Proposal to Mrs Joanna M. Cadman

(Clerk to Compton Parish Council)

The digitisation of cemetery layout arrangements at Watts Cemetery, Compton showing available and occupied grave and ashes interment sites, to allow computer-based access for archive, reference and editing. The proposal to include costs, timescales, website integration, software specification and the end-user interface.

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1. Management Summary

It is proposed that the Cemetery Records of interment sites at Watts Cemetery in Compton, are transferred from the current, predominantly paper-based, un-resilient, hand-written platform, to an online, computer-based and robustly backed-up solution.

This will be done, using two primary software platforms:

'Visio' – allowing an electronic, pictorial representation (or, Map) of the Cemetery, to include primary landmarks and features of the premises, along with every grave site, with zoom and search facilities.

'Wix website' – providing a separate web-page for each interment location, containing as much information as is required, including photos, videos, images, text, links to other grave web-pages (of family perhaps), or to other websites. Links to these pages will be 'clickable' from the Visio Map, or manually entered.

Both these platforms will be owned and operated by the Clerk. It is not proposed that the full facility be made available to visitors of the existing website. However, a regularly-updated static image of the Cemetery can be provided to the Parish Council's main website, allowing zoom-in to show the name and number of each grave.

The cost of the software is low. Visio has existed for over 30 years and a 20th century version can still be acquired for under £50 with no annual fee. The Wix website is free (if advertising is tolerated). The website address (the URL) is also free unless a specifically chosen address is required (deemed unnecessary in this proposal). A mobile device 'App' to view the Visio Map 'on the move' is currently £10. Offsite Visio backup with Googledrive is free.

Development costs and timescales however, may be significant. The developer's time will be charged at £30 per hour, plus expenses, to cover site visits, Visio development, entering data, creating the Wix website, linking and populating web-pages and the handing over of the facility to the Clerk. Upwards of 150 hours is likely, over a period of perhaps a year or more.

2. The Current Problem

All records of Cemetery interment sites are currently held across a range of media, including large paper sheets (up to A1 size), other handwritten notes – none of which are backed up in any way, so a fire, flood, theft, or loss would render the document and the knowledge held thereon lost forever – and an Excel spreadsheet, which vitally refers to the paper documents for location purposes.

All these records detail where the graves, or ashes plots are within the site, who is buried there and when the burial was established, together with a range of other important information such as: the subsequent burials of loved ones; identifying reserved graves for that situation; and the placing of subsequent ashes in an existing burial plot.

The location of grave and ashes interment sites which are currently empty and therefore available for purchase, is also based on paper records which are necessarily held at home by the Clerk and are updated manually.

In addition, when sites are to be prepared by the gravedigger, the Clerk needs to physically stake a handwritten paper sign onto the ground, to identify the necessary location. This activity could be avoided by the emailing of a pdf image to the gravedigger, or other on-site work operative, detailing the exact location of the job.

The paper records could of course be photocopied and held off-site (for archive purposes), but photocopying an already poor starting point is not ideal, plus there are many pieces of large format paper to copy and store, which has implications of time, space and cost.

Secure protection of these Cemetery records by some form of computer digitization is long overdue. A start was made on this some time ago by the late David Haskins, but was never completed and the remaining software was/is very technical, very bespoke and unsupported.

3. A Proposed Solution

This section goes through a technical solution for the digitization of the Cemetery Records to enable secure storage, archive, simple user interface, updates and remote electronic access. It has to be said that this is not the only possible solution, it may not even be the best solution, but it is a simple, cost effective and flexible one, that can be made to work as required, in a reasonable timeframe and achieves the necessary standards of operational robustness, expandability and ease of use.

a) Scope

This proposal describes a way in which the current Cemetery Records can be transferred from paper-based records (with an associated spreadsheet 'lookup'), onto a fully computer-based platform, allowing easy and robust back-up, with a graphical user interface for updates and reference. It does not seek to make any changes to operational processes, or introduce additional facilities – although many may become available when the 'digitization' is complete.

b) Graphical Interface

The Clerk will be presented with a single image on a computer screen, showing the full extent of the Cemetery (a 'Visio Map'). It will show all major landmarks of the site and all grave locations. It will be possible to zoom into any part, to see individual graves, or aspects of the premises. The Clerk can then click on the item of interest and will be transferred to a web-page containing everything that is currently known about that aspect.

The user is able to edit the Visio Map, by zooming into the required area and making the required update and can edit each web-page individually.

The Clerk will need to use an off-the-shelf piece of 'desktop publishing' software called *Visio*. This is an intuitive, mouse-driven, full colour interface, with pick-up, pull, drag and drop facilities.

Search facilities will either be on Grave Number (if known), or via surname - if it's a common name, the Clerk can click through them all individually until the correct one is found. Use of grave owner's first name, or some other distinguishing aspect would be possible.

c) Website Integration

Every recordable aspect of the premises will have its own web-page, accessed via a single click from the Visio Map, or directly via a browser (much like one would access a rail ticket website, or amazon for example).

It is NOT proposed to publicise the existence of this online facility (such as via the main website). The Cemetery Records website will have a non-specific address (URL). It's expected to exist purely for the benefit of the Clerk for maintaining and updating records. On the other hand, there may be some desire to include links to certain graves, or items of interest in the Cemetery (celebrity graves perhaps, or buildings of architectural importance, protected trees, or sculptures of interest). This needs further thought.

Each web-page will be identified by a 4-digit number – as specified on and looked up via the Visio Map screen. All or some web-pages can of course be password protected. Should anyone wish to see the personal data that is held on them (under the provisions of the GDPR), it would be a matter of supplying them with a print of the relevant web-page.

The Cemetery Records website will be updated by the Clerk. Again, this will be a graphical, mouse driven facility, where the user is insulated from all technical aspects. No knowledge of website design, or management will be necessary.

By using web-pages, rather than extensions to the Visio Map within Visio, the information held can be expanded to an almost infinite level with text, maps, photos, videos, links to other resources etc. all within the exclusive control and management of the Clerk.

4. The Software

The proposed solution is based upon two aspects – the Visio Map (showing the whole premises, zoomable down to an individual grave) provided by a software package called *Visio*; and a Cemetery Records website, to be hosted by *WIX*. This section looks briefly at both aspects and also the issues of operational access and security.

a. Visio

This is a type of graphical design software, known in the last century as *Desktop Publishing*. Visio was created and first released by the Visio Corporation, a small independent company in 1992, which was acquired by Microsoft in 2000.

The software has since become increasingly sophisticated and technical, but to maintain simplicity, only a fraction of its power is being utilized in this proposal. Consequently, there is no need to use the most up to date and expensive version, Visio 2021 (although that would of course be possible). Instead, this proposal is based upon the pre-Microsoft release of *Visio 2000* – 25 years old, but still very much available from sites such as eBay.

The package would be installed on the Clerk's computer (ideally a laptop, that could be taken to site). Mobile phone 'Apps' are also available to allow read-only access to Visio files. Alternatively, a mobile phone 'remote access' facility can be used to allow full editing (this aspect is not addressed any further herein). It is proposed that the file is saved incrementally to a free, cloud-storage facility such as is offered by Google, or Dropbox.

b. WIX

It is proposed that a new website, hosted by *Wix.com, Inc*. is created that offers a separate web-page for each viewable aspect of the Cemetery. Wix is a non-technical web environment with over 200 million users worldwide. It's automatically secured off-site and easily able to cope with the many pages required by the Cemetery project.

It's understood that the main Parish Council website is also based on WIX, but no integration between sites is proposed, or deemed necessary. In fact, given the 'public' nature of the main site, integration may present an unwanted 'exposure'.

Unfortunately, hosting the full Visio Map on the website would not be feasible, web pages do not lend themselves to the massive Zoom facility required. This is best handled by a graphical design tool such as Visio.

c. <u>Access, Ownership and Security</u>

It is proposed that the Visio Map and indeed the WIX Cemetery Records website, are purely for the benefit of the Clerk in managing and documenting the grave allocations. Logging onto the website for reference, or editing purposes, can be done from any computer, or mobile phone. Accessing the Visio Map can also be done from any computer, but it will need to have the Visio software installed upon it locally (or have the read-only App installed if using a phone).

It would be possible for an up-to-date Visio Map to be presented on the main website as a static image and downloadable as a .pdf file (allowing full zoom features, but probably not access to the grave web pages which may demand some discretion). Similarly, certain web-pages could in fact be made public, such that links to them could be provided from the main website, or indeed from other resources such Wikipedia. This is all a matter for Cemetery governance. It's worth bearing in mind of course, that once read-only access to the website is established, the user will have read-only access to ALL of the pages (if they know, or manage to guess the address). Hence the primary suggestion to keep the website for the Clerk's eyes only. Once again however the option to password protect does exist but manually managing multiple passwords would be a significant overhead.

5. Implementation and Timescales

Following the go-ahead, a series of on-site visits will take place, leading to the detailed development of the Visio Map. Once its physical verisimilitude has been established, work can begin on loading the data – potentially just site number and occupier's (or owner's) surname, onto the interment locations – to be established once underway.

In parallel, the Cemetery Records website will begin to be built. It will contain a web-page for each interment location – identified by the number assigned within the Visio Map. Given the number of sites and therefore web-pages to be created, a menu system will be devised that provides a 'look-up' facility to find the required grave location.

The Clerk will obviously need to become very familiar with the Wix.Com 'Web Editor' and also the Visio software. Training courses are available, but tend to be expensive and often lengthy and unfocussed, as both packages are so feature rich. However, only a fraction of what they can do will be utilized in this application. It is felt that the very best training approach will be self-taught practice. The developer will provide as much side-by-side training as is initially required, but then the Clerk will need to spend a few hours/weeks editing a 'sacrificial copy' of the Visio Map and Records Website, before doing any live updates and perhaps that might be under supervision as well (this separate test and development 'environment', can also be used whenever a significant system change is being considered in the future).

All the above will happen while the Cemetery Records continue to be kept in their current format. Even after the Visio/website system has been handed over as a 'working facility', it is suggested that parallel running is maintained, during which time the current paper records and the electronic systems are both updated (for perhaps a month or two, depending on the level of updating that has been required).

Parallel operation is vital to ensure the new system can be 'backed-out' if an operational problem is identified.

Time/date stamped, 'incremental' records will need to be kept from the beginning of the data transfer phase and during any back-out period so that the electronic system can be made to eventually match the current state of play when the problem is resolved. In other words, if the paper-based system is being updated while the electronic system is not, those incremental updates must be kept available for future implementation onto the electronic system.

A Roll Back Plan is provided as standard within the Wix facility, such that any significant problems can be removed by returning to the last known 'good' position. A similar system will need to be built into the Visio Map back-up routine – this is not difficult.

6. Project Costs

Costs are, as always, a combination of up-front, identifiable once only expenditure on infrastructure, plus development charges for an often uncertain period of time, followed by known software licence fees, operational costs and service charges for the life of the facility. This section looks first at what it might cost to get the Cemetery Records solution in place and secondly, what the long-term costs are likely to be.

a. Development

Visio software has existed for over 30 years and a 20th century version can still be acquired for under £50 from suppliers such as eBay. Adopting an older version of the package, does mean it's less feature-rich, but as a consequence it's less complex and easier to learn and operate. Product support is limited, but as it's been around for so long, it's a stable platform and there's an answer to almost every question, online. These older versions exist as a standalone, single price product with no annual licence fee, or the overhead of dealing with constant supplier 'updating'.

Accessing it via a mobile phone will need an App (£10 single payment).

The standard Wix website is free, but contains advertising on every web-page, has limited support arrangements and a limited data-storage threshold. It also provides a long and very Wix-based web address (rather than one chosen to reflect the website's owner, such as www.cemeteryrecords.org for example). All of this can be resolved by committing to a Wix.com *Premium Plan* and a bespoke domain name – combined costs are upwards of £120 per annum (depending on level of facilities required). However, this proposal recommends a 'wait and see' approach at this stage – if no public use is to be made of the site (as is currently envisaged), there seems little justification for such expenditure.

Wix is backed up constantly at no charge.

It will be important to constantly 'Save' the Visio environment to an off-site storage facility. Using Google Drive is free.

The developer's time will be charged at £30 per hour, plus expenses. Time will be largely spent on (but not limited to) the following:

- Site visits
- Liaison with the Clerk regarding existing paper-based data
- Acquisition and configuration of Visio software
- Development of Visio (to plot premises outline and grave identification)
- Creation of a Cemetery Records website using Wix.com, Inc.
- Creation of standardized web-pages for each interment site
- Populating web-pages with known data
- Establishing secure Visio/website integration (passwords?)
- Linking the Visio Map locations to individual web-pages
- Establishing a pdf image file as a link from Parish Council website
- Testing and monitoring for a period of parallel operation
- Complete training and handover of facility to Clerk

This proposal is not able to specify with any accuracy the number of hours likely to be expended in undertaking and successfully completing such objectives. However, it's vital that 100% accuracy is maintained – followed by a period of exhaustive testing, evaluation and handover. So, in the absence of any appreciable change to the project's terms of reference (as contained in this proposal), a development of this nature may take upwards of 150 hours.

The 'Development' phase will be deemed to have been completed when:

- the system has been fully configured and tested for operation, performance, security and back-up
- the Clerk is confident in accessing, searching, cross-referencing, updating and editing the system
- that all current paper records and the Excel spreadsheet are no longer needed and have been consigned to an appropriate 'archive' facility

….at which point the 'Operational' phase begins and the developer will step-away from the project.

b. Operational

Once developed in the way described herein, the annual running costs of the new system would be…. **zero**.

It is expected that the Clerk will take over and manage and operate the new system, at no additional charge.

If the initial developer of the system is subsequently required to assist with occasional editing or amendment of the system once delivered, this will be charged at an agreed hourly rate for each instance.

7. Conclusions and Next Steps

This is an important and some might say 'overdue' modernization project, for a vital record-keeping activity at a facility where incorrect or missing data, can be extremely upsetting to those who may already be dealing with grief.

The proposed solution seeks to limit the possibility of this happening and is based upon well known, industry-standard products and will be developed in direct and full association with the Clerk.

The proposed graphical software and website environment are virtually free to acquire, operational costs will be zero (providing the basic approach proposed herein is followed).

Consequently, virtually all costs associated with this project will be entirely man-time related. The number of development man-hours has been estimated as upwards of 150, but this will not be a full-time occupation for the developer (a sole trader), so elapsed time (perhaps more important for the health of the Cemetery Records - which could already be described as being close to breaking point) could easily extend to a year, or beyond.

A restrained approach to making changes and careful avoidance of 'mission creep', will assist in bringing the project to its earliest possible conclusion.

It is hoped that work on acquiring and assembling the infrastructure can be started immediately after the Parish Council meeting on 20th March.

Invoices for work done will be presented in arrears, on a monthly basis and payment within 10 days of receipt would be appreciated.

Thank you for getting to the end of this proposal and giving it your kind attention.

Best regards

David Herbert

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