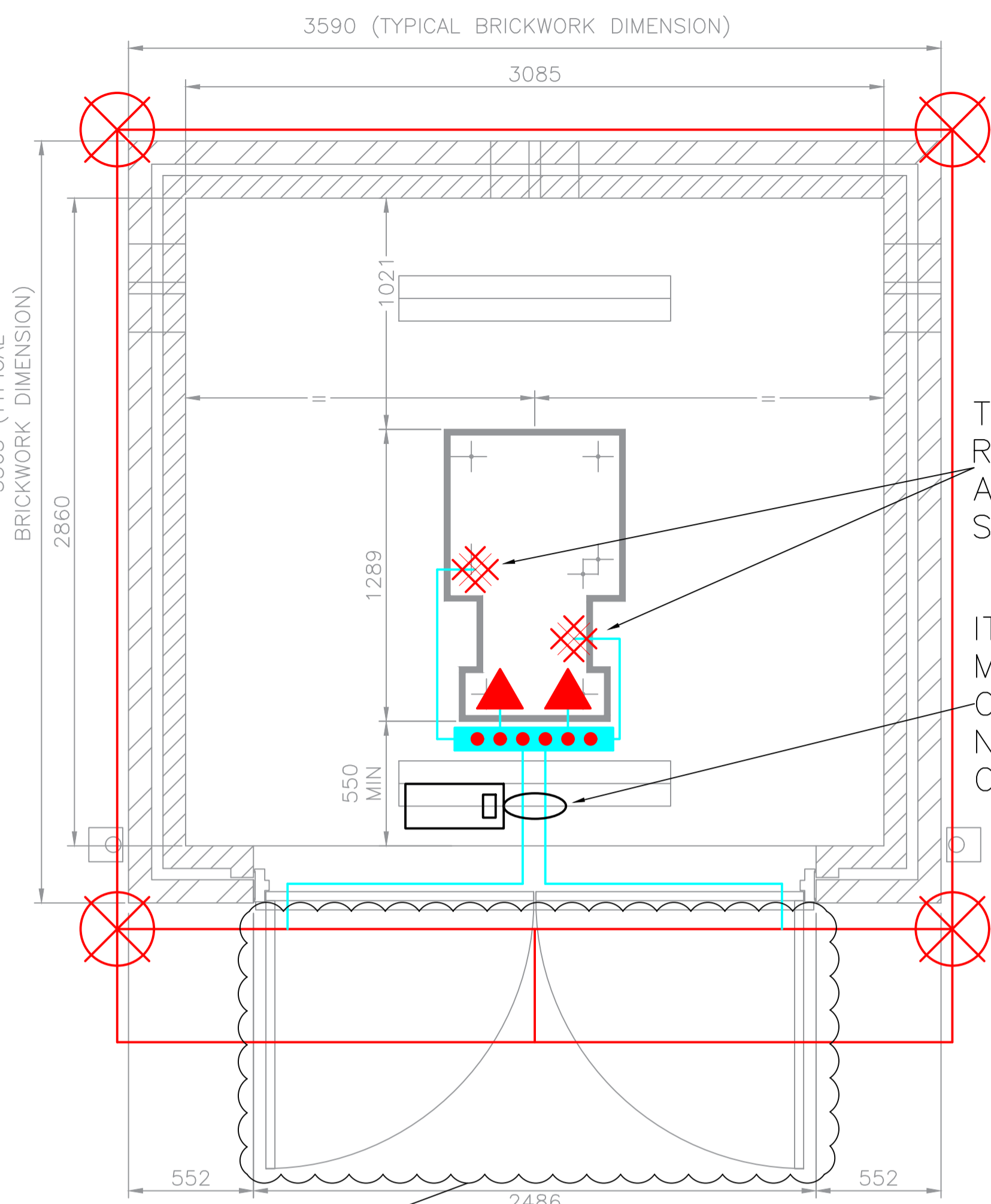


Installation Requirements

- a. All excavation routes to be checked for existing buried services and an appropriate excavation method agreed with the site SAP to avoid inadvertent contact or damage.
- b. All buried earth electrode to be copper conforming to BS EN 13601. Above ground conductor to be copper to BS EN 13601.
- c. The soil in contact with buried copper conductor must have a pH between 6 and 10 and contain no ash, coke breeze or any other material that is corrosive to copper. Where the pH is outside these limits, the electrode should be surrounded by a minimum of 150mm radius of correct pH soil. Encapsulation in Bentonite or Marconite may be necessary if the soil is excessively corrosive.
- d. Copper to copper tape joints should ideally be brazed or welded. Compression joints conforming to BS 3288-1 may be used on stranded conductor. Earth tape may be bolted providing the drilled holes do not exceed one third of the width of the tape (otherwise larger tape must be used) and where this is buried it must be protected against moisture ingress. All equipment connections must have double bolt fittings wherever practicable.
- e. Ensure there are two earth connections to all main equipment.
- f. Earth rods to be connected to horizontal copper ring via an approved clamp and wrapped to prevent moisture ingress.
- g. The re-bar of new equipment plinths is to be bonded to the main earthing system. Bonding of the upper layer of welded mesh re-bar is sufficient.

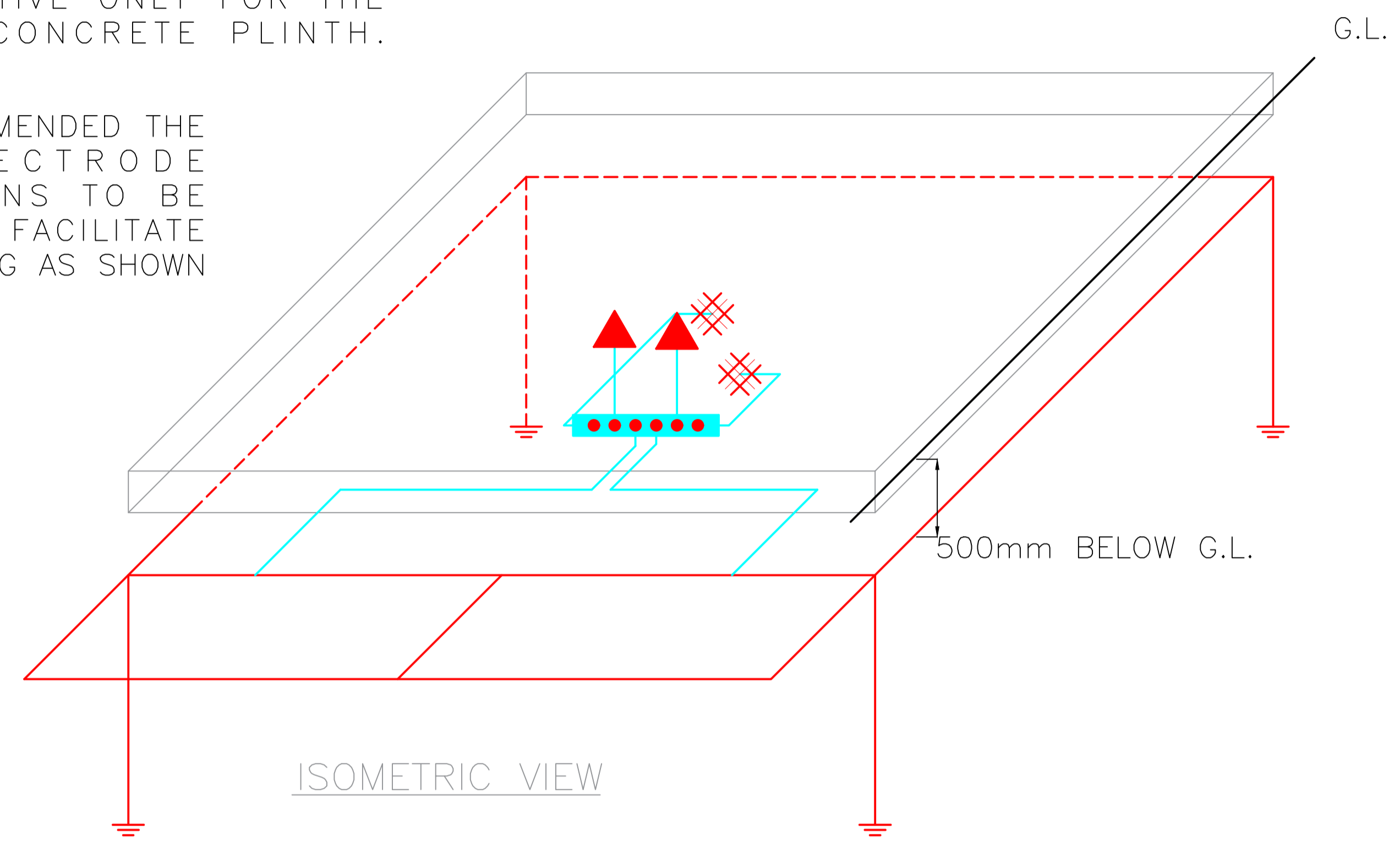


TWO REBAR/MESH CONNECTIONS ARE REQUIRED. THE SHOWN CONNECTIONS ARE INDICATIVE ONLY FOR THE SPECIFIC CONCRETE PLINTH.

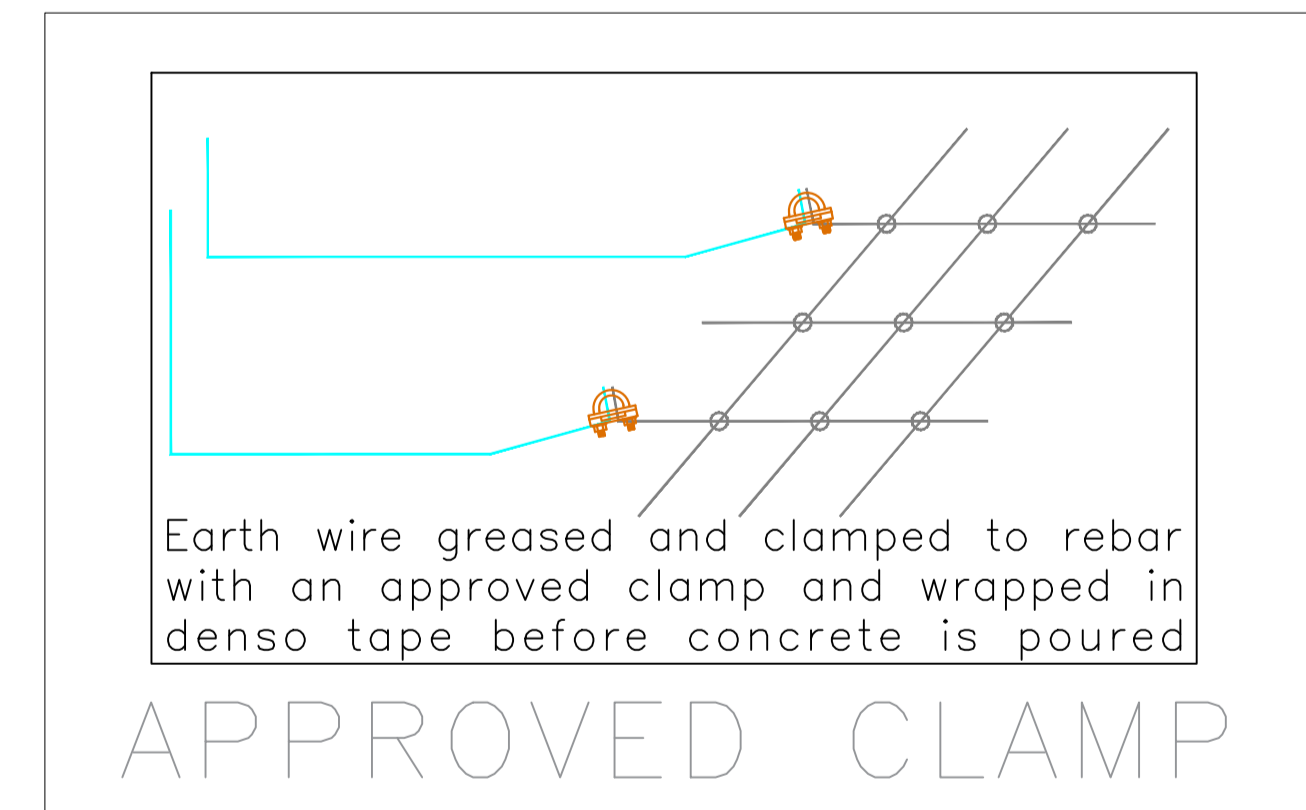
IT IS RECOMMENDED THE MAIN ELECTRODE CONNECTIONS TO BE NEARBY TO FACILITATE CLAMP TESTING AS SHOWN

DOOR EARTHING TO BE AGREED (IF METALLIC)

PLAN VIEW



ISOMETRIC VIEW



APPROVED CLAMP

LEGEND

- PROPOSED
- BURIED EARTH ELECTRODE, 0.5m DEEP (25mm x 4mm BARE COPPER TAPE OR 70mm<sup>2</sup> BARE STRANDED COPPER CABLE)
  - SURFACE LAID EARTH TAPE (SIZE AS ABOVE)
  - ▲ CONNECTION TO EQUIPMENT
  - ⊗ EARTH ROD (MIN 1.2m - LENGTH TO BE DETERMINED BY POLICY)
  - ⊗ REBAR CONNECTION
  - EARTH BAR
  - CLAMP METER

		FREDERICK ROAD, SALFORD M6 6QH TEL 0161 6041370		PROPOSED EARTHING LAYOUT TYPICAL BRICK HOUSING FOR EXTERNAL SUBSTATION	
		DRAWN IM APPROVED MD OLD DWG NO -	SCALE 1:20 DATE XX XXXX 2018 SHEET SIZE A1	SITE NAME - P.F.R. NO. - DWG NO ESL-900350-026	DWG STATUS DRAFT REV 0