



WORTHING BOROUGH
COUNCIL

Worthing Joint Strategic Sub-Committee
12 January 2023

Key Decision [Yes/No]

Ward(s) Affected: None
Cabinet Portfolio: Environmental
Services

Memorial Gardens

Report by the Director for Communities

Officer Contact Details

Kate Greening, Bereavement Services Manager
01903 221084
kate.greening@adur-worthing.gov.uk

Executive Summary

1. Purpose

- 1.1. This report discusses investment required to enable the service to develop the memorial garden at Worthing Crematorium, which will add heritage value to the site through the conservation of the Muntham Court hard landscaping.
- 1.2. Worthing Crematorium has filled all its private garden interment plots and requires investment to deliver further plots to meet demand.
- 1.3. Sustainable design for the benefit of biodiversity lies at the heart of the garden plan.
- 1.4. Funding will be approved and the second phase of procuring a construction partner and construction will proceed.
- 1.5. This report provides details of the project and the costs and the income generating potential.
- 1.6. The report discusses why this is a heritage site of significance and why it is important to conserve some of the historic elements of the grounds in any development of the site.

2. Recommendations

The Worthing Joint Strategic Sub-Committee is recommended to:

- 2.1. Authorise the borrowing of £407,944 over the life of the project for capital expenditure to build the new memorial garden and make conservation level repairs to Muntham Estate walls that are incorporated in the design.
- 2.2. Authorise the annual revenue growth of on average -£51,061 for Bereavement Services to deliver this investment. This revenue growth will be offset by sales in the memorial garden which are estimated to provide an annual average profit margin of -£151,568 or return on investment ratio of -3.96%.
- 2.3. Note that Worthing Crematorium has limited land available for further development after this new memorial garden and the lifespan of the garden is estimated to be limited to five years for duo gardens and 10 years for quad gardens. If this development continues to be the success it is. Further investment in additional land and landscaping will be required.

3. Context

- 3.1. Worthing Borough Council, supported by a dedicated Bereavement Services team, is keen to ensure that the Council is able to continue to provide a wide range of services and memorials options that meet both the needs of our people and our places.
- 3.2. Now more than ever the service has to offer services that are offered at a range of prices, from budget to premium. The service has to ensure it covers its costs and provide additional surplus.
- 3.3. There is a need to extend our current private interment plots for cremated remains, as no further plots remain for new purchase in the Private Garden. These gardens form part of our service's premium offerings.
- 3.4. The Private Garden was part of a crematorium improvement scheme that included the development and construction of the Kingswood Chapel, an extension to the car park and memorial garden put forward in 2004.
- 3.5. Memorial Partnership Ltd were the only contractor with expertise in this area and were commissioned in 2004 to prepare a feasibility study which included a review of existing operations and strategy for a new memorial garden. The original garden was completed in 2006.
- 3.6. Sales for the garden went live in November 2006. The garden was further extended twice in an ad-hoc way, with the final extension completed in 2012.
- 3.7. The plots consist of family plots consisting of space for four interments. These are called 'private gardens'. Plots designed for couples are called 'ribbon gardens' and 'rockeries'. All gardens are now sold or reserved. Not all these burial spaces are full to capacity, meaning there will be some residual income from further interments for each previously purchased plots.
- 3.8. Unfortunately the quality of our records do not enable any understanding of sales trends, by garden type since the gardens were established and it would be a lengthy process to calculate the current capacity.
- 3.9. When full, the existing private garden plots amount to:
 - 120 private gardens (4 sets of cremated remains)
 - 216 ribbon gardens (2 sets of cremated remains)
 - 236 rockery plots (2 sets of cremated remains)
 - Total plots 572

- Total interments 1384

3.10. Over the 15 year period that the garden has existed, sales average at approximately 38 garden sales per year

3.11. The cost of the gardens in 2021 were:

Plot type	20 year lease	50 year lease
Rockery (two interments in communal area)	£1785	£2365
Ribbon (two interments in a dedicated garden)	£2365	£3550
Private (four interments in a dedicated garden)	£4725	£6500

Additional costs	£
Additional interment	105

3.12. Compare these with the costs at our cemeteries

3.13. Brighton and Hove, Eastbourne crematoria do not offer an equivalent memorial option. The Downs and Chichester crematoria do not publish their memorial options.

Description	£
Interment, cremated remains	150
Exclusive right of burial (EROB) (50 years)	750
Transfer of exclusive right of burial	130
Memorial permit (10 years)	Included with

Description	£
	EROB
Inscription on memorial, each after the first	75

4. Issues for consideration

4.1. The Garden

- 4.2. In August 2020 the process to engage a consultant to provide a concept design with estimated costs commenced.
- 4.3. The winning consultants were Deacon Design. In consultation with staff they have developed a garden that met the design and capacity requirements. They have produced a full design and specification.
- 4.4. The area is approx. 30m x 50m in size and is within the current crematorium grounds.
- 4.5. There are 184 proposed duo plots and 90 proposed quad plots. Duo plots are by far the most popular. This provision allows for 728 interments overall.
- 4.6. The next step is to secure funding for the works.
- 4.7. The options are:
- 4.7.1. Garden design - premium
 - Resin bound main pathway with aluminium edging
 - Woodland understory planting
 - Burial plot edging materials
 - Conservation of the original Muntham Estate wall and gate
- 4.8. Garden design - budget
- 4.8.1. Block paving pathway
 - 4.8.2. Woodland understory planting
 - 4.8.3. Burial plot edging materials
 - 4.8.4. Conservation of the original Muntham Estate wall and gate
- ##### 4.9. No Garden
- 4.9.1. Limited residual income from interments

- 4.10. The main difference between the premium and garden and budget garden relates to the pathway construction and the finish to the garden burial plots.
- 4.11. The premium garden layout is the preferred option since the existing private garden and the new garden need to be distinct from each other. These gardens are premium offerings and as such the specification needs to be of excellent quality.
- 4.12. The scoping / design concept and layout of the garden can be found in the [Background Papers](#) at the end of this report.

5. Engagement and Communication

- 5.1. There is interest and a desire for additional burial space of this design. This is evidenced by a waiting list of 59 people and the fact that all plots in the existing garden are now sold.
- 5.2. These individuals will be contacted with details of the development and given the opportunity to purchase off plan. Any feedback will be relayed back to the designer for final amendments to the plans.
- 5.3. Consultation boards have been produced and will be displayed at the crematorium, and on the crematorium website.
- 5.4. There is a revenue growth of £10,000 across the first five years for advertising, promotion and marketing.
- 5.5. Consultation took place with South Downs National Park Authority to determine whether planning permission was needed. They advised that the development falls within the permitted development rights afforded to Local Authorities under Schedule 2, Part 12, Class A of The Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (GPDO).

6. Conservation

- 6.1. English Heritage define *conservation* as the process of managing change to a significant place and its setting in ways that will best sustain its heritage values, while recognising opportunities to reveal or reinforce those values for present and future generations¹
- 6.2. Protecting and preserving heritage is a concern for the public across England and the UK. Recent research has found that ninety-five percent of adults in England think it is important to look after historic buildings, seventy-three percent had visited a heritage site over twelve months, over 315,000 people were heritage volunteers, and eighty percent of people thought that local heritage makes their area a better

¹ Conservation Principles, Policies and Guidance, 2008, English Heritage

place to live. Previous research by Historic England has also demonstrated that people who state they live in historic areas have a stronger sense of place to their local area than those who do not, corroborating Historic England's wider place-making strategy. Place-making is a process that shapes our public spaces and buildings, bringing together communities to improve a place's cultural, economic, social and environmental situation. This is assisted through a clear understanding of the historic significance of local areas.

- 6.3. At the same time, a large amount of research in the field of public health and inequalities has been conducted on how urban environments affect various aspects of wellbeing. This includes, for example, evidence on the links between greenspace and health, and the role of built environment interventions in addressing fear of crime and mental wellbeing.
- 6.4. In their document [Conservation Principles, Policies and Guidance, 2008](#), English Heritage set out understanding the heritage values of a place. These include:
- 6.5. *Evidential value* - this derives from the potential of a place to yield evidence about past human activity.
- 6.6. *Historical value* - this derives from the ways in which past people, events and aspects of life can be connected through a place to the present.
- 6.7. *Aesthetic value* - this derives from the ways in which people draw sensory and intellectual stimulation from a place.
- 6.8. *Communal value* - derives from the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory.
- 6.9. *Commemorative and symbolic values* - reflects the meanings of a place for those who draw part of their identity from it, or have emotional links to it.
- 6.10. *Social value* - is associated with places the people perceive as a source of identity, social interaction and coherence.
- 6.11. *Spiritual value* - is attached to places sanctified by long standing veneration or worship, or wild places with few obvious signs of modern life.
- 6.12. Based on these values alone it can be evidenced the history of the landscape in which the grounds of the Muntham Estate is set; with a rich history of archaeology nearby; the Muntham Estate itself and the

ruins of the house, gardens, the Crematorium and burial grounds within the grounds make the site a significant place of heritage value and worthy of conservation.

- 6.13. The conservation of significant places is founded on appropriate routine management and maintenance.
- 6.14. There has never been appropriate routine management or maintenance that takes into account the heritage value of this site.
- 6.15. **The external walls**
- 6.16. In July 2021 a visual inspection and report on the condition of the external walls was carried out.
- 6.17. Other areas of walls were inspected by a structural engineer. The survey was challenging as some of the areas are very overgrown and difficult to access. A contractor advised the following:
- 6.18. *wall 6* - Herras fencing is needed in this area to keep people away.





- 6.19. *Wall 2* - due to the height of this wall it may not be practical to leave it at this time and just Herras fence it off. This should be reduced in height considerably down to the level of stonework detail.(where it thickens - visible on the second photo)





- 6.20. Wall 5 - Relates to the wall either side of the gate. The top of this wall has dislodged previously. The surveyor proposes that this section of wall should be reduced in height in this immediate area to the height of the buttresses and Herras fencing (or other) erected along where the lines of trees are on the garden side up to the memorial wall area to keep people away from this wall. Also to remove benches from the area and close off the gate area walk through.



- 6.21. The site is at a tipping point in making a decision to conserve the heritage of the site, or to develop the site without consideration to heritage.
- 6.22. To reduce the height of the external walls, as was proposed by the structural engineer.
- 6.23. The proposed health and safety work would devalue the heritage value of the site.
- 6.24. This is why the memorial garden project will include the costs to conserve the external walls within the scope of the project. The council needs to fully investigate and understand the potential heritage value of the site to gain a better understanding and to maximise the attractiveness of the site to all users and other potential commercial and community opportunities.
- 6.25. Bereavement Services will commission a conservation management plan² for the site. To ensure any future decisions about the site, take into consideration the setting and its heritage values.
- 6.26. In the medium to long term it is the services ambition to actively seek to lever in funding from external sources to contribute to developments.

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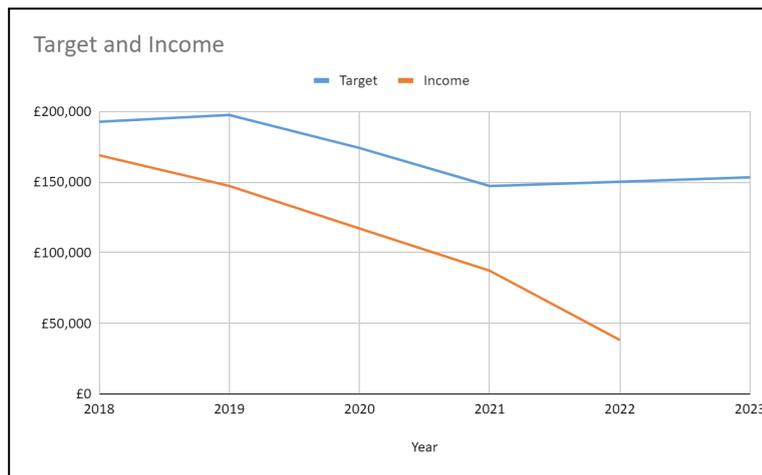
<https://historicengland.org.uk/advice/technical-advice/parks-gardens-and-landscapes/maintenance-repair-and-conservation-management-plans-for-historic-parks-and-gardens/>

7. Financial Implications

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Exclusive right of burial (duo plot)	£4,560	£4,740	£4,930	£5,125	£5,330	£5,545	£5,765	£5,995	£6,235	£6,485	
Exclusive right of burial (quad plot)	£8,415	£8,750	£9,100	£9,460	£9,835	£10,225	£10,630	£11,055	£11,495	£11,950	
Number of duo plots sold per year	54	27	27	27	27	22	0	0	0	0	184
Number of quad plots sold per year	6	3	3	3	3	8	16	16	16	16	90
Total plots sold per year	60	30	30	30	30	30	16	16	16	16	274
Further interments	0	0	0	5	5	5	5	5	5	5	35
<hr/>											
Cash inflow											
Capital	£315,004										
Duo sales	-£246,240	-£127,980	-£133,110	-£138,375	-£143,910	-£121,990	£0	£0	£0	£0	-£911,605
Quad sales	-£50,490	-£26,250	-£27,300	-£28,380	-£29,505	-£81,800	-£170,080	-£176,880	-£183,920	-£191,200	-£965,805
Interment sales	£0	£0	£0	-£844	-£877	-£912	-£949	-£987	-£1,026	-£1,067	-£6,663
Exclusive right to erect and maintain a memorial (based on 90% take up of memorials)	-£1,350	-£2,106	-£2,920	-£3,796	-£4,738	-£5,749	-£6,434	-£7,165	-£7,945	-£8,775	-£50,978
Memorial sales profit	-£7,600	-£7,904	-£8,220	-£8,549	-£8,891	-£9,247	-£9,616	-£10,001	-£10,401	-£10,817	-£91,246
Net income	-£305,680	-£164,240	-£171,550	-£179,944	-£187,921	-£219,698	-£187,080	-£195,033	-£203,292	-£211,859	-£2,026,298

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Cash outflow											
Cost of borrowing	£40,794	£407,944									
Cost of memorials	£4,750	£4,940	£5,138	£5,343	£5,557	£5,779	£6,010	£6,251	£6,501	£6,761	£57,029
Plants	£1,859	£967	£1,005	£1,045	£1,087	£1,131	£627	£652	£678	£706	£9,757
Promotion	£2,850	£2,500	£2,000	£1,500	£1,150						£10,000
Expenses	£1,500	£1,560	£1,622	£1,687	£1,755	£1,825	£1,898	£1,974	£2,053	£2,135	£18,009
Carriage	£1,500	£780	£811	£844	£877	£912	£506	£526	£547	£569	£7,874
Cost of investment	£53,253	£51,541	£51,371	£51,214	£51,221	£50,442	£49,836	£50,198	£50,574	£50,965	£510,614
Profit margin	-£252,427	-£112,699	-£120,180	-£128,730	-£136,701	-£169,256	-£137,244	-£144,836	-£152,718	-£160,894	-£1,515,684
Return on investment	-574.01%	-318.66%	-333.95%	-351.36%	-366.89%	-435.55%	-375.39%	-388.53%	-401.97%	-415.70%	-396.84%

- 7.1. These calculations are based on the assumptions that the lifecycle of the garden is 10 years, borrowing is at a rate of 5%, inflation at a rate of 4%. Prices are rounded up or down to the nearest five pounds.
- 7.2. Bereavement Services has an annual income target (budget) associated with the memorials and the memorial garden.
- 7.3. The service has not achieved this income target in any of the past five years and the gap is widening due to the lack of plots available to sell.



- 7.4. The current income budgets for the the memorials service compared to forecast outturn are :

	2022/23 Budget	2022/23 Forecast outturn (as at quarter2)	Estimated Shortfall
Memorials	£46,330	£26,330	£20,000
Memorial Gardens	£106,950	£11,950	£95,000

- 7.5. The creation of a new memorial garden is expected to generate annual income £202,630 averaged over 10 years which will close the current shortfall in the income against the budget and generate additional income. As there is a waiting list for memorial plots it is likely that the income will be greater in the first year of operation as highlighted in the table in section 8.
- 7.6. The service will not be able to meet this income target if no garden is created and the financial situation in these budget lines will worsen.

7.7. There will be additional revenue costs of £51,061 per annum (average) over the 10 year appraisal period associated with the new garden. These additional costs will be offset against the income, the average annual net income position over the 10 year period is projected to be £151,568.

8. Legal Implications

8.1 The regulations for operating a Local Authority Burial grounds are governed by [The Local Authorities' Cemetery Order 1977](#)

8.2 *Article 3* permits , a burial authority may do all such things they consider necessary or desirable for proper management, regulation and control of a cemetery.

8.3 *Article 9 (1)* requires a burial authority to maintain a plan showing and allocating distinctive numbers to—

(a) all graves or vaults in which burials are made after the coming into operation of this order or are known to have been made before that event; and

(b) the grave spaces subject to the specified rights.

8.4 *Article 9 (2)* requires a burial authority to maintain records, by reference to the numbers in the plan, of—

(a) the burials made after the coming into operation of this order in any graves or vaults; and

(b) the specified rights existing in any graves or vaults, or grave spaces, and the names of the grantees thereof as recorded in the register maintained under Part II of Schedule 2 or in the registers described in paragraph 2(b) of that Part.

8.5 *Article 10* empowers burial authorities to sell Exclusive Right of Burial and the right to erect a memorial in grave spaces for a limited period, not exceeding 100 years thus removing any right to sell in perpetuity.

Background Papers

- [2019.10.08 - JSC - Bereavement Services](#)
- [Protecting groundwater from human burials - GOV.UK](#)

Sustainability & Risk Assessment

- Sustainable design for the benefit of biodiversity lies at the heart of the garden plan.
- The garden design integrates the attractive structure of the existing tree avenue
- A non-dig pathway using permeable construction will afford a walkway without impact to the existing tree health or affect on surface water drainage
- The introduction of native woodland flora beneath these trees echos the local ecosystem services diversity, avoid for the need for challenging grassland maintenance beneath the dry and shady tree canopies
- In drawing inspiration from local habitats, we can reduce maintenance challenges and contribute more seasonal variation of colour and interest for wildlife benefit and visitor interest.
- The proposal includes a Mediterranean inspired planting design that will sit amongst the burial plots; this would be greatly beneficial to the site's pollinating insects. This type of planting typically has a long pollen/nectar season which provides the early and late season resources that are crucial to the survival of many pollinating invertebrates. The proposed planting design is focused around nectar producing sub-shrubs; it may include key species like *Lavandula angustifolia*, *Erigeron karvinskianus* and *Thymus vulgaris*.
- Flowering sub-shrub planting will also be a very sustainable option as it requires very little maintenance as it is naturally slow growing and will not require irrigation once established.
- The Mediterranean influence will allow the planting to thrive in both the current and future climate of the South of England, ensuring that the garden will continue to provide for pollinators. At the centre of the site, visitors would find a sensory garden that wraps around a central seating area where groups of people can gather. This area will have a variety of sensory herbs and flowering shrubs that will be attractive to both visitors and a wide range of pollinating insects.
- At the far side of the Memorial Garden there is a proposed wildlife garden with native ecological ground cover vegetation and small scattered evergreen trees. Great care has been taken within the proposed design to ensure that the pollinators have been considered throughout.

1. Economic

- The development of the garden provides additional income

2. Social

2.1 Social Value

- The consultation process will surface more benefits
- The garden is designed to incorporate a sensory garden which will be of benefit to all users of the garden
- Conservation management plan to be developed

2.2 Equality Issues

- This forms part of the consultation process.

2.3 Community Safety Issues (Section 17)

- The grounds are partially covered by CCTV to support health and safety, crime prevention and good discreet site management
- The team use the lone worker app
- Appropriate risk assessments will be carried out to ensure any issues are managed.

2.4 Human Rights Issues

- The proposal does not impinge on anyone's human rights

3. Environmental

- Environment Agency guidance on protecting groundwater from human burials

4. Governance

- Alignment with Sustainable AW
- No implications to the Councils' reputation or relationship with our partners or community. Blindspots will be covered off during consultation
- All senior members of Bereavement Services have completed IOSH or NEBOSH Health and Safety professional training.
- South Downs National Park



MEMORIAL GARDEN DESIGN WORTHING CREMATORIUM

SCOPING STUDY & CONCEPT DESIGN | JANUARY 2022



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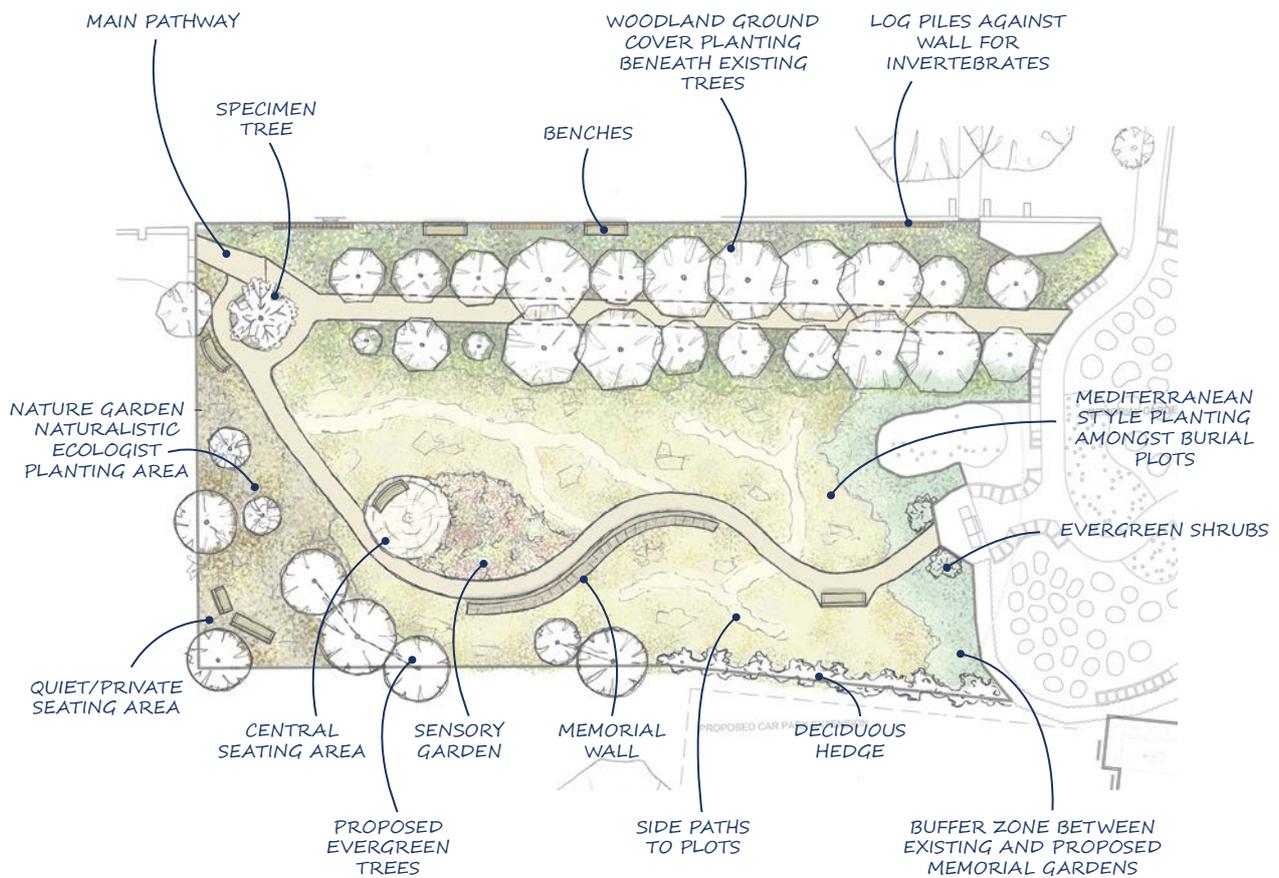
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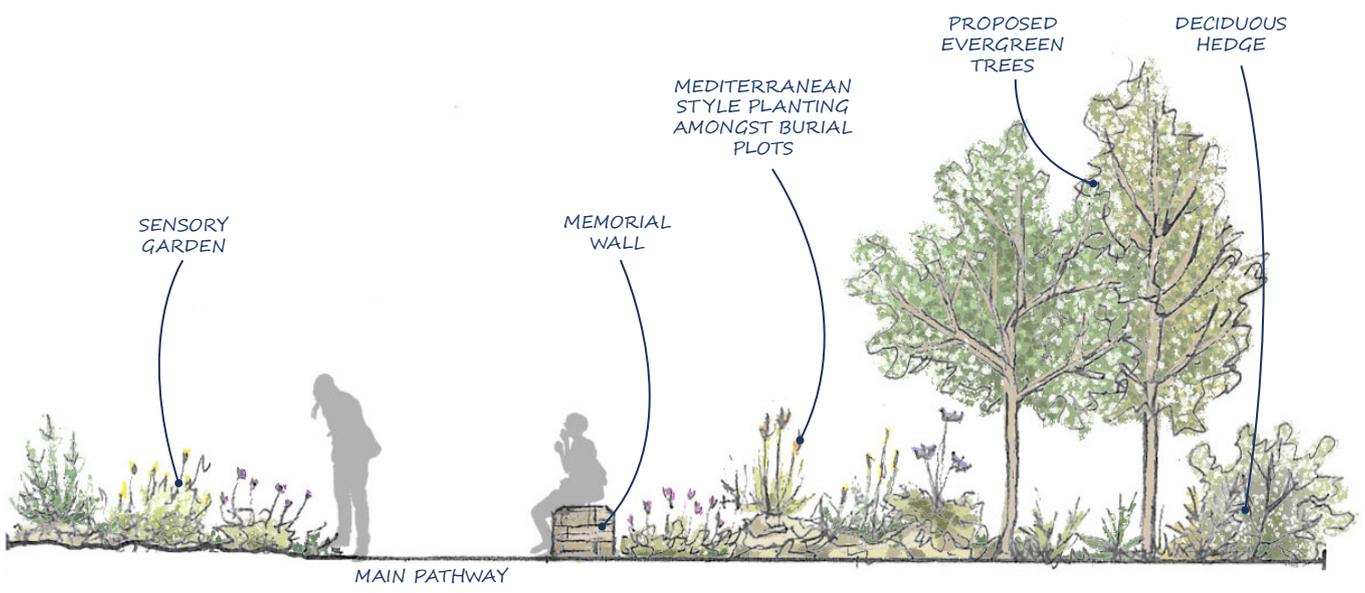
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OUR DESIGN PROPOSAL



The Memorial Garden design is focused around meeting the memorial and remembrance needs of its visitors. It provides spaces for quiet and private reflection whilst also designating larger open areas for groups of visitors to gather. The proposed design aims to connect the existing Rockery Memorial Garden and the Memorial Wall together with a cohesive pathway network and complementary planting design and hard materials.

When visitors enter the proposed Memorial Garden from the Rockery Garden entrance, they will meet a buffer zone of attractive ornamental planting. The change in planting will indicate to visitors that they have moved into a different memorial space whilst allowing for a smooth transition between the two gardens. The proposed meandering pathway will take visitors into the main area of the garden which will be designated for burial plots, the plots will sit amongst



ecological flowering sub-shrub planting. A secondary pathway network will connect visitors to each of the individual burial plots that are scattered throughout the planting. As visitors move through this space, they will encounter a memorial wall that runs adjacent to the meandering pathway, the wall will provide structural interest and a place for people to sit. The wall could also provide an alternative memorial feature option (e.g., engraved plaques).

Within this area there is a side path that leads to a private seating area that can be used for quiet reflection. The meandering path eventually meets a feature point at the end of the existing tree avenue creating a circulatory pathway network. The shady area between the boundary wall and the tree avenue will act as a wildlife corridor with provision for invertebrates as well as quiet seating areas for visitors.

MATERIAL PALETTE

The materials used in the memorial garden must be hard-wearing, long-lasting, and complementary to the Mediterranean style planting. The materials need to be sensitive to both the memorial function of the landscape and to the site's history as the previously existing Muntham estate. We propose a combination of resin bound paving and block paving to provide the greatest impact and longevity whilst keeping the material and construction costs down. Both block paving and resin bound paving are relatively low maintenance and sustainable surfacing options that are also water permeable.

The resin bound paving could be used for the main route (1.8m path) with the side routes and feature areas being constructed with block paving. There is the option to have resin bound surfacing for all the paving areas in

the site; however, high quality resin bound paving has a high cost especially when combined with the additional cost of edging materials. The most affordable option is to exclusively use block paving for all aspects of the site's surfacing, this would reduce the overall cost of materials; however, this may come at a cost to the overall aesthetic of the memorial garden as well as a potential increase in maintenance time and spending.

A combination of both block and resin bound paving could add to the Mediterranean theme in the garden, produced by the Mediterranean planting design. Terracotta colour resin paving could be combined with attractive ending sets to complement the cobble edges to the burial plots and enhance the overall theme.



ABOVE: Resin bound paving construction and granite edging sets



SURESET RESIN BOUND PAVING

Sureset provides high quality commercial resin bound paving options that can incorporate a variety of natural aggregates. Link to Sureset website: <https://www.sureset.co.uk/paving-ranges/natural-aggregate-paving/>



ABOVE: Sureset natural aggregate resin bound paving samples

Sample name: Apollo, Jersey Butter, Tuscan Terracotta, Tuscan Barley Butter (left to right)



PAVING EDGING MATERIALS

Resin bound paving requires an edge constraint to keep the aggregate and resin neat and tidy and prevent it from spreading before it dries. Edging options include edging sets made from concrete or natural stone which function as decorative barriers between the hard and soft landscaping. Another option is metal edge constraints that are made from either aluminium or steel which create clean straight lines at the edges of the paving. Suggested supplier: <https://www.exceledge.co.uk/>



BLOCK PAVING

Block paving could be used decoratively to draw attention to feature areas within the memorial garden, this could be implemented into the circular seating areas and pull in areas along the main path. This will add to the Mediterranean feel and will create distinct gathering points for groups of visitors.



WATER CAPTURE FEATURES

Water collection points have been included in the design to provide visitors with water for filling vases. The water collection points would also act as bird baths adding to the provision for local wildlife. These structures could also act as commemorative or memorial features.

MEMORIAL WALL

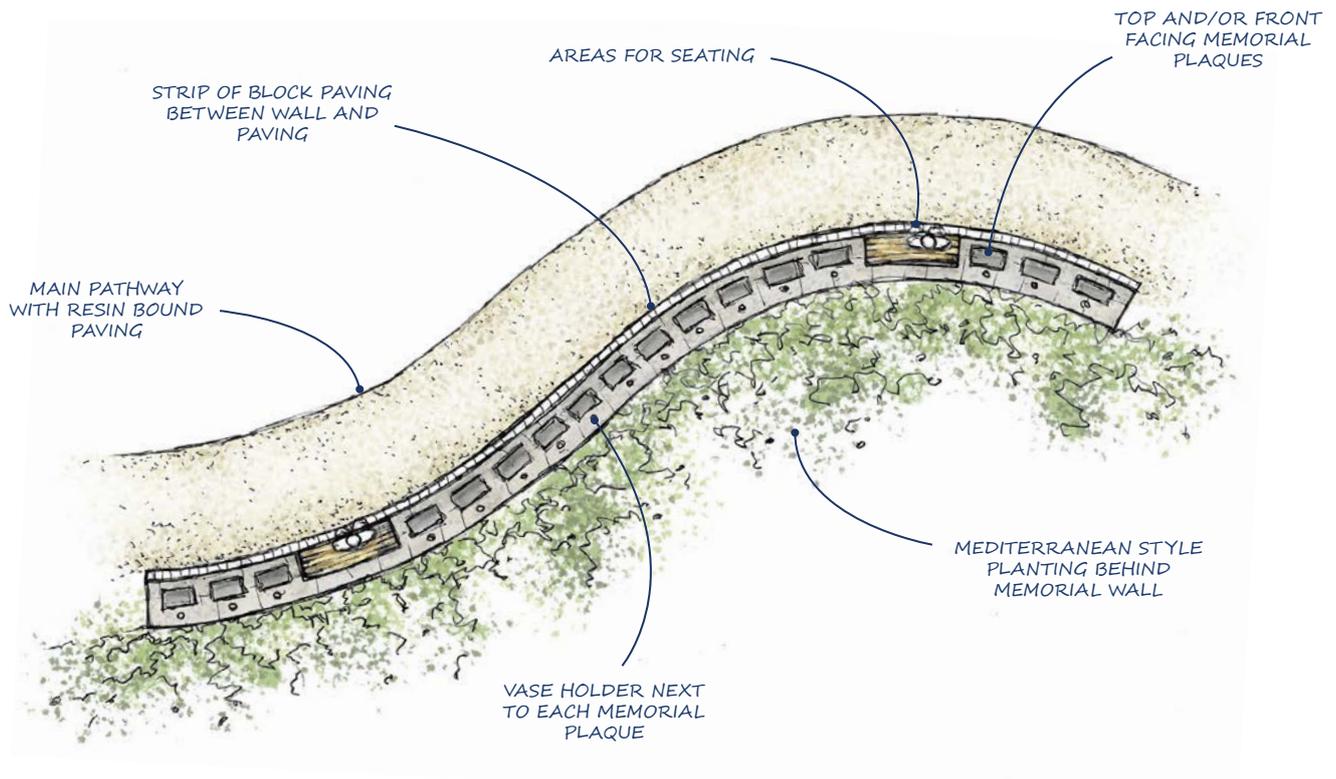


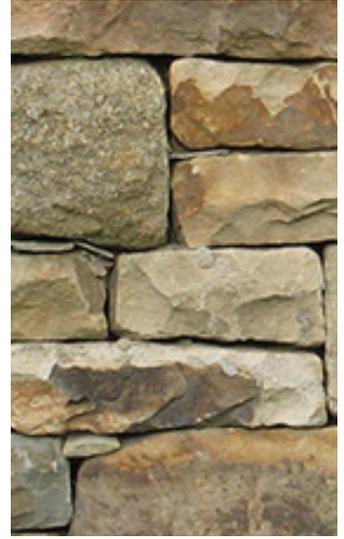
MEMORIAL WALL CONCEPT

The initial concept for the memorial wall was inspired by the wall design by RKLA for the Norfolk Centre Cemetery Association in 2013.

The materiality of the wall will complement the Mediterranean planting and resin/block paving making use of attractive natural stone e.g. reclaimed Yorkstone which would fit well with the historical setting and naturalistic feel.

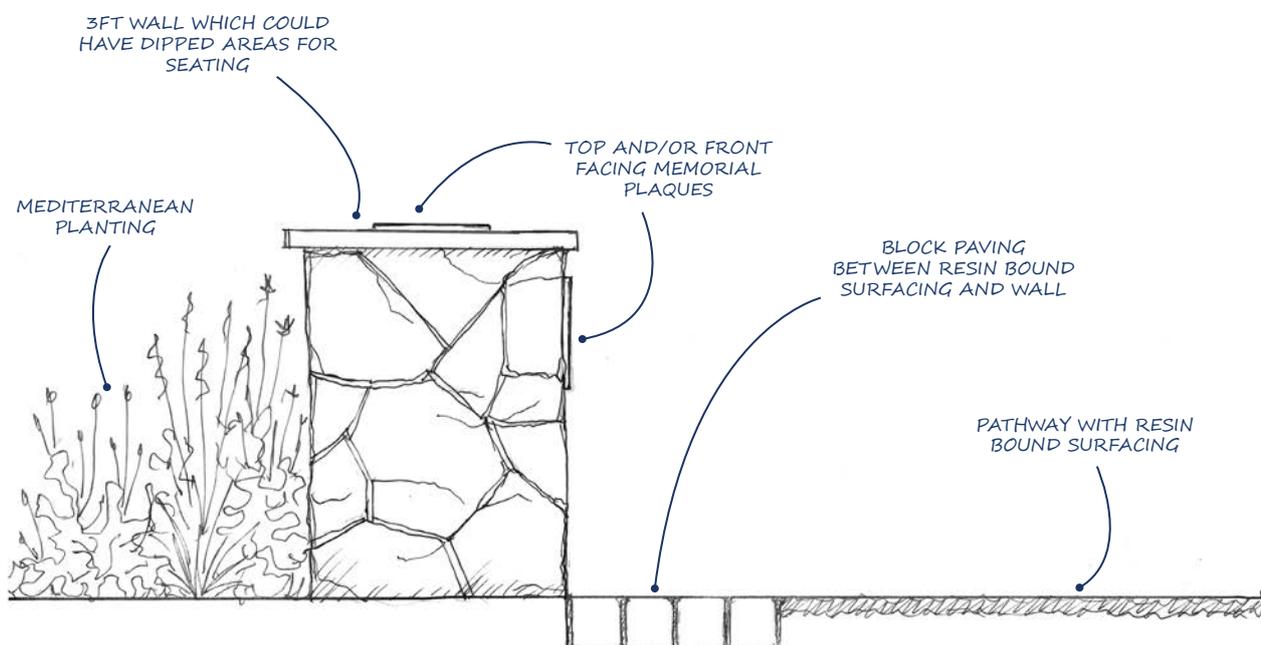
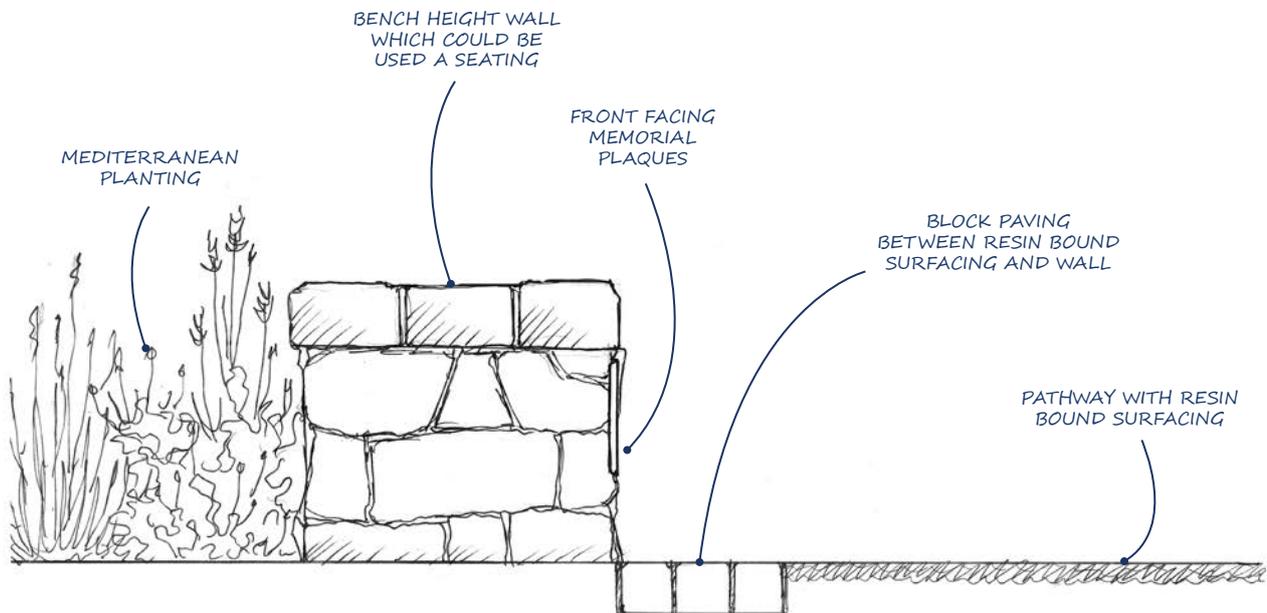
The wall will follow the curved line of the adjacent path. It is shown below at a total length of 17 meters and roughly 50cm in height.





COLUMBARIUM

The memorial wall could alternatively act as a columbarium which would provide an alternative option to burying or scattering ashes. The design of the columbarium could have a formal aesthetic or a more naturalistic dry stone wall approach. The memorial wall as a columbarium would provide addition revenue: however, addition material and construction costs would need to be considered.



MEMORIAL WALL DESIGN

The design for the memorial wall runs adjacent to the meandering pathway, the wall will provide structural interest as well as a place for people to sit. It will also provide an alternative memorial option (e.g., engraved plaques).

The precedent images and memorial wall options above show the different design options for the structure ranging from naturalistic to formal. The first option shows a bench height (50cm), dry stone wall style structure with memorial plaques on the top

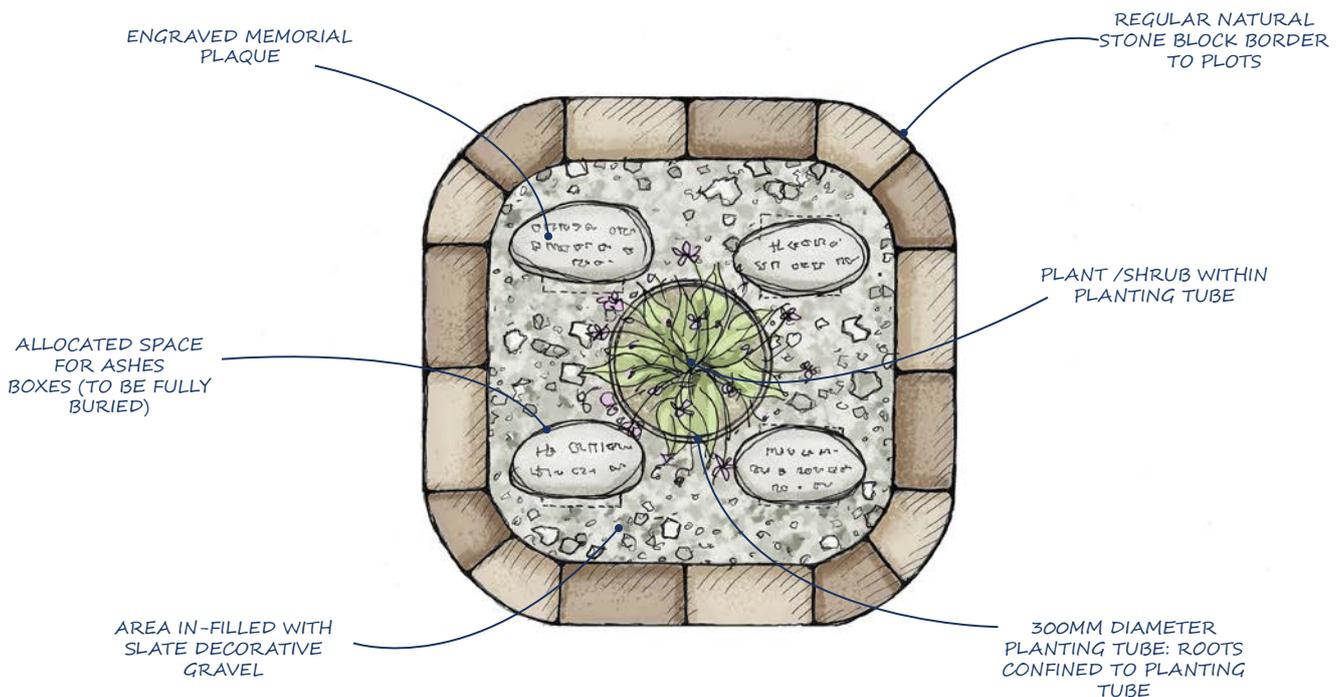
and front face of the wall. This option could be constructed using slate or reclaimed Yorkstone for a naturalistic feel. This design option for the wall would also allow for some seating provision.

The second design option shows a more formal structure that could be constructed using an attractive natural stone like granite. This option is shown at around 80cm allowing for a large number of memorial plaques but would not contribute to the site's seating provision.

BURIAL PLOTS

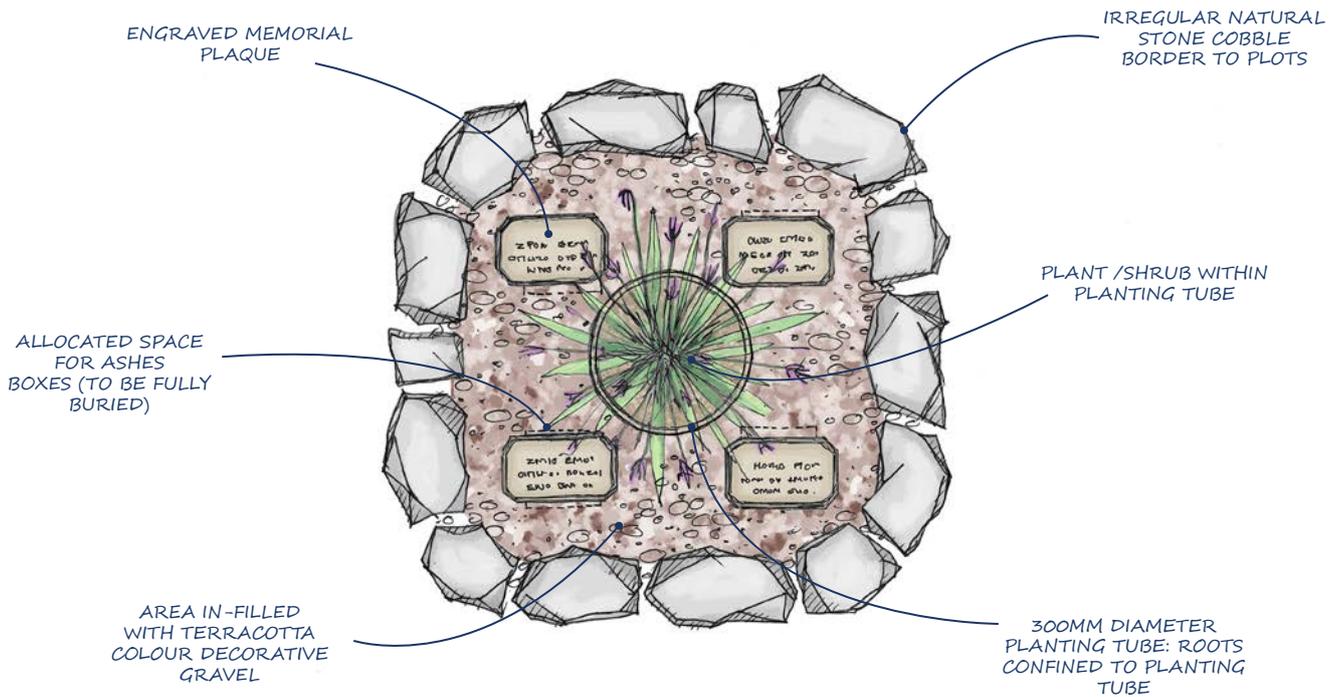
OPTION 1 : CONVENTIONAL NATURALISTIC

An option for the burial plot design is a simple and conventional burial plot with a regular natural stone border and a decorative slate gravel infill. The stone blocks that make up the border could be made from a multi-tonal sandstone for a rustic appearance, to compliment this, naturalistic engraved stone memorial plaques could be used as the memorial feature above the buried ashes.



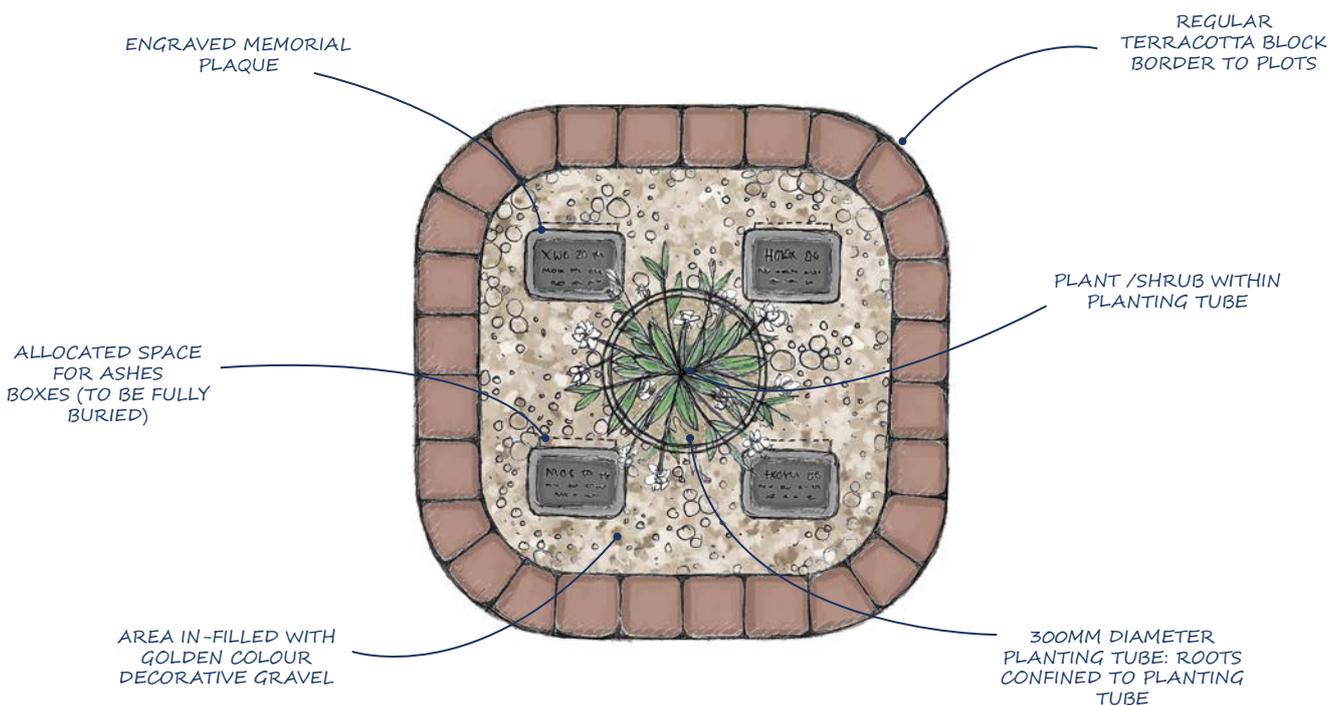
OPTION 2 : RURAL MEDITERRANEAN

Another option for the burial plot design is an informal and naturalistic burial plot with an irregular cobble border and a terracotta colour decorative gravel infill. This design has a Mediterranean aesthetic that would complement the Mediterranean planting design around the burial plots. A more formal engraved memorial plaque could be used to balance out the more naturalistic elements of this plot design.



OPTION 3: FORMAL MEDITERRANEAN

A third option for the burial plot design is a formal Mediterranean style burial plot with a regular terracotta colour block border and a golden colour decorative gravel infill. The Mediterranean aesthetic would complement the Mediterranean planting design around the burial plots as well as a golden/terracotta toned resin bound paving. A contrasting engraved black granite memorial plaque could be used to stand out against the decorative gravel.





BURIAL PLOT EDGING

The blocks / cobbles that make up the border of the burial plots could be constructed using a variety of different materials. Natural stone or concrete blocks would create a more formal and clearly defined border, whilst reclaimed natural stone cobbles would provide a more irregular and naturalistic edge. A combination of different materials / colours could be used to create variation in the plots.



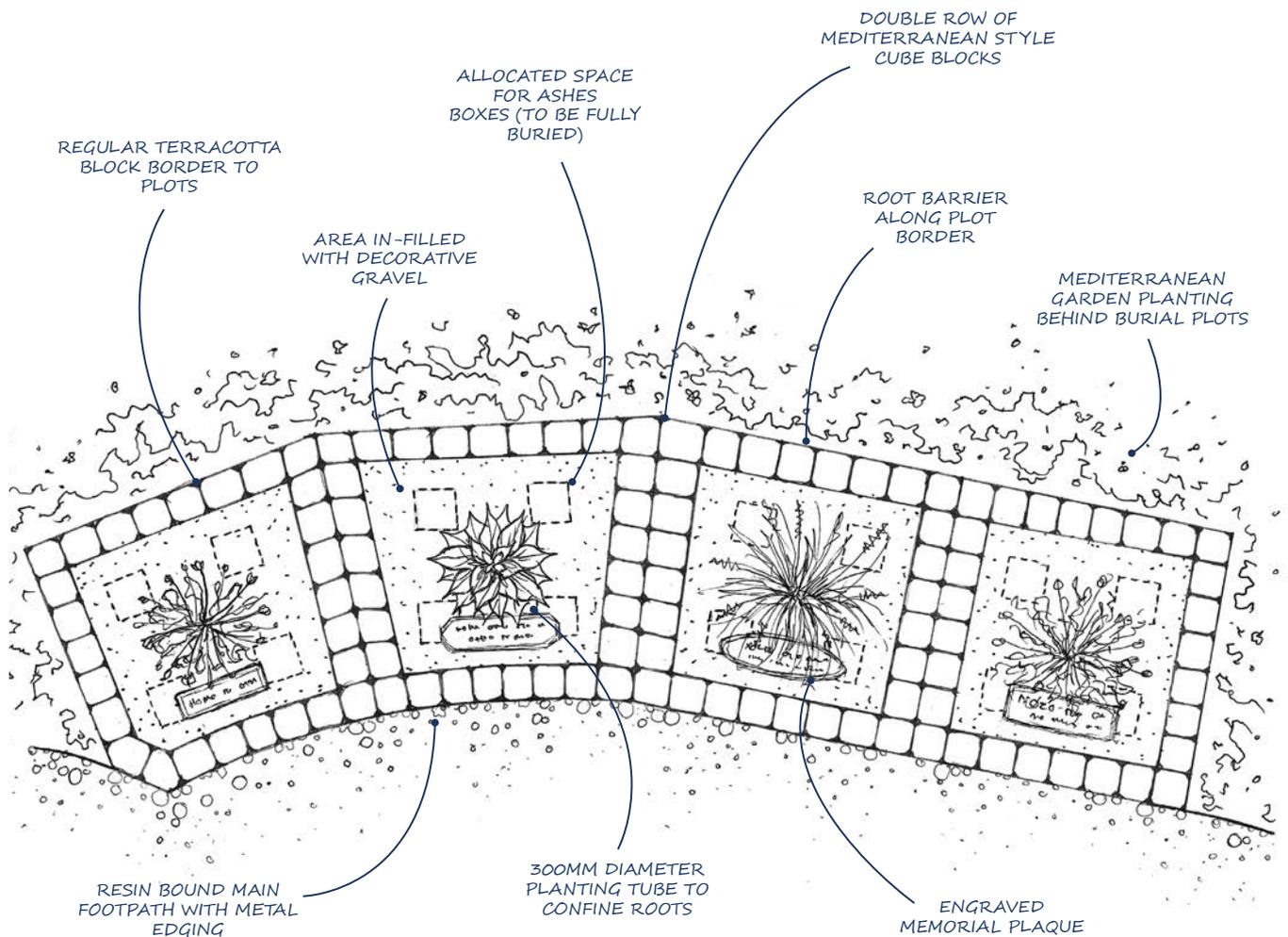
MEMORIAL PLAQUES

A variety of different memorial plaques options could be used depending on the selected plot design. A more naturalistic style memorial plaque made from a natural stone e.g., slate would work well with the Mediterranean style planting in a more naturalistic style plot.

Formal memorial plaques could work well in the case of more regular and formal plot design, this could include plaques made from a polished natural stone e.g., granite.



ABOVE: Decorative gravel options for burial plot infill material



ABOVE: Drawing showing how burial plots join together along straight and curved areas of the footpath

JOINING BURIAL PLOTS

Where the burial plots join there will be two rows of the bordering blocks to ensure adequate separation, this will ensure that the boundaries of each plot are clearly defined. Along the curved areas of the footpath that the burial plots follow, the plots will form a trapezoid shape to accommodate for the curvature of the path. Along straight edges of the path the plot shape will remain square.

PLANTING PALETTE

PLANTING PALETTE RESEARCH

Due to the highly specific site requirements, in-depth research on plant species for the Mediterranean planting zone around burial plots has been carried out. Each species has been assessed in many different facets to determine whether they are appropriate for the situation and site conditions.

Species that are not appropriate have been eliminated (shown in red) and will not be

included in the final planting schedule. Species that score well in multiple facets (shown in blue), are likely to be included in the final design.

Further research will be carried out on all three planting areas to ensure that there is year-round interest, high provision for pollinators and adequate complexity in height, form, and texture. This will ensure that the planting achieves all set requirements.

Botanical plant name	Forb / Sub-shrub / Shrub	Max Hight and Spread (cm)	Hardiness	Growth Speed	Soil pH	Root spread (m)
<i>Artemisia ludoviciana</i> 'Silver Queen'	Forb	90cm	H6	Fast	All	<1m
<i>Dipsacus fullonum</i>	Forb	90cm	H6	Average	All	<1m
<i>Erigeron karvinskianus</i>	Forb	30cm by 100cm	H5	Average	All	<1m
<i>Festuca glauca</i> 'Elijah Blue'	Grass	30cm by 25cm	H5	Average	All	<1m
<i>Lavandula stoechas</i>	Sub-shrub	40cm by 40cm	H4	Average	All	<1.5m
<i>Santolina chamaecyparissus</i>	Sub-shrub	100cm by 50cm	H5	Average	All	<1.5m
<i>Stachys byzantina</i>	Forb	20cm by 45cm	H7	Average	All	<1m
<i>Stipa tenuissima</i>	Grass	60cm by 30cm	H4	Fast	All	<1m
<i>Thymus vulgaris</i>	Sub-shrub	30cm by 30cm	H5	Average	Not Acidic	<1.5m
<i>Festuca amethystina</i>	Grass	60cm by 40cm	H5	Average	All	<1m
<i>Nepeta x faassenii</i> 'kit kat'	Forb	30cm by 45cm	H7	Average	All	<1m
<i>Calamintha nepeta</i>	Forb	60cm by 60cm	H5	Average	Not Acidic	<1m
<i>Salvia spathacea</i>	Forb	60cm by 60cm	H4	Average	All	<1m
<i>Thymus pulegioides</i> 'Archer's Gold'	Sub-shrub	50cm by 20cm	H5	Average to Fast	Not Acidic	<1.5m
<i>Santolina rosmarinifolia</i> subsp. 'primrose gem'	Sub-shrub	40cm by 60cm	H5	Slow to Average	All	<1.5m
<i>Sedum</i> 'Sunsparkler Wildfire'	Sub-shrub	20cm by 40cm	H6	Slow to Average	All	<1.5m
<i>Salvia rosmarinus</i> 'Blue Cascade'	Sub-shrub	40cm by 60cm	H5	Average	All	<1.5m
<i>Jasminum nudiflorum</i>	Shrub	300cm by 300cm	H5	Average	All	<4.5m
<i>Carex testacea</i>	Sedge	70cm by 60cm	H5	Average	All	<1m
<i>Lavandula angustifolia</i> ('Momparler')	Sub-shrub	40cm by 35cm	H5	Average	All	<1.5m
<i>Hebe albicans</i> 'Red Edge'	Shrub	60cm by 45cm	H4	Average	Not Acidic	<1.5m
<i>Euphorbia x martini</i>	Sub-shrub	75cm by 75cm	H5	Average to Fast	All	<1.5m
<i>Hylotelephium telephium</i> 'Touchdown Teak'	Forb	50cm by 50cm	H7	Average to Fast	Not Acidic	<1m
<i>Lavandula angustifolia</i> 'Hidcote'	Sub-shrub	75cm by 60cm	H5	Average	All	<1.5m
<i>Hyssopus officinalis</i>	Sub-shrub	60cm by 100cm	H7	Average	Not Acidic	<1.5m
<i>Rosmarinus officinalis</i> 'Majorca Pink'	Shrub	100cm by 100cm	H4	Average	All	<2.5m
<i>Phlomis russeliana</i>	Shrub	90cm by 75cm	H5	Average to Fast	All	<2.5m
<i>Stipa calamagrostis</i>	Grass	100cm by 120cm	H4	Average	All	<1m
<i>Convolvulus cneorum</i>	Sub-shrub	90cm by 60cm	H4	Average	All	<1.5m



ABOVE: Example of a Mediterranean planting style than utilises low level and slow growing flowering subshrubs - This planting typology is typically highly attractive to both people and pollinators

	Pollinator provision	Pest / disease issues?	Maintenance needs?	Yes/No
	Average	May be susceptible to powdery mildews	Cut back to base of plant in autumn	
	High	Prone to aphids	No pruning necessary	
	High	N/A	Deadheading. Cut back to ground level in autumn	
	Low	May be affected by a rust	Comb out dead foliage and trim damaged parts in spring	
	Average	May be prone to insect pests and honey fungus	Little to no pruning in late spring	
	Average	N/A	Little to no pruning in late spring	
	High	Slugs and caterpillars may be a problem	Deadheading is essential	
	Low	N/A	Comb out dead foliage and trim damaged parts in spring	
	High	N/A	Cut back in spring	
	Low	May be affected by a rust	Comb out dead foliage and trim damaged parts in spring	
	High	May be attacked by leafhoppers and powdery mildews	Trim after flowering to keep plants compact	
	High	May be susceptible to powdery mildews	Cut back in autumn	
	High	May be susceptible to powdery mildews	Remove flower spikes as they fade to prolong flowering	
	High	N/A	Trim back after flowering to maintain a dense, compact shrub	
	Average	N/A	Trim back after flowering to maintain a dense, compact shrub	
	High	N/A	No pruning necessary	
	High	N/A	Regularly prune each spring	
	Average	Aphids and mealybugs may be a problem	Pruning after flowering of damaged or dead shoots back to ground level	
	Average	Susceptible to damage from aphids	Comb out dead foliage and trim damaged parts in summer	
	High	Cuckoo spit, rosemary beetle and grey moulds may be a problem	Trim back after flowering to maintain a dense, compact shrub	
	High	Can get aphids, tortrix moth and leaf spot and a downy mildew	Prune immediately after flowering	
	Average	N/A	Cut back flowering shoots to ground level in late summer or autumn	
	High	May be damaged by slugs, snails, vine weevil and root rot	Cut back after flowering or leave seedheads overwinter	
	High	Can get rosemary leaf beetle, cuckoo spit and grey moulds	Trim back after flowering to maintain a dense, compact shrub	
	Average	Can get leafhoppers	Little to no pruning in late spring	
	High	May be susceptible to brown scale and rosemary beetle	Regularly prune each spring	
	High	Leafhoppers may be a problem	Regularly prune each spring	
	Low	N/A	Cut back all dead leaves and stems in late winter or early spring	
	Average	N/A	Little to no pruning in late spring	



MEDITERRANEAN SENSORY GARDEN PLANTING

The central feature area will be characterised by a plot free zone of Mediterranean planting with attractive sensory species. The combination of forbs and flowering sub-shrubs will form a therapeutic sensory garden that will benefit both visitors and local pollinator populations.





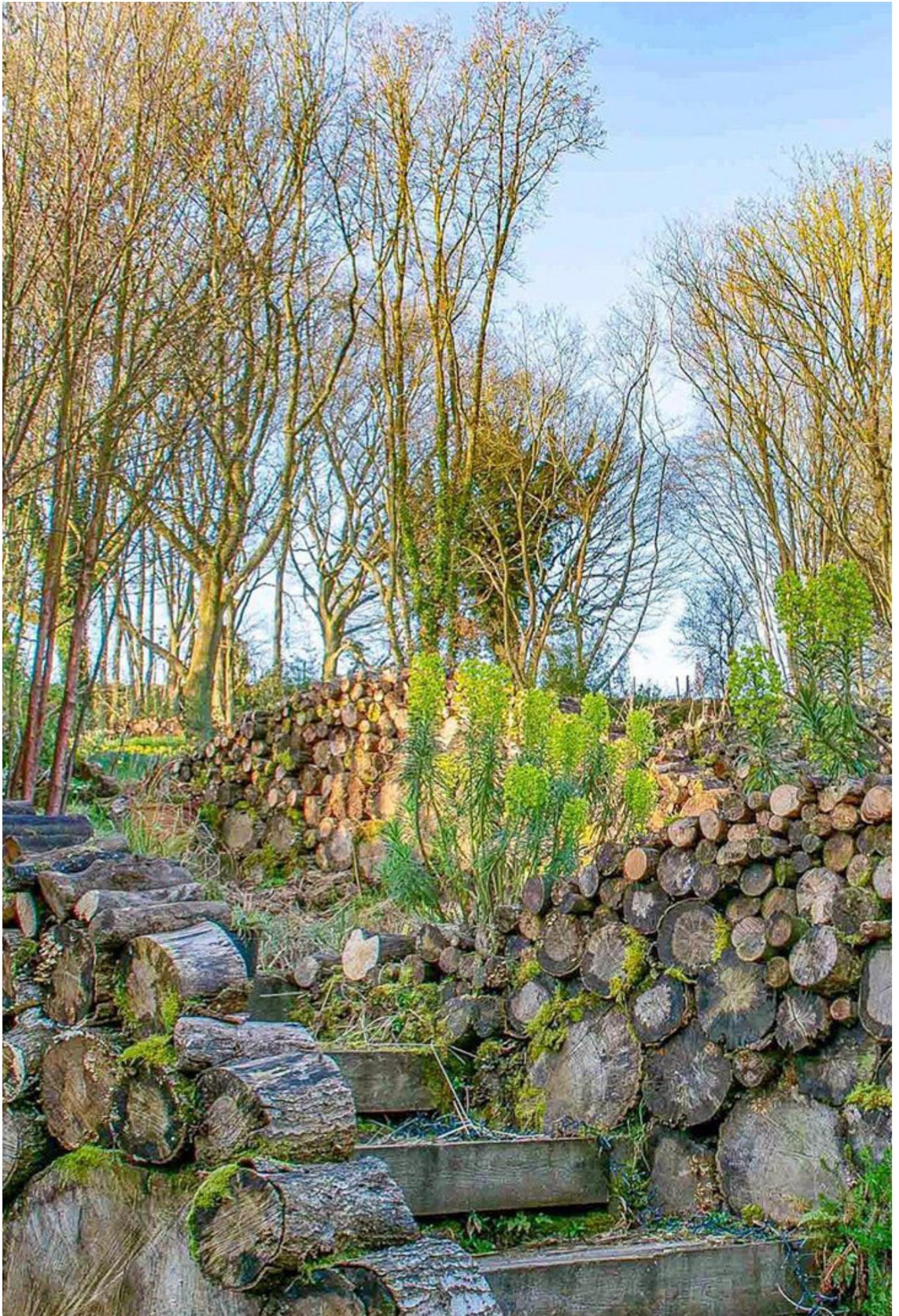
PROPOSED LOW LEVEL MEDITERRANEAN GARDEN PLANTING

The main planting area in the memorial garden that will coincide with the burial plots will be a low-level Mediterranean style planting with specimen feature shrubs. The planting will consist of low-level flowering Mediterranean sub-shrubs that will provide vital resources for pollinator species. The selected species will be slow growing and predominantly evergreen to provide year-round interest.



EVERGREEN WOODLAND UNDERSTOREY PLANTING

This planting typology will be used as a ground cover beneath the existing tree avenue and new tree planting areas. Attractive evergreen species will be used to accentuate areas beneath the tree canopy and to provide for local biodiversity.



SUSTAINABILITY & BIODIVERSITY

Sustainable design for the benefit of biodiversity lies at the heart of everything we do. We start each project by taking the time to understand the existing site landscape. We develop proposals that enhance valuable features of character and protect assets of ecological value. It is the consistency of this approach for the whole duration of a commission that yields the best outcomes. In designing the landscape to solve issues of access or drainage, for example, we explore solutions holistically – why benefit just one aspect, when you benefit many? It is an ethos that we take great pride in, which consistently helps us to deliver places of richness and diversity. For us, this is how we bring landscape to life.

Our proposed Memorial Garden design integrates the attractive structure of the existing tree avenue. A non-dig pathway using permeable construction will afford a walkway without impact to the existing tree health or affect on surface water drainage. The introduction of native woodland flora beneath these trees echoes the local ecosystem services diversity, avoiding the need for challenging grassland maintenance beneath the dry and shady tree canopies. In drawing inspiration from local habitats, we can reduce maintenance challenges and contribute more seasonal variation of colour and interest for wildlife benefit and visitor interest.





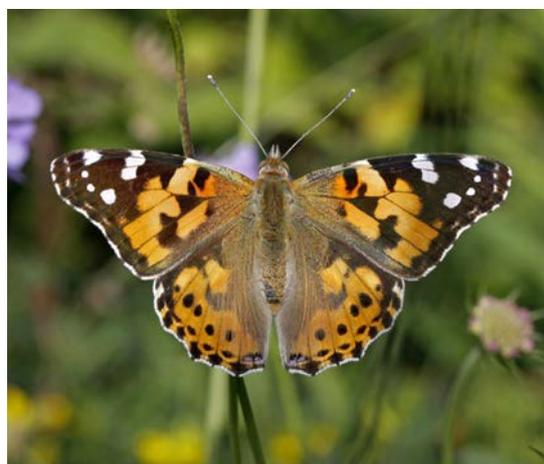
POLLINATOR ACTION PLAN

The proposal includes a Mediterranean inspired planting design that will sit amongst the burial plots; this would be greatly beneficial to the site's pollinating insects. This type of planting typically has a long pollen/nectar season which provides the early and late season resources that are crucial to the survival of many pollinating invertebrates. The proposed planting design is focused around nectar producing sub-shrubs; it may include key species like *Lavandula angustifolia*, *Erigeron karvinskianus* and *Thymus vulgaris*.

Flowering sub-shrub planting will also be a very sustainable option as it requires very little maintenance as it is naturally slow growing and will not require irrigation once established.

The Mediterranean influence will allow the planting to thrive in both the current and future climate of the South of England, ensuring that the garden will continue to provide for pollinators. At the centre of the site, visitors would find a sensory garden that wraps around a central seating area where groups of people can gather. This area will have a variety of sensory herbs and flowering shrubs that will be attractive to both visitors and a wide range of pollinating insects.

At the far side of the Memorial Garden there is a proposed wildlife garden with native ecological ground cover vegetation and small scattered evergreen trees. Great care has been taken within the proposed design to ensure that the pollinators have been considered throughout.

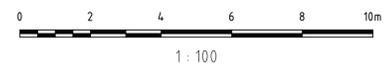


ABOVE: Suggested sketch design of plots sitting amongst ecological planting.



DEACON
DESIGN

DEACON DESIGN LTD
12A THE SQUARE, WICKHAM, HAMPSHIRE, PO17 5JQ
01329 557 820



PLOT QUANTITIES

Number of Quad Plots: 206
 Number of allocated space for boxes: 824

- NOTES:**
1. This drawing is to be read in conjunction with all relevant contract drawings and specifications with any conflicting information to be brought to the attention of Deacon Design before works commence on site.
 2. Do not scale from this drawing, (except for planning application purposes only) always work to noted dimensions.
 3. All given dimensions in mm.

- KEY**
- Application Site boundary
- Soft Landscape**
- Existing boundary vegetation to be retained and enhanced following ecologist's recommendations
 - Existing trees to be retained. Redline denotes Root Protection Area (RPA) to be read in accordance with Arbor-Call Tree Survey Plan
 - Proposed Tree Planting / Hierarchy
 - Street Tree (> 7meters from building)
 - Small / Garden Tree (> 3meters from building)
 - Note: Root Barrier provision if tree pit is within 3000mm of underground services or kerbs
 - Proposed specimen shrub planting
 - Proposed low level Mediterranean garden planting
 - Proposed Mediterranean sensory garden planting
 - Proposed planting to complement woodland setting
 - Proposed formal hedge
- Hard Landscape**
- Note: Hard landscape materials to be agreed and approved by client
 Footpaths with 'no-dig' construction to RPAs
- Resin bound main pathway with natural aggregate
 - Block paving to memorial bench seating areas
 - Feature block paving to central seating area
 - Block paving side pathways
 - Memorial wall
- Garden Furniture (to be agreed by client)**
- Seating Provision - seat with arm and back rest
 Finish material: wood
 Fixing: ground anchor to bolt seat to hard surface
 - Proposed approximate location of log piles
 - Proposed bird baths / water collection areas
- Memorial Garden Features**
- Quad Plot (design corresponding to draft plot design document)



DRAFT

DATE	DRAWN	DESCRIPTION OF REVISION	REVISION LETTER

DRAWING STATUS
PRELIMINARY



DEACON DESIGN
 Landscape Architecture | Masterplanning | Urban Design
 12a The Square, Wickham, Hampshire PO17 5JQ
 www.deacondesign.co.uk | info@deacondesign.co.uk
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PROJECT TITLE:
Memorial Garden, Worthing Crematorium

PROJECT NUMBER: DD541 PLOT DATE: 04/03/2022

DRAWING SCALE: 1:100 APPROVED BY: MG

PAPER SIZE: A1 DRAWN BY: EP

DRAWING TITLE:
Landscape General Arrangement Plan

DRAWING NUMBER: L01 REVISION LETTER: -

DRAWING FILE LOCATION:
 Z:\Dropbox (Deacon Design Ltd)\03 PROJECTS 500-DD541 - Worthing Memorial Garden\04-Drawings\Autocad_Keyscape\L-Landscape Dwg\DD541L01_General Arrangement Plan.dwg