

Our Ref:

RAF/SG/KD

05 September 2008

Anton Matthews, Stone Safe, The Memorial Stone Centre, Shripney Road, Bognor Regis, West Sussex.

Dear Sirs,

Re: Memorial Headstone Foundations

Further to your recent enquiry, wherein you questioned the integrity of the precast headstone foundations under certain conditions, we are pleased to advise you that we have consulted the British Concrete Association and can report as follows:-

- 1) Weed Killers come in a variety of compositions but the most common base is sodium chlorate. The worst effect of constant exposure to this chemical will be to etch the surface and reveal the aggregate to a depth of 1-2mm.
- 2) Headstone cleaning frequently takes the form of common bleach (hypochlorite) and again the worst effect of frequent exposure to this chemical is to etch the surface and reveal the aggregate to a depth of 1-2mm.
- 3) The issue of working in low temperatures is much more significant in that the B.C.A. believe that in the absence of any specific test data, the bonding process for cement paste, used as the adhesive between headstone and concrete base, must have 28 days curing to ensure a bond adequate to withstand the topple test. Headstones should therefore be stabilized during this curing period.

The bond is seriously compromised if:-

- 1) The surfaces to be bonded are not properly prepared.
- 2) If laid in temperature below 5° degrees C as this can negate the bond altogether.

The other risk is repeated freeze thaw conditions on this cement bond. If the bed is not laid without air pockets which can retain water, or if the base is submerged for long periods during a freeze-thaw cycle, the expansion during freezing will separate the headstone from the base, with obvious consequences.

We hope this answers your queries and that you are successful in the promotion of your system which in the words of the Standards Manager for the British Concrete Association is a "Deemed to satisfy solution" which is as specific as British Standards can get,

Yours faithfully

R.A.Fowler BSc, MICE, C.ENG







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