



Report On The Changes To The British Standard BS8415

In July 2018 the revised British Standard BS8415 was published.

This revised standard supersedes all previous standards.

The BS8415 committee realised there would be implications with the implementation of the revised standard, such as waiting for testing and the production of compliant products. However the role of the committee is to assist in the production of the standard and not to oversee its implementation.

To have products compliant to the revised standard immediately after its publication would be impossible.

Manufacturers of foundations and ground anchors will need an opportunity to clear their existing stocks.

Design work for creating new concrete moulds, altering components, testing products to ensure compliance with the standard etc. will take time.

The main changes to BS8415 will affect local authorities, retailers of memorials and fixer masons and it is therefore expected that manufactures will inform the industry when compliant products are available.

Provision Of Foundations By Local Authorities.

Some local authorities choose to provide foundations for the installation of memorials. It is recommended that, when providing such structures, the foundations should comply with BS8415.

Precast foundations need to be constructed using steel to reinforce the structures especially to strengthen the area around the anchorage holes.

Alternative materials with a similar or improved strength to stainless steel can be used to reinforce concrete, provided the material's strength can be proven by calculation and testing.

The location of reinforcement must be positioned to avoid anchor, dowel and bolt holes.

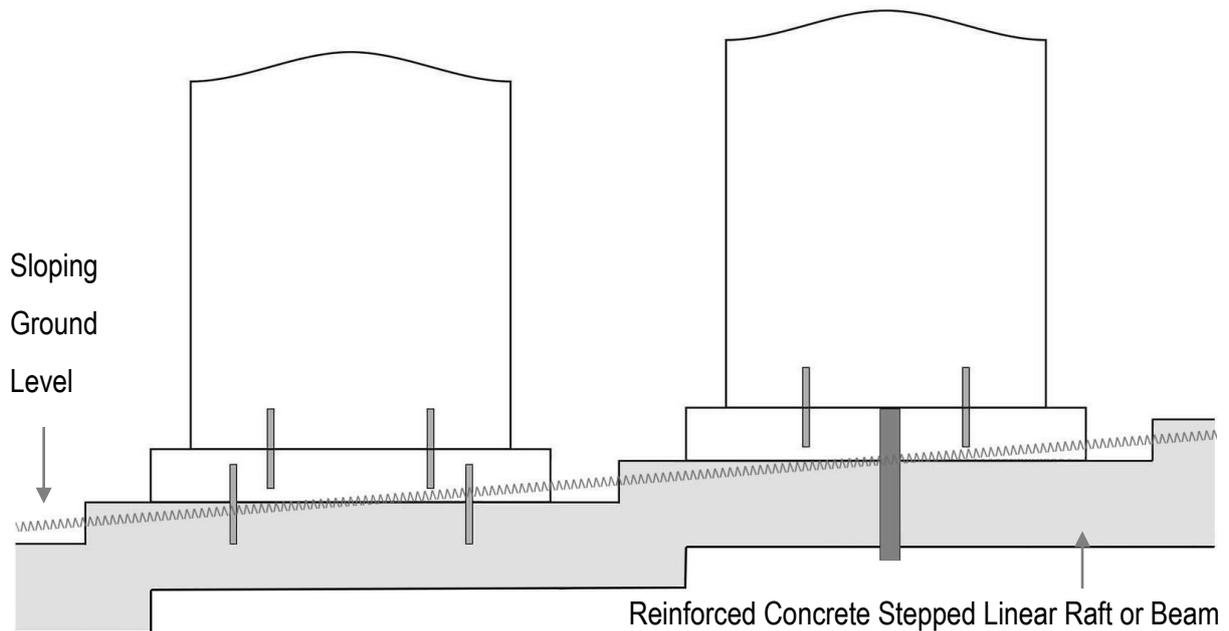
When installing memorial foundations, it is essential that the requirements for the use of the ground anchor are met. Such information will be provided by the ground anchor manufacturers.

In future the selection and installation of pre cast foundations may be best left to fixer masons who will match the foundation to the anchorage requirements.

Cast in situ or linear beam foundations (also called raft or strip foundations), need to comply with the standard and include the use of appropriate expansion joints where necessary. The requirements for single cast/poured foundations are clearly stated in the standard and again steel reinforcement should be used.

All concrete and reinforcement used in foundations needs to meet the specifications of both BS8415 and BS4449.

Raft foundations should be level. Steps should be provided where necessary in the raft, rather than allow the raft structure to just follow the lie of the land. Again such structures will be reinforced to meet the BS8415 standard. (See the illustration below)



Historically some memorials have been installed following the slope of the ground. This is not a recommended practice. Such structures will be under continual stress from gravity. If the memorial is constructed out of level the structure will be out of plumb and memorial joints will be stressed.

A trough constructed in a precast foundation reduces the strength of the structure. The design reduces the amount of concrete in this type of foundation. Such foundations are no longer permitted. Similarly, multiple holes for flower containers reduce the strength and surface area of a foundation. The surface area of these foundations will be unlikely to achieve 80% cement coverage to join the foundation to the base of the memorial.

Best practice for local authorities and fixer masons when purchasing foundations, is to request in writing confirmation that the products supplied are produced using reinforcement and concrete that both comply with BS8415 2018.

Ground Support Systems.

All ground support systems (ground anchors) must be tested to meet the new BS8415 2018 standard.

Ground anchor manufacturers are now required to write a precise account of the intended use of their product. The product will then be tested in accordance with the claimed methods of use and will help to ensure clarity of use for the fixer mason.

Anchors will now be tested in uncontaminated medium sand and gravel. All systems will therefore work in the weakest of soil conditions. The standard advises that users of the 2018 BS8415 (ground anchor manufacturers) consider laboratory testing of products to meet BS EN ISO/IEC 17025. Verification by laboratory testing is promoted to ensure compliance to the standard.

No specific organisation is specified to carry out ground anchor testing but the standard specifies that testing of anchor systems will be conducted by chartered or incorporated civil or structural engineers. A more detailed description of test requirements can be located in Annex E of the standard.

It follows that a report or a certificate of testing will be available to fixer masons specifying the parameters of use for the ground anchor. It is the responsibility of the anchor manufacturer to ensure their products are fit for purpose, meets the new industry standards and to provide detailed information on the use of their products.

If a memorial is to be reinstated after testing or the insertion of an additional inscription etc. then it will be the responsibility of the memorial business and/or fixer mason to ensure that the original anchor (or its replacement) and or it's memorial foundation is compliant to the new standard.

Best practice for fixer masons will be to ensure there is evidence of testing to BS8415 2018, for the intended use of the ground anchor and to ensure the foundation meets the minimum specification required for the anchor.

Memorial Inspections.

Almost a sixth of the new standard relates to safety inspections of memorials.

This can be found under annex A of the standard.

Here the standard states those responsible for safety and maintenance of a cemetery shall have a "written process in place" to manage the risks presented from memorialisation. This is also outlined in the BRAMM Blue Book under inspections, assessments and actions.

Annex A of the standard also states there will be a process for making safe memorials by qualified persons. It should be noted that the laying down or staking of memorials is only an interim solution. Permanent repairs should be planned for and implemented during an eighteen month period.

Additional Information.

The bolting system now requires all nuts used will be locked in place.

For joints, the sole use of adhesives, cement and or mortar to connect surfaces is not permitted. Appropriate stainless steel components must be used when constructing a joint. Such items may include stainless steel dowels, studs (threaded dowels), anchors or lock down systems.

For further information on the current standard reference should be made to the BRAMM Blue Book which can be down loaded from the BRAMM web site.

Alternatively, you can purchase the Standard from BSi if you prefer.