, BT1 6JH.
+2895 622 112

DUBAI: Level 17, Boulevard Plaza Tower 1 Sheikh Mohammed Bin Rashid Boulevard Downtown Dubai, Dubai
t/ +971 50 596 3682