# NOTICE OF MEETING

Pursuant to the provisions of section 88 (1) of the
*Local Government Act 1999*

## Infrastructure and Environment Committee of the

Adelaide Plains Council

will be held

## by electronic means

on

## Thursday 3 September 2020 at 6.00pm

James Miller
**CHIEF EXECUTIVE OFFICER**

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| Adelaide Plains Council | **2. Confirmation of Minutes** |
| **Thursday 3 September 2020** | |

2.1 "that the minutes of the Infrastructure and Environment Committee meeting held on Thursday 3 September 2020 (MB Folios 41 to 44, inclusive), be accepted as read and confirmed."

# MINUTES

of the

## Infrastructure and Environment Committee

of the

Pursuant to the provisions of section 88 (1) of the
*Local Government Act 1999*

HELD IN

**Council Chamber**
**Redbanks Road**
**Mallala**

on

**Tuesday 10 March 2020 at 6.00pm**

The Chairperson formally declared the meeting open at 6.00pm.

## 1. ATTENDANCE

### 1.1 Present

| | |
|---|---|
| Mr John Comrie | Chairperson |
| Mr Richard Dodson | Independent Member |
| Mayor Mark Wasley | Mayor |
| Councillor John Lush | Mallala/Dublin Ward |
| Councillor Terry-Anne Keen | Mallala/Dublin Ward |
| Councillor Kay Boon | Two Wells Ward |
| Councillor Brian Parker | Lewiston Ward |

**Also in Attendance**

| | |
|---|---|
| Chief Executive Officer | Mr James Miller |
| General Manager – Infrastructure and Environment | Mr Thomas Jones |
| General Manager – Development and Community | Mr Robert Veitch |
| General Manager – Finance and Business | Mr Rajith Udugampola |
| Manager Governance and Administration/Minute Taker | Ms Alyssa Denicola |

### 1.2 Apologies

| | |
|---|---|
| Councillor Frank Maiolo | Two Wells Ward |
| Councillor Margherita Panella | Lewiston Ward |

## 2. CONFIRMATION OF MINUTES

2.1 Infrastructure and Environment Committee Meeting – 10 February 2020

**Committee Resolution**

Moved Councillor Boon Seconded Councillor Parker **2020/ 015**

**"that the minutes of the Infrastructure and Environment Committee meeting held on Monday 10 February 2020 (MB Folios 33 to 40, inclusive), be accepted as read and confirmed."**

**CARRIED**

## 3. BUSINESS ARISING

Nil

## 4. DECLARATION OF MEMBERS' INTERESTS (material, actual, perceived)

Nil

## 5. ADJOURNED ITEMS

Nil

## 6. REPORTS FOR INFORMATION

6.1 Committee Resolutions

**Committee Resolution**

Moved Councillor Keen Seconded Mayor Wasley **2020/ 016**

**"that the Infrastructure and Environment Committee, having considered Item 6.1 – *Committee Resolutions*, dated 10 March 2020, receives and notes the report."**

**CARRIED**

## 7. REPORTS FOR DECISION

7.1 Draft 2020-2024 – 4 Year Capital Program

**Committee Resolution**

Moved Mayor Wasley Seconded Councillor Lush **2020/ 017**

**"that the Committee, having considered Item 7.1 – *Draft 2020-2024 – 4 Year Capital Program*, dated 10 March 2020, receives and notes the report and in doing so recommends to Council that it adopts the draft 2020-2024, 4 Year Capital Renewal Program as presented at Attachment 1 to this Report subject to the following firstly being undertaken:**

1. **Identification and priority assessment of items not included in the previous Capital Works Program**
2. **An assessment of the impact on Council's financial sustainability of adding additional items and increases to expenditure for existing planned items to Council's existing Long Term Financial Plan."**

**CARRIED**

**8. QUESTIONS ON NOTICE**

Nil

**9. QUESTIONS WITHOUT NOTICE**

Not recorded in Minutes in accordance with Regulation 9(5) of the *Local Government (Procedures at Meetings) Regulations 2013.*

**10. MOTIONS ON NOTICE**

Nil

**11. MOTIONS WITHOUT NOTICE**

Nil

**12. URGENT BUSINESS**

Nil

**13. CONFIDENTIAL ITEMS**

Nil

**14. NEXT MEETING**

Tuesday 2 June 2020 at 6.00pm

**15. CLOSURE**

There being no further business, the Chairperson declared the meeting closed at 6.29pm.

Confirmed as a true record.

Chairperson:.....

Date: ____/____/____

| | | |
|---|---|---|
| Adelaide Plains Council | 6.1 | Committee Resolutions |
| | Department: | Infrastructure and Environment |
| | Report Author: | General Manager – Infrastructure and Environment |
| Date: 3 September 2020 | Document No: | D20/39592 |

## OVERVIEW

The purpose of this report is to provide an update in relation to the status of Committee resolutions currently being actioned, for Members' information and monitoring.

**Attachment 1** provides a list of *ongoing* Committee Resolutions from March 2019 to February 2020, and *all* Committee Resolutions from the 10 March 2020 meeting.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 6.1 – *Committee Resolutions*, dated 3 September 2020, receives and notes the report."**

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## Attachments

1. Resolution Register

## References

Legislation

Local Government Act 1999

Other

N/A

**Infrastructure & Environment Committee - Ongoing Resolutions**

| Meeting Date | Item Number | Title | Resolution Description | Resolution Number | Status/Comments ('Deferred, Ongoing, Agenda, Completed') |
|---|---|---|---|---|---|
| 13-Mar-19 | 11.3 | Quarry Management | **"that the Infrastructure & Environment Committee, having considered Item 11.3 - Quarry Management, receives and notes report and in doing so recommends to Council that it instruct the Chief Executive Officer to:<br>1. Cease any further repairs to the crushing machine;<br>2. Contract out all rubble crushing services, in accordance with Council's Procurement Policy; and<br>3. Dispose of the current rubble crushing machine, associated generator set, and loader, in accordance with Council's Disposal of Land and Other Assets Policy."** | **2019/017** | **Completed** |
| 13-Mar-19 | 11.4 | Financial Impact of Residential Growth in Two Wells | **"that the Infrastructure and Environment Committee, having considered Item 11.4 – Financial Impact of Residential Growth in Two Wells, dated 13 March 2019, receives and notes the report and in doing so:-<br>1. Requests that the Chief Executive Officer brings back a report to the Committee with an associated policy governing service levels for development in the Adelaide Plains Council Area; and<br>2. Recommends to Council that, until a policy is adopted, it instruct the Chief Executive Officer to have particular regard to the financial impact of relevant design specifications, in assessing Eden and Liberty development applications."** | **2019/020** | **Agenda - 3 September 2020** |
| 18-Oct-19 | 8.1 | Eden and Liberty Landscaping | **"that the Infrastructure and Environment Committee, having considered Item 8.1 – Eden and Liberty Landscaping, dated 18 October 2019, receives and notes the report and in doing so recommends to Council that it:<br>1. Adopts the Eden Central Reserve landscape plans and outcomes of the open space assessment as presented in Attachment 1 and 3 to this Report;<br>2. Adopts the thrust and direction of Liberty Central Reserve, water bodies, swale and entrance reserve concept landscape plans as presented in Attachment 2 to this Report subject to: a. Carrying out an open space assessment for Liberty Central Reserve, water bodies, swale and entrance reserve concept landscape plans to reflect a lower maintenance, higher biodiversity, outcomes for Liberty;<br>b. An alternative solution to turfed verges; and<br>c. The maintenance period being extended to no less than the end of the 2022/2023 financial year, to reduce the financial impact on Council."** | **2019/046** | **Agenda - 3 September 2020** |

| | | | | | |
|---|---|---|---|---|---|
| 10-Feb-20 | 8.1 | Liberty Stages 1-4 Road Naming | **"that the Infrastructure and Environment Committee, having considered Item 8.1 – Liberty Stages 1–4 – Road Naming, dated 10 February 2020, receives and notes the report and in doing so recommends to Council that:**<br>**1. Council acknowledges the previously approved street naming to Eden, approved under delegation in 2015**<br>**2. Meaney Drive remains as the road name between the Mallala Road/Old Port Wakefield Road intersection (future roundabout) and the new Jefferson Boulevard roundabout, on the alignment of the former Port Wakefield Road**<br>**3. The section of new road between the Jefferson Boulevard roundabout and the Meaney Road roundabout be named Benjamin Franklin Boulevard**<br>**4. Meaney Road should remain as the road name to the west of Benjamin Franklin Boulevard, to the closed end of the former Port Wakefield Road**<br>**5. Council supports the proposed Liberty theme, in particular the 19 libertarian based street names to Stages 1 – 4 and**<br>**6. Council develop a list of appropriate road names to be provided to the developer for Stage 5 and beyond."** | **2020/007** | **Agenda - 3 September 2020** |
| 10-Feb-20 | 8.1 | Liberty Stages 1-4 Road Naming | **"that the Infrastructure and Environment Committee recommends to Council that it develops a list of appropriate road names to be utilised across all developments within the Council region in accordance with Council's Road and Public Places Naming Policy and in particular clause 4.2.2."** | **2020/008** | **Agenda - 3 September 2020** |
| 10-Feb-20 | 8.4 | Community Empowerment Model for Facility Management | **"that the Infrastructure and Environment Committee, having considered Item 8.4 – Community Empowerment Model for Facility Management, dated 10 February 2020, receives and notes this report and recommends that Management carry out further costings and consultation to better assess the likelihood of success in implementing a Community Empowerment model for facility management."** | **2020/011** | **Ongoing** |

| | | | | | |
|---|---|---|---|---|---|
| 10-Feb-20 | 14.1 | Road Infrastrucure Design and Delivery Deed - Mallala Road Roundabout | **"that the Infrastructure and Environment Committee, having considered Item 14.1 – Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout, dated 10 February 2020, receives and notes the report and in doing so recommends that Council that:**<br>**1. Council acknowledges the capped Department of Planning, Transport and Infrastructure (DPTI) contribution towards the roundabout proposed for Old Port Wakefield Road and Two Wells Road, Two Wells at $497,000 with land acquisition costs to be the responsibility of, and borne entirely by, DPTI**<br>**2. Council acknowledges that within its 2019/2020 Annual Business plan and budget, a $500,000 allocation has been set aside for Council's share of the proposed roundabout**<br>**3. Council acknowledges that until a tripartite funding agreement has been executed, there is no surety that Council's costs may not escalate beyond $500,000**<br>**4. In the event the parties cannot agree to the terms and conditions of a funding agreement which caps Council's contribution at $500,000, Council reserves the right to explore the raising of a separate rate, under the Local Government Act 1999, over the Liberty and Eden developments as a means of recouping costs."** | **2020/013** | **Ongoing. Council endorsed the resolution at its meeting on 24 February 2020. Agenda - 3 September 2020** |

2020

**Infrastructure & Environment Committee - Resolutions from March 2020**

| Meeting Date | Item Number | Title | Resolution Description | Resolution Number | Status/ Comments ('Deferred, Ongoing, Agenda, Completed') |
|---|---|---|---|---|---|
| 10-Mar-20 | 2.1 | Confirmation of Minutes | "that the minutes of the Infrastructure and Environment Committee meeting held on Monday 10 February 2020 (MB Folios 33 to 40, inclusive), be accepted as read and confirmed." | 2020/015 | Completed |
| 10-Mar-20 | 6.1 | Committee Resolutions | "that the Infrastructure and Environment Committee, having considered Item 6.1 - Committee Resolutions, dated 10 March 2020, receives and notes the report." | 2020/016 | Completed |
| 10-Mar-20 | 7.1 | Draft 2020-2024 - 4 Year Capital Program | "that the Committee, having considered Item 7.1 – Draft 2020-2024 – 4 Year Capital Program, dated 10 March 2020, receives and notes the report and in doing so recommends to Council that it adopts the draft 2020-2024, 4 Year Capital Renewal Program as presented at Attachment 1 to this Report subject to the following firstly being undertaken:<br>1. Identification and priority assessment of items not included in the previous Capital Works Program<br>2. An assessment of the impact on Council's financial sustainability of adding additional items and increases to expenditure for existing planned items to Council's existing Long Term Financial Plan." | 2020/017 | Completed |

| | | |
|---|---|---|
| Adelaide Plains Council | 6.2 | Polymer Trial for Sheeted Roads |
| | **Department:** | **Infrastructure and Environment** |
| | **Report Author:** | **General Manager Infrastructure and Environment** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39389** |

## OVERVIEW

Purpose

The purpose of this report is to provide the Infrastructure and Environment Committee (the Committee) an update on Councils traditional imported limestone rubble versus in-situ stabilisation (polymer) of residual rubble trial.

Background

Council embarked on an unsealed road project in conjunction with Tonkin's in September 2019.

To ensure sustainable long term asset management is achieved, coupled with community requests to seal unsealed roads, Management engaged Tonkin's to conduct an unsealed road trial, in order to better understand the material characteristics used by Adelaide Plains Council, and the broader Local Government Sector and their performance, particularly on higher use roads.

Tonkin's have sampled materials from approximately 20 unsealed roads across the mid north and conducted testing to begin the journey of understanding material characteristics and observed performance relevant to the local climatic conditions and seasonal variations in road use.

Tonkin's trial being undertaken for Adelaide Plains Council, compares traditional imported limestone rubble versus in-situ stabilisation (polymer) of residual rubble and subgrade. Tonkin's conduct observations every 3 months, and will provide a detailed report and recommendations after a 2 year period.

The trial will provide Council with a strong knowledge base to help inform decisions on unsealed road material selection and maintenance and ensure sustainable long term asset management is achieved into the future.

Tonkin is currently undertaking investigations into the performance of unsealed road material across South Australian roads. Field sampling is underway and comprises sampling material, undertaking testing on the samples and ongoing monitoring at 3 monthly quarterly intervals.

There are currently a number of councils across the state involved including;

- Adelaide Plains Council
- Clare & Gilbert Valleys Council
- Copper Coast Council
- Regional Council of Goyder
- Light Regional Council
- Northern Areas Council
- Port Pirie Regional Council
- Wakefield Regional Council
- Yorke Peninsula Council

The information gathered from the investigations will help the councils to make more informed decisions on material selection moving forward. Additionally, it will provide Council with tangible data on unsealed road material performance to shape future decisions.

The Infrastructure and Environment Committee, at its Meeting held on 10 February 2020, resolved as follows:

7.3 Polymer and Alternative Rubble Source for Sheeted Roads

Moved Councillor Lush Seconded Councillor Parker **2020/ 004**

**"that Infrastructure and Environment Committee, having considered Item 7.3 – *Polymer and Alternative Rubble Source for Sheeted Roads*, dated 10 February 2020, receives and notes the report and in doing so supports the delay of any further polymer or alternative rubble trials until the existing trial is complete.**

**CARRIED**

Discussion

On 22 May 2020 a workshop was held to provide preliminary findings from the unsealed road trials. The workshop presented data gathered, approach to testing, field monitoring and findings so far, the workshop also provide participating Council an opportunity to discuss material characteristics in the field and discuss ways to rank the roads from best to worst with consideration to material and traffic.

Since May 2019, Tonkin has worked with 9 Councils around the state to test unsealed material used in the previous year's works programs and monitored material performance in the field.

With 3 monthly monitoring completed over the last 12 months the trail roads have now been through the wet and dry seasons. The learnings to date were discussed at the workshop and feedback sought on assessing what makes a good unsealed road material.

Conclusion

Councils 2 year trial concludes early 2021, with a detailed report and recommendations being provided at the conclusion of the trial. This report will provide critical information on traditional imported limestone rubble versus in-situ stabilisation (polymer) of residual rubble and subgrade and bench mark against other Councils. The trial will provide Council with a strong knowledge base to help inform decisions on unsealed road material selection and maintenance and ensure sustainable long term asset management is achieved into the future.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 6.2 – *Polymer Trial for Sheeted Roads*, dated 3 September 2020, receives and notes the report."**

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## Attachments

Nil

## References

Legislation

*Local Government Act 1999*

Council Policies/Plans

*Infrastructure and Asset Management Plan*

| | | |
|---|---|---|
| Adelaide Plains Council | 6.3 | SA Rural Roads Package, SA Livestock Exchange Access, Dublin |
| | Department: | Infrastructure and Environment |
| | Report Author: | General Manager Infrastructure and Environment |
| Date: 3 September 2020 | Document Ref: | D20/39388 |

## OVERVIEW

Purpose

The purpose of this report is to provide Infrastructure and Environment Committee (the Committee) an update regarding the Australian and State Government's SA Rural Roads Package, that includes an allocation of $11M for improving the Dublin Saleyard Access.

Background

Council, at its Ordinary Meeting on 28 October 2019, resolved as follows:-

*14.6 SA Rural Roads Package, SA Livestock Exchange Access, Dublin*

*Moved Cr Keen Seconded Cr Panella* ***2019/ 458***

***"that Council endorses resolution 2019/046 of the Infrastructure and Environment Committee, and in doing so:***

1. ***Instructs the Chief Executive Officer to write to the Department of Planning, Transport and Infrastructure (DPTI) thanking them for the correspondence and offer to partner along with adjoining business owners and landowners on this very important infrastructure improvement project for the state; and***
2. ***Supports the initiative on the basis that on the successful completion of the project, DPTI becomes the Road Manager and Approving authority under the National Heavy Vehicle Law for route extensions to the restricted access vehicle network which entails the road network from the intersection of Port Wakefield Road-Carslake Road to the immediate east of the Livestock Markets Ltd access/egress point, including sealed crossovers and associated drainage;***
3. ***Supports the initiative on the basis that DPTI consider the Carslake Road/Port Wakefield Road/Thompson Road intersection further in regard to higher productivity vehicles being able to access and egress the Nasser Feedlot, to the western side of Port Wakefield Road;***
4. ***Supports the initiative on the basis that DPTI take over the master planning process for a Structure Plan for the Urban Employment Zone and environs, commenced by URPS on behalf of Council earlier this***

***year, for the possible rezoning of properties directly abutting Port Wakefield Road (both sides of the highway) and with Council to assist with public consultation and negotiation with individual landowners in the vicinity; and***

5. ***Delegate to the Chief Executive Officer completion of direct negotiation with affected landowners on the projected increase in heavy vehicle numbers into the future, prior to Council's formal response going back to DPTI by 31 October deadline."***

***CARRIED***

Following the above resolution of Council in October 2019, Management sent a written response outlining resolutions 2019/458. General Manager Development and Community and General Manager Infrastructure and Environment met with DTI representatives on 14 November 2019 to discuss the project progress and Council written response. A formal response was received on 16 April 2020.

Discussion

Management continue to liaise with DTI representatives, most recently the follow information has been received;

- The Alliance team consist of CPB Contractors, Aurecon and GHD.
- The Alliance Interface Manager for Augusta Hwy and Port Wakefield Hwy projects is Nicholas Prescott.
- The scope of works included for the Carslake Road project is:
    - Planning, Design and Construction of the Port Wakefield Hwy junction upgrade,
    - Design for the Carslake Road upgrade, and
    - Design for the Livestock Exchange access upgrade.
- The available funding is expected to cover the costs of planning, design and construction for all of these works, however the construction procurement for Carslake Road and Livestock Exchange access upgrade are not determined. Council may wish to engage with the Alliance to do this work, or alternatively engage other construction contractors (with a separate funding agreement between Council and DTI to be established).
- No consultation has been done with any landowners (or Nassar Feedlot) to-date by the Alliance team.
- Thompson Road junction has been incorporated into works program – DTI has made the Alliance aware of the adjacent Thompson Road junction and asked that any designs consider the potential impacts on this location (i.e. not preclude future upgrades). The Thompson Road junction construction is 'out of scope' for the Carslake Road upgrade project. DTI will need to seek separate funding for this project based on the new Alliance design.
- Documentation has been provided by DTI for Council to purse DTI becoming the road manager for Carslake Road.
- The Alliance team will include a consultation team which will need to contact landowners as part of the Carslake Road upgrade works. There will likely be opportunities for synergies between the consultation of Carslake Road and the Structure Plan. This should be co-ordinated with the Alliance Interface Manager.

- The Alliance Interface Manager has indicated that design will be completed by December 2020, furthermore throughout the design process Council will have the ability to comment on hold points i.e. 30%, 60% and 80%.

Conclusion

A further report will be presented to the Infrastructure and Environment Committee, upon more information being gathered.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 6.3 – *SA Rural Roads Package, SA Livestock Exchange Access, Dublin*, dated 3 September 2020, receives and notes the report."**

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## Attachments

Nil

## References

Legislation

*Nil*

Council Policies/Plans

*Nil*

| | | |
|---|---|---|
| Adelaide Plains Council | **7.1** | **Thompson Beach, Seasonal Closure of Beach to Vehicles** |
| | **Department:**<br><br>**Report Author:** | **Infrastructure and Environment**<br><br>**Coastal Conservation Officer** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39385** |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider the implications of a request to trial a closure of Thompson Beach from motor vehicles between October 2020 and May 2021 with the view to extend the seasonal closure for future seasons.
- On 11 November 2019 Management were approached by the Senior Ranger for the Adelaide International Bird Sanctuary, who requested a seasonal restriction on motor vehicles at Thompson Beach between September and May annually.
- As part of Council's, Local Government Land By-law 2019, Council has the ability by way of Council resolution, to prohibit a vehicle to be driven or propelled on any part of local government land.
- Migratory shorebirds utilise our coastal areas over the summer months to feed and fatten up in preparation for their annual migration to the northern hemisphere to breed. Disturbance by off road vehicles has been identified threat to migratory shorebirds.
- Migratory Shorebirds are protected under the *Environmental Protection and Biodiversity Act 1999*. Some of the species utilising Council's coastal areas are classified as critically endangered.
- Minimising human induced threats to migratory shorebirds in Australia is a key objective in Birdlife Australia's Migratory Shorebird Conservation Action Plan. This is supported by Council's Natural and Coastal Areas Management Plan which was developed to guide the management of the natural and coastal areas to ensure these lands remain a valuable natural resource for existing and future generations
- The request to trial a seasonal closure at Thompson Beach is aligned with Councils 'Natural and Coastal Areas Management Plan' objectives.
- Access management is important for recreational and environmental outcomes and the proposed recommendation seeks to balance visitor use whilst seeking to reduce the impact caused by off road vehicles.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.1 – *Thompson Beach, Seasonal closure of Beach to Vehicles*, dated 3 September 2020, receives and notes the report and in doing so recommends to Council that it trial prohibiting vehicles on the beach at Thompson Beach between 5 October 2020 and 30 May 2021, with the exception of emergency services, Council and Department of Environment and Water service vehicles or those launching and/or retrieving boats.**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | $300 (signage installation at vehicle access points within Thompson Beach) |
| Future ongoing operating costs: | 0 |
| Is this Budgeted? | Yes |

## RISK ASSESSMENT

The recommendation will improve beach safety for pedestrians, fishers and crabbers. Reduced vehicle use will also lessen risk of damage to vegetation and levees surrounding the township. The proposed resolution and long term adoption of the recommendation would benefit natural assets and provide an improved visitor attraction to the region for bird tourism. Given that the proposed restriction is suggested as a trial, Council retains capacity to reinstate vehicle access should the changes be considered unsatisfactory following the trial.

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## Attachments

Nil

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider the implications of a request to trial a closure of Thompson Beach from motor vehicles between October 2020 and May 2021 with the view to extend the seasonal closure for future seasons.

### Background/History

For the past 20 years Council has worked with community and interested environmental groups to protect and improve the coastal environment within the district. The proclamation of a National Park has enabled further protections for migratory shorebirds but significant areas are still under the care and control of Council. In relation to Thompson Beach the area in front of the township is under care and control of Council to the low water mark and the areas both north and south of this are proclaimed National Park.

On the 11 November 2019, Management were approached by the Senior Ranger for the Adelaide International Bird Sanctuary, who requested a seasonal restriction on motor vehicles at Thompson Beach between September and May.

As part of Council's Local Government Land By-law 2019,'Council has the ability by way of Council resolution to, prohibit a vehicle to be driven or propelled on any part of local government land. The grey area indicates land under care and control of Council.



Migratory shorebirds utilise our coastal areas over the summer months to feed and fatten up in preparation for their annual migration to the northern hemisphere to breed.

The Adelaide International Bird Sanctuary sits right at the southern end of the East Asian-Australasian Flyway (EAAF) and is one of the key feeding and roosting sites for migratory birds who use the flyway each year.

Across the globe, migratory shorebird populations are declining rapidly. A number of threatening processes have been identified. Disturbance from human activity is a key threat and this includes off road vehicle use on beaches.

In the EAAF, significant regional declines have been identified in at least 18 species, some of which utilise the Adelaide Plains coastline. Under the *Environment Protection and Biodiversity Conservation Act 1990* the following classifications apply to the following birds which are known to feed and roost in the area identified.

| | | |
|---|---|---|
| **Critically Endangered** | The Eastern Curlew (Numenius madagascariensis),<br>Bar-tailed Godwit (spp. menzbieri),<br>Great Knot (Calidris tenuirostris) and<br>Curlew Sandpiper (Calidris ferruginea) |  |
| **Endangered** | The Red Knot (Calidris canutus) |  |
| **Vulnerable** | Bar-tailed Godwit (spp. baueri) |  |

Councils Natural and Coastal Areas Management Plan was developed to guide the management of the natural and coastal areas to ensure these lands remain a valuable natural resource for existing and future generations. Objectives include;

- To strengthen natural ecosystems, biodiversity and habitat value relating to the natural and coastal areas
- To manage the use of and access to natural and coastal areas as part of protecting natural environments
- To contribute to the broader objectives and achievements of environmental organisations that have an interest in the District, e.g. relating to the International Bird Sanctuary.

## Discussion

As a land manager Council has a responsibility to manage its land in line with its relevant Community Land Management plan. Council's Natural and Coastal Management plan objectives have a focus on strengthening biodiversity and habitat value and allowing for the management of access to protect natural values.

Migratory shorebirds have seen dramatic population declines and face a number of threats along their flyway. Thompson Beach is a terminal feeding site for many species, some of which are considered critically endangered. Management actions which reduce disturbance whilst the birds are present will assist in maintaining habitat condition within our local area.

Thompson Beach is a popular destination for fishers and crabbers with seasonal visitation over the summer months increasing. Maintaining legitimate access whilst reducing impacts from disturbance and habitat decline would be a desired outcome.

Thompson Beach currently has 2 vehicle access points and 17 pedestrian access points within a 3km stretch of coastline. This level of access provides multiple options for people to access the beach without the need to drive onto the sand. There are a small number of residents and visitors who launch a boats from Thompson Beach. By limiting vehicle access to those who launch and retrieve a vessel, the proposed restriction will still maintain legitimate activity whilst discouraging the north and south movement of vehicles. It is the north and south traffic which results in vehicles regularly becoming bogged, leading to the wide spread disturbance and compaction of soils.

The Department of Environment have installed infrastructure at the northern end of Thompson Beach to restrict vehicles accessing the beach area north of the township and infrastructure at Pt Prime to limit access from the south. When on the beach there are limited natural features which provide clear guidance to know when you are on Council Managed Land or National Park.

The proposed recommendation would provide clarity for visitors and residents regarding vehicle use on the beach and maintain access that provides for the recreational activities of fishing, crabbing and bird watching.

## Conclusion

As a responsible land manager, Council has a duty to manage its land for all user groups and to do so in accordance with relevant management plans. Access management is important for recreational and environmental outcomes and the proposed recommendation seeks to balance visitor use whilst seeking to reduce the impact caused by off road vehicles.

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## References

Legislation

*Environmental Protection and Biodiversity Act 1999*

Council Policies/Plans

Council's Natural and Coastal Areas Management Plan

| | | |
|---|---|---|
| | **7.2** | **Road Naming List** |
| | **Department:** | **Infrastructure and Environment** |
| | **Report Author:** | **General Manager – Infrastructure and Environment** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39379** |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and make recommendation to Council in relation to, adopting the road naming list to be utilised for all future developments with Adelaide Plains Council region.
- Council's Infrastructure and Environment Committee has been requested to review the road naming list in light of the recently endorsed policy.
- A list of potential road names has been prepared using local history and reference books, websites and tools.
- This report should be considered in conjunction with the Road and Public Places Naming Policy, the road naming list. It is for the Committee to now consider, and make recommendations to Council accordingly.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.2 – *Road Naming List*, dated 3 September 2020, receives and notes the report and in doing so recommends to Council that it endorse the Road Naming List."**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | Nil |
| Future ongoing operating costs: | Nil |
| Is this Budgeted? | Not Applicable |

## RISK ASSESSMENT

The *Local Government Act 1999* requires Councils to prepare and adopt a policy relating to the assignment of road names under Section 219 of the Act. Any road naming requests will need to meet the recently updated policy. To ensure all road names for all future developments are in line with the Road and Public Places Naming Policy, the road naming list has been developed.

Risks associated with this report are considered to be low and related to Council's reputation and are generally not of a financial or compliance type.

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## Attachments

1. Road Naming List
2. Road and Public Places Naming Policy

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and make recommendation to Council in relation to, adopting the road naming list to be utilised for all future developments with Adelaide Plains Council region.

### Background

Council, at its Ordinary Meeting on 24 February 2020, resolved as follows:

*12.3* *Liberty Stages 1–4 – Road Naming*

*Moved Councillor Parker Seconded Councillor Lush* ***2020/ 044***

***"that Council endorses resolution 2020/007 of the Infrastructure and Environment Committee and in doing so:***

1. ***Acknowledges the previously approved street naming to Eden, approved under delegation in 2015***
2. ***Resolves that Meaney Drive remains the road name between the Mallala Road/Old Port Wakefield Road intersection (future roundabout) and the new Jefferson Boulevard roundabout, on the alignment of the former Port Wakefield Road***
3. ***Resolves that the section of new road between the Jefferson Boulevard roundabout and the Meaney Road roundabout be named Benjamin Franklin Boulevard***
4. ***Supports the proposed Liberty theme, in particular the 19 libertarian based street names to Stages 1-4 and***
5. ***Instructs the Chief Executive Officer to develop a list of appropriate road names to be provided to the developer for Stage 5 and beyond."***

***CARRIED***

Additionally, Council, at its Ordinary Meeting on 24 February 2020, resolved as follows:

*12.3*

*Moved Councillor Panella Seconded Councillor Boon* ***2020/ 045***

***"that Council endorses resolution 2020/008 of the Infrastructure and Environment Committee and in doing so instructs the Chief Executive Officer develop a list of appropriate road names to be utilised across all developments within the Council region in accordance with Council's Road and Public Places Naming Policy and in particular clause 4.2.2."***

***CARRIED***

## Discussion

Following the resolution of Council in February 2020 Management have been developing a road naming list with consideration given to the recently endorsed Road and Public Places Naming Policy on 28 January 2020.

With significant development occurring within the Adelaide Plains Council region and road naming list has been developed with the intention of it being utilised for all future developments.

Further to this, research has been carried out, referencing several history books on the region, including but not limited to:

- (Life around the Light – a History of the Mallala District Council area;
- Two Wells then and now – Bet Williams;
- To South Australia's shores they came – Monica Porter;
- People of the Plains – Jean V Wood;
- Mallala Wiki Website, Dublin History Group;
- Rolls of Honour; and
- TROVE – digitised newspapers

These sources have been used to further verify and confirm the cultural links of those recognised names. The list is a living document and is intended to be developed to over time.

The list presented is acknowledged as starting point and Management note that in accordance with the Road and Public Places Naming Policy, further names to be added will include Aboriginal names from Kaurna people, eminent Australians, thematic names such as flora or fauna, war casualty lists and so forth.

## Conclusion

This report should be considered in conjunction with the *Road and Public Places Naming Policy*. It is for the Committee to now consider, and make recommendations to Council accordingly.

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## References

Legislation

*Local Government Act 1999*

*Australian Standard 4590.1: 2017*

*Australian Standard 1742.5: 2017*

Standards and Guidelines

*Model Policy for the Selection of Road Names (Local Government Association of South Australia, April 2010)*

Council Policies/Plans

*Road Naming Policy*

*Council Strategic Plan:-*

*4.3.1 Provide and maintain a safe and fit for purpose local road network*

*4.5.1.11 Meet all legislative compliance requirements*

Road Naming List

| Name | Road Name Suggestion | Location | Reason | Classification | Comment |
|---|---|---|---|---|---|
| Margaret Tiller | Court | Mallala | contribution to region | Local Mallala | |
| Tucker | Court | Mallala | contribution to region | Local Mallala | |
| Griffiths | | Mallala | contribution to region | Local Mallala | |
| Algar | | Mallala | contribution to region | Local Mallala | |
| Sowerby | | Mallala | contribution to region | Local Mallala | |
| Donlan | Place | Mallala | contribution to region | Local Mallala | |
| Kakoshke | Drive | Mallala | contribution to region | Local Mallala | |
| Dunstan | Place | Mallala | contribution to region | Local Mallala | |
| Moody | | Mallala | early settler | Local Mallala | |
| East | | mallala | contribution to the region | Local Mallala | |
| Huxtable | Road | Mallala | contribution to region | Local Mallala | |
| Clem Smith | Drive | Mallala | contribution to motorsport in region | Local Mallala | |
| Soerensen | | Mallala | contribution to region | Local Mallala | |
| Pontt | | Mallala | District Clerk DCM 1962-1984 | Local Mallala | Pontt Road, Lewiston |
| Dunlop | | Mallala | District Clerk DCM 1984-2007 | Local Mallala | Dunlop Boulevard, Lewiston |
| Pitt | | Mallala | District Clerk DCM 1954-1962 | Local Mallala | |
| Jenkin | | Lewiston | early settler in Two Wells - all children attended Lewiston School | Local Lewiston | |
| Bursey | | Lewiston | name of Jenkin home | Local Lewiston | |
| Puro | | Lewiston | contribution to TWEPC | Local Lewiston | |
| Wake | | Lewiston | contribution to the region (specifically landcare) | Local Lewiston | |
| Fielke | | Lewiston | contribution to landcare group | Local Lewiston | |
| Hicks | | Two Wells | early settler in Two Wells | Local Two Wells | |
| Arnold | | Two Wells | early settler in Two Wells | Local Two Wells | |
| Jenkin | | Lewiston | early settler in Two Wells - all children attended Lewiston School | Local Two Wells | |
| Brumby | | Two Wells | first lamplighter in town of two wells (est. 1910) | Local Two Wells | |
| Loller | | Two Wells | one of the last councillors of Pt Gawler Council before amalgamation | Local Two Wells | |
| Murrell | | Two Wells | contribution to region | Local Two Wells | |

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|---|---|---|---|---|---|
| Bet Williams | drive | Two Wells | first female elected to Council, local historian, contribution to the region | Local Two Wells | |
| Audrey Hart | Way | Two Wells | contribution to region | Local Two Wells | |
| Arbon | | Two Wells | contribution to region | Local Two Wells | |
| Baker | | Two Wells | contribution to region | Local Two Wells | |
| Barker | | Two Wells | contribution to region | Local Two Wells | Bakers Road, Lewiston |
| Belcher | | Two Wells | contribution to region | Local Two Wells | |
| Bilney | | Two Wells | contribution to region (Mrs Pat Seccafien was first female President of TW Institute Committee - 1st Italian Liaison officer at TWPS) | Local Two Wells | |
| Bobridge | | Two Wells | contribution to region (Mrs Pat Seccafien was first female President of TW Institute Committee - 1st Italian Liaison officer at TWPS) | Local Two Wells | |
| Brechin | road | Two Wells | contribution to region | Local Two Wells | |
| Burne | Street | Two Wells | contribution to region | Local Two Wells | |
| Clements | drive | Two Wells | contribution to region | Local Two Wells | Clements Road, Lewiston |
| Corston | Drive | Two Wells | contribution to region | Local Two Wells | |
| Daniele | road | Two Wells | contribution to region | Local Two Wells | |
| Dimasi | | Two Wells | contribution to region | Local Two Wells | |
| Dyer | Street | Two Wells | contribution to region | Local Two Wells | |
| Harris | road | Two Wells | ran general store (now raine & horne building) | Local Two Wells | |
| Henwood | Drive | Two Wells | contribution to region | Local Two Wells | |
| Howell | Street | Two Wells | contribution to region | Local Two Wells | |
| Kelly | road | Two Wells | contribution to region | Local Two Wells | |
| Kennewell | Road | Two Wells | contribution to region | Local Two Wells | |
| Kermeen | Street | Two Wells | contribution to region | Local Two Wells | |
| Lange | | Two Wells | contribution to region | Local Two Wells | |
| Lamont | Road | Two Wells | contribution to region | Local Two Wells | |
| Milton | court | Two Wells | contribution to region | Local Two Wells | |
| Launer | | Two Wells | contribution to region | Local Two Wells | |
| Pellizzari | | Two Wells | contribution to region | Local Two Wells | |
| Pethick | Court | Two Wells | contribution to region | Local Two Wells | |
| Prior | road | Two Wells | contribution to region | Local Two Wells | |

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|---|---|---|---|---|---|
| Seccafien | | Two Wells | contribution to region (Mrs Pat Seccafien was first female President of TW Institute Committee - 1st Italian Liaison officer at TWPS) | Local Two Wells | |
| Sims | road | Two Wells | contribution to region | Local Two Wells | |
| Spurling | road | Two Wells | contribution to region | Local Two Wells | |
| Stodart | road | Two Wells | contribution to region | Local Two Wells | |
| Wilkinson | Avenue | Two Wells | contribution to region | Local Two Wells | |
| Wright (Pat & Arch) | Street | Two Wells | contribution to region | Local Two Wells | |
| Walden (Lynette) | Avenue | Two Wells | contribution to region | Local Two Wells | |
| Invermay Lodge | Road | Two Wells | First hotel in TW - Invermay Lodge - formerly located on Sharpes property (recenlty demolished) | Local Two Wells | |
| Wooltana | Avenue | Two Wells | former fertiliser business located on (now) Meaney Drive in Two Wells. Now private residence | Local Two Wells | |
| Bartlett | | Mallala | WW1 | Soldiers Mallala | Bartlett Street, Mallala |
| Buttle | | Mallala | WW1 | Soldiers Mallala | |
| Cope | | Mallala | WW1 | Soldiers Mallala | Received Military Medal - (listed on TW War Memorial) Place of birth and address Mallala |
| Cullen | | Mallala | WW1 | Soldiers Mallala | |
| Earl | | Mallala | WW1 | Soldiers Mallala | Earl Road, Mallala |
| Lindsay | | Mallala | WW1 | Soldiers Mallala | Lindsay Street, Mallala |
| Nairne | | Mallala | WW1 | Soldiers Mallala | Nairne Road, Grace Plains |
| Roberts | | Mallala | WW1 | Soldiers Mallala | Roberts Road, Lewiston |
| Shimmin | | Mallala | WW1 | Soldiers Mallala | |
| Theobald | | Mallala | WW1 | Soldiers Mallala | |
| BAKER Dorothy Emily (female) | | Dublin | | Soldiers HD Dublin and Lower Light | |
| BAKER Henry Andrew | | Dublin | | Soldiers HD Dublin and Lower Light | |
| BAKER Kelly Charles | | Dublin | | Soldiers HD Dublin and Lower Light | |
| BEER Ernest William | | Dublin | | Soldiers HD Dublin and Lower Light | |
| BLYTHMAN William Ernest | | Dublin | | Soldiers HD Dublin and Lower Light | |

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|---|---|---|---|---|---|
| BUTTLE Samuel Leonard | | Dublin | | Soldiers HD Dublin and Lower Light | |
| CHRISTIANSON Louis William | | Dublin | | Soldiers HD Dublin and Lower Light | |
| DODD Walter Ernest Wilfred | | Dublin | | Soldiers HD Dublin and Lower Light | |
| DRISCOLL Leslie George | | Dublin | | Soldiers HD Dublin and Lower Light | |
| HABNER Harold Frederick | | Dublin | | Soldiers HD Dublin and Lower Light | |
| HEPWORTH Thomas | | Dublin | | Soldiers HD Dublin and Lower Light | |
| ILETT Benjamin | | Dublin | | Soldiers HD Dublin and Lower Light | |
| LONG Cecil Charles | | Dublin | | Soldiers HD Dublin and Lower Light | |
| MANUEL Stanley Roy | | Dublin | | Soldiers HD Dublin and Lower Light | |
| MICHAEL Thomas Francis | | Dublin | | Soldiers HD Dublin and Lower Light | |
| PETTITT Percival Arthur Charles | | Dublin | | Soldiers HD Dublin and Lower Light | |
| PRICE Harry Albert Enos | | Dublin | | Soldiers HD Dublin and Lower Light | |
| REID Thomas Francis | | Dublin | | Soldiers HD Dublin and Lower Light | |
| RICHARDSON John William | | Dublin | | Soldiers HD Dublin and Lower Light | |
| RICHARDSON Ovine | | Dublin | | Soldiers HD Dublin and Lower Light | |
| ROBERTS Errol Edward Vivian | | Dublin | | Soldiers HD Dublin and Lower Light | |
| ROBERTS Hugh David | | Dublin | | Soldiers HD Dublin and Lower Light | |
| ROBERTS Robert James | | Dublin | | Soldiers HD Dublin and Lower Light | |
| TAINSH Carlisle Clinton | | Dublin | | Soldiers HD Dublin and Lower Light | |
| TAYLOR Mont Alexander | | Dublin | | Soldiers HD Dublin and Lower Light | |
| WILLIAMS Charles John | | Dublin | | Soldiers HD Dublin and Lower Light | |
| WILSON Samuel | | Dublin | | Soldiers HD Dublin and Lower Light | |
| Pengilly | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Baker | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Manual | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |

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| Jones | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Cornford | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Penrose | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Earl | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Cornish | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Briggs | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| McArdle | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Rapko | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Rundle | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Burt | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Lyons | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Jones | | Wild Horse Plains | WW1 | Soldiers Wild Horse Plains | |
| Zanker | | Wild Horse Plains | WW2 | Soldiers Wild Horse Plains | |
| Adams | | Wild Horse Plains | WW2 | Soldiers Wild Horse Plains | |
| Carter | | Wild Horse Plains | WW2 | Soldiers Wild Horse Plains | |
| Griffiths | | Wild Horse Plains | WW2 | Soldiers Wild Horse Plains | |
| Nicholls | | Two Wells | Boer | Soldiers Two Wells | |
| Beames | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Beauchamp | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Local Baker |
| Boulter | | | WW1 | Soldiers Two Wells | Place of birth Two Wells |
| Burdon | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Address of joining listed as Two Wells (from Islington) |
| Cavanagh | | | WW1 | Soldiers Two Wells | |
| Cope | | | WW1 | Soldiers Two Wells | Mallala (listed on TW War Memorial) Place of birth and address Mallala - joined at Two Wells |
| Cordon | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Farmer from Pt Gawler |
| Cowan | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Farmer from Two Wells |
| Daves | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Dawkins | | | WW1 | Soldiers Two Wells | |
| Day | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) from Reeves Plains |
| Fischer | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Foster | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Enlisted at Two Wells |

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| Frost x 3 brothers | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Gameau | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Gill | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) awarded Military Medal |
| Halstead | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Hayden (Haydon) | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) from Kangaroo Flat |
| Henwood | | | WW1 | Soldiers Two Wells | |
| Houston | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Ince | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) KIA Gallipoli |
| Jantke | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) from Nuriootpa |
| Jenkin | | | WW1 | Soldiers Two Wells | Farmer from Pt Gawler |
| Johnston | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Minister not from area - joined at Two Wells |
| Judd | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) from Lewiston |
| Kingdon | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) Farm Hand from Two Wells |
| McCord | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Matheson | | | WW1 | Soldiers Two Wells | Place of birth Two Wells |
| Moody | | | WW1 | Soldiers Two Wells | Farmer - Two Wells NOK Mallala |
| Murrell | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) (address when joining) |
| Nicholls | | | WW1 | Soldiers Two Wells | Place of birth Two Wells |
| Pederick | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Phillis | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Pratt | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Radford | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Ray | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Ray | | | WW1 | Soldiers Two Wells | |
| Ritchie | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Rone | | | WW1 | Soldiers Two Wells | |
| Rossiter | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Sanford | | | WW1 | Soldiers Two Wells | |
| Secomb | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Snell | | | WW1 | Soldiers Two Wells | |

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|---|---|---|---|---|---|
| Taylor | | | WW1 | Soldiers Two Wells | |
| Temby | | | WW1 | Soldiers Two Wells | |
| Templer | | | WW1 | Soldiers Two Wells | |
| Tidmarsh | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Verner | | | WW1 | Soldiers Two Wells | |
| Vokes | | | WW1 | Soldiers Two Wells | |
| Wait | | | WW1 | Soldiers Two Wells | |
| Wasley | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Weatherspoon | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Westland | | | WW1 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Williamson | | | WW1 | Soldiers Two Wells | |
| Woods - James Park | | | WW1 | Soldiers Two Wells | Two Wells - VC Cross winner WW1 |
| Young | | | WW1 | Soldiers Two Wells | |
| Adams | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Applebee | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Baker | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Beaton | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Bennett | | | WW2 | Soldiers Two Wells | |
| Blackham | | | WW2 | Soldiers Two Wells | |
| Bone | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Brooks | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Carruthers | | | WW2 | Soldiers Two Wells | |
| Chruches | | | WW2 | Soldiers Two Wells | |
| Clutterham | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Cordon | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Dawkins | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Dunstan | | | WW2 | Soldiers Two Wells | Mallala |
| Finch | | | WW2 | Soldiers Two Wells | |
| Good | | | WW2 | Soldiers Two Wells | |
| Gordon | | | WW2 | Soldiers Two Wells | |
| Halliday | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Halstead | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Hamden | | | WW2 | Soldiers Two Wells | |
| Hart | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Hart | | | WW2 | Soldiers Two Wells | |
| Hayman | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Henwood | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Hicks | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Hill | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |

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| Houston | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Howell | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Innes | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Jarman | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Jarmyn | | | WW2 | Soldiers Two Wells | |
| Johnson | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Keating | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Kenner | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Lemmey | | | WW2 | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Nugent | | | Malaya | Soldiers Two Wells | |
| Oliver | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Porter | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Pratt | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Rowe | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Rowe | | | Malaya | Soldiers Two Wells | |
| Sandford | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Simpkins | | | Malaya | Soldiers Two Wells | |
| Simpkins | | | Malaya | Soldiers Two Wells | |
| Scott | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Templer | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Ware | | | Malaya | Soldiers Two Wells | |
| Johns | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Wheller | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Williams | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Wright | | | Malaya | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Wylie | | | Malaya | Soldiers Two Wells | |
| Badman | | | Vietnam | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Gameau | | | Vietnam | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Hart | | | Vietnam | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Prior | | | Vietnam | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Wendland | | | Vietnam | Soldiers Two Wells | Two Wells (listed on War Memorial) |
| Temby | | Two Wells | 1872-73 | Chairmen Pt Gawler | Temby Road, Two wells |
| Cowan - TC | | Two Wells | 1873-75 | Chairmen Pt Gawler | Cowan Road, Two Wells |
| Day | | Two Wells | 1875-77 | Chairmen Pt Gawler | Day Road, Reeves Plains |
| Temby | | Two Wells | 1877-81 | Chairmen Pt Gawler | Temby Road, Two wells |
| Gilks | | Two Wells | 1881-84 | Chairmen Pt Gawler | Gilks Road, Lewiston |
| H Secomb | | Two Wells | 1884-87 & 1888-90 | Chairmen Pt Gawler | Secomb Road, Two Wells |
| Condon | | Two Wells | 1887-88 | Chairmen Pt Gawler | Condon Road, Two Wells |

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|---|---|---|---|---|---|
| Hatcher | | Two Wells | 1890-92 | Chairmen Pt Gawler | Hatcher Road Ward Belt (not in APC Council region) |
| Cowan - WB | | Two Wells | 1892-98 | Chairmen Pt Gawler | Cowan Road, Two Wells |
| Wilson | | Two Wells | 1898-1900 & 1903-13 | Chairmen Pt Gawler | Wilson Road, Two Wells |
| Wasley - WH | | Two Wells | 1900-01 | Chairmen Pt Gawler | Wasley Road, Two Wells |
| McCord | | Two Wells | 1901-02 (3 months only) | Chairmen Pt Gawler | McCord Road, Two Wells |
| Cowan - WB | | Two Wells | 1901-03 | Chairmen Pt Gawler | Cowan Road, Two Wells |
| Wilson - HW | | Two Wells | 1903-13 | Chairmen Pt Gawler | Wilson Road, Two Wells |
| Wasley - HJ | | Two Wells | 1913-15 | Chairmen Pt Gawler | Wasley Road, TW & Mallala |
| Rowe | | Two Wells | 1915-17 | Chairmen Pt Gawler | Rowe Crescent, Two Wells |
| Day | | Two Wells | 1917-25 | Chairmen Pt Gawler | Day Road, Reeves Plains |
| Wasley - SA | | Two Wells | 1925-27 | Chairmen Pt Gawler | Wasley Road, TW & Mallala |
| Brooks | | Two Wells | 1927-29 | Chairmen Pt Gawler | Brooks Road, Two Wells |
| Green | | Two Wells | 1929-31 | Chairmen Pt Gawler | EH Green was Chairman of Pt Gawler Council from 1929-31. source Life around the Light - 1985) |
| Loller | | Two Wells | 1931-33 | Chairmen Pt Gawler | Bert Loller was a district councillor for more than 14 years. He took office in July 1931 and served the Pt. Gawler Council for 4 years, and was chairman from 1931-33. When Mallala and Two Wells amalgamated he was elected to office again and continued as a councillor from 1936-46 (source Life around the Light - 1985) |
| Wilson - AA | | Two Wells | 1933-35 | Chairmen Pt Gawler | Wilson Street, Two Wells |
| Loveday | | Dublin | chairman 1875-76 | Chairmen Dublin | Loveday Street, Windsor |
| Lindsay | | Dublin | chairman 1876-77 & 1882-84 | Chairmen Dublin | Lindsay Street, Mallala |
| Porter | | Dublin | chairman 1877-80 | Chairmen Dublin | Porter Road, Korunye |
| Simmons | | Dublin | chairman 1880-82 | Chairmen Dublin | |
| White | | Dublin | chairman 1884-87 | Chairmen Dublin | |
| Diment | | Dublin | chairman 1887-88 | Chairmen Dublin | Diment Road, Windsor |
| Chapman | | Dublin | chairman 1888-90 | Chairmen Dublin | Chapman Street, Two Wells |
| Baker | | Dublin | chairman 1890-92 & 94-98 & 99-1907 | Chairmen Dublin | Baker Road, Two Wells |
| Parker | | Dublin | chairman 1898-99 | Chairmen Dublin | Parker Road, Long Plains |
| Bartlett | | Mallala | 1874 | Chairmen Grace | Bartlett Street, Mallala |
| Moody | | Mallala | 1874-75 | Chairmen Grace | |
| McHugh | | Mallala | 1875-76 | Chairmen Grace | |

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| Marshman | | Mallala | 1876-79 & 1880-85 & 85-86 & 1894-1913 | Chairmen Grace | Marshman Street, Mallala |
| Lindsay | | Mallala | 1879-80 | Chairmen Grace | Lindsay Street, Mallala |
| Jeffries | | Mallala | 1882-83 | Chairmen Grace | |
| Forbes | | Mallala | 1883-85 | Chairmen Grace | |
| Butler | | Mallala | 1886-94 | Chairmen Grace | Butler Street, Mallala |
| Nairne | | Mallala | 1913-20 | Chairmen Grace | Nairne Road, Grace Plains |
| Brady | | Mallala | 1929-35 | Chairmen Grace | Brady Road, Barabba |
| Albert Jacka | | Adelaide Plains Council | | Liberalists | |
| Albert Namatjira | | Adelaide Plains Council | | Liberalists | |
| Banjo Paterson | | Adelaide Plains Council | | Liberalists | |
| Barry Humphries | | Adelaide Plains Council | | Liberalists | |
| Barry Marshall | | Adelaide Plains Council | | Liberalists | |
| Bart Cummings | | Adelaide Plains Council | | Liberalists | |
| Betty Cuthbert | | Adelaide Plains Council | | Liberalists | |
| Bob Hawke | | Adelaide Plains Council | | Liberalists | |
| Bruce Kingsbury | | Adelaide Plains Council | | Liberalists | |
| Caroline Chisholm | | Adelaide Plains Council | | Liberalists | |
| Dame  Nellie Melba | | Adelaide Plains Council | | Liberalists | |
| Ddame Enid Lyons | | Adelaide Plains Council | | Liberalists | |
| Dennis Lillee | | Adelaide Plains Council | | Liberalists | |
| Douglas Mawson | | Adelaide Plains Council | | Liberalists | |
| Eddie Mabo | | Adelaide Plains Council | | Liberalists | |
| Edith Cowan | | Adelaide Plains Council | | Liberalists | |
| Edward Dunlop | | Adelaide Plains Council | | Liberalists | |
| Edward Hargraves | | Adelaide Plains Council | | Liberalists | |
| Elizabeth Kenny | | Adelaide Plains Council | | Liberalists | |
| Errol Flynn | | Adelaide Plains Council | | Liberalists | |
| Fred Hollows | | Adelaide Plains Council | | Liberalists | |
| Greg Norman | | Adelaide Plains Council | | Liberalists | |
| Henry Parkes | | Adelaide Plains Council | | Liberalists | |
| John Flynn | | Adelaide Plains Council | | Liberalists | |
| John Howard | | Adelaide Plains Council | | Liberalists | |
| John Monash | | Adelaide Plains Council | | Liberalists | |
| Lionel Rose | | Adelaide Plains Council | | Liberalists | |
| Marcus Oliphant | | Adelaide Plains Council | | Liberalists | |
| Margaret Court | | Adelaide Plains Council | | Liberalists | |
| Reg Grundy | | Adelaide Plains Council | | Liberalists | |
| Robert Menzies | | Adelaide Plains Council | | Liberalists | |

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| Rod Laver | | Adelaide Plains Council | | Liberalists | |
| Rupert Murdoch | | Adelaide Plains Council | | Liberalists | |
| Vincent Lingiari | | Adelaide Plains Council | | Liberalists | |
| Adrian Pagan | | Adelaide Plains Council | | Liberalists | |
| Alexander Downer | | Adelaide Plains Council | | Liberalists | |
| Alfred Winslow Jones | | Adelaide Plains Council | | Liberalists | |
| Alison Preston | | Adelaide Plains Council | | Liberalists | |
| Ameer Ali | | Adelaide Plains Council | | Liberalists | |
| Andrew Clausen | | Adelaide Plains Council | | Liberalists | |
| Andrew Leigh | | Adelaide Plains Council | | Liberalists | |
| Anthony Owen | | Adelaide Plains Council | | Liberalists | |
| Bernie Fraser | | Adelaide Plains Council | | Liberalists | |
| Bill Mitchell | | Adelaide Plains Council | | Liberalists | |
| Bill Wentworth | | Adelaide Plains Council | | Liberalists | |
| Bob Johnston | | Adelaide Plains Council | | Liberalists | |
| Bruce Chapman | | Adelaide Plains Council | | Liberalists | |
| Cameron Hepburn | | Adelaide Plains Council | | Liberalists | |
| Charles Denton Kemp | | Adelaide Plains Council | | Liberalists | |
| Christopher Joye | | Adelaide Plains Council | | Liberalists | |
| Clem Tisdell | | Adelaide Plains Council | | Liberalists | |
| Cliv Hamilton | | Adelaide Plains Council | | Liberalists | |
| Colin Barrnett | | Adelaide Plains Council | | Liberalists | |
| Colin Cameron | | Adelaide Plains Council | | Liberalists | |
| Craig James | | Adelaide Plains Council | | Liberalists | |
| David Andrews | | Adelaide Plains Council | | Liberalists | |
| David Griffiths | | Adelaide Plains Council | | Liberalists | |
| David Kalisch | | Adelaide Plains Council | | Liberalists | |
| David McMullen | | Adelaide Plains Council | | Liberalists | |
| David Throsby | | Adelaide Plains Council | | Liberalists | |
| David Vines | | Adelaide Plains Council | | Liberalists | |
| Deborah Schofield | | Adelaide Plains Council | | Liberalists | |
| Des Moore | | Adelaide Plains Council | | Liberalists | |
| Donald Cochrane | | Adelaide Plains Council | | Liberalists | |
| Donald Lamberton | | Adelaide Plains Council | | Liberalists | |
| Donald Markwell | | Adelaide Plains Council | | Liberalists | |
| Douglas Copland | | Adelaide Plains Council | | Liberalists | |
| Duncan Ironmonger | | Adelaide Plains Council | | Liberalists | |
| Edward Lawrence Wheeleright | | Adelaide Plains Council | | Liberalists | |

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| Edward Ronald Walker | | Adelaide Plains Council | | Liberalists | |
| Edward Shann | | Adelaide Plains Council | | Liberalists | |
| Eric Jones | | Adelaide Plains Council | | Liberalists | |
| Frank Clarke | | Adelaide Plains Council | | Liberalists | |
| Frank Milne | | Adelaide Plains Council | | Liberalists | |
| Frank Stilwell | | Adelaide Plains Council | | Liberalists | |
| Fred Gruen | | Adelaide Plains Council | | Liberalists | |
| Gary P. Sampson | | Adelaide Plains Council | | Liberalists | |
| Gavan McDonell | | Adelaide Plains Council | | Liberalists | |
| Geoff Raby | | Adelaide Plains Council | | Liberalists | |
| Geoffrey Harcourt | | Adelaide Plains Council | | Liberalists | |
| Glenn Stevens | | Adelaide Plains Council | | Liberalists | |
| Graeme Snooks | | Adelaide Plains Council | | Liberalists | |
| Graham Somerville | | Adelaide Plains Council | | Liberalists | |
| H. C. Coombs | | Adelaide Plains Council | | Liberalists | |
| H. M. Knight | | Adelaide Plains Council | | Liberalists | |
| Harry Edwards | | Adelaide Plains Council | | Liberalists | |
| Heinz Arndt | | Adelaide Plains Council | | Liberalists | |
| Helen Hughes | | Adelaide Plains Council | | Liberalists | |
| Henry Ergas | | Adelaide Plains Council | | Liberalists | |
| Hermann Black | | Adelaide Plains Council | | Liberalists | |
| Hieu Van Le | | Adelaide Plains Council | | Liberalists | |
| Ian Harper | | Adelaide Plains Council | | Liberalists | |
| Ian Macfarlane | | Adelaide Plains Council | | Liberalists | |
| J. G. Phillips | | Adelaide Plains Council | | Liberalists | |
| James | | Adelaide Plains Council | | Liberalists | |
| James Wolfensohn | | Adelaide Plains Council | | Liberalists | |
| Jason Potts | | Adelaide Plains Council | | Liberalists | |
| Jim Cairns | | Adelaide Plains Council | | Liberalists | |
| Jock Anderson | | Adelaide Plains Council | | Liberalists | |
| Johb Deeble | | Adelaide Plains Council | | Liberalists | |
| John Bilson | | Adelaide Plains Council | | Liberalists | |
| John Crawford | | Adelaide Plains Council | | Liberalists | |
| John Cunningham Wood | | Adelaide Plains Council | | Liberalists | |
| John Guiggin | | Adelaide Plains Council | | Liberalists | |
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| Jonathan Epstein | | Adelaide Plains Council | | Liberalists | |
| Joshua Gans | | Adelaide Plains Council | | Liberalists | |
| Judith Sloan | | Adelaide Plains Council | | Liberalists | |
| Julian Alston | | Adelaide Plains Council | | Liberalists | |
| Justin Wolfers | | Adelaide Plains Council | | Liberalists | |
| K. S. Isles | | Adelaide Plains Council | | Liberalists | |
| Kim Hawtrey | | Adelaide Plains Council | | Liberalists | |
| Kym Anderson | | Adelaide Plains Council | | Liberalists | |
| Lee J. Slavutin | | Adelaide Plains Council | | Liberalists | |
| Les Bury | | Adelaide Plains Council | | Liberalists | |
| Leslie Melville | | Adelaide Plains Council | | Liberalists | |
| Lyndhurst Giblin | | Adelaide Plains Council | | Liberalists | |
| Margaret Gardner | | Adelaide Plains Council | | Liberalists | |
| Martin Ravallion | | Adelaide Plains Council | | Liberalists | |
| Matt Canavan | | Adelaide Plains Council | | Liberalists | |
| Maureen Brunt | | Adelaide Plains Council | | Liberalists | |
| Max Corden | | Adelaide Plains Council | | Liberalists | |
| Max Hirsch | | Adelaide Plains Council | | Liberalists | |
| Max Ruddock | | Adelaide Plains Council | | Liberalists | |
| Michael G. Porter | | Adelaide Plains Council | | Liberalists | |
| Michael Keane | | Adelaide Plains Council | | Liberalists | |
| Mike Nahan | | Adelaide Plains Council | | Liberalists | |
| Mike Young | | Adelaide Plains Council | | Liberalists | |
| Murray Milgate | | Adelaide Plains Council | | Liberalists | |
| Neil De Marchi | | Adelaide Plains Council | | Liberalists | |
| Nicholas Gruen | | Adelaide Plains Council | | Liberalists | |
| Paresh Narayan | | Adelaide Plains Council | | Liberalists | |
| Pat Conroy | | Adelaide Plains Council | | Liberalists | |
| Paul Broad | | Adelaide Plains Council | | Liberalists | |
| Paul Oslington | | Adelaide Plains Council | | Liberalists | |
| Paul Sheard | | Adelaide Plains Council | | Liberalists | |
| Persia Campbell | | Adelaide Plains Council | | Liberalists | |
| Peter Costello | | Adelaide Plains Council | | Liberalists | |
| Peter Drysdale | | Adelaide Plains Council | | Liberalists | |
| Peter Karmel | | Adelaide Plains Council | | Liberalists | |
| Peter Whish-Wilson | | Adelaide Plains Council | | Liberalists | |
| Philip Lowe | | Adelaide Plains Council | | Liberalists | |
| Pike Curtin | | Adelaide Plains Council | | Liberalists | |
| Race Mathews | | Adelaide Plains Council | | Liberalists | |

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| Rhonda Sharp | | Adelaide Plains Council | | Liberalists | |
| Richard Charles Mills | | Adelaide Plains Council | | Liberalists | |
| Richard Denniss | | Adelaide Plains Council | | Liberalists | |
| Richard Holden | | Adelaide Plains Council | | Liberalists | |
| Richard Scotton | | Adelaide Plains Council | | Liberalists | |
| Robert Hall | | Adelaide Plains Council | | Liberalists | |
| Roger Opie | | Adelaide Plains Council | | Liberalists | |
| Ross Garnaut | | Adelaide Plains Council | | Liberalists | |
| Siobhan Austen | | Adelaide Plains Council | | Liberalists | |
| Stephen Hatfield Dodds | | Adelaide Plains Council | | Liberalists | |
| Steve Keen | | Adelaide Plains Council | | Liberalists | |
| Thomas Smith | | Adelaide Plains Council | | Liberalists | |
| Tim Anderson | | Adelaide Plains Council | | Liberalists | |
| Tim Harcourt | | Adelaide Plains Council | | Liberalists | |
| Tom Fitzgerald | | Adelaide Plains Council | | Liberalists | |
| Tom Parry | | Adelaide Plains Council | | Liberalists | |
| Tom Piotrowski | | Adelaide Plains Council | | Liberalists | |
| Tony Aspromourgos | | Adelaide Plains Council | | Liberalists | |
| Trevor Breusch | | Adelaide Plains Council | | Liberalists | |
| Trevor Evans | | Adelaide Plains Council | | Liberalists | |
| Trevor Swan | | Adelaide Plains Council | | Liberalists | |
| Warwick McKibbin | | Adelaide Plains Council | | Liberalists | |
| Wendy Carlin | | Adelaide Plains Council | | Liberalists | |
| Xiaokai Yang | | Adelaide Plains Council | | Liberalists | |
| Yanis Varoufakis | | Adelaide Plains Council | | Liberalists | |
| Yew-Kwang Ng | | Adelaide Plains Council | | Liberalists | |
| Adams | | Mallala | | Anglican Church | |
| Beaumont | | Mallala | | Anglican Church | |
| Cornish | | Mallala | | Anglican Church | |
| Crosland | | Mallala | | Anglican Church | |
| Hopton | | Mallala | | Anglican Church | |
| Kenny | | Mallala | | Anglican Church | |
| Macully | | Mallala | | Anglican Church | |
| Marshall | | Mallala | | Anglican Church | |
| Overall | | Mallala | | Anglican Church | |
| Parnall | | Mallala | | Anglican Church | |
| Slade | | Mallala | | Anglican Church | |
| Thomas | | Mallala | | Anglican Church | |

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| Ward | | Mallala | | Anglican Church | |
| Wigram | | Mallala | | Anglican Church | |
| Williams | | Mallala | | Anglican Church | |
| Worthington | | Mallala | | Anglican Church | |
| Yeatman | | Mallala | | Anglican Church | |
| Correll | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Dunkerley | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Haire | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Osborne | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Patterson | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Pearson | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Reglar | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Renfrey | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Siddell | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| Waterhouse | | Mallala | | Anglican Church | Chaplains from the RAAF station visiting priests supplied the service |
| De Sales | | Two Wells | | Xavier | |
| Don Bosco | | Two Wells | | Xavier | |
| Francis De Sales | | Two Wells | | Xavier | |
| Handley | | Two Wells | | Xavier | |
| John Bosco | | Two Wells | | Xavier | |
| Lynn Martin | | Two Wells | | Xavier | |
| Mazzarello | | Two Wells | | Xavier | |
| Occhiena | | Two Wells | | Xavier | |
| Turin | | Two Wells | | Xavier | |
| Australasian Bittern | | Adelaide Plains Council | | Rare Birds | |
| Australasian Darter | | Adelaide Plains Council | | Rare Birds | |
| Australasian Shoveler | | Adelaide Plains Council | | Rare Birds | |
| Australian Painted-Snipe | | Adelaide Plains Council | | Rare Birds | |

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| Banded Stilt | | Adelaide Plains Council | | Rare Birds | |
| Blue-Billed Duck | | Adelaide Plains Council | | Rare Birds | |
| Blue-winged Parrot | | Adelaide Plains Council | | Rare Birds | |
| Brown Quail | | Adelaide Plains Council | | Rare Birds | |
| Cape Barren Goose | | Adelaide Plains Council | | Rare Birds | |
| Cattle Egret | | Adelaide Plains Council | | Rare Birds | |
| Elegant Parrot | | Adelaide Plains Council | | Rare Birds | |
| Freckled Duck | | Adelaide Plains Council | | Rare Birds | |
| Glossy Ibis | | Adelaide Plains Council | | Rare Birds | |
| Great Crested Grebe | | Adelaide Plains Council | | Rare Birds | |
| Intermediate Egret | | Adelaide Plains Council | | Rare Birds | |
| Jacky Winter | | Adelaide Plains Council | | Rare Birds | |
| Kelp Gull | | Adelaide Plains Council | | Rare Birds | |
| Little Egret | | Adelaide Plains Council | | Rare Birds | |
| Musk Duck | | Adelaide Plains Council | | Rare Birds | |
| Pacific Reef Heron | | Adelaide Plains Council | | Rare Birds | |
| Painted Buttonquail | | Adelaide Plains Council | | Rare Birds | |
| Restless Flycatcher | | Adelaide Plains Council | | Rare Birds | |
| Rock Parrot | | Adelaide Plains Council | | Rare Birds | |
| Slender-billed Thornbill | | Adelaide Plains Council | | Rare Birds | |
| Sooty Oystercatcher | | Adelaide Plains Council | | Rare Birds | |
| Spotless Crake | | Adelaide Plains Council | | Rare Birds | |
| Bar-tailed Godwit | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Black-tailed Gotwit | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Broad-Billed Sandpiper | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Caspian Tern | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Common Greenshank | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Common Sandpiper | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Common Tern | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Curlew Sandpiper | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Double Banded Plover | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Far Eastern Curlew | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Great Knot | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Great Sand Plover | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Greater Crested Tern | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Grey Plover | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Grey-Tailed Tattler | | Adelaide Plains Council | | Shorebird and Waterbird | |

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| Gull-billed Tern | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Lesser Sand Plover | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Little Curlew | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Little Tern | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Long-toed Stint | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Oriental Plover | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Pacific Golden Plover | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Parasitic Jaeger | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Red Knot | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Red-Necked Phalarope | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Red-Necked Stint | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Ruddy Turnstone | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Ruff | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Sanderling | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Sharp-tailed Sandpiper | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Terek Sandpiper | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Whimbrel | | Adelaide Plains Council | | Shorebird and Waterbird | |
| White-winged tern | | Adelaide Plains Council | | Shorebird and Waterbird | |
| Wood Sandpiper | | Adelaide Plains Council | | Shorebird and Waterbird | |

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| Adelaide Plains Council | **Road and Public Places Naming Policy** | |
| | **Version Adoption by Council:** | 28 January 2020 |
| | **Resolution Number:** | 2020/013 |
| | **Current Version:** | V2 |
| | **Administered by:** | **Last Review Date:** 2019 |
| | General Manager - Development and Community | **Next Review Date:** 2022 |
| | **Strategic Outcome:** | |
| | 4.3.1 Provide and maintain a safe and fit for purpose local road network | |
| **Document No.** D19/34336 | 4.5.1.11 Meet all legislative compliance requirements | |

## 1. Objective

Council has the power under *Section 219* of the *Local Government Act 1999* to assign a name to, or change the name of:

- a public road;
- a private road; and
- a public place.

Council *must* assign a name to each public road created by land division. This requirement applies from 1 July 2010 – the commencement date for the amendments to Section 219 of the Local Government Act.

Road name signs that identify each public road will, as far as practicable, be placed at every road intersection and will clearly indicate the road to which it applies.

**Note:** While the Australian Standard stipulates that road name signs should be placed at every intersection, this may not always be practicable in rural areas.

## 2. Scope

It is Council's policy that all sealed public roads formed public roads and public places within the Council area that are regularly accessed will be assigned a name. This does not include 'unmade' road reserves.

All formed private roads that are accessible to the public will also be assigned a name. This includes roads within complexes such as hospitals, retirement villages, reserves or parks and roads in community title developments. Private roads with five (5) or less property addresses will be considered on a case by case basis. All roads that can be used as part of an address for an address site will be assigned a name.

## 3. Definitions

Private Road: A road in private ownership;

Public Road:

(a) any road or land that was, immediately before the commencement of the *Local Government Act 1999*, a public street or road under the repealed Act; or

(b) any road –

(i) that is vested in council under the Local Government Act 1999 or any other Act; or

(ii) that is placed under council's care, control and management as a public road after the commencement of the Local Government Act 1999; but not including an alley, laneway, walkway or other similar thoroughfare vested in a council; or

(c) any road or land owned by council, or transferred or surrendered to council, and which, subject to the Local Government Act 1999, is declared by council to be a public road; or

(d) any land shown as a street or road on a plan of division deposited in the Lands Titles Registration Office or the General Registry Office and which is declared by council to be a public road; or

(e) any land transferred or surrendered to the Crown for use as a public road that was, immediately before the transfer, held by a person in fee simple or under a lease granted by the Crown, (and includes any such road that is within the boundaries of a public square).

Public Place: A place (including a place on private land) to which the public has access, but does not include any part of a community parcel divided by a plan of community division under the *Community Titles Act 1996*.

Road: A public or private street, road or thoroughfare to which public access is available on a continuous or substantially continuous basis to vehicles or pedestrians or both and includes bridges, viaduct / subway, an alley, laneway or walkway.

## 4. Specific Provisions / Responsibilities

### 4.1 Initiating the Road and Public Places Naming Process

A road and public places naming process may be initiated if:

- a request is received by the Council from an affected land owner or their agent;

- Council resolves that a name change be investigated;
- Council staff determines it is in the public interest to investigate a change in road or public place name;
- Council opens or forms a road; or
- Council receives an application for a land division.

## 4.2 Road and Public Place Names

In the naming and renaming of public roads and places, the following principles will be observed:

### 4.2.1 Uniqueness:

- a road/public place will have only one (1) name.
- a road/public place name will be unique within an official township, settlement or rural locality. Duplicate road names within a township/ settlement/ rural locality will be resolved in order to avoid confusion (e.g. emergency services response).
- roads that are maintained by the Department of Planning, Transport and Infrastructure (DPTI) will be named by DPTI. DPTI will consult with Council in relation to naming these roads.
- duplicate names and similar sounding names (e.g. Paice, Payce or Pace Roads) within a township, settlement or rural locality will be avoided where possible.
- If possible, duplication of names in proximity to adjacent township, settlement or rural localities will also be avoided. However, roads crossing council boundaries should have a single and unique name.
- wherever practicable, road names will be continuous from the logical start of the road to the logical end of the road, irrespective of Council boundaries, landforms and intersecting roads.

### 4.2.2 Name Sources

Sources for road and public place names may include:

- Aboriginal names taken from the local Aboriginal language (Kaurna People);
- Early Australian explorers, pioneers, and settlers;
- Eminent Australian persons;
- Local history;
- Thematic names such as flora, fauna, ships etc;
- Australian war/casualty lists; and
- Commemorative names.

Names will be selected appropriate to the physical, historical or cultural character of the area concerned. The origin of each name will be clearly

stated and recorded as part of the Council's historical records. The local Aboriginal community will be consulted when choosing Aboriginal names or using words from relevant Aboriginal languages.

### 4.2.3 Propriety

Names of living persons will be avoided where practical. Names, which are characterised as follows, will not be used:

- Offensive or likely to give offence;
- Incongruous - out of place; or
- commercial or company.

### 4.2.4 Communication

Names will be reasonably easy to read, spell and pronounce in order to assist service providers, emergency services and the public.

Unduly long names should be avoided:

- a given name will only be included with a family name where it is essential to identify an individual or where it is necessary to avoid ambiguity. The use of given names will generally be avoided;
- whilst street and cul-de-sac names should have only one (1) word, it is recognised that some roads require a two (2) word name because of their geographic relationship e.g. Proof Range Road; and
- roads with double destination names will be avoided.

**For example:** Two Wells-Mallala Road or Mallala-Gawler Road.

### 4.2.5 Spelling

Where it is intended that a road or public place will have the same name as a place or feature with an approved geographical name, particular care will be taken to ensure that the correct spelling of the official place name is adopted as shown in the State Gazette.

Where the spelling of names has been changed by long established local usage, unless there is a particular request by the local community to retain the original name, the spelling that is sanctioned by general usage will be adopted.

Generally road names proposed or approved will not contain abbreviations e.g. the "Creek" in "Wallaby Creek Road" must not be abbreviated. There are, however, two (2) exceptions, "St" will always be used in place of "Saint" and it is acceptable to use "Mt" for "Mount".

### 4.2.6 Form

The apostrophe mark will be omitted in the possessive case e.g. "Smith's Road" will be "Smiths Road". Names will avoid the use of the possessive **"s"** unless the euphony becomes harsh e.g. "Devil Elbow". The use of

hyphens will be avoided. However, hyphens may be used when naming a road or public place after a person with a hyphenated name.

### 4.2.7 Road Type

Road names will include an appropriate road type suffix conforming to the following guidelines:

- the suffix chosen will be compatible with the class and type of road. Assistance to both the motorists and pedestrians is a major consideration in choosing the suffix;
- when a suffix with a geometric or geographic connotation is chosen it will generally reflects the form of the road, e.g. **Crescent** - a crescent or half moon, rejoining the road from which it starts; **Esplanade** - open, level and often along the seaside or a river;
- for a cul-de-sac use Place, Close, Court or a suffix of similar connotation;
- highway will be specifically reserved for roads associated with the state arterial road network. Its use will be restricted to roads of strategic importance constructed to a high standard.

The following list of suitable road type suffixes is included as examples. The list has been sourced from *Australian Standards AS 1742.5:2017 and AS 4590.1: 2017*. In most instances the connotations are clear but where necessary, a definition can be checked in a dictionary. Only road types shown in the Australian Standards will be used:-

Alley, Avenue, Boulevard, Bypass, Circle, Circuit, Circus, Close, Court, Crescent, Drive, Arcade, Grove, Lane, Mews, Parade, Parkway, Place, Plaza, Promenade, Road, Row, Square, Street, Terrace, Walk, Way.

### 4.2.8 No Prefix or Additional Suffix

The use of a compass point prefix/suffix or an additional suffix such as “north” or “extension” will be avoided, particularly where new roads are to be named. Where an existing road is subsequently bisected as a result of traffic management planning or some other reason, it may be appropriate to delineate each half of the road by the addition of a compass point suffix for the purposes of assisting the community and the emergency services to locate the appropriate part of the road.

## 4.3 Naming of Private Roads

This policy covers all formed roads that are regularly accessed and therefore includes private roads. Private land owners are not obliged to seek Council approval for naming their roads. However, there is a public interest in encouraging private land owners and developers to select suitable names, preferably in accordance with this policy, and to obtain Council endorsement for the name. Where Council

proposes to assign a name to a private road it will consult with the owner of the land over the proposed name and the signage requirements for the road.

### 4.4 Consultation with Adjoining Councils

If a Council decides to change the name of a public road that runs into the area of an adjoining Council, the Council will give the adjoining Council at least two (2) months' notice of the proposed change and consider any representations made by the adjoining Council in response to the notice and in relation to the requirements of the *Local Government Act 1999.*

### 4.5 Consultation and Public Notice of Name Assignment or Change

Council will consult with all owners of properties on the road to be named, or where there is a proposal to change the name of the road. The consultation will seek feedback on the proposed name and also allow suggestion of other alternative names. Consultation shall be in accordance with Council's Public Consultation Policy and Council will consider this feedback prior to finalising the road name.

Council will give public notice of the assigning or changing of a road or public place name. This will be by publication in the Government Gazette and by notice in a newspaper circulating generally throughout the State, as required under the *Local Government Act 1999* and in local newspapers and newsletters. Public notice will include the date that the new name takes effect (see below) and notice will also be published on the Council's website www.apc.sa.gov.au.

### 4.6 Advise Relevant Parties of New Name or Name Change

Council will provide written notice (e.g. by email or letter) of Council's decision on a new road name or name change to all relevant parties, including:

- Registrar-General;
- Surveyor-General;
- Valuer-General;
- the owner of the road (if a private road);
- owners of abutting properties;
- Australia Post;
- Utilities providers – Telstra, SA Water; and SA Power Networks; and
- Emergency Service providers - SA Police, SA Ambulance Service, State Emergency Service, and Country Fire Service.

### 4.7 Date of Effect for New Road Names or Name Changes

The date of effect of the new or changed road name will be determined at the time the decision to assign the name so as to allow sufficient time for all stakeholders to make arrangements to ensure a smooth transition.

The date of effect will be determined after considering:

- in respect of renaming an existing road, the impact on existing property owners, residents, tenants and occupiers. For example the time required to advise relevant parties to change letterhead stationery and advertising references;
- potential confusion for people using maps and street directories that effectively become out of date; and
- the desire of some developers to sell property 'off the plan' and the opportunity for new owners to know their future address at an early stage.

Council will update its Register of Public Roads as required by the *Local Government Act 1999*.

### 4.8 Road Name Signage

Council will ensure road naming signage in accordance with the *Australian Standard 1742.5: 2017* is erected. (Signage may be erected during construction of a sub-division).

Street name blades shall be black legend on a white background and shall incorporate Council's logo in colour.

Rural name blades shall be black legend on a white background with Council's logo in colour that also incorporates the rural addressing road measurement identification numbers for Emergency Services, Visitors and deliveries.

**Note:** Signage for State road names is the responsibility of DPTI.

## 5. Related Documents

Public Consultation Policy

## 6. Records Management

All documents relating to this Policy will be registered in Council's Record Management System and remain confidential where identified.

## 7. Document Review

This Policy will be reviewed every two years in accordance with Council's Policy Review Schedule to ensure legislative compliance and that it continues to meet the requirements of Council its activities and programs.

## 8. References

Australian Standard 4590.1: 2017

Australian Standard 1742.5: 2017

Local Government Act 1999

## 9. Further Information

Members of the public may inspect this Policy free of charge on Council's website at

www.apc.sa.gov.au or at Council's Principal Office at:

2a Wasleys Rd, Mallala SA 5502

On payment of a fee, a copy of this policy may be obtained.

Any queries in relation to this Policy must be in writing and directed to the General Manager – Development and Community.

| | | |
|---|---|---|
| | 7.3 | Policy Introduction – Borrow Pit Policy |
| | Department: | Infrastructure and Environment |
| | Report Author: | General Manager Infrastructure and Environment |
| Date: 3 September 2020 | Document Ref: | D20/39380 |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee to consider, and provide recommendations to Council in relation to a proposed Borrow Pit Policy (the Proposed Policy), presented as **Attachment 1** to this Report.
- It is recommended that the Committee considers the Proposed Policy and recommends to Council that it adopt the Proposed Policy subject to any amendments that the Committee considers necessary.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.3 – *Policy Introduction – Borrow Pit Policy*, dated 3 September 2020, receives and notes the report and in doing so recommends to Council that it adopts the proposed *Borrow Pit Policy* as presented at Attachment 1 to this Report subject to the following amendments:-**

**1. …**
**2. …."**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | Nil |
| Future ongoing operating costs: | Nil |
| Is this Budgeted? | Not Applicable |

## RISK ASSESSMENT

Adelaide Plains Council does not currently have a borrow pit policy in place to support and guide its use and implementation of borrow pits within Council's region. This has potential to lead to inconsistent processes and practices over the management of borrow pits by Council. This policy seeks to provide better governance and equitable application of borrow pits and as such reduces Council's overall risk regarding the management of borrow pits.

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## Attachments

1. Proposed Borrow Pit Policy

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee to consider, and provide recommendations to Council in relation to the Borrow Pit Policy (the Proposed Policy), presented as **Attachment 1** to this Report.

### Background

To date, the Adelaide Plains Council has not had a policy in relation to implementation and managing of borrow pits within Council's region.

Council utilises road making material obtained from borrow pits to carryout unsealed road sheeting, sealed road pavement construction and maintenance activities. The introduction of this policy aims to support Council with management of borrow pits and ensure that its approach to establishing and managing borrow pits is consistent and transparent.

### Discussion

The Proposed Policy seeks to establish a set of guidelines to ensure that the process of obtaining road making materials from properties is undertaken with appropriate regard for the land owner and the environment, namely:

1. specifies the act on which Council enter properties
2. record keeping responsibilities
3. payments to land owner
4. Borrow pit agreement

Furthermore, the Proposed Policy has also taken into account the best practice guidelines that were subject the discussion with the Local Government Association in 2016 and material developed by the Department of Planning, Transport and Infrastructure in 2017 covering Contractors' guide to borrow pits, campsites and other preliminary/ associated works. From a legal and technical perspective, these guidance materials have taken into account the objectives and aims of the Environment Protection Act 1993, the Highways Act 1926, the Mining Act 1971 and the Development Act 1993.

The Proposed Policy is not intended to be applied retrospectively, but rather, it is recommended only for all new and upcoming borrow pits.

## Conclusion

It is recommended that the Committee consider the proposed Borrow Pit Policy and recommend to Council that it adopts the proposed Policy subject to any amendments that the Committee considers necessary. Management acknowledge that the policy is new to Council and that establishing a robust document that has been roundly considered and reviewed is critical before it is to be endorsed and recommended to Council.

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## References

Legislation

*Local Government Act 1999*

*Development Act 1993*

*Environment Protection Act 1993*

*Highways Act 1926*

*Mining Act 1971*

Council Policies/Plans

*Infrastructure and Asset Management Policy*

*Long Term Financial Plan*

| | | |
|---|---|---|
| | **Borrow Pits Policy** | |
| | **Version Adoption by Council:** TBC<br>**Resolution Number:** 2020/TBC<br>**Current Version:** V1 | |
| | **Administered by:**<br>General Manager – Infrastructure and Environment | **Last Review Date:** 2020<br>**Next Review Date:** 2022 |
| **Document No:** D20/30292 | **Strategic Outcome**<br>Provide and maintain a safe and fit for purpose local road network | |

## 1. Objective

The purpose of this Policy is to set guidelines to ensure that processes for obtaining road making materials from properties is undertaken with appropriate regard for the land owner and the environment.

## 2. Scope

This Policy applies in relation to the entering of a property by Council for the purpose of obtaining road making materials.

## 3. Definitions

**Council** means Adelaide Plains Council.

**Land Owner** means the legal owner subject land.

**Materials** means stone, rubble or other road making material.

## 4. Policy Statement

Adelaide Plains Council is consistent, fair and respectful in exercising its legal powers to enter land.

## 5. Power to Enter and Occupy Land

5.1 Councils have certain powers under the *Local Government Act 1999* (the Act) to enter and occupy land for the purposes of its operations, including for the purposes of obtaining road making materials.

5.2 Council will, at all times, adhere to the requirements of the Act and in doing so will:

5.1.1 Keep records of the details and quantity of materials, in cubic metres, taken from the land;

5.1.2 Pay all monies pertaining to the rent of the land on a quarterly basis as outlined in the Borrow Pit Agreement;

5.1.3 Pay all monies pertaining to the payment for each cubic metre of material taken from the land. Payment will be made within six (6) months of ceasing to occupy the land;

5.1.4 Ensure any land damaged while in occupation of the land and caused by Council is remedied to such extent as may be reasonably practicable within six (6) months of ceasing to occupy the land; and

5.1.5 Provide the land owner with a signed copy of the Agreement and Schedule as soon as practicable following execution.

## 6. Offer Portion of Rubble

Consideration should be given to offer the land owner a portion of the rubble at the cost of raising and/or the cost of raising and crushing as an incentive to convince more land owners to provide access to prospective borrow pits.

## 7. Borrow Pit Agreement

A Quarry Agreement (**Appendix 1**) between the Council and the land owner must be signed prior to Council entering the property for the purpose of obtaining road making materials.

## 8. Dispute Resolution

In the event of a dispute between Council and the land owner regarding the quantity of material taken, Council may commission an independent investigation and issue a certificate listing the amount of materials taken daily, or during a specified period. This certificate will be prima facie evidence of the quantity or amount of the materials taken by the Council during the period specified.

## 9. Related Documents

Appendix 1 – Quarry Agreement

## 10. Records Management

All documents relating to this Policy will be registered in Council's Record Management System and remain confidential where identified.

## 11. Document Review

This Policy will be reviewed every two years to ensure legislative compliance and that it continues to meet the requirements of Council and its activities and programs.

## 12. References

*Local Government Act 1999* (SA)

*Contractors' Guide to borrow pits, campsites and other preliminary/associated words – Department of Planning, Transport and Infrastructure Standards & Guidelines 2017*

*Guidance Quarry and Borrow Pit Rehabilitation in South Australia - Local Government Association SA 2016*

## 13. Further Information

Members of the public may inspect this Policy free of charge on Council's website at www.apc.sa.gov.au or at Council's Principal Office at:

2a Wasleys Road, Mallala SA 5502

A copy of this Policy may be obtained on payment of a fee.

Any queries in relation to this Policy must be made in writing to info@apc.sa.gov.au to the Attention of General Manager – Infrastructure and Environment.

Appendix 1

# BORROW PIT AGREEMENT

Agreement made this _____ day of _____ 20___ between

the Adelaide Plains Council (Council) (ABN 58 384 968 672)

_____ (the Land Owner)

Trading Name

Postal Address

Town Postcode:

Australian Business
Number (ABN)

Whereas Council wishes to enter on the Land Owner's land situated at:

_____

for the purposes of taking and preparing stone, rubble or other materials (the Material) as described in the attached Schedule.

Now it is hereby agreed as follows:

1. That in consideration of the sum/rate (the Sum/Rate) described in the attached Schedule to be paid to the Land Owner on the terms (the Terms) described in the attached Schedule:
    a. The Land Owner grants Council the full right and authority to enter upon the land to excavate, win load and cart away or other such procedures as Council deems necessary to take and prepare the Material; and
    b. The Council may take, prepare and use as it sees fit, the quota of material as described in the attached Schedule (the Quota); and
    c. The Land Owner acknowledges all monies received to meet the Council's obligation of the *Local Government Act 1999*.
2. Council shall exercise all due skill in the performance of the Agreement.

Signed by the Land Owner: _____

Name: _____ Date _____

Signed on behalf of Council: _____

Name: _____

Position: _____ Date: _____

# SCHEDULE

1. The Material _____
2. Sum/Rate for Material (incl. GST) _____
3. The Quota _____
4. The Payment rate for each cubic metre of Material taken from the land _____
5. The Rent to be paid quarterly _____

   Amount per week _____

   Extracted Material Sum/Rate, as used by Council when taken off property to be paid quarterly
6. Reinstatement of Pit (please tick)
   - ☐ 150 mm of locally imported backfill over quarry
   - ☐ Use existing overburden and stone pick the quarry site
   - ☐ Reinstate with existing overburden
7. Commencement Date _____
8. Other Terms _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

| | | |
|---|---|---|
| Adelaide Plains Council | **7.4** | **Establishment of Borrow Pits** |
| | **Department:** | **Infrastructure and Environment** |
| | **Report Author:** | **General Manager Infrastructure and Environment** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39384** |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and make recommendation to Council in relation to, advancing investigations into limestone mining opportunities within Adelaide Plains Council region.
- Council currently has two sources of limestone road base, these being:
    - Lot 4 Carslake Road - mined under Section 294 of the Local Government Act. Based on Council's current annual demand, it is estimated that the current available limestone road base material will be depleted late in 2021. The existing Licence Agreement with the land owner of Lot 4 Carslake Road expires in August 2023.
    - 256 Carslake Road – mined under an Extraction Mineral Lease. Based on Council's current annual demand, it is estimated that the current available limestone road base material will be depleted late in 2025. The renewable lease expires on 5 February 2025
- Having all sources of rubble extracted and hauled from the Carslake Road area is not financially the best option for Council.
- The establishment of borrow pits in strategic locations will require further investigations to identify potential sites and carry out negotiations with the relevant land owners in regard to Royalty payments and land rental rates and conditions. Provided that reasonable rentals can be negotiated, significant savings stood to be made.
- This report is provided to assist Council in progressing options for the establishment of borrow pits in strategic locations, to reduce Council rubble haulage expenditure incurred during road construction and maintenance works. Establishing a small number of strategically located borrow pits would assist Council in reducing costs associated with haulage from its larger established mines and preserve the life expectancy of the mine
- It is for the Committee to now consider, and make recommendations to Council accordingly.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.4 – *Establishment of Borrow Pits*, dated 3 September 2020, receives and notes the report and in doing so recommends to Council that it establish strategically placed Borrow Pits with spatial relationships to the 4 year program to reduce haulage cost"**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | 0 |
| Future ongoing operating costs: | 0 |
| Is this Budgeted? | Not Applicable |

## RISK ASSESSMENT

The Local Government Act 1999 allows Council to establish borrow pits on private land and this has been expressly catered for under Section 294 - Power to enter and occupy land in connection with an activity. Naturally, any agreement struck to develop a borrow pit on private land will also include provisions to ensure site remediation in accordance with a prearranged standard.

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## Attachments

1. Rubble cartage perimeters from current Carslake Road borrow pit
2. Rubble Haulage Cost per Kilometre Chart

## DETAILED REPORT

## Purpose

The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and make recommendation to Council in relation to, advancing investigations into limestone mining opportunities within Adelaide Plains Council region.

## Background/History

Council, at its Ordinary Council Meeting held on 22 July 2019, resolved as follows:

21.3 Rubble Supply

Moved Councillor Parker Seconded Councillor Lush **2019/ 337**

**"that Council, having considered Item 21.3 – *Rubble Supply*, dated 22 July 2019, instructs the Chief Executive Officer to engage a suitably qualified consultant to investigate limestone mining opportunities within Adelaide Plains Council region, and make an appropriate provision in the first budget update."**

**CARRIED**

Additionally, Council, at its Ordinary Council Meeting held on 24 February 2020, resolved as follows:

12.3 Council Resolution – Borrow Pits

Moved Councillor Lush Seconded Councillor Panella **2020/ 043**

**"that Council endorses resolution 2020/005 of the Infrastructure and Environment Committee and in doing so instructs the Chief Executive Officer to investigate the feasibility of establishing borrow pits."**

**CARRIED**

Borrow pits are deposits of natural gravel, loam or earth that is excavated for use as road making material. In essence, rock under the top soil is mined, crushed and deposited to the side of the mine for collection and use in road making. Once the rock is removed, the site is remediated by returning the top soil and use of the land is resumed.

Council currently has two sources of limestone road base, these being:

1. Lot 4 Carslake Road - mined under Section 294 of the Local Government Act. Based on Council's current annual demand, it is estimated that the current available limestone road base material will be depleted late in 2021. The existing Licence Agreement with the land owner of Lot 4 Carslake Road expires in August 2023.
2. 256 Carslake Road – mined under an Extraction Mineral Lease. Based on Council's current annual demand, it is estimated that the current available limestone road base material will be depleted late in 2025. The renewable lease expires on 5 February 2025.

The above sites provide Council with a high quality, secure source of limestone/calcrete road base material.

## Discussion

Management have begun investigations into limestone mining opportunities within Adelaide Plains Council region with Groundwork Plus whose office is located in Nurioopta. Groundwork Plus are a reputable consultant that have extensive experience in the quarry, mining and urban development industries.

Groundwork Plus are currently engaged by Barossa Council and Regional Council of Goyder to assist with their respective quarry operations. Groundwork Plus have been requested to begin investigations with the following key focuses;

- Borrow pit location strategy,
- Local Government Act Section 294 borrow pit opportunities,
- Extraction Mining Lease opportunities, and
- Long term securing of road material strategy

Following the development of a Borrow pit location strategy, the following has been revealed;

1. There are several opportunities for borrow pits within the within the Carslake Road area (either under Section 294 of the Local Government Act or Extraction Mineral Lease)
2. There are several opportunities for borrow pits within the within the Two Wells area
3. There are several opportunities for borrow pits within the Mallala/Barabba area

Notwithstanding the above, having all sources of rubble extracted and hauled from the Carslake Road area is not financially the best option for Council.

The following has been determined;

1. The majority of Council's unsealed roads are within a 25 km haul of Council current sources of limestone/calcrete road base material on Carslake Road **Attachment 1**
2. The relationship between rubble haulage and the information provided as **Attachment 2** reveals that the establishment of borrow pits in strategic locations, will reduce rubble haulage expenditure considerably.
3. Example, if the rubble haulage distance is 10 km, the haulage cost would total $2.30 per tonne, compared to a 25 km haulage cost of $5.13 per tonne, therefore the following cost savings would be realised if a borrow pit was established within 10km of the unsealed road;
    a. 1km of a Category 3B road equates to $3,735 saving
    b. 1km of a Category 1 road equates to $11,376 saving

The establishment of borrow pits in strategic locations will require further investigations to identify potential sites and carry out negotiations with the relevant land owners in regard to Royalty payments

and land rental rates and conditions. Provided that reasonable rentals can be negotiated, significant savings stood to be made.

From a legal perspective, Council is permitted to establish borrow pits on private land and this has been expressly catered for in *the Local Government Act 1999*, under Section 294 - Power to enter and occupy land in connection with an activity. Naturally, any agreement struck to develop a borrow pit on private land will also include provisions to ensure site remediation in accordance with a prearranged standard.

The practice of using borrow pits has been well established in a number of neighbouring Council regions. It is noted that in November 2016, the Local Government Association (SA) developed material for Councils, as did the Department of Planning, Transport and Infrastructure in 2017, to provide guidance in relation to the development, works and remediation of borrow pits. Management will ensure that work carried out in relation to borrow pits shall be aligned with these materials.

Most recently, opportunities have arisen that enabled Management to rip raise and crush a small portion of limestone road base from the Two Wells area and Barrabba area. The material from the two borrow pits have been tested for quality and will be used to deliver Council's 2020-2021 roads program. Furthermore two road that utilise the borrow pit limestone road base will be the subject of Tonkin's 2020-2021 unsealed road trial.

## Conclusion

This report is provided to assist Council in progressing options for the establishment of borrow pits in strategic locations, to reduce Council rubble haulage expenditure incurred during road construction and maintenance works. Establishing a small number of strategically located borrow pits would assist Council in reducing costs associated with haulage from its larger established mines and preserve the life expectancy of the mine. It is for the Committee to now consider, and make recommendations to Council accordingly.

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## References

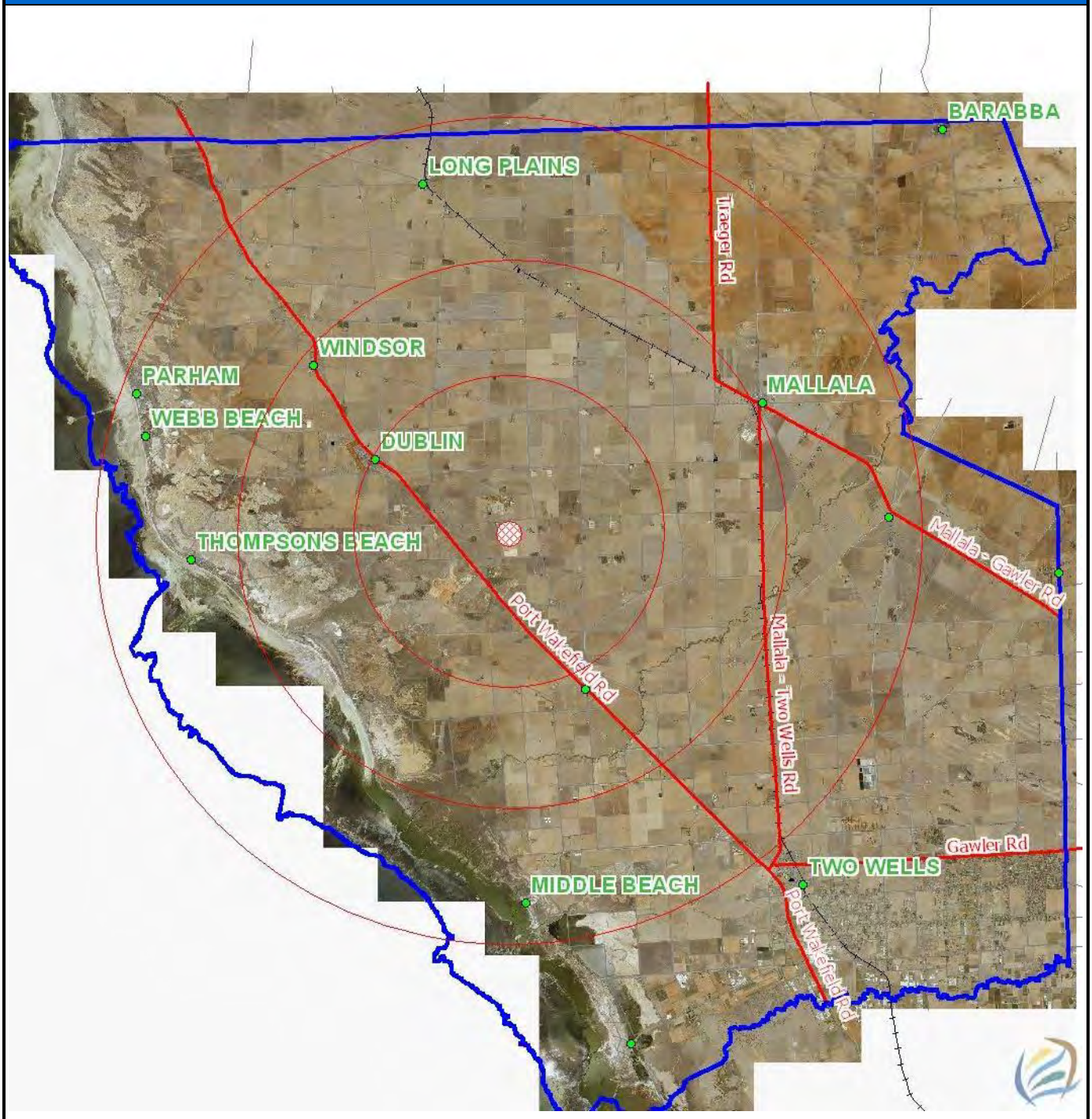
Legislation

*Local Government Act 1999*

Council Policies/Plans

*Infrastructure and Asset Management Plan*

## ADELAIDE PLAINS COUNCIL




| Contact Details | Disclaimer |
|---|---|
| Adelaide Plains Council<br>PO Box 18, Mallala, SA 5502<br>T: 08 8527 0200<br>F: 08 8527 2242<br>E: info@apc.sa.gov.au | This advice and/or information is given for your private use only. The accuracy of the advice and information is not guaranteed and no responsibility is accepted by Adelaide Plains Council for any loss or damage caused by reliance upon this advice and/or information, as a result of any errors, omission, incorrect description or statement therein whether caused by negligence or otherwise. |

## RUBBLE HAULAGE

### Quantities:

Nil

### Rates / Costs

| Hierachy | Width | Thickness + 33% for Compaction | M3 | Tonnes | Estimated Rubble Cost Per Km | Estimated Haulage Cost Per Km 10km | 15km | 20km | 25km | 30km |
|---|---|---|---|---|---|---|---|---|---|---|
| **Category 3B** | 6 | 0.133 | 0.798 | 1277 | $ 8,452.00 | $ 2,809.00 | $ 4,213.00 | $ 5,235.00 | $ 6,544.00 | $ 7,852.00 |
| **Category 3A** | 7 | 0.133 | 0.931 | 1490 | $ 9,861.00 | $ 3,277.00 | $ 4,916.00 | $ 6,107.00 | $ 7,634.00 | $ 9,161.00 |
| **Category 2** | 8 | 0.133 | 1.064 | 1702 | $ 11,270.00 | $ 3,745.00 | $ 5,618.00 | $ 6,980.00 | $ 8,725.00 | $ 10,470.00 |
| **Category 2 Heavy** | 8 | 0.2 | 1.6 | 2560 | $ 16,947.00 | $ 5,632.00 | $ 8,448.00 | $ 10,496.00 | $ 13,120.00 | $ 15,744.00 |
| **Category 1** | 9 | 0.2 | 1.8 | 2880 | $ 19,066.00 | $ 6,336.00 | $ 9,504.00 | $ 11,808.00 | $ 14,760.00 | $ 17,712.00 |

| | | |
|---|---|---|
| Adelaide Plains Council | **7.5** | **Guideline Introduction – Verge Landscaping and Maintenance** |
| | **Department:** | **Infrastructure and Environment** |
| | **Report Author:** | **General Manager Infrastructure and Environment** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39407** |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and provide recommendations to Council in relation to a proposed Verge Landscaping and Maintenance guidelines (the Proposed Guidelines), presented as **Attachment 1** to this Report.
- Management have recognised a need to develop clear guidelines in relation to verge management for a consistent and transparent approach to assist the community.
- It is recommended that the Committee considers the Proposed Guidelines and recommends to Council that it adopt the Proposed Guidelines subject to any amendments that the Committee considers necessary.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.5 – *Guideline Introduction – Verge Landscaping and Maintenance*, dated 3 September 2020, receives and notes the report and in doing so recommends to Council that it adopts the proposed *Verge Landscaping and Maintenance Guidelines* as presented at Attachment 1 to this Report subject to the following amendments:**

**1. …**
**2. …."**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | Nil |
| Future ongoing operating costs: | Nil |
| Is this Budgeted? | Not Applicable |

## RISK ASSESSMENT

Adelaide Plains Council does not currently have any verge landscaping and maintenance guidance material in place to support and guide its use Council and residents within Adelaide Plain Council region. This has potential to lead to inconsistent processes and practices over the management of verges by Council and residents. This policy seeks to provide better management of Council verges as such reduces Council's overall risk regarding the management of same.

---

## Attachments

1. Proposed Verge Landscaping and Maintenance Guidelines

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee to consider, and provide recommendations to Council in relation to a proposed Verge Landscaping and Maintenance Guidelines, presented as **Attachment 1** to this Report.

### Background

To date, the Adelaide Plains Council has not had a policy or guidance material in relation to using and managing of verges within Council's region.

With significant growth within Two Wells driven through Eden, Longview and Liberty, there is now a need for the implementation and management of verges a consistent manner.

### Discussion

The proposed guidance material seeks to establish a set of guidelines to ensure that implementation and management of verges has appropriate regard for the pedestrians, vehicles and maintenance, namely:

- Pedestrian access and sight distance issue taking into consideration different Infrastructure locations
- Plant selection
- Street trees
- Surface treatments, what is permissible and what is not, and
- What actives residents can undertake e.g. mowing of Council verge

The proposed guidelines are not intended to be applied retrospectively, but rather, it is recommended only for all new and upcoming verges.

### Conclusion

It is recommended that the Committee consider the proposed Verge Landscaping and Maintenance Guidelines and recommend to Council that it endorsed the proposed Guidelines subject to any amendments that the Committee considers necessary. Management acknowledge that the guidelines are new to Council and that establishing a robust document that has been roundly considered and reviewed is critical before it is to be endorsed and recommended to Council.

## References

Legislation

*Local Government Act 1999*

Council Policies/Plans

*Infrastructure and Asset Management Policy*

*Long Term Financial Plan*

| | | |
|---|---|---|
| Adelaide Plains Council | **Verge Landscaping and Maintenance Guidelines** | |
| | **Version Adoption by Council:** TBC<br>**Resolution Number:** 2020/TBC<br>**Current Version:** V1 | |
| | **Administered by:**<br>General Manager – Infrastructure and Environment | **Last Review Date:** 2020<br>**Next Review Date:** 2022 |
| **Document No:** D20/39694 | **Strategic Outcome**<br>Provide and maintain people and cycle friendly attractive streetscapes, public places and open spaces. | |

## 1. Objective

The purpose of this guideline is to ensure that implementation and management of verges has appropriate regard for the pedestrians, vehicles and maintenance.

## 2. Verge Landscaping and Maintenance Guidelines

2.1 The principal purpose of the road reserve between the kerb (or edge of the road pavement) and the adjoining property boundary (referred to as the road verge/ nature strip) is recognised as being for use by pedestrians and to accommodate Service Utilities.

2.2 The Local Government Act (Section 221) states that "a person (other than the Council or a person acting under some statutory authority) must not make an alteration to a public road unless authorised to do so by the Council"

2.3 An alteration to a public road includes the planting of trees or vegetation, the erecting or installing of a structure or altering a road to facilitate or provide access from an adjacent property. As such, residents require permission from Council if they wish to undertake works within Council's road reserve.

2.4 Property owners / residents who would like to enhance / maintain their verge area are requested to submit a Verge Landscaping and Maintenance Application for landscaping on Council verges within the Adelaide Plains Council. Prior to any works, including the planting of vegetation, written approval is required from Council.

2.5 When approval has been granted a timeframe of two weeks will be given for works to be completed – Timeframes are put in place to ensure any upgrades or works undertaken on Council verge are done in a timely manner to reduce any inconvenience or risk to residents / public.

2.6 Verges (nature strips) remain the property of the Adelaide Plains Council.

2.7 Where an applicant (eg, property owner / resident) landscapes the verge, the responsibility for on-going maintenance remains with the applicant.

2.8 If the condition of the verge is altered in a manner contrary to the application, then Council shall remove and reinstate the verge at the applicant's expense.

## 3. Pedestrian Access / Sight Distance Issues

3.1 Any form of landscaping that prevents pedestrian access to or along the verge is not permitted (regardless of whether a footpath has been constructed or not).

3.2 Any landscaping of a verge area without an existing footpath must allow for the possible future construction of a footpath by Council or passive use by residents.

3.3 Removal or alteration of any part of the verge to facilitate construction of a footpath will be at the discretion of Council and no compensation to the applicant for such removal or alteration will be considered

3.4 No structure or object within the road verge that may be unsafe or inconvenient to the passage of pedestrians is permitted (including parking or storing any type of vehicle or trailer).

3.5 There are five verges situations, residents must not allow any foliage to obstruct pedestrian access to footpaths.

3.5.1 **No Footpath Exists** - Where no footpath exists, residents must not allow any foliage to obstruct pedestrian access and a 1.2 metre strip must be left for public access. Any landscaping of a verge area which currently does not have a footpath must allow for the possible future construction of a footpath by Council (no compensation is given to the applicant for removals or alterations required to construct new footpath.

3.5.2 **No Footpath Exists – Diagram** (no foliage to obstruct pedestrian access to footpaths)




DRAFT

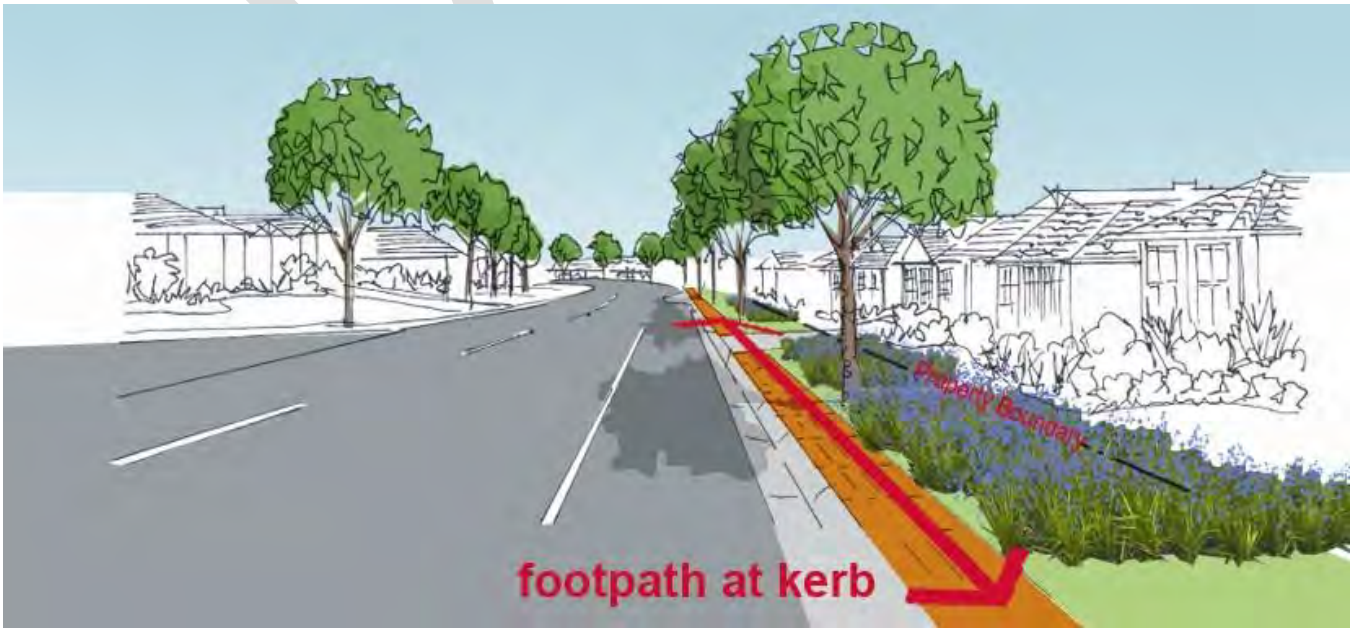
3.5.3 **Footpath in Verge (Centre of Verge)** - Where no footpath exists Where a footpath is in the centre of the verge residents must not allow any foliage to obstruct pedestrian access or the area of the verge 0.5 metres from the kerb (to allow car doors to open and an area for your waste / recycling bins).

3.5.4 **Footpath in Verge - Diagram**




3.5.5 **Footpath at back of Kerb** - Where no footpath exists Where a footpath is in the centre of the verge residents must not allow any foliage to obstruct pedestrian access or the area of the verge 0.5 metres from the kerb (to allow car doors to open and an area for your waste / recycling bins).

3.5.6 **Footpath at back of Kerb – Diagram**



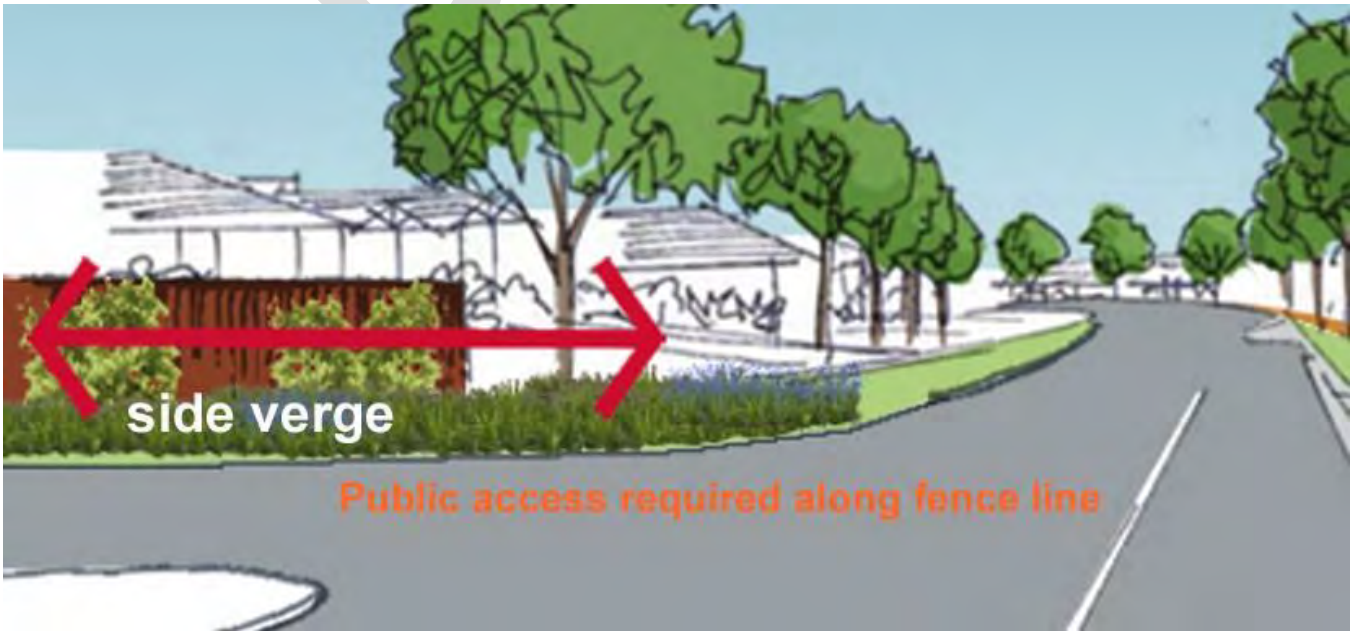
3.5.7 **Side Fence Line Landscaping** - Any landscaping upgrade to a side fence line must have a signed approval from adjacent and adjoining residents. Refer to Council's Verge Landscaping and Maintenance Application Form . In this example, regardless of which resident is applying for the Verge Landscaping Application, Residents A,B and C must confirm with your landscape design for this side fence line, prior to Council approval.

3.5.8 **Side Fencing Line Landscaping - Diagram**




3.5.9 **Side Fence Line Access** - Public access is required along the kerb side of the fence line a 0.5 metre clearance must be adhered to allow pedestrian access.

3.5.10 **Side Fencing Line Access - Diagram**



3.6 Sight Distances - Any landscaping must not create a sight distance problem for vehicles or pedestrians, obstruct street lights or street signs or encroach onto private land.

3.6.1 On a front verge, vegetation (other than a Council street tree) must not exceed 600mm at full maturity.

3.6.2 On a side verge, vegetation (other than a Council street tree) must not be higher than the fence height at full maturity

## 4. Underground Services

The verge may be occupied (above or below ground) by the following:

- SA Power Networks overhead wiring and poles
- SA Power Networks underground cables
- Telecommunications cables, pits, poles, etc.
- Gas Mains
- Water mains and connections
- Sewer mains and connections
- Street trees
- Australia Post, mail delivery corridor
- Stormwater drainage systems
- Footpath
- Indirect private water services
- Various street furniture – signposts, seats, bus shelters, indicator posts, etc.
- Any form of landscaping that prevents pedestrian access to or along the verge is not permitted

The Applicant is responsible for obtaining information on the location of underground pipes and cables from communications, gas, water and electricity providers. Plans can be requested via the Dial Before You Dig Website – DBYD | Dial Before You Dig or by contacting 1100 during normal business hours. At any time, utility companies can require access to the verge area to perform maintenance. The service authority is responsible for the replacement of any vegetation (eg, shrubs, median grasses, etc.) which are removed or damaged during trenching works.

## 5. Plant Selection

The Adelaide Plains Council's has a preference of using local native plants and or Australian native plants, however water wise non-native plants can be considered. Local native plants

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are suited to the Adelaide Plains Council's soils and rainfall, resulting in the conservation of water and encouraging local biodiversity. **Please ensure that plant selections do not exceed 600mm at full maturity.**

For a list of local native plant species, please refer to the Adelaide Plains Council's or contact Council's Team Leader Horticulture.

## 6. Street Trees

Where a street tree exists on the verge, the maintenance (including pruning) is strictly to be carried out by Council staff only. A request to Council can be made for any inspections and pruning work to be carried out to street trees.

When a street tree does not already exist, a tree will be planted where possible - this needs to be considered within your verge landscape design.

## 7. Surface Treatments

7.1 **Suitable for verges -** The types of verge surface treatments below will be considered as suitable for verges:

- Unirrigated or irrigated grass surfaces (see irrigation systems information below)
- Compacted rubble (10mm stone or less)
- Groundcover (lawn substitute)
- Artificial grass is not Council's preferred option and will not be permitted if a street tree is present or if a tree is planned to be planted (this proposal will require a site visit by Council's Team Leader Horticulture to determine if appropriate)
- Organic mulch materials (must not be large and become a tripping hazard or easily blown/kicked onto paths and into the storm water road network)
- Pebbles (8mm or less)
- Approved organic mulch or similar ground treatments must be stable and properly contained. Care must be taken to ensure that the road, drains and footpaths are protected from such matter for environmental and safety purposes, as road drains empty into local creeks, rivers and oceans without treatment.

7.2 **Not permitted for verges -** The below types of verge surface treatments are not permitted:

- Fully-impervious materials such as paving and concrete, except for crossover and footpath. This includes impervious membranes under mulch, or other materials, such as black plastic

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- Rough, coarse or irregular mulch materials which are uncomfortable or difficult to walk on
- Large-sized mulch such as river pebbles must not be used (they can become missiles and may become dangerous if spilled onto footpaths or roadways)
- Hard landscaping structures such as moss rocks, sleepers, edging, letterboxes and metal stakes
- Vegetation that is prickly, poisonous or thorny
- Chemical soil sterilising treatments
- Artificial grass (when street tree is present) - this proposal will require a site visit by a Council Team Leader Horticulture to determine if appropriate

## 8. Irrigation Systems

It is important to think carefully about irrigation. Up to 40% of household water goes on the garden, so it is vital to make every drop count. The Adelaide Plains Council's does not contribute to the cost of irrigation installation, lawn or water used on verges. Information is provided by SA Water on water conservation measures via the website SAWater - When can I water? or by contacting the Water Wise Measures Hotline: 1800 130 952.

## 9. Mowing of Council Verge

9.1 **Mowing of Council Verge – Urban Area** - When a resident would like to mow the Council verge in an urban area the below safety requirements must be applied;

- Property owners should walk the area prior to mowing for identifying hazards such as any obvious 'missiles' given the close proximity to the road and passing vehicles
- Property owners should wear protective gear such as safety glasses, sturdy boots, appropriate clothing, etc.

9.2 **Mowing of Council Verge – Rural Area** - When a resident would like to mow the Council verge in an rural area the below safety requirements must be applied;

- Property owners should wear protective gear such as safety glasses, sturdy boots, appropriate clothing, etc. Any mowing or slashing procedures undertaken must be conducted with the cutting blades set at a height that will not cause any contact with rocks or cause sparks to be produced
- The person carrying out the cutting or slashing must have a water extinguishing medium (knapsack or similar) available at all times
- Ensure suitable clearance exists along the roadside verge so as not to place the person or the cutting machinery into the traffic pathway. Mowing should occur no less than 2.5m from the road's edge. Mowing closer to the road will

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be a safety issue and attract Workzone Safety conditions

- Cutting and slashing should occur during the cooler parts of the day to minimise any chance of sparks igniting the grass. Generally the most moisture will be present in the early morning. The time when the mowing should be done is best left to the assessment of the property owner. Shadows across the verge and the mower or the position of the sun may also have an impact on visibility
- Property owners should walk the area prior to mowing for identifying hazards such as, hidden tree stumps and any obvious 'missiles' given the close proximity to the road and passing vehicles
- It is the property owner's responsibility to ensure appropriate and properly maintained equipment is used
- Mowing should not be undertaken on steep verges or in conditions where slipping may occur
- Property owners should wear protective gear such as safety glasses, sturdy boots, appropriate clothing, etc
- No slashing is to be carried out on days declared as a Total Fire Ban

## 10. Related Documents

Landscaping and Maintenance Application

## 11. Records Management

All documents relating to this guideline will be registered in Council's Record Management System and remain confidential where identified.

## 12. Document Review

This guideline will be reviewed every two years to ensure legislative compliance and that it continues to meet the requirements of Council and its activities and programs.

## 13. Further Information

Members of the public may inspect this guideline free of charge on Council's website at www.apc.sa.gov.au or at Council's Principal Office at:

2a Wasleys Road, Mallala SA 5502

A copy of this guideline may be obtained on payment of a fee.

Any queries in relation to this guideline must be made in writing to info@apc.sa.gov.au to

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the Attention of General Manager – Infrastructure and Environment.

## 14. How to Apply

Prior to any works, including the purchasing or planting of vegetation or installing any material on the verge, written approval is required. Please submit a **Verge Landscaping and Maintenance Application** and submit via:

**Email:** info@apc.sa.gov.au

**Post:** PO Box 18, Mallala 5502

**In Person:** Mallala Council Office, 2a Redbanks Road, Mallala or Two Wells Service Centre Old Pt Wakefield Road, Two Wells

Council will advise you in writing if your application has been approved and advise you of any changes necessary to your application.

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| | | |
|---|---|---|
| Adelaide Plains Council | 7.6 | Liberty Landscaping |
| | Department: | Infrastructure and Environment |
| | Report Author: | General Manager Infrastructure and Environment |
| Date: 3 September 2020 | Document Ref: | D20/39557 |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and provide recommendations to Council in relation to the proposed landscaping plans for Liberty, Two Wells.
- Two Wells is currently experiencing significant residential growth due to development by the Hickinbotham Group (Hickinbotham) – Eden Estate (Eden) and Liberty Estate (Liberty).
- Hickinbotham will hand over the public infrastructure within Eden and Liberty after each respective defects liability period.
- Following handover, Council will be responsible for maintaining the public infrastructure.
- It is recommended that the Committee consider this report, and adopt Liberty Central Reserve landscape plans, and the approach that Council continue negotiations with Hickinbotham regarding maintenance and defect liability periods, relating particularly to the central reserve, proposed water bodies, swale and entrance reserve landscape plans.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.6 – *Liberty Landscaping*, dated 3 September 2020, receives and notes the report, and in doing so, recommends to Council that it:**

1. **Adopts the Liberty Central Reserve landscape plans and the outcomes of the open space assessment as presented in Attachment 1 and Attachment 2 of this Report; and**
2. **Instructs the Chief Executive Officer to negotiate with The Hickinbotham Group on extended maintenance periods being greater than two financial years for the Liberty Central Reserve and greater than five financial years for the "Entry Statement" Water Body Reserve, to reduce the financial impact on Council.**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | Nil |
| Future ongoing operating costs: | Ongoing maintenance and renewals |
| Is this Budgeted? | No |

## RISK ASSESSMENT

Financial Risk

Given the significance (in terms of the value and extent) of the new public infrastructure within the Hickinbotham development, failure to consider the resources needed to maintain new assets, once they are handed over to the Council after the defects liability period, will have negative financial implications in terms of higher maintenance/assets renewal and inconsistent service standards throughout the area.

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## Attachments

1. Liberty Landscaping Plans
2. Council staff assessment spreadsheet with developer responses relating to the Liberty Landscape Plans

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and provide recommendations to Council in relation to the proposed landscaping plans for Liberty at Two Wells.

### Background/History

Two Wells is currently experiencing significant residential growth due to development by the Hickinbotham Group (Hickinbotham) – Eden Estate (Eden) and Liberty Estate (Liberty).

It is expected that once completed, Eden will have 267 new houses and Liberty will have approximately 3,200 new houses. Eden is expected to be completed in 2022/2023. Tranche 1 of Liberty began in early 2019 and potentially could take 20 years to complete all stages.

Hickinbotham will hand over the public infrastructure within Eden and Liberty after each respective defects liability period. Following handover, Council will be responsible for maintaining the public infrastructure.

Council, at its Ordinary Council Meeting held on 28 October 2019, resolved as follows:

*12.3 Eden and Liberty Landscaping*

*Moved Councillor Parker Seconded Councillor Di Troia* ***2019/ 428***

***"that that Council endorses resolution 2019/045 of the Infrastructure and Environment Committee, and in doing so:***

1. ***Adopts the Eden Central Reserve landscape plans and outcomes of the open space assessment as presented in Attachment 2 and Attachment 3 to this Report;***
2. ***Adopts the thrust and direction of Liberty Central Reserve, water bodies, swale and entrance reserve concept landscape plans as presented at Attachment 4 to this Report subject to:***
    a. ***Carrying out an open space assessment for Liberty Central Reserve, water bodies, swale and entrance reserve concept landscape plans to reflect a lower maintenance, higher biodiversity outcome for Liberty;***
    b. ***An alternative solution to turfed verges; and***
    c. ***The maintenance period being extended to no less than the end of the 2022/2023 financial year, to reduce the financial impact on Council; and***

3. ***Instructs the Chief Executive Officer to seek legal advice in relation to landscaping works associated with Liberty estate including the preparation of any necessary legal instruments."***

***CARRIED***

## Discussion

Landscaping Design Plans

Hickinbotham have submitted open space landscape design plans for approval by the Council for Liberty Central Reserve, swales, water bodies, entry statement signage and verges **(Attachment 1).**

Management have undertaken an open space assessment of landscape design plans in consultation with the developer and their landscape architect consultant for Liberty Central Reserve, swales, water bodies, entry statement signage and verges. The outcomes of the open space assessment of the submitted landscape design plans is presented in **(Attachment 2)** to this report.

The open space assessment will provide the future community of Liberty with a usable open space facility and verges that meets Council's standard maintenance service levels. To summarise, commentary that will be provided to the developer for Liberty and Eden are:

1. All Garden Planting areas, species selection will be drought tolerant, hardy, long lived and suitable to the existing soil conditions on site. Native species are preferred. Irrigation should be considered for establishment purposes only
2. Individual placement of shrub/grass and groundcover species is to consider the mature spread of the plant adjacent footpaths and kerbing. Thus eliminating maintenance pruning activities (i.e. provide clear passage along all footpaths)
3. Rationalise garden bed and gravel paving areas between street trees along verges adjacent the reserve, with ongoing maintenance to street trees being the priority, to achieve full growth and canopy connection along the entire streetscape
4. Rationalise areas of irrigated space
5. Rationalise pathways within the reserve
6. Improve inclusive access
7. Riparian and macrophyte plantings in the swale for water quality treatment
8. Provide alternative (sustainable) solutions in lieu of potable water for irrigation.

In general, the Liberty Central Reserve is considered a district/regional open space with an activated swale area representing high maintenance service levels.

Maintenance Period

It should be noted that the Liberty Central Reserve, swales, water bodies, entry statement signage and verges all currently have extended maintenance periods from the traditional 1 year to 2 year period, being offered by Hickinbotham.

It is recommended that Management negotiate the extension of the maintenance period being greater than two financial years for the Liberty Central Reserve and ten financial years for the "Entry Statement" Water Body Reserve, to reduce the financial impact on Council.

## Conclusion

With significant residential growth at Eden and Liberty Council needs to ensure that it can sustainably maintain landscaping throughout its area in a way that provides a reasonable level of amenity but represents equity for ratepayers. It is for the Committee to now consider, and make recommendations to Council accordingly.

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## References

Legislation

*Local Government Act 1999*

Council Policies/Plans

*Infrastructure and Asset Management Plan*

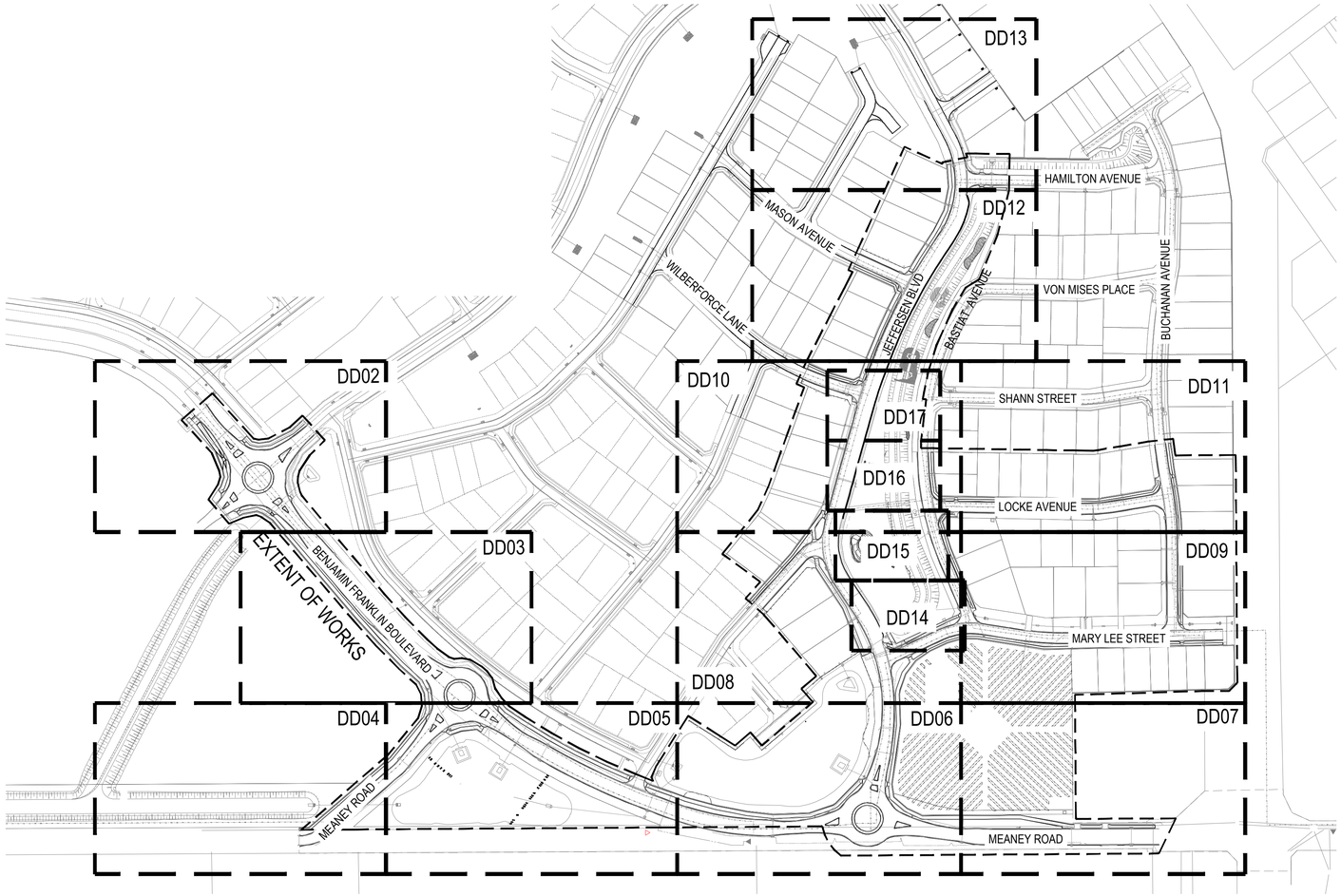
*Long Term Financial Plan*

# LIBERTY TWO WELLS
# STAGE 1
## LANDSCAPE DRAWINGS
PROJECT NUMBER: OS424

**DRAWING INDEX**

| DRAWING NO. | REV. | DRAWING TITLE |
|---|---|---|
| DD00 | A | COVER SHEET - DRAWING INDEX & GENERAL NOTES |
| DD01 | A | LEGEND AND PLANT SCHEDULE |
| DD02 | A | LANDSCAPE PLAN SHEET 1 |
| DD03 | A | LANDSCAPE PLAN SHEET 2 |
| DD04 | A | LANDSCAPE PLAN SHEET 3 |
| DD05 | A | LANDSCAPE PLAN SHEET 4 |
| DD06 | A | LANDSCAPE PLAN SHEET 5 |
| DD07 | A | LANDSCAPE PLAN SHEET 6 |
| DD08 | A | LANDSCAPE PLAN SHEET 7 |
| DD09 | A | LANDSCAPE PLAN SHEET 8 |
| DD10 | A | LANDSCAPE PLAN SHEET 9 |
| DD11 | A | LANDSCAPE PLAN SHEET 10 |
| DD12 | A | LANDSCAPE PLAN SHEET 11 |
| DD13 | A | LANDSCAPE PLAN SHEET 12 |
| DD14 | A | ENLARGED LANDSCAPE PLAN SHEET 1 |
| DD15 | A | ENLARGED LANDSCAPE PLAN SHEET 2 |
| DD16 | A | ENLARGED LANDSCAPE PLAN SHEET 3 |
| DD17 | A | ENLARGED LANDSCAPE PLAN SHEET 4 |
| DD18 | A | LANDSCAPE DETAILS SHEET 1 |
| DD19 | A | LANDSCAPE DETAILS SHEET 2 |
| DD20 | A | LANDSCAPE DETAILS SHEET 3 |
| DD21 | A | LANDSCAPE DETAILS SHEET 4 |
| DD22 | A | LANDSCAPE DETAILS SHEET 5 |
| DD23 | A | LANDSCAPE DETAILS SHEET 6 |
| DD24 | A | LANDSCAPE DETAILS SHEET 7 |
| DD25 | A | LANDSCAPE DETAILS SHEET 8 |
| DD26 | A | LANDSCAPE DETAILS SHEET 9 |
| DD27 | A | LANDSCAPE DETAILS SHEET 10 |
| DD28 | A | LANDSCAPE DETAILS SHEET 11 |

INDEX




**GENERAL NOTES**

THE CONTRACTOR AND HIS SUB-CONTRACTORS SHALL VERIFY ALL DIMENSIONS, LINES, LEVELS AND EXISTING SERVICE LOCATIONS, PRIOR TO COMMENCEMENT ON SITE, PREPARATION OF DETAIL/SHOP DRAWINGS, AND FABRICATION OF CONSTRUCTION/BUILDING COMPONENTS.

ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.

IF ANY CLARIFICATIONS TO DOCUMENTS OR DESIGNS ARE REQUIRED DURING CONSTRUCTION, REFER TO THE SUPERINTENDENT.

WORK SHALL BE CARRIED OUT WITH ALL DUE CARE AND SENSITIVITY TO PREVENT NUISANCE AND RISKS TO THE ENVIRONMENT AND PUBLIC AT LARGE

THE CONTRACTOR SHALL PROVIDE ADEQUATE PUBLIC SAFETY WHERE REQUIRED. ALL WORK SHALL BE MANAGED TO ENSURE THE SAFETY TO ALL STAKEHOLDERS INCLUDING PEDESTRIANS, ROAD USERS AND SITE PERSONNEL IN ACCORDANCE WITH ALL RELEVANT SOUTH AUSTRALIAN LEGISLATION, ACTS POLICIES, GUIDELINES AND CODES OF PRACTICE.

CONTRACTOR TO ENSURE 'DIAL BEFORE YOU DIG' IS UNDERTAKEN. CONTRACTOR TO VERIFY LOCATION OF AND ISOLATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS. ALL EXISTING SERVICES TO BE RETAINED & PROTECTED THROUGHOUT CONSTRUCTION UNLESS NOTED OTHERWISE.

ALL REMAINING SITE FEATURES IMPACTED OR DAMAGED BY WORKS SHALL BE MADE GOOD AND OR REPLACED.

ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE S.A. ENVIRONMENT PROTECTION ACT 1993, AND ALL APPLICABLE POLICIES INCLUDING NOISE AND DUST ABATEMENT PROCEDURES.

CONTRACTOR IS RESPONSIBLE FOR APPROPRIATE E.P.A. RECOMMENDATIONS FOR REMOVAL & MANAGEMENT OF CONTAMINATED MATERIAL IF ENCOUNTERED DURING WORKS.

THE WORK OUTLINED IN THIS PLAN IS NOT EXHAUSTIVE. IT SHALL BE CONFIRMED ON SITE PRIOR TO COMMENCING WORK.

**SOIL AMELIORATION**

ALL SOILS FOR LANDSCAPING & GARDEN USE SHALL CONFORM TO AS4419.
**REFER TO MAIN SPECIFICATION FOR AMELIORATION, CULTIVATION AND ADDITIVES.**

ALL COMPOSTS, SOIL CONDITIONERS & MULCHES SHALL CONFORM TO AS4454

**PLANTING**

SUPPLY & INSTALL ALL PLANT SPECIES LISTED IN THE DRAWINGS FROM AN APPROVED NURSERY. PLANTS ARE TO BE HEALTHY, WELL GROWN SPECIMENS, FREE OF PEST & DISEASES.

PLANT STOCK FOR THE WORKS SHALL BE OF THE SIZE & TYPE SPECIFIED IN THE PLANT SCHEDULE ON THE LANDSCAPE PLAN. NO SUBSTITUTION OF SPECIES SHALL OCCUR WITHOUT THE LANDSCAPE ARCHITECT'S APPROVAL.

IN GENERAL, SHRUB & GROUNDCOVER STOCK SHALL HAVE THE FOLLOWING MINIMUM SIZES.

- **200MM CONTAINER:** MIN HEIGHT 450MM
- **140MM CONTAINER:** SHRUBS TO HAVE MIN HEIGHT 300MM
- **TUBESTOCK:** FORM AND HEIGHT SHALL BE 'TRUE TO TYPE' OF THE SPECIES; MIN. HEIGHT 150mm

INCORPORATE WATER CRYSTALS THROUGHOUT GARDEN BED TOPSOIL AND ALSO USE 200MM TOPSOIL/WATER CRYSTAL MIX IN BASE OF PLANTING HOLE

PLACE PLANT IN CENTRE OF HOLE, BACKFILL WITH APPROVED TOPSOIL/WATER CRYSTAL MIX, FIRMING PROGRESSIVELY.

PLANTING SHALL BE SET OUT IN OFFSET / ALTERNATIVE ROWS

PLANTS SHALL BE THOROUGHLY SOAKED BEFORE PLANTING AND WATERED UNTIL PRACTICAL COMPLETION, PLANTING RATES SHALL INCLUDE THE COST OF WATER UNTIL PRACTICAL COMPLETION.

PLANTS ARE TO BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANTING PLAN/S. OBTAIN THE ON-SITE APPROVAL OF THE LANDSCAPE ARCHITECT (SUPERINTENDENT) PRIOR TO PLANTING.

ENSURE ALL PLANTS ARE DELIVERED TO SITE IN SUCH A MANNER AS TO PREVENT DAMAGE IN TRANSIT.

STAGE PLANTING IN ANY LARGE AREAS TO ENSURE PLANTS ARE NOT ON-SITE IN CONTAINERS FOR LONGER THAN 24 HOURS.

SPACING ARE PROVIDED FOR INDIVIDUAL PLANTS IN SCHEDULE.

ALL PLANTING WORKS SHALL BE COMPLETED WITHIN THE CONTRACTED CONSTRUCTION TIME FRAME, EXCEPT DURING PERIODS OF EXTREME COLD, HOT OR WINDY WEATHER CONDITIONS. PLANTINGS SHALL RESUME AS SOON AS POSSIBLE AFTER SUCH EVENTS HAVE CEASED.

ALL GARDEN BEDS TO HAVE SPADE EDGE WHERE NO OTHER HARD EDGE ABUTTS OR WHERE NO OTHER EDGING IS SPECIFIED

ALL GARDEN AREAS TO USE SITE WON TOPSOIL & COVERED IN 75mm MULCH

MIXED GARDEN BEDS, ESPECIALLY IN SWALE, TO HAVE GROUPS OF 5, 7, 9 PLANTS OF SAME SPECIES. NO TWO GROUPS OF SAME SPECIES PLANTED NEXT TO EACH OTHER ACHIEVE A RANDOM NATURAL LOOK.

PROVIDE PLANTING SETBACKS FROM HARD EDGE AREAS IE, KERBS, PATHS, ETC AS FOLLOWS:

a. GROUNDCOVERS - 900mm

b. TUSSOCKS · 400mm

c. SMALL SHRUBS - 600mm

d. LARGE SHRUBS - 1500mm

IRRIGATED GRASS AREAS TO BE PREPARED WITH ADDITIVES PRIOR TO GRASSING

MASS PLANTED AREAS: WHERE SHRUBS AND LOWER PLANTS NOMINATED PLACE SHRUBS TO CENTRE OR REAR OF GARDEN AND LOWER PLANTS /GROUNDCOVERS TO EDGES.ALL CURVES TO HAVE SMOOTH TRANSITIONS. SETOUT & LEVELS TO BE CONFIRMED ONSITE BY SUPERINTENDENT

FENCING SETOUT TO BE CONFIRMED ONSITE BY SUPERINTENDENT AND SURVEYOR.

LOCATE TREES MINIMUM 2M FROM EDGE OF PATHS. CHECK ALL SERVICES BEFORE PLANTING TO ENSURE NO CLASHES.

**PATHS**

ALL NEW PATHS TO CONNECT INTO EXISTING PATHS.

ANY DAMAGE TO EXISTING WORKS TO BE MADE GOOD AT CONTRACTOR'S EXPENSE.

ALL PAVED AREAS AND PATHS TO HAVE MIN. 2.5% CROSS FALL.

**ROCKS**

CONTRACTOR TO SELECT AND STOCK PILE SITE WON ROCKS FOR GENERAL USE IN THE PROJECT. SITE ROCKS TO HAVE MIN. 600 x 400 x 600MM DIMENSIONS. SEND PHOTO'S FOR APPROVAL BY SUPERINTENDENT.

**PLAYGROUND**

1. THE CONTRACTOR IS TO CONFIRM THE SETOUT OF ALL PLAY ZONES AND CHECK WITH THE MANUFACTURERS DRAWINGS TO ENSURE ALL FALLZONE REQUIREMENTS FOR PLAY EQUIPMENT MEET THE RELEVANT STANDARDS:

**EXISTING SERVICES** :

1. COUNCIL TO PROVIDE INFORMATION ON EXISTING SERVICES WHERE AVAILABLE. JUNCTION TO EXISTING WORKS

2. LEVELS OF EXISTING SERVICE COVERS SHALL BE ADJUSTED TO SUIT DESIGN LEVELS (IF REQUIRED).

3. ALL NOTIFICATIONS TO ADJACENT PROPERTY OWNERS TO BE UNDERTAKEN BY CONTRACTOR

4. ALL NEW WORK SHALL NEATLY MATCH TO EXISTING SURROUNDS. CONTRACTOR SHALL MAKE GOOD AREAS NOT COVERED UNDER THESE SITE WORKS THAT HAVE BEEN DISTURBED.

**BULK EARTHWORKS**

1. CONTRACTOR IS RESPONSIBLE FOR THE EXECUTION OF THEFINAL SHAPE, FORM , LEVELS OF ALL EARTHWORKS FOR ALL AREAS SHOWN IN THE DOCUMENTATION.

**SETOUT**

CONTRACTOR TO CHECK ALL DIMENSIONS AS SHOWN. ANY DISCREPANCIES OR LACK OF CLARITY SHALL BE INDICATED BY CONTRACTOR TO LANDSCAPE ARCHITECT FOR CLARIFICATION IN WRITING PRIOR TO WORKS COMMENCING / CONTINUING, PREPARATION OF DETAIL / SHOP DRAWINGS, AND FABRICATION OF CONSTRUCTION / BUILDING COMPONENTS.

SETOUT & LEVELS TO BE CONFIRMED ONSITE BY SUPERINTENDENT

SETOUT DIMENSIONS ARE FROM SETOUT POINT AS INDICATED ON PLANS. IF BOUNDARY PEGS CANNOT BE LOCATED NOTIFY THE SUPERINTENDENT

**IRRIGATION/ HYDRAULIC PLANS**

CONTRACTOR TO COORDINATE DESIGN, SUPPLY AND INSTALLATION OF A COMPLETE AND EFFICIENT AUTOMATIC LANDSCAPE DRIP IRRIGATION SYSTEM TO ALL VERTICAL GARDENS AND PLANTERS WHERE REQUIRED. HAND WATERING MAYBE APPROPRIATE IN SOME INSTANCES IE MOVABLE PLANTERS, ETC.

THE IRRIGATION SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF THE IRRIGATION AND HYDRAULIC DESIGN PLANS. THE IRRIGATION DESIGN PLAN SHALL BE ISSUED TO THE SUPERINTENDENT FOR APPROVAL WITHIN 7 DAYS OF THE CONTRACT BEING AWARDED AND BEFORE ANY EQUIPMENT IS ORDERED OR ANY SITE INSTALLATION WORKS ARE COMMENCED. ALL PLANS REQUIRE OFFICE OF THE TECHNICAL REGULATOR (OTR) AND COUNCIL APPROVAL PRIOR TO WORKS COMMENCING.

CLASS 12 UPVC 100MM DIAMETER CONDUIT PIPES WILL BE REQUIRED BENEATH PAVEMENTS IN ORDER FOR THE IRRIGATION SYSTEM TO SERVICE ALL PLANTERS/ VERTICAL GARDENS.

THE LOCATION OF THE IRRIGATION CONTROL BOX AS INDICATED ON PLANS OR TO BE CONFIRMED WITH THE LANDSCAPE ARCHITECT.

IRRIGATION SUB-CONTRACTOR TO ADVISE WHETHER A BACKFLOW PREVENTION DEVICE IS REQUIRED.

IF RECYCLED WATER IS BEING USED, ENSURE TO INSTALL ALL LILAC LIDS, PURPLE PIPE & OTHER IRRIGATION COMPONENTS TO SA WATER & COUNCIL GUIDELINES & SPECIFICATIONS.

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION.

THE CONTRACTOR AND THEIR SUB-CONTRACTORS SHALL VERIFY ALL DIMENSIONS, LINES, LEVELS AND EXISTING SERVICE LOCATIONS, PRIOR TO COMMENCEMENT ON SITE, PREPARATION OF DETAIL/SHOP DRAWINGS, AND FABRICATION OF CONSTRUCTION/BUILDING COMPONENTS.

OUTER SPACE
258a Rundle Street
Adelaide SA 5000
P (08) 8223 3228
E admin@outerspace.net.au

0 20 40 60 80 100m
SCALE 1:2000 @ A1

**100% FOR REVIEW**
**NOT FOR CONSTRUCTION**

| | | | |
|---|---|---|---|
| Designed / Date | BS/AL 05/20 | Project | LIBERTY TWO WELLS STAGE 1 |
| Drawn / Date | AM/AI 05/20 | Client | HICKINBOTHAM GROUP |
| Checked / Date | AL/PG 05/20 | Drawing | COVER SHEET - DRAWING INDEX & GENERAL NOTES |

| File Ref. | | |
|---|---|---|
| OS424_Liberty Two Wells_DD_27-08-2020.dwg | | |
| Scale | 1:2000 @ A1 | Sheet 1/29 |
| Drawing No. | OS424_DD00 | Issue/ Rev. A |

# LEGEND

PROPOSED TREE REFER DETAIL D01
REFER SPECIFICATION & PLANTING PLAN

MULCHED GARDEN BED
REFER SPECIFICATION & PLANTING PLAN

JUTEMAT GARDEN BED NO MULCH
REFER SPECIFICATION & PLANTING PLAN

MULCH ONLY BEDS; NO PLANTS /
NO IRRIGATION

IRRIGATED INSTANT TURF
REFER DETAILS AND SPECIFICATION

NON IRRIGATED HYDROSEED GRASS
REFER DETAILS AND SPECIFICATION

BARKCHIP SOFTFALL MULCH
300mm DEEP INSIDE FALL ZONES
100mm DEEP OUTSIDE FALL ZONES
REFER SPECIFICATIONS

CONCRETE FOOTPATH
REFER DETAIL D07 AND SPECIFICATION

QUARRY RUBBLE PATH
REFER DETAIL D08 AND SPECIFICATION

STONE BALLAST
REFER DETAIL D17 AND SPECIFICATION

SAND PIT
REFER DETAIL D26 AND SPECIFICATIONS

WATER CHANNEL IN PLAYGROUND
REFER DETAIL D25 AND SPECIFICATION

RS1 RUBBER SOFTFALL TYPE 1 (RS1)
REFER DETAIL D06 & SPECIFICATION

RS2 RUBBER SOFTFALL TYPE 2 (RS2)
REFER SPECIFICATION

RS3 RUBBER SOFTFALL TYPE 3 (RS3)
REFER SPECIFICATION

F FLAT ROCK STEPPERS
REFER DETAIL D03 AND SPECIFICATION

R1 ROCK TYPE 1 (R1): LANDSCAPE/ SITTING BOULDER
REFER DETAIL D04 AND SPECIFICATION

R2 ROCK TYPE 2 (R2): RETAINING
REFER DETAIL D05 AND SPECIFICATION

S1 FLUSH TIMBER STEPPERS (S1)
REFER DETAILS D09 AND SPECIFICATION

S2 UPRIGHT TIMBER STUMP (S2)
REFER DETAIL D10 AND SPECIFICATION

L SITTING LOG
REFER DETAIL D12 AND SPECIFICATION

CUSTOM BALANCE LOG
REFER DETAIL D11 AND SPECIFICATION

PLAY EQUIPMENT 1 (PE-1)- BARN UNIT
REFER SPECIFICATION

PLAY EQUIPMENT 2 (PE-2) - SPINNER
REFER DETAILS AND SPECIFICATION

PLAY EQUIPMENT 3 (PE-3) - BALANCE BEAM
REFER SPECIFICATION

PLAY EQUIPMENT 4 (PE-4) - WINDMILL
REFER SPECIFICATION

PLAY EQUIPMENT 5 (PE-5) - NEST SWING
REFER SPECIFICATION

PLAY EQUIPMENT 6 (PE-6) - ROCKER 1
REFER SPECIFICATION

PLAY EQUIPMENT 7 (PE-7) - ROCKER 2
REFER SPECIFICATION

PLAY EQUIPMENT 8 (PE-8) - DIGGERS
REFER SPECIFICATION

TO PLAY EQUIPMENT 9 (PE-9) - TIMBER TOTEM POLES
REFER DETAIL D16 AND SPECIFICATION

TOP OF MOUND LOOKOUT DECKING AND STRUCTURE
REFER DETAIL D39/40/41 AND SPECIFICATION)

ANIMAL FOOTPRINT CONCRETE STEPPING PADS
REFER DETAIL D42/43/44 AND SPECIFICATION)

CUSTOM LARGE SHELTER STRUCTURE
REFER DETAIL D27/34 AND SPECIFICATION

CUSTOM SMALL SHELTER STRUCTURE
REFER DETAIL D33 AND SPECIFICATION

CUSTOM ARBOUR STRUCTURE
REFER DETAIL D31/32 AND SPECIFICATION

PT PROPRIETARY PICNIC TABLE UNDER
SHELTERS (REFER SPECIFICATION)

PS PROPRIETARY PICNIC SETTINGS UNDER
SHELTERS (REFER SPECIFICATION)

INDEX

PROPRIETARY TOILET BLOCK
REFER SPECIFICATION

TP 3-5m TALL TOTEM POLES
REFER DETAIL D35 AND SPECIFICATION

BBQ DOUBLE PLATE ELECTRIC BARBEQUE
REFER SPECIFICATION

LB CUSTOM FEATURE LIBERTY BENCH SEAT
REFER DETAIL D23 AND SPECIFICATION

BO TIMBER BOLLARD.
REFER TO DETAIL D29 & SPECIFICATION.

RB REMOVABLE BOLLARD.
REFER TO DETAIL D28 & SPECIFICATION.

BL BOLLARD LIGHTING.
REFER TO SPECIFICATION.

SHL SHELTER CEILING LIGHTING.
REFER TO SPECIFICATION.

BINS BIN ENCLOSURES (RUBBISH/ RECYCLING)
REFER DETAIL D30 AND SPECIFICATION

DF DRINKING FOUNTAIN
REFER SPECIFICATION

BW PROPRIETARY COMPOSITE TIMBER BOARDWALK
REFER DETAIL D45 AND SPECIFICATION

W1 WALL TYPE 1 (W1) LIBERTY SIGNAGE WALL
REFER DETAIL D19 AND SPECIFICATION

W2 WALL TYPE 2 (W2) FEATURE SIGNAGE WALL
REFER DETAIL D22 AND SPECIFICATION

W3 WALL TYPE 3 (W3) FEATURE LOW ENTRY WALLS
REFER DETAIL D20 AND SPECIFICATION

BR BICYCLE RACK REFER SPECIFICATIONS

PAVED CHECKER BOARD
REFER DETAIL D18 AND SPECIFICATION

EXTENT OF WORKS

SP SPADE EDGE
REFER DETAIL D13 AND SPECIFICATION

ST STEEL EDGE
REFER DETAIL D15 AND SPECIFICATION

CE CONCRETE EDGE
REFER TO DETAIL D14A & SPECIFICATION

CK CONCRETE KERB EDGE
REFER TO DETAIL D14B & SPECIFICATION

J EXTENT OF JUTEMATTING
REFER TO SPECIFICATION

CO CONDUIT.
REFER TO SPECIFICATION.

F2 BUSH FENCING TO MOUND PATHWAY.
REFER TO DETAIL D38 & SPECIFICATION.

R ROOT BARRIERS AS SPECIFIED AND
SHOWN ON PLANS

+ 9.20 PROPOSED DESIGN LEVELS

TW= + 1800 TOP OF WALL

PROPOSED CONTOURS

## WORKS/ SERVICES (BY OTHERS)

STORM WATER PIT

SEP SIDE ENTRY PIT

WETLAND SCOURING PAD

STORM WATER PIPE

RECYCLED MAINS

RW RETAINING WALL

SWALE BATTERS

TF TRANSFORMER

STREET LIGHTS

STOBIE POLES

PARALLEL LOW VOLTAGE CABLE

LOW VOLTAGE CABLE

11KV CABLE

P7 P7 JUNCTION PIT

E ELECTRIC METRE
(INDICATIVE LOCATIONS SHOWN ON PLANS)
VERIFY ON SITE

W25 WATER METRE & SIZE
(INDICATIVE LOCATIONS SHOWN ON PLANS)
VERIFY ON SITE

N NEIGHBOUR'S FENCE

FE POST AND RAIL FENCE

**LIBERTY TWO WELLS STAGE 1**

PLANT SCHEDULE

| Code | Botanical Name | Common Name | Spacing | Mature Size (trees at 20 years (h x w) metres) | Container Size | Caliper (mm) | Min Height (H) at time of planting (metres) | Total |
|---|---|---|---|---|---|---|---|---|
| TREES | | | | | | | | |
| Fhi | Ficus hillii | Fig Tree | as shown | 10x8 | 100L | 50 | 2.4 | 24 |
| Fan | Fraxinus angustifolia 'Raywoodii' | Claret Ash | as shown | 12x9 | 100L | 35 | 2.5 | 42 |
| Fpe | Fraxinus pennsylvanica 'Cimmzam Cimmaron' | Cimmaron Ash | as shown | 13x8 | 45L | 30 | 2 | 11 |
| Jmi | Jacaranda mimosifolia | Jacaranda | as shown | 15x15 | 45L | 30 | 2 | 26 |
| Lin | Lagerstroemia indica 'Biloxi' | Pink Crepe Myrtle | as shown | 5 x 5 | 45L | 30 | 1.8 | 18 |
| Lna | Lagerstroemia indica 'Natchez' | White Crepe Myrtle | as shown | 6 x 4 | 45L | 30 | 1.8 | 43 |
| Por | Platanus orientalis var insularis | Autumn Glory | as shown | 15x10 | 200L | 50 | 3.5 | 51 |
| Pcb | Pyrus calleryana 'Bradford' | Bradford | as shown | 12x9 | 45L | 30 | 2 | 4 |
| Pca | Pyrus calleryana 'Capital' | Capital Pear | as shown | 4x11 | 45L | 30 | 2 | 8 |
| Pwg | Pyrus calleryana 'Winter Glow | Manchurian Pear | as shown | 10x5 | 45L | 30 | 2 | 4 |
| Sja | Sophora japonica | Japanese pagoda | as shown | 12x10 | 45L | 25 | 1.8 | 12 |
| Upa | Ulmus parvifolia | Lacebark Elm | as shown | 15 x 15 | 100L | 35 | 2.6 | 10 |
| Zse | Zelkova serrata 'Green Vase | Japanese Zelkova | as shown | 14x10 | 45L | 30 | 2 | 10 |
| Tbc | Hickinbotham Trees already planted | | as shown | | 100L | | | 43 |
| | | | | | | | **TOTAL** | 306 |
| SHRUBS, TUSSOCKS & GROUNDCOVERS | | | | | | | | |
| Aca | Acacia calamifolia | River Wattle | 700 | | 140mm | | | 23 |
| Apa | Acacia paradoxa | River Wattle | 700 | | 140mm | | | 63 |
| Ase | Atriplex semibaccata | Berry Saltbush | 1000 | | Tubes | | | 275 |
| Bsp | Bursaria spinosa | Christmas Bush | as shown | | 140mm | | | 56 |
| Cap | Carex appressa | Tall sedge | 700 | | Tubes | | | 681 |
| Cbi | Carex bichenoviana | Fen Sedge | 500 | | Tubes | | | 230 |
| Cdb | Correa backhouseana 'Dusky Bells' | Dusky Bells | 900 | | 140mm | | | 419 |
| Cgy | Cyperus gymnocaulos | Spiny Flat Sedge | 700 | | Tubes | | | 377 |
| Cva | Cyperus vaginatus | Flat Sedge | 700 | | Tubes | | | 956 |
| Dcb | Dianella caerulea 'Breeze' | Native Flax | 700 | | 140mm | | | 430 |
| Dre | Dianella revoluta | Black Anther Flax Lily | 700 | | Tubes | | | 177 |
| Dta | Dianella tasmanica | Tassie Red | 600 | | 140mm | | | 392 |
| Dgr | Dietes grandiflora | Butterfly Iris | 700 | | 140mm | | | 1532 |
| Dvi | Dodonea viscosa | Sticky Hopbush | as shown | | 140mm | | | 20 |
| Fno | Ficinia nodosa | knobby clubrush | 700 | | Tubes | | | 1422 |
| Ggi | Grevillea Gin Gin Gem | Gin Gin Gem | 1500 | | Tubes | | | 466 |
| Gla | Grevillea lavandulacea | Lavender Grevillea | 900 | | 140mm | | | 293 |
| Grr | Grevillea 'Royal Rambler' | Royal Rambler Grevillea | 1000 | | Tubes | | | 722 |
| Hvi | Hardenbergia violacea ' Meema' | Meema' | 1000 | | 140mm | | | 458 |
| Jkr | Juncus kraussii | sea rush | 800 | | Tubes | | | 869 |
| Jpa | Juncus pallidus | Pale Rush | 500 | | Tubes | | | 210 |
| Lan | Lavandula angustifolia | Lavender | 800 | | 140mm | | | 2299 |
| Lbr | Leucophyta brownii | Cushion Bush | 600 | | 140mm | | | 508 |
| Lpe | Limonium perezii | Sea Lavender | 500 | | 140mm | | | 600 |
| Lde | Lomandra densiflora | Soft Tussock Mat-rush | 800 | | Tubes | | | 856 |
| Lln | Lomandra longifolia 'Nyalla' | Mat Rush | 700 | | Tubes | | | 850 |
| Lta | Lomandra longifolia 'Tanika' | Mat Rush | 500 | | Tubes | | | 476 |
| Lch | Loropetalum Chinense | Purple Pixie | 1000 | | 140mm | | | 265 |
| Mpa | Myoporum parvifolium | Creeping Boobialla | 900 | | Tubes | | | 542 |
| Ndo | Nandina domestica 'Blush' | Sacred Bamboo | 600 | | 140mm | | | 399 |
| Rcp | Raphiolepis indica 'Cosmic Pink' | Cosmic Pink | 700 | | 140mm | | | 822 |
| Rcw | Raphiolepis indica 'Cosmic White' | Cosmic White | 1000 | | 140mm | | | 486 |
| Rpa | Rhagodia parabolica | Mealy Saltbush | 1500 | | Tubes | | | 56 |
| Rbl | Rosmarinus officinalis 'Blue Lagoon' | Rosemary 'Blue Lagoon' | 1000 | | 140mm | | | 566 |
| Rof | Rosmarinus officinalis | Rosemary | 1000 | | 140mm | | | 379 |
| Tja | Trachelospermum jasminioides | Star Jasmine | as shown | | 140mm | | | 53 |
| Vti | Viburnum tinus | Laurustinus | as shown | | 140mm | | | 21 |
| Vvi | Vitis vinifera | Crimson Glory | as shown | | 140mm | | | 16 |
| Wfr | Westringia fruticosa | Coastal Rosemary | 1000 | | 140mm | | | 243 |
| Wgb | Westringia fruticosa 'Grey Box' | Grey Box | 600 | | 140mm | | | 585 |
| | | | | | | | **TOTAL** | **20093** |
| | | | | | | | **GRAND TOTAL** | **20399** |

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
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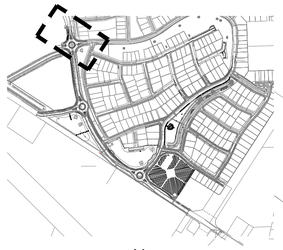
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| Drawn AM/AI 05/20 | Client HICKINBOTHAM GROUP | Scale | Sheet 2/29 |
| Checked AL/PG 05/20 | Drawing LEGEND AND PLANT SCHEDULE | Drawing No. OS424_DD01 | Issue/ Rev. A |



KEY PLAN

N

INDEX

JEFFERSEN BOULEVARD

BOULEVARD A

PROPOSED FOOTPATH

SP
Por
6-Tja
20-Rbl
31-Lln
36-Dgr
6-Mpa
110-Dgr
CO
30-Lln
26-Lln
35-Dgr
18-Dgr
R
Upa
41-Wgb
55-Wgb
17-Lln
91-Dgr
18-Lln
35-Lln
55-Dgr
SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND FUTURE WORKS
27-Rbl
21-Rbl
20-Lln
41-Lbr
35-Grr
101-Ndo
77-Dgr
58-Dgr
30-Rcw
43-Dgr
17-Rbl
49-Ln
42-Rcw
30-Lch

2021

CONNECTS TO DD03

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
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0 2 5 10 15 20 25m

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| Drawn AM/AI Date 03/20 | Client HICKINBOTHAM GROUP | Scale 1:250 @ A1 | Sheet 3/29 |
| Checked AL Date 03/20 | Drawing LANDSCAPE PLAN SHEET 1 | Drawing No. OS424_DD02 | Issue/ Rev. A |



KEY PLAN

N

INDEX

CONNECTS TO DD02

CONNECTS TO DD05

EXTENT OF WORKS

EXTENT OF WORKS

BOULEVARD A

394

393

390

389

388

35-Rcw
6-Tja
Por
24-Rcw
SP
15-Lch
6-Mpa
14-Lln
ST
R
5-Tja
30-Dgr
35-Lch
50-Dgr
70-Dgr
24-Lln
Upa
5-Mpa
40-Lln
Lna
60-Lch
36-Lbr
55-Grr
52-Cdb
52-Grr
CO

SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND FUTURE WORKS

0 2 5 10 15 20 25m

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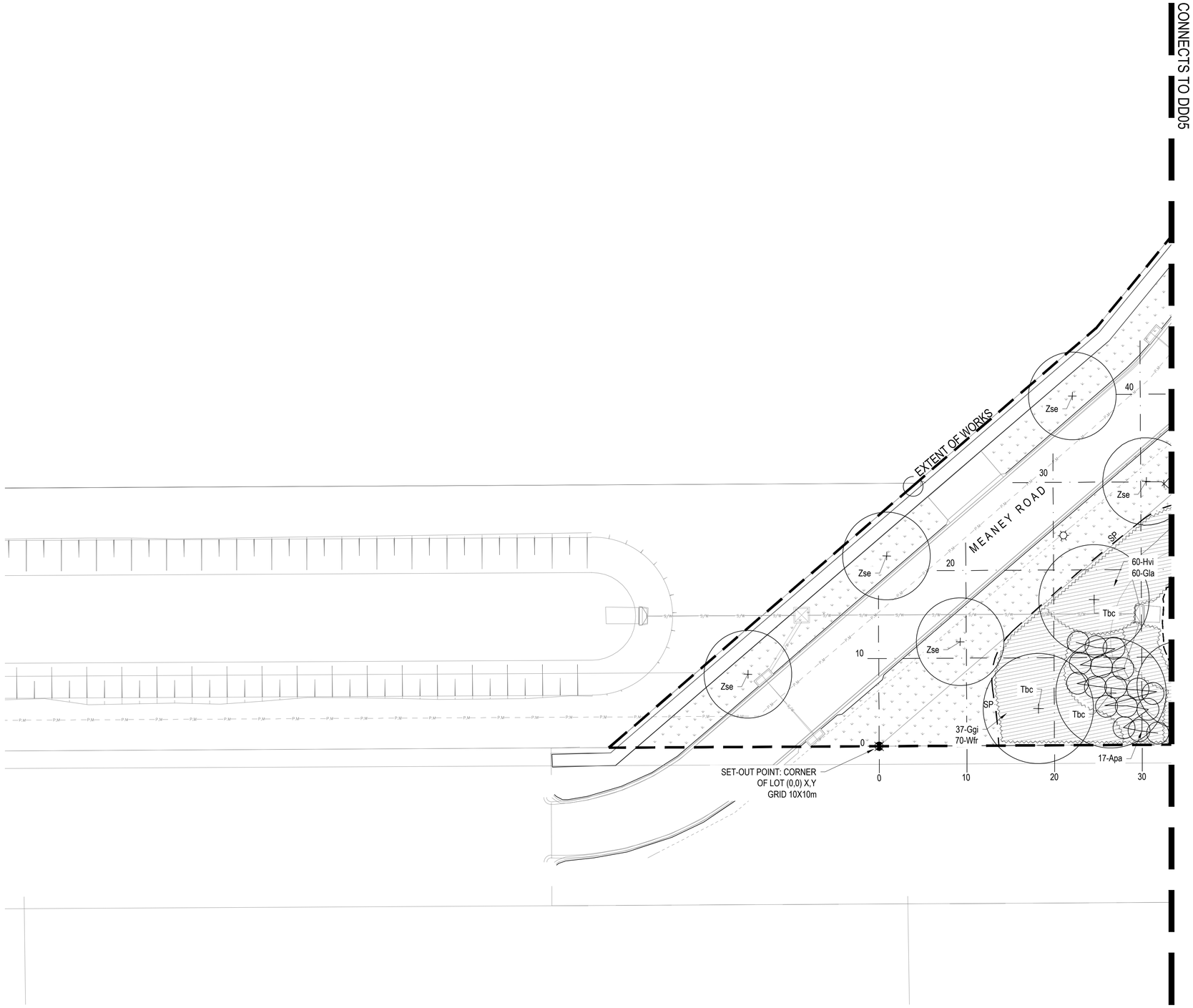
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| Designed / Date | BS/AL 05/20 | Project | LIBERTY TWO WELLS STAGE 1 |
| Drawn / Date | AM/AI 05/20 | Client | HICKINBOTHAM GROUP |
| Checked / Date | AL/PG 05/20 | Drawing | LANDSCAPE PLAN SHEET 2 |

| | |
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| Drawing No. | OS424_DD03 |
| Issue/ Rev. | A |



KEY PLAN N

INDEX




| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
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| Drawn AM/AI Date 05/20 | Client HICKINBOTHAM GROUP | Scale 1:250 @ A1 | Sheet 5/29 |
| Checked AL/PG Date 05/20 | Drawing LANDSCAPE PLAN SHEET 3 | Drawing No. OS424_DD04 | Issue/ Rev. A |



KEY PLAN

N

CONNECTS TO DD03

CONNECTS TO DD04

CONNECTS TO DD06

EXTENT OF WORKS

EXTENT OF WORKS

MEANEY ROAD

BENJAMIN FRANKLIN BOULEVARD

PROVIDE SPADE EDGE UNDER FENCE

PROVIDE SPADE EDGE UNDER FENCE

INDICATIVE LOCATION OF WATER AND ELECTRIC METRES. VERIFY ON SITE. ENSURE TO LOCATE WITHIN GARDEN BED.

INDEX

E W25

RESERVOIR WATER BODY 2009

FINISHED SURFACE = 8.20
WATER LEVEL= 8.27

Bank Top
EL= 8.06

SET-OUT POINT: CORNER OF LOT (0,0) X,Y GRID 10X10m

EXTENT OF WORKS

15-Dcb, Por, 6-Mpa, 67-Dcb, 6-Tja, Por, 60-Dcb, 6-Mpa, Por, 60-Dcb, 6-Tja, Por, 60-Dcb, 7-Mpa, Por

68-Ase, SP, Zse, 30-Cdb, 44-Rof, Upa, 55-Cdb, 61-Gla, 17-Rpa, 7-Rpa, 45-Rof, 75-Lde, 169-Ndo, 160-Fno, 77-Gla, 43-Wfr, 67-Ase, 97-Lde, 3-Apa, 97-Cgy, 25-Hvi, 72-Fno, Tbc, 4-Apa, 4-Aca, 6-Dvi, 7-Bsp, 150 -Mpa, 100 - Ase, 100 - Hvi, 85 - Grr, 120-Cva, 5-Bsp, 18-Ggi, 32-Hvi, 75-Lde, 4-Apa

9-Bsp, Zse, 60-Rbl, 40-Rcp, 40-Rof



| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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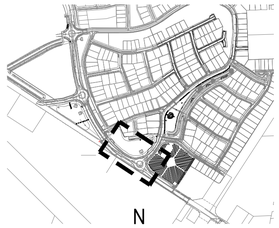
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| Drawn AM/AI Date 05/20 | Client HICKINBOTHAM GROUP | Scale 1:250 @ A1 | Sheet 6/29 |
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KEY PLAN

N

CONNECTS TO DD08

CONNECTS TO DD05

CONNECTS TO DD07

FUTURE STAGE

EXTENT OF WORKS

SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND FUTURE WORKS

INSTALL ROCK RETAINING TO EDGE OF PATH WHERE REQUIRED

RESERVE 2011

WATER BODY

Bank Top EL= 7.59

EL= 8.20
Pool level = 8.27

Bank Top EL= 8.38

APPROXIMATE LOCATION OF ORNAMENTAL FOUNTAIN

INDEX

DISPLAY VILLAGE CARPARK BY OTHERS

JEFFERSEN BOULEVARD

PROVIDE SPADE EDGE UNDER FENCE

SIGNAGE WALL (REFER DETAILS ON DD26)

BENJAMIN FRANKLIN BOULEVARD

EXTENT OF WORKS

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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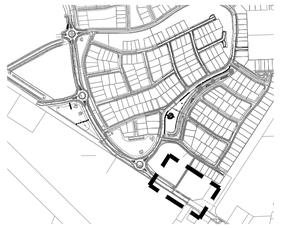
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|---|---|---|---|
| Designed | BS/AL | Project | LIBERTY TWO WELLS STAGE 1 |
| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | LANDSCAPE PLAN SHEET 5 |
| Date | 05/20 | | |

| | | |
|---|---|---|
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| Scale | 1:250 @ A1 | Sheet 7/29 |
| Drawing No. | OS424_DD06 | Issue/ Rev. A |



KEY PLAN

N

CONNECTS TO DD09

CONNECTS TO DD06

RESERVE 1001

INDEX

MEANEY ROAD

PLANT OUTSIDE OF TRANSFORMER EASEMENT

NEIGHBOUR'S FENCE (BY OTHERS)

EXTENT OF WORKS

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
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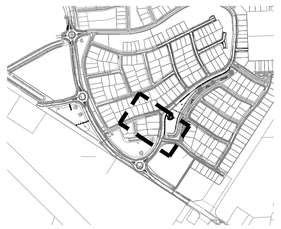
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KEY PLAN

CONNECTS TO DD10

CONNECTS TO DD09

CONNECTS TO DD06

355

356

358

359

INDEX

STEVE JOBS ROAD

JEFFERSEN BOULEVARD

BASTIAT AVENUE

MARY LEE STREET

REFER TO DD15

REFER TO DD14

FUTURE STAGE

EXTENT OF WORKS

DISPLAY VILLAGE CARPARK

SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND UN-BUILT LOT

SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND UN-BUILT LOT

INDICATIVE LOCATION OF WATER AND ELECTRIC METRES. VERIFY ON SITE. ENSURE TO LOCATE WITHIN GARDEN BED

5000 TYP

5000 TYP

8000

4000

3000 TYP

3000 TYP

+ 10.00

+ 9.70

E W25

Upa

Lna

Fan

Pca

Jmi

Sja

128-Dgr

45-Mpa
91-Fno

85-Jkr
80-Cgy

30-Mpa
20-Hvi
48-Lde

78-Lln

15-Ase

3-Apa

40-Rbl

33-Rbl

20-Dcb

24-Wgb

48-Grr

4-Lan

7-Lan

11-Lan

14-Lan

16-Lan

18-Lan

ST

SP

FE

R

R1

R2

CONNECTS TO DD11



KEY PLAN

N

CONNECTS TO DD08

BASTIA AVENUE

BUCHANAN AVENUE

MARY LEE STREET

DRIVEWAY LOCATION
REFER CIVIL

DRIVEWAY LOCATIONS
REFER CIVIL

INDEX

EXTENT OF WORKS

CONNECTS TO DD07

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
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| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

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0 2 5 10 15 20 25m

SCALE 1:250 @ A1

**100% FOR REVIEW**
**NOT FOR CONSTRUCTION**

| | | | |
|---|---|---|---|
| Designed | BS/AL | Project | LIBERTY TWO WELLS STAGE 1 |
| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | LANDSCAPE PLAN SHEET 8 |
| Date | 05/20 | | |

File Ref.: OS424_Liberty Two Wells_DD_27-08-2020.dwg
Scale: 1:250 @ A1
Sheet: 10/29
Drawing No.: OS424_DD09
Issue/ Rev.: A



N

KEY PLAN

CONNECTS TO DD12

CONNECTS TO DD11

CONNECTS TO DD08

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WILBERFORCE LANE

JEFFERSEN BOULEVARD

BASTIAT AVENUE

RESERVE 2004

REFER TO DD17

REFER TO DD16

REFER TO DD15

FUTURE STAGE

FUTURE STAGE

SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND UN-BUILT LOT

PROPOSED PRAM RAMP (TO MATCH EXISTING); CONTRACTOR TO COORDINATE WITH CIVIL

PROPOSED PRAM RAMP (TO MATCH EXISTING); CONTRACTOR TO COORDINATE WITH CIVIL

350

351

352

353

354

47

48

5000 TYP

8000 TYP

SP

ST

CO

R

Sja

Fan

Pca

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
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|---|---|---|---|
| Designed BS/AL Date 05/20 | Project LIBERTY TWO WELLS STAGE 1 | File Ref. OS424_Liberty Two Wells_DD_27-08-2020.dwg | |
| Drawn AM/AI Date 05/20 | Client HICKINBOTHAM GROUP | Scale 1:250 @ A1 | Sheet 11/29 |
| Checked AL/PG Date 05/20 | Drawing LANDSCAPE PLAN SHEET 9 | Drawing No. OS424_DD10 | Issue/ Rev. A |




| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

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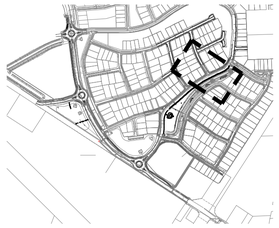
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| Designed | BS/AL | Project | LIBERTY TWO WELLS STAGE 1 |
| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | LANDSCAPE PLAN SHEET 10 |
| Date | 05/20 | | |

| File Ref. | |
|---|---|
| OS424_Liberty Two Wells_DD_27-08-2020.dwg | |
| Scale | Sheet |
| 1:250 @ A1 | 12/29 |
| Drawing No. | Issue/ Rev. |
| OS424_DD11 | A |



KEY PLAN

N

CONNECTS TO DD13

FUTURE STAGE

FUTURE STAGE

FUTURE STAGE

FUTURE STAGE

INDEX

EXTENT OF WORKS

EXTENT OF WORKS

MASON AVENUE

JEFFERSEN BOULEVARD

VON MISES PLACE

SPADE EDGE ENTIRE EXTENT BETWEEN GARDEN BED AND UN-BUILT LOT

80-Cgy
150-Cbi
150-Jpa
65-Lde

40-Mpa
30-Hvi
10-Rbl
32-Jkr
80-Cap

75-Cva

89-Cva

25-Cdb
30-Ggi
60-Jpa
25-Lde

25-Rbl
30-Ggi
32-Lde

41-Jkr

30-Wgb

5000 TYP

8000 TYP

CONNECTS TO DD10

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

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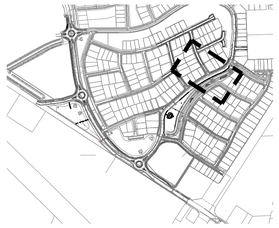
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SCALE 1:250 @ A1

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|---|---|---|---|
| Designed | BS/AL | Project | LIBERTY TWO WELLS STAGE 1 |
| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | LANDSCAPE PLAN SHEET 11 |
| Date | 05/20 | | |

File Ref.: OS424_Liberty Two Wells_DD_27-08-2020.dwg
Scale: 1:250 @ A1
Sheet: 13/29
Drawing No.: OS424_DD12
Issue/ Rev.: A



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FUTURE STAGE
FUTURE STAGE
JEFFERSEN BOULEVARD
EXTENT OF WORKS
HAMILTON AVENUE
Fan
Jmi
Jmi
R
R
R
R
CO
CONNECTS TO DD12

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

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| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | LANDSCAPE PLAN SHEET 12 |
| Date | 05/20 | | |

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|---|---|
| File Ref. | OS424_Liberty Two Wells_DD_27-08-2020.dwg |
| Scale | 1:250 @ A1 |
| Sheet | 14/29 |
| Drawing No. | OS424_DD13 |
| Issue/ Rev. | A |

CONNECTS TO DD15

TO ACHIEVE SMOOTH GRADE

JEFFERSEN BOULEVARD

BASTIAT AVENUE

MARY LEE STREET

EDGE OF CONCRETE KERB REFER DETAIL D14B

INDEX

Plant 2 nos ornamental Grape Vine (Vvi - Vitis vinifera 'Crimson Glory') to base of each post; total - 16 nos.

ARBOUR REFER TO DETAIL D31 & D32

DEMOLISH/ CUT EXISTING CONCRETE AND INSTALL NEW EXPOSED AGGREGATE CONCRETE AS SPECIFIED

CONTRACTOR TO REGRADE CONTOURS TO ACHIEVE SMOOTH GRADIENTS AND FLATTEN AREAS TO ALLOW FOR PATHS; INSTALL ROCK RETAINING TO EDGE OF PATH, AS REQUIRED

CUT EXISTING CONCRETE AT LOCATION SHOWN AND INSTALL EXPOSED AGGREGATE CONCRETE TO MATCH EXISTING AGGREGATTE MIX, AS SPECIFIED. ENSURE SMOOTH NEAT FINISH

ENTRY PLAZA

SET-OUT POINT: CORNER OF LOT (0,0) X,Y GRID 10X10m

T/F

TW= +2500

KEY PLAN

N

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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0 1 2 3 4 5 10m

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|---|---|---|---|
| Designed BS/AL Date 05/20 | Project LIBERTY TWO WELLS STAGE 1 | File Ref. OS424_Liberty Two Wells_DD_27-08-2020.dwg | |
| Drawn AM/AI Date 05/20 | Client HICKINBOTHAM GROUP | Scale 1:100 @ A1 | Sheet 15/29 |
| Checked AL/PG Date 05/20 | Drawing ENLARGED LANDSCAPE PLAN SHEET 1 | Drawing No. OS424_DD14 | Issue/ Rev. A |

CONNECTS TO DD16

TIMBER BOLLARD (REMOVABLE) - REFER SPECS LOCATE CENTRE OF PATH & 1m OFFSET FROM EDGE OF BITUMEN

SAND PIT

DRAIN

DISCHARGE INTO ADJACENT SWALE

SANDPIT REFER TO DETAIL D26 / DD22

CUSTOM BALANCE LOG REFER TO DETAIL D11 / DD19

PE 1 - BARN UNIT REFER SPECS

PE 2 - SPINNER REFER SPECS

PE 3 - BALANCE BEAM REFER SPECS

TIMBER LOG STEPS ON MOUND REFER TO DETAIL D37

TABLE TENNIS TABLE

LARGE SHELTER REFER DETAIL D27

INDICATIVE LOCATION OF WATER AND ELECTRIC METRES. VERIFY ON SITE. ENSURE TO LOCATE WITHIN GARDEN BED.

LOCALLAY FILL SLOPED AREA

BASTIAT AVENUE

KEY PLAN

CONNECTS TO DD14

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
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0 1 2 3 4 5 10m

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| | | | |
|---|---|---|---|
| Designed Date | BS/AL 05/20 | Project | LIBERTY TWO WELLS STAGE 1 |
| Drawn Date | AM/AI 05/20 | Client | HICKINBOTHAM GROUP |
| Checked Date | AL/PG 05/20 | Drawing | ENLARGED LANDSCAPE PLAN SHEET 2 |

File Ref. OS424_Liberty Two Wells_DD_27-08-2020.dwg
Scale 1:100 @ A1
Sheet 16/27
Drawing No. OS424_DD15
Issue/ Rev. A

CONNECTS TO DD17

CONNECTS TO DD15

INDEX

1m WIDE MULCH ONLY BUFFER ZONE

SMALL SHELTER REFER DETAIL D33

PE 9 - TOTEMS REFER DETAIL D16

PE 8 - DIGGER REFER SPECS

PE 6 - ROCKER 1 REFER SPECS

PE 5 - NEST SWING REFER SPECS

PE 7 - ROCKER 2 REFER SPECS

PE 4 - WINDMILL REFER SPECS

SAND PIT 2

SOAKAGE PIT (10X0.40X0.40M) - DISCHARGE INTO ADJACENT GARDEN BED

USE LARGER ROCKS/ LOGS AS RETAINING TO THIS SIDE OF SAND PIT

SWALE ROCK RIFFLES REFER TO DETAIL D17 / DD20

CREEKLINE REFER TO DETAIL D24-25 / DD22

TOILET BLOCK

BINS

BBQ

LB

SHL

PS

DF

T/F

Bank Top EL= 9.79

JEFFERSEN BOULEVARD

BASTIAT AVENUE

KEY PLAN

N

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
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0 1 2 3 4 5 10m

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| | | | |
|---|---|---|---|
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| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | ENLARGED LANDSCAPE PLAN SHEET 3 |
| Date | 05/20 | | |

File Ref. OS424_Liberty Two Wells_DD_27-08-2020.dwg
Scale 1:100 @ A1
Sheet 17/29
Drawing No. OS424_DD16
Issue/ Rev. A

WILBERFORCE LANE

JEFFERSEN BOULEVARD

SHANN STREET

BASTIAT AVENUE

RESERVE
2004

TIMBER BOLLARD (REMOVABLE) - REFER SPECS LOCATE CENTRE OF PATH & 1m OFFSET FROM EDGE OF BITUMEN

PROPRIETARY COMPOSITE TIMBER BOARDWALK

PROPOSED PRAM RAMP; (TO MATCH EXISTING) CONTRACTOR TO COORDINATE WITH CIVIL

PROPOSED CONCRETE PATH; TO MATCH EXISTING DEVELOPMENT PATH

PROPOSED PRAM RAMPS; (TO MATCH EXISTING) CONTRACTOR TO COORDINATE WITH CIVIL

Bank Top EL= 9.79

TW= +990 TYP

+ 10.00

+ 9.65

+ 9.90

+ 9.81

+ 9.79

10-Ggi

11-Ggi

10-Rcp
22-Wgb

3-Mpa
7-Dgr

15-Rbl
15-Ggi
26-Lde

20-Lta
20-Wgb

15-Rcp

19-Rcp

14-Rcp
16-Wgb

14-Mpa
20-Fno

20-Wfr
10-Cdb
30-Lln

10-Wfr
13-Cdb

16-Ndo
16-Dta

16-Dgr

6-Rof
9-Dcb

17400

2500

1000

3000

4000

170

160

150

140

80

W3

ST

CK

BO

Fan

Fhi

SP

RB

BW

J

INDEX

CO

R

CONNECTS TO DD16

KEY PLAN

N

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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0 1 2 3 4 5 10m

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|---|---|---|---|
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| Date | 05/20 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 05/20 | | |
| Checked | AL/PG | Drawing | ENLARGED LANDSCAPE PLAN SHEET 4 |
| Date | 05/20 | | |

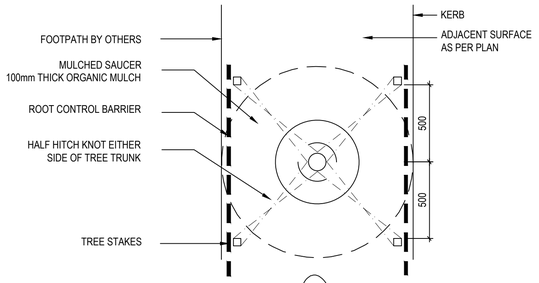
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Scale 1:100 @ A1

Sheet 18/29

Drawing No. OS424_DD17

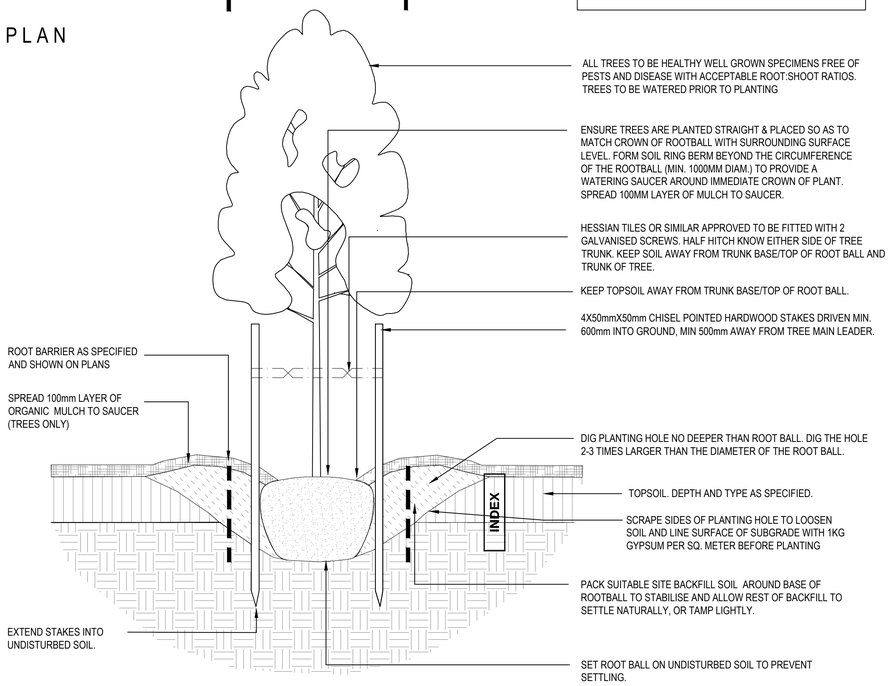
Issue/ Rev. A



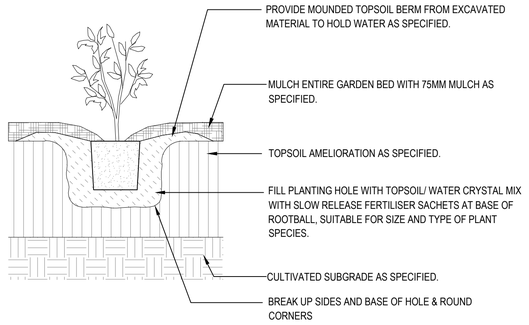

PLAN

NOTES ON PLANTING PROCEDURE:

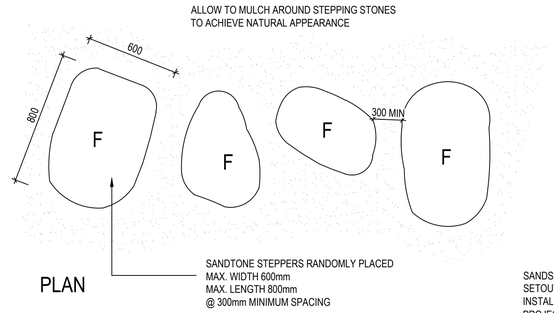
- PRIOR TO PLACING THE TREE IN THE HOLE, ENSURE ANY STRING OR BROKEN BRANCHES IN THE CROWN ARE PRUNED AND/OR REMOVED.
- GENTLY LOWER THE TREE INTO THE HOLE SO THAT THE TRUNK FLARE IS AT OR SLIGHTLY LOWER THAN THE FINAL LANDSCAPE FINISH LEVEL.



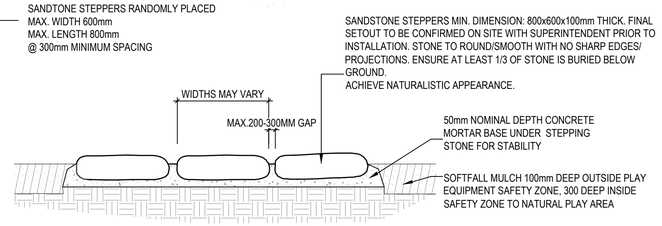

D01 SEMI-ADVANCE TREE IN VERGE PLANTING DETAIL
SCALE 1:20




D02 SHRUB/GROUNDCOVER PLANTING DETAIL
SCALE 1:20



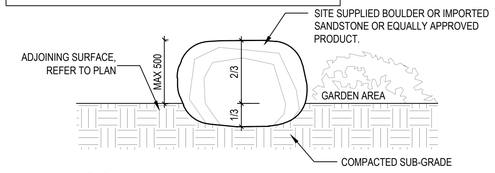

PLAN



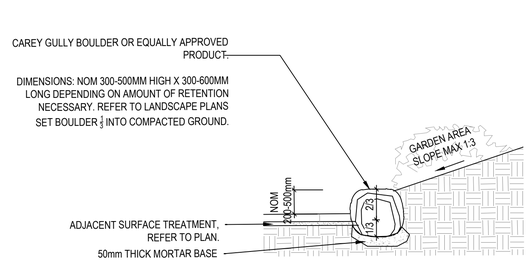

D03 F: FLAT ROCK STEPPERS
SCALE 1:20

NOTES:

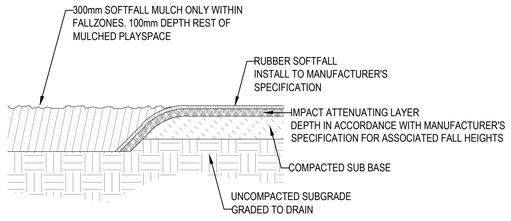
1. BOULDERS SHOULD BE MAX 500mm HIGH WITH A FLAT SURFACE AND NO SHARP EDGES. REFER TO SPECIFICATION.
2. CONFIRM WITH HICKINBOTHAM RE SUPPLY OF SITE BOULDERS/ ROCKS AND IF AVAILABLE.
3. ALL BOULDERS AND BALLAST TO BE SANDSTONE
4. REFER TO ROCK SCHEDULE IN LANDSCAPE SPECIFICATIONS



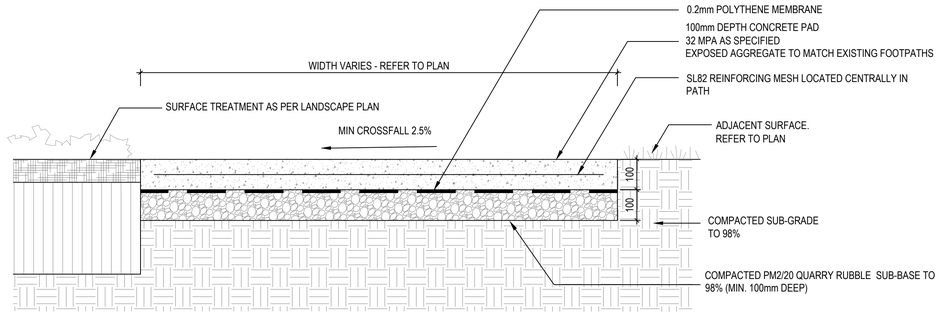

D04 R1: LANDSCAPE ROCKS
SCALE 1:20




D05 TYPE R2: ROCK RETAINING
SCALE 1:20



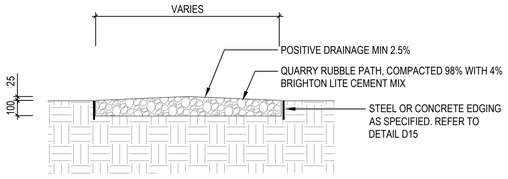

D06 RUBBER SOFTFALL
SCALE 1:20




NOTES:

1. EXPANSION JOINTS: ALL PATHS TO HAVE EXPANSION JOINTS PLACED AT MAX 6m. SPACINGS. LOCATION OF EXPANSION JOINTS TO APPROVAL OF SUPERINTENDENT PRIOR TO CONSTRUCTION
2. CONTROL JOINTS: PAVING TO HAVE CONTROL JOINTS WITH APPROVED JOINT SEALER @2m CENTRES (MAX.). REFER TO PLANS FOR PATH DIMENSIONS.

D07 TYPICAL CONCRETE FOOTPATH
SCALE 1:10




D08 QUARRY RUBBLE PATH
SCALE 1:20

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

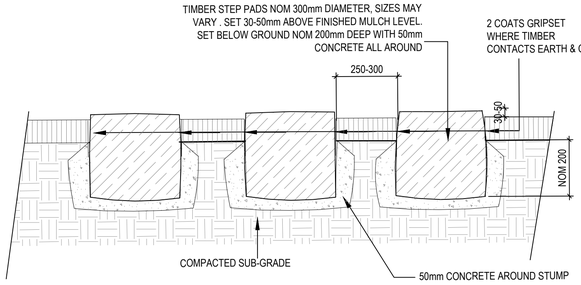
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| | | | |
|---|---|---|---|
| Designed BS 12/19 | Project LIBERTY TWO WELLS STAGE 1 | File Ref. OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg | |
| Drawn AM/AI 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 19/29 |
| Checked AL 03/20 | Drawing LANDSCAPE DETAILS SHEET 1 | Drawing No. OS424_DD18 | Issue/ Rev. A |

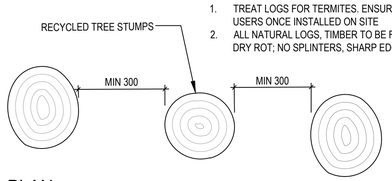



TYPICAL SECTION

NOTE:
ALL TIMBER TO BE SMOOTH/ SANDED WHERE ABOVE GROUND

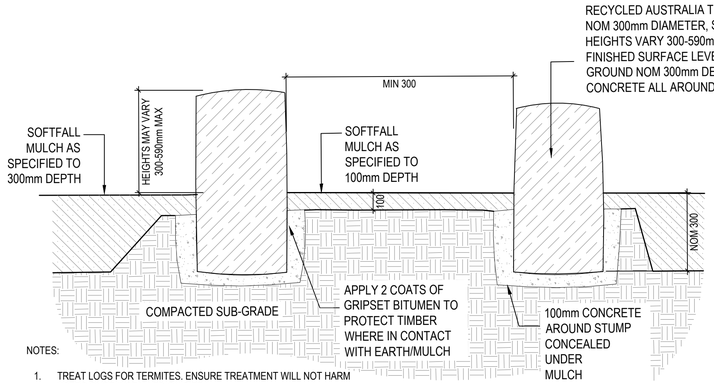
NOTES:

1. TREAT LOGS FOR TERMITES. ENSURE TREATMENT WILL NOT HARM USERS ONCE INSTALLED ON SITE
2. ALL NATURAL LOGS, TIMBER TO BE FREE FROM BORERS, TERMITES AND DRY ROT; NO SPLINTERS, SHARP EDGES OR ENTRAPMENT POINTS.




PLAN

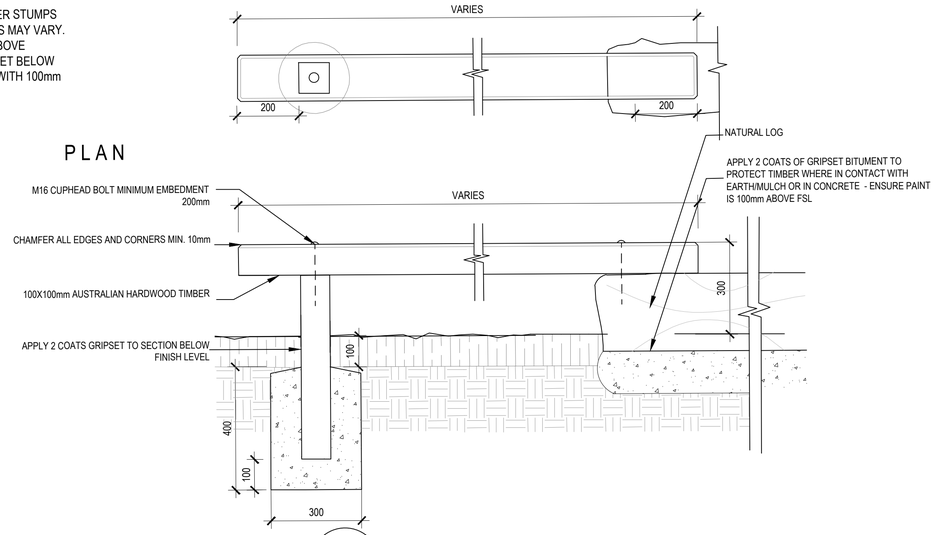
D09 S1: FLUSH TIMBER STEPPERS
SCALE 1:10




NOTES:

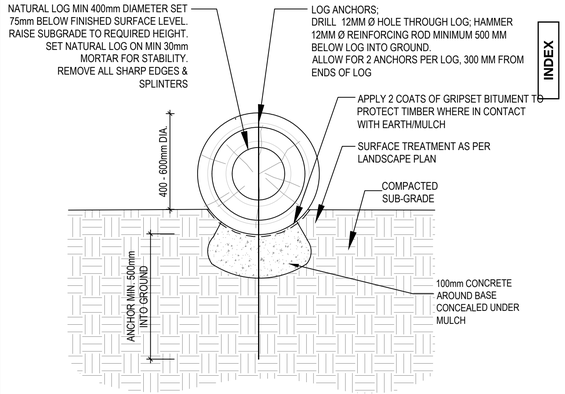
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D10 S2: UPRIGHT TIMBER STUMPS
SCALE 1:10




SECTION-ELEVATION

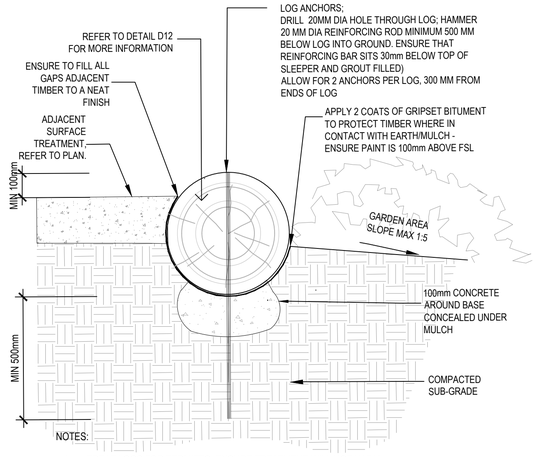
D11 TIMBER BALANCING PLANKS DETAIL
SCALE 1:10




NOTES:

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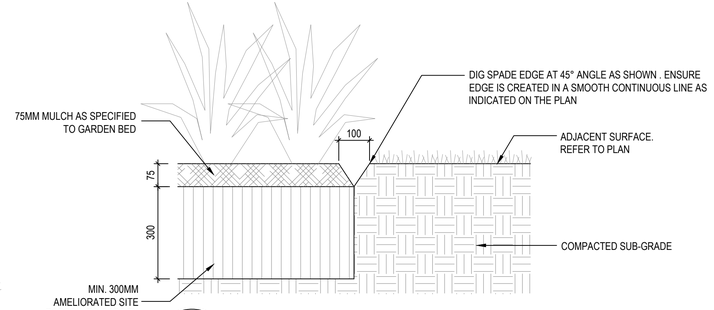
D12 RECYCLED LOG (L)
SCALE 1:10



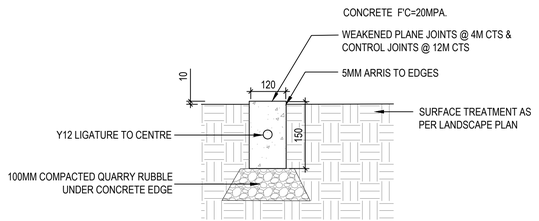

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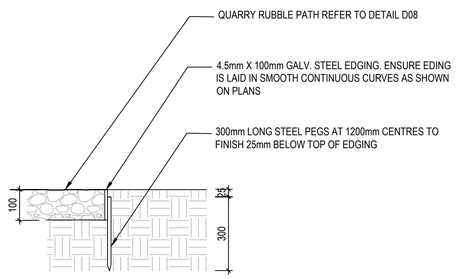
D12B RECYCLED LOG RETAINING
SCALE 1:10



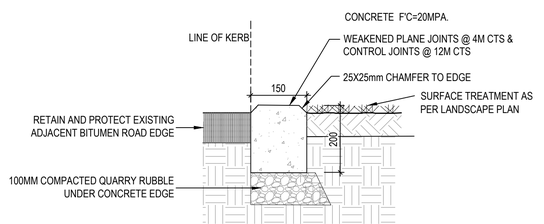

D13 SPADE EDGE DETAIL (SP)
SCALE 1:10




D14A TYPICAL CONCRETE EDGE (CE)
SCALE 1:10




D15 STEEL EDGE (ST)
SCALE 1:10




D14B TYPICAL CONCRETE KERB EDGE (CK)
SCALE 1:10

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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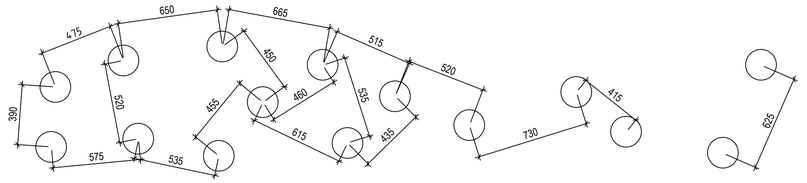
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| Drawn AM/AI Date 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 20/29 |
| Checked AL Date 03/20 | Drawing LANDSCAPE DETAILS SHEET 2 | Drawing No. OS424_DD19 | Issue/ Rev. A |



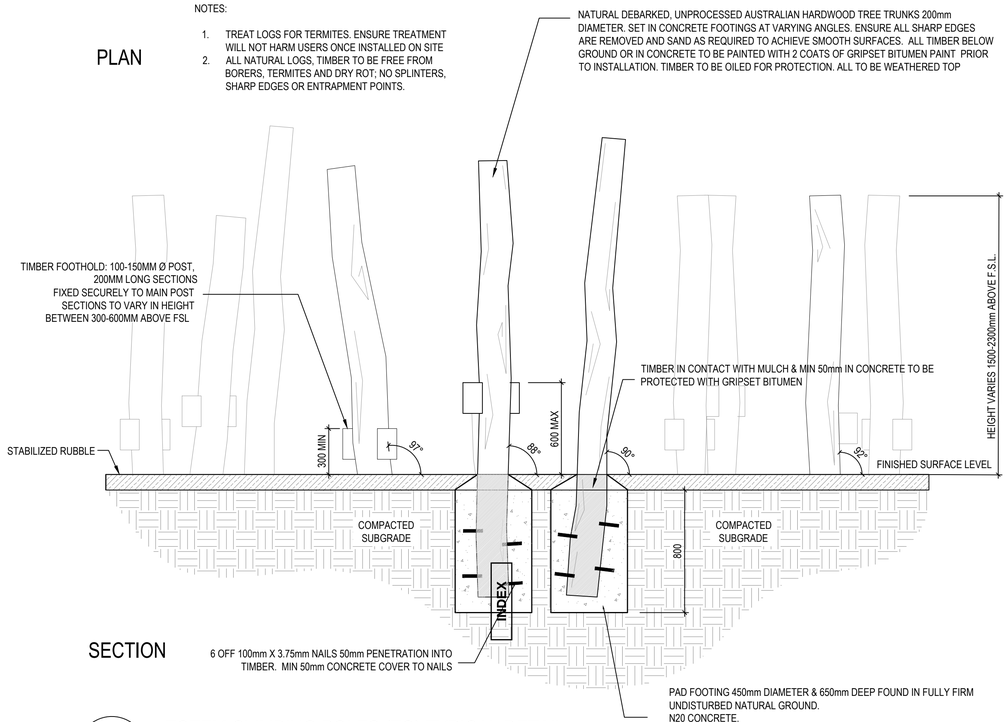
Infrastructure and Environment Committee Meeting
3 September 2020




PLAN

NOTES:

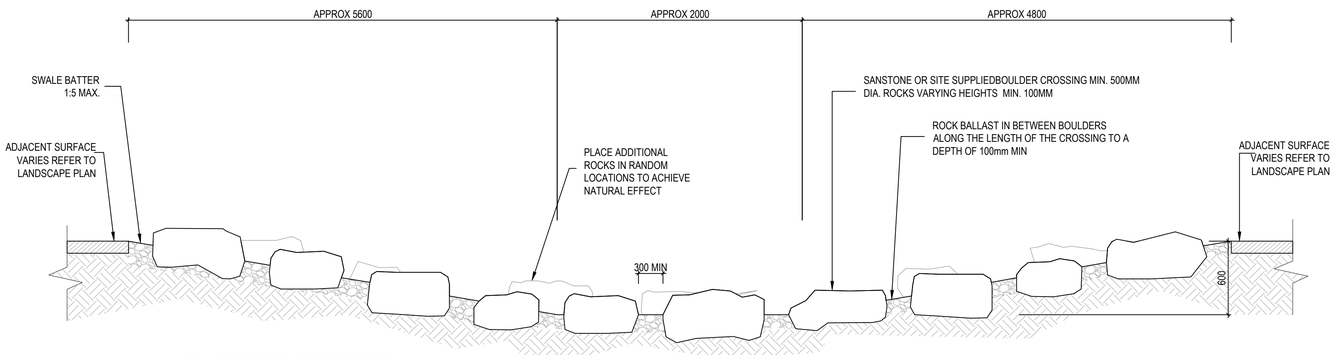
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SECTION

D16 TOTEM CLIMBING POLES (TO) TYPICAL DETAIL

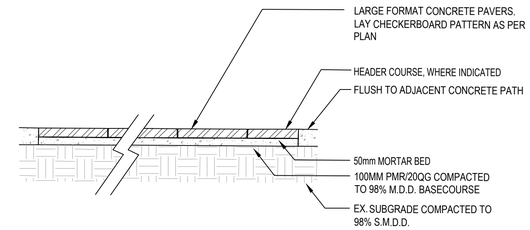
SCALE 1:20




NOTE: CONTRACTOR TO CONFIRM SET-OUT WITH SUPERINTENDENT ON SITE PRIOR TO INSTALLATION. STONES TO BE ROUND/SMOOTH WITH NO SHARP EDGES.

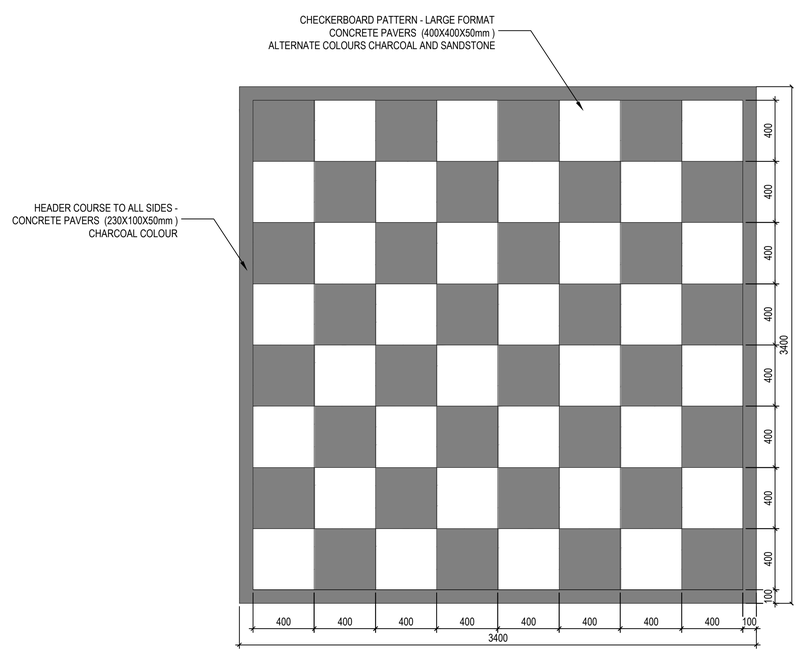
D17 SWALE ROCK RIFFLES SECTION

SCALE 1:25




D18B TYPICAL CHECKERBOARD PAVING SECTION

SCALE 1:20




PLAN

D18 CHECKERBOARD BLOCK PAVING IN CONCRETE

SCALE 1:20

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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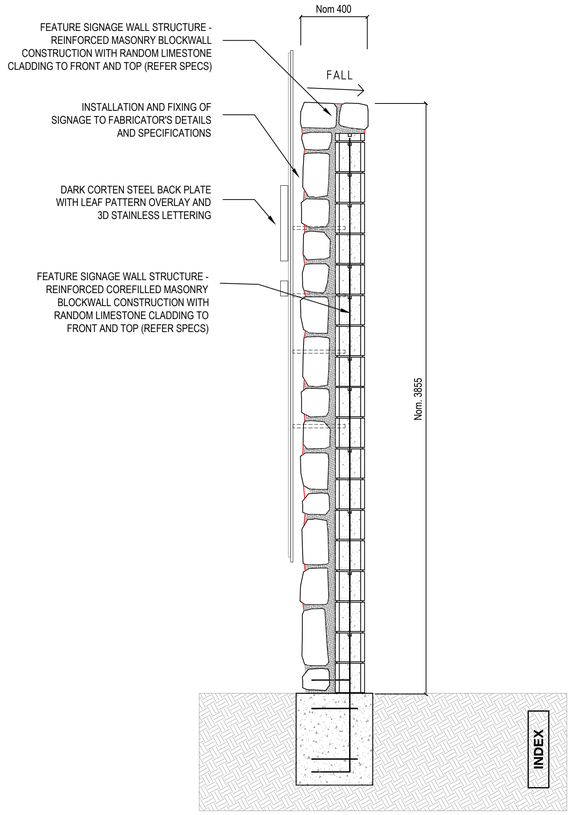
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| Drawn AM/AI 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 21/29 |
| Checked AL 03/20 | Drawing LANDSCAPE DETAILS SHEET 3 | Drawing No. OS424_DD20 | Issue/ Rev. A |

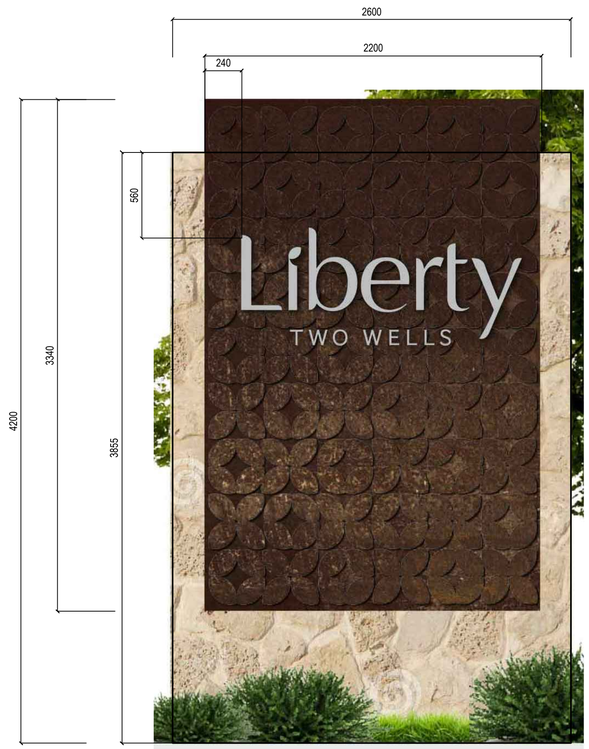


Infrastructure and Environment Committee Meeting
3 September 2020



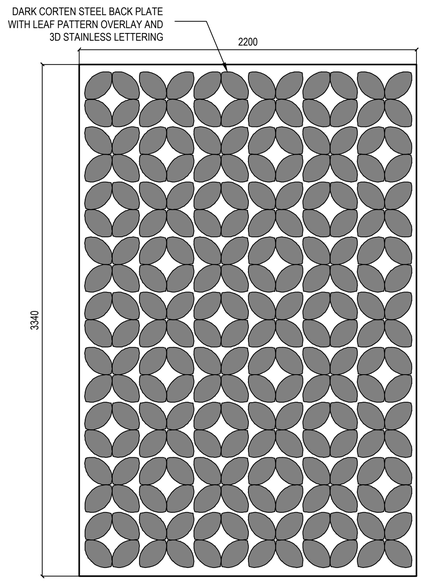

D19 SIGNAGE WALL DETAIL (W1)

SCALE 1:20

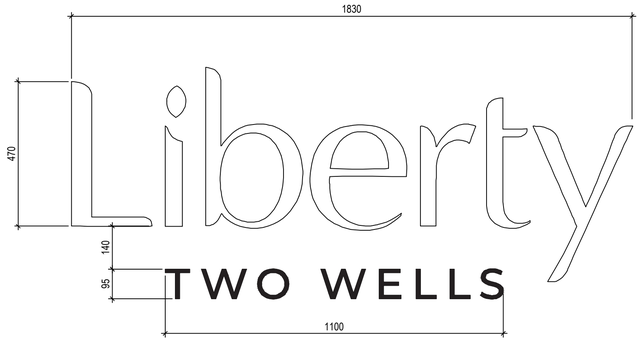



FRONT ELEVATION

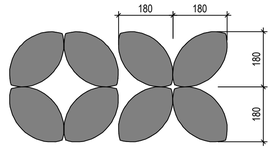
NOTES:
1. PROVIDE SHOP DRAWINGS OF SIGNAGE LETTERING FOR APPROVAL BY SUPERINTENDENT PRIOR TO FABRICATION.
2. CONTRACTOR TO SELECT LIGHT-COLOURED LIMESTONE. DARK COLOURS WILL BE REJECTED. SUBMIT PHOTOGRAPHIC SAMPLES FOR APPROVAL PRIOR TO DELIVERY.
3. STRUCTURAL AND FOOTING DESIGN TO BE CERTIFIED BY ENGINEER. ENGINEERING AS SPECIFIED BY OTHERS - TBC.
4. APPLY ANTI-GRAFFITI COATING TO ALL EXPOSED SURFACES.



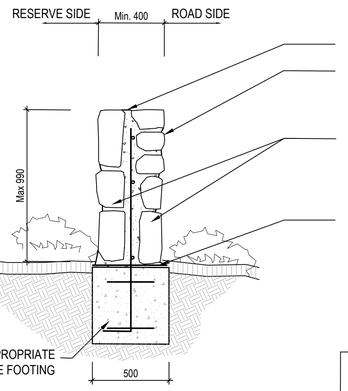

SIGNAGE SETOUT 1:50




LETTERING SETOUT 1:10




TYPICAL LEAF PATTERN 1:10




MORTAR JOINTS TO TOP OF WALL TO BE FLUSH

APPLY 2 COATS ANTI-GRAFFITI TO ALL EXPOSED SURFACES

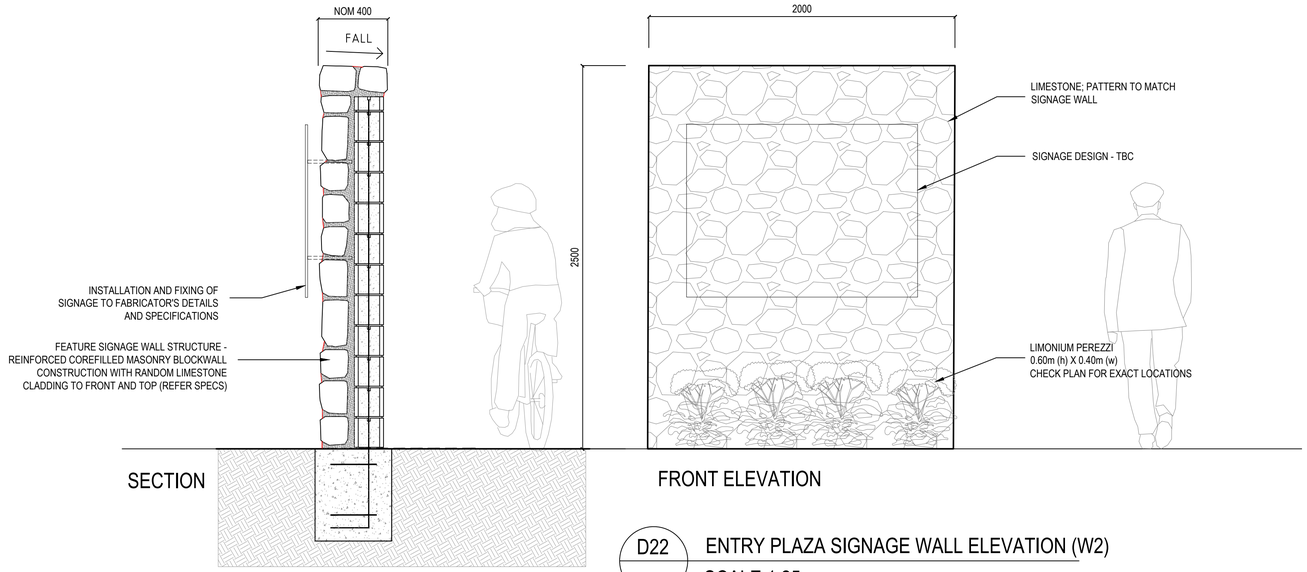
RANDOM LIMESTONE WALL (MIN 100X200X300mm). MORTAR AND STONE JOINTS TO MATCH IN WITH LIMESTONE. JOINT GAPS TO BE MAX 10-20mm WIDE AND RECESSED MAX 10mm FROM FACE OF STONE.

DAMP PROOF MEMBRANE (DPM) BETWEEN TOP OF FOOTING & FIRST COURSE OF STONE; ENSURE DPM IS THE FULL WIDTH OF THE FOOTING.

NOTES:
1. CONTRACTOR TO SELECT LIGHT COLOURED LIMESTONES AND PROVIDE PHOTO'S/ SAMPLES FOR APPROVAL BY SUPERINTENDENT PRIOR TO INSTALLATION. DARK COLOURED STONES WILL BE REJECTED.
2. WALLING CONTRACTOR TO CONSTRUCT 2m SECTION OF WALL FOR APPROVAL/ INSPECTION BY THE SUPERINTENDENT.
3. REFER TO PLAN FOR DIMENSIONS AND SET-OUT.

D20 LIMESTONE WALL DETAIL (W3)

SCALE 1:20




SECTION

FRONT ELEVATION

D22 ENTRY PLAZA SIGNAGE WALL ELEVATION (W2)

SCALE 1:25

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
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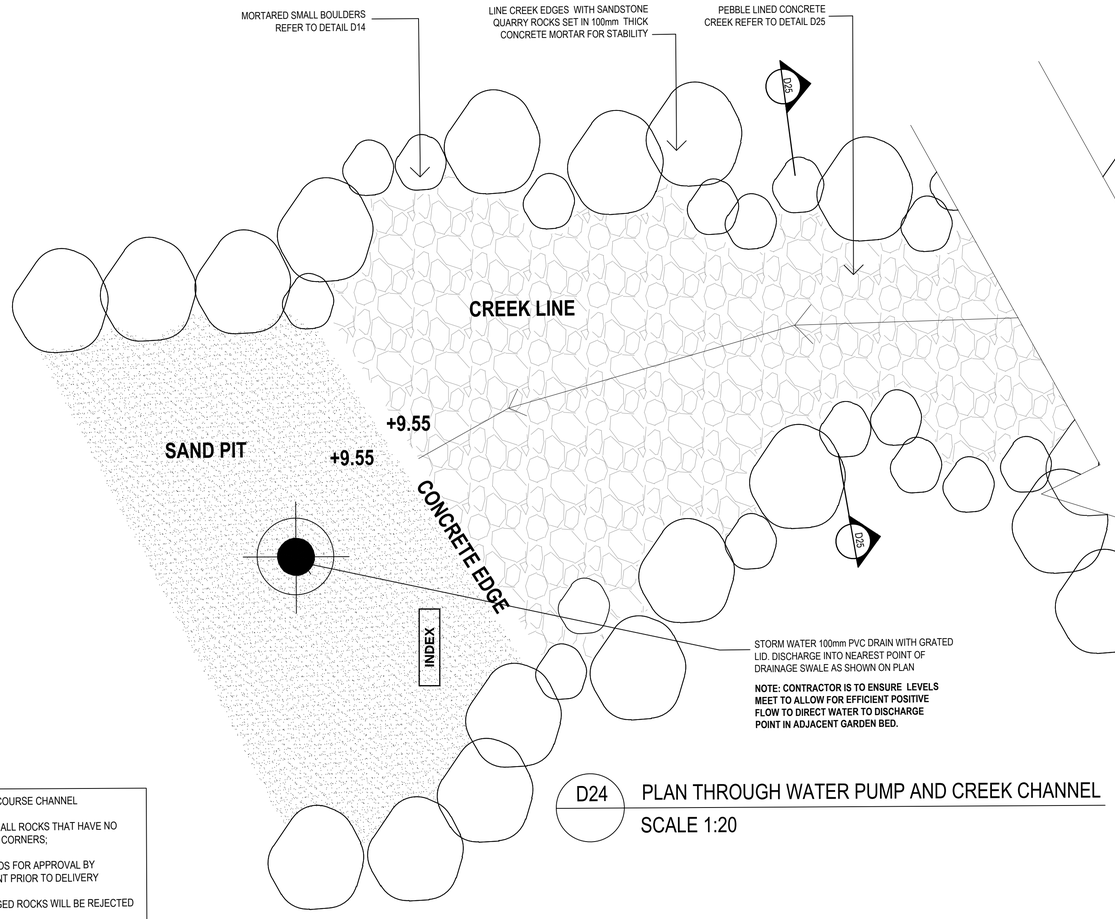
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| Designed BS / Date 12/19 | Project LIBERTY TWO WELLS STAGE 1 | File Ref. OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg | |
| Drawn AM/AI / Date 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 22/29 |
| Checked AL / Date 03/20 | Drawing LANDSCAPE DETAILS SHEET 4 | Drawing No. OS424_DD21 | Issue/ Rev. A |




D24 PLAN THROUGH WATER PUMP AND CREEK CHANNEL
SCALE 1:20

NOTES: WATER COURSE CHANNEL

1. HAND-SELECT ALL ROCKS THAT HAVE NO SHARP EDGES & CORNERS;

2. SUBMIT PHOTOS FOR APPROVAL BY SUPERINTENDENT PRIOR TO DELIVERY

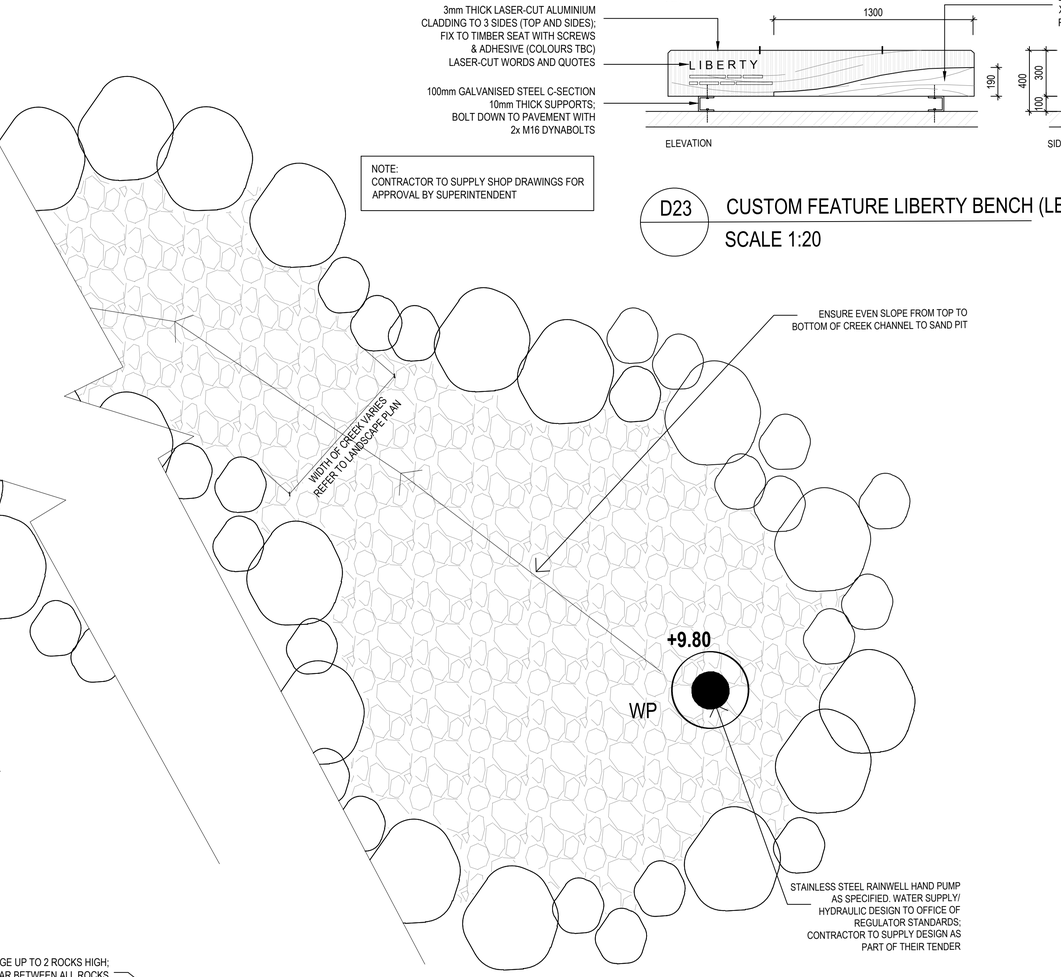
3. SHARP & JAGGED ROCKS WILL BE REJECTED

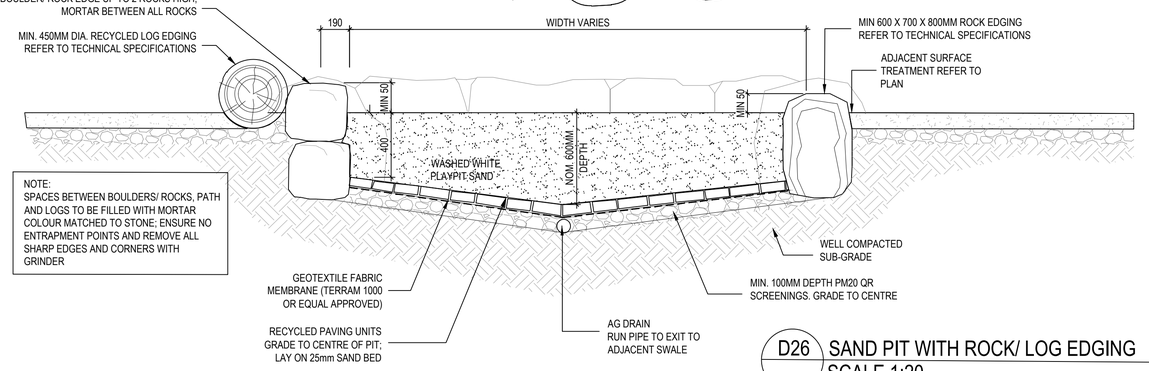
4. 1m² TEST PANEL TO BE LAID FOR APPROVAL PRIOR TO COMPLETING WORK




SCALE 1:10

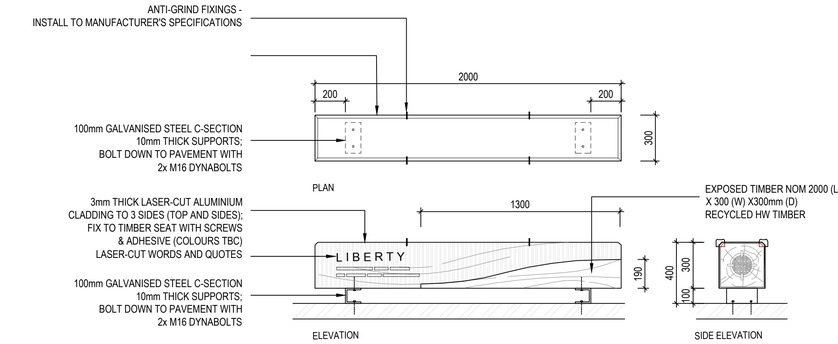
D25 TYPICAL CREEK BED SECTION
SCALE 1:10




NOTE:
SPACES BETWEEN BOULDERS/ ROCKS, PATH AND LOGS TO BE FILLED WITH MORTAR COLOUR MATCHED TO STONE; ENSURE NO ENTRAPMENT POINTS AND REMOVE ALL SHARP EDGES AND CORNERS WITH GRINDER

D26 SAND PIT WITH ROCK/ LOG EDGING
SCALE 1:20




NOTE:
CONTRACTOR TO SUPPLY SHOP DRAWINGS FOR APPROVAL BY SUPERINTENDENT

D23 CUSTOM FEATURE LIBERTY BENCH (LB)
SCALE 1:20

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
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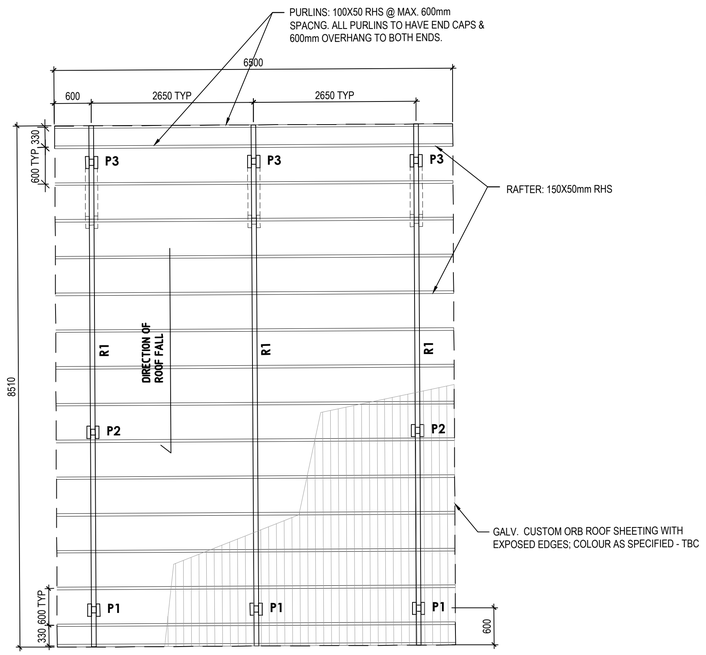
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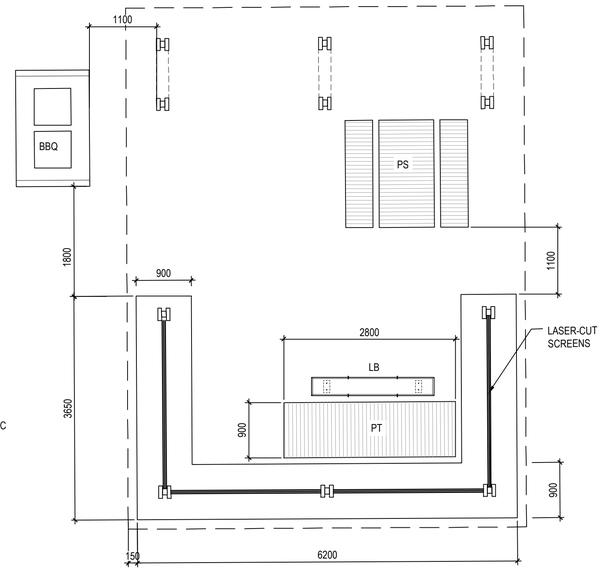
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| Designed / Date | BS 12/19 | Project | LIBERTY TWO WELLS STAGE 1 |
| Drawn / Date | AM/AI 03/20 | Client | HICKINBOTHAM GROUP |
| Checked / Date | AL 03/20 | Drawing | LANDSCAPE DETAILS SHEET 5 |

| | | |
|---|---|---|
| File Ref. | OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg | |
| Scale | AS SHOWN | Sheet 23/29 |
| Drawing No. | OS424_DD22 | Issue/ Rev. A |




ROOF FRAMING PLAN



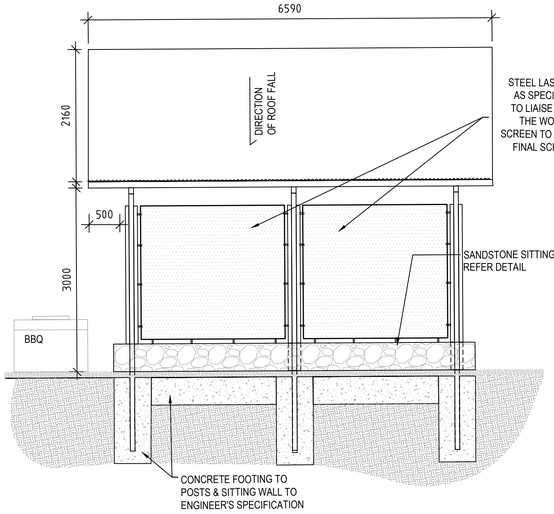

FLOOR PLAN

NOTE:
LANDSCAPE CONTRACTOR TO PROVIDE CONSTRUCTION SHOP DRAWINGS OF THE SHELTERS FOR APPROVAL BY SUPERINTENDENT PRIOR TO CONSTRUCTION.

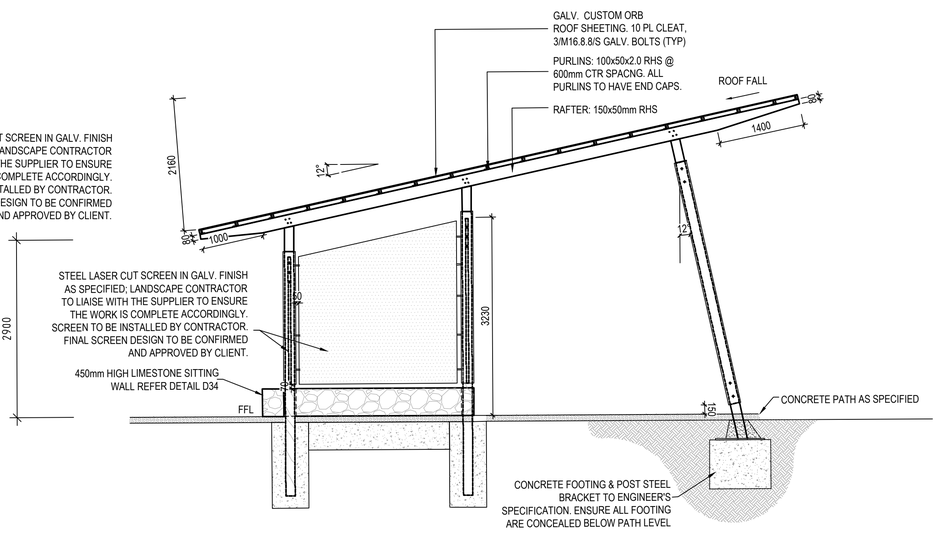
INDEX

STRUCTURAL MEMBERS

| KEY | SIZE | REMARKS |
|---|---|---|
| P1 | 152x76mm HW | POST @ 3090mm ABOVE FFL; TIMBER CLAD (190X70mm HW, F17, H3) |
| P2 | 152x76mm HW | POST @ 3730mm ABOVE FFL;TIMBER CLAD (190X70mm HW, F17, H3) |
| P3 | 152x76mm HW | POST @ 4480mm ABOVE FFL;TIMBER CLAD (190X70mm HW, F17, H3) |
| R1 | 150X50mm RHS | RAFTER @ 2650mm CTR SPACING |
| P1 | 100X50mm RHS | PURLINS @ 600mm CTR SPACING |

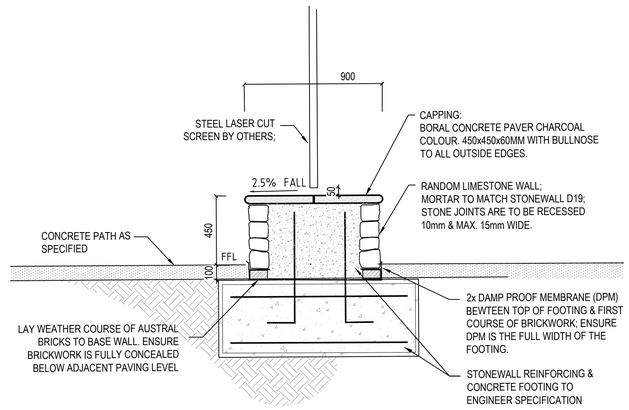



REAR ELEVATION




SECTION

NOTES:
1. ALL STRUCTURAL MEMBERS SIZING, SPACING. FIXING AND CONCRETE FOOTING DETAIL TO ENGINEER'S SPECIFICATION & DETAILS.
2. LANDSCAPE CONTRACTOR TO PROVIDE CONSTRUCTION SHOP DRAWINGS OF THE SHELTERS FOR APPROVAL TO THE SUPER - INTENDENT PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO SUPPLY POWER TO BBQ.




D34 LIMESTONE SEATWALL

SCALE 1:20

NOTE:
LANDSCAPE CONTRACTOR TO CONSTRUCTION SHOP DRAWI APPROVAL BY SUPERINTENDE TO CONSTRUCTION.

D27 CUSTOM LARGE SHELTER DETAILS

SCALE 1:50

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

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| | |
|---|---|
| Designed | BS |
| Date | 12/19 |
| Drawn | AM/AI |
| Date | 03/20 |
| Checked | AL |
| Date | 03/20 |

Project: LIBERTY TWO WELLS STAGE 1

Client: HICKINBOTHAM GROUP

Drawing: LANDSCAPE DETAILS SHEET 6

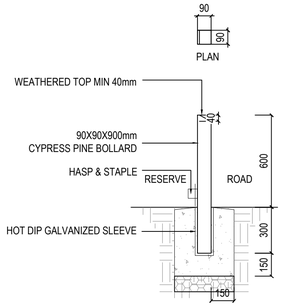
File Ref.: OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg

Scale: AS SHOWN

Sheet: 24/27

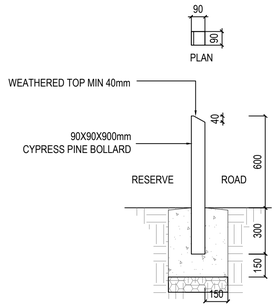
Drawing No.: OS424_DD23

Issue/ Rev.: A




D28 REMOVABLE TIMBER BOLLARD DETAIL (RB)

SCALE 1:20

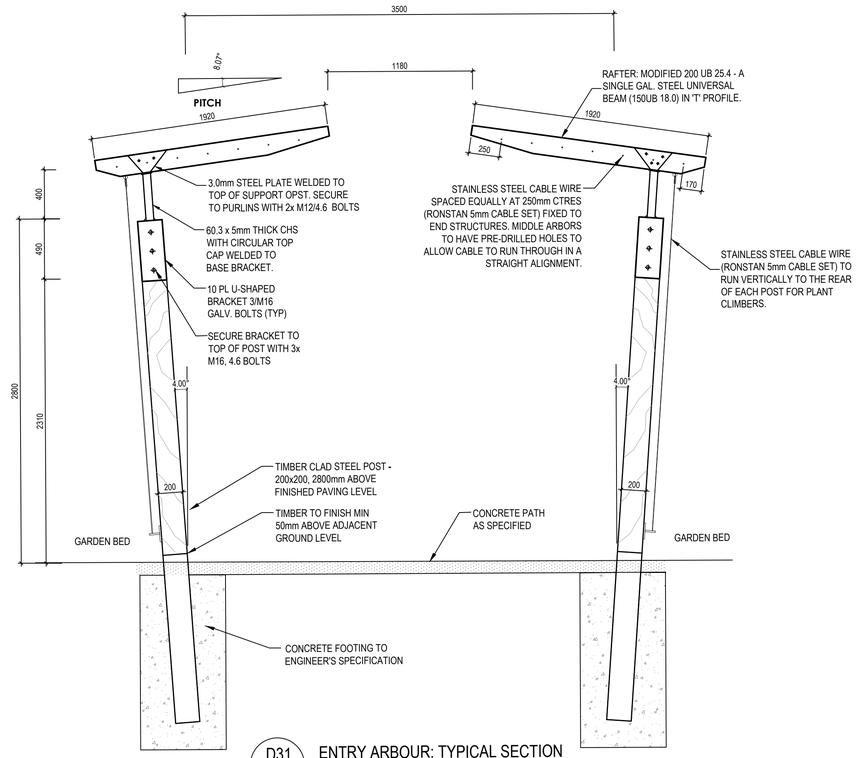



D29 STANDARD TIMBER BOLLARD DETAIL (BO)

SCALE 1:20

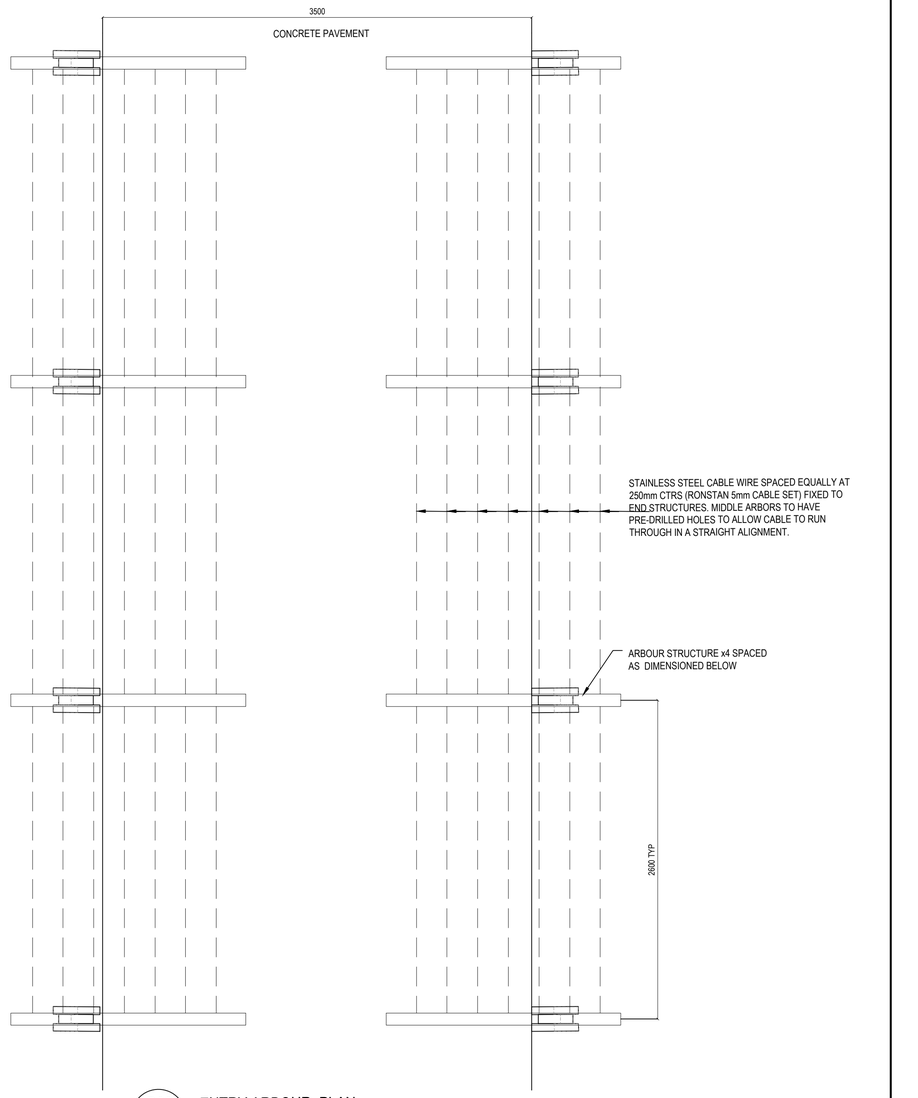
INDEX

NOTE:
ALL STRUCTURAL MEMBERS SIZING, SPACING, FIXING & CONCRETE FOOTING DETAIL TO BE READ IN CONJUNCTION WITH THE ENGINEER'S SPECIFICATION & DETAILS.



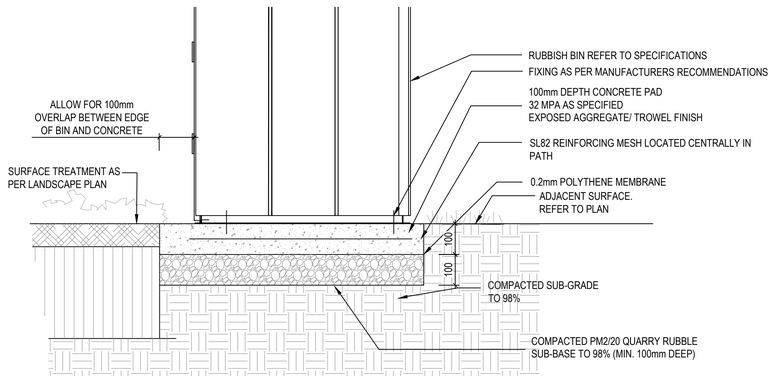

D31 ENTRY ARBOUR: TYPICAL SECTION

SCALE 1:25




D32 ENTRY ARBOUR: PLAN

SCALE 1:25




D30 RUBBISH BIN SLAB ON CONCRETE BASE

SCALE 1:10

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
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| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

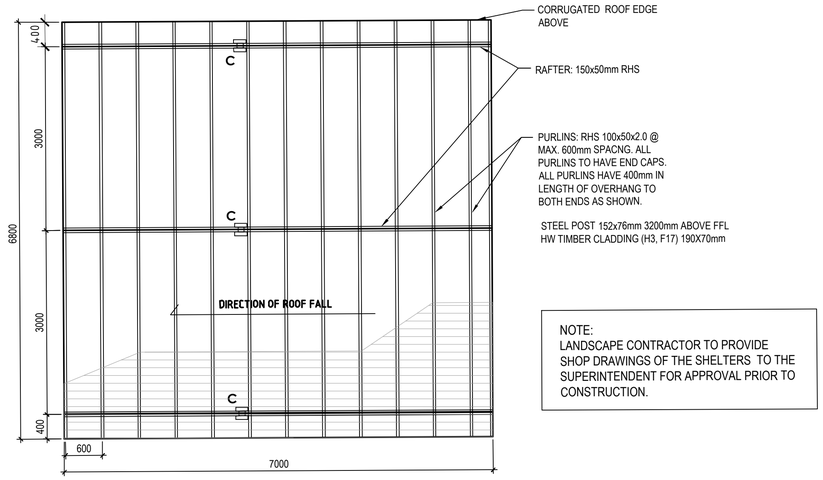
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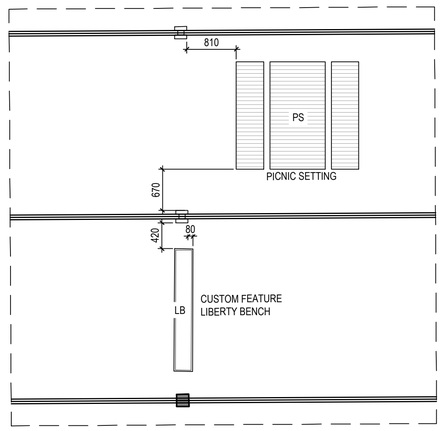
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| Designed BS 12/19 | Project LIBERTY TWO WELLS STAGE 1 | File Ref. OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg | |
| Drawn AM/AI 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 25/29 |
| Checked AL 03/20 | Drawing LANDSCAPE DETAILS SHEET 7 | Drawing No. OS424_DD24 | Issue/ Rev. A |

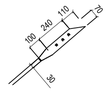



NOTE:
LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS OF THE SHELTERS TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO CONSTRUCTION.

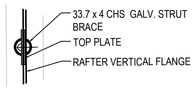
## ROOF FRAMING PLAN



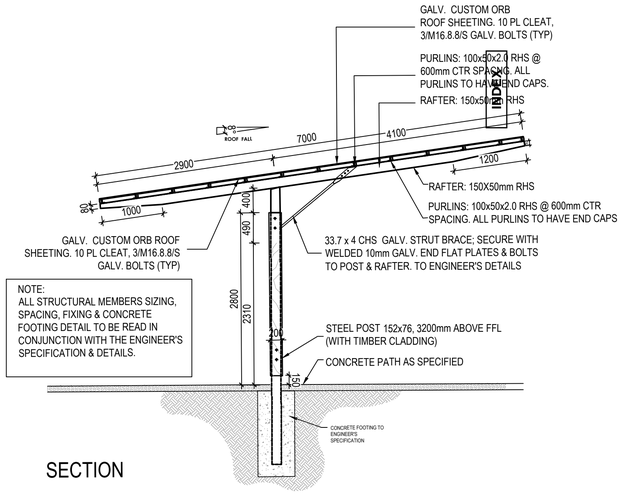

## FLOOR PLAN




**TOP PLATE**
(STRUT BRACE)



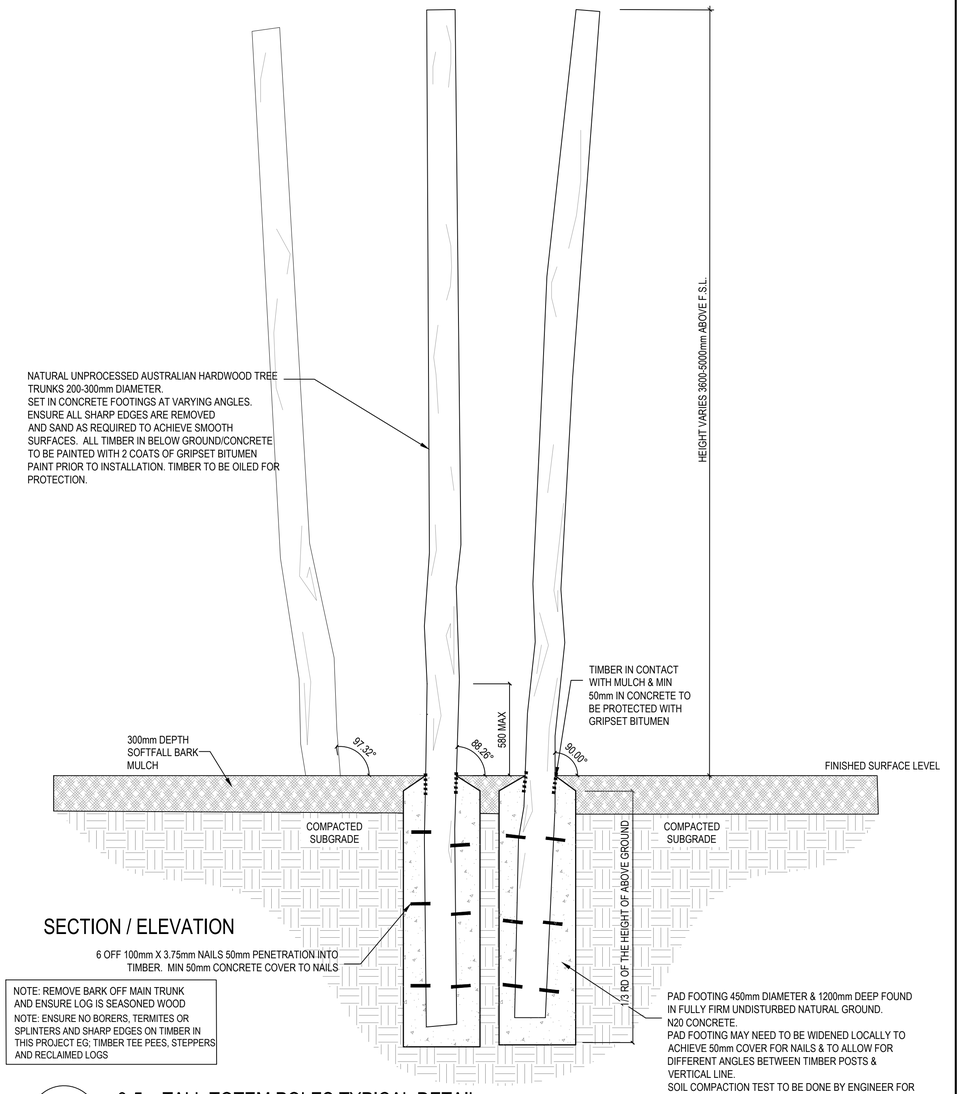

**PLAN**
(ENLARGED)




NOTE:
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## SECTION

## D33 CUSTOM SMALL SHELTER DETAILS
SCALE 1:50




## SECTION / ELEVATION

NOTE: REMOVE BARK OFF MAIN TRUNK AND ENSURE LOG IS SEASONED WOOD
NOTE: ENSURE NO BORERS, TERMITES OR SPLINTERS AND SHARP EDGES ON TIMBER IN THIS PROJECT EG; TIMBER TEE PEES, STEPPERS AND RECLAIMED LOGS

## D35 3-5m TALL TOTEM POLES TYPICAL DETAIL
SCALE 1:20

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

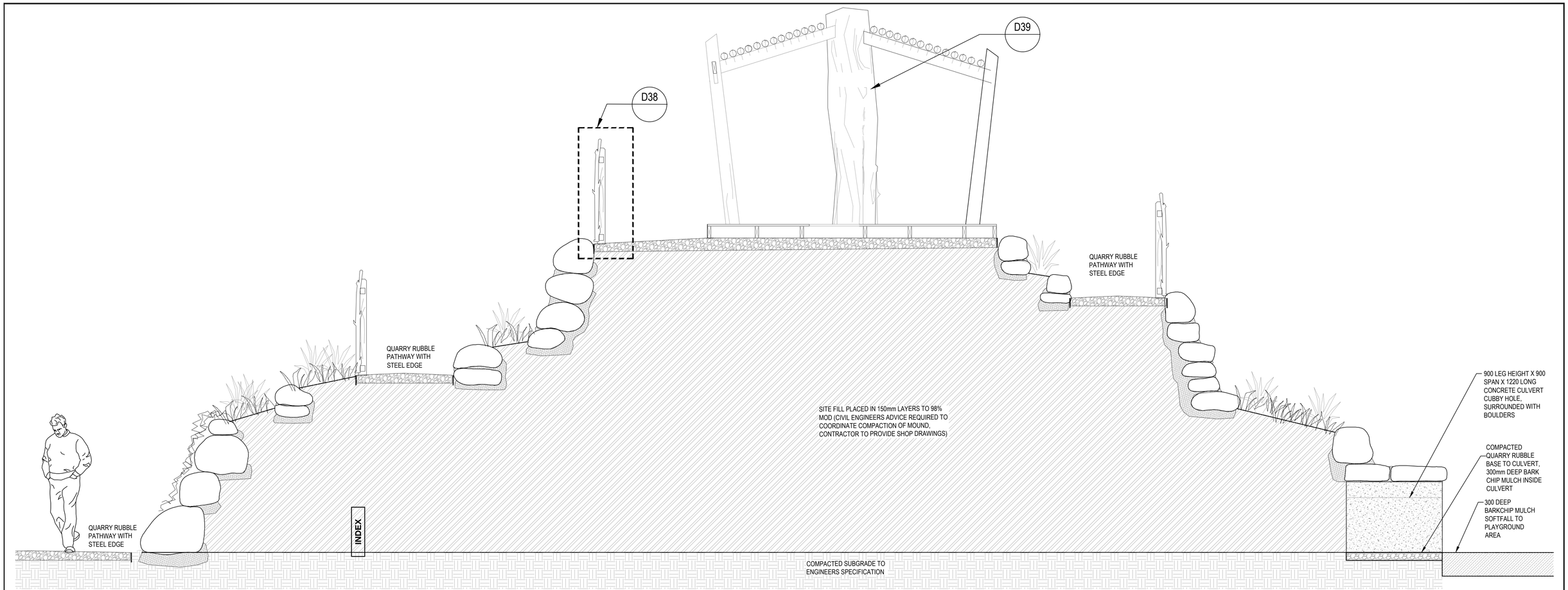
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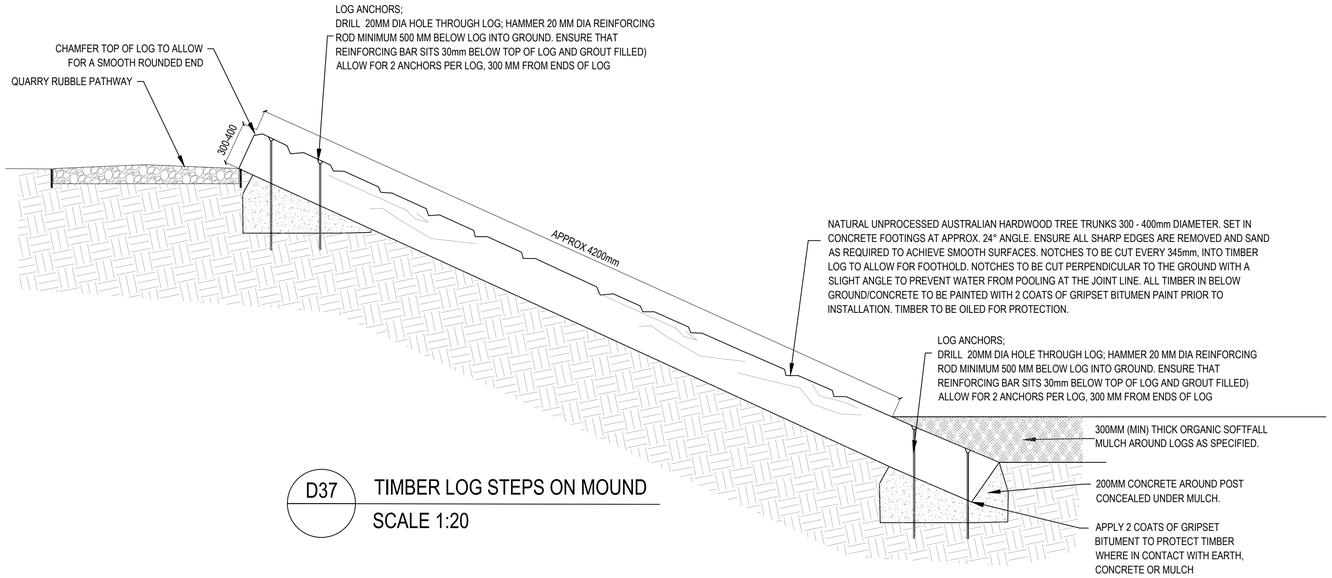
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| | | | |
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| Designed BS 12/19 | Project LIBERTY TWO WELLS STAGE 1 | | File Ref. OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg |
| Drawn AM/AI 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 26/29 |
| Checked AL 03/20 | Drawing LANDSCAPE DETAILS SHEET 8 | Drawing No. OS424_DD25 | Issue/ Rev. A |



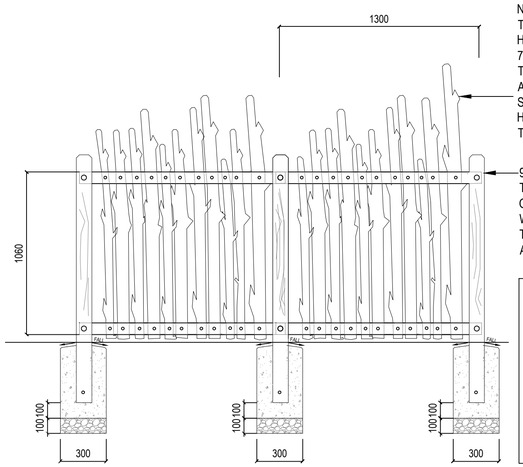

D36 MOUND CROSS SECTION

SCALE 1:25




D37 TIMBER LOG STEPS ON MOUND

SCALE 1:20




D38 TIMBER BRANCH RAILING (MOUND)

SCALE 1:20

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
| A | FOR COUNCIL REVIEW | AL/GH | PG | PG | 27/08/2020 |

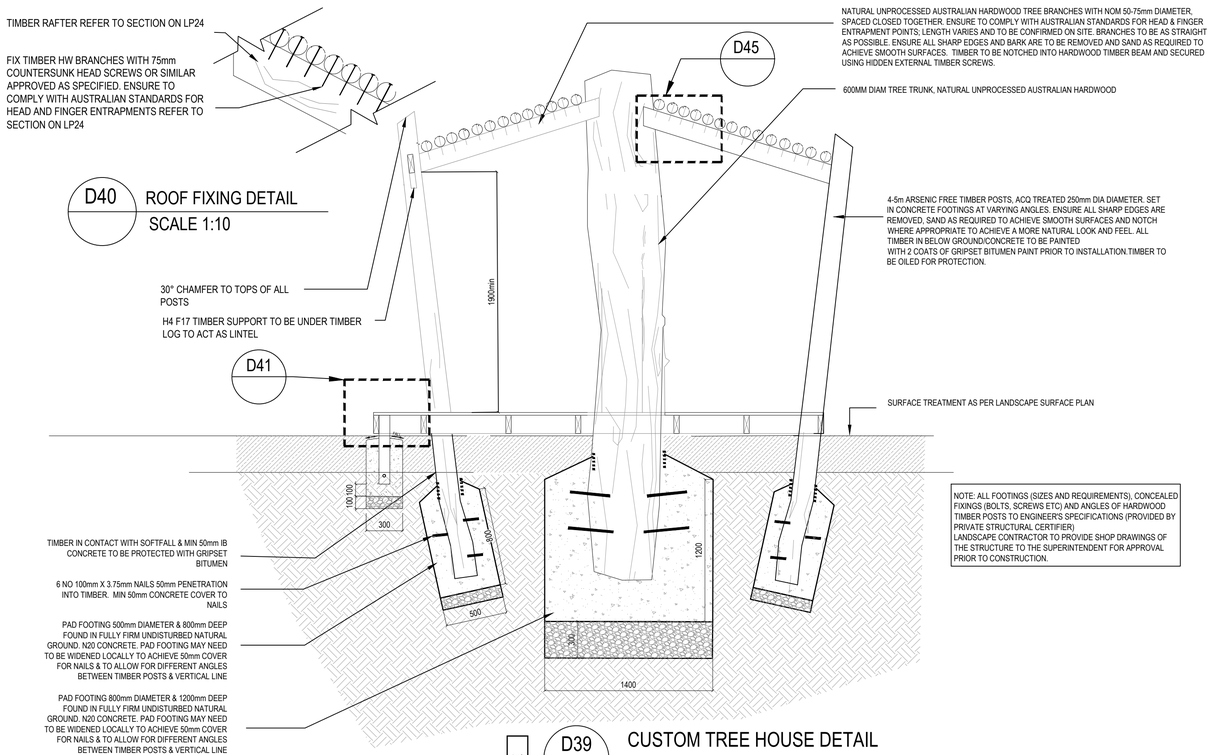
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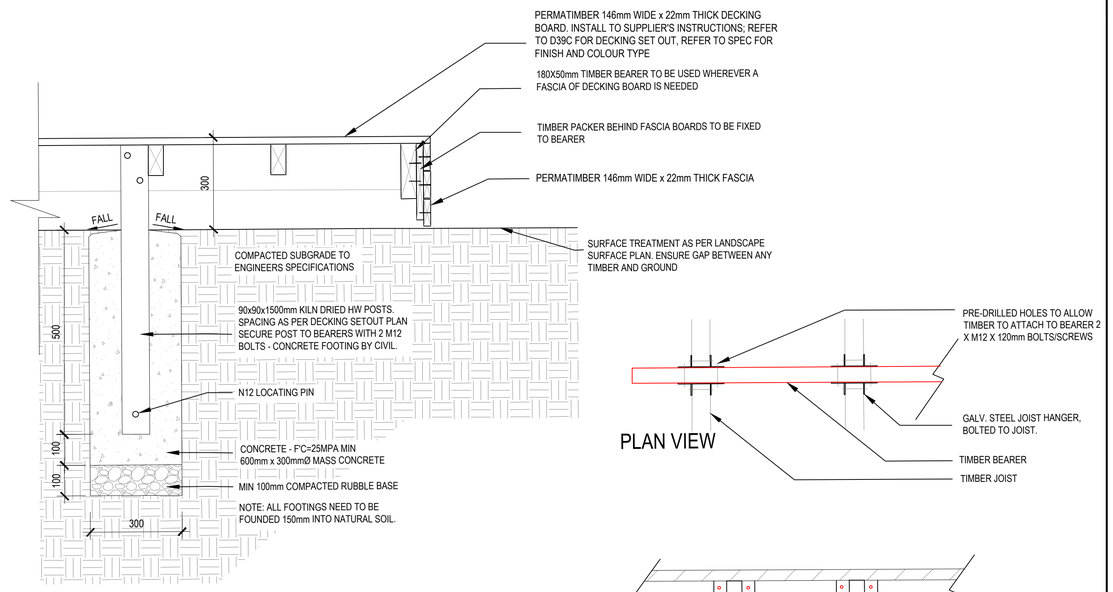
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| Designed BS / Date 12/19 | Project LIBERTY TWO WELLS STAGE 1 | File Ref. OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg | |
| Drawn AM/AI / Date 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 27/29 |
| Checked AL / Date 03/20 | Drawing LANDSCAPE DETAILS 9 | Drawing No. OS424_DD26 | Issue/ Rev. A |



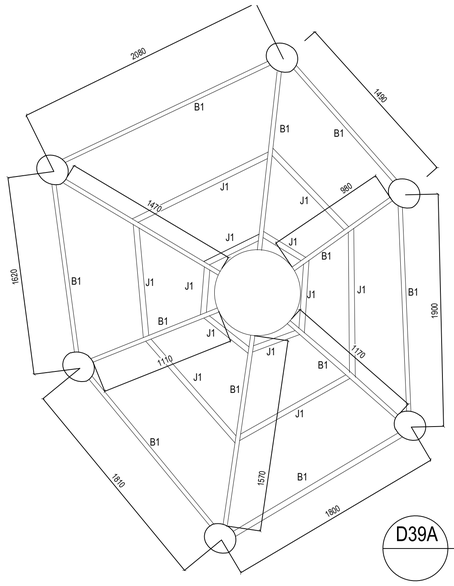

D40 ROOF FIXING DETAIL
SCALE 1:10

D39 CUSTOM TREE HOUSE DETAIL
SCALE 1:20

INDEX




D41 TYPICAL DECK FOOTING & FASCIA
SCALE 1:10

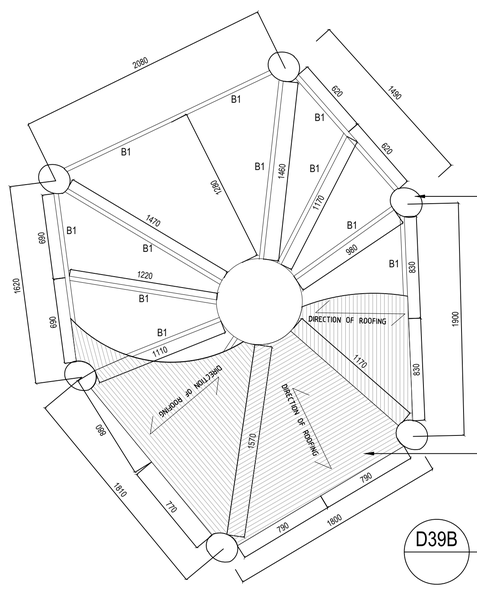



| STRUCTURAL MEMBERS FOR TIMBER DECK | | |
|---|---|---|
| KEY | SIZE (mm) | ITEM |
| J1 | 170x35 | H4 TIMBER BEAM SPACING AS SHOWN |
| B1 | 170x35 | H4 TIMBER BEAM SPACING AS SHOWN |

NOTE: BEAMS TO JOINT INTO POST VIA TENON AND MORTISE JOINTS.

NOTE: FINAL DECK DESIGN MAY VARY SLIGHTLY TO WHAT IS SHOWN. SHOP DRAWINGS TO BE PROVIDED FOR APPROVAL BY SUPERINTENDENT PRIOR TO CONSTRUCTION.

D39A STRUCTURAL TIMBER DECKING PLAN
SCALE 1:20




TIMBER STRUCTURAL POSTS REFER TO SECTION ON DD????

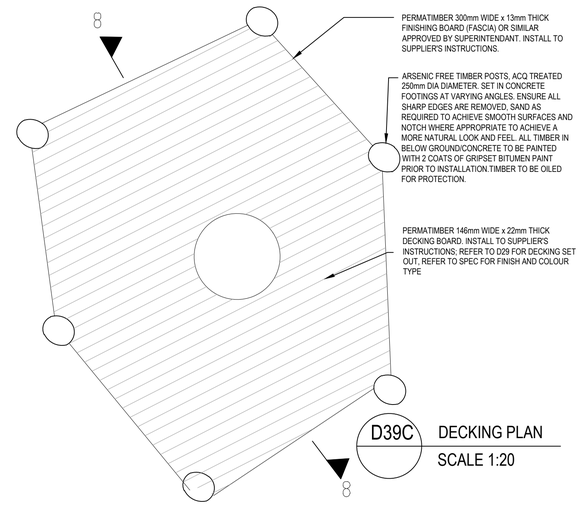
| STRUCTURAL MEMBERS FOR TIMBER DECK | | |
|---|---|---|
| KEY | SIZE (mm) | ITEM |
| B1 | 170x35 | H4 TIMBER BEAM SPACING AS SHOWN |

NOTE: RAFTERS TO FIX TO TIMBER POSTS VIA NAILING PLATE OR SIMILAR APPROVED BY SUPERINTENDENT

NOTE: FINAL ROOF DESIGN MAY VARY SLIGHTLY TO WHAT IS SHOWN. SHOP DRAWINGS TO BE PROVIDED FOR APPROVAL BY SUPERINTENDENT PRIOR TO CONSTRUCTION.

NATURAL UNPROCESSED AUSTRALIAN HARDWOOD TREE BRANCHES WITH NOM 50-75mm DIAMETER, BRANCHES TO BE AS STRAIGHT AS POSSIBLE. ENSURE ALL SHARP EDGES AND BARK ARE TO BE REMOVED AND SAND AS REQUIRED TO ACHIEVE SMOOTH SURFACES. REFER TO DETAIL 5 ROOF FIXING DETAIL.

D39B STRUCTURAL ROOF PLAN
SCALE 1:20




D39C DECKING PLAN
SCALE 1:20

| Issues/ Revisions | | | | | |
|---|---|---|---|---|---|
| Issue | Description | Drwn | Ckd. | Appd. | Date |
| - | FOR COUNCIL REVIEW | AL/GH | PG | PG | 24/07/2020 |
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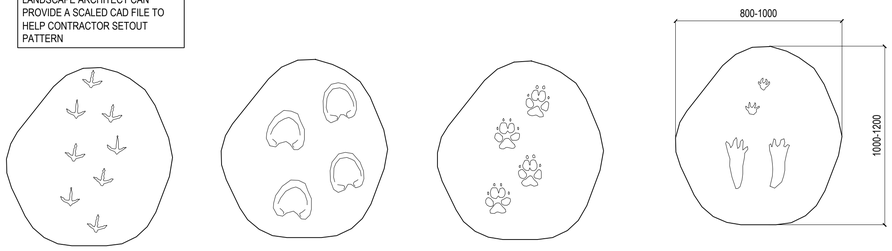
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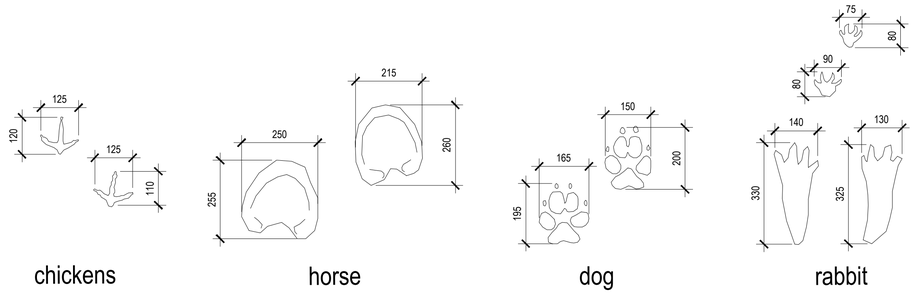
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| Designed | BS | Project | LIBERTY TWO WELLS STAGE 1 |
| Date | 12/19 | | |
| Drawn | AM/AI | Client | HICKINBOTHAM GROUP |
| Date | 03/20 | | |
| Checked | AL | Drawing | LANDSCAPE DETAILS 9 |
| Date | 03/20 | | |

| | | |
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| File Ref. | OS424_Liberty Two Wells_DD_27-08-2020 DET.dwg | |
| Scale | AS SHOWN | Sheet 28/29 |
| Drawing No. | OS424_DD27 | Issue/ Rev. A |

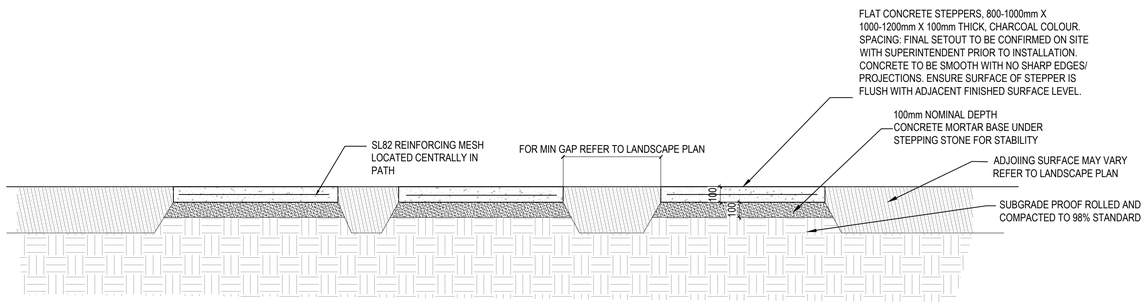
NOTE: PATTERN ON CONCRETE STEPPERS TO BE ANIMAL THEMED, LANDSCAPE ARCHITECT CAN PROVIDE A SCALED CAD FILE TO HELP CONTRACTOR SETOUT PATTERN



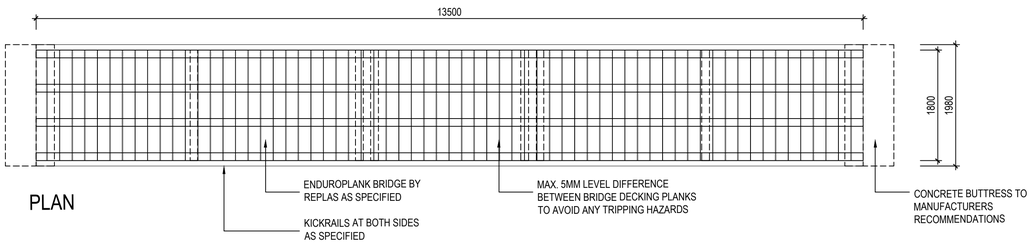

D42 CUSTOM ANIMAL FOOTPRINT CONCRETE STEPPING PADS
SCALE 1:20




D43 ANIMAL FOOTPRINT DETAIL
SCALE 1:10

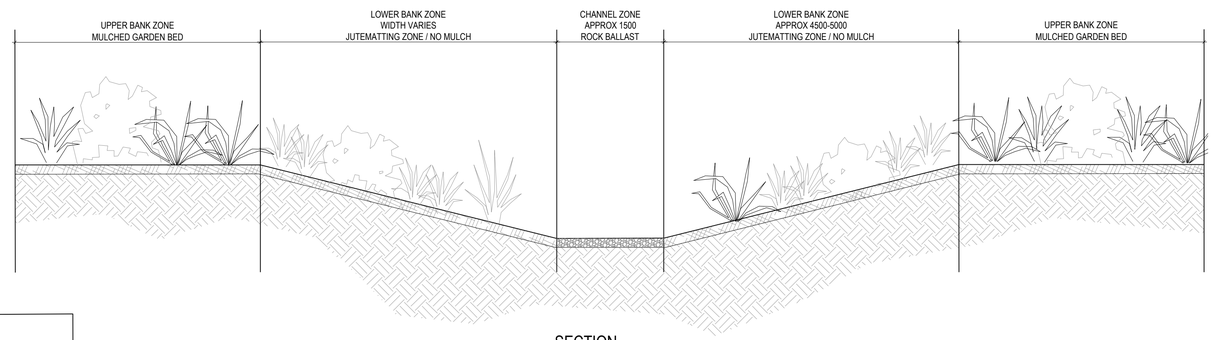



D44 CONCRETE ANIMAL STEPPING PAD DETAIL
SCALE 1:20




D45 LOW LEVEL BOARDWALK DETAILS
SCALE 1:50

NOTE:
LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS OF THE BOARDWALK TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO CONSTRUCTION. INCLUDE ENGINEERING CERTIFICATE AND GEOTECH REPORT.




D46 TYPICAL SWALE RIPARIAN PLANTING SECTION
SCALE 1:25

Issues/ Revisions

| Issue | Description | Drwn | Ckd. | Appd. | Date |
|---|---|---|---|---|---|
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| Drawn AM/AI Date 03/20 | Client HICKINBOTHAM GROUP | Scale AS SHOWN | Sheet 29/29 |
| Checked AL Date 03/20 | Drawing LANDSCAPE DETAILS 9 | Drawing No. OS424_DD28 | Issue/ Rev. A |

**Adelaide Plains Council**
**Development Assessment**

# Review - Issues And Comments Form

| | |
|---|---|
| **312/12/2014** | |
| **Hickinbotham** | |
| **Landscaping - Central Reserve** | |
| **Liberty, Two Wells** | |
| | |
| **D20/** | |
| **20/08/2020** | |

| REVIEWER | REVIEWER COMMENT | DATE SENT | DEVELOPER RESPONSE | DATE RECEIVED |
|---|---|---|---|---|
| **MR** | Council require additional trees to be planted on the reserve side to match street trees along Jefferson Boulavard | 20/08/2020 | Fraxinus angustifolia 'Raywoodii' and Ficus hillii added to the area | 27/08/2020 |
| MR | Council request that all bench seating and picnic settings with tables to be aluminium and / or composite materials. | 20/08/2020 | All bench seating will be Terrain Ec-boardwalk bench seat, refer to specification and website - https://www.terraingroup.com.au/product/eco-boardwalk-table-setting/ | 27/08/2020 |
| MR | The flush galvanised steel edging specification is to be reviewed. Previous specification (Eden) called for 3.0mm which is not thick enough. Also pinning to be a maximum centres of 1.2m. | 20/08/2020 | The specified steel edge is 100mm x 4.5mm thick, refer to specifications | 27/08/2020 |
| MR | Council's preference is not to place ballast stone at base of swales. | 20/08/2020 | Ballast removed from swale except for around inlet/outlet culverts pipes, refer to plans | 27/08/2020 |
| MR | Council's preference is to remove irrigated turf located along the Mary Lee St end and replace with dry land grasses, but understand that this is the "entry side" to the Central Reserve. | 20/08/2020 | Turf to remain as the developer would like that immediate greenery day one impact along Mary Lee St, however design has changed slightly to allow for future blending & growth at edge of dryland grass and turf. Refer to plans | 27/08/2020 |
| MR | Council require the removal of the garden bed around the bench at each end of the 'kick-about space' so that the benches can be accessed from both the turfed side and the path side. The benches should also be placed against the edge of the path, i.e. concrete pad to be up against the flush glav. steel edging. | 20/08/2020 | Garden Bed has been removed and concrete platform extended with the seat repositioned. Refer to plans. | 27/08/2020 |
| MR | Council require that flush galv. steel edge treatment must be installed at the transition of all irrigated turf area and all garden beds, in lieu of the proposed spaded edge. | 20/08/2020 | Steel edge replaced spade edge to all garden beds adjacent irrigated turf. Refer to plans. | 27/08/2020 |
| MR | Council's preference is to investigate other options rather than the proposed checker board e.g. a 4m square handball court. | 20/08/2020 | Preference is to maintain the human chess/checkers board as it is in keeping with the themeing of the design. Intent is for children to use with themselves as the pieces, it may also double for users to use as for instance a hopscotch etc. | 27/08/2020 |
| MR | Council's preference is for the barbeque to be placed under the cover of the western bespoke shelter, even if there is a slight cantilever roof extension to achieve this. | 20/08/2020 | BBQ's have been repositioned under each shelter, refer to plans. | 27/08/2020 |
| MR | Council request that consideration be given to installling DDA compliant play equipment, that has adequate access for a wheelchair. | 20/08/2020 | Northern twin swing has been changed to basket swing, refer to plans and specifications. | 27/08/2020 |
| MR | Council to review the irrigation plans (must be recycled-water compatible), when they are available, prior to any construction of irrigation infrastructure. All water meters, non-return valves etc. are to be placed in below ground pits. | 20/08/2020 | Irrigation will be done as a Design And Construct Package by the winning tenderer. As part of the landscape tender schedule of rates and specification we will require the contractor to complete irrigation design and submit to council for approval prior to installation. Irrigation Specification provided by the Landscape Architect will be the same as Wildflower Park. | 27/08/2020 |

**Adelaide Plains Council**
**Development Assessment**
# Review - Issues And Comments Form

| | |
|---|---|
| **312/12/2014** | |
| **Hickinbotham** | |
| **Landscaping - Central Reserve** | |
| **Liberty, Two Wells** | |
| | |
| **D20/** | |
| **20/08/2020** | |

| REVIEWER | REVIEWER COMMENT | DATE SENT | DEVELOPER RESPONSE | DATE RECEIVED |
|---|---|---|---|---|
| MR | Council request a further update regarding the avalability of recycled water. | 20/08/2020 | All irrigation will be setup as sub-surface purple pipe to allow for the future connection of recycled water once available. Currently recycled water mains through the residential area have been installed ahead of time to facilitate irrigation by recycled water once available. | 27/08/2020 |
| MR | Council request some open space bollard lighting and some shelter lighting (all to be LED). | 20/08/2020 | I have located 2 x bollard lighting around the kickabout space and provide lighting to 2 shelters and the toilet, pending Value management review, please refer to plans & specifications. | 27/08/2020 |
| MR | Council require additional trees (in dry land grass area) to be included in the central reserve design, between the ends of Wilberforce and Shann. | 20/08/2020 | 6 new trees added to the swale area between Wilberforce and Shann, please refer to documentation. | 27/08/2020 |
| MR | Drinking fountain to include the dog bowl water dispenser, as is the case in Eden. | 20/08/2020 | Drinking fountain with dog bowl was already part of the specification, no change required. | 27/08/2020 |
| MR | Council require a second BBQ at the eastern shelter. | 20/08/2020 | Substitituted one double BBQ with 2 single BBQ's, refer to documentation and specification | 27/08/2020 |
| MR | The kangadeck bridge specification must include maximum of 5mm height differential in adjacent decking planks. | 20/08/2020 | Additional note added to specification | 27/08/2020 |
| MR | Bollard spacing adjacent the kick about oval to be at 1.5m centres. Elsewhere up to 2.0m is acceptable or suitable vehicle deterrent plantings. | 20/08/2020 | Bollard spacing revised to 1.5m centres on the southern side of the brdige running along jefferson boulevard adjacent the playspace and kickabout area | 27/08/2020 |
| MR | Suitable mature trees to be used in required locations in lieu of any shade structures. | 20/08/2020 | Shade trees have been added to areas adjacent playground | 27/08/2020 |
| MR | Council request further information and discussion on the extended maintenance periods for both the Central Reserve and the Entry Statement Water Feature. Council suggest 5 years and 10 years respectively. | 20/08/2020 | Developer maintains the agreement to provide maintenance to the central reserve for a period of 2 years (same as Wildflower Park at Eden) and willing to continue discussion with Council on maintenance period for the wetlands. | 27/08/2020 |
| MR | Council require a restriction of vehicle access to the kangadeck bridge by means of bollards and or strategically placed rocks. | 20/08/2020 | Removable bollards added to both ends of the bridge, refer to plans. | 27/08/2020 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| | | |
|---|---|---|
| Adelaide Plains Council | **7.7** | **Pump Track Maintenance – Hart Reserve** |
| | **Department:** | **Infrastructure and Environment** |
| | **Report Author:** | **Asset Engineer** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39561** |

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and provide recommendations to Council in relation to the maintenance of the Pump Track currently on a twelve (12) month trial at Hart Reserve, Two Wells.
- Following a recommendation from Council on 25th March 2020, the Pump Track was installed within Hart Reserve on a one year trial, following the gifting of the asset to Council from the Two Wells Regional Action Team (TWRAT).
- The Pump Track has thus far proved to be extremely popular with young scooter, skateboard and bicycle enthusiasts. To this end the track now requires maintenance in the high impact zones, as the fibre glass has delaminated and is no longer deemed to be safe for public usage.
- A quotation has been received from a local boat builder / fibre glass manufacturer to repair the delaminated zones at a cost of $600 per module.
- Five modules have been identified as requiring immediate repairs with a further three recommended to be done soon.
- It is recommended that eight modules are repaired immediately, thereby allowing the twelve month trial to continue until April 2021. This will also mean that Council will have three spare modules readily available if needed, before April 2021 or beyond.

## RECOMMENDATION

**"that the Infrastructure and Environment Committee, having considered Item 7.7 – *Pump Track Maintenance – Hart Reserve*, dated 3 September 2020, recommends to Council that it carry out maintenance work on all 8 modules of the pump track at Hart Reserve."**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | $4,800 |
| Future ongoing operating costs: | To be advised |
| Is this Budgeted? | No |

## RISK ASSESSMENT

Undertaking the proposed works will remove safety risks associated with the modules that require repair.

---

## Attachments

Nil

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider, and provide recommendations to Council in relation to the maintenance of the Pump Track currently on a twelve (12) month trial at Hart Reserve, Two Wells.

### Background/History

Council, at its Ordinary Council Meeting held on 24 February 2020, resolved as follows:

*14.6 Hart Reserve – Pump Track*

*Moved Councillor Panella Seconded Councillor Strudwicke* ***2020/054***

***"that Council, having considered Item 14.6 – Hart Reserve – Pump Track, dated 24 February 2020, receives and notes the report and in doing so:***

1. ***Endorses trialling the installation of a pump track in Hart Reserve, Two Wells for a 12 month pilot***
2. ***Delegates authority to the Chief Executive Officer to accept the proposed gifting of a pump track from the Two Wells Regional Action Team***
3. ***Instructs the Chief Executive Officer to suspend further investigations into the development of a skate park within Two Wells and***
4. ***Instructs the Chief Executive Officer to deploy staff and resourcing to construct a suitable base and ensure built compliance of the pump track to enable public use of the facility."***

***CARRIED***

### Discussion

Following the resolution of Council on the 24 February 2020, the Pump Track was installed within Hart Reserve on a one year trial, the Pump Track was then gifting to Council from the Two Wells Regional Action Team (TWRAT), where Council now assumes all maintenance and renewal costs.

The Pump Track has thus far proved to be extremely popular with young scooter, skateboard and bicycle enthusiasts. To this end, the track now requires maintenance in the high impact zones, as the fibre glass has delaminated and is no longer deemed to be safe for public usage.

A quotation has been received from a local boat builder / fibre glass manufacturer to repair the delaminated zones at a cost of $600 per module. Five modules have been identified as requiring immediate repairs with a further three recommended to be undertaken soon.

## Conclusion

It is recommended that eight modules are repaired immediately, thereby allowing the twelve month trial to continue until April 2021. This will also mean that Council will have three spare modules readily available if needed, before April 2021 or beyond.

---

## References

Legislation

*Local Government Act 1999*

Council Policies/Plans

*APC Strategic Plan 2017-2020 – 4.1 Vibrant Community*

*4.1.2.10 – liaise with community groups for the establishment of a skate park in Two Wells*

| | |
|---|---|
| Adelaide Plains Council | **13.1 Confidential Item** |
| **3 September 2020** | |

13.1 The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout

Released from Confidence

## RECOMMENDATION

**"that:**

1. **Pursuant to section 90(2) of the *Local Government Act 1999*, the Infrastructure and Environment Committee orders that all members of the public, except Chief Executive Officer, General Manager – Infrastructure and Environment, General Manager – Development Community, Manager Governance and Administration/Minute Taker and Information Technology Officer be excluded from attendance at the meeting of the Committee for Agenda Item 13.1 – *The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout;***

2. **The Committee is satisfied that pursuant to section 90(3)(b) of the *Local Government Act 1999*, Item 13.1 – *The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout* concerns information the disclosure of which could reasonably be expected to prejudice the commercial position of Council and would, on balance, be contrary to the public interest, being information relating to ongoing negotiations;**

3. **The Committee is satisfied that the principle that Committee meetings should be conducted in a place open to the public has been outweighed by the need to keep the information, matter and discussion confidential."**

Released from Confidence

| | | |
|---|---|---|
| Adelaide Plains Council | **13.1** | **The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout** |
| | **Department:** | **Infrastructure and Environment** |
| | **Report Author:** | **General Manager Infrastructure and Environment** |
| **Date: 3 September 2020** | **Document Ref:** | **D20/39390** |

Released from Confidence

## EXECUTIVE SUMMARY

- The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider the implications on Council, of the deed of variation for the roundabout at the intersection of Old Port Wakefield Road and Mallala Road.
- Management have considered the deed of variation presented as **Attachment 2** to this report, with significant concerns being acknowledged and changed by DTI up to now. However, there remain some potential risks to Council that have not been addressed within the deed of variation, these being;
    - Clause 3.2 sunset date of 30 June 2021, and
    - Clause 4.7 – Timing and Temporary alternative access
- Management are seeking endorsement from the Committee to Council that additional works are required that would reduce pedestrian and vehicle safety risks that Council and DTI will be exposed to in the event of a lengthy delay in the roundabout construction.

## RECOMMENDATION 1

**"that the Infrastructure and Environment Committee, having considered Item 13.1 – *The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout*, dated 3 September 2020, receives and notes the report and in doing so recommends that Council:**

1. **Acknowledges that the roundabout at the intersection of Old Port Wakefield Road and Mallala Road, is unlikely to be delivered prior to the school opening in January 2021 or the 150th home in Liberty being occupied; and**
2. **Determines that there is a requirement for provisional infrastructure to provide safe pedestrian and vehicle access while the land acquisition and roundabout construction is delayed."**

## RECOMMENDATION 2

**"that the Infrastructure and Environment Committee, having considered Item 13.1 – *The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout*, dated 3 September 2020, recommends to Council that it:**

1. **Adopts the Deed of Variation as presented at Attachment 2 to this Report;**
2. **Instructs the Chief Executive Officer to write to the Department of Transport and Infrastructure (DTI) identifying the requirement for provisional infrastructure to provide safe pedestrian and vehicle access while the land acquisition and roundabout construction is delayed;**
3. **Determines that the provisional infrastructure design and construction costs be borne by DTI;**
4. **Inform DTI that the speed limit on Mallala Road be reduced from 80kph to 50kph in the area where the roundabout is to be constructed until such time as it is constructed; and**
5. **That items identified in point 3 and 4 above be completed by Friday 22 January 2021."**

## BUDGET IMPACT

| | |
|---|---|
| Estimated Cost: | 0 |
| Future ongoing operating costs: | Nil – DPTI asset |
| Is this Budgeted? | Not Applicable |

## RISK ASSESSMENT

There are some risks associated with the deed of variation, mainly relating to the timing and scope of works. Management are seeking endorsement from the Committee to Council that would reduce the current pedestrian and vehicle safety risks to Council.

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## Attachments

1. Current Roundabout Design
2. Old Port Wakefield/Mallala Road Roundabout Deed of Variation Agreement
3. 2016 Approved Roundabout Design

Released from Confidence

## DETAILED REPORT

### Purpose

The purpose of this report is for the Infrastructure and Environment Committee (the Committee) to consider the implications on Council, of the deed of variation for the roundabout at the intersection of Old Port Wakefield Road and Mallala Road.

### Background/History

On 18 July 2013 an agreement, known as The Road Infrastructure Design and Delivery Deed (**Deed**) was signed by the following parties:-

- Hickinbotham Developments Pty Ltd (**Developer**)
- Minister for Transport and Infrastructure (**Minister**)
- Commissioner of Highways (**Commissioner**)
- The District Council of Mallala (**Council**)

This Deed sets out the obligations of each party with respect to their responsibility and contribution for the delivery of certain Road Infrastructure Works Components to support residential development at Two Wells, described in Annexure 1 of the Deed, Traffic Intervention Schedule. Item 1 of the Traffic Intervention Schedule relates to the delivery of a roundabout at the intersection of Mallala Road and Old Port Wakefield Road (**Roundabout**). The contribution towards delivery of this item is to be shared equally between the Developer and the Council. The Developer and the Council's obligations under Clause 5.1 for the preparation of Detailed Works Plan was satisfied in November 2016.

In February 2018 representatives for the Minister and the Commissioner notified the Developer and Council that the Roundabout is located on a route that is proposed for use by larger vehicles, meaning that the Roundabout required to be delivered under the Deed is not suitable or not fit for purpose.

Since then all parties have been working in good faith to reach a solution that will accommodate the best outcome overall. In August 2019, the Minister and Commissioner provided their preferred preliminary design for the roundabout and a funding proposal to achieve the desired outcome **Attachment 1**.

At the 10 February 2020 Infrastructure and Environment Committee Meeting, Management tabled a report regarding the funding agreement term sheet. Council, at its Ordinary Council Meeting held on 23 February 2020, resolved as follows:

12.3 Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout

Moved Councillor Panella Seconded Councillor Lush **2020/ 048**

**"that Council endorsed resolution 2020/013 of the Infrastructure and Environment Committee and in doing so:**

1. **Acknowledges the capped Department of Planning, Transport and Infrastructure (DPTI) contribution towards the roundabout proposed for Old**

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**Port Wakefield Road and Two Wells Road, Two Wells at $497,000 with land acquisition costs to be the responsibility of, and borne entirely by, DPTI**

2. **Acknowledges that within its 2019/2020 Annual Business plan and budget, a $500,000 allocation has been set aside for Council's share of the proposed roundabout**
3. **Acknowledges that until a tripartite funding agreement has been executed, there is no surety that Council's costs may not escalate beyond $500,000**
4. **In the event the parties cannot agree to the terms and conditions of a funding agreement which caps Council's contribution at $500,000, Council reserves the right to explore the raising of a separate rate, under the Local Government Act 1999, over the Liberty and Eden developments as a means of recouping costs."**

**CARRIED**

## Discussion

Management have considered the deed of variation presented as **Attachment 2** to this report, with significant concerns previously raised being acknowledged and changed by DTI up to now. However there remain potential risks to Council that have not been addressed within the deed of variation, these being;

- Clause 3.2 – If the Commissioner has not notified the other parties to this agreement that the Commissioner has acquired the land necessary to construct the Roundabout on or before 30 June 2021 (Sunset Date), then any party may elect to terminate this this Deed of Variation by at least 7 days written notice from the Sunset Date to the other parties, and
- Clause 4.7 - The words in Item 1, column 7 (Timing) in Annexure 1 (Traffic Intervention Schedule) of the Existing Deed are deleted in their entirety and replaced with:

| Timing |
|---|
| 1. The Roundabout must be operational prior to the earlier to occur of:<br>a) commencement of operation of a school on the Site; or<br>b) occupation of more than 150 dwellings on the Site.<br>2. Temporary alternative access to the Site will be permitted on the following terms and conditions:<br>a) the Developer will complete sealing of Meaney Road (as approved by the responsible road authority) at or before occupation of the first dwelling on the Site;<br>b) temporary access to the Site for passenger vehicles only being provided to Mallala Road via the upgraded Meaney Road; and<br>c) temporary access to the Site for all heavy vehicles will occur via Sharpe Road; and<br>d) both temporary access points noted above will be closed and/or reinstated by the Developer as required by the responsible road authority as soon as practicable following Practical Completion of the Roundabout.<br>3. For the purpose of this Item 1, the term "Site" is as defined in this Deed, but excludes that part of the Site situated to the east of Mallala Road. |

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Specifically, it should be noted that Clause 3.2 has a sunset date of 30 June 2021. There is no certainty on the timing of land acquisition process to be undertaken by DTI, and in the event DTI are unable to acquire the land, construction of the initial approved design within the deed **Attachment 3** may commence. Potentially the installation of the roundabout could occur early 2022.

Furthermore, the temporary alternative access within Clause 4.7 above does not provide immediate safe pedestrian and vehicle access while the land acquisition process is undertaken and construction of roundabout is delayed. Currently there is no footpath or associated road crossings connecting Liberty to Old Port Wakefield Road, with the speed limit on Mallala Roads being 80kph, this creating unfavourable conditions for safe pedestrian access. This is particularly concerning given the proposed opening of the Xavier Two Wells Campus in 2021. Similarly, the access via Meaney Road is deteriorated and requires upgrading to provide for safe vehicle access once the school is opened in January 2021.

## Conclusion

In 2018 the Minister and the Commissioner identified that the roundabout proposed for the intersection of Mallala Road and Old Port Wakefield Road, Two Wells, needed to be larger than initially planned, in order to accommodate larger vehicles than had previously been considered under the Deed established in 2013.

Significant work has been achieved to date within the Liberty development with dwellings construction rapidly advancing and the school on track to open January 2021, Management are seeking endorsement from the Committee to Council that additional works are required that would reduce pedestrian and vehicle safety risks to Council.

---

## References

Legislation

*Local Government Act 1999*

*The Highways Act 1926*

Council Policies/Plans

*Nil*

Released from Confidence

**RECOMMENDATION**

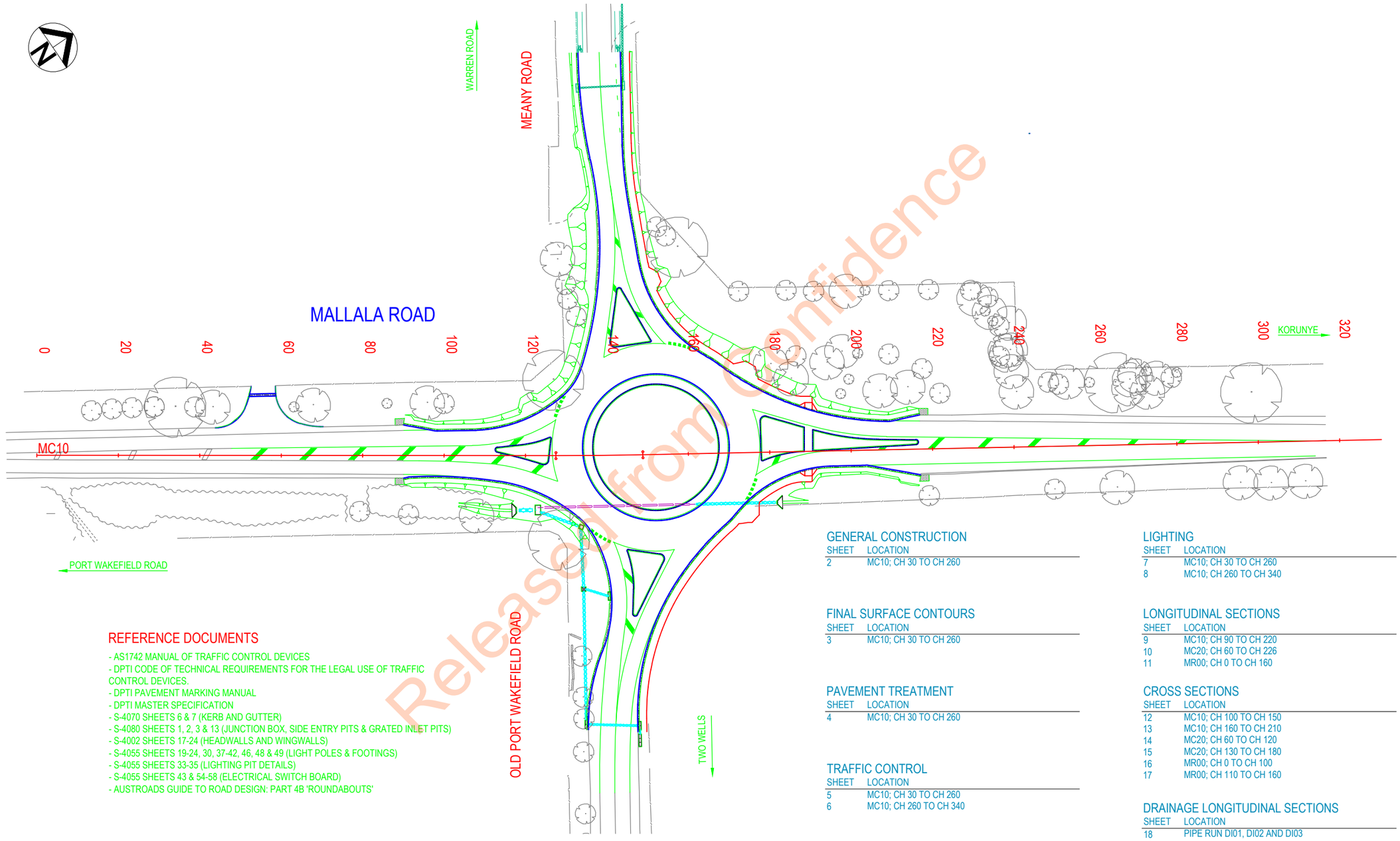
**"that the Infrastructure and Environment Committee, having considered the matter of Item 13.1 – *The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout* in confidence under sections 90(2) and 90(3)(b) of the *Local Government Act 1999,* resolves that:**

1. **Attachment 1, Attachment 2, Attachment 3 pertaining to Item 13.1 – *The Road Infrastructure Design and Delivery Deed – Mallala Road Roundabout* remain confidential and not available for public inspection until further order of the Committee;**
2. **Pursuant to section 91(9)(a) of the *Local Government Act 1999*, the confidentiality of the matter will be reviewed every 12 months; and**
3. **Pursuant to section 91(9)(c) of the *Local Government Act 1999,* the Committee delegates the power to revoke this confidentiality order to the Chief Executive Officer."**

Released from Confidence

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD




Released from Confidence

### REFERENCE DOCUMENTS

- AS1742 MANUAL OF TRAFFIC CONTROL DEVICES
- DPTI CODE OF TECHNICAL REQUIREMENTS FOR THE LEGAL USE OF TRAFFIC CONTROL DEVICES.
- DPTI PAVEMENT MARKING MANUAL
- DPTI MASTER SPECIFICATION
- S-4070 SHEETS 6 & 7 (KERB AND GUTTER)
- S-4080 SHEETS 1, 2, 3 & 13 (JUNCTION BOX, SIDE ENTRY PITS & GRATED INLET PITS)
- S-4002 SHEETS 17-24 (HEADWALLS AND WINGWALLS)
- S-4055 SHEETS 19-24, 30, 37-42, 46, 48 & 49 (LIGHT POLES & FOOTINGS)
- S-4055 SHEETS 33-35 (LIGHTING PIT DETAILS)
- S-4055 SHEETS 43 & 54-58 (ELECTRICAL SWITCH BOARD)
- AUSTROADS GUIDE TO ROAD DESIGN: PART 4B 'ROUNDABOUTS'

### GENERAL CONSTRUCTION

| SHEET | LOCATION |
|---|---|
| 2 | MC10; CH 30 TO CH 260 |

### FINAL SURFACE CONTOURS

| SHEET | LOCATION |
|---|---|
| 3 | MC10; CH 30 TO CH 260 |

### PAVEMENT TREATMENT

| SHEET | LOCATION |
|---|---|
| 4 | MC10; CH 30 TO CH 260 |

### TRAFFIC CONTROL

| SHEET | LOCATION |
|---|---|
| 5 | MC10; CH 30 TO CH 260 |
| 6 | MC10; CH 260 TO CH 340 |

### LIGHTING

| SHEET | LOCATION |
|---|---|
| 7 | MC10; CH 30 TO CH 260 |
| 8 | MC10; CH 260 TO CH 340 |

### LONGITUDINAL SECTIONS

| SHEET | LOCATION |
|---|---|
| 9 | MC10; CH 90 TO CH 220 |
| 10 | MC20; CH 60 TO CH 226 |
| 11 | MR00; CH 0 TO CH 160 |

### CROSS SECTIONS

| SHEET | LOCATION |
|---|---|
| 12 | MC10; CH 100 TO CH 150 |
| 13 | MC10; CH 160 TO CH 210 |
| 14 | MC20; CH 60 TO CH 120 |
| 15 | MC20; CH 130 TO CH 180 |
| 16 | MR00; CH 0 TO CH 100 |
| 17 | MR00; CH 110 TO CH 160 |

### DRAINAGE LONGITUDINAL SECTIONS

| SHEET | LOCATION |
|---|---|
| 18 | PIPE RUN DI01, DI02 AND DI03 |

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964
Proj: 18-1961

NOT FOR CONSTRUCTION

Government of South Australia
Department of Planning, Transport and Infrastructure

UNCONTROLLED COPY WHEN PRINTED ◄ 100 MILLIMETRES ON ORIGINAL DRAWING ► ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE

| | |
|---|---|
| PROJECT No.: | FILE No.: |
| DESIGN No.: | SURVEY No: |
| PROJECT START ROAD RUNNING DISTANCE: | MC10; CH 90 = RRD 17.32 |
| PROJECT END ROAD RUNNING DISTANCE: | MC10; CH 220 = RRD 17.19 |
| SCALES: | 10 0 5 10 15 20 |

ROAD No. 43703 / 04378

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD

## MC10; CH 0 TO CH 320

## TITLE AND INDEX

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 1 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0001DWG

## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| **EXISTING FEATURES** | |
| | PROPERTY BOUNDARY |
| | FENCE |
| COMMUNICATIONS | |
| | INSPECTION COVER |
| | JUNCTION BOX |
| | UNDERGROUND CABLE |
| ELECTRICAL | |
| | OVERHEAD CABLE (SAPN) |
| | STOBIE POLE - EXISTING |
| SEWER | |
| | INSPECTION COVER |
| WATER | |
| | FIRE PLUG MARKER POST |
| | METER |
| | INSPECTION COVER |
| | UNDERGROUND PIPE |
| STORMWATER | |
| | PIPE / CULVERT |

## LEGEND

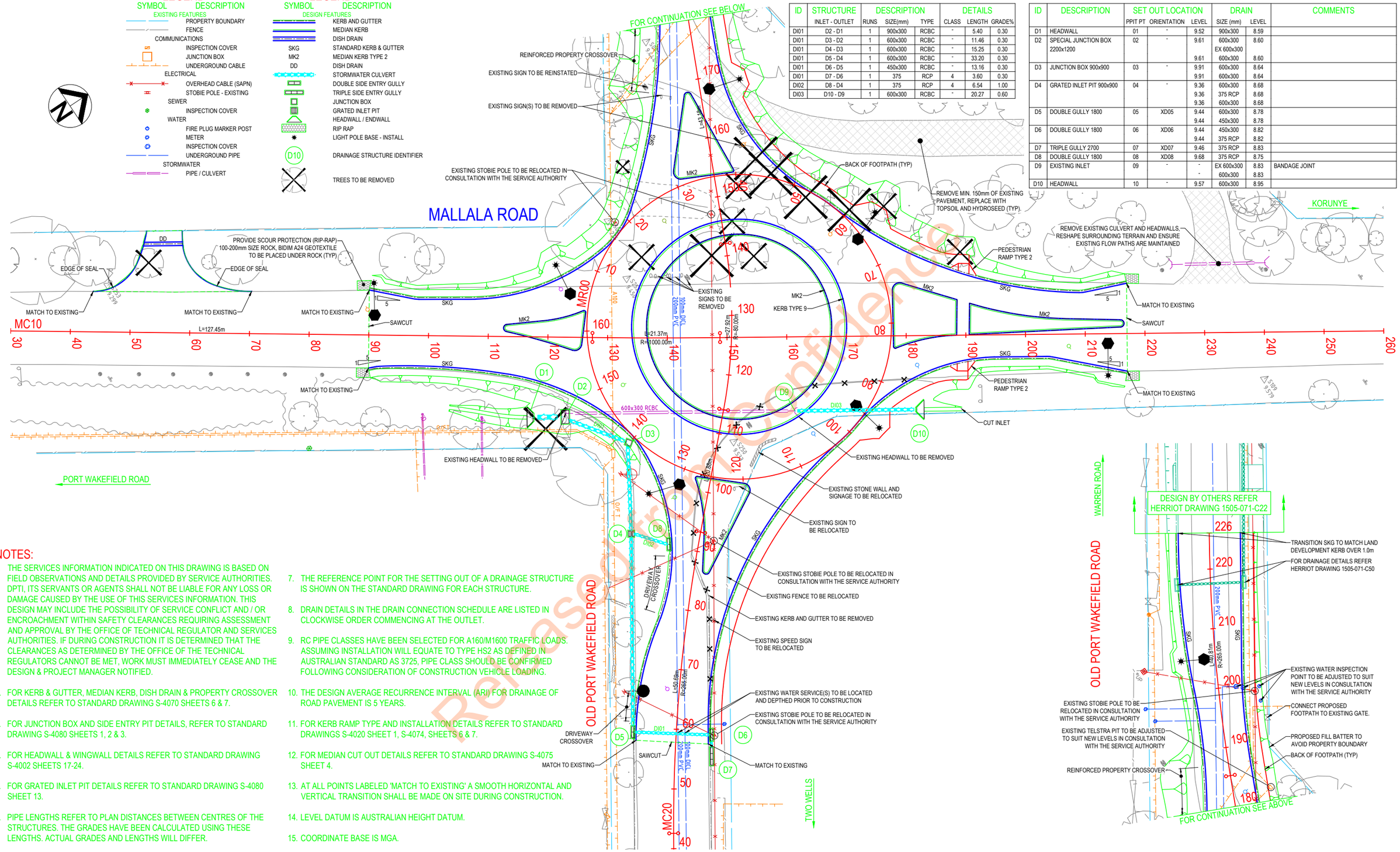
| SYMBOL | DESCRIPTION |
|---|---|
| **DESIGN FEATURES** | |
| | KERB AND GUTTER |
| | MEDIAN KERB |
| | DISH DRAIN |
| SKG | STANDARD KERB & GUTTER |
| MK2 | MEDIAN KERB TYPE 2 |
| DD | DISH DRAIN |
| | STORMWATER CULVERT |
| | DOUBLE SIDE ENTRY GULLY |
| | TRIPLE SIDE ENTRY GULLY |
| | JUNCTION BOX |
| | GRATED INLET PIT |
| | HEADWALL / ENDWALL |
| | RIP RAP |
| | LIGHT POLE BASE - INSTALL |
| D10 | DRAINAGE STRUCTURE IDENTIFIER |
| | TREES TO BE REMOVED |

## DRAIN DETAILS

| ID | STRUCTURE | DESCRIPTION | | | DETAILS | | |
|---|---|---|---|---|---|---|---|
| | INLET - OUTLET | RUNS | SIZE(mm) | TYPE | CLASS | LENGTH | GRADE% |
| DI01 | D2 - D1 | 1 | 900x300 | RCBC | - | 5.40 | 0.30 |
| DI01 | D3 - D2 | 1 | 600x300 | RCBC | - | 11.46 | 0.30 |
| DI01 | D4 - D3 | 1 | 600x300 | RCBC | - | 15.25 | 0.30 |
| DI01 | D5 - D4 | 1 | 600x300 | RCBC | - | 33.20 | 0.30 |
| DI01 | D6 - D5 | 1 | 450x300 | RCBC | - | 13.16 | 0.30 |
| DI01 | D7 - D6 | 1 | 375 | RCP | 4 | 3.60 | 0.30 |
| DI02 | D8 - D4 | 1 | 375 | RCP | 4 | 6.54 | 1.00 |
| DI03 | D10 - D9 | 1 | 600x300 | RCBC | - | 20.27 | 0.60 |

## DRAIN CONNECTION DETAILS

| ID | DESCRIPTION | SET OUT LOCATION | | | DRAIN | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | | PPIT PT | ORIENTATION | LEVEL | SIZE (mm) | LEVEL | |
| D1 | HEADWALL | 01 | - | 9.52 | 900x300 | 8.59 | |
| D2 | SPECIAL JUNCTION BOX 2200x1200 | 02 | - | 9.61 | 600x300 EX 600x300 | 8.60 | |
| | | | | 9.61 | 600x300 | 8.60 | |
| D3 | JUNCTION BOX 900x900 | 03 | - | 9.91 | 600x300 | 8.64 | |
| | | | | 9.91 | 600x300 | 8.64 | |
| D4 | GRATED INLET PIT 900x900 | 04 | - | 9.36 | 600x300 | 8.68 | |
| | | | | 9.36 | 375 RCP | 8.68 | |
| | | | | 9.36 | 600x300 | 8.68 | |
| D5 | DOUBLE GULLY 1800 | 05 | XD05 | 9.44 | 600x300 | 8.78 | |
| | | | | 9.44 | 450x300 | 8.78 | |
| D6 | DOUBLE GULLY 1800 | 06 | XD06 | 9.44 | 450x300 | 8.82 | |
| | | | | 9.44 | 375 RCP | 8.82 | |
| D7 | TRIPLE GULLY 2700 | 07 | XD07 | 9.46 | 375 RCP | 8.83 | |
| D8 | DOUBLE GULLY 1800 | 08 | XD08 | 9.68 | 375 RCP | 8.75 | |
| D9 | EXISTING INLET | 09 | - | - | EX 600x300 | 8.83 | BANDAGE JOINT |
| | | | | - | 600x300 | 8.83 | |
| D10 | HEADWALL | 10 | - | 9.57 | 600x300 | 8.95 | |




## NOTES:

1. THE SERVICES INFORMATION INDICATED ON THIS DRAWING IS BASED ON FIELD OBSERVATIONS AND DETAILS PROVIDED BY SERVICE AUTHORITIES. DPTI, ITS SERVANTS OR AGENTS SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED BY THE USE OF THIS SERVICES INFORMATION. THIS DESIGN MAY INCLUDE THE POSSIBILITY OF SERVICE CONFLICT AND / OR ENCROACHMENT WITHIN SAFETY CLEARANCES REQUIRING ASSESSMENT AND APPROVAL BY THE OFFICE OF TECHNICAL REGULATOR AND SERVICES AUTHORITIES. IF DURING CONSTRUCTION IT IS DETERMINED THAT THE CLEARANCES AS DETERMINED BY THE OFFICE OF THE TECHNICAL REGULATORS CANNOT BE MET, WORK MUST IMMEDIATELY CEASE AND THE DESIGN & PROJECT MANAGER NOTIFIED.
2. FOR KERB & GUTTER, MEDIAN KERB, DISH DRAIN & PROPERTY CROSSOVER DETAILS REFER TO STANDARD DRAWING S-4070 SHEETS 6 & 7.
3. FOR JUNCTION BOX AND SIDE ENTRY PIT DETAILS, REFER TO STANDARD DRAWING S-4080 SHEETS 1, 2 & 3.
4. FOR HEADWALL & WINGWALL DETAILS REFER TO STANDARD DRAWING S-4002 SHEETS 17-24.
5. FOR GRATED INLET PIT DETAILS REFER TO STANDARD DRAWING S-4080 SHEET 13.
6. PIPE LENGTHS REFER TO PLAN DISTANCES BETWEEN CENTRES OF THE STRUCTURES. THE GRADES HAVE BEEN CALCULATED USING THESE LENGTHS. ACTUAL GRADES AND LENGTHS WILL DIFFER.
7. THE REFERENCE POINT FOR THE SETTING OUT OF A DRAINAGE STRUCTURE IS SHOWN ON THE STANDARD DRAWING FOR EACH STRUCTURE.
8. DRAIN DETAILS IN THE DRAIN CONNECTION SCHEDULE ARE LISTED IN CLOCKWISE ORDER COMMENCING AT THE OUTLET.
9. RC PIPE CLASSES HAVE BEEN SELECTED FOR A160/M1600 TRAFFIC LOADS. ASSUMING INSTALLATION WILL EQUATE TO TYPE HS2 AS DEFINED IN AUSTRALIAN STANDARD AS 3725, PIPE CLASS SHOULD BE CONFIRMED FOLLOWING CONSIDERATION OF CONSTRUCTION VEHICLE LOADING.
10. THE DESIGN AVERAGE RECURRENCE INTERVAL (ARI) FOR DRAINAGE OF ROAD PAVEMENT IS 5 YEARS.
11. FOR KERB RAMP TYPE AND INSTALLATION DETAILS REFER TO STANDARD DRAWINGS S-4020 SHEET 1, S-4074, SHEETS 6 & 7.
12. FOR MEDIAN CUT OUT DETAILS REFER TO STANDARD DRAWING S-4075 SHEET 4.
13. AT ALL POINTS LABELED 'MATCH TO EXISTING' A SMOOTH HORIZONTAL AND VERTICAL TRANSITION SHALL BE MADE ON SITE DURING CONSTRUCTION.
14. LEVEL DATUM IS AUSTRALIAN HEIGHT DATUM.
15. COORDINATE BASE IS MGA.

Released for Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
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Adelaide SA 5000
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ABN 39 061 222 964
Proj: 18-1961

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| | |
|---|---|
| PROJECT No.: | FILE No.: |
| DESIGN No.: | SURVEY No: |
| PROJECT START ROAD RUNNING DISTANCE: | MC10; CH 90 = RRD 17.32 |
| PROJECT END ROAD RUNNING DISTANCE: | MC10; CH 220 = RRD 17.19 |
| SCALES: | 6 0 3 6 9 12 |

ROAD No. 43703 / 04378

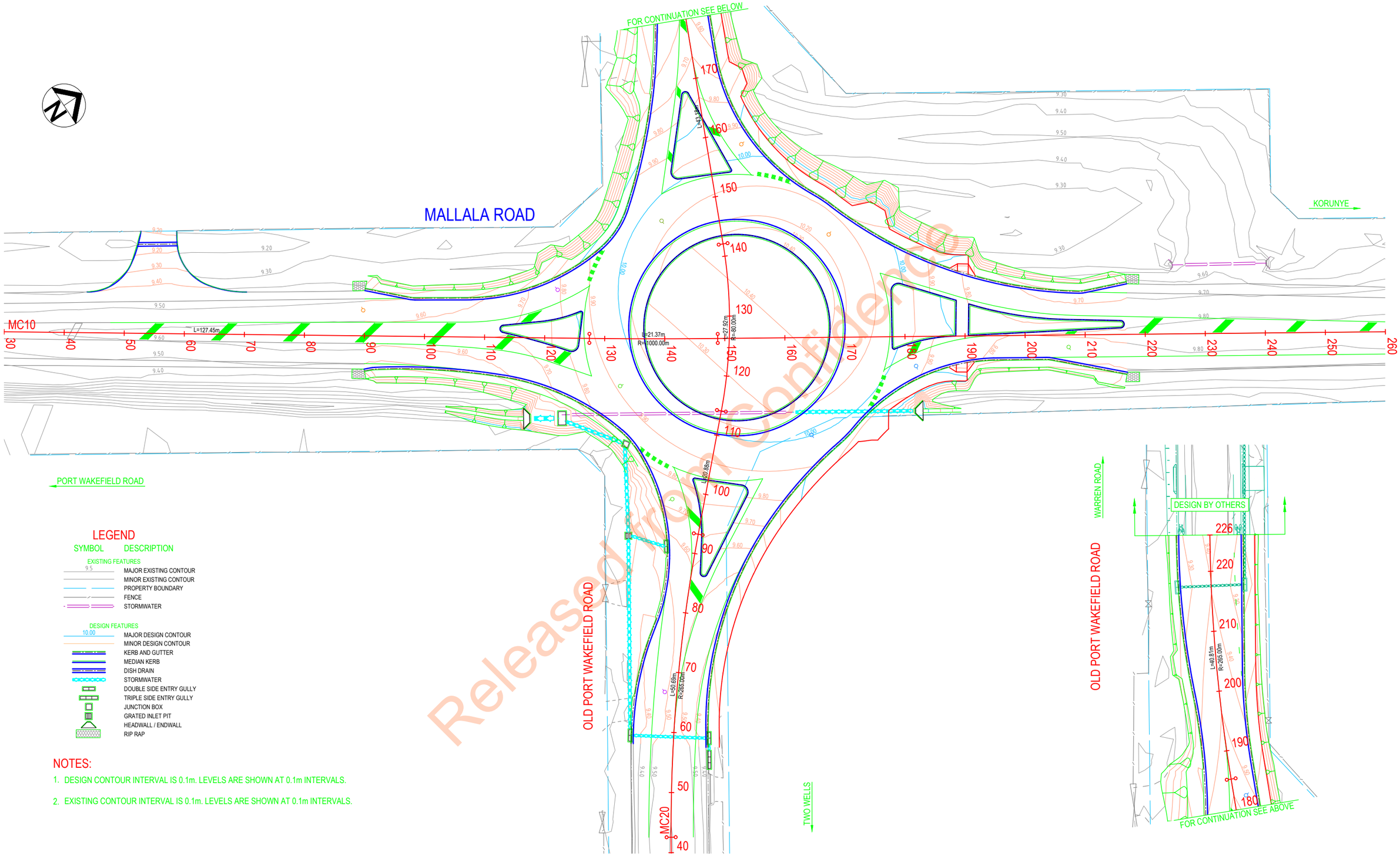
# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 30 TO CH 260
## GENERAL CONSTRUCTION

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 2 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | IN ACCORDANCE WITH DP013 | | | |
| | | DATE: 14/11/2016 | | | | |

SHEET LATITUDE -34.591836 SHEET LONGITUDE 138.510989

CAD FILE NAME: 7365 SHEET 0002.DWG




## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| **EXISTING FEATURES** | |
| 9.5 | MAJOR EXISTING CONTOUR |
| | MINOR EXISTING CONTOUR |
| | PROPERTY BOUNDARY |
| | FENCE |
| | STORMWATER |
| **DESIGN FEATURES** | |
| 10.00 | MAJOR DESIGN CONTOUR |
| | MINOR DESIGN CONTOUR |
| | KERB AND GUTTER |
| | MEDIAN KERB |
| | DISH DRAIN |
| | STORMWATER |
| | DOUBLE SIDE ENTRY GULLY |
| | TRIPLE SIDE ENTRY GULLY |
| | JUNCTION BOX |
| | GRATED INLET PIT |
| | HEADWALL / ENDWALL |
| | RIP RAP |

## NOTES:

1. DESIGN CONTOUR INTERVAL IS 0.1m. LEVELS ARE SHOWN AT 0.1m INTERVALS.
2. EXISTING CONTOUR INTERVAL IS 0.1m. LEVELS ARE SHOWN AT 0.1m INTERVALS.

Released in Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

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| | |
|---|---|
| PROJECT No.: | FILE No.: |
| DESIGN No.: | SURVEY No: |
| PROJECT START ROAD RUNNING DISTANCE: | MC10; CH 90 = RRD 17.32 |
| PROJECT END ROAD RUNNING DISTANCE: | MC10; CH 220 = RRD 17.19 |
| SCALES: | 6 0 3 6 9 12 |

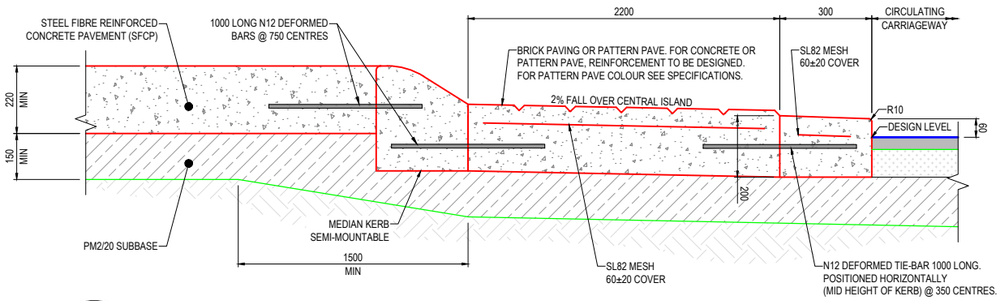
ROAD No. 43703 / 04378

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 30 TO CH 260
## FINAL SURFACE CONTOURS

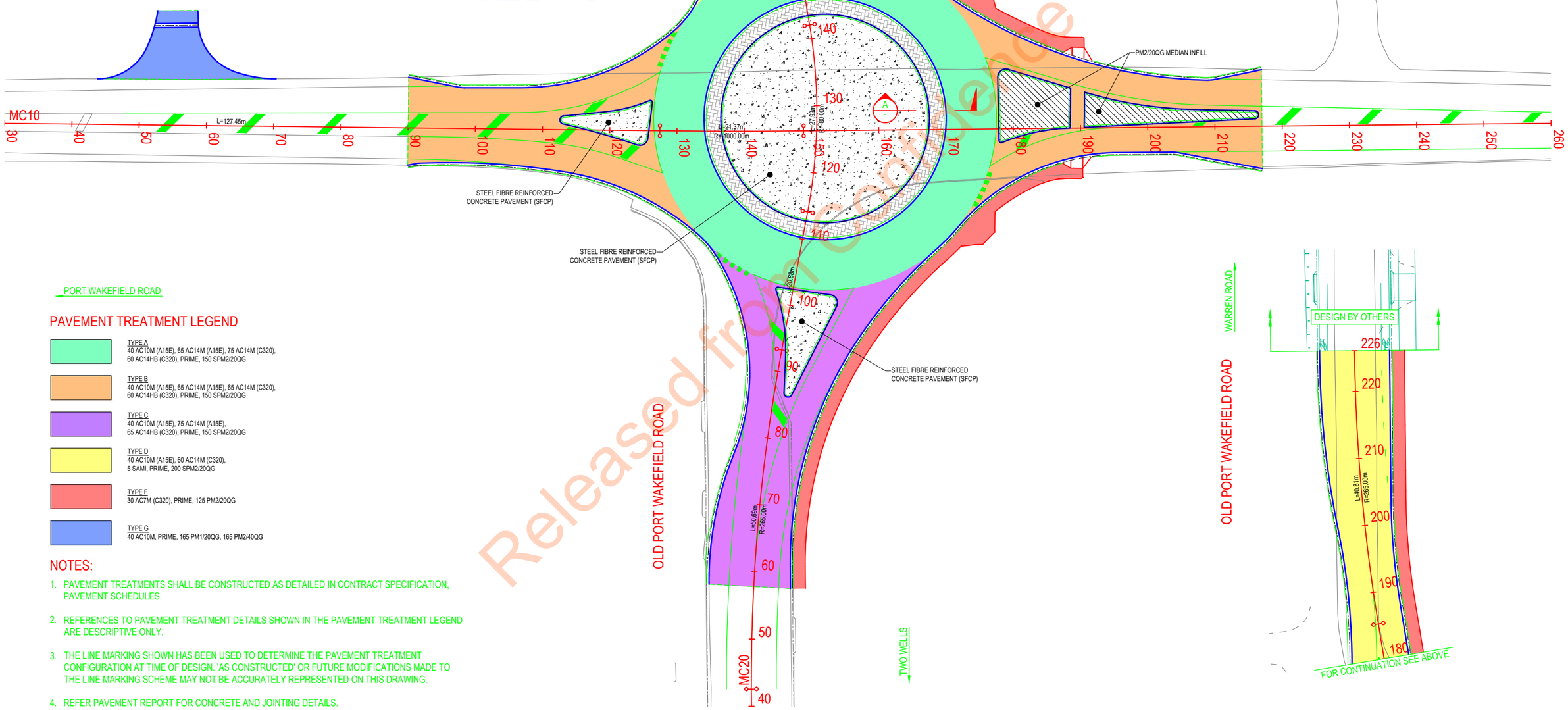
| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 3 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |
| | | DATE: 14/11/2016 | | | | |

CAD FILE NAME: 7365 SHEET 0003.DWG




## TYPICAL SECTION A

NOT TO SCALE




PORT WAKEFIELD ROAD

## PAVEMENT TREATMENT LEGEND

- TYPE A — 40 AC10M (A15E), 65 AC14M (A15E), 75 AC14M (C320), 60 AC14HB (C320), PRIME, 150 SPM2/20QG
- TYPE B — 40 AC10M (A15E), 65 AC14M (A15E), 65 AC14M (C320), 60 AC14HB (C320), PRIME, 150 SPM2/20QG
- TYPE C — 40 AC10M (A15E), 75 AC14M (A15E), 65 AC14HB (C320), PRIME, 150 SPM2/20QG
- TYPE D — 40 AC10M (A15E), 60 AC14M (C320), 5 SAMI, PRIME, 200 SPM2/20QG
- TYPE F — 30 AC7M (C320), PRIME, 125 PM2/20QG
- TYPE G — 40 AC10M, PRIME, 165 PM1/20QG, 165 PM2/40QG

## NOTES:

1. PAVEMENT TREATMENTS SHALL BE CONSTRUCTED AS DETAILED IN CONTRACT SPECIFICATION, PAVEMENT SCHEDULES.
2. REFERENCES TO PAVEMENT TREATMENT DETAILS SHOWN IN THE PAVEMENT TREATMENT LEGEND ARE DESCRIPTIVE ONLY.
3. THE LINE MARKING SHOWN HAS BEEN USED TO DETERMINE THE PAVEMENT TREATMENT CONFIGURATION AT TIME OF DESIGN. 'AS CONSTRUCTED' OR FUTURE MODIFICATIONS MADE TO THE LINE MARKING SCHEME MAY NOT BE ACCURATELY REPRESENTED ON THIS DRAWING.
4. REFER PAVEMENT REPORT FOR CONCRETE AND JOINTING DETAILS.

Released from Storage

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | PAS | PAS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

PAS
Pavement Asset Services Pty Ltd
407/147 Pirie Street, Adelaide 5000
T: 08 8223 6818

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| PROJECT No.: | FILE No.: |
|---|---|
| DESIGN No.: | SURVEY No: |

PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 6 0 3 6 9 12

ROAD No. 43703 / 04378

# MALLALA ROAD

ROUNDABOUT; OLD PORT WAKEFIELD ROAD
MC10; CH 30 TO CH 260
PAVEMENT TREATMENT

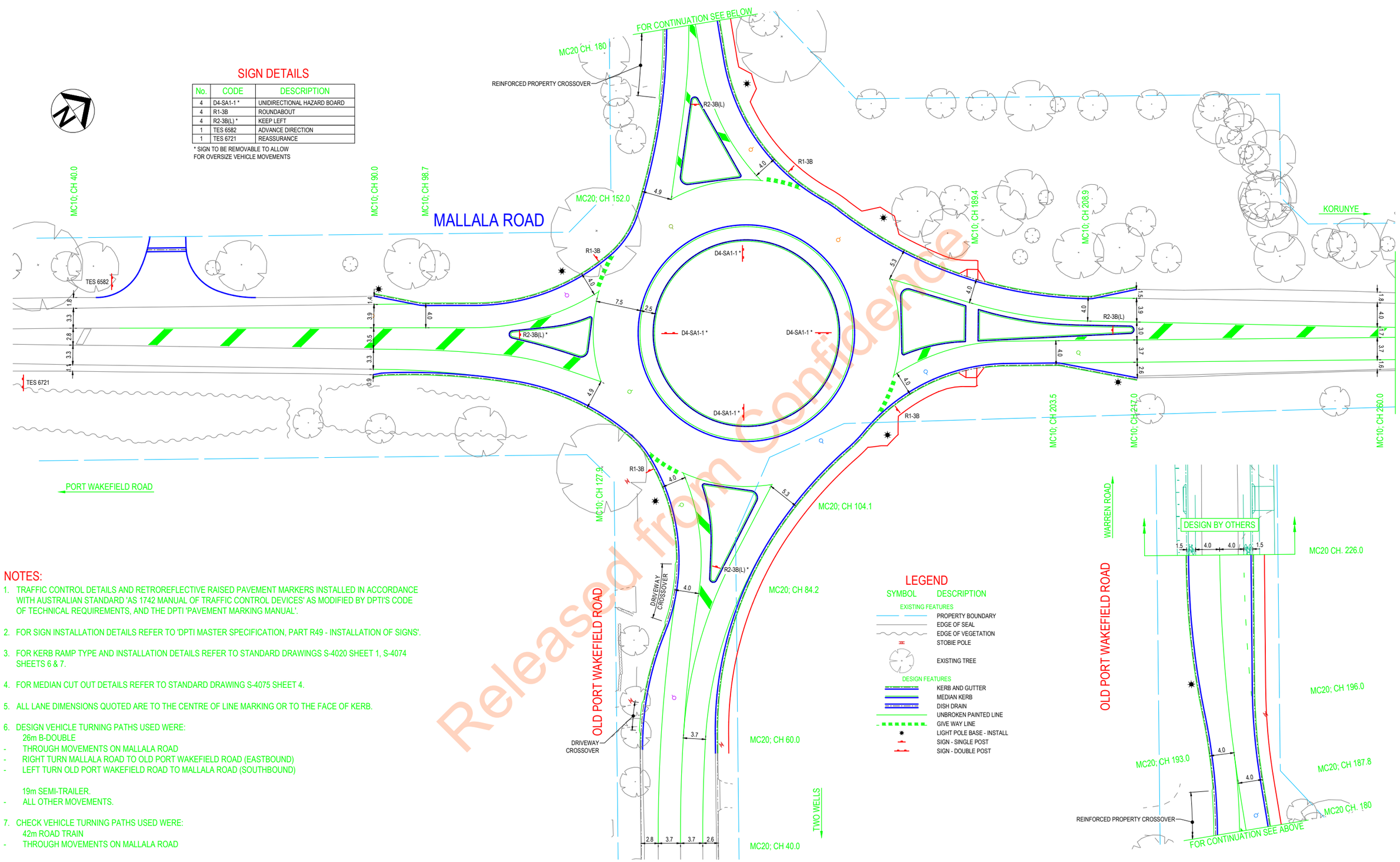
| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| PAS | GE | J. JOVANOVIC | 9819611 | 7365 | 4 | 1A |
| CHECKED: PAS | CHECKED: PAS | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 004.DWG

## SIGN DETAILS

| No. | CODE | DESCRIPTION |
|---|---|---|
| 4 | D4-SA1-1 * | UNIDIRECTIONAL HAZARD BOARD |
| 4 | R1-3B | ROUNDABOUT |
| 4 | R2-3B(L) * | KEEP LEFT |
| 1 | TES 6582 | ADVANCE DIRECTION |
| 1 | TES 6721 | REASSURANCE |

* SIGN TO BE REMOVABLE TO ALLOW FOR OVERSIZE VEHICLE MOVEMENTS




## NOTES:

1. TRAFFIC CONTROL DETAILS AND RETROREFLECTIVE RAISED PAVEMENT MARKERS INSTALLED IN ACCORDANCE WITH AUSTRALIAN STANDARD 'AS 1742 MANUAL OF TRAFFIC CONTROL DEVICES' AS MODIFIED BY DPTI'S CODE OF TECHNICAL REQUIREMENTS, AND THE DPTI 'PAVEMENT MARKING MANUAL'.
2. FOR SIGN INSTALLATION DETAILS REFER TO 'DPTI MASTER SPECIFICATION, PART R49 - INSTALLATION OF SIGNS'.
3. FOR KERB RAMP TYPE AND INSTALLATION DETAILS REFER TO STANDARD DRAWINGS S-4020 SHEET 1, S-4074 SHEETS 6 & 7.
4. FOR MEDIAN CUT OUT DETAILS REFER TO STANDARD DRAWING S-4075 SHEET 4.
5. ALL LANE DIMENSIONS QUOTED ARE TO THE CENTRE OF LINE MARKING OR TO THE FACE OF KERB.
6. DESIGN VEHICLE TURNING PATHS USED WERE:
   26m B-DOUBLE
   - THROUGH MOVEMENTS ON MALLALA ROAD
   - RIGHT TURN MALLALA ROAD TO OLD PORT WAKEFIELD ROAD (EASTBOUND)
   - LEFT TURN OLD PORT WAKEFIELD ROAD TO MALLALA ROAD (SOUTHBOUND)

   19m SEMI-TRAILER.
   - ALL OTHER MOVEMENTS.
7. CHECK VEHICLE TURNING PATHS USED WERE:
   42m ROAD TRAIN
   - THROUGH MOVEMENTS ON MALLALA ROAD

## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| EXISTING FEATURES | |
| | PROPERTY BOUNDARY |
| | EDGE OF SEAL |
| | EDGE OF VEGETATION |
| | STOBIE POLE |
| | EXISTING TREE |
| DESIGN FEATURES | |
| | KERB AND GUTTER |
| | MEDIAN KERB |
| | DISH DRAIN |
| | UNBROKEN PAINTED LINE |
| | GIVE WAY LINE |
| | LIGHT POLE BASE - INSTALL |
| | SIGN - SINGLE POST |
| | SIGN - DOUBLE POST |

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

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PROJECT No.: | FILE No.:
DESIGN No.: | SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 6 0 3 6 9 12

ROAD No. 43703 / 04378

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 30 TO CH 260
## TRAFFIC CONTROL

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 5 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | | | | |
| | | DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

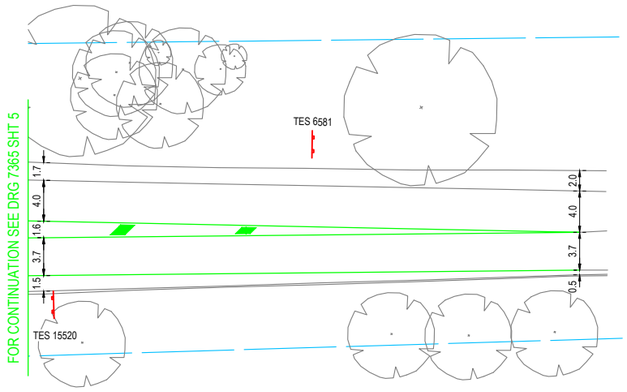
CAD FILE NAME: 7365 SHEET 0005.DWG

MC10; CH 260.0

MC10; CH 314.0

# MALLALA ROAD

KORUNYE




PORT WAKEFIELD ROAD

## NOTES:

1. TRAFFIC CONTROL DETAILS AND RETROREFLECTIVE RAISED PAVEMENT MARKERS INSTALLED IN ACCORDANCE WITH AUSTRALIAN STANDARD 'AS 1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' AS MODIFIED BY THE DPTI 'CODE OF TECHNICAL REQUIREMENTS FOR THE LEGAL USE OF TRAFFIC CONTROL DEVICES', AND THE DPTI 'PAVEMENT MARKING MANUAL'.
2. FOR SIGN INSTALLATION DETAILS REFER TO 'DPTI MASTER SPECIFICATION, PART R49 - INSTALLATION OF SIGNS'.
3. ALL LANE DIMENSIONS QUOTED ARE TO THE CENTRE OF LINE MARKING OR TO THE FACE OF KERB.

## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| EXISTING FEATURES | |
| | PROPERTY BOUNDARY |
| | EDGE OF SEAL |
| | EDGE OF VEGETATION |
| | STOBIE POLE |
| | EXISTING TREE |
| DESIGN FEATURES | |
| | UNBROKEN PAINTED LINE |
| | SIGN - DOUBLE POST |

## SIGN DETAILS

| No. | CODE | DESCRIPTION |
|---|---|---|
| 1 | TES 15520 | ADVANCED DIRECTION |
| 1 | TES 6581 | REASSURANCE |

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

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Proj: 18-1961

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Department of Planning, Transport and Infrastructure

| | |
|---|---|
| PROJECT No.: | FILE No.: |
| DESIGN No.: | SURVEY No: |
| PROJECT START ROAD RUNNING DISTANCE: | MC10; CH 90 = RRD 17.32 |
| PROJECT END ROAD RUNNING DISTANCE: | MC10; CH 220 = RRD 17.19 |
| SCALES: | 6 0 3 6 9 12 |

ROAD No. 43703 / 04378

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 260 TO CH 340
## TRAFFIC CONTROL

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 6 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |
| | | DATE: 14/11/2016 | | | | |

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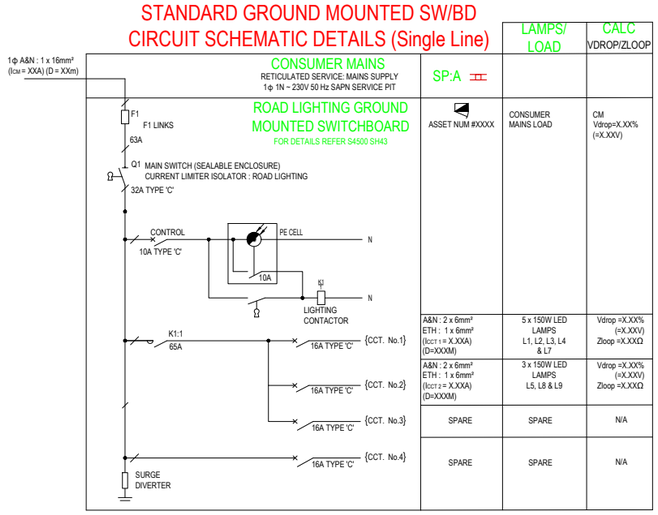
## LIGHTING DETAILS

| LUMINAIRE ASSET No. | TYPE | SET OUT PLIG PT | SET OUT ORIENTATION | LAMP TYPE | LAMP MAINT FACTOR | LIGHT POLE TYPE | LIGHT POLE MAST HGHT | LIGHT POLE O'REACH | LIGHT POLE OFFSET | SAPN DWG. No. | SAPN Supply No. | SAPN TARIFF | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 1.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L2 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 2.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L3 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 3.0 | 1.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L4 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 2.5 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L5 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 2.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L6 | A | - | - | 150W LED | 0.8 | 2 | 10.5 | 2.0 | N/A | E1766 | DL28656, EM4108 | PLC | NEW SAPN LUMINAIRE & BRACKET |
| L7 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 3.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L8 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 3.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |
| L9 | A | - | - | 150W LED | 0.8 | 1 | 12.0 | 4.5 | 1.0 | N/A | N/A | EO | NEW DPTI LUMINAIRE, POLE & BASE |

## LUMINAIRE AND POLE TYPE

| TYPE | DESIGN |
|---|---|
| A | SYLVANIA ROADLED MIDI AERO 4K MOD 2 |
| 1 | FRANGIBLE SLIP BASE |
| 2 | SA POWER NETWORKS STOBIE |

## STANDARD GROUND MOUNTED SW/BD CIRCUIT SCHEMATIC DETAILS (Single Line)



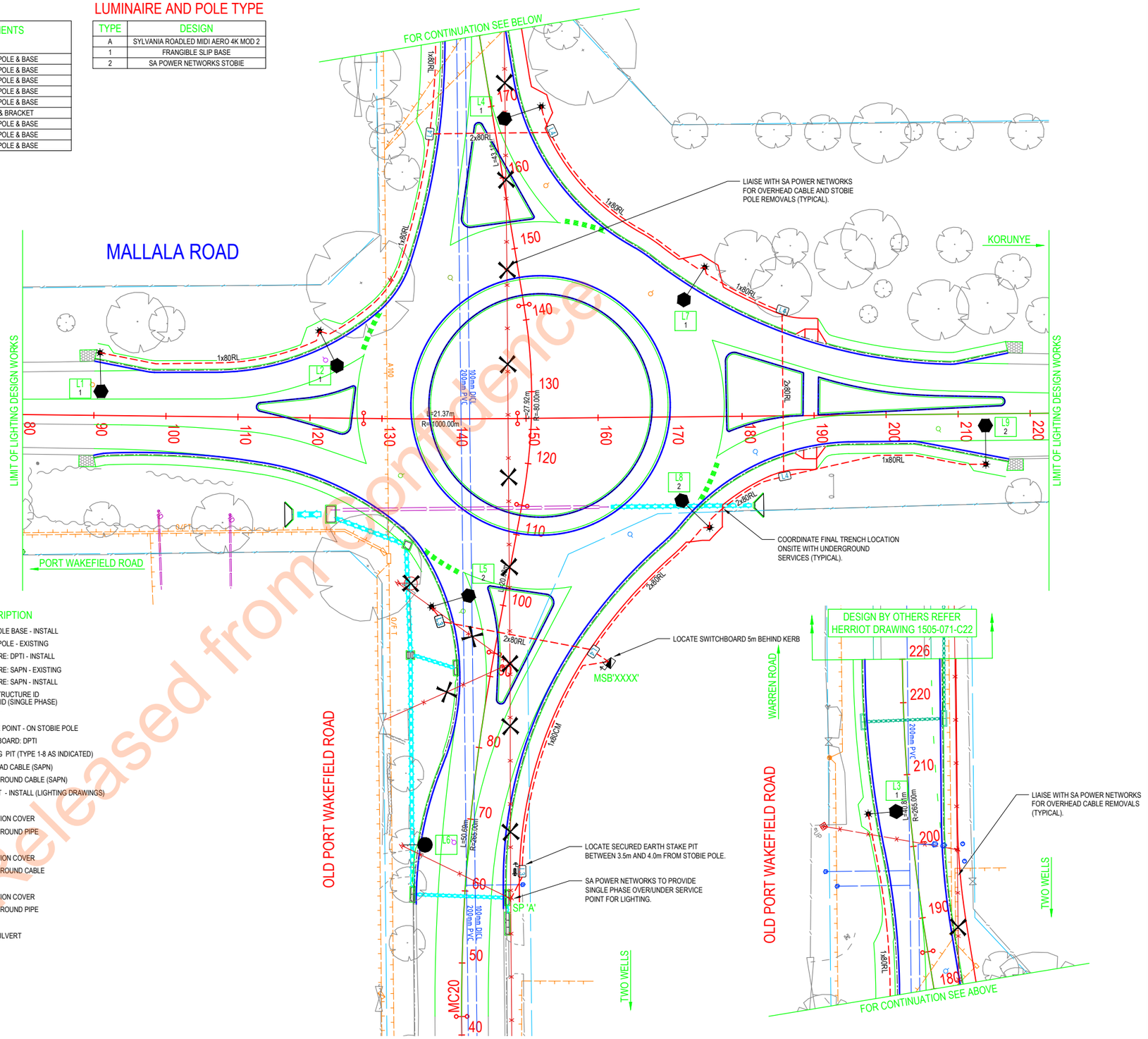

| | LAMPS/ LOAD | CALC VDROP/ZLOOP |
|---|---|---|
| CONSUMER MAINS RETICULATED SERVICE: MAINS SUPPLY 1-Φ, 1N ~ 230V 50 Hz SAPN SERVICE PIT | | |
| ROAD LIGHTING GROUND MOUNTED SWITCHBOARD FOR DETAILS REFER S4500 SH43 — ASSET NUM #XXXX | CONSUMER MAINS LOAD | CM Vdrop=X.XX% (=X.XXV) |
| A&N : 2 x 6mm² ETH : 1 x 6mm² (Icc1 = X.XXA) (D=XXXM) | 5 x 150W LED LAMPS L1, L2, L3, L4 & L7 | Vdrop =X.XX% (=X.XXV) Zloop =X.XXΩ |
| A&N : 2 x 6mm² ETH : 1 x 6mm² (Icc2 = X.XXA) (D=XXXM) | 3 x 150W LED LAMPS L5, L8 & L9 | Vdrop =X.XX% (=X.XXV) Zloop =X.XXΩ |
| SPARE | SPARE | N/A |
| SPARE | SPARE | N/A |

## NOTES:

1. THE SERVICES INFORMATION INDICATED ON THIS DRAWING IS BASED ON FIELD OBSERVATIONS AND DETAILS PROVIDED BY SERVICE AUTHORITIES. DPTI, ITS SERVANTS OR AGENTS SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED BY THE USE OF THIS SERVICES INFORMATION . THIS DESIGN MAY INCLUDE THE POSSIBILITY OF SERVICE CONFLICT AND / OR ENCROACHMENT WITHIN SAFETY CLEARANCES REQUIRING ASSESSMENT AND APPROVAL BY THE OFFICE OF TECHNICAL REGULATOR AND SERVICES AUTHORITIES.
2. THIS DESIGN COMPLIES WITH THE OFFICE OF THE TECHNICAL REGULATOR OVERHEAD & UNDERGROUND ELECTRICAL CABLES CLEARANCE REQUIREMENTS. IF DURING CONSTRUCTION IT IS DETERMINED THAT THE CLEARANCES CANNOT BE MET, WORK MUST IMMEDIATELY CEASE AND THE DESIGNER AND PROJECT MANAGER NOTIFIED.
3. LIGHTING DETAILS HAVE BEEN DESIGNED FOR CATEGORY V3 IN ACCORDANCE WITH AUSTRALIAN / NEW ZEALAND STANDARD 'AS/NZS 1158 LIGHTING FOR ROADS & PUBLIC SPACES'.
4. ELECTRICAL DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AUSTRALIAN / NEW ZEALAND STANDARD 'AS/NZS 3000 ELECTRICAL INSTALLATIONS (WIRING RULES)'.
5. ALTERNATIVE LUMINAIRE AND POLE TYPES MAY BE USED ONLY WHEN APPROVED BY DPTI MANAGER.
6. LIGHT POLE OFFSETS ARE MEASURED FROM CENTRE OF POLE TO THE FACE OF KERB OR BITUMEN EDGE.
7. ORIENTATION OF LIGHT POLES TO BE 90° TO THE CENTRE LINE ALIGNMENT OF THE ROAD UNLESS OTHERWISE SHOWN.
8. FOR POLE, MAST ARM AND FOOTING DETAILS REFER TO STANDARD DRAWING S-4055 SHEETS 19 -24, 30, 37 - 42, 46, 48 & 49.
9. FOR PIT DETAILS REFER TO STANDARD DRAWING S-4055 SHEETS 66 - 70. ENSURE ALL PIT LIDS ARE FINISHED TO FINAL SURFACE LEVELS.
10. FOR ELECTRICAL SWITCHBOARD DETAILS REFER TO STANDARD DRAWING S-4055 SHEETS 43 & 54-58

## LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | LIGHT POLE BASE - INSTALL |
| | STOBIE POLE - EXISTING |
| | LUMINAIRE: DPTI - INSTALL |
| | LUMINAIRE: SAPN - EXISTING |
| | LUMINAIRE: SAPN - INSTALL |
| L15 1 | LIGHT STRUCTURE ID CIRCUIT ID (SINGLE PHASE) |
| | REMOVE |
| SP | SERVICE POINT - ON STOBIE POLE |
| | SWITCHBOARD: DPTI |
| L3 | LIGHTING PIT (TYPE 1-8 AS INDICATED) |
| | OVERHEAD CABLE (SAPN) |
| | UNDERGROUND CABLE (SAPN) |
| | CONDUIT - INSTALL (LIGHTING DRAWINGS) |
| SEWER | |
| | INSPECTION COVER |
| | UNDERGROUND PIPE |
| COMMUNICATIONS | |
| | INSPECTION COVER |
| | UNDERGROUND CABLE |
| WATER | |
| | INSPECTION COVER |
| | UNDERGROUND PIPE |
| STORMWATER | |
| | PIPE / CULVERT |




Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | RA | TL | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

ENERVEN™
AN SA POWER NETWORKS COMPANY

PROJECT REFERENCE: 100791120

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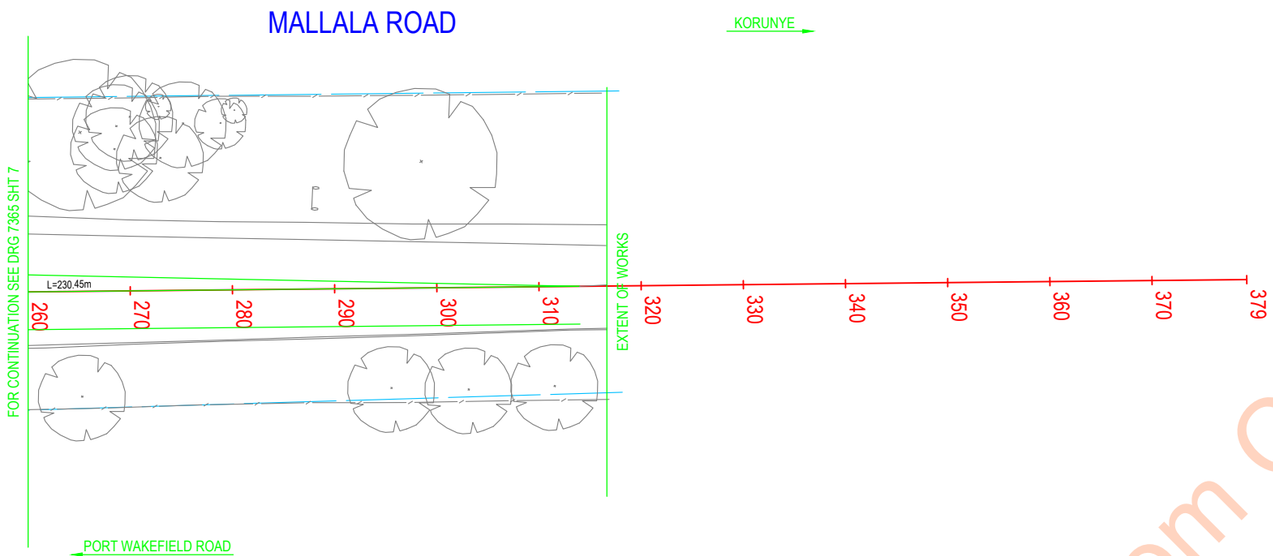
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Department of Planning, Transport and Infrastructure

| | |
|---|---|
| PROJECT No.: | FILE No.: |
| DESIGN No.: | SURVEY No: |
| PROJECT START ROAD RUNNING DISTANCE: | MC10; CH 90 = RRD 17.32 |
| PROJECT END ROAD RUNNING DISTANCE: | MC10; CH 220 = RRD 17.19 |
| SCALES: | 6 0 3 6 9 12 |

ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 30 TO CH 260
## LIGHTING

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| RA | RA | J. JOVANOVIC | 9819611 | 7365 | 7 | 1A |
| CHECKED: TL | CHECKED: TL | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0007.DWG




Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | RA | TL | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

ENERVEN™

PROJECT REFERENCE: 100791120

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Government of South Australia

Department of Planning, Transport and Infrastructure

| | |
|---|---|
| PROJECT No.: | FILE No.: |
| DESIGN No.: | SURVEY No: |
| PROJECT START ROAD RUNNING DISTANCE: | MC10; CH 90 = RRD 17.32 |
| PROJECT END ROAD RUNNING DISTANCE: | MC10; CH 220 = RRD 17.19 |
| SCALES: | 6 0 3 6 9 12 |

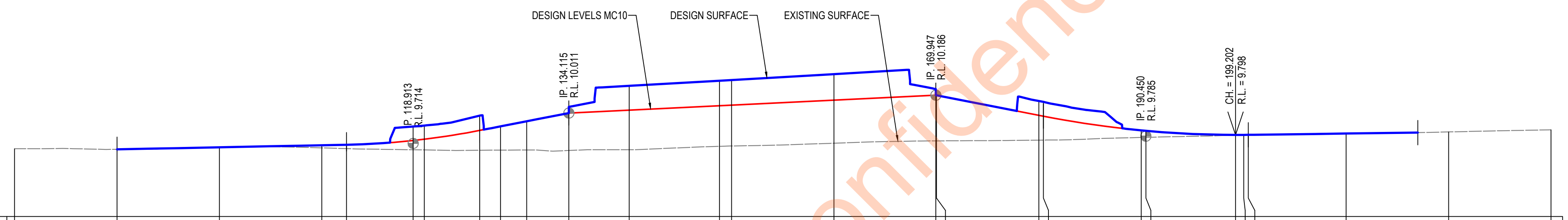
ROAD No. 43703 / 04378

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 260 TO CH 340
## LIGHTING

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| RA | RA | J. JOVANOVIC | 9819611 | 7365 | 8 | 1A |
| CHECKED: TL | CHECKED: TL | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0008.DWG




DATUM R.L. = 9.000

| CHAINAGE | DESIGN LEVELS MC10 | DESIGN SURFACE | EXISTING SURFACE |
|---|---|---|---|
| 80.000 | | | 9.662 |
| 90.000 | 9.657 | 9.657 | 9.657 |
| 100.000 | 9.677 | 9.677 | 9.678 |
| 110.000 | 9.697 | 9.697 | 9.671 |
| 112.413 | 9.701 | 9.701 | 9.664 |
| 118.913 | 9.743 | 9.880 | 9.652 |
| 120.000 | 9.755 | 9.889 | 9.651 |
| 125.413 | 9.841 | 9.986 | 9.647 |
| 127.448 | 9.881 | 9.881 | 9.649 |
| 130.000 | 9.931 | 9.931 | 9.650 |
| 134.115 | 10.011 | 10.011 | 9.645 |
| 140.000 | 10.040 | 10.277 | 9.653 |
| 148.819 | 10.083 | 10.328 | 9.686 |
| 150.000 | 10.089 | 10.334 | 9.689 |
| 160.000 | 10.138 | 10.392 | 9.717 |
| 169.947 | 10.186 | 10.189 | 9.739 |
| 170.000 | 10.185 | 10.185 | 9.739 |
| 180.000 | 9.990 | 10.129 | 9.747 |
| 180.450 | 9.981 | 10.120 | 9.747 |
| 190.000 | 9.842 | 9.842 | 9.773 |
| 190.450 | 9.838 | 9.838 | 9.774 |
| 199.202 | 9.798 | 9.798 | 9.796 |
| 200.000 | 9.798 | 9.798 | 9.797 |
| 200.450 | 9.798 | 9.798 | 9.797 |
| 210.000 | 9.811 | 9.811 | 9.810 |
| 220.000 | | | 9.827 |
| 230.000 | | | 9.847 |

HORIZONTAL: L=127.448; R=-1000.000 L=21.371; L=230.451

VERTICAL: L=22.413 G=0.200%; K=7.417 L=13.000; L=8.702 G=1.953%; L=35.832 G=0.488%; L=10.503 G=-1.953%; K=9.600 L=20.000; L=16.550 G=0.130%

## MC10 LONGITUDINAL SECTION

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964

Proj: 18-1961

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Government of South Australia
Department of Planning, Transport and Infrastructure

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PROJECT No.: FILE No.:
DESIGN No.: SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 6 0 3 6 9 12 H; 0.6 0 0.3 0.6 0.9 1.2 V

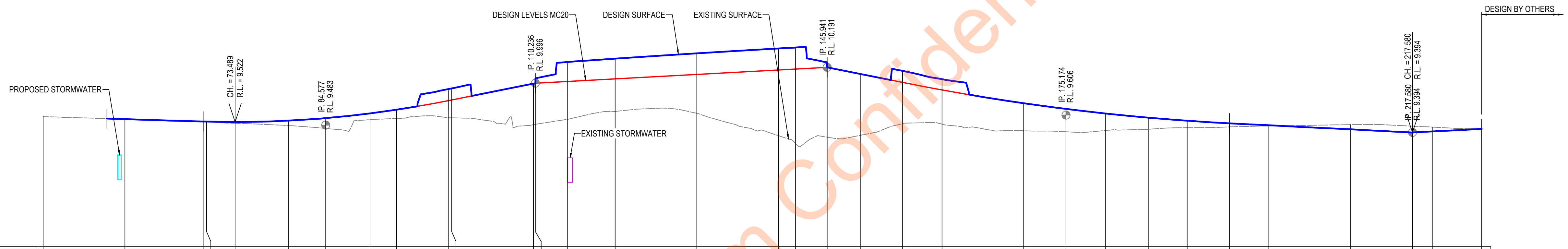
# ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 90 TO CH 220
## LONGITUDINAL SECTIONS

DESIGNED: GE CHECKED: GE | DRAFTED: GE CHECKED: GE | ACCEPTED FOR USE: J. JOVANOVIC TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | ACCEPTANCE FORM KNET No.: 9819611 IN ACCORDANCE WITH DP013 | DRAWING No.: 7365 | SHEET No.: 9 | AMEND No.: 1A

SHEET LATITUDE -34.591836 SHEET LONGITUDE 138.510989

CAD FILE NAME: 7365 SHEET 0009.DWG

Released from Confidence




| CHAINAGE | DESIGN LEVELS MC20 | DESIGN SURFACE | EXISTING SURFACE |
|---|---|---|---|
| 50.000 | | | 9.587 |
| 60.000 | 9.557 | 9.557 | 9.557 |
| 69.577 | 9.528 | 9.528 | 9.524 |
| 70.000 | 9.527 | 9.527 | 9.522 |
| 73.489 | 9.522 | 9.522 | 9.507 |
| 80.000 | 9.539 | 9.539 | 9.478 |
| 84.577 | 9.569 | 9.570 | 9.445 |
| 90.000 | 9.627 | 9.627 | 9.551 |
| 93.255 | 9.672 | 9.672 | 9.565 |
| 99.577 | 9.783 | 9.924 | 9.574 |
| 100.000 | 9.792 | 9.933 | 9.572 |
| 110.000 | 9.992 | 9.992 | 9.489 |
| 110.236 | 9.996 | 9.996 | 9.493 |
| 114.140 | 10.018 | 10.256 | 9.554 |
| 120.000 | 10.050 | 10.297 | 9.651 |
| 130.000 | 10.104 | 10.362 | 9.628 |
| 140.000 | 10.159 | 10.421 | 9.354 |
| 142.057 | 10.170 | 10.433 | 9.260 |
| 145.941 | 10.191 | 10.251 | 9.336 |
| 150.000 | 10.110 | 10.110 | 9.358 |
| 155.174 | 10.006 | 10.147 | 9.502 |
| 160.000 | 9.914 | 10.046 | 9.496 |
| 170.000 | 9.751 | 9.751 | 9.414 |
| 175.174 | 9.681 | 9.682 | 9.402 |
| 180.000 | 9.625 | 9.625 | 9.417 |
| 185.235 | 9.574 | 9.574 | 9.432 |
| 190.000 | 9.537 | 9.537 | 9.452 |
| 195.174 | 9.506 | 9.506 | 9.463 |
| 200.000 | 9.482 | 9.482 | 9.473 |
| 210.000 | 9.432 | 9.432 | 9.490 |
| 217.580 | 9.394 | 9.394 | 9.472 |
| 220.000 | 9.406 | 9.406 | 9.459 |
| 226.040 | 9.436 | | 9.445 |

HORIZONTAL: R=265.000 L=50.691 | L=20.885 | R=-80.000 L=27.916 | L=43.179 | R=265.000 L=40.805

VERTICAL: L=11.771 G=-0.300% | K=13.040 L=30.000 | L=10.659 G=2.001% | L=35.706 G=0.545% | L=9.233 G=-2.000% | K=26.660 L=40.000 | L=22.406 G=-0.500% | L=8.460 G=0.500%

## MC20 LONGITUDINAL SECTION

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
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Adelaide SA 5000
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ABN 39 061 222 964
Proj: 18-1961

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Department of Planning, Transport and Infrastructure

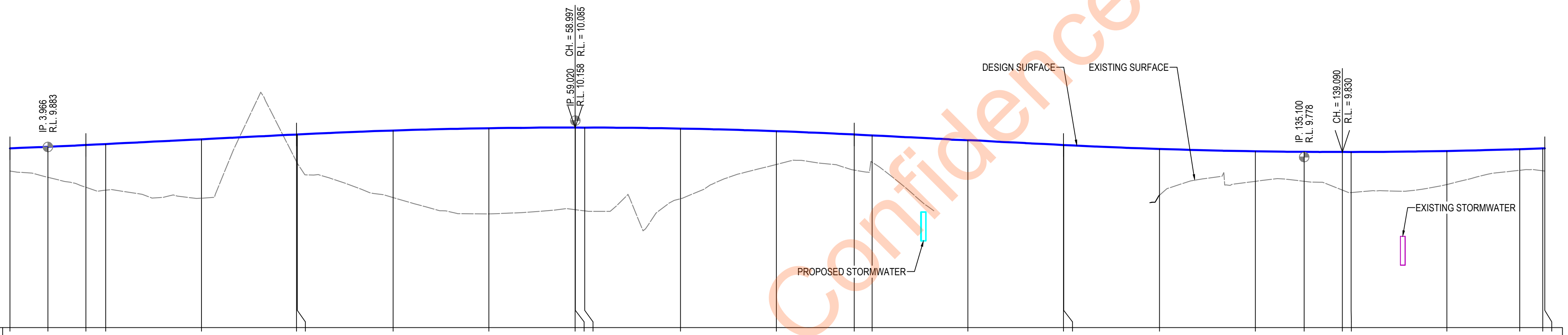
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PROJECT No.: FILE No.:
DESIGN No.: SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: H 6 0 3 6 9 12; V 0.6 0 0.3 0.6 0.9 1.2

# ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC20; CH 60 TO CH 226
## LONGITUDINAL SECTIONS

DESIGNED: GE | DRAFTED: GE | CHECKED: GE | CHECKED: GE
ACCEPTED FOR USE: J. JOVANOVIC
TITLE: MAN. TRAFF. SOLUTIONS
DATE: 14/11/2016
ACCEPTANCE FORM KNET No.: 9819611
IN ACCORDANCE WITH DP013
DRAWING No.: 7365 | SHEET No.: 10 | AMEND No.: 1A
SHEET LATITUDE -34.591836 SHEET LONGITUDE 138.510989
CAD FILE NAME: 7365 SHEET 0010.DWG

Released from Confidence




DATUM R.L. = 8.000

| CHAINAGE | DESIGN LEVELS MR00 | DESIGN SURFACE | EXISTING SURFACE |
|---|---|---|---|
| 0.000 | 9.869 | 9.869 | 9.632 |
| 3.966 | 9.884 | 9.884 | 9.567 |
| 7.932 | 9.903 | 9.903 | 9.462 |
| 10.000 | 9.913 | 9.913 | 9.433 |
| 20.000 | 9.963 | 9.963 | 9.349 |
| 29.910 | 10.012 | 10.012 | 9.729 |
| 30.000 | 10.013 | 10.013 | 9.713 |
| 40.000 | 10.054 | 10.054 | 9.356 |
| 50.000 | 10.078 | 10.078 | 9.185 |
| 58.997 | 10.085 | 10.085 | 9.230 |
| 59.020 | 10.085 | 10.085 | 9.230 |
| 60.000 | 10.085 | 10.085 | 9.217 |
| 70.000 | 10.075 | 10.075 | 9.343 |
| 80.000 | 10.047 | 10.047 | 9.700 |
| 88.129 | 10.012 | 10.012 | 9.642 |
| 90.000 | 10.003 | 10.003 | 9.724 |
| 100.000 | 9.953 | 9.953 | |
| 109.979 | 9.903 | 9.903 | |
| 110.000 | 9.903 | 9.903 | |
| 120.000 | 9.862 | 9.862 | 9.380 |
| 130.000 | 9.837 | 9.837 | 9.525 |
| 135.100 | 9.832 | 9.832 | 9.524 |
| 139.090 | 9.830 | 9.830 | 9.432 |
| 140.000 | 9.830 | 9.830 | 9.407 |
| 150.000 | 9.841 | 9.841 | 9.492 |
| 157.602 | 9.860 | 9.860 | 9.640 |
| 160.000 | 9.868 | 9.868 | 9.634 |
| 160.221 | 9.869 | 9.869 | 9.632 |

HORIZONTAL: R=25.500 L=157.602; R=25.500 L=2.619

VERTICAL: L=21.978 G=0.499%; K=58.348 L=58.219; L=21.850 G=-0.499%; K=58.302 L=50.242

## MR00 LONGITUDINAL SECTION

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

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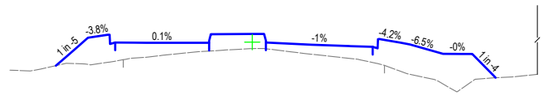
UNCONTROLLED COPY WHEN PRINTED ◄ 100 MILLIMETRES ON ORIGINAL DRAWING ► ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE

PROJECT No.: FILE No.:
DESIGN No.: SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 6 0 3 6 9 12 H; 0.6 0 0.3 0.6 0.9 1.2 V

# ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MR00; CH 0 TO CH 160
## LONGITUDINAL SECTIONS

DESIGNED: GE | DRAFTED: GE | CHECKED: GE | CHECKED: GE
ACCEPTED FOR USE: J. JOVANOVIC
TITLE: MAN. TRAFF. SOLUTIONS
DATE: 14/11/2016
ACCEPTANCE FORM KNET No.: 9819611
IN ACCORDANCE WITH DP013
DRAWING No.: 7365
SHEET No.: 11
AMEND No.: 1A
SHEET LATITUDE -34.591836 SHEET LONGITUDE 138.510989

CAD FILE NAME: 7365 SHEET 0011.DWG

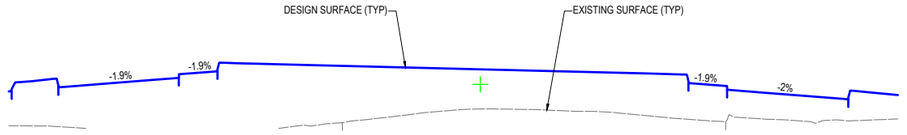



X = 271718.308
Y = 6169387.097

REF. STRING MC10
DATUM R.L. 8

| DESIGN LABEL | | IA30 | EV30 | CB30 | CT30 | CF30 | CE30 | CEA0 | CFA0 | CTA0 | CBA0 | MC10 | CBA0 | CTA0 | CFA0 | CEA0 | CE60 | CF60 | CT60 | CB60 | EV60 | NL | NL | IA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.373 | 9.827 | 9.877 | 9.876 | 9.726 | 9.749 | 9.745 | 9.780 | 9.884 | 9.884 | 9.755 | 9.890 | 9.890 | 9.785 | 9.750 | 9.679 | 9.655 | 9.805 | 9.806 | 9.752 | 9.565 | 9.564 | 9.176 | |
| LEVEL DIFF. | | -0.000 | 0.434 | 0.450 | 0.445 | 0.294 | 0.303 | 0.134 | 0.169 | 0.273 | 0.271 | 0.105 | 0.238 | 0.239 | 0.136 | 0.101 | 0.255 | 0.248 | 0.399 | 0.408 | 0.463 | 0.491 | 0.446 | 0.000 | |
| HORIZ. OFFSET | | -12.808 | -10.718 | -9.406 | -9.297 | -9.270 | -8.943 | -2.811 | -2.810 | -2.700 | -2.579 | 0.000 | 0.650 | 0.775 | 0.888 | 0.889 | 7.863 | 8.180 | 8.206 | 8.311 | 9.579 | 12.448 | 14.350 | 15.878 | |

CHAINAGE 120

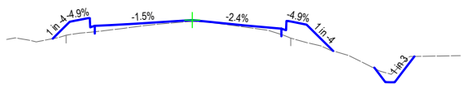



X = 271735.011
Y = 6169412.016

REF. STRING MC10
DATUM R.L. 9

| DESIGN LABEL | | CBB0 | CTB0 | CFB0 | CEB0 | CEU | CTU | CBU | CE0K | CF0K | CT0K | CB0K | MC10 | CB0K | CT0K | CF0K | CE0K | CBU | CTU | CEU | CED | CFD | CTD | CBD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 10.182 | 10.182 | 10.077 | 10.042 | 10.195 | 10.255 | 10.261 | 10.303 | 10.338 | 10.443 | 10.443 | 10.089 | 10.250 | 10.250 | 10.146 | 10.111 | 10.068 | 10.062 | 10.002 | 9.854 | 9.847 | 9.882 | 9.987 | 9.987 |
| LEVEL DIFF. | | 0.778 | 0.780 | 0.676 | 0.641 | 0.904 | 0.964 | 0.966 | 1.014 | 1.049 | 1.163 | 1.172 | 0.399 | 0.726 | 0.729 | 0.626 | 0.591 | 0.584 | 0.548 | 0.487 | 0.352 | 0.352 | 0.387 | 0.492 | 0.490 |
| HORIZ. OFFSET | | -27.760 | -27.640 | -27.530 | -27.529 | -19.666 | -19.665 | -19.364 | -17.147 | -17.146 | -17.036 | -16.915 | 0.000 | 13.352 | 13.474 | 13.584 | 13.585 | 15.801 | 16.102 | 16.103 | 23.637 | 24.015 | 24.016 | 24.126 | 24.248 |

CHAINAGE 150

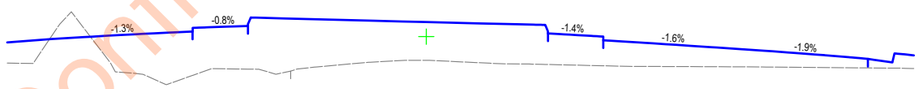



X = 271712.67
Y = 6169378.838

REF. STRING MC10
DATUM R.L. 7.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CT30 | CF30 | CE30 | MC10 | CE60 | CF60 | CT60 | CB60 | EV60 | IA60 | IAF0 | IDF0 | IDF-J | IAF-J | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.394 | 9.669 | 9.727 | 9.727 | 9.577 | 9.602 | 9.697 | 9.556 | 9.531 | 9.681 | 9.681 | 9.622 | 9.192 | 8.921 | 8.683 | 8.682 | 9.103 | |
| LEVEL DIFF. | | -0.000 | 0.209 | 0.233 | 0.231 | 0.080 | 0.097 | 0.026 | 0.095 | 0.098 | 0.251 | 0.261 | 0.293 | -0.000 | 0.012 | -0.156 | -0.185 | -0.001 | |
| HORIZ. OFFSET | | -9.104 | -7.987 | -6.780 | -6.680 | -6.655 | -6.353 | 0.000 | 5.820 | 6.122 | 6.147 | 6.248 | 7.457 | 9.199 | 11.885 | 12.601 | 13.209 | 14.497 | |

CHAINAGE 110

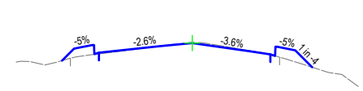



X = 271729.518
Y = 6169403.659

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | CEU | CTU | CBU | CE0K | CF0K | CT0K | CB0K | MC10 | CB0K | CT0K | CF0K | CE0K | CBU | CTU | CEU | CE60 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.003 | 10.122 | 10.182 | 10.186 | 10.212 | 10.247 | 10.351 | 10.350 | 10.040 | 10.232 | 10.232 | 10.127 | 10.092 | 10.046 | 10.040 | 9.980 | 9.833 | 9.678 | |
| LEVEL DIFF. | -0.086 | 0.714 | 0.774 | 0.742 | 0.702 | 0.737 | 0.842 | 0.841 | 0.387 | 0.644 | 0.645 | 0.541 | 0.506 | 0.479 | 0.476 | 0.416 | 0.286 | 0.147 | |
| HORIZ. OFFSET | -24.337 | -15.246 | -15.245 | -14.841 | -11.634 | -11.632 | -11.459 | -11.265 | 0.000 | 7.569 | 7.762 | 7.936 | 7.937 | 11.144 | 11.548 | 11.550 | 20.641 | 28.809 | |

CHAINAGE 140

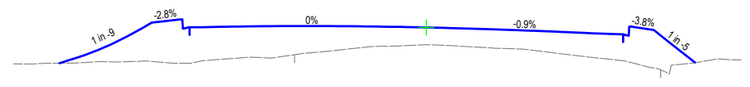



X = 271707.032
Y = 6169370.579

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CT30 | CF30 | CE30 | MC10 | CE60 | CF60 | CT60 | CB60 | EV60 | IA60 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.392 | 9.586 | 9.646 | 9.646 | 9.496 | 9.521 | 9.677 | 9.493 | 9.468 | 9.618 | 9.618 | 9.558 | 9.283 | |
| LEVEL DIFF. | | -0.000 | 0.141 | 0.157 | 0.154 | 0.003 | 0.020 | -0.002 | 0.001 | -0.002 | 0.150 | 0.158 | 0.189 | -0.000 | |
| HORIZ. OFFSET | | -8.488 | -7.710 | -6.510 | -6.410 | -6.385 | -6.085 | 0.000 | 5.101 | 5.401 | 5.426 | 5.526 | 6.726 | 7.827 | |

CHAINAGE 100




X = 271723.943
Y = 6169395.358

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CT30 | CF30 | CE30 | MC10 | CE60 | CF60 | CT60 | CB60 | EV60 | IA60 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.349 | 10.011 | 10.063 | 10.062 | 9.912 | 9.934 | 9.931 | 9.836 | 9.819 | 9.795 | 9.945 | 9.946 | 9.889 | 9.362 |
| LEVEL DIFF. | | -0.000 | 0.634 | 0.714 | 0.714 | 0.563 | 0.587 | 0.563 | 0.395 | 0.430 | 0.427 | 0.579 | 0.587 | 0.618 | 0.007 |
| HORIZ. OFFSET | | -23.936 | -17.893 | -16.051 | -15.906 | -15.870 | -15.443 | -14.910 | 0.000 | 10.873 | 12.844 | 13.209 | 13.239 | 13.361 | 14.838 | 17.530 | |

CHAINAGE 130

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964

Proj: 18-1961

NOT FOR CONSTRUCTION

Government of South Australia
Department of Planning, Transport and Infrastructure

| PROJECT No.: | FILE No.: |
|---|---|
| DESIGN No.: | SURVEY No: |

PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19

SCALES: 4 0 2 4 6 8 H; 1 0 0.5 1 1.5 2 V

ROAD No. 43703 / 04378

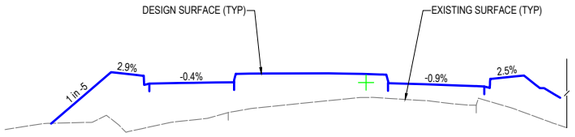
# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 100 TO CH 150
## CROSS SECTIONS

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 12 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |
| | | DATE: 14/11/2016 | | | | |

CAD FILE NAME: 7365 SHEET 0012.DWG

UNCONTROLLED COPY WHEN PRINTED ◄ 100 MILLIMETRES ON ORIGINAL DRAWING ► ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE

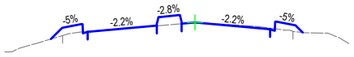



X = 271751.391
Y = 6169437.149

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | IA40 | | EX40 | | CB40 | CT40 | CF40 | CE40 | | CEC1 | CFC1 | CTC1 | CBC1 | | MC10 | CBC1 | CTC1 | CFC1 | CEC1 | | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.320 | | 10.160 | | 10.102 | 10.101 | 9.951 | 9.973 | | 9.993 | 10.028 | 10.132 | 10.132 | | 9.990 | 10.119 | 10.119 | 10.015 | 9.980 | | 9.925 | 9.901 | 10.051 | 10.052 | 10.105 |
| LEVEL DIFF. | | -0.005 | | 0.763 | | 0.863 | 0.856 | 0.704 | 0.709 | | 0.476 | 0.511 | 0.610 | 0.604 | | 0.243 | 0.383 | 0.385 | 0.283 | 0.248 | | 0.218 | 0.220 | 0.372 | 0.381 | 0.601 |
| HORIZ. OFFSET | | -20.551 | | -16.632 | | -14.614 | -14.503 | -14.475 | -14.140 | | -8.614 | -8.613 | -8.499 | -8.373 | | 0.000 | 1.190 | 1.316 | 1.431 | 1.432 | | 7.716 | 8.061 | 8.090 | 8.205 | 10.299 |

CHAINAGE 180

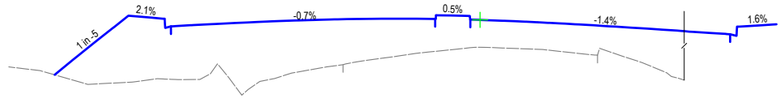



X = 271767.771
Y = 6169462.283

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | IA40 | | EV40 | CB40 | CT40 | CF40 | CE40 | | CEC2 | CFC2 | CTC2 | CBC2 | | CBC2 | CTC2 | CFC2 | CEC2 | | MC10 | CE50 | CF50 | CT50 | CB50 | EV50 | IA50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.542 | | 9.724 | 9.785 | 9.785 | 9.635 | 9.660 | | 9.760 | 9.795 | 9.900 | 9.900 | | 9.932 | 9.932 | 9.827 | 9.792 | | 9.811 | 9.701 | 9.675 | 9.825 | 9.825 | 9.764 | 9.648 |
| LEVEL DIFF. | | -0.000 | | 0.128 | 0.129 | 0.127 | -0.024 | -0.004 | | 0.003 | 0.038 | 0.141 | 0.146 | | 0.143 | 0.138 | 0.036 | 0.001 | | 0.001 | -0.018 | -0.034 | 0.117 | 0.120 | 0.103 | 0.000 |
| HORIZ. OFFSET | | -9.404 | | -8.663 | -7.440 | -7.338 | -7.312 | -7.007 | | -2.492 | -2.491 | -2.382 | -2.262 | | -1.105 | -0.985 | -0.876 | -0.875 | | 0.000 | 4.900 | 5.206 | 5.231 | 5.333 | 6.557 | 7.027 |

CHAINAGE 210

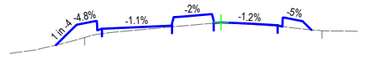



X = 271745.931
Y = 6169428.771

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | IA40 | | EX40 | | CB40 | CT40 | CF40 | CE40 | | | CEIU | CTIU | CBIU | | MC10 | | | | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.290 | | 10.254 | | 10.206 | 10.205 | 10.045 | 10.060 | 10.085 | | 10.202 | 10.261 | 10.250 | 10.190 | 10.185 | | | | 9.952 | 9.926 | 10.076 | 10.075 | 10.113 |
| LEVEL DIFF. | | -0.000 | | 1.085 | | 0.983 | 0.984 | 0.834 | 0.862 | 0.871 | | 0.529 | 0.589 | 0.518 | 0.457 | 0.446 | | | | | | | | |
| HORIZ. OFFSET | | -27.752 | | -22.937 | | -20.693 | -20.569 | -20.538 | -20.168 | -19.880 | | -2.926 | -2.910 | -0.652 | -0.636 | 0.000 | | | | 16.317 | 16.738 | 16.773 | 16.912 | 19.340 |

CHAINAGE 170




X = 271762.311
Y = 6169453.905

REF. STRING MC10
DATUM R.L. 8.5

| DESIGN LABEL | | IA40 | | EV40 | CB40 | CT40 | CF40 | CE40 | | CEC2 | CFC2 | CTC2 | CBC2 | | CBC2 | CTC2 | CFC2 | CEC2 | | MC10 | CE50 | CF50 | CT50 | CB50 | EV50 | IA50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.427 | | 9.761 | 9.820 | 9.820 | 9.670 | 9.694 | | 9.745 | 9.780 | 9.885 | 9.885 | | 9.931 | 9.931 | 9.826 | 9.791 | | 9.798 | 9.753 | 9.728 | 9.878 | 9.878 | 9.818 | 9.675 |
| LEVEL DIFF. | | -0.000 | | 0.245 | 0.222 | 0.218 | 0.067 | 0.080 | | 0.020 | 0.055 | 0.158 | 0.155 | | 0.150 | 0.147 | 0.039 | 0.004 | | 0.001 | 0.015 | -0.005 | 0.146 | 0.149 | 0.126 | 0.000 |
| HORIZ. OFFSET | | -10.770 | | -9.413 | -8.198 | -8.096 | -8.071 | -7.767 | | -3.193 | -3.192 | -3.082 | -2.961 | | -0.706 | -0.586 | -0.477 | -0.476 | | 0.000 | 3.700 | 4.000 | 4.025 | 4.125 | 5.325 | 5.894 |

CHAINAGE 200

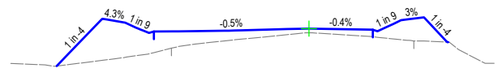



X = 271740.471
Y = 6169420.394

REF. STRING MC10
DATUM R.L. 9

| DESIGN LABEL | | CB40 | CT40 | CF40 | CE40 | | CEIU | CTIU | CBIU | | MC10 | | CBIK | CTIK | CFIK | CEIK | CFUK | CTUK | CBUK | | CE50 | CF50 | CT50 | CB50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 10.167 | 10.168 | 10.018 | 10.046 | 10.075 | 10.231 | 10.291 | 10.297 | 10.343 | 10.378 | 10.483 | 10.483 | | 10.321 | 10.320 | 10.215 | 10.160 | 10.126 | 10.119 | 10.059 | | 9.812 | 9.781 | 9.931 | 9.928 |
| LEVEL DIFF. | | 0.897 | 0.908 | 0.760 | 0.817 | 0.891 | 1.012 | 1.073 | 1.160 | 1.155 | 1.190 | 1.286 | 1.277 | | 0.818 | 0.817 | 0.712 | 0.677 | 0.764 | 0.789 | 0.729 | | | | | |
| HORIZ. OFFSET | | -27.796 | -27.664 | -27.631 | -27.236 | -26.006 | -17.924 | -17.923 | -17.588 | -15.079 | -15.078 | -14.951 | -14.810 | | 0.000 | 11.248 | 11.388 | 11.516 | 11.517 | 14.026 | 14.360 | 14.361 | 22.443 | 26.489 | 26.967 | 27.007 | 27.167 |

CHAINAGE 160




X = 271756.851
Y = 6169445.527

REF. STRING MC10
DATUM R.L. 8

| DESIGN LABEL | | IA40 | | EX40 | | EY41 | CF40 | CE40 | | MC10 | | CE50 | CF50 | EY51 | EX50 | IA50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.231 | | 10.003 | | 9.938 | 9.770 | 9.794 | | 9.842 | | 9.824 | 9.800 | 9.979 | 10.025 | 9.620 |
| LEVEL DIFF. | | -0.000 | | 0.679 | | 0.565 | 0.340 | 0.344 | | 0.069 | | 0.115 | 0.099 | 0.318 | 0.386 | 0.000 |
| HORIZ. OFFSET | | -16.461 | | -13.494 | | -11.994 | -10.438 | -10.124 | | 0.000 | | 4.162 | 4.466 | 5.995 | 7.496 | 9.079 |

CHAINAGE 190

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964
Proj: 18-1961

NOT FOR CONSTRUCTION

Government of South Australia
Department of Planning, Transport and Infrastructure

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PROJECT No.: | FILE No.:
DESIGN No.: | SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 4 0 2 4 6 8 H; 1 0 0.5 1 1.5 2 V

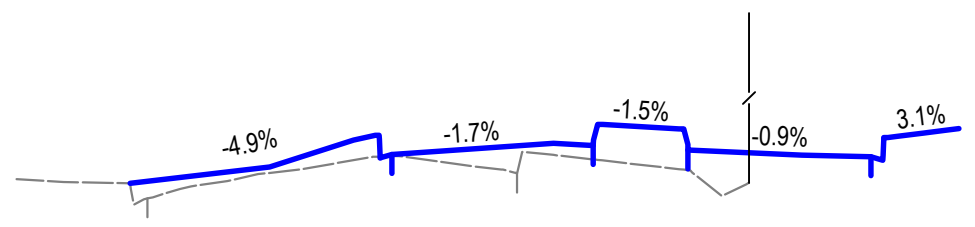
DESIGNED: GE | DRAFTED: GE | ACCEPTED FOR USE: J. JOVANOVIC | ACCEPTANCE FORM KNET No.: 9819611 | DRAWING No.: 7365 | SHEET No.: 13 | AMEND No.: 1A
CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | DATE: 14/11/2016 | IN ACCORDANCE WITH DP013

ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC10; CH 160 TO CH 210
## CROSS SECTIONS

SHEET LATITUDE -34.591836 SHEET LONGITUDE 138.510989

CAD FILE NAME: 7365 SHEET 0013.DWG

X = 271762.02
Y = 6169388.016

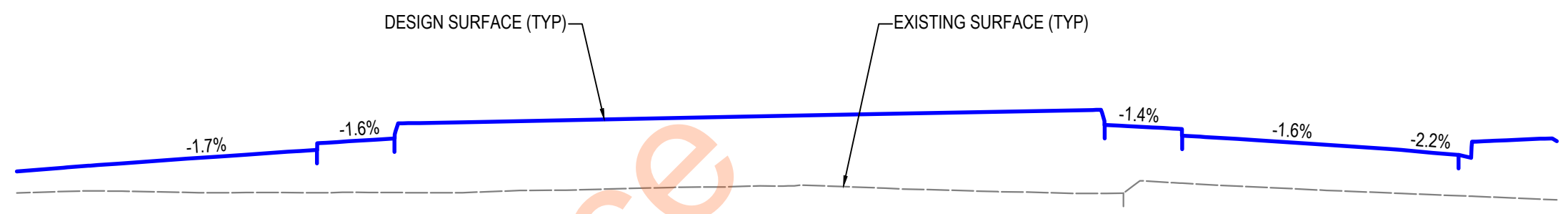



REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | NL | CB60 | CT60 | CF60 | CE60 | MC20 | CED0 | CFD0 | CTD0 | CBD0 | CBD0 | CTD0 | CFD0 | CED0 | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.362 | 9.681 | 9.680 | 9.530 | 9.554 | 9.627 | 9.613 | 9.648 | 9.753 | 9.753 | 9.723 | 9.723 | 9.619 | 9.584 | 9.538 | 9.515 | 9.665 | 9.666 | 9.724 |
| LEVEL DIFF. | 0.000 | 0.142 | 0.142 | -0.009 | 0.012 | 0.076 | 0.092 | 0.127 | 0.235 | 0.238 | 0.266 | 0.270 | 0.169 | 0.134 | | | | | |
| HORIZ. OFFSET | -11.203 | -4.707 | -4.605 | -4.580 | -4.274 | 0.000 | 1.056 | 1.057 | 1.167 | 1.288 | 3.320 | 3.446 | 3.560 | 3.561 | 8.400 | 8.713 | 8.739 | 8.844 | 10.729 |

CHAINAGE 90

X = 271740.38
Y = 6169408.786

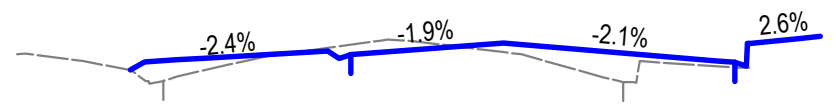



REF. STRING MC20
DATUM R.L. 9

| DESIGN LABEL | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K | MC20 | CB0K | CT0K | CF0K | CE0K | CB0J | CT0J | CE0J | | CE50 | CF50 | CT50 | CB50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.853 | 9.994 | 10.054 | 10.059 | 10.099 | 10.134 | 10.239 | 10.239 | 10.050 | 10.363 | 10.364 | 10.259 | 10.224 | 10.190 | 10.185 | 10.125 | 9.994 | 9.946 | 9.920 | 10.069 | 10.069 |
| LEVEL DIFF. | 0.239 | 0.395 | 0.455 | 0.461 | 0.501 | 0.536 | 0.641 | 0.641 | 0.398 | 0.773 | 0.773 | 0.669 | 0.634 | 0.500 | 0.500 | 0.440 | 0.403 | 0.376 | 0.354 | 0.505 | 0.506 |
| HORIZ. OFFSET | -23.325 | -15.203 | -15.202 | -14.865 | -12.332 | -12.331 | -12.202 | -12.060 | 0.000 | 13.699 | 13.841 | 13.970 | 13.971 | 16.504 | 16.840 | 16.841 | 24.964 | 27.082 | 27.529 | 27.566 | 27.716 |

CHAINAGE 120

X = 271769.394
Y = 6169381.262

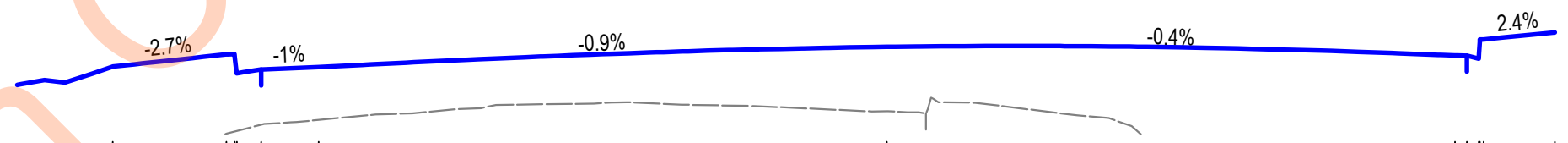



REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | NL | CB60 | CF60 | CE60 | MC20 | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.361 | 9.486 | 9.436 | 9.461 | 9.539 | 9.410 | 9.386 | 9.536 | 9.536 | 9.582 |
| LEVEL DIFF. | 0.000 | -0.021 | -0.081 | -0.066 | 0.060 | 0.034 | 0.011 | 0.161 | | |
| HORIZ. OFFSET | -9.866 | -4.644 | -4.340 | -4.037 | 0.000 | 6.122 | 6.426 | 6.451 | 6.553 | 8.379 |

CHAINAGE 80

X = 271747.686
Y = 6169401.963

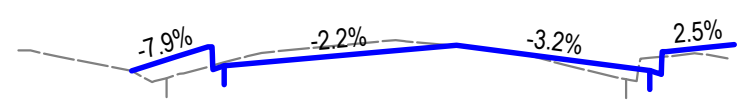



REF. STRING MC20
DATUM R.L. 9

| DESIGN LABEL | EV60 | CB60 | CT60 | CF60 | CE60 | | MC20 | | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.837 | 9.932 | 9.935 | 9.785 | 9.815 | 9.834 | 9.992 | 9.925 | 9.923 | 9.900 | 10.050 | 10.051 | 10.105 |
| LEVEL DIFF. | 0.653 | 0.620 | 0.605 | 0.451 | 0.432 | 0.413 | 0.503 | | | | | | |
| HORIZ. OFFSET | -24.280 | -20.717 | -20.453 | -20.388 | -19.623 | -17.822 | 0.000 | 17.827 | 18.200 | 18.569 | 18.600 | 18.723 | 20.956 |

CHAINAGE 110

X = 271777.017
Y = 6169374.791

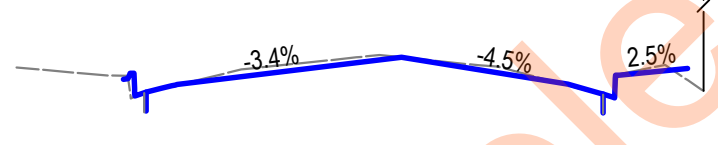



REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | NL | CB60 | CT60 | CF60 | CE60 | MC20 | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.358 | 9.517 | 9.517 | 9.367 | 9.393 | 9.527 | 9.361 | 9.336 | 9.486 | 9.486 | 9.532 |
| LEVEL DIFF. | 0.000 | 0.132 | 0.125 | -0.027 | -0.022 | 0.005 | -0.084 | -0.115 | 0.035 | 0.033 | |
| HORIZ. OFFSET | -8.588 | -6.574 | -6.473 | -6.448 | -6.144 | 0.000 | 5.116 | 5.416 | 5.441 | 5.541 | 7.343 |

CHAINAGE 70

X = 271784.879
Y = 6169368.612

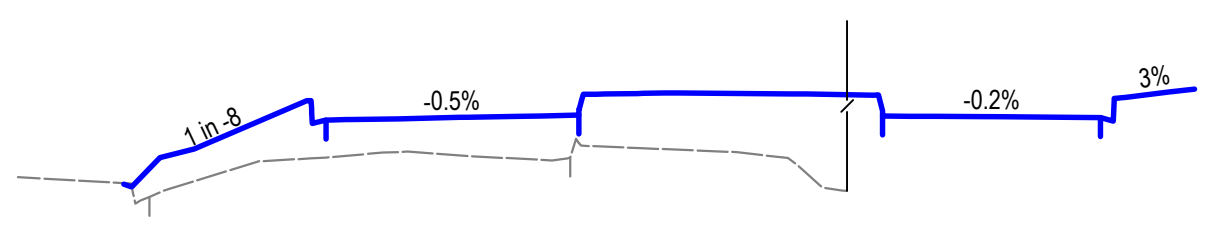



REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | CB60 | CT60 | CF60 | CE60 | MC20 | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.452 | 9.452 | 9.302 | 9.327 | 9.557 | 9.314 | 9.289 | 9.439 | 9.439 | 9.484 |
| LEVEL DIFF. | 0.124 | 0.158 | 0.006 | 0.004 | -0.000 | 0.005 | -0.014 | 0.107 | -0.007 | 0.077 |
| HORIZ. OFFSET | -7.181 | -7.081 | -7.056 | -6.756 | 0.000 | 5.339 | 5.640 | 5.665 | 5.765 | 7.569 |

CHAINAGE 60

X = 271754.846
Y = 6169394.982




REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | NL | CB60 | CT60 | CF60 | CE60 | CED0 | CFD0 | CTD0 | CBD0 | MC20 | CBD0 | CTD0 | CFD0 | CED0 | CE50 | CF50 | CT50 | CB50 | EX50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.337 | 9.885 | 9.885 | 9.734 | 9.757 | 9.790 | 9.825 | 9.929 | 9.928 | 9.792 | 9.922 | 9.923 | 9.818 | 9.783 | 9.773 | 9.751 | 9.901 | 9.902 | 9.963 |
| LEVEL DIFF. | 0.000 | 0.383 | 0.381 | 0.230 | 0.248 | 0.185 | 0.220 | 0.341 | 0.342 | 0.219 | | | | | | | | | |
| HORIZ. OFFSET | -13.394 | -8.738 | -8.621 | -8.591 | -8.240 | -1.544 | -1.542 | -1.422 | -1.290 | 0.000 | 6.250 | 6.375 | 6.489 | 6.490 | 12.258 | 12.591 | 12.619 | 12.731 | 14.742 |

CHAINAGE 100

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964
Proj: 18-1961

NOT FOR CONSTRUCTION

Government of South Australia
Department of Planning, Transport and Infrastructure

UNCONTROLLED COPY WHEN PRINTED ◄ 100 MILLIMETRES ON ORIGINAL DRAWING ► ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE

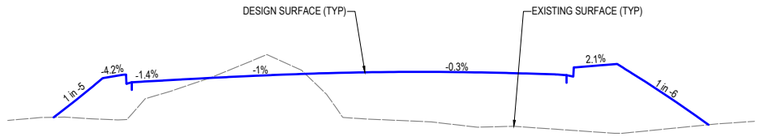
PROJECT No.: FILE No.:
DESIGN No.: SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: H 4 0 2 4 6 8; V 1 0 0.5 1 1.5 2

ROAD No. 43703 / 04378
# MALLALA ROAD
ROUNDABOUT; OLD PORT WAKEFIELD ROAD
MC20; CH 60 TO CH 120
CROSS SECTIONS

DESIGNED: GE | DRAFTED: GE | CHECKED: GE | CHECKED: GE
ACCEPTED FOR USE: J. JOVANOVIC
TITLE: MAN. TRAFF. SOLUTIONS
DATE: 14/11/2016
ACCEPTANCE FORM KNET No.: 9819611
IN ACCORDANCE WITH DP013
DRAWING No.: 7365 | SHEET No.: 14 | AMEND No.: 1A
SHEET LATITUDE -34.591836 SHEET LONGITUDE 138.510989

CAD FILE NAME: 7365 SHEET 0014.DWG

Released from Conference

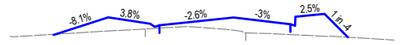



X = 271714.529
Y = 6169423.762

REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CT30 | CF30 | CE30 | MC20 | CE40 | CF40 | CT40 | CB40 | EX40 | IA40 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.379 | 10.017 | 10.075 | 10.075 | 9.925 | 9.950 | 9.978 | 10.110 | 10.078 | 10.065 | 10.042 | 10.192 | 10.193 | 10.248 | 9.257 | |
| LEVEL DIFF. | | -0.000 | 0.671 | 0.735 | 0.734 | 0.584 | 0.516 | 0.212 | 0.752 | 0.893 | 0.893 | 0.877 | 1.028 | 1.031 | 1.30 | -0.000 | |
| HORIZ. OFFSET | | -19.924 | -16.720 | -15.315 | -15.200 | -15.171 | -14.828 | -12.806 | 0.000 | 12.806 | 13.537 | 13.966 | 14.002 | 14.147 | 16.835 | 22.795 | |

CHAINAGE 150

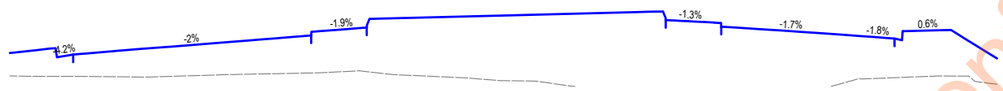



X = 271687.183
Y = 6169436.097

REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CF30 | CE30 | MC20 | CE40 | CF40 | CT40 | CB40 | EX40 | IA40 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.353 | 9.628 | 9.524 | 9.474 | 9.499 | 9.625 | 9.514 | 9.489 | 9.639 | 9.639 | 9.684 | 9.303 | |
| LEVEL DIFF. | | -0.000 | 0.222 | 0.082 | 0.026 | 0.046 | 0.208 | 0.168 | 0.147 | 0.297 | 0.298 | 0.365 | -0.000 | |
| HORIZ. OFFSET | | -11.592 | -8.192 | -5.454 | -5.150 | -4.846 | 0.000 | 3.700 | 4.000 | 4.025 | 4.125 | 5.925 | 7.449 | |

CHAINAGE 180

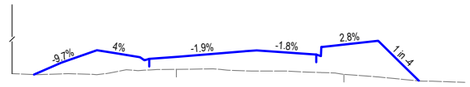



X = 271723.634
Y = 6169419.626

REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | | CT30 | CF30 | CE30 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K | MC20 | CB0K | CT0K | CF0K | CE0K | CB0J | CT0J | CE0J | CE40 | CF40 | CT40 | CB40 | EX40 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.886 | 9.737 | 9.781 | 9.911 | 10.091 | 10.151 | 10.159 | 10.221 | 10.256 | 10.362 | 10.364 | 10.159 | 10.483 | 10.483 | 10.378 | 10.343 | 10.301 | 10.295 | 10.235 | 10.082 | 10.042 | 10.014 | 10.163 | 10.162 | 10.180 | |
| LEVEL DIFF. | | 0.460 | 0.312 | 0.356 | 0.484 | 0.610 | 0.670 | 0.676 | 0.719 | 0.754 | 0.865 | 0.872 | 0.805 | 1.284 | 1.287 | 1.184 | 1.149 | 1.144 | 1.170 | 1.110 | 0.698 | 0.638 | 0.605 | 0.754 | 0.752 | 0.750 | |
| HORIZ. OFFSET | | -29.705 | -29.613 | -28.588 | -22.139 | -13.038 | -13.037 | -12.631 | -9.417 | -9.415 | -9.241 | -9.047 | 0.000 | 9.719 | 9.913 | 10.088 | 10.089 | 13.304 | 13.709 | 13.710 | 22.811 | 25.018 | 25.504 | 25.544 | 25.707 | 28.706 | |

CHAINAGE 140

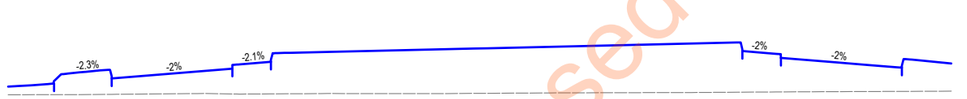



X = 271696.298
Y = 6169431.985

REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CF30 | CE30 | MC20 | CE40 | CF40 | CT40 | CB40 | EX40 | IA40 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.358 | 9.754 | 9.642 | 9.591 | 9.615 | 9.751 | 9.683 | 9.659 | 9.809 | 9.809 | 9.908 | 9.259 | |
| LEVEL DIFF. | | -0.000 | 0.398 | 0.218 | 0.162 | 0.182 | 0.337 | 0.290 | 0.268 | 0.418 | 0.419 | 0.589 | 0.005 | |
| HORIZ. OFFSET | | -14.536 | -10.437 | -7.636 | -7.325 | -7.014 | 0.000 | 3.887 | 4.188 | 4.213 | 4.314 | 7.913 | 10.574 | |

CHAINAGE 170

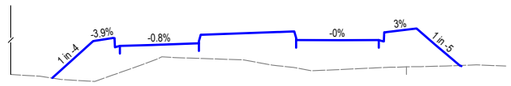



X = 271732.346
Y = 6169414.73

REF. STRING MC20
DATUM R.L. 9

| DESIGN LABEL | | CE40 | CF40 | CT40 | CB40 | CB40 | CT40 | CF40 | CE40 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K | MC20 | CB0K | CT0K | CF0K | CE0K | CB0J | CT0J | CE0J | CEC1 | CFC1 | CTC1 | CBC1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.788 | 9.823 | 9.939 | 9.951 | 10.011 | 10.011 | 9.906 | 9.871 | 9.877 | 10.030 | 10.090 | 10.096 | 10.142 | 10.177 | 10.282 | 10.282 | 10.104 | 10.457 | 10.457 | 10.352 | 10.317 | 10.272 | 10.265 | 10.205 | 10.053 | 10.046 | 10.081 | 10.186 | 10.186 | |
| LEVEL DIFF. | | 0.183 | 0.218 | 0.334 | 0.346 | 0.400 | 0.400 | 0.295 | 0.260 | 0.265 | 0.413 | 0.473 | 0.480 | 0.523 | 0.558 | 0.663 | 0.663 | 0.476 | 0.811 | 0.811 | 0.706 | 0.671 | 0.622 | 0.615 | 0.555 | 0.394 | 0.386 | 0.421 | 0.526 | 0.526 | |
| HORIZ. OFFSET | | -28.316 | -28.311 | -27.845 | -27.372 | -24.786 | -24.665 | -24.555 | -24.554 | -24.215 | -16.684 | -16.683 | -16.382 | -14.167 | -14.166 | -14.056 | -13.935 | 0.000 | 16.358 | 16.479 | 16.589 | 16.590 | 18.805 | 19.106 | 19.107 | 26.638 | 26.996 | 26.997 | 27.106 | 27.226 | |

CHAINAGE 130




X = 271705.414
Y = 6169427.874

REF. STRING MC20
DATUM R.L. 8.5

| DESIGN LABEL | | IA30 | EV30 | CB30 | CT30 | CF30 | CE30 | CEB0 | CFB0 | CTB0 | CBB0 | MC20 | CBB0 | CTB0 | CFB0 | CEB0 | CE40 | CF40 | CT40 | CB40 | EX40 | IA40 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | 9.297 | 9.897 | 9.948 | 9.947 | 9.797 | 9.619 | 9.862 | 9.897 | 10.002 | 10.001 | 9.914 | 10.053 | 10.054 | 9.950 | 9.915 | 9.914 | 9.891 | 10.042 | 10.043 | 10.103 | 9.500 | |
| LEVEL DIFF. | | 0.002 | 0.656 | 0.603 | 0.593 | 0.440 | 0.434 | 0.247 | 0.282 | 0.387 | 0.387 | 0.418 | 0.583 | 0.588 | 0.489 | 0.454 | 0.451 | 0.425 | 0.575 | 0.574 | 0.622 | -0.000 | |
| HORIZ. OFFSET | | -14.712 | -12.043 | -10.754 | -10.646 | -10.620 | -10.298 | -5.144 | -5.143 | -5.028 | -4.903 | 0.000 | 0.953 | 1.081 | 1.197 | 1.198 | 6.590 | 6.919 | 6.946 | 7.056 | 9.046 | 11.878 | |

CHAINAGE 160

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964
Proj: 18-1961

NOT FOR CONSTRUCTION

Government of South Australia
Department of Planning, Transport and Infrastructure

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PROJECT No.: | FILE No.:
DESIGN No.: | SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 4 0 2 4 6 8 H; 1 0 0.5 1 1.5 2 V

ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MC20; CH 130 TO CH 180
## CROSS SECTIONS

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 15 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS | IN ACCORDANCE WITH DP013 | | | |
| | | DATE: 14/11/2016 | | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0015.DWG

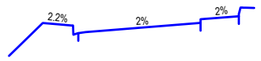



X = 271709.736
Y = 6169409.171

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | EV30 | CB30 | CT30 | CF30 | CE30 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.017 | 10.077 | 10.077 | 9.927 | 9.953 | 9.963 | 10.113 | 10.173 | 10.179 | 10.223 | 10.258 | 10.363 | 10.363 |
| LEVEL DIFF. | 0.673 | 0.736 | 0.736 | 0.586 | 0.609 | 0.614 | 0.621 | 0.680 | 0.676 | 0.724 | 0.759 | 0.867 | 0.870 |
| HORIZ. OFFSET | -2.242 | -0.963 | -0.857 | -0.830 | -0.513 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 20

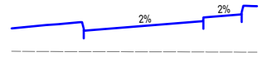



X = 271719.966
Y = 6169435.556

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | EX40 | CB40 | CT40 | CF40 | CE40 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.228 | 10.187 | 10.187 | 10.037 | 10.062 | 10.078 | 10.228 | 10.288 | 10.294 | 10.338 | 10.373 | 10.478 | 10.478 |
| LEVEL DIFF. | 0.964 | 1.035 | 1.032 | 0.881 | 0.895 | 0.893 | 0.954 | 1.014 | 1.095 | 1.219 | 1.254 | 1.351 | 1.344 |
| HORIZ. OFFSET | -2.765 | -0.918 | -0.815 | -0.769 | -0.479 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 50




X = 271748.258
Y = 6169436.248

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | CBC1 | CTC1 | CFC1 | CEC1 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.181 | 10.181 | 10.076 | 10.041 | 10.047 | 10.197 | 10.257 | 10.263 | 10.307 | 10.342 | 10.447 | 10.447 |
| LEVEL DIFF. | 0.481 | 0.481 | 0.376 | 0.341 | 0.347 | 0.502 | 0.562 | 0.568 | 0.614 | 0.649 | 0.754 | 0.755 |
| HORIZ. OFFSET | -0.530 | -0.410 | -0.301 | -0.300 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 80

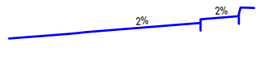



X = 271713.737
Y = 6169400.076

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | EV30 | CB30 | CT30 | CF30 | CE30 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.912 | 9.988 | 9.990 | 9.840 | 9.868 | 9.913 | 10.063 | 10.123 | 10.129 | 10.173 | 10.208 | 10.313 | 10.313 |
| LEVEL DIFF. | 0.510 | 0.569 | 0.569 | 0.419 | 0.444 | 0.480 | 0.560 | 0.620 | 0.621 | 0.640 | 0.675 | 0.779 | 0.777 |
| HORIZ. OFFSET | -4.658 | -3.161 | -3.038 | -3.007 | -2.638 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 10

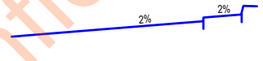



X = 271713.107
Y = 6169428.368

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.054 | 10.204 | 10.264 | 10.270 | 10.314 | 10.349 | 10.454 | 10.454 |
| LEVEL DIFF. | 0.698 | 1.001 | 1.061 | 1.063 | 1.135 | 1.170 | 1.284 | 1.294 |
| HORIZ. OFFSET | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 40

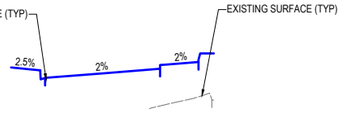



X = 271738.986
Y = 6169439.82

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.075 | 10.225 | 10.285 | 10.291 | 10.335 | 10.370 | 10.475 | 10.475 |
| LEVEL DIFF. | 0.731 | 0.770 | 0.830 | 0.829 | 0.840 | 0.875 | 0.978 | 0.977 |
| HORIZ. OFFSET | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 70




X = 271759.501
Y = 6169420.326

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | EX50 | CB50 | CT50 | CF50 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.124 | 10.079 | 10.079 | 9.929 | 9.953 | 10.103 | 10.163 | 10.169 | 10.213 | 10.248 | 10.353 | 10.353 |
| LEVEL DIFF. | | 0.425 | 0.325 | 0.300 | 0.000 | 0.606 | 0.666 | 0.654 | 0.568 | 0.603 | 0.689 | 0.690 |
| HORIZ. OFFSET | -2.225 | -0.425 | -0.325 | -0.300 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 100

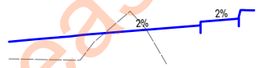



X = 271720.91
Y = 6169393.2

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | CBA0 | CTA0 | CFA0 | CEA0 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.997 | 9.998 | 9.893 | 9.858 | 9.869 | 10.019 | 10.079 | 10.085 | 10.129 | 10.164 | 10.269 | 10.269 |
| LEVEL DIFF. | 0.366 | 0.366 | 0.261 | 0.226 | 0.237 | 0.380 | 0.440 | 0.445 | 0.485 | 0.520 | 0.625 | 0.625 |
| HORIZ. OFFSET | -0.792 | -0.671 | -0.561 | -0.560 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 0

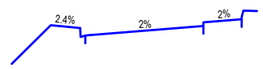



X = 271709.515
Y = 6169419.104

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.013 | 10.163 | 10.223 | 10.229 | 10.273 | 10.308 | 10.413 | 10.413 |
| LEVEL DIFF. | 0.300 | 0.827 | 0.888 | 0.910 | 0.933 | 0.968 | 1.068 | 1.065 |
| HORIZ. OFFSET | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 30

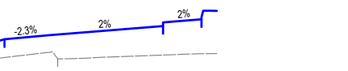



X = 271729.053
Y = 6169439.577

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | EX40 | CB40 | CT40 | CF40 | CE40 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.249 | 10.204 | 10.265 | 10.055 | 10.080 | 10.085 | 10.235 | 10.295 | 10.301 | 10.345 | 10.380 | 10.485 | 10.485 |
| LEVEL DIFF. | 1.063 | 0.986 | 0.986 | 0.836 | 0.862 | 0.868 | 1.038 | 1.098 | 1.093 | 1.047 | 1.082 | 1.183 | 1.178 |
| HORIZ. OFFSET | -2.451 | -0.631 | -0.530 | -0.504 | -0.201 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 60




X = 271755.46
Y = 6169429.404

REF. STRING MR00
DATUM R.L. 9

| DESIGN LABEL | CB50 | CT50 | CF50 | CE50 | MR00 | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.061 | 10.061 | 9.912 | 9.938 | 10.003 | 10.153 | 10.213 | 10.219 | 10.263 | 10.298 | 10.403 | 10.403 |
| LEVEL DIFF. | 0.437 | 0.433 | 0.283 | 0.298 | 0.279 | 0.472 | 0.532 | 0.536 | 0.561 | 0.596 | 0.701 | 0.700 |
| HORIZ. OFFSET | -3.373 | -3.249 | -3.218 | -2.848 | 0.000 | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 90

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
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ABN 39 061 222 964
Proj: 18-1961

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Government of South Australia
Department of Planning, Transport and Infrastructure

PROJECT No.: | FILE No.:
DESIGN No.: | SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 4 0 2 4 6 8 H; 1 0 0.5 1 1.5 2 V

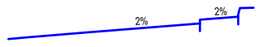
# ROAD No. 43703 / 04378
# MALLALA ROAD
## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## MR00; CH 0 TO CH 100
## CROSS SECTIONS

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 16 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0016.DWG

X = 271749.385
Y = 6169393.896

REF. STRING MR00
DATUM R.L. 9

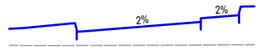



| DESIGN LABEL | | | MR00 | | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | | | 9.837 | | | 9.987 | 10.047 | 10.053 | 10.097 | 10.132 | 10.237 | 10.237 |
| LEVEL DIFF. | | | 0.313 | | | 0.466 | 0.526 | 0.530 | 0.557 | 0.592 | 0.695 | 0.692 |
| HORIZ. OFFSET | | | 0.000 | | | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 130

X = 271721.097
Y = 6169393.082

REF. STRING MR00
DATUM R.L. 9

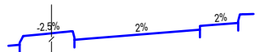



| DESIGN LABEL | CBA0 | CT40 | CF40 | CE40 | MR00 | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.996 | 9.996 | 9.891 | 9.856 | 9.868 | | 10.018 | 10.078 | 10.084 | 10.128 | 10.163 | 10.268 | 10.268 |
| LEVEL DIFF. | 0.362 | 0.362 | 0.257 | 0.222 | 0.233 | | 0.377 | 0.437 | 0.442 | 0.482 | 0.517 | 0.622 | 0.622 |
| HORIZ. OFFSET | -0.827 | -0.705 | -0.595 | -0.594 | 0.000 | | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 160

X = 271756.213
Y = 6169401.114

REF. STRING MR00
DATUM R.L. 9

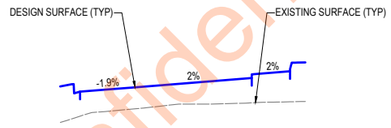



| DESIGN LABEL | CED0 | CFD0 | CTD0 | CBD0 | CBD0 | CTD0 | CFD0 | CED0 | MR00 | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.764 | 9.800 | 9.909 | 9.913 | 9.986 | 9.986 | 9.881 | 9.846 | 9.862 | | 10.012 | 10.072 | 10.078 | 10.122 | 10.157 | 10.262 | 10.262 |
| LEVEL DIFF. | | | | | 0.660 | 0.651 | 0.537 | 0.502 | 0.482 | | 0.476 | 0.536 | 0.536 | 0.612 | 0.648 | 0.758 | 0.753 |
| HORIZ. OFFSET | -4.260 | -4.258 | -4.028 | -3.776 | -0.918 | -0.796 | -0.685 | -0.684 | 0.000 | | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 120

X = 271730.384
Y = 6169389.551

REF. STRING MR00
DATUM R.L. 8.5




| DESIGN LABEL | CB60 | CT60 | CF60 | CE60 | MR00 | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.880 | 9.891 | 9.742 | 9.770 | 9.841 | | 9.991 | 10.051 | 10.057 | 10.101 | 10.136 | 10.241 | 10.241 |
| LEVEL DIFF. | 0.565 | 0.556 | 0.404 | 0.400 | 0.349 | | 0.404 | 0.464 | 0.466 | 0.497 | 0.532 | 0.637 | 0.636 |
| HORIZ. OFFSET | -4.246 | -4.118 | -4.086 | -3.702 | 0.000 | | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 150

X = 271759.765
Y = 6169410.394

REF. STRING MR00
DATUM R.L. 9

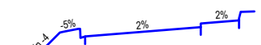



| DESIGN LABEL | EX50 | CB50 | CT50 | CF50 | CE50 | MR00 | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 10.030 | 9.996 | 9.996 | 9.846 | 9.873 | 9.903 | | 10.053 | 10.113 | 10.119 | 10.163 | 10.198 | 10.303 | 10.303 |
| LEVEL DIFF. | | | | | | | | 0.706 | 0.766 | 0.738 | 0.620 | 0.655 | 0.753 | 0.746 |
| HORIZ. OFFSET | -4.160 | -2.182 | -2.072 | -2.045 | -1.716 | 0.000 | | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 110

X = 271740.316
Y = 6169389.836

REF. STRING MR00
DATUM R.L. 8.5




| DESIGN LABEL | IA60 | EV60 | CB60 | CT60 | CF60 | CE60 | MR00 | | CE0J | CT0J | CB0J | CE0K | CF0K | CT0K | CB0K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN LEVELS | 9.359 | 9.894 | 9.954 | 9.954 | 9.804 | 9.829 | 9.830 | | 9.980 | 10.040 | 10.046 | 10.090 | 10.125 | 10.230 | 10.230 |
| LEVEL DIFF. | 0.003 | 0.538 | 0.561 | 0.558 | 0.407 | 0.423 | 0.423 | | 0.417 | 0.477 | 0.480 | 0.510 | 0.545 | 0.650 | 0.649 |
| HORIZ. OFFSET | -3.833 | -1.676 | -0.470 | -0.369 | -0.344 | -0.043 | 0.000 | | 7.500 | 7.501 | 7.800 | 10.000 | 10.001 | 10.110 | 10.230 |

CHAINAGE 140

Released from Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

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INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964
Proj: 18-1961

NOT FOR CONSTRUCTION

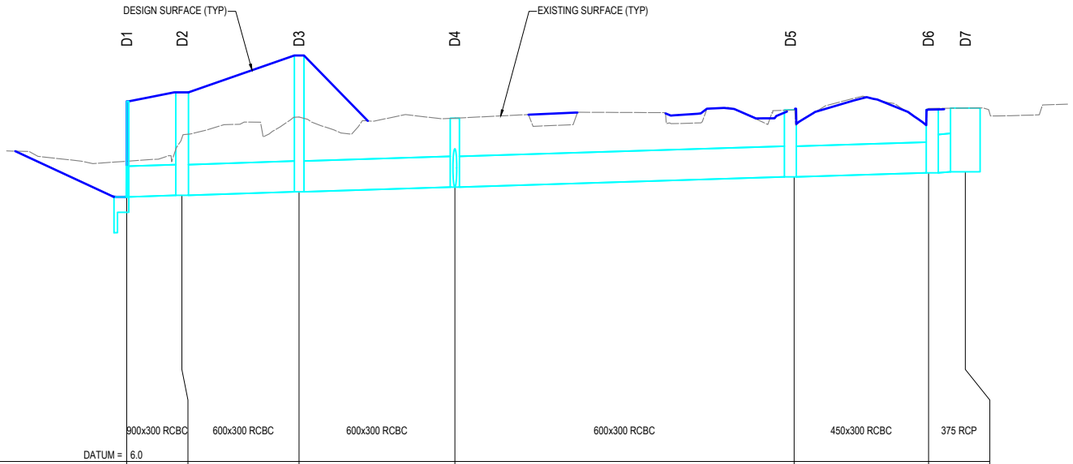
Government of South Australia
Department of Planning, Transport and Infrastructure

PROJECT No.: | FILE No.:
DESIGN No.: | SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 4 0 2 4 6 8 H; 1 0 0.5 1 1.5 2 V

ROAD No. 43703 / 04378
# MALLALA ROAD
ROUNDABOUT; OLD PORT WAKEFIELD ROAD
MR00; CH 110 TO CH 160
CROSS SECTIONS

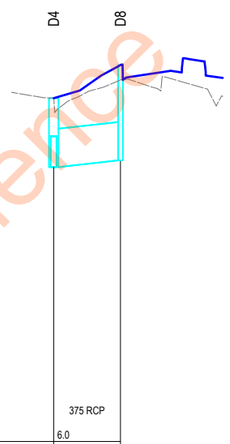
| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 17 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0017.DWG



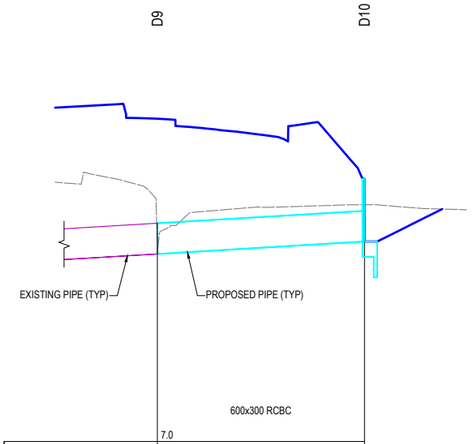

| | | | | | | |
|---|---|---|---|---|---|---|
| | 900x300 RCBC | 600x300 RCBC | 600x300 RCBC | 600x300 RCBC | 450x300 RCBC | 375 RCP |
| DATUM = 6.0 | | | | | | |
| ACTUAL FLOW | Q20=0.429m³ | Q20=0.151m³ | Q20=0.150m³ | Q20=0.141m³ | Q20=0.123m³ | Q20=0.118m³ |
| GRADES | 0.30% | 0.30% | 0.30% | 0.30% | 0.30% | 0.30% |
| INVERT LEVEL | 8.59 | 8.60 | 8.64 | 8.68 | 8.78 | 8.82 8.83 |
| DESIGN SURFACE | 9.52 | 9.61 | 9.91 | 9.36 | 9.44 | 9.44 9.46 |
| CHAINAGE | 0.00 | 5.40 | 16.86 | 32.11 | 65.31 | 78.47 82.07 |
| | L=5.40 | L=11.46 | L=15.25 | L=33.20 | L=13.16 | L=3.60 |

DI01




| | | |
|---|---|---|
| | 375 RCP | |
| 6.0 | | |
| ACTUAL FLOW | Q20=0.019m³ | |
| GRADES | 1.00% | |
| INVERT LEVEL | 8.68 | 8.75 |
| DESIGN SURFACE | 9.36 | 9.68 |
| CHAINAGE | 0.00 | 6.54 |
| | L=6.54 | |

DI02




| | | |
|---|---|---|
| | 600x300 RCBC | |
| 7.0 | | |
| ACTUAL FLOW | Q20=0.326m³ | |
| GRADES | 0.60% | |
| INVERT LEVEL | 8.83 | 8.95 |
| DESIGN SURFACE | 10.16 | 9.57 |
| CHAINAGE | 0.00 | 20.27 |
| | L=20.27 | |

DI03

Released from Council Confidence

| No. | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE |
|---|---|---|---|---|---|
| 1A | ROUNDABOUT RE-DESIGNED TO SUIT AMENDED DESIGN VEHICLE | JL | NS | | 15.05.19 |

INDEX SHEET REFERENCE: 7365 SHEET 1

GREENHILL
Level 1, 64 Hindmarsh Square
Adelaide SA 5000
T: 08 8406 1300
ABN 39 061 222 964
Proj: 18-1961

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Government of South Australia
Department of Planning, Transport and Infrastructure

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PROJECT No.: | FILE No.:
DESIGN No.: | SURVEY No:
PROJECT START ROAD RUNNING DISTANCE: MC10; CH 90 = RRD 17.32
PROJECT END ROAD RUNNING DISTANCE: MC10; CH 220 = RRD 17.19
SCALES: 6 0 3 6 9 12 H; 0.6 0 0.3 0.6 0.9 1.2 V

ROAD No. 43703 / 04378

# MALLALA ROAD

## ROUNDABOUT; OLD PORT WAKEFIELD ROAD
## PIPE RUN DI01, DI02 AND DI03
## DRAINAGE LONGITUDINAL SECTIONS

| DESIGNED: | DRAFTED: | ACCEPTED FOR USE: | ACCEPTANCE FORM KNET No.: | DRAWING No.: | SHEET No.: | AMEND No.: |
|---|---|---|---|---|---|---|
| GE | GE | J. JOVANOVIC | 9819611 | 7365 | 18 | 1A |
| CHECKED: GE | CHECKED: GE | TITLE: MAN. TRAFF. SOLUTIONS DATE: 14/11/2016 | IN ACCORDANCE WITH DP013 | SHEET LATITUDE -34.591836 | SHEET LONGITUDE 138.510989 | |

CAD FILE NAME: 7365 SHEET 0018.DWG