

MACARTHUR MEMORIAL PARK

MASTERPLAN

VARROVILLE, NSW



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EXECUTIVE SUMMARY

The Catholic Cemeteries Metropolitan Trust, which manages several Government cemeteries in Sydney's Metropolitan area, has purchased this site with the view to provide a landscape cemetery for the whole community in Sydney's West .

The site for which the cemetery is considered is approximately 113hectares in size. It lies between Camden Valley Way and the Hume Highway, south of St James Road and encompasses several parcels of land known as Lot B, 22 and 1, on St Andrews Road, Varroville.

The site is characterised by undulating grassed hills and pockets of forested areas. It enjoys panoramic views onto the Blue Mountains, Sydney CBD and the Campbelltown valley below. It sits within the Scenic Hills and surrounds the historical Varroville House.

The land presents several constraints for development including steep topography, the presence of Moist Shale Woodland and Cumberland Plain Woodland, heritage curtilage extending beyond the boundary of Varroville House, protection of Aboriginal Artefacts, riparian zones and waterways, historical water bodies, the potential for bushfires and tight Planning Control relating to the Environmental Protection of the Scenic Hills.

All constraints become opportunities in some ways by taking advantage of the landform to create welcoming spaces, meandering and scenic roads and interesting views, by retaining and enhancing all existing significant vegetation to create future sanctuaries for perpetuity, by allocating suitable burial options to the variety of settings that the site has to offer (terraces, flat lawn, natural burials) and by enhancing the lakes and riparian zones for passive recreation, contemplation and some memorialisation.

The aim of the proposal is to:

- Minimise the impact on existing environment, especially the topography and the Cumberland Plains Woodland, to protect them for future generations.
- Protect the Colonial landscape qualities
- Provide an environmentally sensitive development
- Achieve Best Management Practices in all aspects of cemetery provision, including Stormwater Management and Ecologically Sustainable Developments.
- Provide an exceptional open space for the community, for perpetuity.
- Provide a quality burial ground for the whole community

The vision for the site is to provide:

- Much needed burial space for the area whilst offering choice, at affordable prices, in varied settings, for a multi-denominational community.
- A distinctive landscaped cemetery, the best of its kind, the pride of the industry
- A Sculpture Park, offering opportunities for local and Australian artists
- A respectful space and scenic route, open to all,
- A cemetery which respects and safe keeps the important colonial and non-colonial landscape.
- An arboretum for future preservation and education of generations to come.
- A concept which respects the Land, its landform and ecology by carefully laying roads and any built environment and limiting their "footprint" (for example minimum width, using boardwalks, avoiding existing significant trees...)
- Concealed, private and low laying burial spaces to minimise visual impact.

For all of the above to be delivered, a thorough analysis of the site to determine its constraints and opportunities is essential.

To inform the concept the following studies have been undertaken:

- Market research
- Visual and landscape character assessment
- Cultural Heritage and curtilage assessment
- Ecological assessment
- Assessment of waterways and riparian zones requirements
- Assessment of Bushfire Protection requirements
- Traffic analysis
- Technical investigations on existing services and soil
- Groundwater investigations
- Archaeological Assessment (Aboriginal artefacts)

The concept prides itself on its responses to the various statutory requirements for

- Central hills,
 - Environmental Protection (Scenic) Zone
 - Escarpment Preservation Area,
 - Cumberland Plain Woodland and Moist Shale Woodland
 - Waterways and Riparian Corridor
- and
- Water Sensitive Urban Design

This proposal offers an unique solution to the preservation of the Scenic Hills qualities, one which offers a sensitive landscaped setting, responding to a unique site, with unique qualities and history whilst providing the community with a cemetery, 99.8% of which is Open Space maintained for perpetuity.

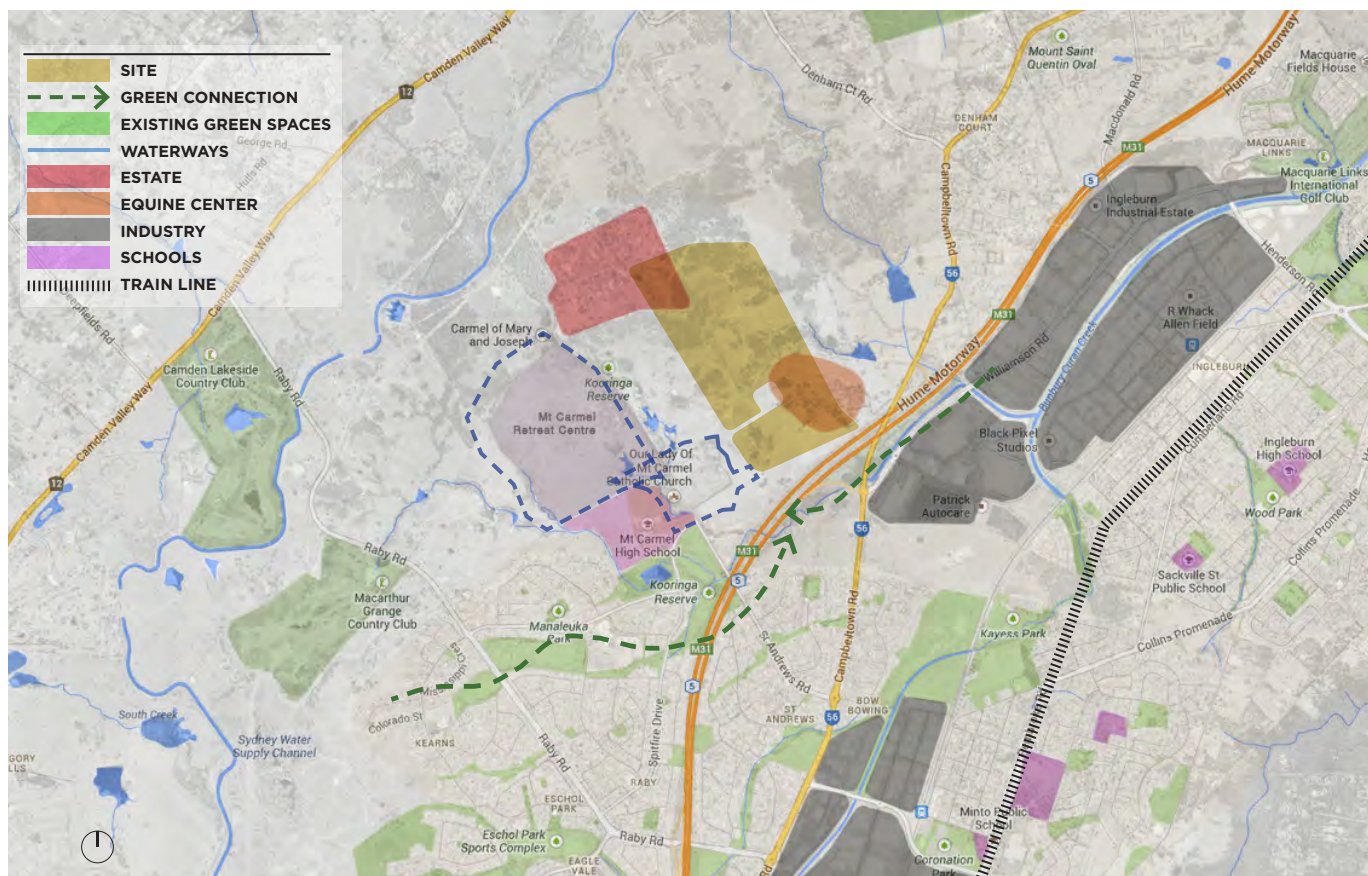


Figure 1. Context Map

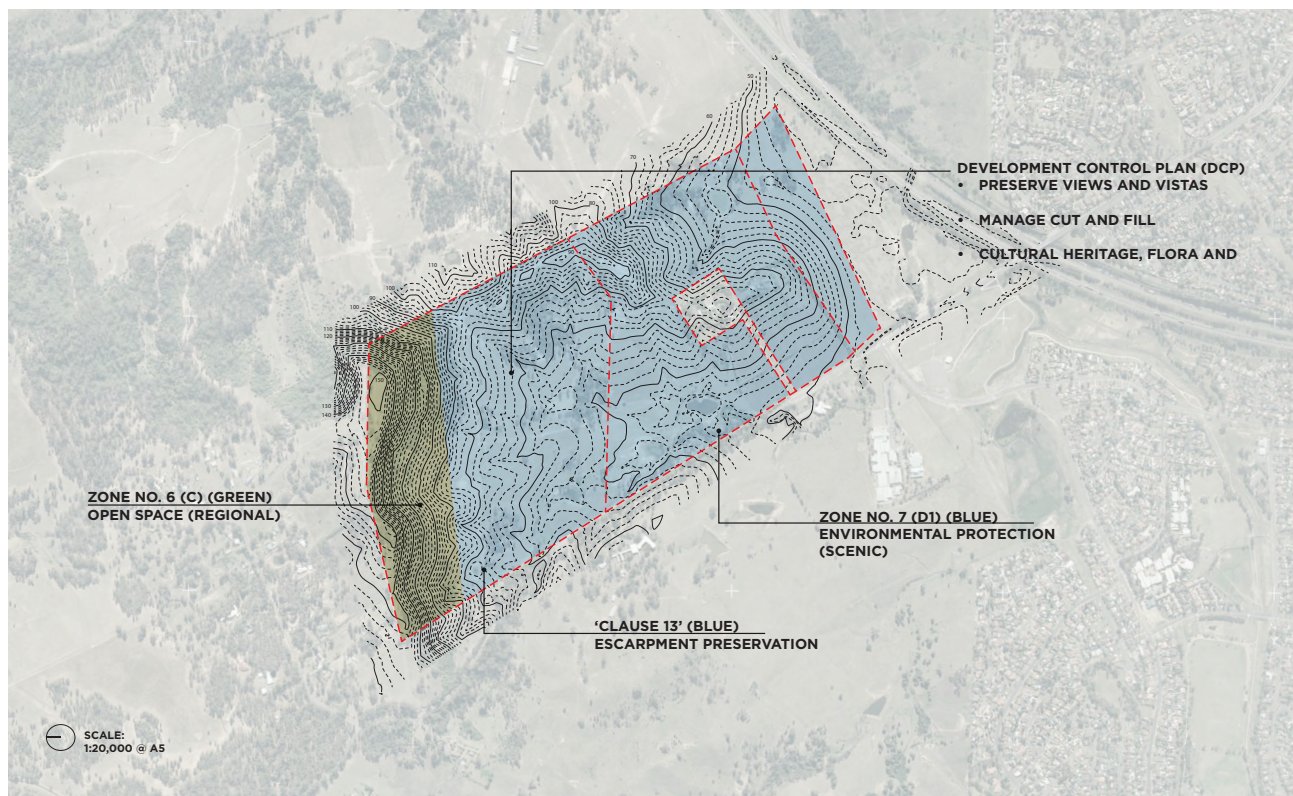


Figure 2. Planning Controls Map

INTRODUCTION

The aim of this report is to demonstrate a systematic, thorough analytical view of the site to better inform its concept. This concept is based on the belief that a cemetery can be a park, a sanctuary, a sculpture park and open space available to all. It is also based on the belief that the landscape concept should respect and respond to the site specific constraints.

The result is a unique cemetery, one which respects the land onto which it is built, the burial practices of its time and the aspirations of the public.

ANALYSIS

Context

The site for which the cemetery is considered is approximately 113 hectares in size. It lies between Camden Valley Way and the Hume Highway, south of St James Road and encompasses several parcels of land known as Lot B, 22 and 1, on St Andrews Road, Varroville. (Refer to Titles in Appendices). The site is approximately 1.6km long by 800m wide. It is slightly smaller than the Mt Carmel Retreat Centre and the School put together. (Fig. 1).

The site's neighbours are: (Fig. 1)

- Crown Land and The Hume Highway to the south
- The Scenic Hills Riding Ranch to the south east
- Rural landholdings to the east
- St James Roads residential area to the north
- Carmel of Mary & Joseph, Mount Carmel Retreat Centre and Mount Carmel Catholic High School to the West
- Burrendah Reservoir and Kooringa Reserve to the south-west, which forms part of an Open Space corridor starting at Colorado Reserve and snaking through the suburb of Raby.

The majority of the site sits within an Environmental Protection (Scenic) Zone [Zone No 7 (D1)]. The northern escarpment is under an Open Space (Regional) Zone [Zone No 6 (C)] (Fig. 2). Also refer to Appendix for detailed map of Planning Controls.

Landscape Character

The site encompasses the Bunbury Curran Hill top. From this local high point, the land drops steeply to a valley along the western boundary whilst the eastern boundary offers a lower ridge protecting it from the eastern views. This lower ridge continues towards Varroville House (which is not part of the property), in effect separating the site into two distinct "precincts" with different exposure and outlook.

The site is characterised by undulating grassed hills and pockets of forested areas. It enjoys panoramic views onto the Blue Mountains, Sydney CBD and the Campbelltown valley below.

The site has been used for grazing and agistment for a number of years, leading to some degradation of the native vegetation on site and introduction of weeds throughout.

It is part of an area known as the Scenic Hills (Landscape Unit 1) which offers complex topography, rich views with depth of field, contrasting vegetation in creeks and in ridge tops together with colonial cultural landscapes of Bunya Pines and other introduced species of large trees typical of the era. (Refer to Appendices for detailed map of Visual analysis)

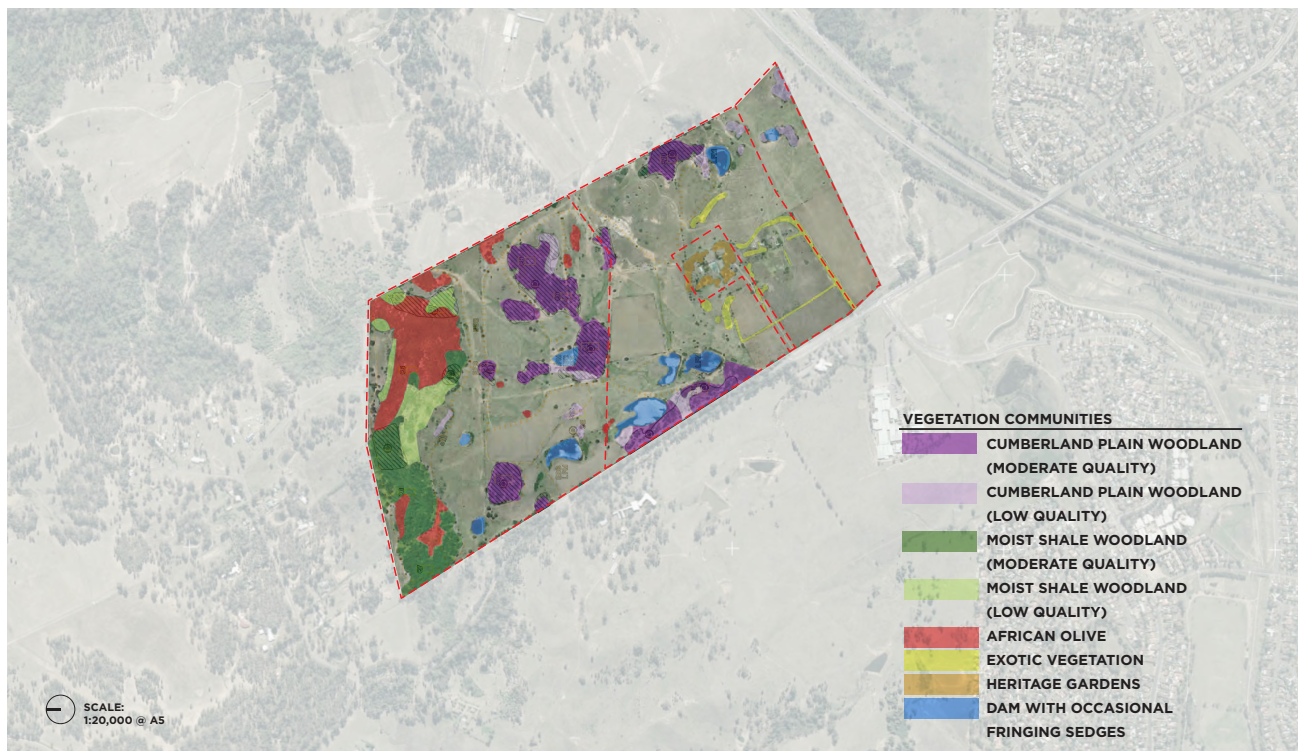


Figure 3. Ecology Map

Flora and Fauna

(Summary only - Refer to Travers Bushfire & Ecology P/L "Ecological Constraints Assessment")

Travers bushfire & ecology has been engaged by Urbis to undertake flora and fauna survey and review the ecological constraints within Lot 22 DP 564065 & Lot B DP 370979 St. Andrews Road, Varroville. These combined lots will be referred to as the study area.

Recorded threatened Flora, Fauna & EECs

Ecological survey and assessment has been undertaken in accordance with relevant legislation including the Environmental Planning and Assessment Act 1979, the Threatened Species Conservation Act 1995, the Environment Protection and Biodiversity Conservation Act 1999 and the Fisheries Management Act 1994.

In respect of matters required to be considered under the Environmental Planning and Assessment Act 1979 and relating to the species / provisions of the Threatened Species Conservation Act 1995, three (3) threatened fauna species including Eastern Bentwing-bat (*Miniopterus orianae oceansis*), East-coast Freetail Bat (*Micronomus norfolkensis*) and Large-footed Myotis (*Myotis macropus*), no threatened flora species, and two (2) EECs, Cumberland Plain Woodland and Moist Shale Woodland were recorded within the study area. The proposed cemetery proposes works that are unlikely to cause any significant impact on threatened species, endangered ecological communities or populations.

In respect of matters required to be considered under the Environment Protection and Biodiversity Conservation Act 1999, no threatened fauna species, one protected migratory bird species Cattle Egret (*Ardea ibis*), no threatened flora species, and two (2) EECs Cumberland Plain Shale Woodlands and Shale-Gravel Transition and Western Sydney Dry Rainforest and Moist Woodland on Shale listed under this Act were recorded within the study area. Given the low level impact of the proposed cemetery, the proposal will not cause a significant impact on any listed matters if National Environmental Significance.

In respect of matters relative to the Fisheries Management Act 1994, no suitable habitat for threatened marine or aquatic species was observed within the study area and there are no matters requiring further consideration under this Act. The proposed cemetery proposes works that are unlikely to cause any significant impact on threatened marine or aquatic species.

Ecological Constraints

The key ecological constraints (Figure 3) are as follows:

- **EEC's – Cumberland Plain Woodland, Moist Shale Woodland and Swamp Sclerophyll Forest on Coastal Floodplains** occur throughout the site in variable condition, but no high quality remnants were observed because of grazing, clearing and dense infestations of African Olive. There is approximately 12.45 hectares of Cumberland Plain Woodland of which 2.76 hectares is low condition. There is approximately 9.53 hectares of Moist Shale Woodland of which 3.05 hectares is of low condition. Cumberland Plain Woodland occurs on the gentle topography in the mid and lower slopes of the study area. Moist Shale Woodland occurs on the steeper south-facing slopes in the northern-most part of the study area. Swamp Sclerophyll Forest on Coastal Floodplains occurs in very small fragmented patches on the lower floodplains.
- **Hollow dependent threatened fauna species habitat** - Two of the three recorded threatened microbat species including East-coast Freetail Bat (*Micronomus norfolkensis*) and Large-footed Myotis (*Myotis macropus*) utilise hollows for roosting and breeding. The Large-footed Myotis is also known to utilise subterranean habitats and artificial structures for roosting. Given the recorded level of presence by these species and also considering that survey was undertaken during the low activity winter period, there is real potential that valuable roosting habitat is present within the site or nearby locality. Exact locations of roosting and breeding trees is difficult to determine without extensive target surveys and therefore assessment of these species is often dependent on the estimated loss of hollow bearing trees, the availability of other hollow resources in the locality and the creation of supplementary habitat (such as nest boxes) onsite.

Potential ecological impacts

The rural nature of the landscape and highly fragmented vegetation has resulted in a low level impact on any vegetation and habitat within the site. Consequently the impacts caused are not considered to be significant. The proposed cemetery landscape proposes to retain the majority of onsite vegetation remnants and has clearly demonstrated an approach that avoids causing direct impacts.

Over the life of the project, approximately 150 years, the proposed cemetery will result in a maximum loss of

- Loss of 1.14 hectares of moderate quality Cumberland Plain Woodland affecting 4 vegetation remnants
- Potential loss of hollows suitable for hollow-dependent threatened fauna.

As the cemetery will be staged it is not expected to cause mass habitat loss at any point in time that cannot be compensated by re-vegetation works. Approximately 7.19 hectares of riparian lands are available to be used for restoration of Cumberland Plain Woodland.

Travers Bushfire & Ecology recommends that a vegetation management plan to be prepared that stages the restoration works and outlines the vegetation and fauna habitat enrichment works that can be undertaken to achieve an overall positive biodiversity conservation outcome onsite.

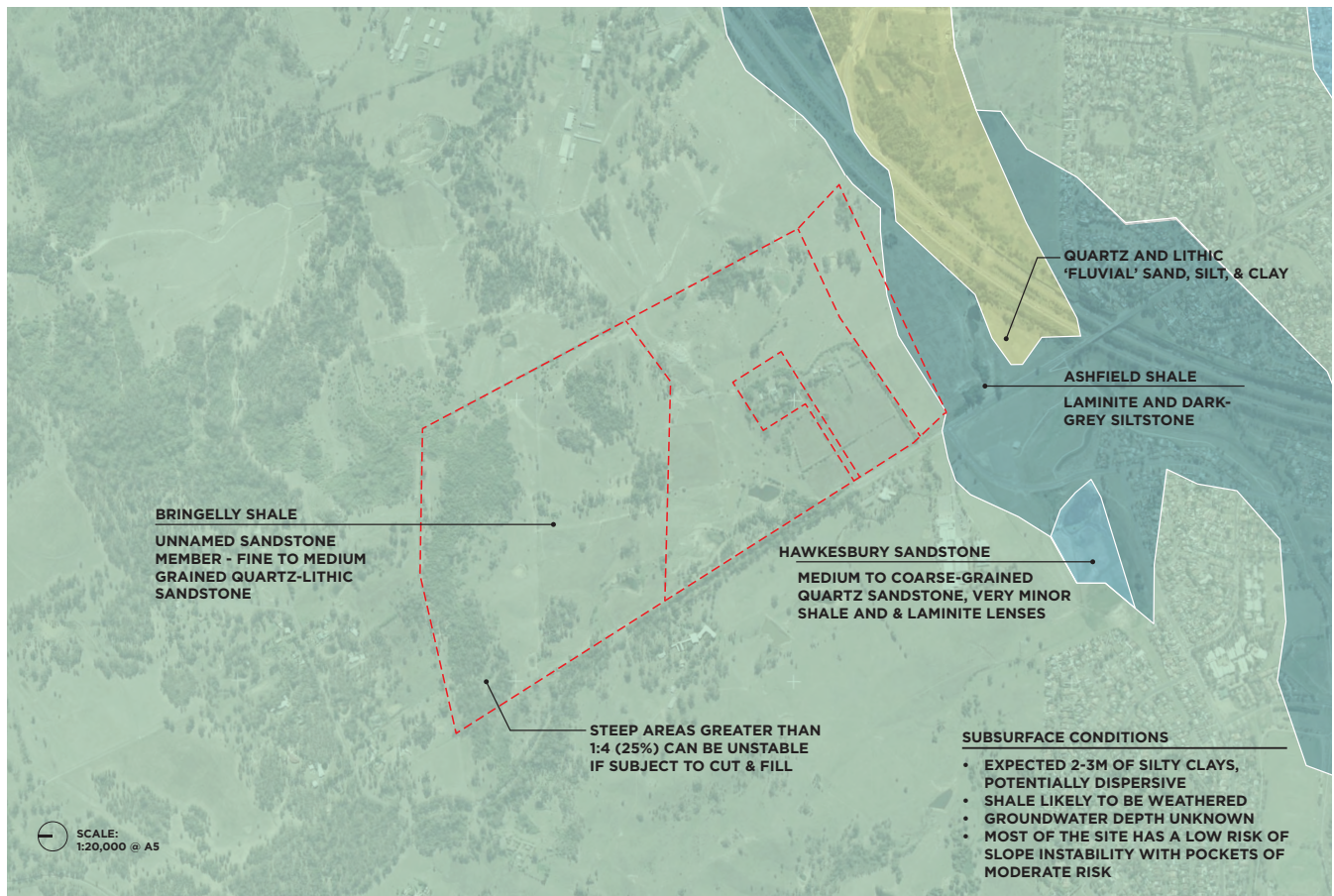


Figure 4. Geology Map

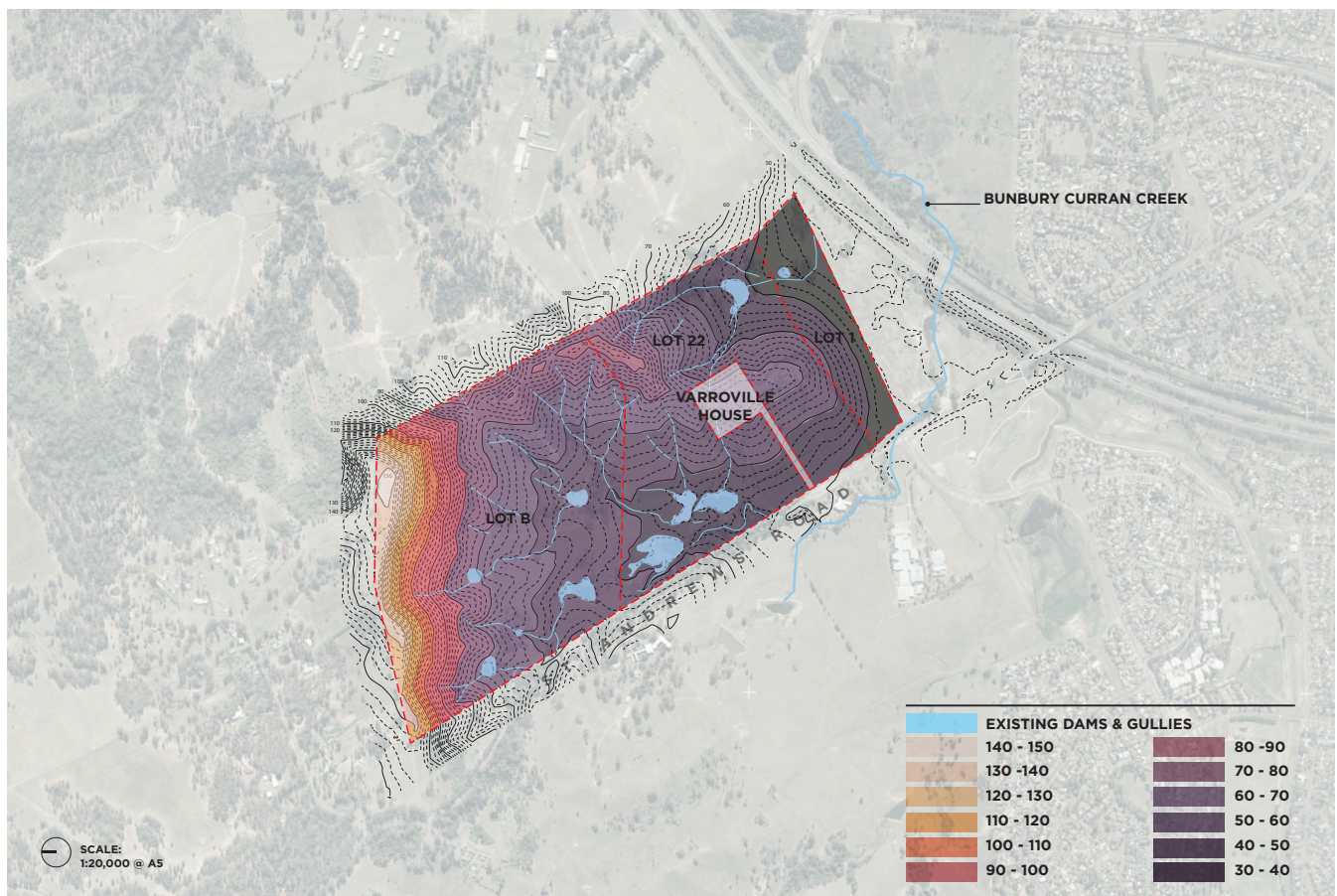


Figure 5. Topographic Map

Geology and soils

A preliminary geotechnical report was conducted by SMEC Testing Services Pty Ltd in December 2008 to determine the subsurface conditions on site.

The site is located within an area where the “Wianamatta Group” shale and sandstone are present. (Fig. 4)

The site is expected to consist of fine silty, generally stiff and potentially dispersive clays to a depth of 2-3m.

The underlying shales are usually weathered and any groundwater that may be present would be expected to be at that depth. The shale below is expected to be friable enough to enable grave digging to approximately 2+m deep.

The escarpments which presents slopes in excess of 25 to 35 degrees (1V:1.5H to 1V:2.5H gradient) are expected to be unstable if cut and fill takes place.

Topography

The site offers a mixture of ridges and valleys. The highest point, Bunbury Curran Hill (150+m AHD) sits at the north-east end of the site. The second highest point is located to the east on a lower ridge (90m AHD). Varroville House sits at the end of the ridge at approximately 75m AHD. Whilst the ridges take up approx. 1/3 of the site, the rest of the site consists of flatter plains with man-made water bodies which overflow into the Bunbury Curran Creek. (Fig. 5)

The slope analysis (Fig. 6) shows that slopes vary from flat ridges and plains to gradients of up to 1:3 on the Bunbury Curran Hill escarpments. The majority of the land for which the gradient is steeper than 1:5 is either :

- Currently vegetated and proposed to be retained as such, or
- Currently grassed and grazed and proposed to be vegetated or terraced.

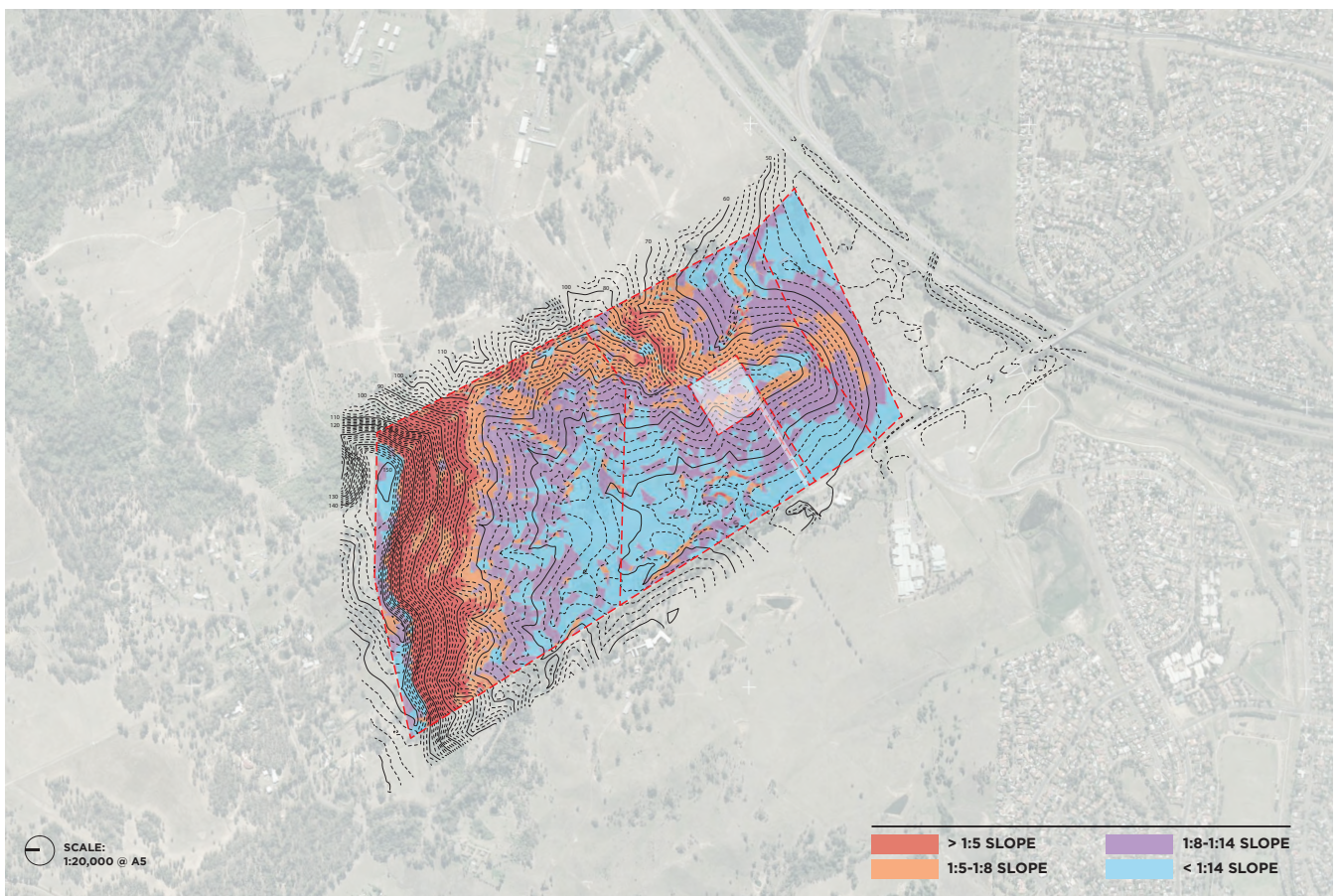


Figure 6. Slope Analysis

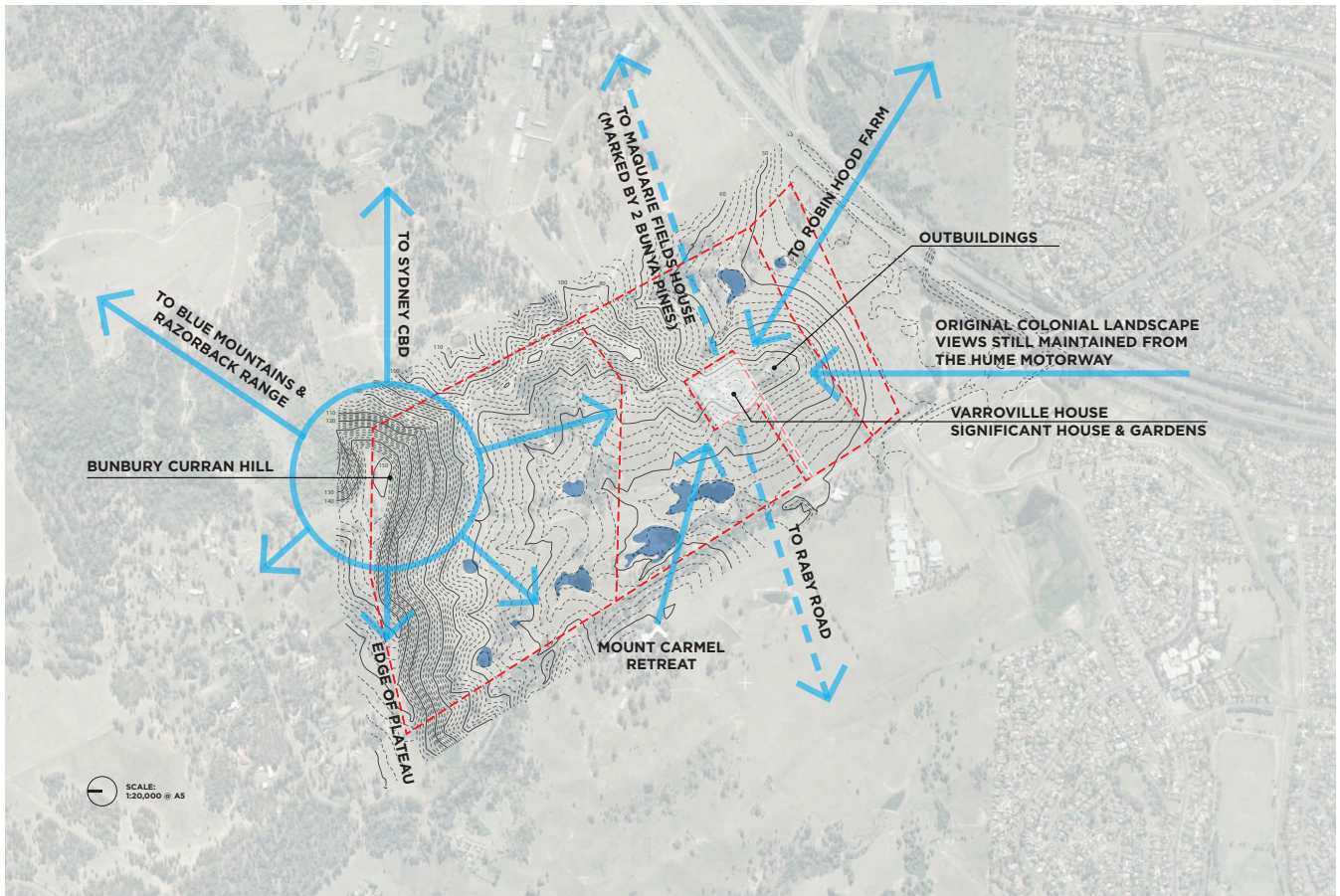


Figure 7. Visual Analysis



Figure 8. St. Andrews Road



Figure 9. Views at Varroville House entrance gate



Figure 10. Hume Highway and urban areas in the background



Figure 11. Existing entry point (North-West), Bunbury Curran Hill in background

Views

This topography, although presenting challenges in places, makes the site a memorable and scenic place. The protected valleys lead to secluded places with short to medium views onto the water, the ridges lead the eye to the distant views. Both offer an ideal setting for contemplation and passive recreation.

Due to the site's elevation, the curvature of the land and existing vegetation, views into the northern part of the site are limited. Views into the rest of the site are more readily available from the Hume Highway, the Riding Range and the lower part of St Andrews Road. (Fig. 7)

Access

External access

It is proposed to initially modify the main existing access to the site which is at the north-west end, from St Andrews Road by incorporating a roundabout. This entry point offers beautiful views onto the lakes and glimpses onto the office and chapels nestled into the hillside.

It is proposed to establish a service entry north of the main entry point as it is important to keep access for maintenance and service vehicles separate to ensure minimal disruption and risks to visitors.

The site is large and will eventually require further entry and exit points as it slowly expands.

These will be developed one at a time, as required. It is important to recognise that cemeteries expand on "as -need" basis, usually planning in 10 years increments. Once space is anticipated to run out in coming years, the next stage of development (roads, services, lawns, gardens etc) will be implemented, each in manageable bite sizes.

Any undeveloped section of the land will either be:

- Open to the public for recreation (Heritage trail etc)
- Agisted
- Mown and managed as pastoral land. In all cases, its appearance will remain unchanged.

A staging plan (Refer to Appendices) offers an estimated timeline.

As demonstrated by the staging maps, the land will be progressively landscaped and utilised leaving the majority of the land untouched for many decades.

A traffic report also offers further information on how the traffic flow and numbers will be managed over the years (refer to separate Traffic Report)

Internal access

The road network within the cemetery will need to respond to the following self-imposed constraints:

- No visitor and no funeral staff handling coffins should be expected to walk more than 50m from the side of a road to a grave site.

This is in direct response to OH&S trends but also to respect the need to visitors who are generally elderly.

- Minimal cut and fill and grading alterations. The intent is to work with the lay of the land as much as possible.

The road layout will also need to respond to bushfire requirements and, for this reason, has been planned in accordance with the Planning for Bushfire Protection 2006. (Refer to Travers Bushfire & Ecology P/L "Bushfire Protection Assessment" Report for details)

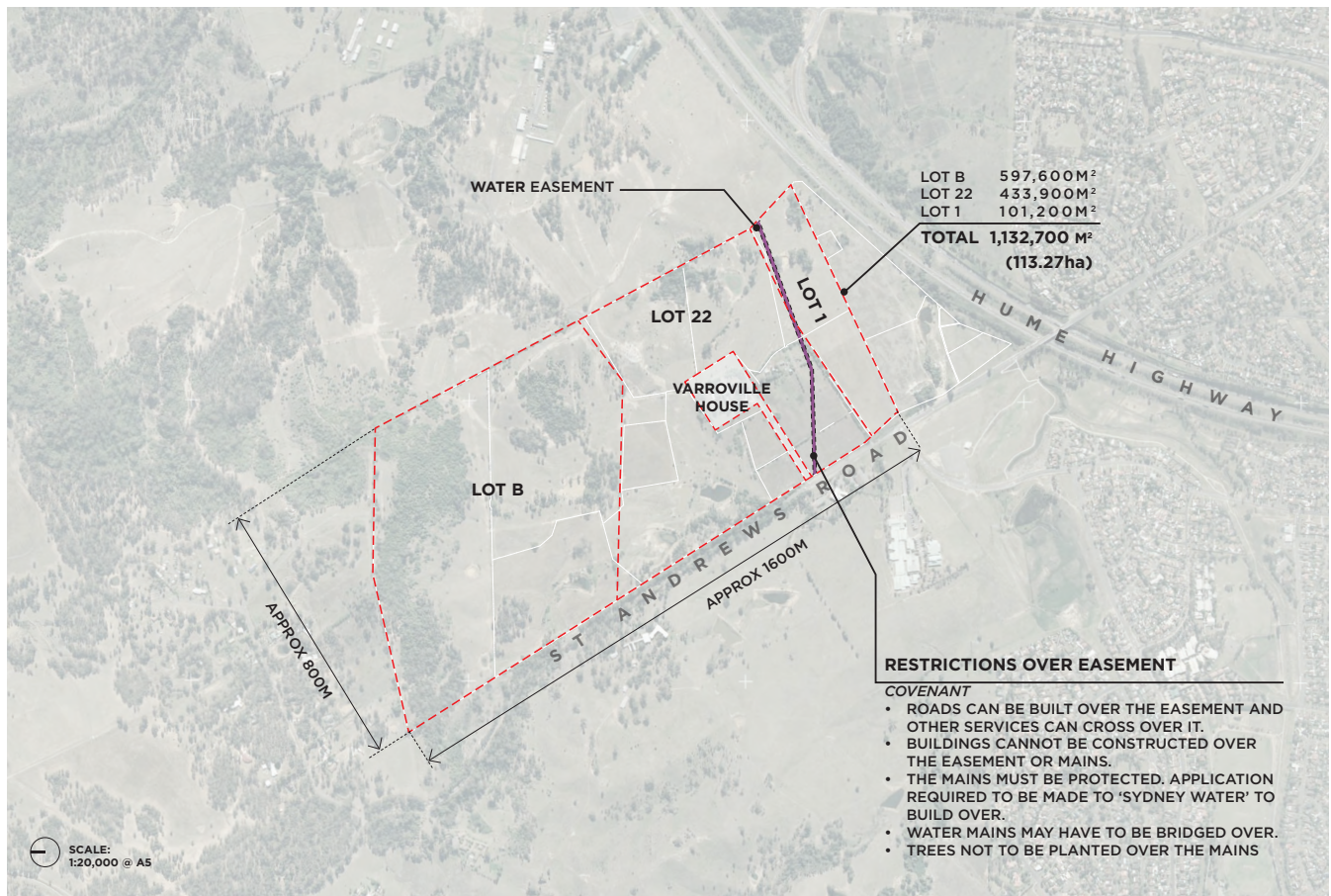


Figure 12. Easement Map

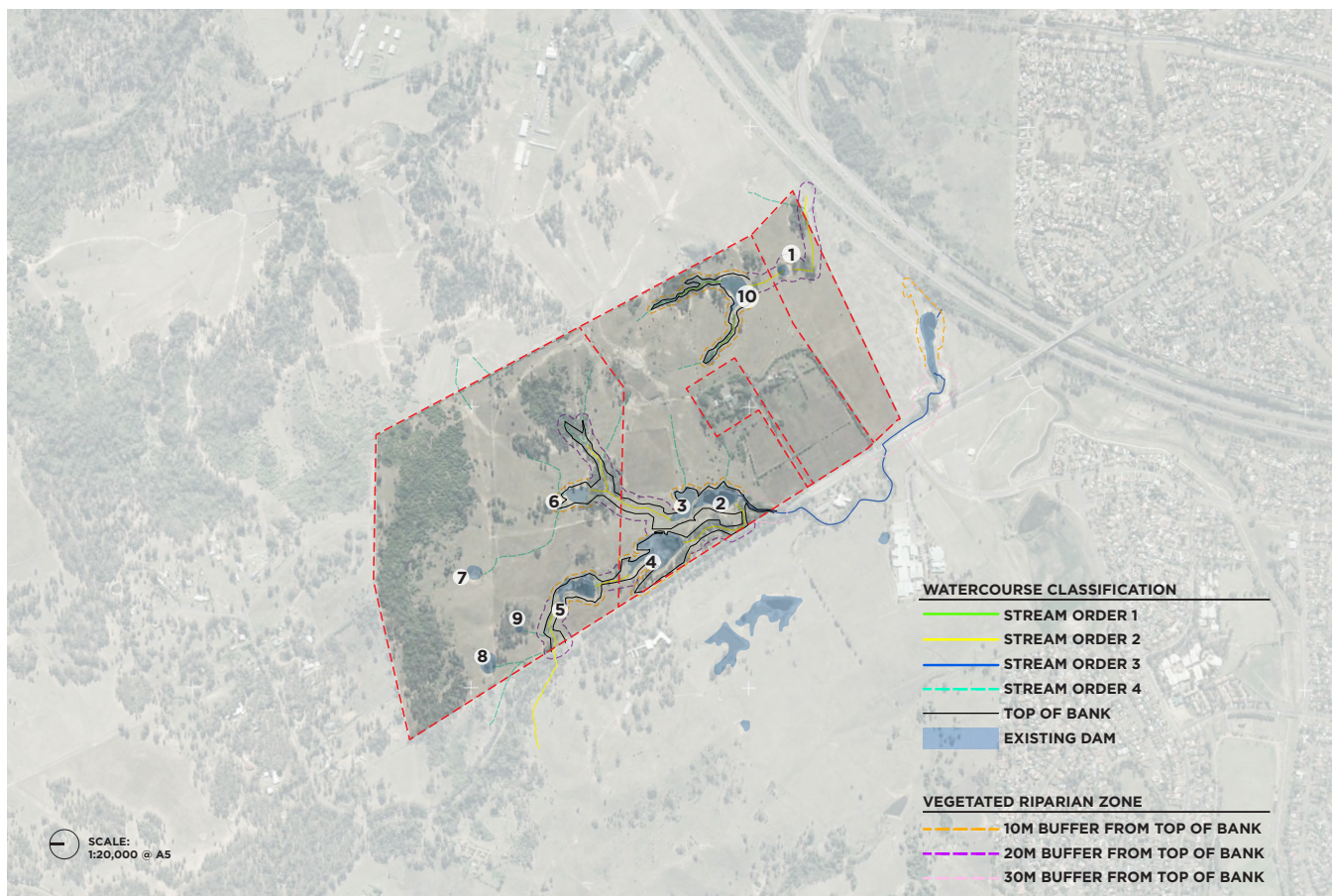


Figure 13. Watercourse Map

Easements

A water easement, 20 feet wide, running east-west, currently cuts through the cemetery site. (Fig. 12)

The following restrictions apply over this easement:

- Roads can be built over the easement and other services can cross over subject to the approval of Sydney Water Authority.
- Buildings cannot be constructed and trees cannot be planted over the easement or mains,
- Burials will not be permitted in these areas.

Water Management

There are number of dams and lakes on the site (10No).

It is expected that the size of all ten lakes may vary depending on climatic conditions. Although the main lakes have great potential to enhance the proposal as ornamental water features, a Stormwater Management Study will ultimately determine their final size and capacity.

A full site and desktop assessment of the watercourses on site has been undertaken by Travers Consultants and is the subject of a separate report. This led to a validation of a number of watercourses and riparian zones, all of which will inform the concept.

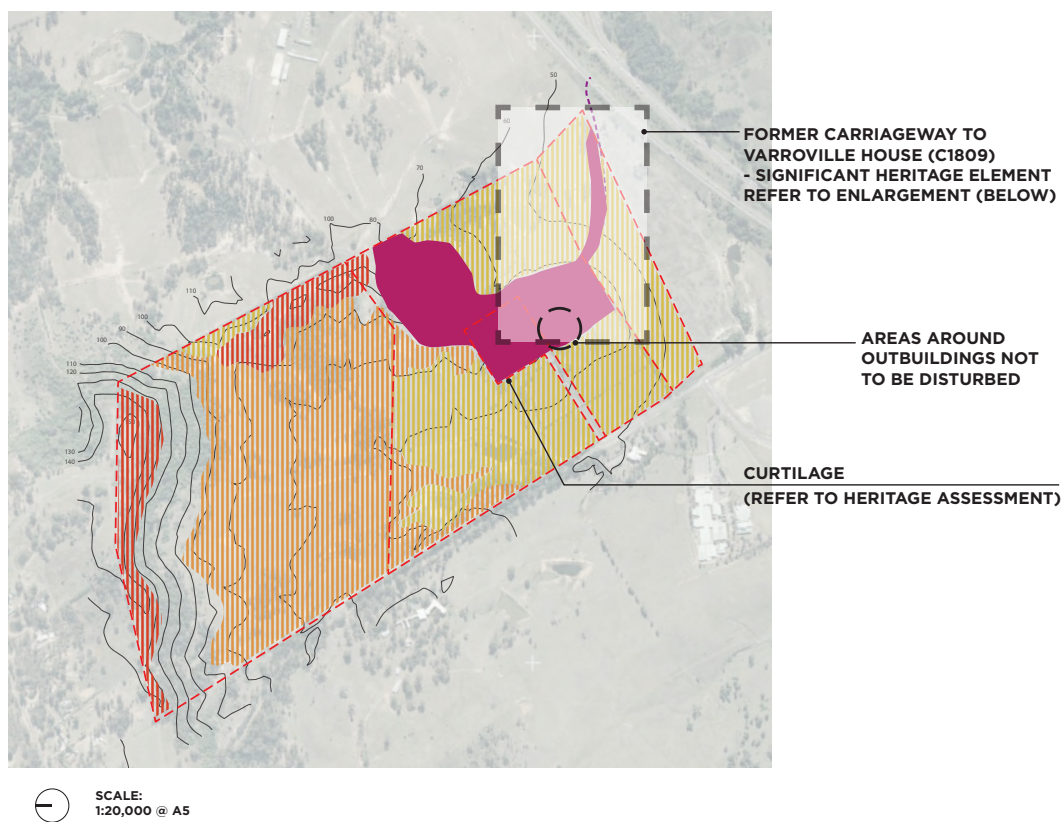


Figure 14. Heritage Analysis Map

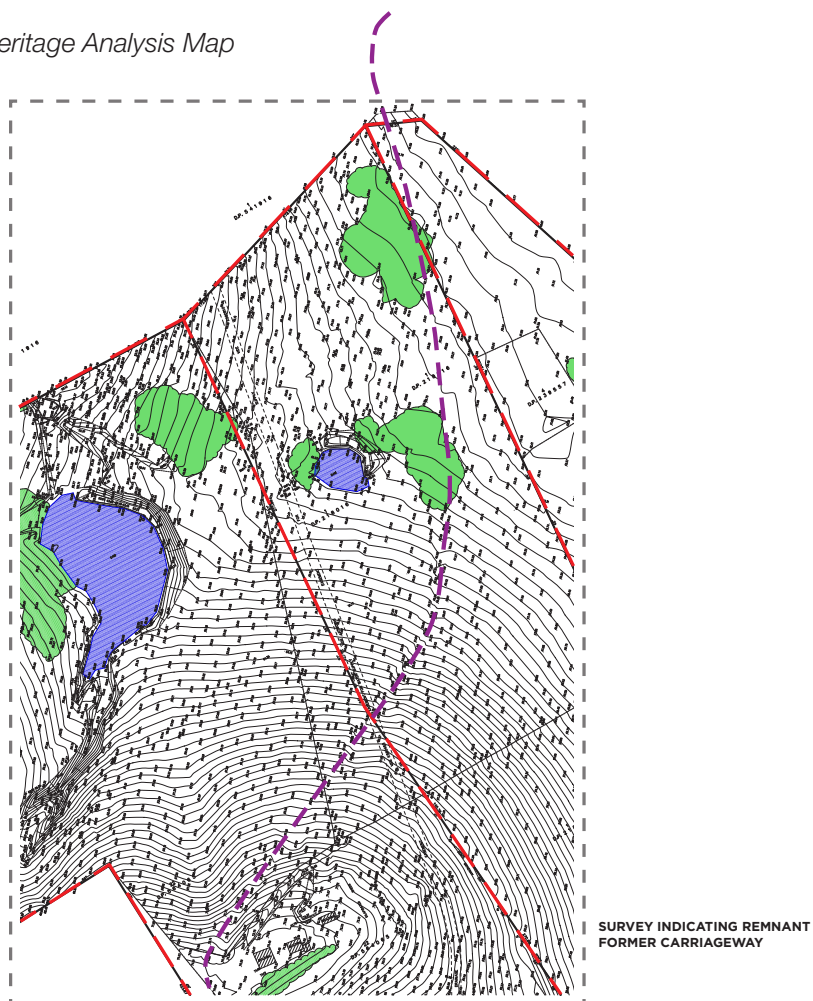


Figure 15. Original carriageway to Varroville House visible on survey.

Cultural Assessment

European

It is generally accepted that the South-West of Sydney (where this site is located) played an important role in NSW's pastoral history.

The first European Land owner was Dr Robert Townson who received the large landhold (which contained this property) as part of the 1809 colonial land grants. He established the property as pasturage and vineyards. His grapes were said to have been recognised as amongst the best in the colony.

Captain Charles Sturt was also amongst the owners (c1830s) and is thought to have altered watercourses of established dams.

Varroville House, a substantial single storey house (not part of the current property) was established in 1858-59 and is historically significant. Its original carriageway (c1809) is no longer used and no longer part of the Varroville House property. It can still be seen on the survey plan as a slight depression on the ground. (Fig. 15)

Several reports (refer to bibliography), either commissioned by the NSW Heritage Commission (2000), the Campbelltown City Council (2011) identify the area as having unique landscape qualities and possibly offering views similar to those enjoyed during colonial times.

With regards to its use, it is understood that the site has been cleared and used primarily for grazing over the time of European settlement.

Additional reports commissioned by CMCT (refer Bibliography) detail the history of the site and its archaeological features and research potential. These reports have informed the current Masterplan.

Aboriginal

A preliminary Aboriginal Heritage Report and Archaeological survey have been undertaken by Artefact to accompany the Planning Proposal to assess the potential of Aboriginal heritage items on the site. These reports build on an earlier Aboriginal Heritage Assessment undertaken in 2008 in relation to an alternative development scheme on the site.

From a desktop evaluation, the report demonstrates that the study area contains a number of Aboriginal sites. Importantly the Report confirms that there are no areas within the property where development is precluded on the ground of Aboriginal heritage sensitivity. It also states that further assessment will be required in accordance with Office of Environment and Heritage guidelines to inform future detailed design development and layout on the site, which will ultimately seek to preserve and enhance any identified Aboriginal Items.

The most likely occurrence or artefacts and signs of aboriginal activity is thought to be on the ridges and around larger watercourses. (Refer Fig. 14).

According to the Scenic Hills Association's website, the Scenic Hill area was known as Yandel'ora (Land of Peace between People), a meeting place for South-East Australia where disputes, laws and marriages were discussed and peacefully resolved.

A number of reports by Artefact (see Bibliography) record detailed findings for the site. These reports have informed the current Masterplan.

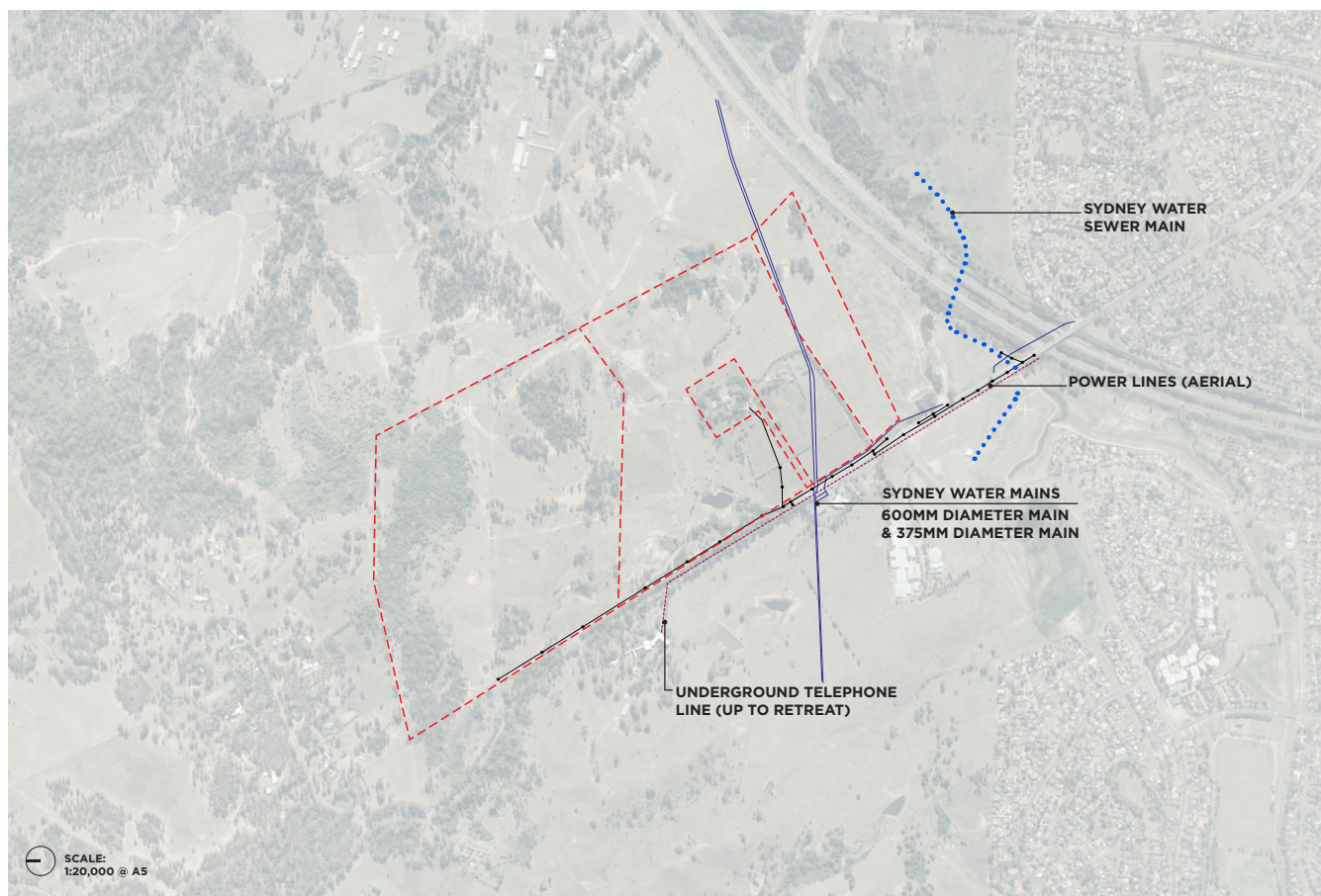


Figure 16. Services Map



Figure 17. Usable Land Map

Existing Services

Aerial power lines run inside the site alongside the western boundary, exiting the property near the Varroville House entry gate. At that point a branch, running eastward in a diagonal across the property, supplies Varroville house.

Sydney water mains traverse the property south of Varroville House, in an easement which is host to a 600mm and 375mm diameter mains.

An underground telephone line runs alongside St Andrews Road as far as the Mount Carmel Retreat Centre.

Sewer is also expected to run alongside St Andrews Road. (Refer Fig. 16)

Site Opportunities

An overlap of all constraints affecting the site (as discussed above) has helped define a much clearer image of where opportunities may lie (Fig. 17). It is the intention of the development to impose the least amount of impact on the site by:

- Working with the existing topography, with minimal cut and fill for roads and burial areas.
- Working around the existing vegetation and limiting impacts on both the Moist Shale Woodland and Cumberland Plain Woodland.
- Compensating for any impacts on the significant vegetation by planting the riparian zones with the same plant community.
- Working with the water available on site, to manage the water bodies in a sustainable manner.
- Minimise the impact on any Aboriginal Artefacts and European Heritage relics.
- Enhance archaeological items with sensitive concepts and interpretation.

All constraints become opportunities in some ways:

- Take advantage of the landform to create welcoming spaces and interesting views.
- Retain and enhance all existing significant vegetation to create future sanctuaries
- Reserve the flatter unencumbered areas for lawn burials
- Utilise steeper areas for terraced burials and memorial gardens
- Take advantage of the forested areas for family and natural burial as well as memorialisation as they have limited impact.
- Enhance the lakes and riparian zones for passive recreation, contemplation and some memorialisation .
- Locate buildings and other built forms such as roads and carparks in a manner sensitive to the Planning Controls in place, in particular the “ Escarpment Preservation“ and “Scenic/Central Hills“ Planning Controls.



Figure 18. Recreation areas



Figure 19. Concealed burials in landscaped "rooms"

OVERALL PHILOSOPHY

Aims

- Minimise the impact on existing environment, especially the topography and the Cumberland Plains Woodland, to protect them for future generations.
- Protect the Colonial landscape (Scenic Hills) qualities.
- Provide an environmentally sensitive development.
- Achieve Best Management Practices in all aspects of cemetery provision, including Stormwater Management and Ecologically Sustainable Developments.
- Provide an exceptional open space for the community, for perpetuity.
- Provide a quality burial ground for the whole community.

Vision

The vision for the site is to provide:

- Much needed burial space for the area, with burial choice, at affordable prices, in varied settings, for a multi-denominational community.
- A distinctive landscaped cemetery, the best of its kind, the pride of the industry.
- A Sculpture Park, offering opportunities for local and Australian artists.
- A respectful space and scenic route, open to all.
- A cemetery which respects and safe keeps the important colonial and non-colonial landscape.
- An arboretum for future preservation and education of generations to come.
- A concept which respects the Land, its landform and ecology by carefully laying roads and any built environment and limiting their “footprint” (for example minimum width, using boardwalks, avoiding existing significant trees...).
- Concealed, private and low laying burial spaces to minimise visual impact.

Responding to the Central Hills Requirements

The masterplan responds to the objectives of the Planning Controls for the Central Hills (LEP District 8) by:

- Setting the land aside for perpetuity as an open space which retains and enhances the scenic environment. The proposal retains the existing landform and protected vegetation on it, whilst committing to improve the quality of both the Moist Shale Woodland and the Cumberland Plain Woodland over time.
- Retaining the land as a green belt, providing contrast to the urban areas of Campbelltown, Camden and Liverpool by providing a development which offers 93.9% green/vegetated areas and only 6.1% built/hard surfaces, most of which are access roads.
- Retaining views of and access to a green space by offering 37hectares (33% of the site) of unimpeded passive recreation space which will benefit the community in perpetuity.
- Maintaining the land for the purpose of providing recreation that require large areas of open space by offering a “park-like” site with 99.8% open space in perpetuity, ie only 0.2% for buildings on the site.
- Limiting development and retaining the native vegetation within the Escarpment Protection Area, by offering, within the protection zone, a proposal which removes only 2.6% of the native vegetation.
- Providing enhanced additional vegetation solutions, within the Escarpment Protection area. Any significant vegetation removal (however limited) has been assessed by our ecologist and will be replaced in the riparian zones, to ensure that, overall, there is no loss of vegetation to the community.
- Avoiding building within the Escarpment Protection Zone where possible (Only one cluster of 6 small building and one concealed depot and a small welcome kiosk proposed in this zone), all of which represent only 0.2% of the total surface area.
- Limiting the height of all buildings (whether in the Escarpment Protection zone or not) by setting them into the hillside, using non-reflective and transparent materials and keeping them within the prescribed 7.6m maximum height above ground level..



Figure 20. Green Corridor Map

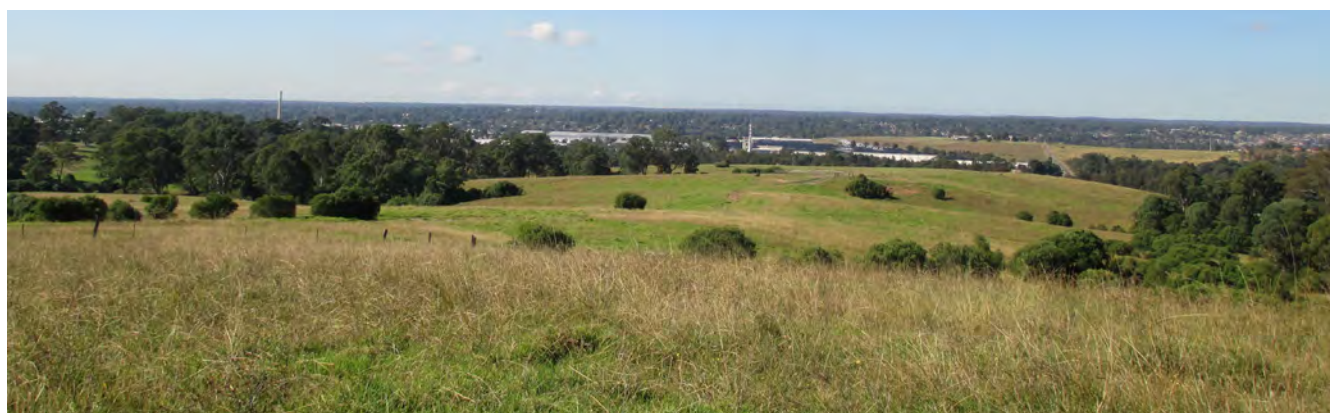


Figure 21.



Figure 22.

- Ensuring stability of all slopes steeper than 1:6 on site. It should be noted that the site has many areas steeper than 1:6, all of which occur naturally on site. There are no plans to significantly disturb the existing slopes nor provide extensive cut and fill on site.

As the proposal is mostly landscaped, the majority of the development will be invisible from the Campbelltown urban areas. The main building facilities have been located at the northern end on a sloping part of the site in a way that they will largely blend into the existing landscape. As demonstrated by the sketch computer modelling, the roads and buildings are unlikely to be visible from the Hume Highway and the urban areas of Campbelltown beyond. The visual impact of the landscape and buildings on the Scenic Hills is therefore deemed to be nil.

Responding to the Environmental Protection (Scenic) Zone

The masterplan responds to the objectives of the Planning Controls for the Scenic Hills (Zone 7 (d1)) by:

- Developing a landscaped cemetery which retains the character and look of the existing landscape hence protecting the scenic environment.
- Providing a large park-like cemetery which ensures that the land provides a visual contract to the urban areas of Campbelltown, Camden and Liverpool.
- Providing a space where the inhabitants of Campbelltown will continue to have views of and access to the rural and pastoral environment.
- Providing a large space (113hectares) able to offer passive recreational activities.



Figure 23.



Figure 24.



Figure 25.



Figure 26.

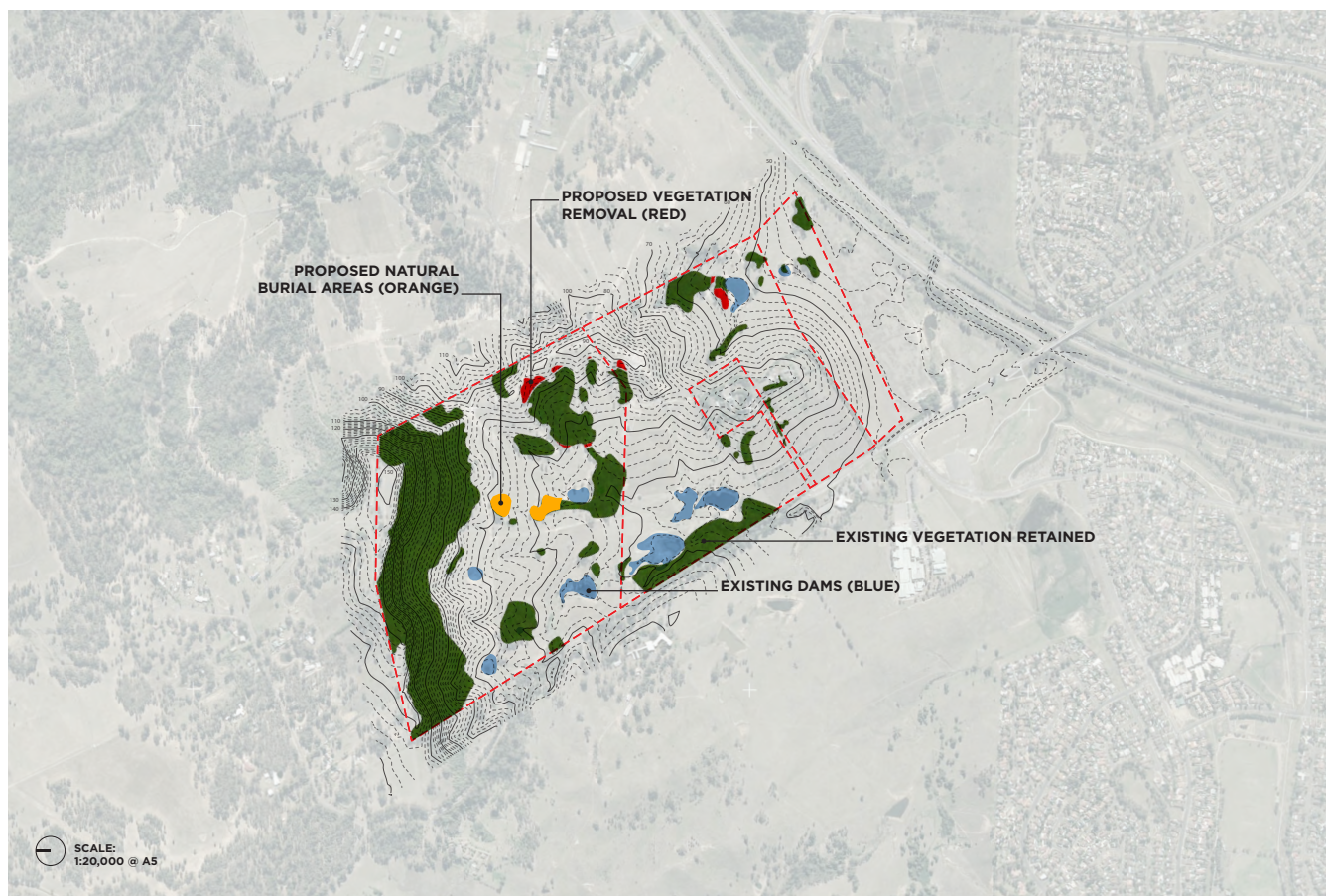


Figure 27. Map of Retained Vegetation

Responding to the Escarpment Preservation Area

The masterplan responds to the objectives of the Planning Controls for the Escarpment Preservation Area (Clause 13) by:

- Complying with the requirements for dark-coloured, low-reflective materials which blend into the landscape
- By limiting the number of buildings on site (7 No)
- Sitting the building into the hill side and away from ridges and prominent external views.
- By actively removing weedy trees (such as African Olives which are invading the site)
- By limiting the removal of existing native vegetation (0.6hectares or 2.6% of existing protected vegetation):
- By carefully laying out roads to avoid individual significant trees and areas of high and medium conservation value)
- By limiting regrading of the site.
- By replacing any removed significant native vegetation within the site.

Responding to Cumberland Plains Woodland (CPW) Requirements

The masterplan fully respects the existing threatened vegetation present on the site :

- Two small pockets of CPW of moderate quality (just over 0.5hectares) are proposed to be retained for Natural Woodland burials. These pockets of significant vegetation has had various degrees of damage of its lower strata due to grazing. It is intended that all significant trees will be retained and burial allowed to take place in staged circles around pre-selected. Revegetation will take place after each burial.

Paths will be:

- kept narrow (1.5m only),
- in the alignment of existing tracks wherever possible,
- in cut only (no fill) in steeper areas and
- avoid existing trees.
- All CPW vegetation is also proposed to be retained with limited disruption with the exception of 0.6hectares of CPW which is required for access roads. Every precaution has been taken to minimise impact onto the CPW where ever possible.

Roads will be:

- in the alignment of existing tracks wherever possible,
- avoid existing trees
- either 7 or 8m wide (as per bushfire requirements)
- It is proposed to enhance the quality of the CPW by conducting revegetation programs in the riparian zones as a replacement measure for any impacts on the CPW within the site.
- Pedestrian access within these zones will be limited to 1.5m wide paths and 2m wide boardwalks to limit any ground disturbance.
- It is also expected that interpretation material will be available along the walks for the education and enjoyment of the wider community.
- It is also proposed that trained horticultural personnel will be in charge of the revegetation programs to ensure the various woodlands are suitably established and maintained.

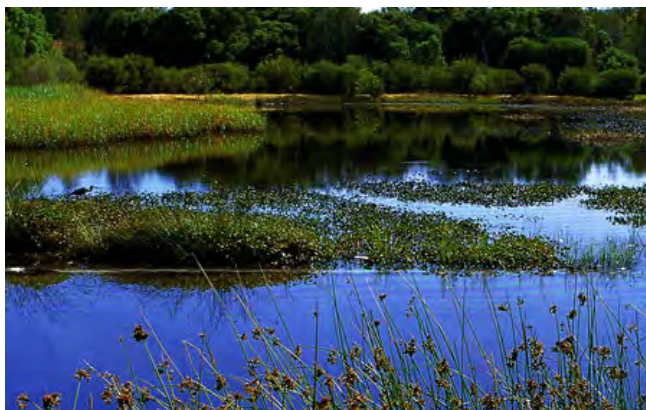


Figure 28. Wetland planting on lakes edge



Figure 29. Vegetated swales



Figure 30. Grassed rolling hills



Figure 31. Existing Varroville outbuildings



Figure 32. Groups of trees in paddocks



Figure 33. Existing Dam



Figure 34. Existing dam edge



Figure 35. Example of steep vineyards reminiscent of what may have occurred on site

Responding to Water Sensitive Urban Design (WSUD) Principles

The team is well conversant with WSUD Principles having been involved in Stormwater Management Strategies for the cemetery and other industries in the past 15 years.

The proposal intends to incorporate the following WSUD elements:

- lakes of sustainable size and depth, to avoid any potential for algae blooms
- vegetated swales for water treatment of road run-offs wherever possible (Fig. 29)
- bio-retention swales for water treatment and flood mitigation
- wetland planting on lakes edges (Fig. 28)
- safe access to water's edges
- passive irrigation wherever possible
- investigation of the potential for water retention within the site's lakes for irrigation purposes,
- minimisation of water usage in buildings with the use of water tanks.

Responding to the Heritage Requirements

The property is part of an area rich in pre and post European history (refer to Cultural Assessment Chapter, page 17). Pastoral activities were predominant in the area and have left a mark on the landscape character in the form of cleared grazing land amongst pockets of native vegetation, punctuated by colonial plantings of tall trees such as Bunya and Hoop pines, figs etc. (Fig. 30-32)

This character will be maintained and respected by continuing to provide grassed rolling hills, keeping the existing vegetation and enhancing the site with both native and colonial type planting.

We believe that the development of a park and arboretum-like facility on the site will have enormous community benefits and help secure its character for perpetuity.

Whilst Aboriginal activities on the site are not yet fully known (and will be subject of further investigations in due course), the European history has touched the site in a way that is well documented and will be retained, and where nonexistent, re-interpreted into the landscape:

- **Vineyards:** In the 1820's Dr Townson was famous for his wines. Further archaeological studies may determine the extent and layout of these lost features.
- **Original carriageway:** Thought to be dating from 1809, the original carriageway can still be seen as a depression in the paddocks on the survey plans. We propose to re-interpret its alignment with a row of tall trees, reminiscent of what would have flanked many driveways in those days. The cemetery road alignment will follow its footprint up to the riparian zone. From this point on, in the southern part of the site, a pedestrian path will re-interpret its alignment, as roads will not be permitted in the riparian zone.
- **Outbuildings:** Their contribution to Varroville House and the cultural landscape of the broader Varroville Estate is important. These buildings will be preserved and restored where possible.
- **Dams:** A number of dams exist on the site. We propose to retain these dams (Fig. 33&34). They will be enhanced with wetland vegetation to stabilise and repair the water's edges which have been damaged by stock over the years.

In the case of both pre and post European history, we intend to preserve, restore and return to the Community any items thought to be of significance. This will also be accompanied by Heritage Trails and interpretation aimed at educating the public to ensure that their value are fully appreciated and preserved for generations to come and in perpetuity.

The Landscape Masterplan responds to the findings of a number of archaeological reports and a Conservation Management Report for the Varroville Estate and will continue to be guided by further investigations in due course (refer to Bibliography).



Figure 36. Bunya pine



Figure 37. Hoop Pine



Figure 38.



Figure 39.



Figure 40. Vegetated swale



Figure 41. Bio-retention system

Materials

With robustness and aesthetics in mind, hard materials will be selected for their longevity, appeal and non-slip properties. Flexible pavements such as asphalt and stabilised granitic sand are preferred in pedestrian areas. Rigid pavements such as concrete are preferred where light to heavy vehicular access will occur. However, careful consideration will be given at detailing stage to ensure that paving is in keeping with the site's characteristics and visual appeal.

The plant material will primarily be selected for its ability to withstand the site and soil conditions. It is expected that local provenance stock will be used for all re-vegetation of existing significant vegetation communities. Some native more "showy" material will also be used within selected Memorial Gardens.

The site offers many opportunities for the planting of large feature trees, typical of the colonial landscape it has become a part of (Fig. 36-37). As an Arboretum-like park, the site will become a valuable repository of large and rare trees which will become a legacy for generations to come.

Treatment of elements

Roads and parking

The character of the Scenic Hills is very much that of rolling hills with randomly placed trees. Occasionally low wind breaks, remnant of pastoral activities, are visible. (Fig. 38-39)

In keeping with this character, it is proposed to line the main roads with avenue trees only where they will not impede medium to long views and mostly on one side of the road. For the same reasons, minor roads will not be formally planted.

The selection of tree species will reflect the scale of the road and its need for shading of cars. No footpaths are necessary alongside roads. Generally, parking is expected to take place over the roll-over kerbs and verge. Traffic being slow (max 20km/h) and limited means that roads can also be used by pedestrians.

It is necessary to recognise that the differentiation between primary and secondary roads is important for way-finding and, if this is not to be achieved with formal tree planting, it will be dealt with as follows:

- The main roads will have their own material (preferably concrete), whilst minor roads will be laid in a different material (asphalt)
- Each junction between primary and secondary will have a threshold treatment of natural stone set into the pavement, acting as a "rumble strip" and marking the transition between both.

In line with Stormwater Best Planning and Management Practices, the roads have been laid near existing gullies (outside of riparian zones) where the rain water will naturally collect, be treated, then channelled into vegetated swales that in turn are directed to wetlands and ponds for further treatment. (Fig. 40-41)

As a consequence and in accordance with the WSUD principles, the road profiles will be designed to ensure stormwater run-offs can be captured within localised grassed swales and bio-retention systems.



Figure 42. Function Room



Figure 43. Chapel

Buildings

A small number of buildings have been proposed, which would be constructed in stages to match the demand from the market. The key buildings that have been proposed include:

- A multipurpose Chapel which can function as three small Chapels if required is located on the hill side for better integration into the landscape, yet enjoys panoramic views of the site and its immediate surroundings,
- A mortuary facility for funeral preparation, conveniently located close to the main Chapel,
- A function room to welcome families after a funeral or service located close to the water, offers a quiet and contemplative setting,
- A cafe and flower shop for cemetery and casual visitors alike. It is the first building encountered when entering the site,
- An administration building for public enquires and administrative staff. It is flanking the main entrance road for ease of access,
- Ground staff facilities with material and equipment storage. Although it can be accessed from inside the site, it also has its own entry to St. Andrews Road for the occasional delivery. It is set away from public views,
- A gatehouse where funeral processions exchange paperwork and are led to the burial site. It is positioned before the first intersection and at an optimal distance from the front gate to ensure smooth traffic conditions within and outside the cemetery.

All buildings will be less than 7.6m in height from the natural ground level in keeping with the requirements of the Escarpment Preservation Area, which most of the cemetery site falls under.

Building materials will be dark and non-reflective in order that they blend into the landscape and are not noticeable from afar.

A detailed description of the buildings' designs and functionality is available in a separate report (refer Bibliography).

Bushfire Control

A bushfire protection assessment has been undertaken in support of an initial planning proposal that seeks to amend local planning controls under Campbelltown Local Environmental Plan – District 8 (Central Hills Lands) 2008. The proposal is to allow a cemetery as an additional permissible land use on Lot 1 DP 218016, Lot B DP 370979 & Lot 22 DP 564065, 166 - 176 St Andrew Road, Varroville.

This report identifies matters for consideration for the planning proposal and highlights the required bushfire protection measures, including asset protection zones (APZs), for future development under the Environmental Planning and Assessment Act 1979 (EP&A Act), Section 117 Direction 4.4 and in accordance Planning for Bush Fire Protection 2006 (PBP) and Community Resilience Practice Note 2/12 Planning Instruments and Policies.

The key principle for the proposal is to ensure that future development is capable of complying with PBP. Planning principles for the proposal include the provision of adequate access including perimeter roads, establishment of adequate APZs for future housing, specifying minimum lot depths to accommodate APZs and the introduction of controls which avoid placing inappropriate developments in hazardous areas and placement of combustible material in APZs.

Our assessment found that bushfire can potentially affect future buildings on site from the forest and woodland vegetation proposed be retained and rehabilitated on site, resulting in possible ember attack, radiant heat and potentially flame attack.

The bushfire risk to the planning proposal however can be mitigated if appropriate bushfire protection measures (including APZs) are put in place and managed in perpetuity.

The assessment has concluded that future development on site will provide compliance with the planning principles



Figure 44. Lawn burial



Figure 45. Urns in ground



Figure 46. Monuments concealed from roads



Figure 47. Ash scattering lawn



Figure 48. Memorialised trees



Figure 49. Natural Burial (UK example)



Figure 50. Concept of burial "rooms"

Burials areas

The burial types on offer will directly respond to the site. Some will be integrated in the landform, some will follow the “green” or “natural” burial concept:

- **Lawn burials:** These typically consist of lawn areas with plaques on a concealed concrete base. They will typically be on flatter land and close to the main roads. To generate some privacy for grieving families, larger grave expanses will be divided by planting to create “rooms”. (Fig. 44)
- **Monumental lawn burial:** These typically consist of flat or terraced lawn areas with concrete beams onto which a low headstone is placed. Height will be limited depending on its location on site, the ability to offer screening or minimise its visual impact from the roads. (Fig. 46)
- **Monumental graves:** for the denominations which require it, monuments will be allowed but limited in height to a maximum of 1.5m. These will be concealed in screened rooms and placed furthest away from the main roads.
- **Natural Woodland burials:** Consisting in single grave sites within an existing woodland area, these respond perfectly to the “green” burial options, where the land is allowed to regenerate between burial events. It uses no chemicals and natural materials only in the burial process. Plots are identified by metal rods and can be found using a metal detector. Memorialisation can only be made of wood or other biodegradable and renewable materials. (Fig. 49)
- **Family Estates Blocks:** Nested into the side of the hill, on unencumbered inward facing slopes only, these sculptural elements will already be built, ready for purchase. They consist of cubes with an expected capacity for 9 interments. Natural materials would be used to “blend” into the environment.

The integration of the burial areas will follow strict, self-imposed guidelines to ensure that the monuments are concealed as much as possible and the scenic aspect of the Memorial Park is not compromised

- The cemetery will be divided in landscapes “rooms” creating a sense of discovery through the park whilst providing some privacy for mourners. Within each “room”, small rooms may occur to assist with concealment of taller headstones.
- Main Roads will be flanked by areas of plaques in lawns.
- Plaques will be laid on concealed concrete beams which will offer the stability required for long-term maintenance whilst allowing grass to grow all around and in between plaques.
- Any headstones will be concealed behind strategically positioned planting, in separate “sub-rooms”, set back from the main roads. (Fig. 46, also refer to Appendices - Enlargement #3)
- The height of the planting will be directly proportioned to the height of the headstones.
- The majority of headstones will be lower than 1m high.
- No monument shall be higher than 1.5m.
- Vegetation selection will be tightly controlled.

Memorial gardens

As cremation is set to increase in the coming years, the site will offer a range of memorialisation concepts:

- **Urns in ground:** generally in garden setting, these will also be available in the woodland areas. In the woodland, similarly to Green burial, their position will be recorded using metal rods. Memorialisation will take place on a common monument. Elsewhere they are simple buried into a garden bed under a plaque or granite desk (Fig. 45). Memorialisation is also expected to occur within riparian zones, where a mix of grasses, sedges, flowering natives, and occasional exotic plants will be used.
- **Urns in Sculptures:** Sculptures within the park will have the potential to offer single interment or be sponsored or be purchased by a family or group. These may be on land or on the water. Memorialisation may occur in the sculpture, or around it.
- **Urns in Boardwalk:** an extensive network of boardwalk will take visitors to the various lakes. There will be opportunities for memorialisation in handrails, posts, retaining walls and hidden compartments under the decks.
- **Urns on water:** floating elements will accommodate a number of urns. These will be tied to the edges to allow retrieval.
- **Ash scattering:** On selected lawns and selected lakes, ash scattering will be permitted. Memorialisation will take place on an adjacent wall or monument. Because of the potential for pollution of watercourses, ash scattering will not be permitted on any of the lakes which sit within riparian courses. (Fig. 47)
- **Tree memorials:** all specimen trees on site will be offered for memorialisation. Some may be associated with sculptures (Fig. 48), while most will be randomly planted within the landscape.



Figure 51. Sculpture



Figure 52. Memorialised sculpture - Pinnaroo Cemetery



Figure 53. Traditional Lych Gate



Figure 54. Gateway



Figure 55. Swale



Figure 56. Footpath crossing swale

Sculpture park

Internationally, outdoor sculpture parks are well established and received concepts. They demonstrate people's interest in viewing art in exciting outdoor locations. It is hoped that the cemetery will become a repository of artwork from local Australian artists to be enjoyed by the community at large. It is expected that a dozen or more sculptures (including gateways) will reside in the cemetery.

These sculptures will be permanent (no temporary exhibitions). They are an integral part of this "cemetery park" design, positioned as key focal points on the site, leading the discovery process as one travels through the site, unravelling one view after the next. They are provided for the general amenity of the park. (Fig. 51-52)

Gateways

The significance of the Moist Shale Woodland and the Cumberland Plain Woodland in particular and their potential to become a very special place are not lost on the project team.

It is proposed to adorn entry point into the larger woodland area with a sculptural gateway feature (Fig. 54). Similarly to the traditional Lych Gates (Fig. 53), they will act as a symbol of the change between two areas:

- the main cemetery park more open and transient, and
- the unique sanctuary area, a place for contemplation and respectful activities.

Faunal corridor

Besides improving the Cumberland Plain Woodland present on the site, the proposal also provides links between its various isolated pockets and new riparian zones. In doing so, the green corridors will provide food and habitat which in turn will encourage native birds and animals onto the site.

Swales and Ponds

Although primarily designed for drainage and water treatment purposes, the planted swales and ponds will become a great source of habitat and public enjoyment. (Fig. 55-56)

These systems will be expertly designed to ensure that their function in the landscape and in the stormwater treatment is maintained and sustainable.

It is expected that the swale will only hold ephemeral pools at peak flow.

Access to the lakes' water's edge will be limited and controlled. Most edges will be shallow and densely planted with rushes and sedges to reduce accessibility to the permanent water bodies.

Weirs and crossings

Both roads and paths will occasionally straddle the swales and ponds with bridges. These elements will provide enhanced views onto the water features for the enjoyment of passers-by.

Pedestrians will be offered smaller crossings in the swales, using weirs and stepping-stones where water is shallow or non-existent. These features will add interest to the 'creek' setting without interference to the peak flow.



Figure 57. Amphitheatre

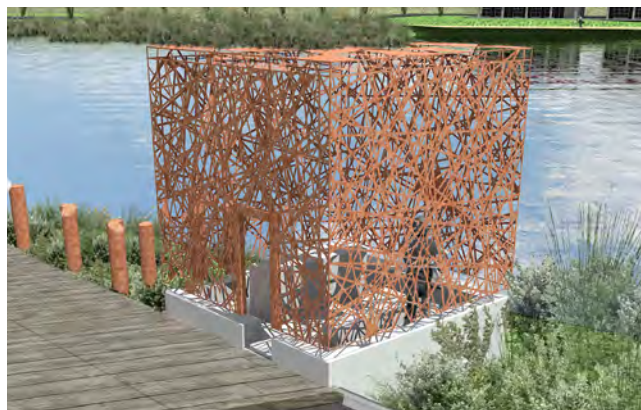
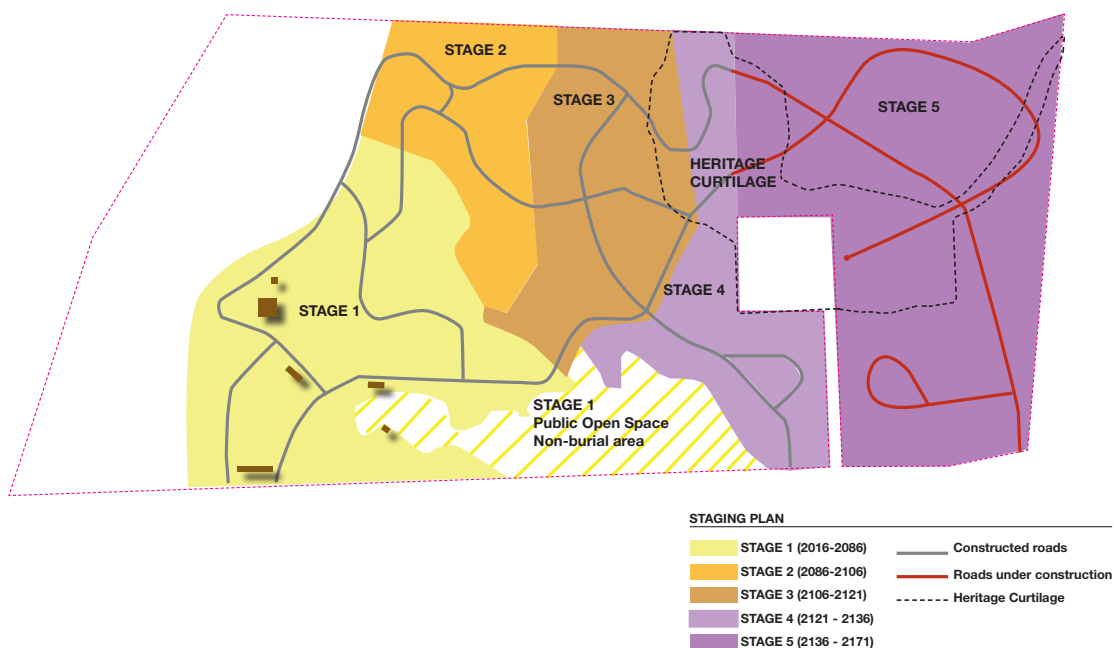


Figure 58. Bird Hide



Florence Jaquet <i>Landscape Architects</i>	MACARTHUR MEMORIAL PARK CONCEPT	CLIENT 	SCALE 1:5000 @ A3	ISSUE REPORT	DESCRIPTION PRESENTATION	DATE 25/06/15	REVISION 1	DESCRIPTION Building and Curtilage Line	DATE 30/05/15	TITLE Stage 5	DWG NO SK225	DATE SEPTEMBER 2015	DRAWN BY DN	SHEET NO 1/6	8 Sawmill Ave Cammerlang NSW 1505 9882 2442 ph: 0413 982 541
				ISSUE CONCEPT	DESCRIPTION CONCEPT	DATE 25/06/15	REVISION 1	DESCRIPTION Building and Curtilage Line	DATE 30/05/15	TITLE Stage 5	DWG NO SK225	DATE SEPTEMBER 2015	DRAWN BY DN	SHEET NO 1/6	8 Sawmill Ave Cammerlang NSW 1505 9882 2442 ph: 0413 982 541

Figure 59. Staging plan

Passive recreation

It is expected that the site will be used by the community at large not solely by cemetery visitors.

The careful design of a landscaped cemetery combined with a sculpture park will enable the visitor to experience a park setting, one where jogging and riding will be encouraged for the benefit of local residents.

With its network of 'creeks', ponds, wetlands, bird hide, amphitheatres, picnic areas and meandering paths, the open space will provide exceptional benefits to both wildlife and local residents.

Staging

The development of the cemetery will happen over many years. Typically each stage would represent 5-10 years of burial demand, slowly extending the footprint of the cemetery, one manageable "bite" at a time.

It is important that each stage of development caters for all forms of interment, to enable an uninterrupted supply.

The following is a suggested staging plan:

It is calculated solely on the basis of burial supply memorialisation is generally much easier to cater for, as it does not require much land.

It is also based on the following forecast:

80 burials in the first year, then increasing by 8% each year for the next 10 years, then 15% for the next 5 years, down again to 8% until it reaches an estimated demand of 500 burials per year in 20 years time.

For the following years an expected 1% increase is assumed. It is important to note at this point that the trend for burial rate is decreasing whilst the cremation rate is increasing as more people choose this form of interment and have been doing so for the last 20 years or more.

Based on these calculations and our analysis of usable land within the site, the site can potentially host 136,000 plots.

We therefore expect that the northern half of the site will reach capacity in approximately 105 years and full capacity in approximately 150 years.

This is also assuming one person per grave. Should the current trend of double interment continue, these numbers should be doubled (ie. Half capacity in 210 years and full capacity in 300 years).

STAGE 1:

- Multipurpose Chapel and Function building constructed.
- Ground staff facilities, administration office, mortuary, cafe and flower shop and gatehouse facility also constructed.
- Entrance and one loop road as shown (within the yellow area only)
- The rest of the site remains unchanged.
- This stage will provide burial for 60 years.
- One extra entry point

STAGE 2:

- One extra loop road
- The rest of the site remains unchanged.
- This stage will provide burial for 20 years.

STAGE 3:

- 1 Chapel + 1 Condolence room constructed.
- The rest of the site remains unchanged.
- This stage will provide burial for 25 years.

STAGE 4:

- Two extra loop roads
- The rest of the site remains unchanged.
- This stage will provide burial for 15 years.

STAGE 5:

- One extra entry point
- This stage will provide burial for 35 years.

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- Site Analysis_ Visual Analysis (Scenic Hills)
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LAND

LOT 22 IN DEPOSITED PLAN 564065
 AT MINTO
 LOCAL GOVERNMENT AREA CAMPBELLTOWN
 PARISH OF MINTO COUNTY OF CUMBERLAND
 TITLE DIAGRAM DP564065

FIRST SCHEDULE

CORNISH INVESTMENTS PTY LTD (T AD255180)

SECOND SCHEDULE (2 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 K580453 DRAINAGE EASEMENT AFFECTING THE PART OF THE LAND
 ABOVE DESCRIBED SHOWN AS SITE OF EASEMENT (6.095) WIDE
 IN DP564065

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Degotardi Smith & Partners

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SUB FOLIO

LAND

1/2 SHARE IN LOT 1 IN DEPOSITED PLAN 218016
 AT MINTO
 LOCAL GOVERNMENT AREA CAMPBELLTOWN
 PARISH OF MINTO COUNTY OF CUMBERLAND
 TITLE DIAGRAM DP218016

FIRST SCHEDULE

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- 2 K560810 EASEMENT FOR WATER SUPPLY AFFECTING THAT PART OF THE
 LAND WITHIN DESCRIBED SHOWN AS SITE OF PROPOSED
 EASEMENT 20FT WIDE IN DP222266

NOTATIONS

UNREGISTERED DEALINGS: NIL

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SUB FOLIO

LAND

1/2 SHARE IN LOT 1 IN DEPOSITED PLAN 218016
 AT MINTO
 LOCAL GOVERNMENT AREA CAMPBELLTOWN
 PARISH OF MINTO COUNTY OF CUMBERLAND
 TITLE DIAGRAM DP218016

FIRST SCHEDULE

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SECOND SCHEDULE (2 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 K560810 EASEMENT FOR WATER SUPPLY AFFECTING THAT PART OF THE
 LAND WITHIN DESCRIBED SHOWN AS SITE OF PROPOSED
 EASEMENT 20FT WIDE IN DP222266

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Degotardi Smith & Partners

PRINTED ON 27/6/2013

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Search

Page 1 of 2

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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: B/370979

SEARCH DATE	TIME	EDITION NO	DATE
27/6/2013	9:15 AM	2	9/7/2007

LAND

LOT B IN DEPOSITED PLAN 370979
 LOCAL GOVERNMENT AREA CAMPBELLTOWN
 PARISH OF MINTO COUNTY OF CUMBERLAND
 TITLE DIAGRAM DP370979

FIRST SCHEDULE

CORNISH INVESTMENTS PTY LTD (T AD255180)

SECOND SCHEDULE (1 NOTIFICATION)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Degotardi Smith & Partners

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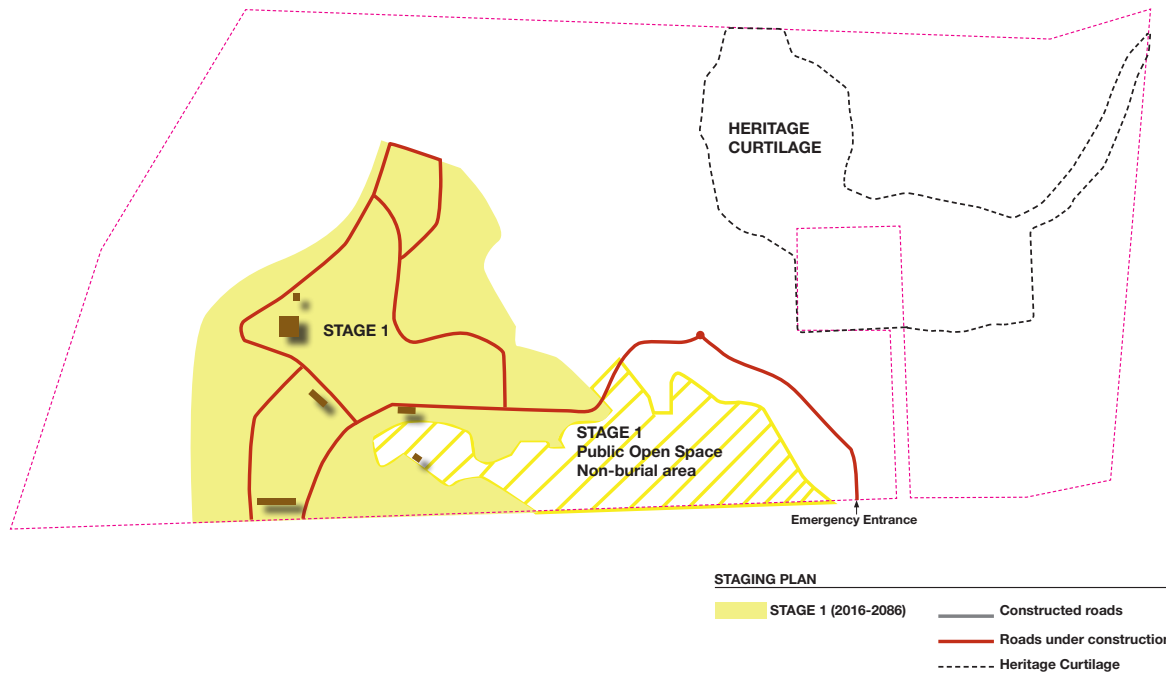
GlobalX Information Services Pty Ltd (ABN 99 073 436 414) an approved NSW Information Broker hereby certifies that the information contained

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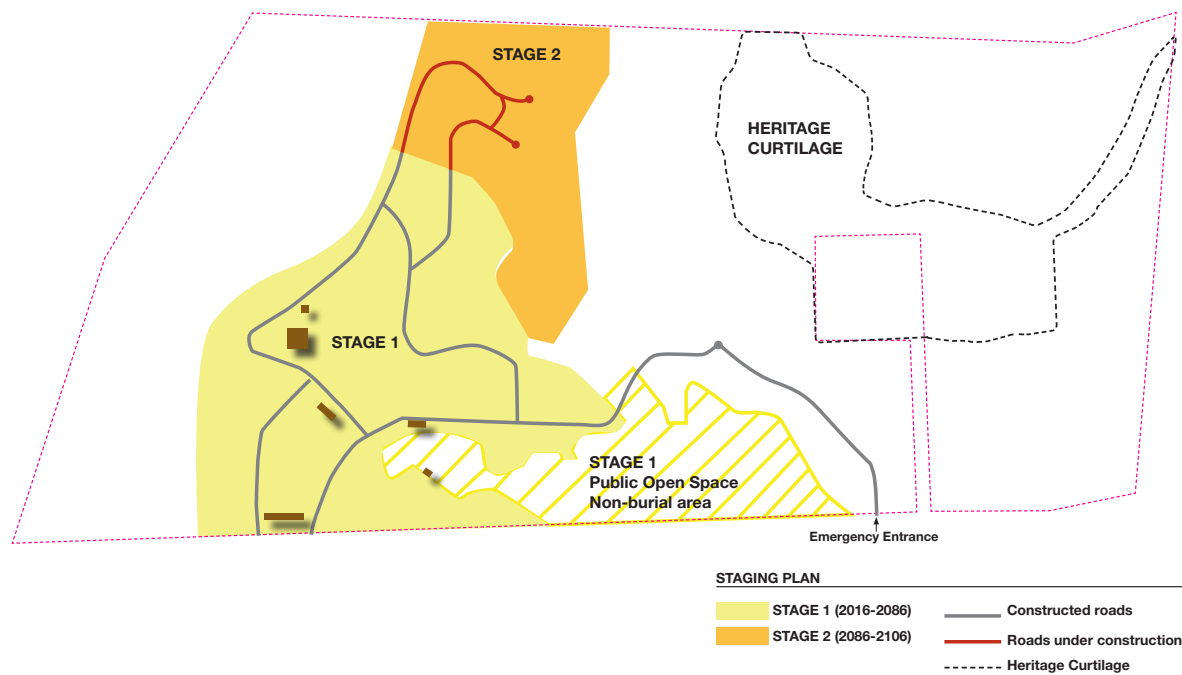
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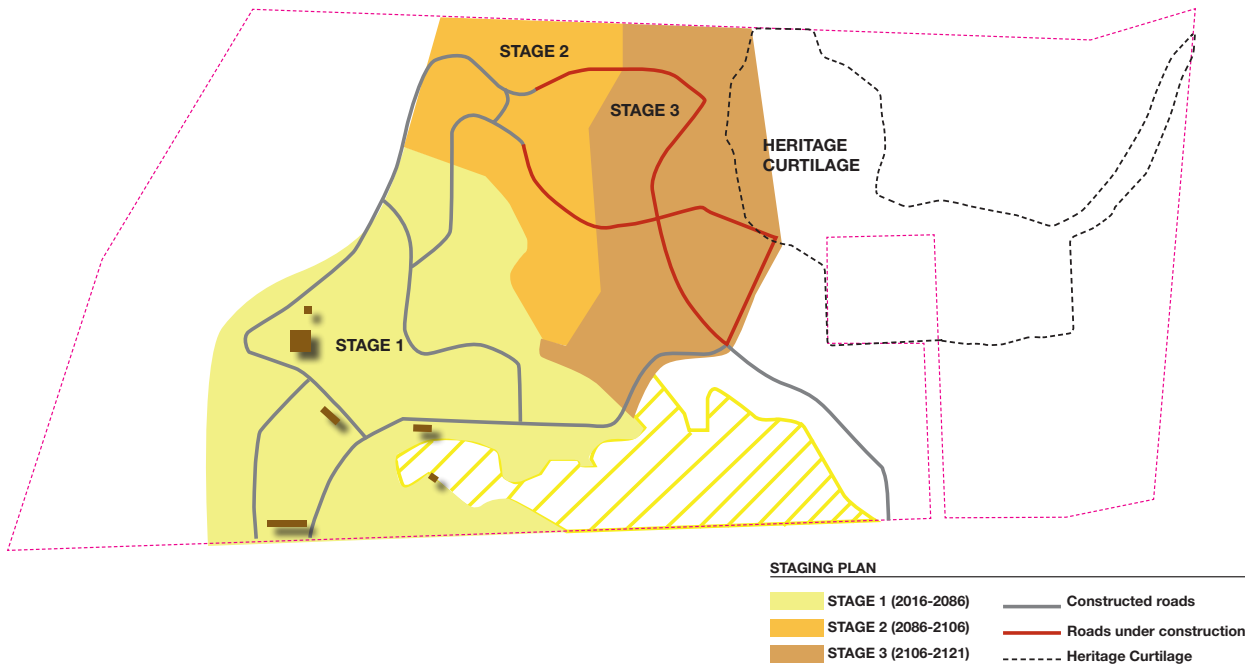
27/06/2013



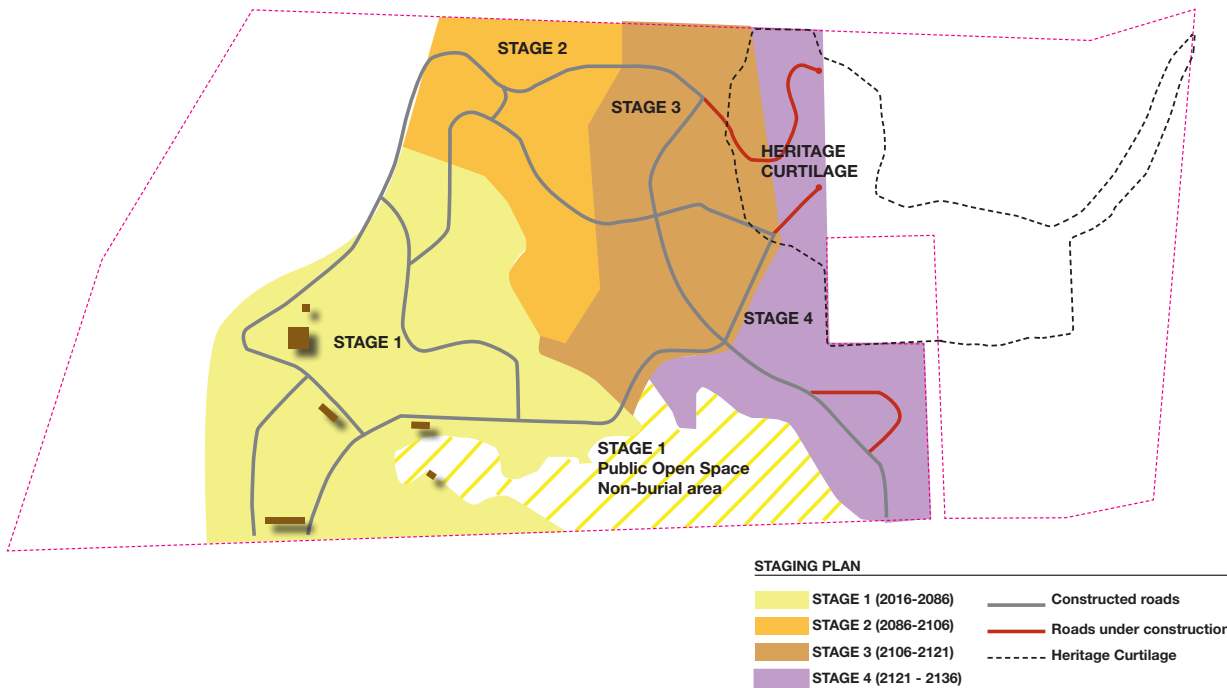
Florence Jaquet Landscape Architect	MACARTHUR MEMORIAL PARK CONCEPT	CLIENT:  Macarthur Memorial Park and Environment Trust	SCALE: 1:5000 @ A3	ISSUE REPORT	DESCRIPTION PRESENTATION	DATE 25/06/15	REVISION 1	DESCRIPTION Building and Curtilage Line Update	DATE 30/06/15	TITLE: Stage 1 DATE: SEPTEMBER 2015 PROJECT NO: 1210	DWG NO: SK22B DRAWN BY: DN SHEET NO: 1/6	8 Rowell Ave Cammerell 2124 T: 03 9852 2442 M: 0419 983 641



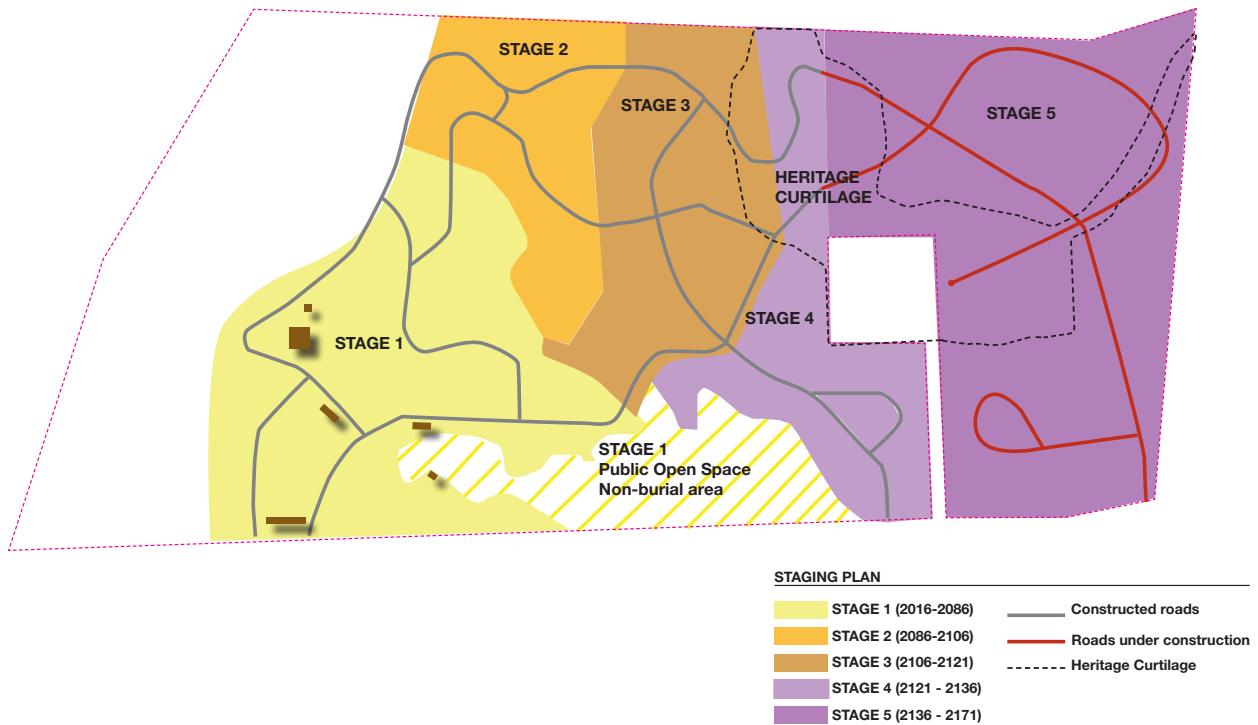
Florence Jaquet Landscape Architect	MACARTHUR MEMORIAL PARK CONCEPT	CLIENT:  Macarthur Memorial Park and Environment Trust	SCALE: 1:5000 @ A3	ISSUE REPORT	DESCRIPTION PRESENTATION	DATE 25/06/15	REVISION 1	DESCRIPTION Building and Curtilage Line Update	DATE 30/06/15	TITLE: Stage 2 DATE: SEPTEMBER 2015 PROJECT NO: 1210	DWG NO: SK22B DRAWN BY: DN SHEET NO: 1/6	8 Rowell Ave Cammerell 2124 T: 03 9852 2442 M: 0419 983 641



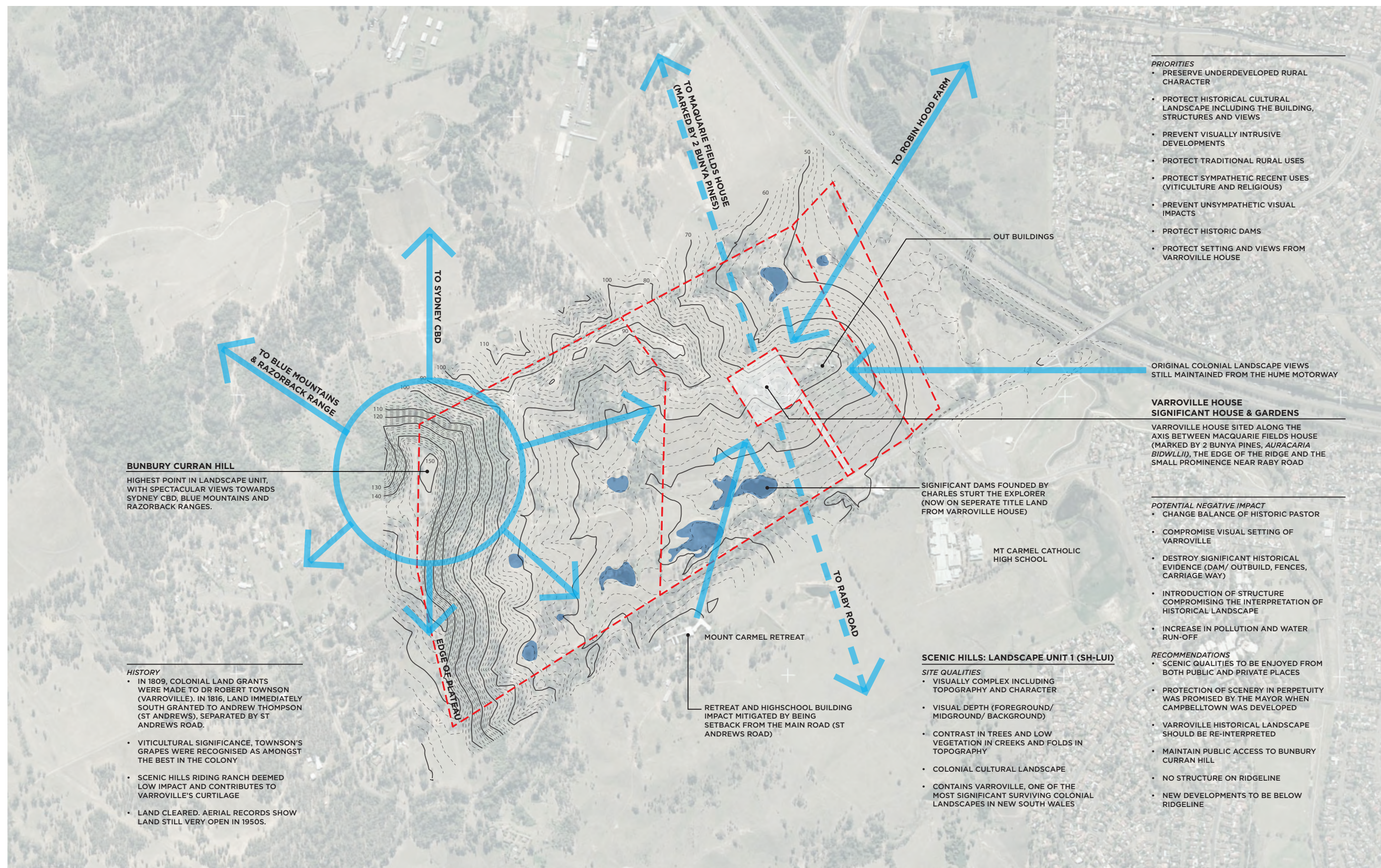
Florence Jaquet <i>Landscape Architect</i>	MACARTHUR MEMORIAL PARK CONCEPT	CLIENT: 	SCALE: 1:5000 @ A3	ISSUE	DESCRIPTION	DATE	REVISION	DESCRIPTION	DATE	TITLE: Stage 3 DATE: SEPTEMBER 2015 PROJECT NO: 1210	DWG NO: SK22B DRAWN BY: DN SHEET NO: 1/6	8 Roswell Ave Cammerwell NSW T: 03 9882 2442 PH: 0419 353 540
				REPORT	PRESENTATION	25/09/15	B	Building and Curtilage Line Update	30/09/15			



Florence Jaquet <i>Landscape Architect</i>	MACARTHUR MEMORIAL PARK CONCEPT	CLIENT: 	SCALE: 1:5000 @ A3	ISSUE	DESCRIPTION	DATE	REVISION	DESCRIPTION	DATE	TITLE: Stage 4 DATE: SEPTEMBER 2015 PROJECT NO: 1210	DWG NO: SK22B DRAWN BY: DN SHEET NO: 1/6	8 Roswell Ave Cammerwell NSW T: 03 9882 2442 PH: 0419 353 540
				REPORT	PRESENTATION	25/09/15	B	Building and Curtilage Line Update	30/09/15			



<i>Florence Jaquet</i> Landscape Architect	MACARTHUR MEMORIAL PARK CONCEPT	CLIENT: Macarthur Memorial Park Local Government Area	SCALE: 1:5000 @ A3	ISSUE REPORT	DESCRIPTION PRESENTATION	DATE 23/04/15	REVISION B	DESCRIPTION Planning and Curtilage Area Update	DATE 30/09/15	DRAWN BY DN	TITLE: Stage 5 DATE: SEPTEMBER 2015 PROJECT NO: 1250	DWG NO: SK22B DRAWN BY: DN SHEET NO: 1/5	8 Rowell Ave Canterbury 2194 P: 03 9882 2442 PH: 0410 953 631





BUNBURY CURRAN HILL
INFORMAL PATHS UP ESCARPMENT TO LOOKOUT
CONNECTION TO COUNCIL RESERVE

CHAPELS & CONDOLENCE ROOMS

OFFICE

ROADSIDE LOOKOUT

VARROVILLE
HOUSE

SERVICE ENTRANCE

VEHICLE SHELTER/
ADMINISTRATION FACILITIES

INFORMATION BUILDING

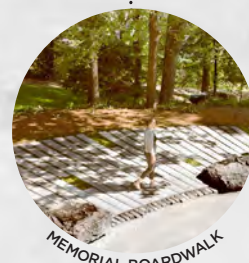
MACARTHUR MEMORIAL
PARK ENTRANCE

VIEWING PLATFORM

WATER EASEMENT

OUTBUILDINGS

PEDESTRIAN ENTRANCE
FROM ST ANDREWS ROAD



LEGEND



EXISTING TREES



PROPOSED TREES



FEATURE TREES
(HISTORICAL SIGNIFICANCE -
REFERENCING FORMER
CARRIAGEWAY)



TERRACED AREAS
(1:5-1:8 SLOPE)



LAWN BURIAL (<1:8 SLOPE)



RE-VEGETATED AREAS
(INCLUDING RIPARIAN ZONES)



EXISTING DAMS



EXISTING WATERCOURSES



PROPOSED ROADS



PROPOSED PATHS
(MEMORIALISED)



VEHICLE CROSSING OVER
WATERCOURSES



GATEWAY SCULPTURE



SCULPTURE LOCATION



Memorial paths along watercourses

ISSUE REPORT	DESCRIPTION PRESENTATION	DATE 23/08/13	REVISION	DESCRIPTION	DATE



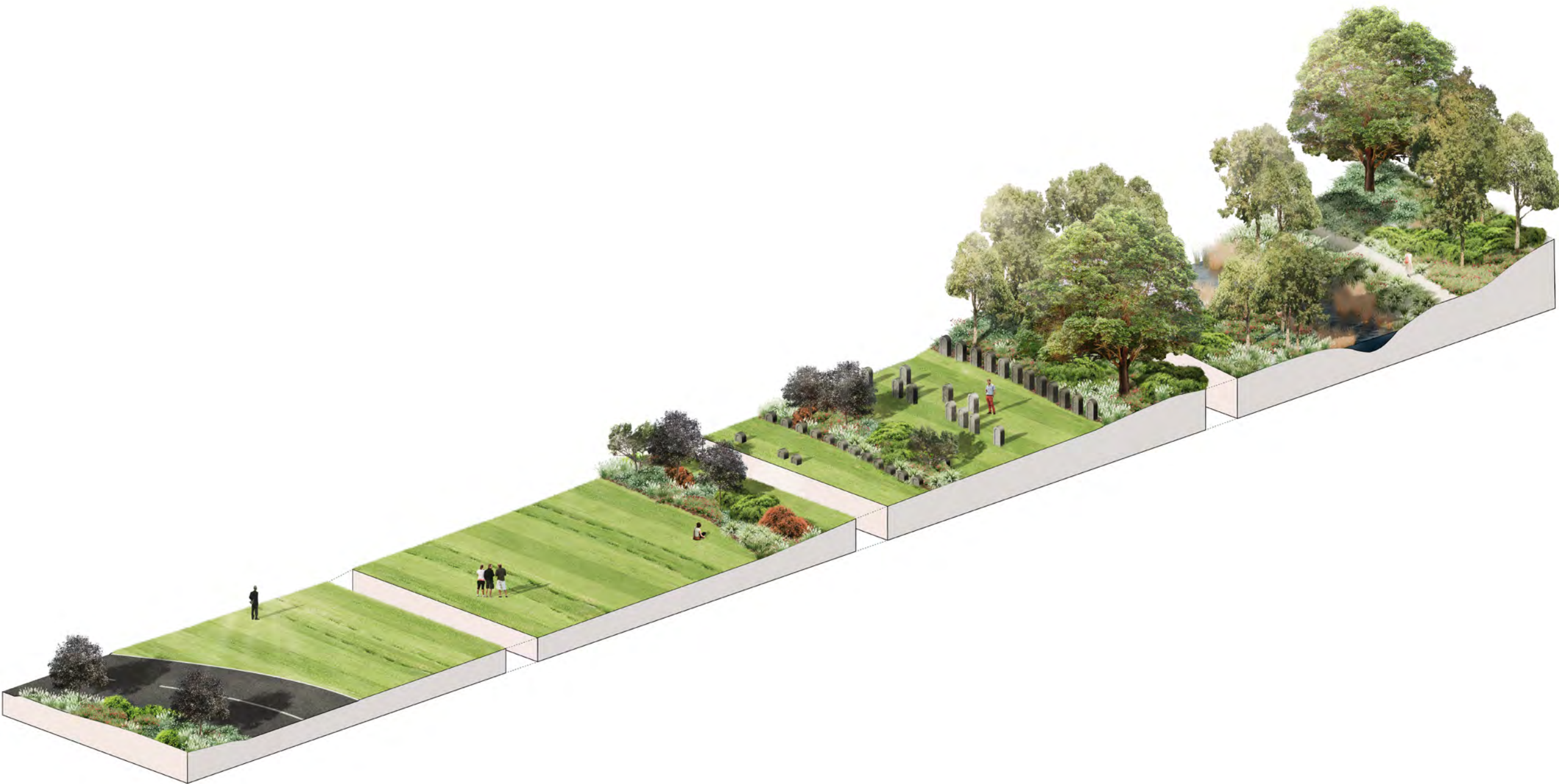
VIEW THROUGH MASS PLANTING
INTO MONUMENTAL AREA

Concealed Burial "Rooms"

ISSUE	DESCRIPTION	DATE	REVISION	DESCRIPTION	DATE
REPORT	PRESENTATION	23/08/13			



Public Open Space - Boardwalks



Indicative isometric of “concealed burial rooms” concept

ISSUE	DESCRIPTION	DATE	REVISION	DESCRIPTION	DATE
REPORT	PRESENTATION	23/08/13			



Forest Lawn, California



Mount Pleasant, Toronto



Pinnaroo Valley Memorial Park, WA



Pinnaroo Valley Memorial Park, WA



Pinnaroo Valley Memorial Park, WA



Pinnaroo Valley Memorial Park, WA



Pinnaroo Valley Memorial Park, WA



Schaffhausen Cemetery, Switzerland

Pinnaroo Valley, WA



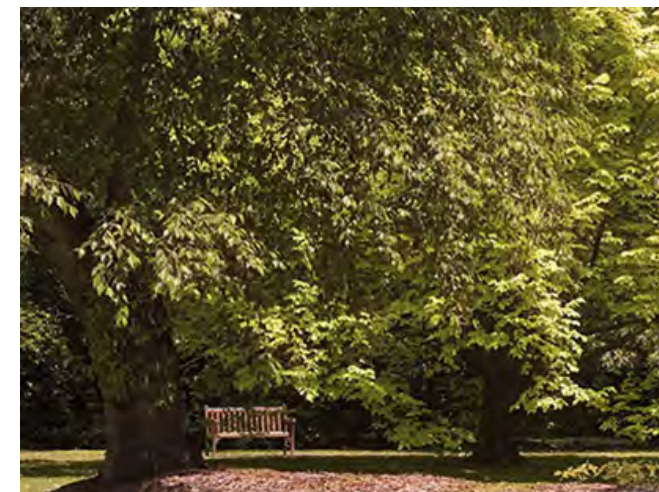
Pinnaroo Valley Memorial Park, WA



Room Concept, Switzerland



Springvale Botanical Cemetery, Vic



Springvale Botanical Cemetery, Vic

Similar Cemeteries