

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

Policy Review

Due to changes in relation to hazard perception, testing criteria and issued guidance (Managing the Safety of Burial Ground Memorials) Boston Borough Council have determined that the requirements in their previous Memorial Safety Policy (issued in 2009) need to be reviewed and amended to address these changes.

Whilst reviewing the policy as with the preparation and implementation of the previous policy Boston Borough Council has taken into consideration the sensitive nature of the environment and how that any action taken in this area or to monuments has the potential to affect relatives / other visitors to the cemetery.

Current Status

Testing commenced within the cemetery in 2005 and all of the memorials determined to be potentially hazardous (Area opened in 1855) at this time were inspected and if necessary tested (external contractor). Since then additional inspection and testing work has been undertaken in them following areas: - 1, 3, P, R, S and T. This has been completed by suitable trained BBC employees.

The action taken in relation to potentially hazardous memorials by both Contractor and BBC was in accordance with existing BBC Memorial Safety Policy which was either to secure by staking / banding or to remove / lay down memorial.

In accordance with the previous criteria all of the staked memorials required re-inspection within 12 months and all the others re-inspection within 5 years. However, unfortunately due to a lack of resources the required follow-up actions (re-inspect within 12 months) in relation to the staked memorials and revisited inspected memorials has not been undertaken. In addition, there are areas within the cemetery that are still awaiting an initial inspection.

These findings indicate that compliance with the previous Memorial Safety Policy requirements was always going to be virtually impossible due to the number of memorials within the cemetery 10,000 +, limited availability of trained / competent employees and the time required to visit, inspect, identify and record the inspection findings.

Since the beginning of this year 750 memorials have been inspected using the same criteria (Area 18). However, whilst the testing has been undertaken and recorded the necessary action has not been taken to make any potentially hazardous memorials safe.

Policy Review Criteria

In 2009 new guidance was issued in relation to inspection and testing (Managing the Safety of Burial Ground Memorials) and two BBC employees subsequently undertook training with the Institute of Cemetery and Crematorium Management training (ICCM) that covered memorial testing and these changes. The guidance and training both indicated that there had been significant changes in the relation to the way that memorial hazards was determined and addressed.

This has prompted the review of the existing policy with a view to implementing a clear and achievable inspection regime / system based on hazard and risk, with a rationale behind actions and achievable frequency for inspection. However, it is recognized that the reviewed policy will only be successful if the specified requirements are implemented by trained employees and a robust system is in place for informing relatives of issues and for implementing actions to remove potential hazards.

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

New Criteria

The new guidance and subsequent employee training in relation to memorial inspections indicated that when determining hazard / risk it is not necessarily the older, damaged or leaning monuments that are potentially hazardous.

It indicates that workmanship and fixing have a direct bearing on the potential for a memorial failure / collapse with the memorials prior to 1950 due to better workmanship and fixing being less liable to structural failure. This is again the case with memorials fitted after 2000 as new standards were introduced and applied to the masons that supplied and fixed monuments.

Therefore when determining priority in relation to inspection and testing the monuments installed between 1950 and 2000 should be given priority.

In addition, the changes indicate that when determining hazard consideration needs to be given to the level of risk in relation to the collapse of a memorial i.e. creates potential a trip hazard, cause significant injury, etc. This has highlighted that the previous policy (every memorial over 20 inches / 50cm high tested) has resulted in a significant number of memorials being strapped / staked when they pose no or a minimal risk.

Again when determining which areas and memorials to inspect consideration needs to be given to usage, access/ egress and number of visitors to the area making the most recent and currently utilised areas potentially more hazardous.

Policy Changes

The initial work completed on memorial inspections has shown it is not feasible to initially visually inspect and test every monument in the cemetery and then to re-visit every monument within the previously specified time frame (5 years). Therefore it has been necessary to re-evaluate the existing BBC Policy with a view to identifying the level of hazard and risk in relation to the memorials and to then determine and implement a realistic and achievable inspection programme.

The main changes to the policy are in relation to the criteria used to determine testing requirements (hazard / risk), the methodology for testing and specified period for initial and subsequent retesting.

Risk Assessment Criteria

The new system is based on a risk assessment process which identifies the memorials that are more likely to be potentially hazardous due to – type, height / size, construction, date erected, fixing and then considers their potential to cause injury or damage.

Initially testing is applied in accordance with this specified criteria and then takes into consideration any evidence of damage, subsidence or movement (change to original position, ability to move, cracks, missing parts) and location i.e. area still active subject to frequent visitors, near to paths, maintained by BBC Grounds Maintenance employees, etc. Any re-testing in relation to 'Actioned' monuments is again complete in accordance with the determined level of risk applicable to the memorial.

Memorials over 6 feet - RA Criteria & Testing Requirements

The majority of memorials that are over 6ft in height are located in the original / older parts of the cemetery (Area opened in 1855). They were constructed and erected during the Victorian era when a high level of craftsman ship was applied to all aspects of design and construction and it was normal practice to install the base below ground level. Whilst the height and size of these structures might give rise to some concerns, due to the construction and installation methods used the potential for them to fall is less likely than with monuments that were installed after 1950.

**Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy**

In addition, this part of the cemetery is no longer subject to a high level of visiting and has been allowed to return to its natural state and is now mainly used as a nature reserve. When determining the testing criteria for this type of monument consideration has been to these factors which help to minimise related risks.

All memorials that are over 6' 6" (2 metres) in height installed since the cemetery opened will initially be inspected by a qualified memorial mason or structural engineer. A visual inspection will then be completed every 20 years and if this inspection indicates that there has been damage, a significant deterioration to structure, subsidence, etc the memorial will re-inspected by a qualified memorial mason or structural engineer.

Additional inspections will be undertaken subject to a change of use or on receipt of a report in relation to damage, deterioration, subsidence, etc

Any memorial that exceeds 6ft 6 inches in height that indicates on testing a real and immediate risk will be removed and laid down by a structural engineer.

Where possible (still traceable) the relatives or owner will be advised of the action taken in writing.

Standard Type Memorials – RA Criteria & Testing Requirements

The memorials that fall into this category are Headstones (old type – base below ground level) and Lawn Headstones (with base) that are below 4ft and large headstones / monuments (up to 6ft 6ins). The applied testing criteria are dependant on height, type, age and zone as detailed in the tables below. Again whilst the larger headstones and monuments would appear to be a potentially a greater risk, evidence would indicate that the older type Headstones with their base below ground level due to the workmanship and depth of fixing are less liable to become unstable or damaged and this is reflected in the testing requirements.

Headstone (Old Type)

Type	Construction & Fixing	Height / Size	Date erected	Location	Risk Rating	Initial Testing	Frequency for re-testing	Re-test Staked Monuments
Headstone	Old type – base below ground level	Below 36 inches	Before 1940	Red Zone	Low	If damage or subsidence evident	20 years	5 years
Headstone	Old type – base below ground level	Between 36 & 48 inches	Before 1940	Red Zone	Medium	If damage or subsidence evident	20 years	5 years
Headstone	Old type – base below ground level	Below 36 inches	Before 1940	Other Zones	Low	If damage or subsidence evident	20 years	5 years
Headstone	Old type – base below ground level	Between 36 & 48 inches	Before 1940	Other Zones	Medium	If damage or subsidence evident	10 years	5 years

Lawn type headstones installed between 1950 and 2000 due to the nature of their fixing and a general deterioration in workmanship have a tendency to become loose and separated from the base. Therefore any memorials of this type over 36 inches in height and installed between these dates will be subject to an initial inspection.

Lawn Type Headstone with base

Type	Construction & Fixing	Height / Size	Date erected	Location	Risk Rating	Initial Testing	Frequency for re-testing	Re-test Staked Monuments
Lawn	Headstone with base	Below 36 inches	Up to 1950	All zones	Low	If damage or subsidence evident	20 years	5 years
Lawn	Headstone with base	Between 36 & 48 inches	Up to 1950	All zones	Medium	Initial	10 years	5 years
Lawn	Headstone with base	Below 36 inches	1950 - 2000	All zones	Low	If damage or subsidence evident	20 years	5 years
Lawn	Headstone with base	Between 36 & 48 inches	1950 - 2000	All zones	Medium	Initial	10 years	5 years
Lawn	Headstone with base	Below 36 inches	2000 - 2010	All zones	Low	If damage or subsidence evident	30 years	5 years
Lawn	Headstone with base	Between 36 & 48 inches	2000 - 2010	All zones	Low	If damage or subsidence evident	20 years	5 years

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

Large headstones / monuments (over 4ft and up to 6ft 6 ins)

Type	Construction & Fixing	Height / Size	Date erected	Location	Risk Rating	Initial Testing	Frequency for re-testing	Re-test Staked Monuments
Headstone	Old type – base below ground level	Above 48 inches	Before 1940	Red Zone	High	If damage or subsidence evident	20 years	5 years
Headstone	Old type – base below ground level	Above 48 inches	Before 1940	Other Zones	High	If damage or subsidence evident	20 years	5 years
Lawn	Headstone with base	Above 48 inches	Up to 1950	All zones	High	Initial	10 years	5 years
Lawn	Headstone with base	Above 48 inches	1950 - 2000	All zones	High	Initial	10 years	5 years
Lawn	Headstone with base	Above 48 inches	2000 - 2010	All zones	Low	If damage or subsidence evident	20 years	5 years

Memorial Crosses & Multiple Units – RA Criteria & Testing Requirements

Memorial Crosses that are raised on single or multiple plinths and any other memorials that are raised on multiple plinths (Angels, Saints, etc) and / or consist of joined sections (vertical or horizontal) due to the nature of their construction have an increased potential to become unstable. This is due to the fact they are frequently top heavy and that their construction (joins and joints) after a period of time allows water ingress and exposure to the elements (rain, frost, etc) causing the joins / joint to deteriorate. Therefore these monuments are considered potentially hazardous and are risk rated and inspected accordingly (see below).

Memorial Crosses & Multiple Units – height below 24ins

Type	Construction & Fixing	Height / Size	Date erected	Location	Risk Rating	Initial Testing	Frequency for re-testing	Re-test Staked Monuments
Memorial Cross	One piece – base below ground level	Below 24ins	All dates	All zones	Low	If damage or subsidence evident	5 years	5 years
Memorial Cross	One piece – on single or multiple base	Below 24ins	All dates	All zones	Low	If damage or subsidence evident	5 years	5 years
Memorial on plinth	With or without base & vertical joins	Below 24ins	All dates	All zones	Low	If damage or subsidence evident	5 years	5 years
Multiple Units	Horizontal joins / joints	Below 24 ins	All dates	All zones	Low	If damage or subsidence evident	5 years	5 years
Multiple Units	Vertical joins or joints	Below 24ins	All dates	All zones	Low	If damage or subsidence evident	5 years	5 years

Memorial Crosses & Multiple Units – height above 24ins

Type	Construction & Fixing	Height / Size	Date erected	Location	Risk Rating	Initial Testing	Frequency for re-testing	Re-test Staked Monuments
Memorial Cross	One piece – base below ground level	Above 24ins	All dates	All zones	Medium	Initial testing required	3 years	5 years
Memorial Cross	One piece – on single or multiple base	Above 24ins	All dates	All zones	High	Initial testing required	2 years	5 years
Memorial on plinth	With or without base & vertical joins	Above 24ins	All dates	All zones	High	Initial testing required	2 years	5 years
Multiple Units	Horizontal joins / joints	Above 24 ins	All dates	All zones	High	Initial testing required	2 years	5 years
Multiple Units	Vertical joins or joints	24ins – 36ins	All dates	All zones	Medium	Initial testing required	3 years	5 years
Multiple Units	Vertical joins or joints	Over 36ins	All dates	All zones	High	Initial testing required	2 years	5 years

Children's Memorials - RA Criteria & Testing Requirements

Children's burials and memorials are always of a sensitive nature and there is a dedicated area within the cemetery that is now normally utilised for children's burials. The nature of the memorials in this area is varied and includes standard type lawn constructions, crosses and non-standard memorials / shapes (teddies, etc). In addition there are kerb sets, books and vases.

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

As these memorials are normally below 2 feet in height they are deemed 'Low' risk. When determining inspection requirements BBC have taken into consideration their limited height and the sensitive nature of this area and they will not be subject to inclusion in the initial or any subsequent inspection and testing programme.

In this area action will only be taken in the event that a report is received in relation to a specific hazard or risk. This will also apply to all children's memorials that are below 2'6 and located in any other area of the cemetery.

Other Memorials (Open Book Type, Vases, Kerb Sets, Corner Posts, etc) - RA Criteria & Testing Requirements

As the height of these memorials is normally below 2 feet they are deemed 'Low' risk. When considering inspection requirements BBC have taken into consideration their limited height and the potential hazard / risk that they pose. It has been determined that the risk associated with these is minimal and they will not be subject to inclusion in the initial or any subsequent inspection and testing programme.

Therefore in relation to these monuments inspection and testing will only be undertaken in the event that a specific hazard or risk is reported or identified.

Time Frames (re-inspection and testing)

The time frames for re-inspection and testing have been based on the type of monument, its height, construction and the potential for deterioration. Supporting evidence for the suitability of the time frames has been provided by the recent re-inspection of the monuments in the older part of the cemetery (originally inspected in 2005) which only identified 3 additional monuments that required staking and minimal action in relation to the monuments already staked (4 laid down and 3 re-secured). This supporting the theory that deterioration in relation to these monuments is minimal and that 20 years is an acceptable timeframe for re-inspection of secure monuments and re-testing every 5 years in relation to monuments already identified as potentially hazardous i.e. staked monuments.

Methodology - Memorial Risk Assessment

In accordance with the specified risk assessment criteria when a memorial requires inspecting (see above tables) initially a visual inspection of the memorial will be completed to assess the likely risk of a memorial falling, collapsing or creating a hazardous situation. The visual inspection will include the following checks:

- Damaged or eroding bonding
- Movement of parts of a memorial from its original position
- Kerb stones breaking apart
- Undermined or unstable foundations
- Leaning memorials – particular if there is evidence of recent movement
- Evidence of structural damage or disturbance (e.g. cracks)
- The presence of vegetation, which may cause cracks etc to widen

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

Once the visual inspection has been completed a hand test will be undertaken to confirm the stability of the memorial. The hand check will be carried out in accordance with undertaken training as follows: - standing to one side of the memorial and applying a firm but steady pressure in different directions to determine to what degree if any the headstone is loose.

Any detected movement / instability does not automatically indicate that the memorial constitutes a potential hazard / place persons at risk. If movement is detected a judgment will be made as to whether there is sufficient movement for the memorial to be in imminent danger of collapse or to present a significant hazard or a risk in relation to persons visiting or working in the cemetery.

In particular many of the memorials installed in recent years on independent foundations are fitted with a ground support system. These memorials may move, even rock if the base to foundation joint is broken, but do so within designed tolerance limits and represent no danger as the memorial will lock on the ground anchor.

In relation to any Memorials over 2 metres (over 6 feet 6 inches) in height once a deficiency has been identified a visual inspection will be completed to determine if this has the potential to create a hazardous situation. On confirmation of a potential hazard the monument will be inspected by a qualified memorial mason or structural engineer.

Memorials under 60cms (2 feet) in height will be visually inspected but not generally hand tested as the safety risks posed by such memorials is extremely low.

Maintaining Records

Due to the difficulty in identifying the memorials located in the older areas of the cemetery when inspecting in this area only the details of the potentially hazardous monuments will be recorded.

In all other areas records will only be made when the utilised criteria indicate that an initial inspection is required or when a potentially hazardous monument is identified.

The method used for recording findings will be in accordance with the guidelines issued by NAMM and the ICCM and will as a minimum include the following:-

- Date of Inspection
- Grave plot number and name(s) of deceased
- Type of memorial
- Inspection findings & actions taken (stabilised, laid down, cordoned off, notice posted etc.)
- Timescale for re-inspection

Actioning Findings

When a real and significant hazard is identified the monument will be actioned as follows:-

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

- Priority 1 Real and immediate risk of significant injury or death (criteria used HSE RIDDOR)
- Dismantle to remove danger (Memorial Crosses & Multiple Units)
Laid down (old type & lawn type)
Cordoned off – until professional assistance available (larger monuments normally over 6 feet)
Advise owner / relative of action taken
- Priority 2 No immediate danger but has the potential to fall and cause a 3 day or significant injury (criteria used HSE RIDDOR)
- Brace and stabilised with stake / banding
Affix notice indicating potential hazard
Advise owner / relative in writing that action is required to remove the risk. The letter will give three months notice of intent to lay down if not actioned by them within specified time frame. In the event that there is no contact or action the stone will be removed and laid down or actions taken to make safe (at minimal or no cost).
- Priority 3 Determined as low risk - worst case scenario has the potential to cause a 3 day injury
- Advise owner / relative in writing that action is required to remove the risk. The letter will give three months notice of intent to lay down if not actioned by them within specified time frame. In the event that there is no contact or action the stone will be removed and laid down or actions taken to make safe (at minimal or no cost).

On all occasions if due to the age of the monument it is not possible to trace the owner / relative then action will be taken by BBC to make safe the monument (at minimal or no cost).

The laying down and dismantling of monuments will only be undertaken as a last resort and will be carried out in manner that does not place the memorial at risk and protects the engraving from damage i.e. placed face down. The removed memorial will be laid centrally on the relevant plot with the inscription face down.

Action - Potentially Hazardous Monuments

Where a monument has previously been identified as potentially hazardous and staked it will be re-visited and reviewed in accordance with the new guidance and criteria. It will then be actioned in one of the following ways:-

- Monument below 3ft and deemed low risk - stake removed
- Monument above 3ft and deemed medium risk - - stake checked for security & left in situ (re-check in accordance with specified criteria)
- Monument above 3ft and deemed high risk – removed and laid down

The decision as to which of the above methods is the most appropriate will be made at the time of the inspection by the inspecting officer of Boston Borough Council or their appointed contractor.

Boston Borough Council
Municipal Cemeteries - Memorial Safety Policy

Notification, Repair and Re-fixing

To be completed in accordance with the requirements in the previous issued policy.

Future Memorial Installation

Although some deterioration to stonework, foundations, and fixings, due to weathering and the passage of time, is inevitable, Boston Borough Council require that, in order to minimise these effects for all future installations, memorial masons adhere to the National Association of Memorial Masons (NAMM) guidelines for the installation of stone memorials, as well as the Cemetery Regulations currently in force. In addition to (or as an alternative to) BRAMM membership the Council may introduce further accreditation requirements or 'licensing' schemes for memorial masons whereby only those masons belonging such a scheme will be approved to work within Boston Borough Council cemeteries.

Approved masons would be required to achieve certain criteria in order to gain approval, such as:

- Proof of adherence to NAMM fixing methods
- Proof of Public liability insurance cover
- The issue of a set guarantee period for their work (determined by the Council)
- Production of Risk assessments

Penalties will be applied for non-adherence to regulations and conditions of approval, ranging from warning letters to temporary or permanent exclusion from the cemeteries.

All persons purchasing the Exclusive Right of Burial over a grave plot, which includes the right to erect a memorial, will be issued with a leaflet 'Advice and Information for Grave Owners'. This leaflet details the memorial owner's responsibility for ensuring the continued safety of the memorial and advises on insurance. Cemetery regulations are also issued at this time.

Boston Borough Council reserve the right to revise this policy from time to time in the light of current practices and procedures, improved methods, changes in legislation and ongoing practical experience. Any such revisions may be made by authority of the proper officer of the council appointed to lead the memorial inspection programme.

All enquiries regarding this policy should be directed to:

*Martin Potts, ICCM(dip)
Principal Officer, Bereavement,
Boston Borough Council
Tel: 01205 364612
Email: martin.potts@boston.gov.uk*