Florence Jaquet Landscape architect

Albion Park Cemetery Masterplan

September 2020



ACKNOWLEDGMENTS

We acknowledge and thank the following people who contributed to the formulation of this Masterplan and report.

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1	04/02/2020	FJ/XW	Draft for comments
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3	04/09/2020	FJ/XW	Draft for consultation

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EXECUTIVE SUMMARY

In November 2019, Florence Jaquet Landscape architect (FJLA) was commissioned to prepare a Masterplan for Albion Park Cemetery, which is under the responsibility of the Shellharbour City Council (SCC). Within the organisational structure, the cemetery is part of the Services Group (Parks, Workshop, Aquatic Recreation, Works Team).

The overall objective of the masterplanning exercise is to provide a Masterplan of the Albion Park Cemetery in order to:

- improve amenity for members of the public and,
- incorporate a number of recommendations from the "Strategic Plan for Albion Park and Shellharbour Cemeteries" report by Changing Places, dated in August 2019, a document aimed at improving the operation and profitability of the Council cemeteries. In particular:
 - Identify and incorporate a location for possible natural burials at both sites (Changing Places Recommendation 23 & CPR 24).
 - [°] Identify and develop way finding signage for both sites (CPR 21).
 - ° Identify and develop additional locations for cremated remains.
 - Inclusion of a garden bed area in close proximity to the Albion Park niche walls so to create in ground created remains internment opportunities (CPR 34).
 - ° Incorporate a small rose bed at Albion Park comprised of native, low maintenance rose species.
 - Include within the Albion Park Master Plan the replacement of the existing toilet Block (incorporate Option B -Edminston Jones Concept Design) (CPR 37).
 - Include within the Albion Park Master Plan the inclusion of a shade structure (Landmark Peninsula Series K305) (CPR 36).
 - ° Include within the Albion Park Master Plan the inclusion of a staff change room/lunch room (CPR 37).
 - ° Inclusion of 45 degree parking within the Albion Park Master Plan.
 - ° Inclusion of garden edging within the Albion Park Master Plan.
 - [°] Incorporate an open space are which can be utilised by the community and creatively incorporates cremated remains interment positions along Albion Parks eastern cemetery boundary (CPR 35).
 - [°] Inclusion of material storage bin x 3 within the Albion Park Master Plan.
 - [°] Develop a Map which is suitable for public use (CPR 21).

A thorough analysis of the site has found that a number of opportunities exist for the cemetery:

- Protection of the original road layout.
- Improved drainage and flood protection.
- Rainwater harvesting and re-use.
- Improved entrance, carparking and amenities for visitors.
- Improved staff amenities and secure compound.
- Improved efficiencies in burial land usage.
- Introduction of Natural burial and children sections (subject to demand).
- Develop the remainder of the cemetery as a non-denominational cemetery.
- Introduce an area with swales, bridges, meandering paths and cremated remains positions in a landscape setting.
- Develop the area of suspected unmarked graves as a memorial garden and public open space, marking suspected graves with a tree where possible.
- Create a Heritage walk in the vicinity of the J. Fraser monument.
- Improved signage and wayfinding.

The masterplan offers solutions to most of the issues raised and ensure the site remains a viable and respectful proposal for the interments of the town for the next 102 years.

Armed with this plan Council next challenge will be to raise the revenue of the cemetery and allocate the funds required for the implementation of the prioritised recommendations within this report

SUMMARY OF RECOMMENDATIONS:

Recommendation One

Implement the recommendations from Stormwater Management Plan (SWMP), including introduction of swales and a stormwater harvesting scheme for irrigation.

Recommendation Two

Enhance site with additional planting along boundaries and internal landscaped respite areas (swale and shelter area).

Recommendation Three

Provide larger shade trees throughout the site for visitors' comfort.

Recommendation Four

Provide irrigation to all memorialised garden beds as a minimum.

Recommendation Five

Enhance main entrance with planting and new signage.

Recommendation Six

Realign fence onto title boundary to maximise use of burial land.

Recommendation Seven

Formalise parking within the publicly accessible part of the site. Consider additional parking in neighbouring reserves which would provide common/joint benefits.

Recommendation Eight

Replace "post and rail" vehicular barriers with bollards (timber or durable recycled plastic)

Recommendation Nine

Upgrade external path to bus stop.

Recommendation Ten

Provide DDA complaint paths to the bus stop, toilets, staff amenities, shelter, niche walls and the public open space linking the two existing reserves to the north of the site.

Recommendation Eleven

Replace existing toilets with nominated toilet block.

Recommendation Twelve

Provide a large shed on site for community use, shelter from rain and sun, in accordance with Council's chosen design.

Recommendation Thirteen

Provide maintenance compound with shed, storage bays and lunchroom for staff. When the cemetery is full (Long term) remove and return space to burial purposes.

Recommendation Fourteen

Extent pipe and taps to areas of new development and near new facilities (Shelter/staff amenities).

Recommendation Fifteen

Implement the recommendations from Signage Strategy, including entrance signs, maps, section naming and interpretation signage.

Recommendation Sixteen

Introduce Sculptures from local artists to enhance landscape setting. Provide cremation interments around it to offset cost of artwork.

Recommendation Seventeen

Provide non-denominational burial zones based on interment types (Monumental, Lawn plaques, lawn headstones).

Recommendation Eighteen

Develop new memorial gardens for cremated remains with contemporary design, more choice and more visual appeal.

Recommendation Nineteen

Provide new lawn beam sections and new monumental sections in areas highlighted as "spare land", the proportion of each one defined by demand.

Recommendation Twenty

Allocate an area for Natural Burial and beautify to attract patronage. Test market first and revert to other grave types if uptake fails.

Recommendation Twenty-One

Consider a single size for all rights of burial on site, preferably no more than 1.2m wide and 2.4m long.

Recommendation Twenty-Two

Consider double rows in all Monumental sections with a 1.2m path access between rows. Purchase appropriate equipment if current one does not fit.

Recommendation Twenty-Three

Consider a children section, subject to market demand.

A detailed Masterplan, enlargements of key areas and costings are available in the Appendices.

INTRODUCTION

BACKGROUND

In November 2019, Florence Jaquet Landscape architect (FJLA) was commissioned to prepare a Masterplan for Albion Park Cemetery, which is under the responsibility of the Shellharbour City Council (SCC). Within the organisational structure, the cemetery is part of the Services Group (Parks, Workshop, Aquatic Recreation, Works Team).

The land onto which the cemetery currently sits was set aside for cemetery use in 1895, dedicated in 1900 and the first interment (John Fraser) took place in 1901.

Albion Park cemetery provides for most new burials in the municipality and has done so for a number of years as a result of Shellharbour Cemetery being deemed full. There are limited cremated remains options (niche walls only) and these are stark and uninviting and have not sold.

OBJECTIVES

The overall objective is to provide a Master Plan of the Albion Park Cemetery in order to:

- improve amenity for members of the public and,
- incorporate a number of recommendations from the "Strategic Plan for Albion Park and Shellharbour Cemeteries" report by Changing Places, dated in August 2019, a document aimed at improving the operation and profitability of the Council cemeteries. In particular:
 - ° Identify and incorporate a location for possible natural burials at both sites (CPR 23 & CPR 24)
 - [°] Identify and develop way finding signage for both sites (CPR 21)
 - ° Identify and develop additional locations for cremated remains
 - Inclusion of a garden bed area in close proximity to the Albion Park niche walls so to create in ground created remains internment opportunities (CPR 34)
 - ° Incorporate a small rose bed at Albion Park comprised of native, low maintenance rose species
 - Include within the Albion Park Master Plan the replacement of the existing toilet Block (incorporate Option B -Edminston Jones Concept Design) (CPR 37)
 - Include within the Albion Park Master Plan the inclusion of a shade structure (Landmark Peninsula Series K305) (CPR 36).
 - ° Include within the Albion Park Master Plan the inclusion of a staff change room/lunch room (CPR 37).
 - ° Inclusion of 45-degree parking within the Albion Park Master Plan.
 - ° Inclusion of garden edging within the Albion Park Master Plan.
 - Incorporate an open space are which can be utilised by the community and creatively incorporates cremated remains interment positions along Albion Parks eastern cemetery boundary (CPR 35)
 - ° Inclusion of material storage bin x 3 within the Albion Park Master Plan.
 - ° Develop a Map which is suitable for public use (CPR 21)

The Masterplan will inform the development of the site over the next many decades. It also needs to recognise current trends in terms of burials and associated bereavement services. Over time, these trends can change, so the masterplan may need to be reviewed at regular intervals.

The Masterplan should address the project purpose, objectives and key issues and include the following:

- Land use and layout
- Access
- Character and experience (including vegetation)
- Infrastructure and maintenance
- Revenue opportunities and yield.

SCOPE

The scope of this project is to

- Present the site analysis findings in written and graphic form.
- Incorporate ideas borne out of the consultation with key stakeholders and community.
- Produce a vision for the future of the cemetery that is underpinned by Shellharbour City Council's key core values listed below and realised through a series of projects.
 - ° Respect:
 - Embracing diversity and welcoming differences in backgrounds, experiences and viewpoints.
 - Supporting a safe and healthy work environment...
 - ° Sustainability:
 - Reflecting community needs in the delivered services.
 - Making decisions that will positively impact the City, and its environment for generations.
 - Adopting a long-term view to deliver enduring benefits.
 - Encouraging creativity, innovation and continuous improvement to achieve a lasting impact.
- Provide costings, staging and priorities for implementation.

METHODOLOGY

Briefing:

An onsite briefing session took place on 27th November 2019 with Council officers from the Services Group together with the current cemetery grounds staff.

Relevant documents:

A number of documents were made available to assist in defining the current issues facing the cemetery

- Base plan –with Lidar contours only and aerial photography.
- Services plans
- "Strategic Plan for Albion Park and Shellharbour Cemeteries" report by Changing Places, dated August 2019
- Flooding maps.
- Flora and Fauna background info
- Cultural Heritage background info (AHIMS Web search)
- "Albion Park Rail Cemetery: Historical Heritage Assessment and Statement of Heritage Impact" report by Biosis, dated October 2018
- "Albion Park Cemetery, Ground Penetrating Radar Investigations" by Virtus Heritage:
 - Report #1 September 2018
 - ° Report #2 Addendum December 2018
- Current concept plans
- Preferred Toilet and shelter plans and elevations.

Stakeholder consultation:

A number of interested parties were contacted for their input into the consultation process:

INTERNAL PARTICIPANTS

Bailey Angeloski Daniel Brilsky Joanne Crandell Rosemary Crowhurst Michael Dee Ben Rawson

SHELLHARBOUR CITY COUNCIL

Trainee Civil Engineer Manager Projects Cemetery Services Officer Group Manager Services Civil Coordinator Construction and Maintenance Manager

EXTERNAL PARTICIPANTS

Council engaged in consultation with the community from 18th July to the 4th September 2019, using "Lets Chat Shellharbour" survey, on Council website.

The feedback received can be summarised as follows:

- Majority of responses were from visitors to the cemetery.
- They attended either for a funeral service, as part of their regular visit to a loved one, as for a memorial service.
- Most attended monthly or occasionally.
- The most important improvements were perceived to be (in order of importance):
 - Landscaping and seating
 - ° Shelter
 - ° Interment options
 - ° Public toilet upgrade
- The shelter would preferably be an large, picnic, open structure.
- They expressed preferences for a range of burial and cremation products.

Further consultation is planned, with the exhibition of the preliminary Masterplan (herein) for public comments.

Analysis

A visual analysis was carried out by FJLA, cemetery specialist and landscape architects, the findings of which are detailed within the next chapter.

Draft Masterplan: Based on the findings of the various analysis and the issues highlighted during the stakeholder's consultation process, a list of issues was formulated. This provides a preliminary proposals with realistic proposals attempting to resolve wide-ranging issues under a limited budget.

Final Draft and Final Masterplan: Upon approval of the Draft Masterplan, the Final Draft Masterplan was drawn and is to be read in conjunction with this report. The plan is to be exhibited for 4 weeks in September 2020 and public comments sought. Upon receipt of feedback, both documents will be modified and re-submitted for approval and endorsement by the SCC.

The report is meant as a management tool to guide implementation as well as staff inductions.

The Final Masterplan provides a preliminary "yield" calculation for the site to estimate its remaining "life expectancy".

Implementation: The main recommendations of the masterplan were formulated as a series of capital works tasks and prioritised into three main categories:

- Stage 1: -Immediate needs/First priorities
- Stage 2: -Medium term (should finances permit)
- Stage 3: -Long-term (should finances permit)

The capital works cost estimation has been prepared by a qualified Quantity Surveyor.

Albion Park Cemetery Masterplan



Fig 1. Context Map

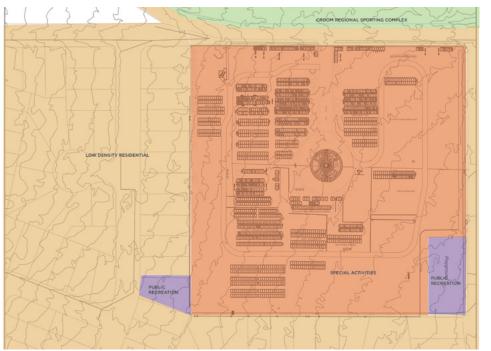


Fig 2. Zoning

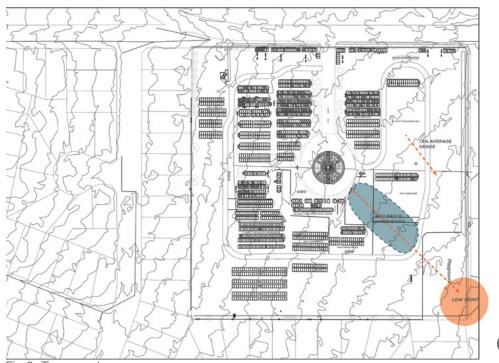


Fig 3. Topography

ANALYSIS

Analysing the site thematically helps deal with the site issues. It also helps generate key recommendations in a systematic and thorough fashion.

These key recommendations will then form the basis for the Masterplan concept design, which are detailed in the next Chapter "Proposals".

GENERAL

The site is approximately 3.94 Hectares (190m long x 190m wide approximately) and located at 61 Croome Rd, Albion Park Rail. It is zoned SP1-"Special Activities" under the Shellharbour Local Environmental Plan 2013. (Fig. 1&2)

TOPOGRAPHY AND CHARACTER

The land generally slopes towards the playground reserve to the North. (Fig.3)

The site is away from the town centre. It is bordered by residential properties on 2 sides (NE & SE), Cedar Road to the North-West and Croome Rd to the South-West.

VIEWS

The site is very flat and does not offer significant views.

The recreation reserve (West of Croome Rd and across the road from the cemetery) provides a "borrowed" landscape as a backdrop to the entrance when one exits the site.

SOIL

According to grave digging staff, soils are generally suitable for interments. They consist of clayey soils with no shallow rock. However, large sections of the site, especially in the north, are suspected to be old burial grounds with no burial records.

Two Ground Penetrating Investigations were carried out (September and December 2018) which revealed the presence of random grave sites (Black dots) and potential graves (red dots).

These findings confirm that the area cannot be utilised for further bodily interments. However it may be suitable for shallow cremated remain interments which would not interfere with existing human remains.

FLOODING/ STORMWATER MANAGEMENT

The site is impacted by the 1:100-year flooding events. (Fig.4)

Due to the clayey nature of the soils and flat topography, staff reported that water can pond for a few hours after large rain events in particular between the internal roundabout and the playground. (Fig.3)

In accordance with Council guidelines (Shellharbour Drainage Design Handbook – SCC- 2019), the site development must ensure that a number of objectives are met, mostly relating to safety, protection of assets, reduction of pollutant loads and retention of natural stormwater run-offs where possible. It also requires that a Stormwater Management Plan (SWMP) be prepared for the site.

Our consultant team includes a specialist stormwater consultant who provided an assessment of site constraints and opportunities, which in turn, guided the Masterplan.

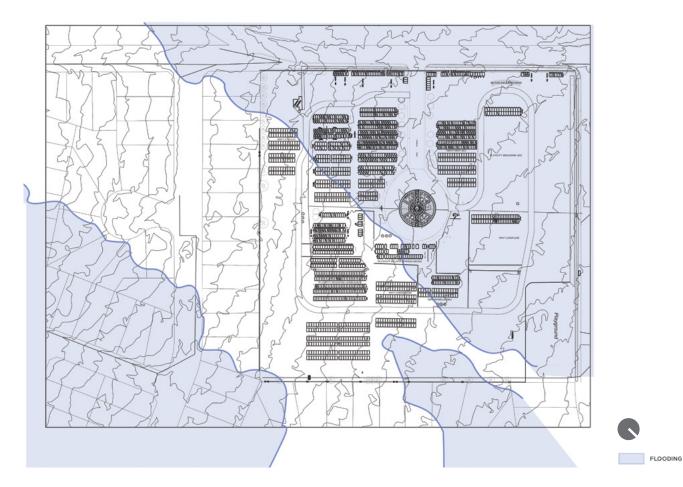


Fig 4. Flooding

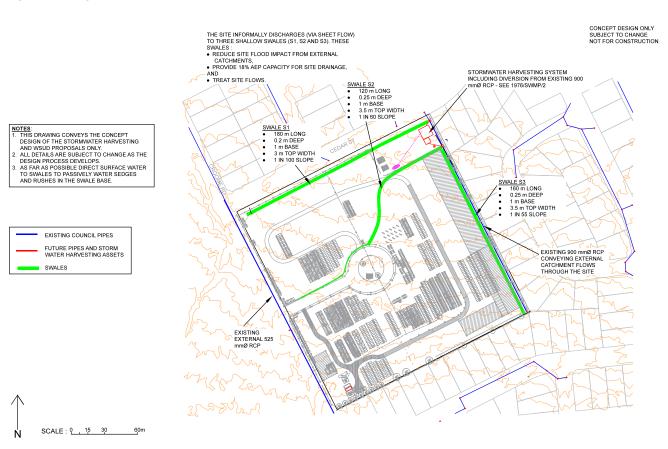


Fig 5. Stormwater Management Plan (Stormy Water Solutions) (Jan 2020)

Their separate report ("Albion Park Cemetery Stormwater Management Plan" by Stormy Water Solutions, dated January 2020) (Fig.5) which tables a number of recommendations, summarised below:

- Provide passive irrigation where possible.
- Provide shallow vegetated swales to capture site run-offs as a form of low-maintenance drainage infrastructure for the site and treat these run-offs as part of the WSUD requirements.
- Capture run-offs in tanks below proposed carpark for re-use.
 - ° Diversion of low flows into harvesting tank (100m3)
 - ° Litter trap
 - ° Sedimentation chamber (5m3)
 - ° Pump and treatment for irrigation
- Save 2,250m3 of potable water/year

Please refer to the above mentioned report for details.

Recommendation One

Implement the recommendations from Stormwater Management Plan (SWMP), including introduction of swales and a stormwater harvesting scheme for irrigation.

VEGETATION

The North-West boundary is planted with tall, well established native trees. These trees frame the cemetery but offer no visual buffer to the adjacent residential estate. Due to the high canopies, views in and out over the picket fence are not screened. (Fig.6)

The remaining boundaries are free of trees. Some may have some low planting in garden beds which struggles to get established.

As previously mentioned, the recreation reserve (West of Croome Rd and across the road from the cemetery) provides a "borrowed" landscape as a backdrop to the entrance when one exits the site.

There are no established treed avenue within the cemetery, whether along paths or roads.

A dozen established trees are scattered randomly around the site.

A large number of trees were removed 2014-15 to make way to internal "staff-only" roads.

It is important to note that the vegetation has the potential to enhance the site greatly. It will provide structure, shade, habitat and visual appeal in a site which is primarily used for reflexion and contemplation.

It is also important to acknowledge that the supply and maintenance of vegetation can be costly and that Council's funds are limited.

However, as noted in the cemetery's strategic report by Changing Places, the memorial gardens are a source of income and the return on investment will be commensurate with the effort put into their on-going presentation. Irrigation will be an integral part of on-going maintenance.

Recommendation Two

Enhance site with additional planting along boundaries and internal landscaped respite areas (swale and shelter area).



Fig 6. Views onto NW boundary-Cedar St



Fig 7. Front gate



Fig 8. Typical paling fences



Fig 9. Main internal road

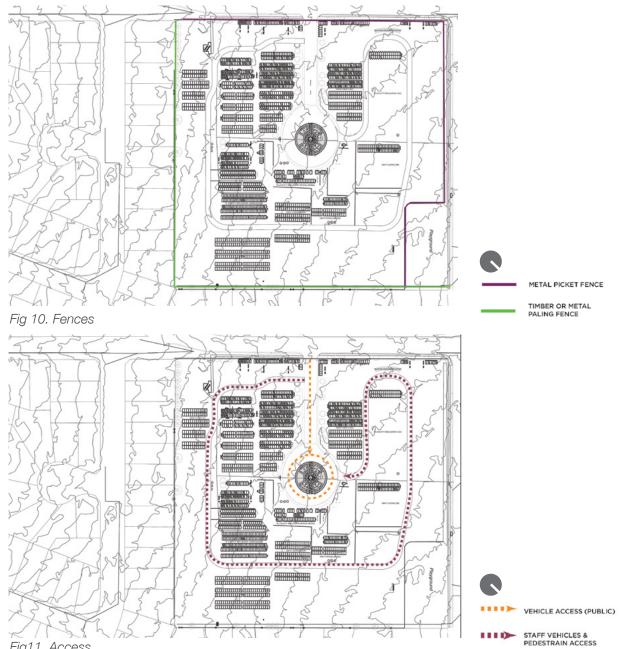


Fig11. Access

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Recommendation Three

Provide larger shade trees throughout the site for visitors' comfort.

Recommendation Four

Provide irrigation to all memorialised garden beds as a minimum.

FENCES AND GATES

There are two fencing types on site:

- The front (south) and north-west boundary fences consist of a 1.5m high, black metal picket fence. However the north-west boundary fence has not been built on the property boundary and sits within the cemetery site approximately 2 metres off the title boundary. (Fig.6)
- The other two boundaries, abutting residential properties, consist of timber or metal paling fences. (Fig.8)

There is only one (1) vehicular entrance which is also used by pedestrians. An other pedestrian entrance leads to the public toilet located within the cemetery site. They are locked at dusk.

The entry presentation is stark and uninviting and would benefit from additional planting and updated signage. (Fig.7)

Recommendation Five

Enhance main entrance with planting and new signage.

Recommendation Six

Realign fence onto title boundary to maximise use of burial land.

ACCESS AND ROADS

Vehicular

As previously mentioned, the site is accessible via one (1) main gated entry points along Croome Rd. It leads to a dead-end roundabout. (Fig.9) Parking tends to occur randomly on the grassed roundabout and alongside the wide access road. This informal and uncontrolled parking tends to occur mostly under the shade of existing trees. This may cause root damage and excessive compaction which shortens the life of these trees or creates management costs.

Staff indicated that parking on site is insufficient and that neighbouring residents resent parking spill into residential streets. During periods of high demand, visitors regularly park illegally on Croome Rd causing traffic hazards & safety issues.

The circular road layout at the end of a straight road ("lolly-pop-like") is remnant of the original layout and should be retained. Any formalised parking bays within the circle should not compromise the look of "grassed and green circle".

All publicly accessible roads within the site are lined with low post and rail fencing to stop car access onto burial zones. These are out-dated and could be upgraded to bollards when budget allows.

Within the burial zones, a 3.5m sealed loop road was constructed in 2017 for staff access only. Its access is restricted by boom gates. It is taking up valuable burial land. When land becomes scarce on site, it would be beneficial to remove it and return the land to burial purposes.





Fig 12. Existing bus stop

Fig 13. Existing toilet block



Fig 14. Existing barriers

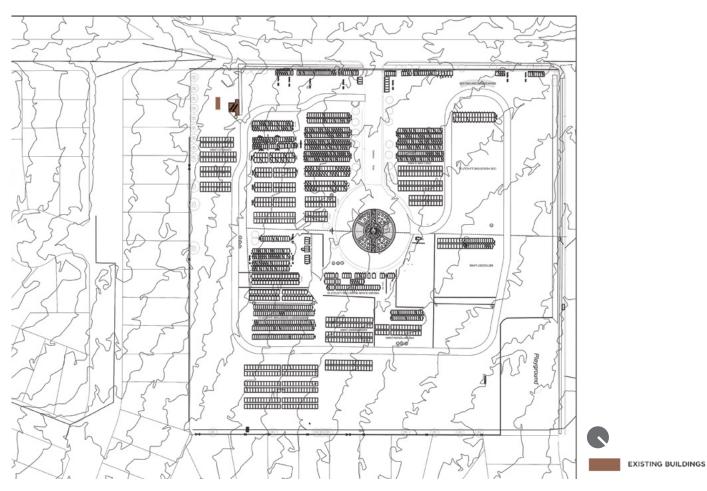


Fig 15. Buildings

Pedestrian

A bus stop is provided Croome Rd, close to the cemetery's main entrance. (Fig.12) However the path linking the two is in need of repair, too narrow and too close to the kerb.

Pedestrian access within the site radiates from the main access road and main internal carpark. This means that most areas of the cemetery can be accessed by foot within a 70m radius, which a manageable distance.

Pedestrian use the sealed access roads and grassed maintenance alleys between graves to access the graves, which is both common practice and acceptable.

As the site is flat, DDA compliance on all paths to key features and destinations will be easily achievable.

Recommendation Seven

Formalise parking within the publicly accessible part of the site. Consider additional parking in neighbouring reserves which would provide common/joint benefits.

Recommendation Eight

Replace "post and rail" vehicular barriers with bollards (timber or durable recycled plastic)

Recommendation Nine

Upgrade external path to bus stop.

Recommendation Ten

Provide DDA complaint paths to the bus stop, toilets, staff amenities, shelter, niche walls and the public open space linking the two existing reserves to the north of the site.

BUILDINGS

Toilets

There is one (1) brick toilet block on site which is earmarked for replacement. (Fig.13) Council has already chosen the replacement structures.(supplied with the consultancy brief)

Shelters

Some sections of the community (Maronites in particular) use the site for large functions and have expressed the need for a large shelter to host large mourning events. Others simply visit and rest and would benefit from such facility. Council has already chosen the structure.(supplied with the consultancy brief).

Staff facility/workshop

The staff shed is an old ship container sitting at the southern tip of the site, behind the toilets. It is unsightly and gives the impression that either the investment in a new staff facilities is not warranted or that staff is not valued.

As this site is in full operation and provides for the majority of burials in the municipality, it warrants the upgrade of the staff facility.

The consultancy brief requested the provision of a lunchroom, shed for equipment, staff parking and storage bays for soil/mulch/compost/gravel.

The staff facility area should be fenced off to protect these assets

Recommendation Eleven

Replace existing toilets with nominated toilet block.





Fig 17. Existing signage

Recommendation Twelve

Provide a large community shelter on site for community use, shelter from rain and sun, in accordance with Council's chosen design.

Recommendation Thirteen

Provide maintenance compound with shed, storage bays and lunchroom for staff. When the cemetery is full (Long term) remove and return space to burial purposes.

SERVICES

According to supplied DBYD records, the water main runs along Cedar Street and a stormwater pipe collecting from the back of the Oak Street properties runs along the south-east boundary. (Fig.16)

Water taps are currently provided throughout the site at 30 to 50 m intervals which is adequate. (Fig.16) Additional taps should be provided as the cemetery's operation area expands especially in the proposed landscaped areas associated with memorial gardens.

Should the cost of potable water for irrigation be considered inappropriate (due to sustainability issues or cost), the capture and use of surface run-offs from the large harvesting tank below the proposed carpark will reduce use of potable water for irrigation by 2,250m3 per year. (refer Chapter "Flood/Stormwater Management" page13)

Recommendation Fourteen

Extent pipe and taps to areas of new development and near new facilities (Shelter/staff amenities).

Recommendation (refer Recommendation One).

Consider harvesting run-offs and re-use for irrigation.

SIGNAGE

There is little to no directional signage.

There is no suitable site map/information board on site to assist visitors with wayfinding.

Signs denoting interment sections are typically white painted timber crosses. (Fig.17) They refer to religious denomination.

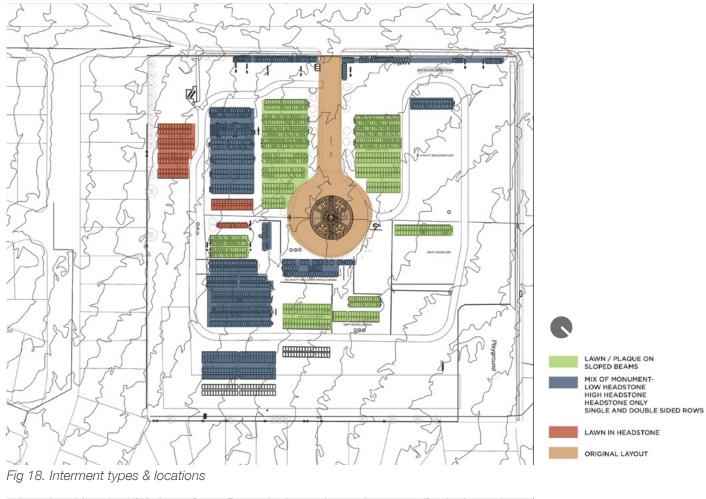
As per the recommendations of the "Strategic Plan for Albion Park and Shellharbour cemeteries" by Changing Places, dated August 2019, burial areas should be referred to in terms of their types not their religious affiliation (eg. Lawn grave section, monumental section, etc.). Better still, each burial zone could be given a name (botanical or fauna related) to simplify way-finding and signage.

A wheelchair accessible path would make an ideal location for any historical interpretation of the cemetery and its notable occupants, in particular the area of unmarked graves and the John Fraser monument.

Signage, although within the scope of this consultancy, is outside the scope of this report. It is the subject a separate report produced by our sub-consultants "Debra Page Design" (DPD). Please refer to their detailed proposals.

Recommendation Fifteen

Implement the recommendations from the Signage Strategy, including entrance signs, maps, section naming and interpretation signage.



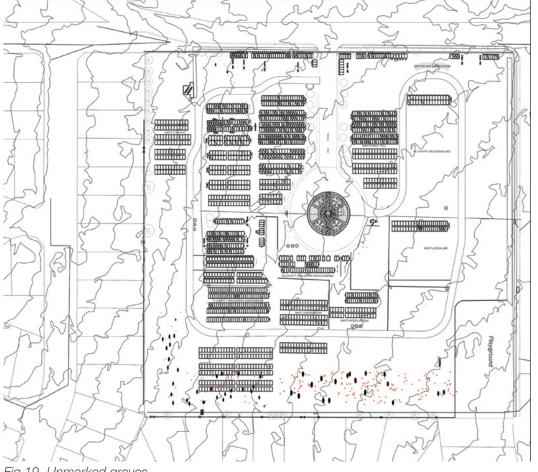




Fig 19. Unmarked graves

ARTWORK

The use of focal points is an essential tool in park landscape design and, in the case of this cemetery, will create some interesting views for visitors travelling through the site.

The use of sculptures from local artist should be encouraged within the new memorial gardens and Children's section. Such features should be memorialised (within the pedestal or around it) and positions sold as a premium product.

Recommendation Sixteen

Introduce Sculptures from local artists to enhance the landscape setting in line with Council's Art Strategy. Provide cremation interments around it to offset cost of artwork.

INTERMENT TYPES

Burial

The site offers a mix of monumental graves (Headstone and ledger), lawn graves with plaques on sloped concrete beams and lawn graves with headstones on flat concrete beams.

Burial zones were originally allocated by religious affiliation. This has resulted in Monumental, plaques and headstone burial products occurring in each religious zone, creating some visual clutter as well as operational and space inefficiencies.

Large sections of the site, especially in the north, are suspected to be old burial grounds with no burial records.

Two Ground Penetrating Investigations were carried out (September and December 2018) which revealed the presence of probable urmarked graves (Black dots) and potential graves (red dots).(Fig.19)

These findings confirm that the area cannot be utilised for further bodily interments. However it may be suitable for shallow cremated remain interments which would not interfere with existing human remains.

Cremated remains

A limited number of options are available on site :

- Niche walls
- In existing graves

The niche walls do not appeal to the community mainly due to their setting. They are isolated in the middle of an open lawn and poorly integrated in the landscape with no shade nor seating.

Their design and material are acceptable and comparable to other cemeteries.

Recommendation Seventeen

Provide non-denominational burial zones based on interment types (Monumental, Lawn plaques, lawn headstones).

Recommendation Eighteen

Develop new memorial gardens for cremated remains with contemporary design, more choice and more visual appeal.

Recommendation (refer Recommendation Four)

Provide irrigation to all ornamental garden beds, with priority given to those hosting interments.



Fig 20. Unmarked grave area (in background)



Fig 21. Area suitable for burial

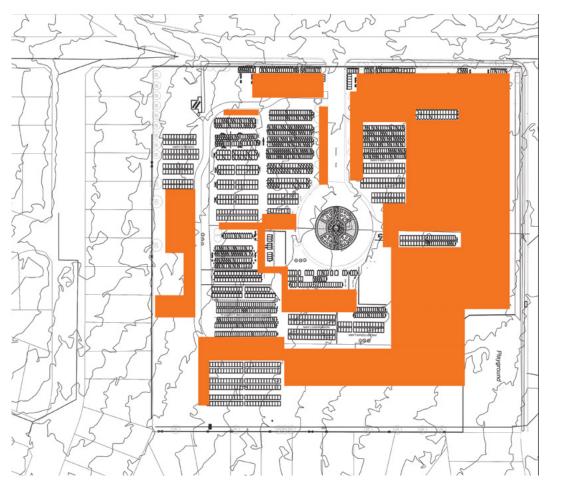


Fig 22. Spare land

SPARE LAND

Notwithstanding that the cemetery strategic document prepared by Changing Places in August 2019 offers a number of recommendations in relation to the introduction of the "Good, Better. Best" suite of products and their pricing structure, this consultancy concentrates on the specific objectives listed in the brief:

- Identify and incorporate a location for possible natural burials on site.
- Identify and develop additional locations for cremated remains

However, in carrying out the site analysis it became clear that all undeveloped land is not necessarily suitable for burial purposes.

As previously mentioned large areas within the site host unmarked graves and cannot be reused for burial.

The balance of the land has the potential to accommodate more interment positions for both burial and cremated remains.(Fig.22) These should be checked against burial records and geotechnical investigations.

It also became clear that grave sizes vary enormously on site (anything between 1m and 1.5m). The use of single rows is prevalent, especially in Monumental graves.

New burial

From a visual point of view, it is preferred to locate new lawn areas close to the entrance and monumental areas adjacent to existing ones, further into and towards the back of the cemetery to minimise the disparate "patchwork" look created by small pocket of varying styles.

The final allocation of burial types to available areas will ultimately be driven by demand. The Masterplan proposes 66% lawn (headstone+ plaque) and 33% monumental, based on the current demand and statistics for Albion Park.

Council has indicated it wishes to consider Natural Burials on the site.

It is important to note that the Natural Burial is, at his roots, a philosophy which precludes the use of non-natural, non-biodegradable materials in its entire process. The term Natural Burial refers to the funeral process as much as the interment process and should also be considered in the context of it ecological benefits post interment. As a philosophy, it has been watered down by many users to suit their need. As a minimum, we recommend the following principles:

- No use of chemicals in the preparation of the body.
- No use of chemicals in the construction of a 100% bio-degradable coffin (timber/cardboard/wicker/cotton shroud), no metal handles, no varnish.
- Mechanical excavation of the graves to be allowed (Manual digging is not viable in the context of a Local Government-run facility)
- Transport by car allowed ((Non-petrol driven vehicles are not viable in the context of a Local Government-run facility)
- Pleasant landscape setting, treed with local species, if possible.
- Double depth allowed.
- Restoration of indigenous ground-covers over the graves for long-term ecological restoration.
- Only bio-degradable memorials (timber no varnish)
- Metal rods at head and toe of grave to assist with location by metal detector (Please note that GPS markers become unreliable when deeper than 200mm)- please note that Australian natives shed a lot of litter which over time accumulates and may cause an issue.

Although prominent in the media and appealing to an ever-increasing environmentally conscious population, Natural Burial uptake has been patchy in Australia. Price structure is important and it may not be appealing if more expensive than the basic grave offering.

As for all new product, it should be tested one the market first for a few years in a dedicated area and, if failing to sell, the area to be reverted to products where demand exceeds supply.



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Fig 23. Disparity in plot sizes
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Grave size

Adjoining municipalities offer graves 1m to 1.2m x 2.4m long. It is important to consider:

- the consistency of graves sizes within each section to provide an equitable product for all who pay for the same right of burial.
- optimisation of land: a 1.5m wide grave take 50% more land than 1m wide one. The cemetery will run out of space much quicker.
- optimisation of land: a single row arrangement take 20% more space than a double row arrangement. The cemetery will run out of space much quicker.

Recommendation Nineteen

Provide new lawn beam sections and new monumental sections in areas highlighted as "spare land", the proportion of each one defined by demand.

Recommendation Twenty

Allocate an area for Natural Burial and beautify to attract patronage. Test market first and revert to other grave types if uptake fails.

Recommendation Twenty-One

Consider a single size for all rights of burial on site, preferably no more than 1.2m wide and 2.4m long.

Recommendation Twenty-Two

Consider double rows in all Monumental sections with a 1.2m path access between rows. Purchase appropriate equipment if current one does not fit.

Recommendation Twenty-Three

Consider a children section, subject to market demand.



PROPOSALS

VISION

The cemetery already holds a certain charm and is visually appealing with its established trees and tidy appearance. It is very popular with the locals due to its proximity to the town. It has the potential to be developed further into a well presented space, offering products which responds to the community's needs.

The cemetery should also be regarded as providing valuable Public Open Space for the community and adjacent residential areas and receive funding accordingly.

The vision for the site is to provide:

- -A well presented and respectful cemetery,
- -A cemetery catering for the local Community,
- -A cemetery retaining its charm and outlook,
- -A Public Open Space which commemorates its history,
- -A range of quality products.

DESIGN RATIONALE

The Masterplan aims to provide a scenic and contemplative setting for funeral visitors as well as the wider community. It is designed as a park, capitalising on its past history, offering walking paths, respite areas, toilet and shelter facilities amongst a wider choice of interments.

In response to the objectives set in the brief seeking to improve amenities for members of the public and to incorporate key recommendations from the cemetery's "strategic Plan (Aug '19), the Masterplan (Appendix 1) offers a range of new non-denominational memorialisation options amongst the existing ones, utilising the site to its fullest and therefore, lengthening the life of the cemetery.

DISTINCT AREAS

As the site is already largely developed, minus some isolated pockets, the detailed proposals of the Masterplan can best be described in the context of these separate areas.

Various areas - grave infill (shown as cream rectangles)

- Rationalise grave sizes, alignments and minimise wastage between rows.
- Create 3 visual precincts based on products rather than denomination.
 - ° L: Plaque on beams lawns graves
 - ° H: Headstone on beams lawn graves
 - ° M:Monumental graves preferably double sided for space efficiencies.
- Each zone is separated from the next one by 1.5m min- depth garden beds to reinforce the visual separation.
- All garden beds and new trees have potential for memorialisation.
- Each burial area should have a least one large shade tree and seating for respite.

Area 1: Entrance (Fig.24)

• Improve entrance with signage and flanking garden beds.





Area 2: Staff area

• Fenced off area allocated for storage of equipment, staff parking, storage bays and lunchroom/office. Toilets to be shared with public.

Area 3: Toilets

• Renew toilets to current standards.

Area 4 : Entry parking (Fig.24)

- Provide parallel parking on northern side of driveway.
- Add 45 degrees parking with wheel stops to southern side of driveway.
- Retain swale and existing trees.
- Continue swales into area 6.
- Retain existing trees in short to medium term. Plant new tree avenue on southern side in the long term to create entry avenue.

Area 5 : Roundabout

- Retain original circular grassed roundabout.
- Provide additional casual parking on reinforced grass to retain the original grassed circle of the original layout.
- Provide picnic table below existing trees.
- Protect roundabout (internal and external ring) with bollards rather than pine post and rail.

Area 6 : Landscaped swale (Fig.25)

- Create new planted swale to convey run-offs from carpark and drain the wetter area.
- Incorporate path and paved areas with shade and relocated niche walls (provide up to 6 niche walls).
- Incorporate shelter into landscape feature.
- Link path to playground area and associated carpark.

Area 7 : Adjoining playground reserve

- Provide parking within existing adjacent Public Open Space (20 spaces) for use by Playground and cemetery.
- Provide link path, gate in existing fence and connect to cemetery path network.
- Renovate and improve playground facilities, with additional fencing (outside of cemetery scope).
- Provide underground water tanks for water harvesting and re-use under parking.
- Subject to seperate Plan of Management.

Area 8 : Unmarked graves (Fig.26)

- Area of suspected unmarked graves
- Develop as a linear pedestrian link between the 2 existing Open Space reserves
- Incorporate a variety of cremated remain positions.
- Plant tree over suspected unmarked grave as a visual tribute, where possible.
- Provide recreational activities (respite, Bocce court) for Open Space users
- Provide a respite area in alignment of proposed footpath (Area 9)

Area 9: Heritage Walk

• Establish a path linking the John Fraser Monument and area 8 as a focal point to the cemetery and as part of a potential heritage walk.

Area 10: Bus stop

- Improve access to cemetery from Bus Stop.
- Lay footpath against fence and nature strip + kerb on road side to match footpath on south-west boundary of the site south of the entrance.



Fig 26. Area 8 - Public open space & Memorial gardens

Area 11: Natural Burials

- Potential Natural Burial area, subject to market demand, with denser tree canopy.
- Grave layout in a circle around each tree.
- Provide "meadow" seed mix to each grave mound after interment. Mow around used graves.

Area 12: Children section

- Provide children graves (1.2m x 0.6m) for babies and children under 7 years of age.
- Provide sculpture as focal point which could be suitable for memorialisation of still-borns. (Subject to market demand)
- Utilise adjacent playground for entertainment of visiting siblings to allow parents to grieve. Ensure playground is suitably fenced off.

Area 13: Fencing

- Re-align fencing along the North-West boundary, in due course. (When fencing falls into disrepair and needs replacing).
- Provide parallel parking along Cedar Street (Southern Side).



AREAS	PRODUCT TYPE	TOTAL GRAVES
А	Monumental	1229
В	Lawn	1828
С	Headstone	392
D	Children	277
E	Natural Burials	45

Monumental
Lawn
Headstone
Children
Natural Burials

Fig 27. Yield

INTERMENT / YIELD

Based on the assessment carried out by Changing Places in their strategic report, the range of products on offer should be expanded to include:

Burials

Lawn graves

Plaques on flat concrete beam

- Granite desk on concrete beam
- Headstone on concrete beam
- Headstone in wall
- Monumental graves

Cremated remains

Niche walls

- Plaques/desks within garden edge
- Plaques on garden edging
- Individual rock in garden bed
- Ash scattering
- Remembrance Memorial (No ashes just name)
- Memorial trees
- Memorial seats

As the "life expectancy " of the cemetery is primarily driven by its ability to accommodate burial positions, the yield is only calculated for graves/burial interments.

Cremated remains take very little room and can always be accommodated with a cemetery after it is considered to be "full". For this reason, we have not provided a yield calculation for ash interments.

Assumptions:

• All graves are 1.2 x 2.4m

The concept offers the following potential yield : 3771 graves.

The above calculations are broad estimates only.

They are based on burial plots only. They do not take into consideration double or triple interments within the same grave.

Based on the current annual demand of 34 burials per year, the cemetery will be offering burial for 102 years.

Detailed business planning to consider the city's current growth & possible increased demand to be undertaken ro obtain more detailed information.

The cemetery's life will be further extended by second and third interments. Its life is also expected to be lengthened with its ample capacity for ash interments.



Fig 28. Staging



IMPLEMENTATION

CAPITAL WORKS

It is important to recognise that it is not the role of a Masterplan to produce detailed designs for implementation. The Masterplan delivers policies, concepts and priorities for the cemetery. It establishes uses and their locations on site.

The Masterplan is the beginning of a process that entails the following sequence:

- 1. Adoption of the Masterplan and circulation amongst staff.
- 2. Determination of scope for first stage and allocation of funds
- 3. Further investigations if required, eg: Geotechnical, stormwater etc...
- 4. Detailed design, eg: Road design, concept designs gardens, drainage, services...
- 5. Preparation of tender documents and cost estimates
- 6. Tendering
- 7. Construction on site
- 8. Post-construction evaluation

COSTINGS

Refer Appendix #9

STAGING

The following is a suggested staging plan. It is driven by construction logic rather than interment demand or budget constraints.

As the Capital Works budget for each stage (1-3 below) is unknown, it is expected that some of the listed items may be pushed down the priority list due to budget constraints. This will be determined by SCC and staff.

It should be noted that typically, in a cemetery, only a few graves and memorial options get released with each stage. Each stage corresponds to approximately 5 years worth of interment demand. This enables a progressing expenditure, minimises the maintenance costs and allows for revenue to collect in order to contribute to the cost of the next phase of development.

Stage 1 (1-5 years)

- Carry out any necessary Heritage Assessments to enable development to proceed.
- Landscaping front entrance.
- Reconstruction of external footpath to existing bus stop.
- Install permanent staff office.
- Formalise parking within the cemetery (both sides of driveway) (Area 4) and along Cedar Rd (Area 13).
- Complete tree avenue at entrance.(Area 4).
- Install grass reinforcement, picnic tables and bollards in roundabout (Area 5).
- Implement the recommendations of the Stormwater Strategy (swales, underground water harvesting tank,) (Area 7 + boundary swales).
- Install shelter and associated picnic facilities. (Area 6)
- Implement landscaping around swales and additional memorial options.(Area 6).

- Construct infrastructure required for burial releases (Concrete beams or pre-poured footings)(5 years' worth of burial demand for each product type).
- Implement recommendations from Signage Strategy and install signs throughout the site.

Stage 2 (5-10 years)

- Establish the Heritage Walk (Area 9) (subject to additional Heritage assessments/studies).
- Remove existing and install new toilet block (Area 3).
- Complete staff compound with fencing, shed and parking bays (Area 2).
- Provide path link to playground (Area 6 to 7).
- Provide carpark within Reserve (Area 7).
- Develop part of the Children's section (Area 12) (Path, play elements and 5 years' worth of graves). (Subject market demand) (preferably post playground upgrade in adjacent reserve).
- Develop part of the Natural burial area (Area11) (Subject market demand).
- Construct infrastructure required for burial releases (Concrete beams or pre-poured footings) 5 years' worth of demand at a time.
- Develop memorial gardens in Area 6 (memorial positions, paths, landscaping and irrigation) to supply cremation positions, 5 years' worth of interment demand at a time.

Stage 3 (10 years onwards)

- Construct infrastructure required for burial releases (Concrete beams or pre-poured footings) 5 years' worth of demand at a time.
- Develop memorial gardens in Area 6 (memorial positions, paths, landscaping and irrigation) to supply cremation positions, 5 years' worth of interment demand at a time.
- Develop part of the Children's section (Area 12) (Path, play elements and 5 years' worth of grave supply).
- Relocate fencing on boundary line when existing fencing is due for replacement.
- Develop Area 8 (Unmarked graves), first with public paths, trees and seating, then progressively introducing Memorial gardens for cremated remains to keep up with demand.
- When cemetery is almost full, remove staff lunchroom building and loop access road and return land to burial purposes.

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- L: PLAQUE ON BEAMS LAWNS GRAVES H: HEADSTONE ON BEAMS - LAWN GRAVES

AREA (1): ENTRANCE IMPROVE ENTRANCE WITH SIGNAGE AND FLANKING GARDEN BEDS.

AREA 2: STAFF AREA

BE SHARED WITH PUBLIC

AREA 3: TOILETS

RENEW TOILETS TO CURRENT STANDARDS

AREA (4) ENTRY PARKING

- RETAIN SWALE AND EXISTING TREES
- CONTINUE SWALES INTO AREA 6
- ENTRY AVENUE.

AREA (5): ROUNDABOUT

- RETAIN ORIGINAL CIRCULAR GRASSED ROUNDABOUT.
- PROVIDE PICNIC TABLE BELOW EXISTING TREES.

AREA 6: LANDSCAPED SWALE

- INCORPORATE SHELTER INTO LANDSCAPE FEATURE.
- LINK PATH TO PLAYGROUND AREA AND ASSOCIATED CARPARK.

- AREA (): ADJOINING PLAYGROUND RESERVE

- SUBJECT TO SEPERATE PLAN OF MANAGEMENT.

AREA (8): UNMARKED GRAVES

- AREA OF SUSPECTED UNMARKED GRAVES
- INCORPORATE A VARIETY OF CREMATED REMAIN POSITIONS.

AREA (9: HERITAGE WALK

AREA (0: BUS STOP

- IMPROVE ACCESS TO CEMETERY FROM BUS STOP.

AREA (1): NATURAL BURIALS

- GRAVE LAYOUT IN A CIRCLE AROUND EACH TREE.

AREA 12: CHILDREN SECTION

- DEMAND)
- IS SUITABLY FENCED OFF.

AREA (3: FENCING

REPLACING).

NOTE

ALBION PARK **CEMETERY, NSW**

VARIOUS AREAS - GRAVE INFILL (SHOWN AS CREAM RECTANGLES)

RATIONALISE GRAVE SIZES, ALIGNMENTS AND MINIMISE WASTAGE BETWEEN ROWS.

CREATE 3 VISUAL PRECINCTS BASED ON PRODUCTS RATHER THAN DENOMINATION.

M:MONUMENTAL GRAVES - PREFERABLY DOUBLE SIDED FOR SPACE EFFICIENCIES.

EACH ZONE IS SEPARATED FROM THE NEXT ONE BY 1.5M MIN- DEPTH GARDEN BEDS TO REINFORCE THE VISUAL SEPARATION.

ALL GARDEN BEDS AND NEW TREES HAVE POTENTIAL FOR MEMORIALISATION.

EACH BURIAL AREA SHOULD HAVE A LEAST ONE LARGE SHADE TREE AND SEATING FOR RESPITE.

· FENCED OFF AREA ALLOCATED FOR STORAGE OF EQUIPMENT, STAFF PARKING, STORAGE BAYS AND LUNCHROOM/OFFICE. TOILETS TO

PROVIDE PARALLEL PARKING ON NORTHERN SIDE OF DRIVEWAY

ADD 45 DEGREES PARKING WITH WHEEL STOPS TO SOUTHERN SIDE OF DRIVEWAY.

· RETAIN EXISTING TREES IN SHORT TO MEDIUM TERM. PLANT NEW TREE AVENUE ON SOUTHERN SIDE IN THE LONG TERM TO CREATE

PROVIDE ADDITIONAL CASUAL PARKING ON REINFORCED GRASS TO RETAIN THE ORIGINAL GRASSED CIRCLE OF THE ORIGINAL LAYOUT.

PROTECT ROUNDABOUT (INTERNAL AND EXTERNAL RING) WITH BOLLARDS RATHER THAN PINE POST AND RAIL

 CREATE NEW PLANTED SWALE TO CONVEY RUN-OFFS FROM CARPARK AND DRAIN THE WETTER AREA. INCORPORATE PATH AND PAVED AREAS WITH SHADE AND RELOCATED NICHE WALLS (PROVIDE UP TO 6 NICHE WALLS)

 PROVIDE PARKING WITHIN EXISTING ADJACENT PUBLIC OPEN SPACE (20 SPACES) FOR USE BY PLAYGROUND AND CEMETERY. PROVIDE LINK PATH, GATE IN EXISTING FENCE AND CONNECT TO CEMETERY PATH NETWORK * RENOVATE AND IMPROVE PLAYGROUND FACILITIES, WITH ADDITIONAL FENCING.(OUTSIDE OF CEMETERY SCOPE) PROVIDE UNDERGROUND WATER TANKS FOR WATER HARVESTING AND RE-USE UNDER PARKING

DEVELOP AS A LINEAR PEDESTRIAN LINK BETWEEN THE 2 EXISTING OPEN SPACE RESERVES

· PLANT TREE OVER SUSPECTED UNMARKED GRAVE AS A VISUAL TRIBUTE, WHERE POSSIBLE.

PROVIDE RECREATIONAL ACTIVITIES (RESPITE, BOCCE COURT) FOR OPEN SPACE USERS

PROVIDE A RESPITE AREA IN ALIGNMENT OF PROPOSED FOOTPATH (AREA 9)

ESTABLISH A PATH LINKING THE JOHN FRASER MONUMENT AND AREA 8 AS A FOCAL POINT TO THE CEMETERY AND AS PART OF A
 POTENTIAL HERITAGE WALK.

LAY FOOTPATH AGAINST FENCE AND NATURE STRIP + KERB ON ROAD SIDE TO MATCH FOOTPATH ON SOUTH-WEST BOUNDARY OF THE
 SITE - SOUTH OF THE ENTRANCE.

 POTENTIAL NATURAL BURIAL AREA. SUBJECT TO MARKET DEMAND, WITH DENSER TREE CANOPY. · PROVIDE "MEADOW" SEED MIX TO EACH GRAVE MOUND AFTER INTERMENT. MOW AROUND USED GRAVES

• PROVIDE CHILDREN GRAVES (1.2M X 0.6M) FOR BABIES AND CHILDREN UNDER 7 YEARS OF AGE. PROVIDE SCULPTURE AS FOCAL POINT WHICH COULD BE SUITABLE FOR MEMORIALISATION OF STILL-BORNS. (SUBJECT TO MARKET

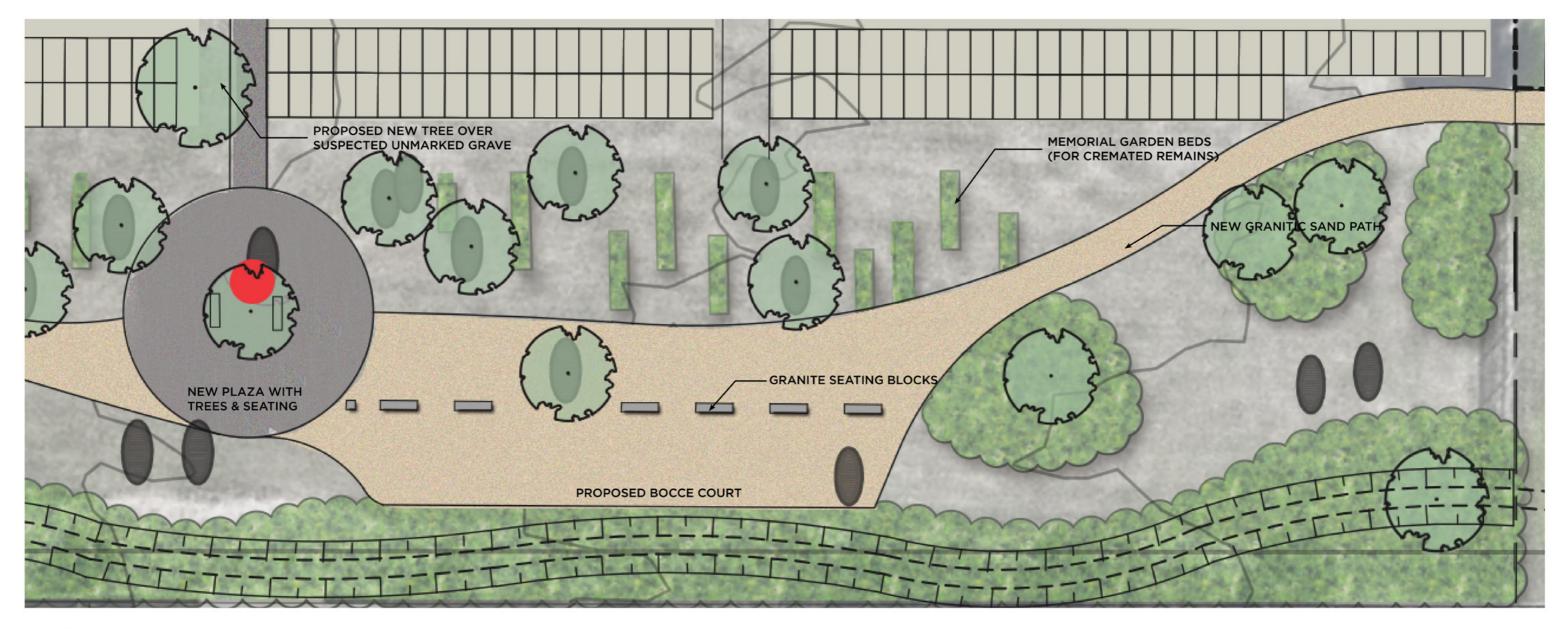
UTILISE ADJACENT PLAYGROUND FOR ENTERTAINMENT OF VISITING SIBLINGS TO ALLOW PARENTS TO GRIEVE. ENSURE PLAYGROUND

RE-ALIGN FENCING ALONG THE NORTH-WEST BOUNDARY, IN DUE COURSE. (WHEN FENCING FALLS INTO DISREPAIR AND NEEDS

PROVIDE PARALLEL PARKING ALONG CEDAR STREET (SOUTHERN SIDE).

 PROPOSED WORKS ARE SUBJECT TO FURTHER HERITAGE STUDIES AND OTHER PLANNING DETAILED REVIEWS. CONSIDER COLLECTING WATER OFF STRUCTURES FOR STORAGE AND USE ON SITE FOR LANDSCAPING.

1: 0419 983 641



LEGEND



Proposed Garden Bed

Proposed Trees Niche Wall

Suspected grave site (refer GPR Report)

Sculpture

DRAWN BY: XYW SHEET NO: 02/08

SCALE: 1:100@A1

APPR. C.CONS APPR.

04/02/20 21/02/20 13/08/20

ALBION PARK CEMETERY

TITLE: ENLARGEMENT DRAWING NO: SK02B

ALBION PARK CEMETERY, NSW

DATE: 04.02.2020 PROJECT NO:1904



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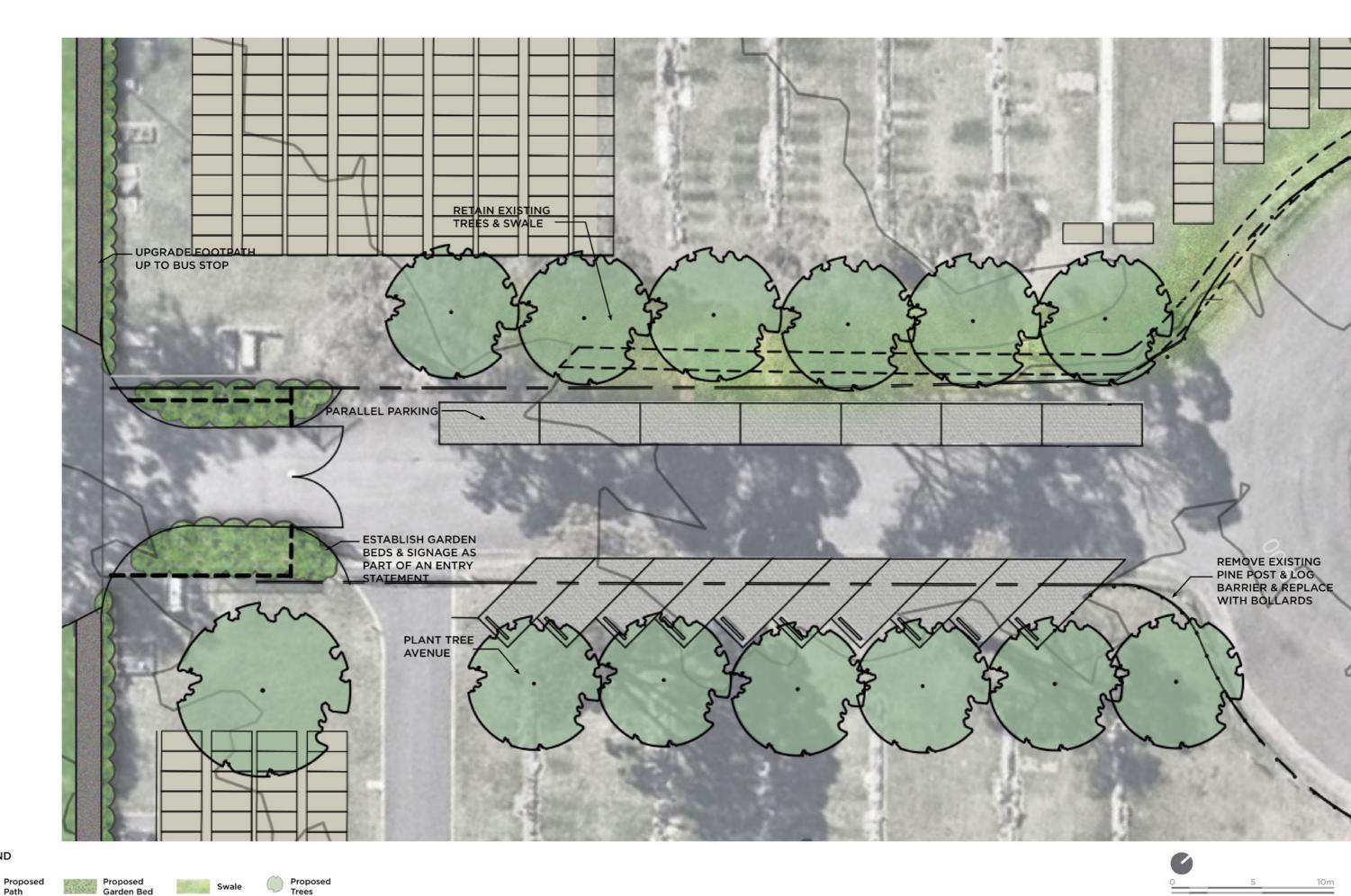
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ALBION PARK CEMETERY, NSW

DATE: 04.02.2020 PROJECT NO:1904





LEGEND

Path

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04/02/20 21/02/20 13/08/20

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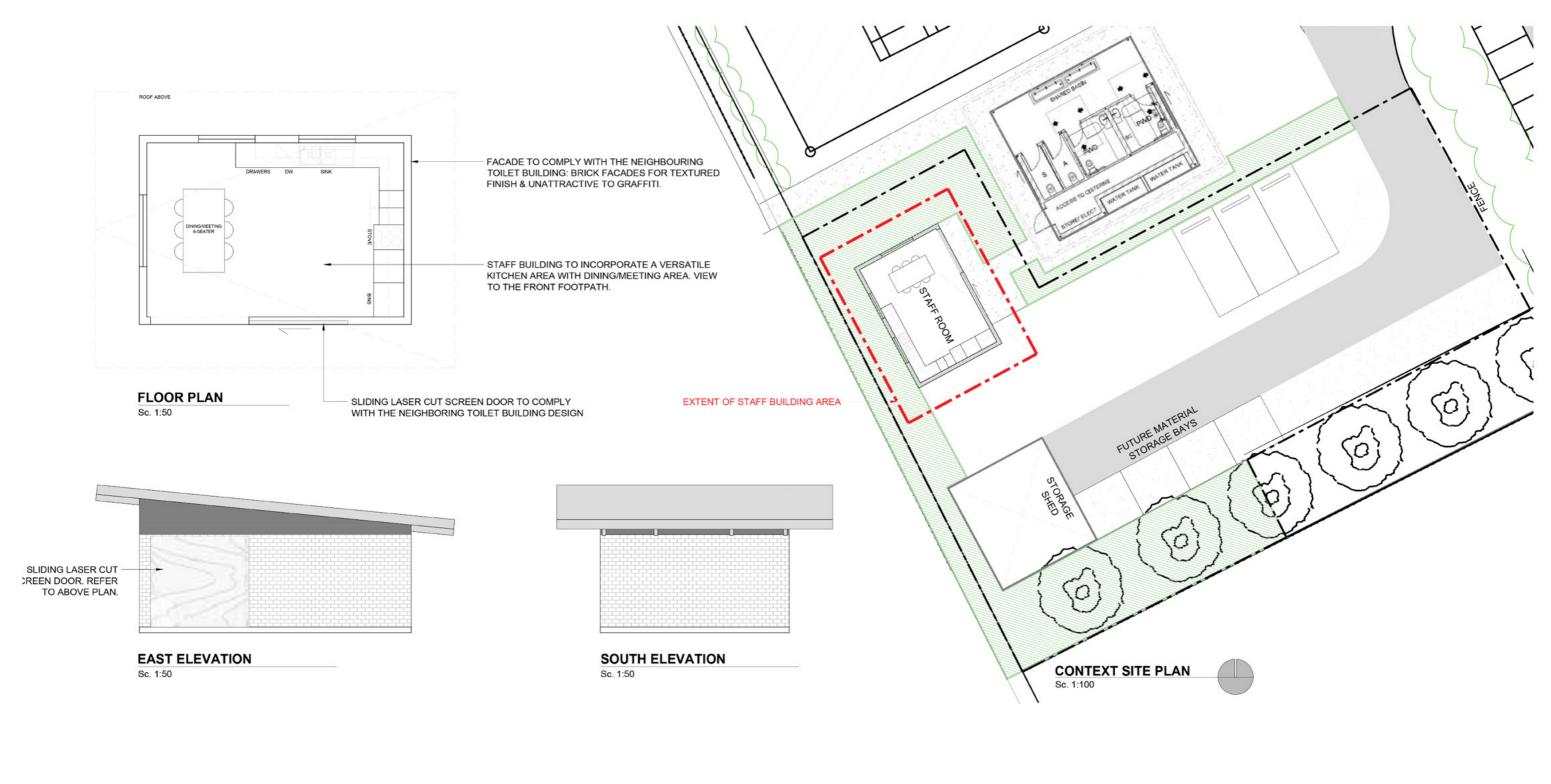
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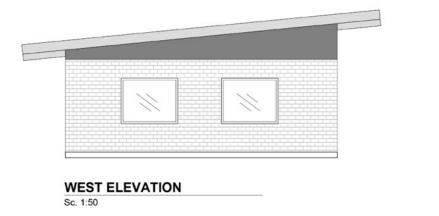
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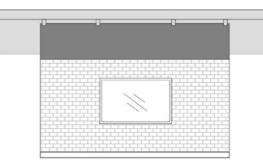






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NORTH ELEVATION

Sc. 1:50

04/02/20 21/02/20 13/08/20

ISION	CLIENT:
	ALBION PARK CEMETERY

TITLE: STAFF BUILDING DRAWING NO: SK05B

DATE: 04.02.2020 PROJECT NO:1904 ROJECT NAME:

ALBION PARK CEMETERY, NSW A: 49 May St Kew VIC 3101 E: flo@fjla.com.au M: 0419 983 641







SEATING ROCKS





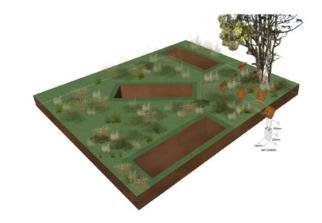
SCULPTURE (INDICATIVE ONLY)



SCULPTURE FOR CHILDREN SECTION (INDICATIVE ONLY)



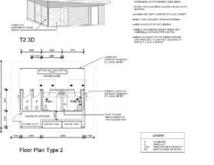
PLANTED SWALE



NATURAL BURIALS (INDICATIVE)



TOILETS





SHELTER



BRIDGE OVER SWALE



STEPPING STONES OVER SWALE

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04/02/20 21/02/20 13/08/20

ALBION PARK CEMETERY

TITLE: IMAGERY DRAWING NO:SK06B

ALBION PARK CEMETERY, NSW

DATE: 04.02.2020 PROJECT NO:1904

A: 49 May St Kew VIC 3101 E: flo@fila.com.a M: 0419 983 641

PLANT SCHEDULE

Indicative Species

KEY	BOTANICAL NAME	COMMON NAME	MATURE HT
LARGI		1	1
EP	Eucalyptus punctata	Sydney Grey Gum	15M
ES	Eucalyptus sideroxylon Rosea	Pink Flowered Ironbark	15M
LC	Lophostemon confertus	Brush Box	15M
SMALI	LER AVENUE TREES		1
BA	Brachychiton acerifolius	Illawarra Flame	8M
HYF	Hymenosporum flavum	Native Frangipani	6-8M
LIN	Lagerstroemia indica 'Natchez'	White Crepe Myrtle	6M
MLG	Magnolia 'Little Gem'	Magnolia Little Gem	6M
SPECI	MEN TREES FOR SHADE		3
AF	Angophora floribunda	Rough Barked Apple	20M
EA	Elaeodendron australe	Red Fruit Olive Plum	6-8M
EP	Eucalyptus punctata	Sydney Grey Gum	15M
ES	Eucalyptus sideroxylon Rosea	Pink Flowered Ironbark	15M
JM	Jacaranda mimosifolia	Jacaranda	10M
LC	Lophostemon confertus	Brush Box	15M
LIN	Lagerstroemia indica 'Natchez'	White Crepe Myrtle	6M
ML	Melaleuca linariolia	Snow in Summer	8-10M
TL	Tristaniopsis laurina	Water Gum	6-8M
SCREE	IN SHRUBS		
AS	Acmena smithii	Lilly Pilly	3-4M
ASS	Acmena smithii "Sublime"	Sublime Lilly Pilly	4-5M
CE	Callistemon citrinus	Crimson "Endeavour"	2M
вм	Backhousia myrtifolia	Grey Myrtle	2-3M
HS	Hakea salicifolia	Willow Hakea	3-4M
MV	Melaleuca hypericifolia	Red Flowered Paperbark	2M
sc	Syzygium 'Cascade"	Cascade Brush Cherry	2-3M
SHRUE	SS AND FEATURE PLANTS	1	1
BV	Babingtonia virgata	Heath Myrtle	2M
СА	Correa alba	White Correa	1M
CAW	Callistemon Anzac white	'Anzac White'	1M
DE	Doryanthes excelsa	Gymea Lilly	1.5M
GF	Gardenia augusta 'Florida'	Fragrant Gardenia	0.7M
			1

KEY	BOTANICAL NAME	COMMON NAME	MATURE HT
SHRUI	BS AND FEATURE PLANTS	I	
GHG	Grevillea Ned Kelly	Ned Kelly	1M
GO	Goodenia ovata	Hop Goodenia	1M
IA	Indigofera australis	Australian Indigo	1M
мст	Melaleuca 'Claret Tops'	'Claret Tops'	1M
ΡΤΑ	Phormium tenax atropurpureum	Red Flax	1.5M
WF	Westringia fruticose "Smokey"	Coastal Rosemary	1M
GRAS	SES & GROUNDCOVERS		
СМ	Convolvulous mauritanica		0.5M
MT	Grevillea Mount Tamboritha	Mount Tamboritha	0.5M
IC	Imperata cylindrica 'Rubra'	Japanese Blood Grass	0.7M
LL	Lomandra longifolia	Native Matt rush	1.0M
LI	Liriope 'Isabella'	Isebella	0.4M
TJ	Trachelospermum jasminoides	Star Jasmine	0.3M







Brachychiton acerifolius Acmena smithii



Eucalyptus punctata



DRAWN BY: XYW SHEET NO: 07/08

SCALE: VARY@A1

ISSUE DESCRIPTION APPR. CLIENT C.CONS CLIENT APPR. OFFICE ADDRESS

DATE 04/02/20 21/02/20 13/08/20

ALBION PARK CEMETERY

TITLE: INDICATIVE PLANT LIST DRAWING NO: SK07B DATE: 04.02.2020 PROJECT NO:1904 ALBION PARK CEMETERY, NSW



Acmena smithii "Sublime"

A: 49 May St Kew VIC 3101 E: flo@fjla.com.au M: 0419 983 641



DRAWN BY: XYW SHEET NO: 08/08

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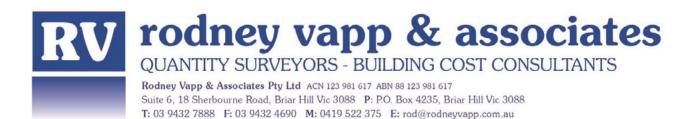
ALBION PARK CEMETERY

TITLE: INDICATIVE PERSPECTIVE MEMORIAL GARDENS

ALBION PARK CEMETERY, NSW

DRAWING NO: SK08B DATE: 04.02.2020 PROJECT NO:1904

A: 49 May St Kew VIC 3101 E: flo@fjla.com.au M: 0419 983 641



1st September, 2020

OUR REF: 7501-219105 Est_Rev2

Ms. Florence Jaquet Florence Jaquet Landscape Architects 8 Rowell Avenue CAMBERWELL VIC 3124

Dear Florence

RE: PROPOSED LANDSCAPE- ALBION PARK CEMETERY NSW

Our indicative estimated total construction cost (Phase1) for the above project based on current rates is **\$3,066,000 excluding GST**.

The above indicative estimated total construction cost (Phase1) is also based on an architectural masterplan design documentation received January 2020, updated masterplan documentation received August 2020, various notes and discussions with your office/architect and historical data.

The indicative estimate comprises:

Albion Park Cemetery	\$ 2,920,000
INDICATIVE ESTIMATED TENDER SUM (Excluding GST)	\$ 2,920,000
Contract Contingency (nominal 5%)	\$ 146,000
INDICATIVE ESTIMATED CONSTRCUTION COST (Excluding GST)	\$ 3,066,000

Note: Please see attached detailed breakdown for further information.

The above indicative estimated total construction cost (Phase1) does not include for:

- 1. GST and associated costs
- 2. Escalation to tenders past January, 2020
- 3. Consultant Fees (nominal 10%)
- 4. Overcome adverse soil condition/soft spots/ rock excavation/removal of contaminated soil & replacement
- 5. Authority and permit charges if required

RE: Albion Park Cemetery Landscape

- 6. Upgrading service mains supplying the site (Assumed existing septic system retained and reused in Shellharbour cemetery)
- 7. Working outside standard working hour
- 8. Renovate/upgrade existing playground facilities near Albion Park Cemetery (estimated order of construction cost \$ 255,000 excl. GST)

NOTES:

- 1. It is important to note that the above indicative estimated total construction costs (Phase1) should only be considered as a guide for funding purposes until a full detailed investigation has been made of the site, structure, services, etc by all Consultants and a subsequent detailed design of the project is made available for costing.
- 2. We have all entered unchartered waters when it comes to the ongoing effects of the Covid-19 virus pandemic and the building industry is not exempt from this. We are currently allowing costs and escalation projections in our estimate that we would have expected should the virus not occurred. When some tangible trends emerge and we can ascertain the effects of the virus on building costs we will issue our interpretation of those effects. Current tender results are appearing to be competitive however we are not sure whether or not this will remain stable

We look forward to providing all further information to ensure the success of the project.

Yours sincerely

We look forward to providing all assistance as required to ensure the success of the project.

Yours sincerely

RODNEY A VAPP FAIQS Director

Cost Plan A- Rev2

	Project: 219105 Details: CPA Building: Albion Park Cemetery CPA	A - Summary
Co de	Description	Total
1	Area 1 Entrance	13.000
2	Area 2 Staff Area	196,000
3	Area 3 Re-new Toilets	158,000
4	Area 4 Entry Parking	75,000
5	Area 5 Roundabout	49,000
6	Area 6 Landscaped Swale	396,000
7	Area 7 Adjoining Playground Reserve	403,000
8	Area 8 Unmarked Graves	448,000
9	Area 9 Heritage Walk	37,000
10	Area 10 Bus Stop	88,000
11	Area 11 &12 Natural Burial & Children section	672,000
12	Area13 Fencing & Car parking	122,000
13	Various areas	203,000
14	Signage- P.C. sum	60,000
YY	Design Contingency - 5%	included
	INDICATIVE ESTIMATED TENDER SUM (EXCL. GST)	2,920,000
	Construction Contingencies - 5%	146,000
	INDICATIVE ESTIMATED CONSTRUCTION COST (EXCL. GST)	3,066,000

Exclusions: Please refer attached letter " 7501-219105Est_R2" for exclusions/assumptions

12 Separate contract- Renovate and Improve Playground Facilities

255,000

	Project: 219105 Det Building: Albion Park Cemetery	tails:	CPA - De	tailed		
Code	Description		Quantity	Unit	Rate	Total
Area	1 Entrance					
1	New Signage externally to fence - P.C. sum		1	ltem	Incl. Separately	ref. area 13
2	New garden beds including metal edging , plants/ground covers		70	m2	120	8,400
3	Allow modify existing paving and make good		1	Item	3,000.00	3,000
4	Irrigation to new garden beds			m2	incl. separately	ref. area 7
5	Design Contingency		5.0	%		570
6	Preliminaries		6.0	%		1,029
	Area 1 Entrance					13,000
Area	2 Staff Area					
7	New shed for equipment, 6 x 7		1	ltem	25,000	25,000
8	3 x Asphalt car parking bays for staff (50m2 approx.)		1	Item	8,000	8,000
9	Extended asphalt road/access road including flush kerbs , wheel stops, etc		139	m2	156	21,700
10	Lunchroom/ staff office , 6 x 3.5 as per quot by SPOTON portables		1	Item	36,000	36,000
11	Allow joinery/fittings & fixtures , handicapped access ramp, air conditioning and an external verandah to portable/staff office		1	Item	28,100	28,100
12	External foot path & pavings around buildings		157	m2	120	18,792
13	Allowance for external services connection(storm-water/hydraulic/electricity) to Staff office/portable		1	ltem	15,000	15,000
14	Storage bay for garden materials x 04 nos		1	Item	9,700	9,700
15	Temporary relocate existing container and remove from site after completion		1	Item	15,000	15,000
16	Allow minor landscaping/make good existing lawn		1	Item	3,000.00	3,000
17	Adjustment: deleted slab for staff compound as already in place by client (archi email 27.08.20)		1	Item	-4,200.00	-4,200
18	Design Contingency		5.0	%		8,805
19	Preliminaries		6.0	%		11,104
	Area 2 Staff Area					196,000
Area	3 Re-new Toilets					
20	Demolish existing toilet and prepare site		1	Item	5,000	5,000
21	Supply and install pre-fab. restrooms/toilet -02 x accessible compliant WC +01 x Ambulant WC+ 01 Standard WC (Land markPRO K9306 model or similar)		1	No	106,000	106,000

	Project: 219105 Building: Albion Park Cemetery	Details:	CPA - De	tailed		
Code	Description		Quantity	Unit	Rate	Total
Area	3 Re-new Toilets					(Continued)
22	External paving/access		30	m2	120.00	3,600
23	Spoil removal, site clean		1	item	2,260.00	2,260
24	Water tank with connection		1	item	5,000.00	5,000
25	External hydraulic		1	item	3,000.00	3,000
26	Storm-water		1	Item	3,500.00	3,500
27	Light and power connection		1	Item	5,000.00	5,000
28	Building permit fees/soil report		1	Item	5,000.00	5,000
29	Allow minor landscaping/make good existing lawn		1	ltem	3,000.00	3,000
30	Design Contingency		5.0	%		6,918
31	Preliminaries		6.0	%		9,722
	Area 3 Re-new Toilets					158,000
Area	4 Entry Parking					
32	New 45 deg. car park including kerbs		370	m2	131.62	48,724
33	Allow wheel stops - compliance rubber or similar		20	no	180.00	3,600
34	Allowance for storm-water drain/pits and connections		1	Item	10,000.00	10,000
35	Advanced trees , 40L		6	no	350.00	2,100
36	Minor landscaping upgrade/make good existing lawn		1	ltem	2,500.00	2,500
37	Design Contingency		5.0	%		3,346
38	Preliminaries		6.0	%		4,730
	Area 4 Entry Parking					75,000
Area	5 Roundabout					
39	Additional casual parking grass pave/ reinforced grass		137	m2	94.00	12,922
40	New picnic table units under existing trees		2	no	5,000.00	10,000
41	Bollard (fixed) around to protect the roundabout, inner and outer ring		110	no	158.18	17,400
42	Allow minor landscaping/make good existing lawn		1	Item	3,000.00	3,000

	Project: 219105 Details Building: Albion Park Cemetery	Si CPA - De	etailed		
Code	Description	Quantity	Unit	Rate	Total
Area	5 Roundabout				(Continued)
44	Preliminaries	6.0	%		3,511
	Area 5 Roundabout				49,000
Area	6 Landscaped Swale				
45	New niche wall with footing - P.S.	3	no	28,000	84,000
46	Relocate existing niche wall with footing including remove existing footing and make good grass	3	no	5,200	15,600
47	Extended new swale- S2 (planting base, 250mm deep,1:60)	302	m2	64	19,157
48	New swale- S1 (grassing base, 200mm deep,1:100)	547	m2	39	21,046
49	New garden beds	1,013	m2	120	121,508
50	Advanced trees	7	no	250	1,750
51	Seating under trees	7	no	1,500	10,500
52	New foot path & paving linking playground and mid roundabout	407	m2	123	49,966
53	New shelter 8 x 6 approx. c/w 2 x picnic table units, drinking fountain and associated services connection (nearest possible within 50m max.)- Landmark standard K305 Peninsula or similar	1	Item	38,000	38,000
54	Irrigation to new garden beds		m2	incl. separately	ref. area 7
55	Adjustment: deleted slab for shelter as already in place by client (archi email 27.08.20)	52	m2	-126	-6,499
56	Design Contingency	5.0	%		17,751
57	Preliminaries	6.0	%		23,220
	Area 6 Landscaped Swale				396,000
Area	7 Adjoining Playground Reserve				
58	Car park (access from cedar street)	581	m2	146.74	85,254
59	Wheel stops	22	no	150.00	3,300
60	New cross over and associated	33	m2	250	8,373
61	Demolish existing fencing and allow make good/new fencing as required	1	Item	2,880	2,880
62	New pedestrian single gates to existing fence	2	no	700	1,400
63	Minor landscaping/garden beds	1	Item	3,000.00	3,000
64	Allowance for storm-water harvesting infrastructure including underground storage tank and associated pumps, pits and connections (refer civil est);				
65	- Diversion Pit	1	Item	10,000	10,000
66	-Sedimentation Tank	1	ltem	10,000	10,000
67	-Irrigation storage tank	1	Item	150,000	150,000
68	-Irrigation system	1	Item	75,000	75,000
69	-450 dia inlet and outlet pipes	1	Item	7,000	7,000
70	-Downstream connection to existing pits	1	ltem	5,000	5,000

Cost Plan A- Rev2

	Project: 219105 Building: Albion Park Cemetery	Details:	CPA - De	tailed		
Code	e Description		Quantity	Unit	Rate	Total
Area	a 7 Adjoining Playground Reserve					(Continued
71	Renovate and improve playground facilities		1	no	ref. area 12	measure separately
72	Design Contingency		5.0	%		18,060
73	Preliminaries		6.0	%		23,733
	Area 7 Adjoining Playground Reserve					403,000
Area	a 8 Unmarked Graves					
74	New pedestrian footpath/pavings		709	m2	123	87,120
75	Advanced trees		33	no	250.00	8,250
76	New garden beds including metal edging , plants/ground covers		2,231	m2	94	210,695
77	New swale S3 - planting base, 250mm deep, 1:55		649	m2	64	41,198
78	Respite area with seating/ feature		317	m2	172	54,450
79	Irrigation to new garden beds		299	m2	incl. separately	ref. area 7
80	Design Contingency		5.0	%		20,086
80 81	Preliminaries		5.0 6.0	%		26,201
81						
81 Area	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk		6.0	%	126	26,201 448,000
81 Area 82	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk New foot path link between Mid roundabout and area 8 (potential heritage walk)		6.0	% m2	126 250.00	26,201 448,000 28,588
81 Area	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk		6.0	%	126 250.00 3,000.00	26,201 448,000
81 Area 82 83	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk New foot path link between Mid roundabout and area 8 (potential heritage walk) Advanced trees		6.0 227 5	% m2 no	250.00	26,201 448,000 28,588 1,250
81 Area 82 83 84	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk New foot path link between Mid roundabout and area 8 (potential heritage walk) Advanced trees Allow minor landscaping/make good existing lawn		6.0 227 5 1	% m2 no Item	250.00	26,201 448,000 28,588 1,250 3,000 1,642
81 Area 82 83 84 85	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk New foot path link between Mid roundabout and area 8 (potential heritage walk) Advanced trees Allow minor landscaping/make good existing lawn Design Contingency		6.0 227 5 1 5.0	% m2 no Item	250.00	26,201 448,000 28,588 1,250 3,000
81 Area 82 83 84 85 86	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk New foot path link between Mid roundabout and area 8 (potential heritage walk) Advanced trees Allow minor landscaping/make good existing lawn Design Contingency Preliminaries		6.0 227 5 1 5.0	% m2 no Item	250.00	26,201 448,000 28,588 1,250 3,000 1,642 2,521
81 Area 82 83 84 85 86	Preliminaries Area 8 Unmarked Graves a 9 Heritage Walk New foot path link between Mid roundabout and area 8 (potential heritage walk) Advanced trees Allow minor landscaping/make good existing lawn Design Contingency Preliminaries Area 9 Heritage Walk		6.0 227 5 1 5.0	% m2 no Item	250.00	26,201 448,000 28,588 1,250 3,000 1,642 2,521

1/09/2020 12:39:54 PM

Rodney Vapp & Associates Pty Ltd

Cost Plan A- Rev2

		etails:	CPA - De	tailed		
	Building: Albion Park Cemetery					
Code	Description		Quantity	Unit	Rate	Total
Area	10 Bus Stop					(Continued
89	Garden beds		147	m2	177	26,056
90	Allowance for minor repair / make good existing kerb, cross over as required, 185Im		1	Item	3,000.00	3,000
91	Allowance for traffic management- provisional sum		1	Item	5,000.00	5,000
92	Irrigation to new garden beds			Item	incl. separately	ref. area 7
93	Design Contingency		5.0	%		3,950
94	Preliminaries		6.0	%		5,053
	Area 10 Bus Stop					88,000
Area	11 &12 Natural Burial & Children section					
	Grave infill;					
95	New lawn beams, 500mm wide		1,133	m	320.00	362,560
96	New Headstone beam, 500mm wide		262	m	400.00	104,800
97	New Children's Beam, 500mm wide		72	m	320.00	23,040
98	Monumental path, 1200mm wide		902	m2	120.00	108,288
99	Allow spoil removal, minor repair/make good existing lawn		1	Item	5,000.00	5,000
100	Design Contingency		5.0	%		30,184
101	Preliminaries		6.0	%		38,127
	Area 11 &12 Natural Burial & Children section					672,000
Area	13 Fencing & Car parking					
102	Re-align fencing along north-west boundary (remove and reuse existing)		175	m	120.00	21,000
103	Provided parallel parking along Cedar St.		379	m2	180	68,319
104	Spoon drain along the edge of road, 600w nominal		122	Item	125.00	15,250
105	Allowance for make good existing path,road, nature strip and upgrade signage as required		1	ltem	5,000.00	5,000
106	Design Contingency		5.0	%		5,478
107	Preliminaries		6.0	%		6,953

Page 5 of 7

Code	Building: Albion Park Cemetery				
Arool	Description	Quantity	Unit	Rate	Total
Aleal	3 Fencing & Car parking				(Continued
	Area13 Fencing & Car parking				122,000
Variou	is areas				
108	Remove existing asphalt road make good existing lawn area/hydro-seeding	2,213	m2	20.00	44,251
109	Irrigation to new garden beds	299	m2	incl. separately	ref. area 7
110	New lawn beams, 500mm wide	245	m	320.00	78,522
111	Advanced trees	6	no	250.00	1,500
112	New seating under trees	7	no	2,000.00	14,000
113	1.5m min. wide garden beds to create 3 -visual septation for product based zoning	299	m2	127	37,944
114	Allowance for spoil removal, sundry demolition & site preparation	1	Item	3,000.00	3,000
115	Allow minor repair/make good existing lawn	1	Item	3,000.00	3,000
116	Design Contingency	5.0	%		9,111
117	Preliminaries	6.0	%		11,673
	Various areas				203,000
Signaç	ge- P.C. sum				
118	Large sign- Main entry1	1	no	20,000.00	20,000
119	Large sign- Main entry-fence	2	no	1,300.00	2,600
120	Large sign- secondary/tertiary	2	no	10,000.00	20,000
121	Way finding	2	no	4,500.00	9,000
122	Small sign- parking,staff, etc	12	no	700.00	8,400
	Signage- P.C. sum				60,000
Separa	ate contract- Renovate and Improve Playground Facilities				
123	Demolish existing play ground and make good	1	Item	5,000	5,000
124	Supply and install new play equipment - P.C. sum	1	Item	200,000	200,000
125	New drinking fountain with necessary services connection	1	Item	5,000	5,000
126	Bench seating	2	no	2,000	4,000
127	Allow minor landscaping/make good existing lawn	1	ltem	3,000.00	3,000
128	Design Contingency	5.0	%		10,850
129	Preliminaries	6.0	%		14,150

	Project: 219105 Building: Albion Park Cemetery	Details:	CPA - De	etailed		
Code	Description		Quantity	Unit	Rate	Total
Sepa	rate contract- Renovate and Improve Playground Facilities					(Continued)
						,
130	Construction Contingencies - 5%		5.0	%		13,000

Florence Jaquet Landscape architect

49 May St, Kew VIC 3101 M: 0419 983 641 E: flo@fjla.com.au www.fjla.com.au