

## Appendix 3. Heritage Impact Statement

# HERITAGE IMPACT STATEMENT FOR HINDMARSH CEMETERY, T2D DEVELOPMENT

STATE HERITAGE PLACE ID: 11799



ISSUED TO ACCOMPANY DEVELOPMENT APPLICATION  
JULY 2026

COVER IMAGE: HINDMARSH CEMETERY (GGA, 2025)

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| REPORT NAME:               | T2D Hindmarsh Cemetery Heritage Impact Statement                       |
| STATE HERITAGE PLACE ID:   | 11799                                                                  |
| ADDRESS OF HERITAGE PLACE: | 32 Adam Street, Hindmarsh                                              |
| PREPARED FOR:              | T2D Alliance                                                           |
| PREPARED BY:               | Elizabeth Little, Senior Heritage Architect, Grieve Gillett Architects |
| GGA JOB NUMBER             | 25091                                                                  |

## PREPARATION, REVIEW AND APPROVAL

| REVISION # | DATE       | PREPARED BY | REVIEWED BY | APPROVED BY |
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## 1. INTRODUCTION

The following information is required and set out in the Heritage Impact Statement Guidelines for State Heritage Places, prepared by Heritage South Australia (DEW):

- (a) Introduction;
- (b) Why the report was prepared (e.g. part of development application), including the legislative framework;
- (c) Who the report was prepared for;
- (d) What is the heritage place name, location and South Australian Heritage Register ID No.;
- (e) Provide a brief description of the proposal;
- (f) Provide details of author identification and heritage qualifications (if relevant).

### 1.1. OBJECTIVES OF THE HERITAGE IMPACT STATEMENT

This Heritage Impact Statement (HIS) has been prepared for the site is known as Hindmarsh Cemetery.

It has been prepared following the standard format provided in '*Heritage Impact Statement Guidelines for State Heritage Places*', prepared by the Department of Environment and Water (formerly Department of Environment, Water and Natural Resources, 2013).

It has been prepared to identify the potential heritage impacts to the State Heritage listed Hindmarsh Cemetery, as a result of the proposed North-South Corridor, River Torrens / Karrawirra Parri to Darlington Project road upgrades. The upgrades include the construction of a three new bridges over the River Torrens / Karrawirra Parri, located in close proximity to the State Heritage listed Hindmarsh Cemetery. It also provides mitigation measures and strategies for identified impacts on heritage values of the place.

This report is prepared as part of the Development Application for the works.

This HIS will accompany the Development Application for the proposed works, to be submitted to the State Planning Commission. The *Planning, Development and Infrastructure Act, 2016* requires all development applications affecting State Heritage Places to be referred to the Minister responsible for the administration of the *Heritage Places Act 1993*.

Whilst the construction of roads are exempt from the definition of 'development' if undertaken by the Crown, council or other public authority, this exemption does not apply should the works impact a State Heritage place, which can include "*the demolition, removal, conversion, alteration or painting of, or addition to, the place, or any other work that could materially affect the heritage value of the place*" (our emphasis).

### 1.2. WHO IS THE HERITAGE IMPACT STATEMENT PREPARED FOR?

This HIS has been prepared by Grieve Gillett Architects on behalf of the Torrens to Darlington (T2D) Alliance. It is intended to accompany the development application to be submitted for the works adjacent to the State Heritage listed Hindmarsh Cemetery.

1.3. HERITAGE PLACE DETAILS

Key Details

The Hindmarsh Cemetery is a State Heritage Listed Place. The following details are scheduled on the South Australian Heritage Places Register and searchable via the SA Heritage Places Database:

Location

Address 32 Adam Street, Hindmarsh  
Council Area Charles Sturt Council



Figure 01: Aerial image showing extent of Hindmarsh Cemetery.

DESCRIPTION

|                    |                                                                                         |
|--------------------|-----------------------------------------------------------------------------------------|
| Details (Known As) | Hindmarsh Cemetery and Sexton's Cottage                                                 |
| Registered Name    | Cemetery and Dwelling                                                                   |
| Subject Index      | Cemeteries and burial sites - Cemetery; Cemeteries and burial sites - Waiting Room/Area |
| Class              | State                                                                                   |

REFERENCE

|                   |               |
|-------------------|---------------|
| LGA               | Charles Sturt |
| State Heritage ID | 11799         |
| Heritage Number   | 9253          |

## 1.4. DESCRIPTION OF THE PROPOSAL

The "T2D Project is the final 10.5 km piece of the North-South Corridor and the most significant road infrastructure project ever undertaken in South Australia. Using a combination of tunnels, lowered and ground level motorways, as well as overpasses and underpasses at key intersections, T2D will bypass 21 sets of traffic lights between the River Torrens / Karrawirra Parri and Darlington".



Figure 02: Torrens to Darlington (T2D) Project Map. (Source: Department for Infrastructure and Transport - South Australia ([dit.sa.gov.au](http://dit.sa.gov.au)), NSC\_03\_overview\_map\_LS\_v14\_PRINT.jpg)

The upgrade to the River Torrens / Karrawirra Parri to Darlington section of the North-South Corridor involves extensive acquisition of land abutting the existing South Road alignment. A series of tunnels and bridges are proposed to address key intersection points. At the location adjacent the Hindmarsh Cemetery, three bridges are proposed to cross the River Torrens / Karrawirra Parri, comprising:

- A central road bridge of six lanes (Bridge 02) (the North-South Motorway);
- A two lane bridge (Bridge 01) facilitating northbound entry and exit to surface roads;
- A two lane bridge (Bridge 03) facilitating southbound entry and exit to surface roads;
- Associated realignment of Adam Street to provide for connection to the above;
- A shared use path along the banks of the River Torrens / Karrawirra Parri;
- Ground surface treatments to the area under the bridge overhang;
- Noise walls to the perimeter of surface roads;
- Landscaping and urban design treatments to the area;

## 1.5. AUTHOR IDENTIFICATION AND CREDENTIALS

This Heritage Impact Statement has been prepared by Elizabeth Little, Senior Heritage Architect at Grieve Gillett Architects. Elizabeth has over 25 years of experience in the heritage field, including the preparation of Heritage Impact Statements, Conservation Management Plans, and other heritage reports. Elizabeth is a Registered Architect and is a member of Australia ICOMOS, the Association of Preservation Technology (Australian Chapter), and Engineers Australia.

## 2. CULTURAL HERITAGE SIGNIFICANCE

Provide details of the heritage significance of the place, including description, historical background and significance. The site description should include its former and current use, setting, summary of its current condition and changes over time.

The historical background should provide enough detail to assess the significance and impacts to the place's significance. The description and history should include relevant photographs, maps and plans.

The assessment and statement of significance should be taken from its South Australian Heritage Register entry, taken from a CMP or a new assessment and statement of significance should be provided against the significance criteria under the *Heritage Places Act 1993* (SA).

### 2.1. DESCRIPTION

The Hindmarsh Cemetery comprises the following elements:

- North – south aligned rows of headstones, with the westernmost 5 rows having a grassed ground surface, with the remainder hard paved or gravel;
- The 1884 Sexton's Cottage at the eastern end of the Cemetery;
- The 1854 'Dead House', roughly in the centre of the site;
- Fencing to the western boundary, comprising a brick plinth and wire fence;
- Fencing to the northern boundary, comprising a wire fence with gates located at various points;
- Various plantings including plane trees running along (or adjacent) the southern boundary of the cemetery.



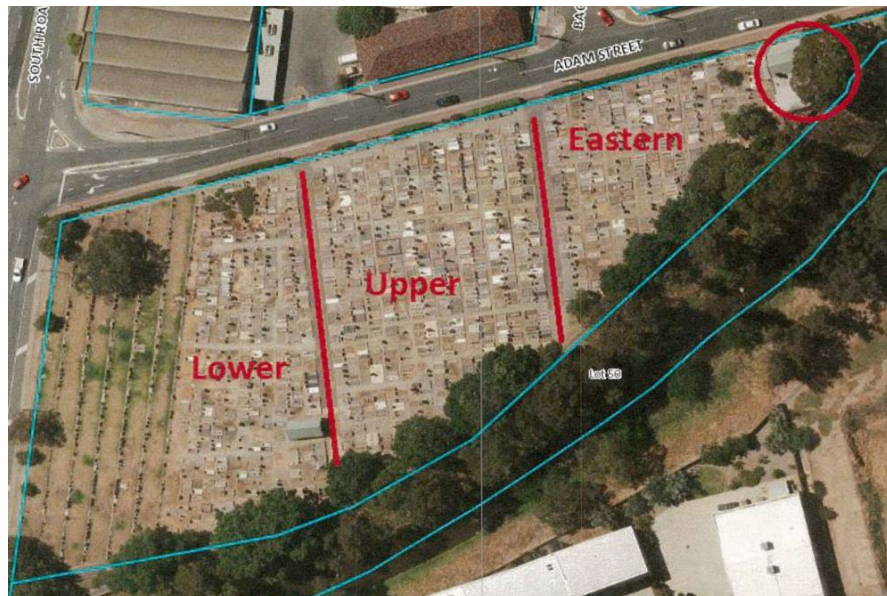
Figure 03: Hindmarsh Cemetery with 'Dead House' visible in the background (GGA, Nov 2025)



Figure 04: Examples of various types of headstones within the Hindmarsh Cemetery

## 2.2. FORMER AND CURRENT USE

The Hindmarsh Cemetery was established in 1846, one of the earliest in South Australia. It has operated as a cemetery since that time, although in 1986 the Charles Sturt Council ceased issuing any new interment rights, although all existing interment rights (both leases and rights of renewal) are to be honoured.



- The red circled building is the original Sexton's Cottage, now commercially leased.
- The two (2) gated drive/walkways divide the three (3) sections.
- Burial allotment numbering commences from Adam Street side of the cemetery and runs to the river (e.g. 1 to 65)
- The identifying row letters (e.g. A to Z) are marked at the ends of each row, both at Adam Street and River Torrens / Karrawirra Parri ends.

Figure 05: Zoning of the Hindmarsh Cemetery (Source: City of Charles Sturt website:

[https://www.charlessturt.sa.gov.au/\\_data/assets/pdf\\_file/0029/158096/Hindmarsh-Cemetery-site-map-revised-2020.pdf](https://www.charlessturt.sa.gov.au/_data/assets/pdf_file/0029/158096/Hindmarsh-Cemetery-site-map-revised-2020.pdf)

The former Sexton's Cottage at the eastern end of the site is commercially leased, with public toilets attached to the western side. The use of the former 'Dead House' is not known.

Along the southern boundary of the Cemetery is a shared use pedestrian / bike path, which is fenced to the River Torrens / Karrawirra Parri side but accessible directly into the Cemetery.

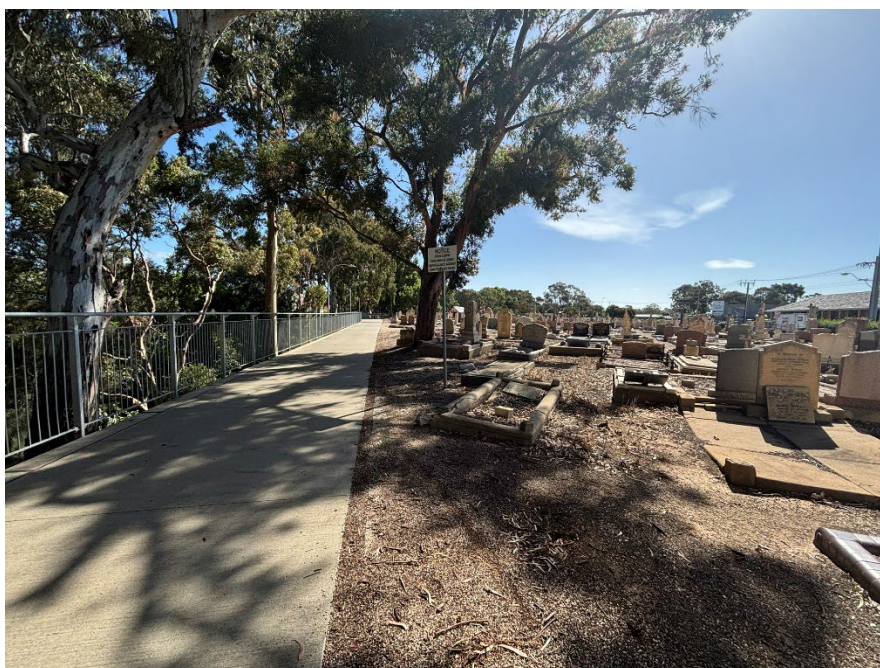


Figure 06: Shared use path to the south of the Cemetery (left of image) (GGA, November 2025)

### 2.3. CURRENT CONDITION

The condition of the grave sites and headstones within the Hindmarsh Cemetery varies, with some sites in good condition, ranging to very poor condition. Typical damage has occurred from various sources, including:

- removal of some headstones from their original location (understood to have occurred in the mid 1970s);
- damage; from tree roots;
- staining from tree sap;
- lack of maintenance.



Figure 07: Examples of various types of damage and deterioration to grave sites and monuments

## 2.4. HISTORICAL BACKGROUND

The following historical summary is drawn from the detailed 1986 Hindmarsh Cemetery Heritage Study, prepared by Dr Robert Nichol.

The Hindmarsh Cemetery dates back to the early period of European settlement in South Australia. It was originally established as a burial ground within the centre of "Hindmarsh Town," a 134-acre triangular area planned for public recreation. This placement of the burial ground within a designated recreational area met with public opposition, leading to its relocation to a site beside the River Torrens / Karrawirra Parri, near the area designated for the town marketplace. In 1846, the cemetery was formally enclosed and dedicated as a burial ground, making Hindmarsh Cemetery one of the earliest established cemeteries in South Australia.

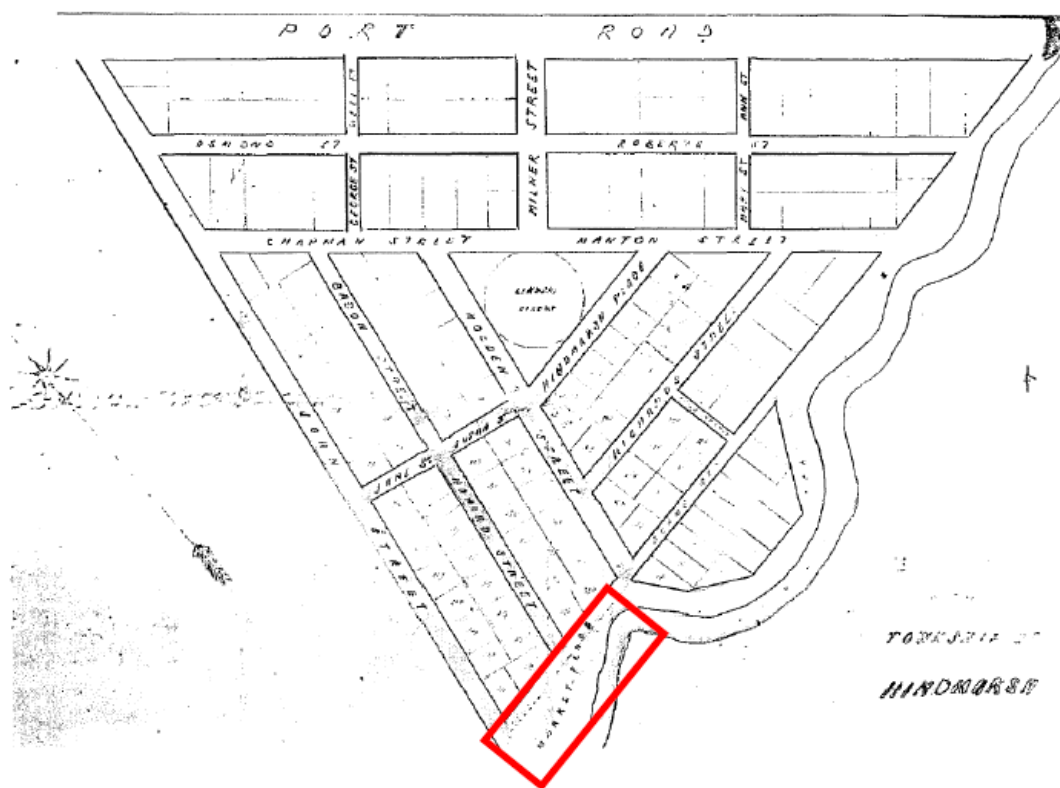


Figure 08: Early Planning of 'Hindmarsh Town' indicating the area now containing Hindmarsh Cemetery.

In the 1860's along with all other burial grounds the Hindmarsh Cemetery was brought under act of parliament to regulate its management. Originally, there were no government controls over cemeteries, but in 1862, the Regulation of Cemeteries Bill was passed by the South Australia parliament.

There were many colonists strongly opposed to government interference in what were seen essentially as private matters. In areas like Hindmarsh, with its strong dissenting church groups, there were also many who resented and opposed government involvement in such a clearly religious matter as burial. The first regulations gazetted under the new act provided for the listing of all public and denominational cemeteries in South Australia, each of which was to have a curator appointed by the District Council or the trustees. All such appointments were to be published in the Government Gazette. All cemetery authorities were required to fence their cemetery and to maintain the enclosure.

A copy of the authorized scale of fees was to be available on demand and each curator was to be responsible for ensuring graves were of an adequate depth. Minimum depths of seven feet if the deceased was over 10 years old and 6 feet if under ten were prescribed.

The regulations further set the requirements for exhumation, the construction of vaults, the keeping of registers of burials and of leases, the provision of cemetery plans, measures to be adopted to prevent "the escape of noxious gases or effluvia", and for ensuring the proper registration of deaths. The new position of Superintendent of Cemeteries was also created, and filled by the Superintendent of West Terrace Cemetery, H.E. Brookes.

Such was the extent of H.E. Brookes new responsibilities that it was sometime before all South Australian cemeteries were brought under the new regulations. Many of them were already in force at Hindmarsh, but at the start of 1865, Brookes wrote to the cemetery committee and received their formal resolution that the new act would be adopted. Accordingly committee member Mr. J. Gray was appointed curator and it was agreed that a proper plan of the cemetery be prepared. No such early plan of the cemetery appears to have survived and it is unclear from the cemetery committee minutes whether it was immediately produced in 1865.

Other problems confronted the committee. The tasks of the sexton and curator were far from easy. In 1881 a complaint was made against local undertaker Thomas Elliott that he was in arrears to the cemetery authorities for ~3/4/- and the sexton complained that he had so much trouble getting the necessary fees from Elliott that he would have to give up his position. The committee wrote to the undertaker, and the sexton stayed on.

In 1882, the curator tendered his resignation on account of his failing eyesight and because he wished to move from the neighbourhood. It was never easy, however, to find people willing to take on the work at the cemetery, and the committee persuaded him to continue on.

To make the work a more attractive proposition, in 1884 it was decided to build a cottage at the eastern end of the cemetery. A set of appropriate plans and specifications had been drawn up by Ephraim Gould, a local draper, and donated to the committee. These were adopted with minor modifications and Mr. Gould was asked to superintend the erection of the building, which was to be a three roomed cottage. Four tenders were received, ranging from £220 to ~257. the tender of Messrs, J. King and on of ~239 was accepted. they had based the tender on their own plans, which were now adopted in preference to those drawn up by Gould.

By the turn of the century major problems again began to confront the cemetery authorities. The first was that the available land was rapidly running out. The Mayor of Hindmarsh, Alfred Ralph, in 1898 reported to the parliamentary committee enquiring into the site for a new metropolitan cemetery, that there was only very limited space available at Hindmarsh Cemetery and no possibility of its further extension. In 1902, J.S. Martin and John Langman, on behalf of the cemetery committee, had an interview with H.E. Brookes' assistant at West Terrace Cemetery, to discuss the use of old graves. As a result it was resolved that the curator be allowed to re-use old graves that had not been used for 30 years or more. To assist this process in the future, it was further resolved that it would be compulsory for all graves to be dug at least ten feet deep.

The traditional legal debate over the control of the cemetery was renewed in 1926. This time the negotiations between the Corporation and the cemetery committee were more cordial. Alderman Wood re-iterated the view that the cemetery had not been kept in as good order as it should have been and the Council agreed to open up discussions with the cemetery authorities. Those negotiations were successful and the cemetery committee officially conveyed all its rights and powers relative to the cemetery to the Hindmarsh Corporation on 22nd November, 1926. The cemetery had simply become too great a financial and administrative burden for the old committee, and in any case, much of the traditional Hindmarsh antipathy to inroads on its position from Bowden and Brompton residents had dissipated. The first meeting of the new Hindmarsh Corporation Cemetery Committee took place on 2nd March, 1927.



Figure 09: 1938 Aerial Image of Thebarton showing Hindmarsh Cemetery (SLSA, BRG 397/2/119/1)

In the following decades, the cemetery had the much greater resources of the Hindmarsh Corporation to fall back on, but in fact its problems recurred with monotonous regularity. In 1940 for example, the Town Clerk, R.W. Langman, reported that many graves were in a disgraceful condition. (121) In 1941, he reported that the cemetery was not paying its way and so it was resolved that all leases prior to 1st January, 1911 would expire on 30th December, 1941 and would have to be re-leased, or they would be resumed and used again.

In an effort to prolong the usefulness of the cemetery and to make it pay, much of its nineteenth century character was altered. In 1942, Langman reported that applicants for new leases were having to be turned away because there was very little vacant land available. He suggested the strip of ground along the Adam Street frontage, which was apparently over-run with convolvulus, could be provided if the track on the river side was used: "The plane trees along the fence would have to be removed but this would be more an advantage than otherwise as the leaves at this time of the year cause a lot of mess in the cemetery and give the curator no end of work in gathering them up off the graves."

These plans were approved by the Council. (124) Shortly after, Langman suggested that a list of expired leases be prepared and efforts made to contact next of kin or lessees. He also had approved, a proposal that the strip of lawn near the central entrance be used to provide a further 84 graves. Thereafter, the Council began an active programme of

resuming all leases and re-using the ground. A great deal of work was also done in the late 1940's and early 1950's straightening headstones and kerbing.

In 1953, even the seats were removed to provide an additional four allotments. All this activity continued on through the fifties and sixties, allowing the cemetery to continue in use.

In 1972, the first suggestion was made that headstones and kerbing could be removed and areas of the cemetery grassed over. The suggestion was taken up and resulted in the redevelopment of Rows A, B, C, H and I in the lower ground at the South Road end of the Cemetery. The work was carried out under a State Unemployed Relief Scheme between 1975 and 1977 and resulted in considerable damage not only to individual monuments but to the overall character of the cemetery. The area was cleared, ribbons of cement laid and the headstones with current leases and which had not been irretrievably damaged in the move were placed in this new cement bed. Headstones from expired leases were collected together by the Dead House, now used as a toolshed or lined up against the river boundary. Unfortunately, some headstones, including ornate and early examples, were lost in the process and those which were relocated in the newly grassed areas are, in some instances, some distance from the actual grave sites to which their inscriptions refer. Fortunately, the Hindmarsh Corporation halted the programme once the first five rows had been redeveloped.



*Figure 10: 1986 Image, 'An unkempt corner of the Adam Street Cemetery at Hindmarsh' (SLSA, B 70869/1381)*

In 1986 the Charles Sturt Council ceased issuing any new internment rights, although all existing internment rights (both leases and rights of renewal) are to be honoured.

## 2.5. ASSESSMENT AND STATEMENT OF SIGNIFICANCE

### 2.5.1 EARLIER ASSESSMENTS OF SIGNIFICANCE

The Hindmarsh Cemetery was assessed in 1985 as part of the Hindmarsh Heritage Study. It was further investigated and researched in the 1996 Hindmarsh Cemetery Heritage Study. Both these reports identified the historic importance of Cemetery as one of the oldest in South Australia.

There is no validated Statement of Significance entered in the South Australian Heritage Register. The 1996 Heritage Study made the following assessment:

- Hindmarsh Cemetery was one of the earliest cemeteries established in South Australia and the second after West Terrace in what was to become the Adelaide Metropolitan area;
- The Hindmarsh Cemetery was the first planned non-denominational cemetery after West Terrace. The latter was originally intended as a completely public cemetery, but the Anglican authorities quickly assumed control over 13 of the total 32 acres;
- It provides a genealogical record of the families which settled the district. The information contained on headstones is not all recorded elsewhere. The burial register for example contains only basic information of names and dates of burials;
- It reflects the social history of the local community. Hindmarsh was noted for its strong community and family ties. The inter-relationships between families are reflected in the cemetery as is the continued association of families with the district over a long period. Hindmarsh was also noted for its heavily working class/tradesmen character. Again, this is reflected in the cemetery. The surviving monuments are important because they record the details not only of prominent citizens, about whom much can be read in other documentary records, but also the many lesser families, whose only surviving records may be their monuments;
- It reflects the industrial development of Hindmarsh and the important contribution of the district over a long period to the economy of South Australia through its tanneries, potteries, brick yards and breweries. Many of the founders of and workers in these industries are buried in the cemetery;
- It contains the graves and monuments of a number of very prominent citizens who contributed to the political, social, religious and economic development not only of Hindmarsh, but of South Australia as a whole;
- It reflects the distinctive religious history not only of Hindmarsh but of the colony as a whole. The district was noted for its strong Dissenter groups, many of which supported the voluntary principle which sought to ensure there was no established church in South Australia and that the various religious denominations were self-supporting. Arguments over the site for a local burial ground reflected the divisions which existed in the early years of the colony on this issue, while the choice of the river bank site reflected the preponderance in Hindmarsh of supporters of the voluntary principle.
- Hindmarsh Cemetery is an important reflection of the monumental industry in South Australia. It contains only a small number of early monuments, but those which have survived are distinctive and of high quality. Of particular significance are the rendered classical style Hughes monument and the classical style Henderson headstone. The other surviving monuments provide a representative selection of 19th and early 20<sup>th</sup> century monumental work. Examples of the following mason's work can be seen: R. Laycock, Tillet and Cleveland, G.E. Morgan, F. Herring, Prosser, W. Laycock, R.J. Philips, F.J. Laycock, W.H. Martin, E.H. Herring, F.A. Cleveland, W. Darby, J. Morrison, Hanson Evans & Co., J.Tillett and C.A. Voss. The monuments illustrate the high level of craftsmanship frequently involved in their production and the variety of styles and materials used. The cemetery has a further important link with the monumental industry through the existence of the Herring family vault;

- The monuments and their inscriptions reflect the attitudes of members of the local community to death and burial. Both the decorations and inscriptions reflect in particular their strong religious confidence. They speak of when, not if we meet again in heaven, and use symbols of the deceased achieving paradise;
- Hindmarsh Cemetery is located on a prominent site on the banks of the River Torrens / Karrawirra Parri. Whilst its location at the centre of an area of major industrial development has brought some problems, it should be remembered that the area has had such a character since the early settlement of the district. The cemetery remains, therefore, as a surviving element of the early built environment. It is also a prominent feature along the course of the river;
- Hindmarsh Cemetery has the potential for at least some of its early planned character to be recovered. The use of all available space for burials has destroyed much of the 19th century layout, but a few elements of it survive. Given its prominent setting, the re-introduction of appropriate planting and the reconstruction of features like gravel drives and picket fence should result in the cemetery becoming a significant part of the landscape. Even without such action, important elements of its planning, layout and administration remain. Particularly significant in this respect are the small number of surviving timber headboards used to mark graves until a more permanent monument was erected;
- Hindmarsh Cemetery contains two significant buildings. The building now used as a tool house was the original dead house erected in 1854 and used to keep bodies while a grave was dug. Also surviving is the curator's residence, the original three roomed portion dating from 1884. Both buildings were an important element of the administration of the cemetery and the procedures adopted in it. The Dead House or morgue is a particularly important early example of such a utilitarian building and still contains the bier made by James King in 1891 for carrying coffins to the grave. Added to the sexton's cottage is an interesting example of very small scale ecclesiastical architecture in the form of a small room, now used as an office, but probably intended and used originally as a robing room for clergymen officiating at funerals.

## 2.5.1 ASSESSMENT OF SIGNIFICANCE (2026)

The Hindmarsh Cemetery has been assessed against the criteria set out in the *PDI Act* (previously the criteria set out in the *Heritage Places Act 1993*) and has been found to meet **criteria a), d), e), f), & g)**.

### a) *It demonstrates important aspects of the evolution or pattern of the state's history,*

Established in 1846, the Hindmarsh Cemetery is one of the earliest cemeteries established in South Australia and the second after West Terrace within the inner metropolitan Adelaide region. It was the first non-denominational cemetery planned in South Australia, after West Terrace.

The Hindmarsh Cemetery contains grave sites from the earliest 1846 internment, representing a genealogical record of families from the Hindmarsh district, and reflects the social history of the local area as a physical record of local families, ranging from prominent citizens (including several who made strong contributions to the political, social, economic and religious development of not only Hindmarsh, but South Australia more broadly) to working class, which in turn represents the strong industrial history of the immediate locality, which was heavily influenced by industries including brickworks, tanneries and breweries.

**Criterion a) is met.**

- b) *It has rare, uncommon or endangered qualities that are of cultural significance;*

The Hindmarsh Cemetery is of some rarity value as one of the earliest, and relatively intact, inner metropolitan cemeteries in South Australia; however it is considered that many other cemeteries retain similar features, and as such this criteria is not met at the state level.

**Criterion b) is not met.**

- c) *it may yield information that will contribute to an understanding of the state's history, including its natural history;*

This criterion is generally associated with places of geographical or natural significance. As such, this criterion is not applicable to the Hindmarsh Cemetery.

**Criterion c) is not applicable.**

- d) *It is an outstanding representative of a particular class of places of cultural significance;*

Hindmarsh Cemetery is a relatively intact representation of an early South Australian cemetery, retaining its original land parcel, and the majority of its original grave sites and configuration. It reflects the distinctive religious history of Hindmarsh which was noted for its strong Dissenter groups.

Even with later infill graves, the Hindmarsh Cemetery has the potential for at least some of the lost early planned character to be recovered. The use of all available space for burials has confused much of the 19th century layout, but elements of it survive, and the later interments speak to the ongoing use and importance of the cemetery to the local community.

The Hindmarsh Cemetery is located on a prominent site on the banks of the River Torrens / Karrawirra Parri. It retains its largely open setting with a backdrop of the banks of the river and its associated tree canopy when viewed from Adam Street and towards the south and west. The cemetery remains, therefore, as a surviving element of the early built environment. It is also a prominent feature along the course of the river.

**Criterion d) is met.**

- e) *It demonstrates a high degree of creative, aesthetic or technical accomplishment or is an outstanding representative of particular construction techniques or design characteristics;*

The Hindmarsh Cemetery contains a high number of high-quality monuments, representing the skill of the monumental industry in South Australia. It contains only a small number of early monuments, but those which have survived are distinctive and of high quality. Of particular significance are the rendered classical style Hughes monument and the classical style Henderson headstone. The monuments illustrate the high level of craftsmanship frequently involved in their production and the variety of styles and materials used. The cemetery has a further important link with the monumental industry through the existence of the Herring family vault;

The Hindmarsh Cemetery also contains two significant buildings. The original 'Dead House', erected in 1854, was used to house bodies while a grave was dug. The Dead House or morgue is a particularly important early example of such a utilitarian building.

Also surviving is the curator's residence (Sexton's Cottage), the original three roomed portion dating from 1884. Adjacent to the Sexton's Cottage is an interesting example of a small-scale ecclesiastical building in the form of a small room, now used as an office, but probably intended and used originally as a robing room for clergymen officiating at funerals

Both buildings were an important element of the administration and operation of the cemetery and the procedures adopted in it.

**Criterion e) is met.**

f) *It has strong cultural or spiritual associations for the community or group within it;*

The Hindmarsh Cemetery contains the graves of numerous local family members and continues to be visited by relatives, particularly of more recent interments. It provides a collection of high-quality memorials indicating the importance of the burial process and memorial quality, and providing a memorial to members of the community of some importance.

The monuments and their inscriptions reflect the attitudes of members of the local community to death and burial. Both the decorations and inscriptions reflect in particular their strong religious confidence.

**Criterion f) is met.**

g) *It has a special association with the life or work of a person or organisation or event of historical importance;*

The Hindmarsh Cemetery contains the graves of numerous people of importance to the Hindmarsh district. This is discussed in detail in the 1986 Hindmarsh Cemetery Heritage Survey by Dr. Nichol.

At a state level, the following prominent persons are buried within the cemetery:

- Thomas Hardy (1830 – 1912), pioneer of the South Australian wine industry and founder of Thomas Hardy and Sons,;
- Job Hallett (1855 – 1940); founder of Hallett's brickworks, one of South Australia's most important brickmaking operations for most of the 20<sup>th</sup> century;
- George Michell (1839 – 1918); founder of the Michell wool scouring and subsequently wool broking business, still trading as Michell Wool Pty Ltd and owned and operated by descendants of George Michell;
- Joseph Vardon (1843 – 1913); a prominent local, state and federal politician, as well as Chairman of the Congregational Union of SA, President of the YMCA, and Director of the Adelaide Fruit and Produce Exchange;
- John Carter (1885 – 1915); whilst unlikely to be well known, John Carter was killed at Gallipoli on 25<sup>th</sup> April 1915, the first day of the Gallipoli campaign, and could be considered one of the first 'ANZACs'.

**Criterion g) is met.**

## 2.5.2 STATEMENT OF SIGNIFICANCE

Established in 1846, the Hindmarsh Cemetery is one of the earliest non-denominational cemeteries established in South Australia and the second after West Terrace Cemetery.

The Hindmarsh Cemetery contains grave sites from the earliest 1846 internment, representing a genealogical record of families from the Hindmarsh district, and reflects the social history of the area including representations of working class families through to prominent citizens. It represents the strong industrial history of the Hindmarsh locality, with persons strongly associated with industries such as brickmaking interred in the cemetery.

Hindmarsh Cemetery is a relatively intact representation of an early South Australian cemetery, retaining its original land parcel, and contains a large number of high quality monuments, illustrating the quality of craftsmanship involved in their production and the variety of styles and materials used. It also contains two significant buildings, the original 'Dead House', erected in 1854, and the original three roomed portion of the Sexton's Cottage, dating from 1884.

The Hindmarsh Cemetery contains the graves of several prominent persons who have made significant contributions to the economic, political and social development of South Australia.

## 2.5.3 ELEMENTS OF SIGNIFICANCE

The components of the Hindmarsh Cemetery that contribute to its significance include:

- The original curtilage of the cemetery, bounded by Adam Street to the north, the current South Road alignment to the west, and the River Torrens / Karrawirra Parri to the south;
- The 1854 'Dead House';
- The 1884 Sexton's Cottage;
- The alignment of rows of grave sites in a roughly north – south alignment;
- The extensive collection of grave sites and associated memorials, including a range of slate, marble, granite, and sandstone headstones and monuments.

The open setting of the Hindmarsh Cemetery with the natural backdrop of the River Torrens / Karrawirra Parri is also of significance.

### 3. HERITAGE IMPACT STATEMENT

The *Heritage Impact Statement Guidelines for State Heritage Places*, prepared by Heritage South Australia require the following information:

- Provide a brief summary of the advantages and disadvantages of preliminary development options explored and the reasons for the selection of the final proposal;
- Provide a brief description of the development proposal focussing on the effect upon all the elements of heritage significance including site elements and settings;
- Describe/assess the impacts, positive and/or negative of the various aspects of the proposal on the cultural heritage significance of the State Heritage Place;
- Provide reasons why the proposed works are necessary for the conservation of the State Heritage Place. Why is this best solution/outcome?;
- Detail how the proposal has been influenced by and/or addressed Local Council Development Plan, Council wide objectives, design guidelines or policies;
- Detail measures that are to be taken to mitigate potential detrimental impacts on the cultural heritage significance of the place (e.g. conservation works, interpretation).

#### 3.1 SUMMARY OF ADVANTAGES AND DISADVANTAGES OF PRELIMINARY DEVELOPMENT OPTIONS

Various tunnel, at-grade and elevated road options were considered during the design development optioneering phase between 2021 and 2022.

Options included:

- tunnelling below the River Torrens / Karrawirra Parri and the Brickworks Shopping Centre;
- at-grade roads and 'stacked bridge' (viaduct) options;
- an elevated motorway.

Tunnelling below the River Torrens / Karrawirra Parri was discounted due to significant construction impacts to traffic, risk of flooding, the challenging environment within and adjacent the river and potential impacts to the cultural heritage value of the river.

A majority of at-grade options required the partial or complete acquisition of the Brickworks Shopping Centre and numerous residential properties north of the River Torrens / Karrawirra Parri.

An elevated road, between Grange Road and Ashwin Parade, avoided impacts on the Brickworks Shopping Centre and reduced the need for land acquisition, however, resulted in significant visual impacts to adjacent residential properties.

Previous (2021) designs maintained a road alignment west of the Cemetery, avoiding acquisition of land comprising the State Heritage listed Former Hoffman Brick Kiln and Brickworks Shopping Centre, but resulted in removal of the Langman Reserve (80 metres northwest of the Cemetery), acquisition of residential properties north of the Reserve and a 'stacked bridge' design (over the River Torrens / Karrawirra Parri and continuing north) resulting in visual impacts to adjacent residential properties via the elevated viaduct.

To address community concerns, in 2023, the design of the T2D Project was amended, shifting the alignment east and removing the stacked bridge design. The revised design and alignment enabled retention of part of Langman reserve, only partial land acquisition of residential properties to the north of the Reserve, and avoided visual impacts associated with the elevated viaduct.

To accommodate this change, the alignment required south-bound traffic to span above the southwest corner of the Hindmarsh Cemetery.

## 3.2 BRIEF DESCRIPTION OF THE DEVELOPMENT PROPOSAL

### 3.2.1 BRIDGE 03

Bridge 03 comprises two lanes of traffic (during the final/operation stage) carrying southbound vehicles that have exited the North-South Corridor, to access surface roads south of the River Torrens / Karrawirra Parri. During the temporary stage, when the existing Taylor's Bridge is demolished and Bridge 02 is not open, Bridge 03 will comprise three lanes of traffic.

The bridge will also incorporate a separate on-road cycle lane and off-road shared use path, connecting active transport infrastructure north and south of the River Torrens / Karrawirra Parri.

The bridge will be positioned no less than 3.0 m above the ground level of the Cemetery.

The northern abutment of the bridge is located adjacent the western boundary of the Hindmarsh Cemetery, with the bridge spanning over the south-west corner of the Cemetery via six Super-T girders, resting on a central pier immediately adjacent the southern boundary of the Cemetery, spanning the width of the River Torrens / Karrawirra Parri and concluding at the southern abutment on the southern banks of the River Torrens / Karrawirra Parri.

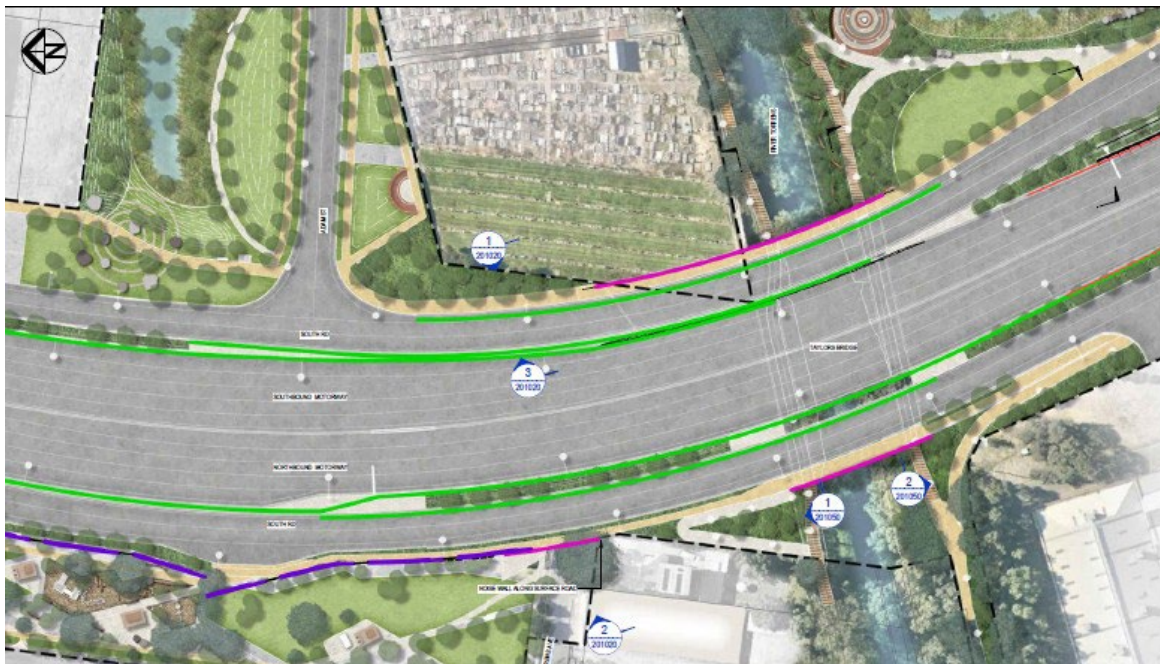


Figure 11: Aerial image showing alignment of the bridges and overlap to Hindmarsh Cemetery

The bridge abutments comprise terracotta-coloured sculptured panels, offering visual interest and colour reflective of the natural tones found within the earth of the nearby riverbanks.

In response to stakeholder feedback, the central pier has been 'opened'. Previously proposed cladding has been removed, revealing the three (previously six) piers – offering views to/from the southern bank of the River Torrens / Karrawirra Parri, increasing ambient light and airflow through the bridge undercroft and adjacent cemetery, and improving opportunities for passive surveillance.

Immediately east of the central pier, a retaining wall (clad to match the nearby northern and southern Bridge 03 abutments) will support the difference in ground level between the Cemetery and Shared User Path. Fencing will be fixed to the central pier and atop the adjacent retaining wall.

The bridge incorporates architectural cladding applied to the outward (eastern) face. The design of the cladding over the River Torrens / Karrawirra Parri represents the Milky Way, revealed through perforated panels during the day and a star-river that is lit by (gobo) projected lighting at night.

The cladding above the Cemetery has been 'lifted', and a curve introduced providing a sense of visual relief and a more pronounced vertical expression, suggesting an ethereal upward movement.



*Figure 12: Concept render of proposed Bridge 03 and interface with Hindmarsh Cemetery*

Directly below the bridge, ground surface treatments have been altered to address stakeholder concern – comprising a mix of hard and soft landscaping. Fencing/screening proposed below the bridge to prevent access has been removed – offering improved visual amenity and reduced shading.



*Figure 13: Concept render of Bridge 03 undercroft area*

### 3.2.2 BRIDGE 02

Bridge 02 will replace the existing Taylor's Bridge, and comprises three lanes of traffic in both directions, carrying traffic along the North-South Corridor.

The eastern side of the bridge will be located immediately adjacent the south-west corner of the Hindmarsh Cemetery. At this location, the road surface is 1.6 m above ground level and the bridge comprises a 2.8 m-high wall (comprising 1.6 m high retaining wall and 1.2 m high concrete barrier), with undulating acrylic screen above, visible from the Cemetery.

### 3.2.3 ADAM STREET

Adam Street will be realigned and elevated (increase by circa 3.1 m above existing ground level) to meet the North-South corridor at the perpendicular.

The space between the trafficable surface of Adam Street and the northern boundary of the Hindmarsh Cemetery will be graded (sloped) and landscaped, and the footpath (north of the Cemetery) realigned. Existing vehicle and foot access into the northern parts of the Cemetery will be maintained.

To the north of Adam Street, new public open space, comprising detention basin, furniture and landscaping will be provided.

### 3.2.4 FENCING

In response to stakeholder feedback, the following sections of fencing along the boundaries of the Hindmarsh Cemetery are proposed to be removed:

- The entirety along the western boundary, and
- An approximately 30 metre long section along the southern boundary (western extent).

The fencing is to be removed in lieu of the following Project elements adjacent the Cemetery:

- Eastern face of the Bridge 03 northern abutment
- Fencing between and adjacent the Bridge 03 central pier, and
- Fencing above the retaining wall east of the Bridge 03 central pier

An additional fence is proposed to be constructed, extending the northern boundary fencing to abut the eastern face of the Bridge 03 northern abutment. The fence material and colour will match the Cemetery fencing.

### 3.2.5 CHANGES TO THE HINDMARSH CEMETERY

The bridge requires the removal of 8 trees within the Cemetery - of which 3 are Regulated Trees and require development approval.

The trees are not of heritage value, having been planted or self-sown within the past thirty years.

The trees include the following species:

- *Callistemon 'Harkness'* (Gawler Hybrid Bottlebrush) (Significant)
- *Melaleuca styphelioides* (Prickly Paperbark) (Exempt)
- *Callistemon 'Harkness'* (Gawler Hybrid Bottlebrush) (Unregulated)
- *Eucalyptus torquata* (Coral Gum) (Regulated)
- *Callistemon 'Harkness'* (Gawler Hybrid Bottlebrush) (Unregulated)
- *Melaleuca styphelioides* (Prickly Paperbark) (Unregulated / Exempt)
- *Corymbia maculata* (Spotted Gum) (Unregulated)
- *Angophora costata* (Smooth Bark Apple) (Significant)

The trees proposed to be removed do not make an important contribution to the character or amenity of the local area, are not listed under the *National Parks and Wildlife Act 1972* as a rare or endangered native species, do not represent important habitat for native fauna, are not part of a remnant area of native vegetation and are not important for the maintenance of biodiversity in the local environment.

In addition, directly below the alignment of Bridge 03 the grassed area within the Cemetery is proposed to be replaced with a gravel and pebble finish.

### 3.3 DESCRIPTION OF IMPACTS OF THE VARIOUS ASPECTS OF THE PROPOSAL

The proposed T2D development is a large scale infrastructure project, requiring extensive civil works including tunnelling for two sections of the roadway, construction of multi-lane roads and bridges, and associated landscaping and urban design works. The impacts of the project on the immediate context, and specifically on the heritage values of the Hindmarsh Cemetery, have been identified as follows:

| Development component                   | Impact (potential or known)                                                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Demolition works                        | Visual impact on setting;<br>Potential (unlikely) uncovering of remains                                                              |
| Bridge Construction                     | Visual impact on setting (bridge overhangs the cemetery site)                                                                        |
| Vibration during construction           | Potential material impact on headstones and buildings through construction vibration                                                 |
| Overshadowing / shading                 | Risk of grassed areas and plantings suffering / dying as a result of changed light conditions – resultant visual and material impact |
| Realignment of Adam Street intersection | Alterations to interface with Adam Street and driveway access points                                                                 |
| New landscaping works                   | Damage to grave sites and buildings through tree root growth from new plantings                                                      |

### 3.4 PROVIDE REASONS THE PROPOSED WORKS ARE NECESSARY

To support the functional operation of the North-South Corridor, ten lanes of traffic are required to connect motorists between northern tunnels with the River Torrens / Karrawirra Parri to Torrens Road (T2T) section of the North-South Corridor, and nearby surface roads.

In addition, active transport infrastructure in the form of shared use paths (SUPs), footpaths and on-road cycle lanes, are proposed to encourage active transport, provide for community connectivity and reduce reliance on motor vehicle use.

The existing Taylor's Bridge is insufficient to cater for these elements and needs to be replaced.

As part of the T2D Project, construction of three bridges (Bridges 01, 02 and Bridge 03 spanning the River Torrens / Karrawirra Parri will support the carriage of traffic to/from and through the North-South Corridor, with Bridges 01 and 03 incorporating pedestrian and cyclist infrastructure enabling connectivity north and south of the river.

The South Road corridor in the project locality is narrow and constrained. The design the North-South Corridor has been iteratively refined to respond to site constraints, stakeholder feedback, and broader transport, urban and environmental objectives.

The following elements make it challenging to accommodate the ten lanes of traffic needed for functional traffic flow:

- Curve of the road alignment
- Crossing of River Torrens / Karrawirra Parri
- Narrow available width between the Brickworks Shopping Centre and State Heritage listed Former Hoffman Brick Kiln (Brickworks) and State Heritage listed Hindmarsh Cemetery
- Langman Reserve
- Adjacency to residential properties.

In addition to the above, there are geometry (vertical) constraints that require accommodating, including:

- Vertical clearance requirements above the State Heritage listed Hindmarsh Cemetery
- Vertical grading limits for the SUP across the bridge
- Vertical grading limits for the roadway
- Vertical tie-in requirements at Adam Street to the north and West Thebarton Road to the south
- Vehicle connection to the northern entries of the Hindmarsh Cemetery, and
- Minimum bridge level for flooding considerations in the River Torrens / Karrawirra Parri.

The T2D Project is the final 10.5km section of the North-South Corridor, and will complete 78km of non-stop, traffic light-free motorway between Gawler and Old Noarlunga. The North-South Corridor has been under construction in various stages for over 20 years, with completion of the T2D anticipated for 2031.

Design enhancements proposed to maximise the benefits of the project include:

- a connection free from traffic lights between the motorway and James Congdon Drive, providing seamless access to and from the CBD and a more resilient road network;
- innovative tunnel portal arrangements that enable shallower lowered motorway sections with faster construction times, reduced costs and easier connections to the surface roads;
- more trees planted to help green the corridor;
- improved tunnel design and shorter cut and cover tunnel sections, which will reduce energy use and costs, and minimise surface impacts to communities next to the T2D motorway;
- innovation in construction of tunnel cross passages, and other systems elements of the tunnels which reduces construction risk;
- improved experience for active travel users with universally accessible paths, shared-use paths and active travel corridors, with regular safe east-west connections.

### 3.5 DETAIL HOW THE PROPOSAL HAS BEEN INFLUENCED BY LOCAL COUNCIL PARAMETERS

The following design elements have been incorporated via engagement with the City of Charles Sturt:

- Changes to the ground surface below the bridge alignment, to replace turf that is unlikely to survive the extent of shadow cast
- Agreement to remove fencing along the western and (part) southern boundaries of the cemetery to avoid duplication of fencing
- New fencing, extending the northern boundary fencing to abut the eastern face of the Bridge 03 northern abutment (and fencing to match (new) cemetery fencing)
- Design to enable future provision (by the Council) of CCTV infrastructure
- Provision of driveway grades into the northern accesses of the cemetery that enable ongoing vehicular access

### 3.6 DETAIL MITIGATION MEASURES

Mitigation measures to minimise impacts on the heritage fabric and values of the Hindmarsh Cemetery have been workshopped by the design team, in collaboration with GGA. The following measures are proposed, and relate directly to the development components described in 3.3 above.

| Development component                   | Impact                                                                                                                               | Mitigation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Demolition works                        | Visual impact on setting;<br>Potential (unlikely) uncovering of remains                                                              | Retention of project documentation by DIT (Plan Room) and copied to DEW (Heritage South Australia) to ensure detailed records of works are accessible;<br>Photographic recording of the Hindmarsh Cemetery to be made and retained on DIT files, with a copy submitted to Heritage South Australia (DEW). Extent of recording to cover areas that may be impacted during construction<br><br>Should any remains be uncovered in demolition and excavation works, other than the South Australian Police, the Department of Environment and Water (Heritage South Australia) should be contacted immediately to discuss requirements relating to archaeological items. |
| Bridge Construction                     | Material Impact; visual impact on setting (bridge overhangs the cemetery site)                                                       | Design treatments to bridge structure and associated structures including fencing / screening;<br>Retention of project documentation by DIT (Plan Room) and copied to DEW (Heritage South Australia) to ensure detailed records of works are accessible;<br>Photographic recording or time lapse during construction period.                                                                                                                                                                                                                                                                                                                                          |
| Vibration during construction           | Potential material impact on headstones and buildings through vibration                                                              | Ongoing vibration monitoring and appropriate actions if required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Overshadowing / shading                 | Risk of grassed areas and plantings suffering / dying as a result of changed light conditions – resultant visual and material impact | Selection of alternate ground surface treatments for affected areas (paving and formed surfaces).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Realignment of Adam Street intersection | Alterations to interface with Adam Street and driveway access points                                                                 | Review of levels and reworking of vehicle access points to ensure appropriate grades and drainage at entry points;<br>Appropriate landscape and urban design treatments within areas adjacent Cemetery;                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| New landscaping works                   | Damage to grave sites and buildings through tree root growth from new plantings                                                      | Selection of appropriate tree species and siting of trees away from grave sites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 4.0 ITEMS TO BE ADDRESSED IN THE HERITAGE IMPACT STATEMENT (TABLE 1)

| Proposed Change to a Heritage Place            | Questions to be addressed in the HIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| For all development proposals                  | <p>Has the advice of a heritage consultant or specialist been sought? Has the consultant's recommendations been implemented? If not, why not?</p> <p>Is the proposal the best technical and conservation solution for the heritage place?</p> <p>Will the proposed works have an adverse heritage impact, and if so, how can this be mitigated?</p> <p>How does new development (e.g. buildings, structures, landscape works), or future development that results from subdivision, affect the setting of the heritage place, and views and vistas to and from the heritage place? How can this be mitigated?</p> <p>Can the proposed works incorporate removal of unsympathetic alterations and additions to improve the integrity of the heritage place?</p> | <p>Yes – GGA has been engaged by the T2D Alliance to assist with heritage advice for the project.</p> <p>Design iterations for the bridge adjacent the Hindmarsh Cemetery have incorporated feedback and design advice from GGA, to present a more refined design response to the context.</p> <p>The proposal is based on the approved Reference Design, which set the alignment of the roadway and location and extent of the bridge over the River Torrens / Karrawirra Parri. The design response to the interface with the Cemetery has responded to the context, and does not have any physical impact on any headstones within the Cemetery.</p> <p>The new bridge structure will have an impact on the setting of the Hindmarsh Cemetery. Mitigation measures are described in Section 3.6 above. The design iterations reflect changes to the initial proposal that better respond to the context of the Hindmarsh Cemetery.</p> <p>There are no specific unsympathetic alterations or additions in the area of the Cemetery that can / will be removed as part of the works.</p> |
| Demolition of a heritage building or structure | <p>Why is the heritage place not capable of retention and adaptive reuse?</p> <p>Can any of the significant elements of the heritage place</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Not applicable – refer below for commentary relating to partial demolition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                                                                                              | <p>be retained as part of the new development and can new development be located elsewhere on the site?</p> <p>Is the work likely to expose archaeological artefacts of significance? If so, has the advice of a suitably qualified archaeologist been sought?</p>                                                                                                                          | <p>The works are unlikely to expose any items of archaeological significance. No in ground work is proposed within the cemetery. However, an archival record of the areas of the Cemetery immediately adjacent to the area of works is being prepared by Independent Heritage Consultants</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Partial demolition of a heritage place, including internal elements of heritage significance | <p>Is the proposed demolition essential for the heritage place to function?</p> <p>Is the proposed demolition essential for the long-term viability of the heritage place?</p> <p>Is the proposed demolition sympathetic to the heritage significance of the place?</p> <p>If partial demolition is a result of the condition of the fabric, is it certain that it can not be repaired?</p> | <p>Partial demolition works are limited to the removal of the western fence, and removal of some trees along the western frontage of the Cemetery. These items / trees are not of heritage value.</p> <p>Design iterations have improved the amenity of the space under and adjacent the bridge, which was previously to be fenced off from access. Surface treatments and improvements are proposed to this area to compensate for the impact of the bridge at this location in the cemetery. The design has been informed by engagement with Grieve Gillett Architects, Heritage SA, the City of Charles Sturt and ODASA.</p> <p>The development does not comprise demolition works as a result of the condition of the fabric.</p>                                                                                                                                                                                       |
| Major alterations and additions                                                              | <p>Will the addition visually dominate the heritage place or its setting?</p> <p>How will the proposed works affect the significant garden setting, landscape and trees?</p> <p>Are the additions sympathetic to the heritage place? In what way (e.g. form, proportion, design, materials)?</p> <p>How is the impact of the addition on the heritage place to be minimised?</p>            | <p>The majority portion of the Cemetery is not directly affected by the development; the further east one moves from the T2D corridor, the lesser the impact on the Cemetery setting which is characterised by a variety of headstones and grave sites (noting the differing colours, sizes, materials and level of detail as well as age contribute to the Cemetery's defined character).</p> <p>There is a negligible impact on the two buildings within the Cemetery.</p> <p>The construction of Bridge 03 will have a moderate visual impact on the setting of the western end of the cemetery.</p> <p>The scale of the new bridges is necessarily large due to the traffic flow requirements and interfaces with other surface roads. The required engineering approach to support the roadway over the River Torrens / Karrawirra Parri and the spans of the roadways and bridges results in a disparity in scale</p> |

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|  | <p>Are the additions sited on any known or potentially significant archaeological artefacts? How can this be mitigated?</p> | <p>and reinforces the bridge as a visually dominant element within the cemetery setting.</p> <p>The impact is mitigated to an extent by the bridge's siting at the periphery of the Cemetery allotment and incorporation of design measures that seek to reduce visual bulk and maintain partial views into and across the site. The bridge's external cladding which forms the backdrop to the Cemetery setting when looking west peels back and away from the cemetery, whilst the open central pier offers continued views through to the southern banks of the River Torrens / Karrawirra Parri. The visual connection between the cemetery and river has been identified as a long-standing characteristic and a value of the cemetery.</p> <p>There are no physical components of the bridge or associated infrastructure within the cemetery land parcel. Works within the boundary of the Cemetery are limited to surface treatments in the area under the bridge, removal of vegetation and removal of fencing (discussed below)), so there are no actual physical impacts to the cemetery from construction of the bridge.</p> <p>The eastern side of Bridge 02, adjacent the Bridge 03 undercroft and visible from the Hindmarsh Cemetery, incorporates a sculptured fascia panel (consistent with the northern abutment of the adjacent Bridge 03) with a retaining wall above comprising a pattern finish.</p> <p>Above this wall are undulating screens - enabling afternoon light into the Bridge 03 undercroft and partially obscuring view of passing vehicles.</p> <p>These elements provide a suitable 'backdrop' to the soft and hard landscaping of the Bridge 03 undercroft space, offering visual interest via the patterned panels and undulation of the screens.</p> <p>The Project proposes to remove the entirety of the fencing along the western boundary of the cemetery, and a length of fencing of approximately 35.4 m along the southern boundary (western extent). The existing fencing is not of heritage value.</p> <p>The brick plinth below the western boundary fencing will be retained. Whilst the brick plinth is not part of the cemetery's identified heritage values and is believed to have been constructed sometime in the early 20th century retention of the plinth is important as it provides a reminder of the original and intact western boundary of the cemetery.</p> <p>The surface treatments to the area within the bridge undercroft incorporate a mix of blue and grey stone screenings, defined by brick edges, which has been informed by engagement with Grieve Gillett</p> |
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|                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Architects, Heritage SA, the City of Charles Sturt and ODASA.</p> <p>The incorporation of screenings within the cemetery space, complemented by rockwork elements and planting, establishes a visual and material connection to the riverine setting, reinforcing local character and supporting a strong sense of place.</p> <p>Importantly, the alignment of the screening rows and brick edges are perpendicular to the axis of the cemetery headstones - maintaining the legibility of the burial layout.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Construction of new buildings or car parking, within the grounds of a heritage place | <p>How is the impact of the new development on the heritage significance of the heritage place to be minimised?</p> <p>Is the new development sympathetic to the heritage place? In what way (e.g. siting, form, proportion, design, materials)?</p> <p>How will the proposed works affect the significant garden setting, landscape and trees?</p> <p>How does the curtilage retained around the heritage place contribute to the conservation of its heritage significance?</p> <p>Is the new development sited on any known or potentially significant archaeological artefacts? How can this be mitigated?</p> | <p>There is no actual construction within the boundary of the Hindmarsh Cemetery, however there is encroachment over the cemetery land parcel by Bridge 3 in the south western corner.</p> <p>The construction of the bridge structure will have an impact on the setting of the Cemetery, and create an area in the south west corner of the Cemetery where the bridge encroaches over the Cemetery land parcel.</p> <p>The Alliance have engaged with the City of Charles Sturt (owner of the Hindmarsh Cemetery) and understand new fencing (subject to approval) is proposed for the perimeter of the cemetery. Assuming compliance with relevant standards (such as climb zones and fall protection), the proposed Project fencing will match the new (approved) fencing proposed (by Council) along the boundaries of the cemetery.</p> <p>An archival record of the areas of the Cemetery immediately adjacent to the area of works is being prepared by Independent Heritage Consultants. In addition, a condition assessment of the entirety of the Cemetery has been undertaken.</p> |
| Subdivision or boundary adjustment of heritage place                                 | <p>Does the proposed subdivision provide an adequate setting or context for the heritage place?</p> <p>Could future development that results from this subdivision compromise the</p>                                                                                                                                                                                                                                                                                                                                                                                                                              | <p>No changes to the existing boundary of the Hindmarsh Cemetery are proposed, nor any subdivision of the existing land parcel.</p> <p>Removal of the western fence will maintain the existing brick plinth below – offering / maintaining a visual representation of the original cemetery boundary.</p> <p>There is an encroachment over the land parcel – refer item above for discussion of the impacts of this encroachment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                                                                             | <p>significance of the heritage place?</p> <p>What management processes are being considered to ensure conservation of any common property resulting from the subdivision (e.g. Land Management Agreement)?</p>                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Physical change to fabric or feature(s) identified of heritage significance | Is the proposed change sympathetic to the significance of the heritage place?                                                                                                                                                                                                                                                                                           | There are changes proposed to the Cemetery in the area that will be located under the overhang of Bridge 03. Ground surface treatments to this area of the Cemetery include a mix of gravel and pebbles – laid out in a curved pattern to provide visual interest, but not detract from, or confuse the north-south linear axis of the headstones. Brick slips/edging will be provided to delineate different colours treatments, and to prevent grass growing within the gravel and pebbled area. This is considered to be an appropriate approach that improves amenity without further impacting the significance of the Cemetery as a whole. |
| Painting                                                                    | <p>Have previous (including original) colour schemes been investigated? Are previous schemes being reinstated?</p> <p>Will the painting affect the conservation of the fabric of the heritage item, such as removing earlier colour schemes?</p> <p>Has the careful removal of the existing paint finish been investigated particularly for brickwork or stonework?</p> | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Reroofing or recladding                                                     | <p>Have previous (including original) roofing/cladding materials been investigated (through archival and physical research)?</p> <p>Is the previous material being reinstated?</p>                                                                                                                                                                                      | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                    | Will the reroofing or recladding affect the conservation of the fabric of the heritage place?                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                |
| New services (e.g. solar panels, solar hot water systems, rainwater tanks, antennae, satellite dishes, air conditioning, plumbing) | <p>How has the impact of the new services on the significance of the heritage place been minimised?</p> <p>Are any of the existing services of any significance? Are they affected by the proposed works?</p> <p>Are any known or potential archaeological artefacts, such as underground or under floor deposits, affected by the works?</p> <p>Is the proposal the best technical and conservation solution for the delivery of new services?</p> | No services within the cemetery affected - with the exception of the existing irrigation, which is likely to be augmented/extended to irrigate landscaping below the bridge. Also, placement of a light pole with projection lighting to be erected immediately west of the westernmost Plane tree (light pole to be placed next to SUP and outside cemetery curtilage).                                       |
| Fire protection and service upgrade                                                                                                | <p>How has the impact of the fire protection and services on the significance of the heritage place been minimised?</p> <p>Are any of the existing fire services of any significance? Are they affected by the new works?</p> <p>Has the advice of a fire services consultant been sought to look at options that would have less impact on the heritage place?</p>                                                                                 | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                 |
| New landscape works (eg fencing, walls, features)                                                                                  | How has the impact of the new work on the heritage significance of the existing landscape been minimised?                                                                                                                                                                                                                                                                                                                                           | Ground surface treatments to the western area of the Cemetery where the bridge will overhang, include a mix of gravel and pebbles – laid out in a curved pattern to provide visual interest, but not detract from, or confuse the north-south linear axis of the headstones. Brick slips/edging will be provided to delineate different colours treatments, and to prevent grass growing within the gravel and |

|                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p>Has evidence (archival or physical) of previous landscape work been investigated?</p> <p>Are previous works being reinstated?</p> <p>Are any known or potential archaeological artefacts affected by the landscape works?</p> <p>How can this be mitigated? Has advice been sought from a suitably qualified archaeologist?</p> | <p>pebbled area. Landscaping of a low scale and low maintenance requirements is also proposed to this area. This is considered to be an appropriate approach that improves amenity without further impacting the significance of the Cemetery as a whole.</p> <p>No clear evidence of earlier landscape plans exist. The primary function of the Cemetery has always been to provide for the internment of the deceased, and it is not considered that the landscaping forms a critical part of the heritage values of the place.</p> <p>An archival record of the areas of the Cemetery immediately adjacent to the area of works is being prepared by Independent Heritage Consultants.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tree removal or replacement | <p>Does the tree contribute to the significance of the heritage place?</p> <p>Why is the tree to be removed?</p>                                                                                                                                                                                                                   | <p>The construction of the bridge requires the removal of 8 trees within the Cemetery - of which 3 are Regulated Trees and require development approval.</p> <p>The trees however are not considered to strongly contribute to the heritage value of the Cemetery, having been planted or self-sown within the past thirty years. Removal of some trees within the cemetery are to enable the safe construction of Bridge 03 and infrastructure associated with the T2D Project. In this regard, removal of the trees is to accommodate reasonable and expected development and options have been considered to avoid tree damaging activities occurring.</p> <p>It should also be acknowledged that some trees are causing damage to nearby headstones, particularly the Plane Trees along the southern boundary of the Cemetery.</p> <p>Proposed new vegetation and landscaping within and around the bridge approaches further softens built elements and maintains a green outlook from adjacent areas.</p> <p>The planting of River Red Gum trees along the banks of the River Torrens / Karrawirra Parri will, over time, compensate for the loss of established trees and contribute to the canopy cover within the river corridor.</p> |
| Change of use               | <p>Does the existing use contribute to the significance of the heritage place?</p> <p>Why does the use need to change?</p> <p>What changes to the fabric are required as a result of the change of use?</p>                                                                                                                        | <p>Not applicable – no change of use proposed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                  |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|             | <p>What changes to the use are required as a result of the change of use?</p> <p>Are changes required to meet building rules, including structural upgrades, energy use, fire separation and access and egress?</p>                                                                                                                                                                                                                                                     |                                                                  |
| New signage | <p>How has the impact of the new signage on the significance of the heritage place been minimised?</p> <p>Have alternative signage forms been considered (e.g. free-standing)? Why were they rejected?</p> <p>Is the signage in accordance with any local planning provisions?</p> <p>Will the signage visually dominate the heritage place or streetscape of the heritage area?</p> <p>Can the signage be remotely illuminated rather than internally illuminated?</p> | Not applicable – no new signage is proposed within the Cemetery. |

## Appendix 4. Arborist Report



# Arboricultural Impact Assessment and Development Impact Report

Site: T2D - North - Bridge 03

Date: Monday, 20 July 2026

ATS8208-NorthBri03DIR-R2

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Appendix A - Tree Assessment Methodology

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Report Reference Number: ATS8208-NorthBri03DIR-R2

Report prepared for:

Rob Tokley - Torrens to Darlington Alliance (T2D)

Author:

James Ross, Consulting Arborist, Arborman Tree Solutions Pty Ltd

## Executive Summary

Arborman Tree Solutions has assessed nine trees in the identified survey area of T2D - North - Bridge 03. The assessment has identified the potential impacts to the trees from the proposed development and supporting infrastructure and recommends mitigation strategies where appropriate. The proposal involves the construction of a new bridge and reconstruction of an elevated shared use pathway along the Karrawirra Pari/River Torrens, adjacent the Hindmarsh Cemetery. This assessment provides recommendations in accordance with Australian Standard AS4970-2025 *Protection of trees on development sites* (AS4970-2025).

The assessment considered nine trees which are identified as a mix of various native, indigenous and exotic species. These trees are not naturally occurring vegetation that appear to have been planted as part of the landscaping of the area. The majority of trees are considered to be in Good (7) or Fair (2) overall condition and have extended useful life expectancies. The growing environment includes lawn area, maintained garden beds and sealed surfaces such as pathways and roadways.

Trees 26, 75 and 79 are Significant trees and Tree 77 is a Regulated tree as defined in the *PDI Act 2016* and the *Planning and Design Code (Regulated and Significant Tree Overlay)*. The remaining trees identified in this report are either Exempt from regulation or Unregulated. Significant and Regulated trees should be preserved if they meet aesthetic and/or environmental criteria as described in the *Planning and Design Code (Regulated and Significant Tree Overlay)*. When assessed against the relevant 'Performance Outcomes', none of the trees are considered to provide 'important' aesthetic and/or environmental benefit and as such their protection as Regulated/Significant trees that prevents an otherwise reasonable and expected development is not warranted.

The Arboricultural Impact Assessment has identified that one Regulated tree, two Significant trees, four Unregulated trees and one Exempt tree are likely to be negatively impacted by the proposed works and require removal. As these trees do not display attributes that indicate they should be protected, their removal to accommodate an expected development is reasonable.

Additionally, there is one Significant tree in the area of the proposed development that is unlikely to be negatively impacted by the planned works. The encroachment is greater than 20% of the NRZ area however there are mitigating factors that indicate the proposed works are not expected to negatively impact on the viability or stability of Tree 26.

Whilst the viability of the tree to be retained is unlikely to be impacted by the proposed works, there is potential for incidental damage and as such, Tree Protection is recommended as part of this construction.

## Brief

Arborman Tree Solutions was engaged by Torrens to Darlington Alliance (T2D) to undertake an Arboricultural Impact Assessment and provide a Development Impact Report for the identified trees at T2D - North - Bridge 03. The purpose of the Arboricultural Impact Assessment and Development Impact Report is to identify potential impacts the proposed development will have on the trees and provide mitigation strategies to minimise the impact where appropriate.

The proposed development includes the construction of a new bridge and reconstruction of an elevated shared use pathway along the Karrawirra Pari/River Torrens, adjacent the Hindmarsh Cemetery. This assessment will determine the potential impacts the proposal may have on the trees within and adjacent the site and recommends impact mitigation strategies in accordance with Australian Standard AS4970-2025 *Protection of trees on development sites* (AS4970-2025) for trees to be retained.

In accordance with section 2.2 of the AS4970-2025 the following information is provided:-

- Assessment of the general condition and structure of the subject trees.
- Identification of the legislative status of trees on site as defined in the *Planning, Development and Infrastructure Act 2016* (PDI Act 2016).
- Identify and define the Notional Root Zone (NRZ) and Structural Root Zone (SRZ) for each tree.
- Identify potential impacts the development may have on tree health and/or stability.
- Recommend impact mitigation strategies in accordance with AS4970-2025 for trees to be retained and identify the resultant Tree Protection Zone (TPZ) for each tree.
- Provide information in relation to the management of trees.

**Note:** *Trees in the assessed area that are Controlled under the Native Vegetation Act 1991 have not been included in this report. The client has indicated that impacts to these trees have been assessed by a Native Vegetation Officer separately.*

## Documents and Information Provided

The following information was provided for the preparation of this assessment:-

- Email instruction on Scope of Works
- Design Drawings
- Associated documents:

 Received 20260717

 2882021 - GENERAL ARRANGEMENT - SHEET 01 2.pdf

 AddInfo\_20260716.msg

 Request\_20260715.msg

 RTokely\_AddInfo\_20260720.msg

 T2DPAA-T2D-N5S-BR-DRG-102000\_ICD\_1.pdf

## Site Location

The trees are located on the west and south boundary of the Hindmarsh Cemetery adjacent to the proposed development of T2D - North - Bridge 03.



Figure 1: Site Location - T2D - North - Bridge 03

## Methodology

The proposed design was reviewed in association with the information supplied in the Design Drawings and CAD files as provided by Torrens to Darlington Alliance (T2D).

The potential impact of the proposed works on tree condition is considered in accordance with the guidelines in AS4970-2025 *Protection of trees on development sites* (AS4970-2025). When determining potential impacts of an encroachment into a Notional Root Zone (NRZ), the following should be considered as outlined in AS4970-2025 section 3.3.4 *NRZ encroachment considerations*:-

- a) Location of roots and root development.
- b) The potential loss of root mass from the encroachment.
- c) Tree species and tolerance to root disturbance.
- d) Age, vigour and size of the tree.
- e) Lean and stability of the tree.
- f) Soil characteristics and volume, topography, and drainage.
- g) The presence of existing or past structures or obstacles affecting root growth.
- h) Design factors.

The impacts on a tree can be varied and are not necessarily consistent with or directly correlated to a particular level of encroachment, to assist in providing consistency the levels of impact have been classified into the following categories:-

- No Impact - no encroachment into the NRZ has been identified.
- Low <10% - the identified encroachment is less than 10% of the NRZ area and not expected to impact tree viability.
- Low >10% - the identified encroachment is greater than 10% of the NRZ area, however there are factors that indicate the proposed development will not negatively impact tree viability.
- High >10% - the identified encroachment is greater than 10% of the NRZ area and factors are present that indicate the proposed development will negatively impact tree viability. The impact is likely to lead to the long-term decline of the tree, however, it is unlikely to impact on its short-term stability.
- Conflicted - the identified encroachment is greater than 10% of the NRZ area and in most cases will also impact the Structural Root Zone (SRZ) and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'Low' have features or considerations identified in clauses in AS4970-2025 3.3.4 *NRZ encroachment considerations* which indicate these trees will be sustainable.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'High' do not have any features or considerations identified in clauses in AS4970-2025 3.3.4 and therefore alternative design solutions, additional root investigations and/or tree sensitive construction measures are required if the tree is to be retained. Where alternative protection methodologies are not available tree removal may be required to accommodate the development.

Trees with an Impact identified as 'Conflicted' are impacted over the majority of their root zone and/or over the SRZ or on the trunk, additional root investigations or tree sensitive construction measures are not available, and the only option is alternative designs or tree removal.

Regulatory Status, Notional Root Zones and Development Impacts are shown in Appendix B - Tree Assessment Findings.

## Assessment

Arborman Tree Solutions has assessed nine trees in the identified survey area of T2D - North - Bridge 03. The assessment has identified the potential impacts to the trees from the proposed development and supporting infrastructure and recommends mitigation strategies where appropriate. The proposal involves the construction of a new bridge and reconstruction of an elevated shared use pathway along the Karrawirra Pari/River Torrens, adjacent the Hindmarsh Cemetery. This assessment provides recommendations in accordance with Australian Standard AS4970-2025 *Protection of trees on development sites* (AS4970-2025).

### Tree Assessment

The assessment considered nine trees which are identified as a mix of various native, indigenous and exotic species. These trees are not naturally occurring vegetation that appear to have been planted as part of the landscaping of the area. The majority of trees are considered to be in Good (7) or Fair (2) overall condition and have extended useful life expectancies. The growing environment includes lawn area, maintained garden beds and sealed surfaces such as pathways and roadways.

Table 1 - Tree Condition

| Condition | Number of Trees | Tree Numbers                  |
|-----------|-----------------|-------------------------------|
| Good      | 7               | 26, 75, 76, 78, 79, 93 and 94 |
| Fair      | 2               | 77 and 95                     |

Findings on individual tree health and condition are presented in Appendix B - Tree Assessment Findings.

### Legislative Assessment

Trees 26, 75 and 79 are Significant trees and Tree 77 is a Regulated tree as defined in the *PDI Act 2016* and the *Planning and Design Code (Regulated and Significant Tree Overlay)*. The remaining trees identified in this report are either Exempt from regulation or Unregulated. Significant and Regulated trees should be preserved if they meet aesthetic and/or environmental criteria as described in the *Planning and Design Code (Regulated and Significant Tree Overlay)*. When assessed against the relevant 'Performance Outcomes', none of the trees are considered to provide 'important' aesthetic and/or environmental benefit and as such their protection as Regulated/Significant trees that prevents an otherwise reasonable and expected development is not warranted.

Trees on the north embankment of the Karrawirra Pari/River Torrens are within the Native Vegetation overlay and may be Controlled under the *Native Vegetation Act 1991*. Native Vegetation Controlled trees in this area have been assessed in a separate report by a Native Vegetation Officer and are not included in this report.

Table 2 - Legislative Status

| Legislative Status | Number of Trees | Tree Numbers  |
|--------------------|-----------------|---------------|
| Significant        | 3               | 26, 75 and 79 |
| Regulated          | 1               | 77            |
| Unregulated        | 4               | 78 and 93-95  |
| Exempt             | 1               | 76            |

## **Encroachment and Impact Assessment**

Within AS4970-2025, relevant information is provided to assist with determining the impact on trees when developing in close proximity to them. Any tree identified for retention requires protection that will ensure it remains viable during and post development. Further guidance on how to suitably manage any proposed or encountered encroachments is identified in AS4970-2025.

Australian Standard AS4970-2025 provides a method to calculate a Notional Root Zone (NRZ) and a Structural Root Zone (SRZ) and uses these to determine the impact on any tree in the development zone and the area required to be retained as a Tree Protection Zone (TPZ). The assessment of potential impacts has been undertaken in accordance with AS4970-2025 sections 2.1.2 *Tree Protection Process* and 3.3 *Determining a Tree Protection Zone (TPZ)*; this assessment has determined the tree can be retained and the area that is to be treated as a TPZ to allow for tree retention. This standard has been applied to ensure trees identified for retention remain viable and the redevelopment is achievable.

The encroachment for Tree 26 is greater than 20% of the total NRZ area and is therefore classified as a 'Major Encroachment' as defined in AS4970-2025. Additionally, impact to the crown is expected for machinery access, however the pruning is not expected to impact the health or appearance of the tree.

Australian Standard AS4970-2025 also identifies relevant factors that should be considered when determining the 'impact' of Major encroachments such as this and the actual area to be set aside as a Tree Protection Zone (TPZ); these considerations are listed under section 3.3.2 *Considerations for determining the TPZ*. When considering these factors, the proposed encroachment is unlikely to result in tree damaging activity that will result in the decline, death or failure of the trees and is therefore considered to be a Low Impact.

The following discusses the relevant factors of AS4970-2025 section 3.3.2 *Considerations for determining the TPZ* for this tree:-

- 3.3.2 (b) '*Potential loss of root mass resulting from the encroachment (number of roots and diameter of roots)*'  
This encroachment is likely to impact the tree's lateral rooting system, however substantial impacts to the tree's long-term stability or health are not expected.
- 3.3.2 (c) '*Tree species and tolerance to root disturbance*'  
The species *Platanus orientalis* 'Digitata' (Cut-Leaf Plane), similar to *Platanus x acerifolia* (London Plane), is extremely tolerant of root loss and changes to its growing environment. Platanus species are successfully used throughout the world as street trees and are effective even in very poor soil conditions. These trees have a very large and effective root system that is able to extract moisture and nutrients even where these are in very low concentrations. This is at least partially due to the species being able to grow deep sinker roots that are able to exploit ground water at considerable depths.
- 3.3.2 (e) '*Age, health, current size and projected size of the tree*'  
The tree is mature and displays good health and vitality, indicating it can tolerate the proposed level of encroachment without noticeable impacts. Healthy and vigorous trees can manage various levels of pruning, demolition of existing structures, changes in soil grade and moisture, soil compaction and other root zone encroachments and are better able to adapt to the new site conditions once the development phase has been completed.
- 3.3.2 (j) '*Soil characteristics and volume, topography and drainage*'  
Tree 26 is growing at the top of a steep embankment leading down to a consistent water source. The majority of the roots are expected to be confined to the SRZ and below.
- 3.3.2 (k) '*Presence of existing or past structures, obstacles affecting root growth or recent encroachments*'  
The existing encroachment has been in place for more than 30 years and the tree has adapted to a sealed surface that would therefore restrict root development in this area due to the poor growing environment created by the encroachment. The replacement of the existing encroachment with the proposed encroachment is therefore unlikely to impact the long-term viability of Tree 26.
- 3.3.2 (m) '*Whether a root investigation is required. The location and distribution of the roots should be determined through minimally destructive investigation methods (pneumatic, hydraulic, hand digging or*

*ground penetrating radar). Photographs should be taken and, where needed to address geospatial issues, a root map should be prepared.'*

The above considerations indicate that root investigation is not required; the site conditions and tree assessment indicate that it is highly unlikely that important roots will be encountered as part of the proposed works.

The encroachment for the remaining trees is greater than 20% and will cause tree damaging activity that will result in the decline, death or failure of these trees, they are therefore considered to be Conflicted by the proposed development.

Table 3 - Development Impact

| Impact     | Number of Trees | Tree Numbers    |
|------------|-----------------|-----------------|
| Conflicted | 8               | 75-79 and 93-95 |
| Low        | 1               | 26              |

## Conclusion

The Arboricultural Impact Assessment has identified that one Regulated tree, two Significant trees, four Unregulated trees and one Exempt tree are likely to be negatively impacted by the proposed works and require removal. As these trees do not display attributes that indicate they should be protected, their removal to accommodate an expected development is reasonable.

Additionally, there is one Significant tree in the area of the proposed development that is unlikely to be negatively impacted by the planned works. The encroachment is greater than 20% of the NRZ area, however there are mitigating factors that indicate the proposed works are not expected to negatively impact on the viability or stability of Tree 26.

## Recommendation

### *Tree Protection*

Whilst the viability of the tree to be retained is unlikely to be impacted by the proposed works, there is potential for incidental damage and as such, Tree Protection is recommended as part of this construction.

The following is recommended as a minimum:-

1. Ensure all work requirements/activities in the vicinity of Tree 26 are discussed and designed in consultation with the Project Arborist, i.e. no machinery operation in the vicinity of the tree without a Tree Protection Plan.
2. A Tree Protection Zone (TPZ) fence is to be erected to ensure access to the root zone is restricted. The fence is to be installed prior to the commencement of all other site works, including demolition.
3. If machinery access is required within the TPZ, ground protection is to be installed in consultation with the Project Arborist to ensure tree roots are not damaged.

### *Tree Pruning*

The required pruning for machinery access around Tree 26 needs to be determined prior to works commencing. Any pruning should be carried out by a suitably qualified arborist in accordance with *AS4373-2007 Pruning of amenity trees*.

### *Tree Removals*

The trees to be removed are growing within a cemetery that holds sentimental and historical significance. Trees should be dismantled with due care to avoid damage to grave sites and head stones and trunks cut as close to ground level as reasonably possible. Stump grinding in this area is not recommended due to the potential to cause unwanted damage.

Thank you for the opportunity to provide this report. Should you have any questions or require further information, please contact me and I will be happy to be of assistance.

Yours sincerely,



**JAMES ROSS**

**Consulting Arborist**

**Graduate Certificate of Arboriculture (AQF Level 8)**

**Diploma of Arboriculture (AQF Level 5)**

**Diploma of Applied Horticultural Science**

**VALID Tree Risk Assessment (VALID)**

**ISA – Tree Risk Assessment Qualification**

## Definitions

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Circumference:</b>               | trunk circumference measured at one metre above ground level. This measurement is used to determine the status of the tree in relation to the <i>Planning, Development and Infrastructure Act 2016 (PDI Act 2016)</i> .                                                                                                                                                                                                                                                                                          |
| <b>Diameter at Standard Height:</b> | trunk diameter measured at 1.4 metres above ground level used to determine the Notional Root Zone as described in Australian Standard AS4970-2025 <i>Protection of trees on development sites</i> .                                                                                                                                                                                                                                                                                                              |
| <b>Diameter at Root Buttress:</b>   | trunk diameter measured just above the root buttress as described in Australian Standard AS4970-2025 <i>Protection of trees on development sites</i> and is used to determine the Structural Root Zone.                                                                                                                                                                                                                                                                                                          |
| <b>Tree Damaging Activity:</b>      | Tree damaging activity includes those activities described within the <i>Planning, Development and Infrastructure Act 2016 (PDI Act 2016)</i> , such as removal, killing, lopping, ringbarking or topping or any other substantial damage such as mechanical or chemical damage, filling or cutting of soil within the NRZ. Can also include forms of pruning above and below the ground.                                                                                                                        |
| <b>Notional Root Zone (NRZ):</b>    | zone enclosed by a radius of 12 times DSH that is a primary trigger for arboricultural input on a development site.                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Structural Root Zone (SRZ):</b>  | calculated area within the tree's root zone that is considered essential to maintain tree stability.                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Tree Protection Zone (TPZ):</b>  | specified zone above and below ground and at given offsets from the trunk set aside to protect a tree's roots and crown where these might be damaged by development.                                                                                                                                                                                                                                                                                                                                             |
| <b>Project Arborist:</b>            | a person with the responsibility for conducting a tree assessment, report preparation, consultation with designers, specifying tree protection measures, monitoring and certification. The Project Arborist must be competent in arboriculture, having acquired through training, minimum Australian Qualification Framework (AQTF) Level 5, Diploma of Horticulture (Arboriculture) and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this standard. |
| <b>Encroachment:</b>                | the area of a Notional Root Zone that is within the proposed development area.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Impact:</b>                      | the effect on tree health, structure and/or viability as a result of required works associated with the proposed development within the NRZ or the vicinity of the tree(s).                                                                                                                                                                                                                                                                                                                                      |

## References

- Australian Standard AS4970–2025 ***Protection of trees on development sites***: Standards Australia.
- Matheny N. Clark J. 1998: ***Trees and Development a Technical Guide to Preservation of Trees During Land Development***. International Society of Arboriculture, Champaign, Illinois, USA.

## Appendix A - Tree Assessment Methodology

## Tree Assessment Form (TAF©)

| Record                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tree</b>                 | In botanical science, a tree is a perennial plant which consists of one or multiple trunks which supports branches and leaves. Trees are generally taller than 5 metres and will live for more than ten seasons, with some species living for hundreds or thousands of seasons.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Genus and Species</b>    | <p>Botanical taxonomy of trees uses the binominal system of a genus and species, often there are subspecies and subgenus as well as cultivars. When identifying tree species, identification techniques such as assessing the tree's form, flower, stem, fruit and location are used. Identifying the right species is critical in assessing the tree's legalisation and environmental benefit. All efforts are made to correctly identify each tree to species level, where possible.</p> <p>Genus is the broader group to which the tree belongs e.g. <i>Eucalyptus</i>, <i>Fraxinus</i> and <i>Melaleuca</i>. Species identifies the specific tree within the genus e.g. <i>Eucalyptus camaldulensis</i>, <i>Fraxinus griffithi</i> or <i>Melaleuca styphelioides</i>. Trees will also be assigned the most commonly used Common Name. Common Names are not generally used for identification due to their nonspecific use, i.e. <i>Melia azedarach</i> is commonly known as White Cedar in South Australia but is also called Chinaberry Tree, Pride of India, Bead-tree, Cape Lilac, Syringa Berrytree, Persian Lilac, and Indian Lilac; equally similar common names can refer to trees from completely different Genus e.g. Swamp Oak, Tasmanian Oak and English Oak are from the <i>Casuarina</i>, <i>Eucalyptus</i> and <i>Quercus</i> genus's respectively.</p> |
| <b>Height</b>               | Tree height is estimated by the arborist at the time of assessment. Tree height is observed and recorded in the following ranges; <5m, 5-10m, 10-15m and >20m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Spread</b>               | Tree crown spread is estimated by the arborist at the time of assessment and recorded in the following ranges <5m, 5-10m, 10-15m, 15-20m, >20m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Health</b>               | Tree health is assessed using the Arborman Tree Solutions - Tree Health Assessment Method that is based on international best practice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Structure</b>            | Tree structure is assessed using Arborman Tree Solutions - Tree Structure Assessment Method that is based on international best practice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Tree Risk Assessment</b> | Tree Risk is assessed using Tree Risk Assessment methodology. The person conducting the assessment has been trained in the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ), Quantified Tree Risk Assessment (QTRA) and/or VALID Tree Risk Assessment (VALID). Refer to the Methodology within the report for additional information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Legislative Status</b>   | Legislation status is identified through the interpretation of the <i>Development Act 1993</i> , the <i>Natural Resource Management Act 2004</i> , the <i>Native Vegetation Act 1991</i> and/or any other legislation that may apply.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Mitigation</b>           | Measures to reduce tree risk, improve tree condition, remove structural flaws, manage other conditions as appropriate may be recommended in the form of pruning and is listed in the Tree Assessment Findings (Appendix B). Tree pruning is recommended in accordance with AS4373-2007 <i>Pruning amenity trees</i> where practicable. Where measures to mitigate risk is not possible and the risk is unacceptable, then tree removal or further investigation is recommended.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Useful Life Expectancy (ULE)

| ULE Rating | Definition                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surpassed  | The tree has surpassed its Useful Life Expectancy. Trees that achieve a surpassed ULE may do so due to poor health, structure or form. Additionally, trees that are poorly located such as under high voltage powerlines or too close to structures may also achieve a surpassed ULE. Trees that achieve this status will be recommended for removal as there are no reasonable options to retain them. |
| <10 years  | The tree displays either or both Poor Health and/or Structure and is considered to have a short Useful Life Expectancy of less than ten years. Some short-lived species such as <i>Acacia sp.</i> may naturally achieve a short ULE.                                                                                                                                                                    |
| >10 years  | The tree displays Fair Health or Structure and Good Health or Structure and is considered to have a Useful Life Expectancy of ten years or more. Trees identified as having a ULE of >10, will require mitigation such as pruning, stem injections or soil amelioration to increase their ULE.                                                                                                          |
| >20 years  | The tree displays Good Health and Structure and is considered to have an extended Useful Life Expectancy of more than twenty years.                                                                                                                                                                                                                                                                     |

## Maturity (Age)

| Age Class   | Definition                                                                                                                                                                                                                                                                                                   |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Senescent   | The tree has surpassed its optimum growing period and is declining and/or reducing in size. May be considered as a veteran in relation to its ongoing management. Tree will have generally reached greater than 80% of its expected life expectancy.                                                         |
| Mature      | A mature tree is one that has reached its expected overall size, although the tree's trunk is still expected to continue growing. Tree maturity is also assessed based on species; as some trees are much longer lived than others. Tree will have generally reached 20-80% of its expected life expectancy. |
| Semi Mature | A tree which has established but has not yet reached maturity. Normally tree establishment practices such as watering will have ceased. Tree will generally not have reached 20% of its expected life expectancy.                                                                                            |
| Juvenile    | A newly planted tree or one which is not yet established in the landscape. Tree establishment practices such as regular watering will still be in place. Tree will generally be a newly planted specimen up to five years old; this may be species dependant.                                                |

## Tree Health Assessment (THA©)

| Category | Description                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Good     | Tree displays normal vigour, uniform leaf colour, no or minor dieback (<5%), crown density (>90%). When a tree is deciduous, healthy axillary buds and typical internode length is used to determine its health. A tree with good health would show no sign of disease and no or minor pest infestation was identified. The tree has little to no pest and/or disease infestation.                                                                        |
| Fair     | Tree displays reduced vigour abnormal leaf colour, a moderate level of dieback (<15%), crown density (>70%) and in deciduous trees, reduced axillary buds and internode length. Minor pest and/or disease infestation potentially impacting on tree health. Trees with fair health have the potential to recover with reasonable remedial treatments.                                                                                                     |
| Poor     | Tree displays an advanced state of decline with low or no vigour, chlorotic or dull leaf colour, with high crown dieback (>15%), low crown density (<70%) and/or in deciduous trees, few or small axillary buds and shortened internode length. Pest and or disease infestation is evident and/or widespread. Trees with poor health are highly unlikely to recover with any remedial treatments; these trees have declined beyond the point of reversal. |
| Dead     | The tree has died and has no opportunity for recovery.                                                                                                                                                                                                                                                                                                                                                                                                    |

## Tree Structural Assessment (TSA©)

| Category | Description                                                                                                                                                                                                                                                                                                                                                                       |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Good     | Little to no branch failure observed within the crown, well-formed unions, no included bark, good branch and trunk taper present, root buttressing and root plate are typical. Trees that are identified as having good health display expected condition for their age, species and location.                                                                                    |
| Fair     | The tree may display one or more of the following a history of minor branch failure, included bark unions may be present however, are stable at this time, acceptable branch and trunk taper present, root buttressing and root plate are typical. Trees with fair structure will generally require reasonable remediation methods to ensure the tree's structure remains viable. |
| Poor     | History of significant branch failure observed in the crown, poorly formed unions, unstable included bark unions present, branch and/or trunk taper is abnormal, root buttressing and/or root plate are atypical.                                                                                                                                                                 |
| Failed   | The structure of the tree has or is in the process of collapsing.                                                                                                                                                                                                                                                                                                                 |

## Tree Form Assessment (TFA©)

| Category | Description                                                                                                                                                                                                                                                                                    |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Good     | Form is typical of the species and has not been altered by structures, the environment or other trees.                                                                                                                                                                                         |
| Fair     | The form has minor impacts from structures, the environment or adjacent trees which has altered its shape. There may be slight phototropic response noted or moderate pruning which has altered the tree's form.                                                                               |
| Poor     | The tree's form has been substantially impacted by structures, the environment, pruning or other trees. Phototropic response is evident and unlikely to be corrected.                                                                                                                          |
| Atypical | Tree form is highly irregular due to structures or other trees impacting its ability to correctly mature. Extreme phototropic response is evident; or the tree has had a substantially failure resulting in its poor condition, or extensive pruning has altered the tree's form irreversibly. |

## Priority

| Category | Description                                                                                                                                                                                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Low      | Identified works within this priority should be carried out within 12 months.                                                                                                                |
| Medium   | Identified works within this priority should be carried out within 6 months.                                                                                                                 |
| High     | Identified works within this priority should be carried out within 3 months.                                                                                                                 |
| Urgent   | Identified works within this priority should be carried out immediately. Works within this priority rating will be brought to attention of the responsible person at the time of assessment. |

## Development Impact Assessment

Potential development impacts were determined in accordance with Australian Standard AS4970-2025 *Protection of trees on development sites*. The identification of the impact of development considers a number of factors including the following:

- a. The extent of encroachment into a tree's Tree Protection Zone by the proposed development as a percentage of the area.
- b. Results of any non-destructive exploratory investigations that may have occurred to determine root activity.
- c. Any required pruning that may be needed to accommodate the proposed development.
- d. Tree species and tolerance to root disturbance.
- e. Age, vigour and size of the tree.
- f. Lean and stability of the tree.
- g. Soil characteristics and volume, topography and drainage.
- h. The presence of existing or past structures or obstacles potentially affecting root growth.
- i. Design factors incorporated into the proposed development to minimise impact.

The impacts on a tree can be varied and are not necessarily consistent with or directly correlated to a particular level of encroachment, to assist in providing consistency the levels of impact have been classified into the following categories: -

- No Impact - no encroachment into the TPZ has been identified.
- Low <10% - the identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.
- Low >10% - the identified encroachment is greater than 10% of the TPZ area however there are factors that indicate the proposed development will not negatively impact tree viability.
- High >10% - the identified encroachment is greater than 10% of the TPZ area and factors are present that indicate the proposed development will negatively impact tree viability. The impact is likely to lead to the long-term decline of the tree however it is unlikely to impact on its short-term stability.
- Conflicted - the identified encroachment is greater than 10% of the TPZ area and in most cases will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'Low' have features or considerations identified in clauses in AS4970-2025 3.3.4 *TPZ encroachment considerations* which indicate these trees should be sustainable.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'High' do not have any features or considerations identified in clauses in AS4970-2025 3.3.4 and therefore alternative design solutions, additional root investigations and/or tree sensitive construction measures are required if the tree is to be retained. Where alternative protection methodologies are not available tree removal may be required to accommodate the development.

Trees with an Impact identified as 'Conflicted' are impacted over the majority of their root zone and/or over the SRZ or on the trunk, additional root investigations or tree sensitive construction measures are not available and the only option is alternative designs or tree removal.

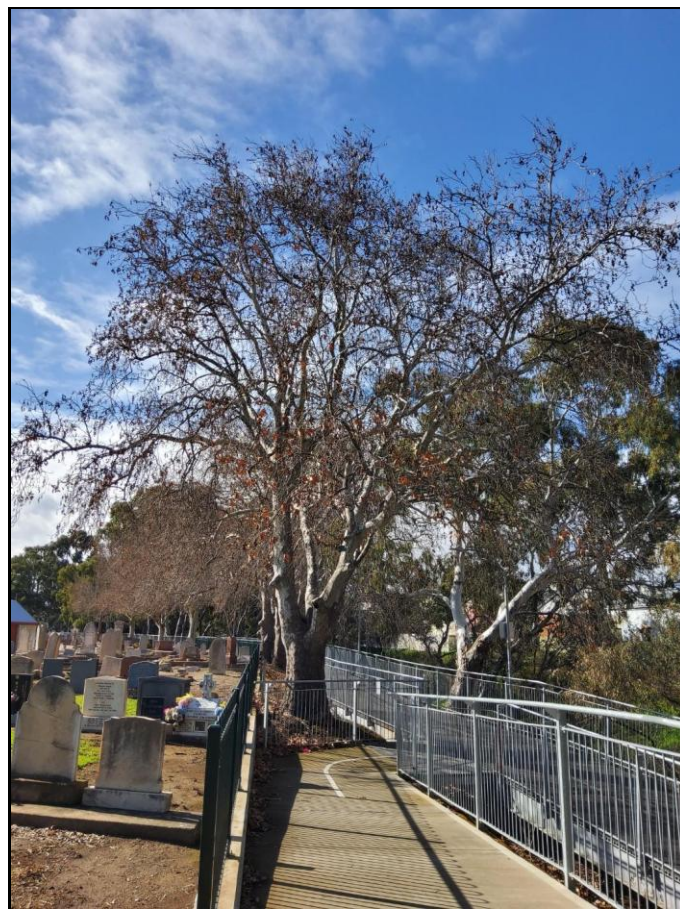
## Appendix B - Tree Assessment Findings

## Cut-Leaf Plane

|                         |                  |
|-------------------------|------------------|
| Inspected:              | 23 February 2026 |
| Height:                 | 15-20 metres     |
| Spread:                 | 15-20 metres     |
| Health:                 | Good             |
| Structure:              | Good             |
| Form:                   | Good             |
| Trunk Circumference:    | >2 metres        |
| Useful Life Expectancy: | >20 years        |
| Notional Root Zone:     | 11.28 metres     |
| Structural Root Zone:   | 3.44 metres      |

### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



### Legislative Status

Significant

This tree has a trunk circumference greater than two metres, is not subject to any exemption from regulation and is therefore identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

### Development Impact

Low

The identified encroachment is greater than 10% of the TPZ area however there are factors that indicate the proposed development will not negatively impact tree viability.

### Action

Specialised Construction

Low impact construction methods have been recommended and incorporated into the design to minimise any impact on the tree. It is unlikely the proposed works will impact on tree viability.

## Gawler Hybrid Bottlebrush

|                         |                  |
|-------------------------|------------------|
| Inspected:              | 23 February 2026 |
| Height:                 | 5-10 metres      |
| Spread:                 | 5-10 metres      |
| Health:                 | Good             |
| Structure:              | Good             |
| Form:                   | Good             |
| Trunk Circumference:    | >2 metres        |
| Useful Life Expectancy: | >20 years        |
| Notional Root Zone:     | 5.90 metres      |
| Structural Root Zone:   | 2.59 metres      |

### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



### Legislative Status

Significant

This tree has a trunk circumference greater than two metres, is not subject to any exemption from regulation and is therefore identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

### Development Impact

Conflicted

The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

### Action

Removal Required

Tree removal is required to facilitate the proposed development.

Prickly Paperbark

|                         |                  |
|-------------------------|------------------|
| Inspected:              | 23 February 2026 |
| Height:                 | 5-10 metres      |
| Spread:                 | 5-10 metres      |
| Health:                 | Good             |
| Structure:              | Good             |
| Form:                   | Good             |
| Trunk Circumference:    | >1 metres        |
| Useful Life Expectancy: | >20 years        |
| Notional Root Zone:     | 3.96 metres      |
| Structural Root Zone:   | 2.18 metres      |

**Observations**

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



|                                                                                                                                                                                                                                                                                              |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Legislative Status</b>                                                                                                                                                                                                                                                                    | Exempt           |
| This tree is of a species declared by the Minister as exempt from control under Regulation 3F(4)(b) of the Planning, Development and Infrastructure (General) Regulations 2017.                                                                                                              |                  |
| <b>Development Impact</b>                                                                                                                                                                                                                                                                    | Conflicted       |
| The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development. |                  |
| <b>Action</b>                                                                                                                                                                                                                                                                                | Removal Required |
| Tree removal is required to facilitate the proposed development.                                                                                                                                                                                                                             |                  |



## Coral Gum

|                         |                  |
|-------------------------|------------------|
| Inspected:              | 23 February 2026 |
| Height:                 | 5-10 metres      |
| Spread:                 | 5-10 metres      |
| Health:                 | Fair             |
| Structure:              | Good             |
| Form:                   | Good             |
| Trunk Circumference:    | >1 metres        |
| Useful Life Expectancy: | >10 years        |
| Notional Root Zone:     | 4.80 metres      |
| Structural Root Zone:   | 2.37 metres      |

### Observations

This tree is considered to be in fair overall condition due to the moderate level of deadwood, reduced foliage density throughout the crown.



### Legislative Status

Regulated

This tree has a trunk circumference greater than one metre but less than two metres, is not subject to any exemption from regulation and is therefore identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

### Development Impact

Conflicted

The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

### Action

Removal Required

Tree removal is required to facilitate the proposed development.

Prickly Paperbark

|                         |                  |
|-------------------------|------------------|
| Inspected:              | 23 February 2026 |
| Height:                 | <5 metres        |
| Spread:                 | <5 metres        |
| Health:                 | Good             |
| Structure:              | Good             |
| Form:                   | Fair             |
| Trunk Circumference:    | >1 metres        |
| Useful Life Expectancy: | >20 years        |
| Notional Root Zone:     | 2.54 metres      |
| Structural Root Zone:   | 1.80 metres      |

Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



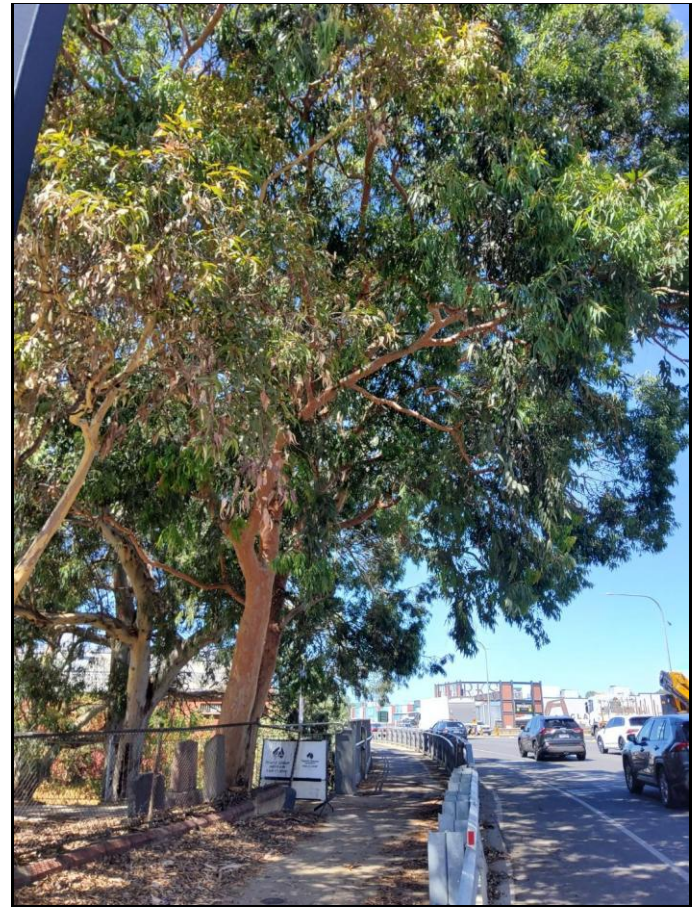
|                                                                                                                                                                                                                                                                                              |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Legislative Status                                                                                                                                                                                                                                                                           | Unregulated      |
| While this tree has a trunk circumference greater than one metre, the average trunk circumference is less than 0.31 metres and it is therefore not regulated by the Planning, Development and Infrastructure Act 2016.                                                                       |                  |
| Development Impact                                                                                                                                                                                                                                                                           | Conflicted       |
| The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development. |                  |
| Action                                                                                                                                                                                                                                                                                       | Removal Required |
| Tree removal is required to facilitate the proposed development.                                                                                                                                                                                                                             |                  |

## Smooth Bark Apple

|                         |                  |
|-------------------------|------------------|
| Inspected:              | 23 February 2026 |
| Height:                 | 5-10 metres      |
| Spread:                 | 10-15 metres     |
| Health:                 | Good             |
| Structure:              | Good             |
| Form:                   | Fair             |
| Trunk Circumference:    | >2 metres        |
| Useful Life Expectancy: | >20 years        |
| Notional Root Zone:     | 6.89 metres      |
| Structural Root Zone:   | 2.76 metres      |

### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



### Legislative Status

Significant

This tree has a trunk circumference greater than two metres, is not subject to any exemption from regulation and is therefore identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

### Development Impact

Conflicted

The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

### Action

Removal Required

Tree removal is required to facilitate the proposed development.

## Spotted Gum

|                         |             |
|-------------------------|-------------|
| Inspected:              | 18 May 2026 |
| Height:                 | 5-10 metres |
| Spread:                 | 5-10 metres |
| Health:                 | Good        |
| Structure:              | Good        |
| Form:                   | Good        |
| Trunk Circumference:    | <1 metres   |
| Useful Life Expectancy: | >20 years   |
| Notional Root Zone:     | 3.24 metres |
| Structural Root Zone:   | 2.02 metres |

### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



|                                                                                                                                                                                                                                                                                              |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Legislative Status</b>                                                                                                                                                                                                                                                                    | <b>Unregulated</b>      |
| This tree does not achieve a regulated trunk circumference and is therefore not regulated by the Planning, Development and Infrastructure Act 2016.                                                                                                                                          |                         |
| <b>Development Impact</b>                                                                                                                                                                                                                                                                    | <b>Conflicted</b>       |
| The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development. |                         |
| <b>Action</b>                                                                                                                                                                                                                                                                                | <b>Removal Required</b> |
| Tree removal is required to facilitate the proposed development.                                                                                                                                                                                                                             |                         |

## Gawler Hybrid Bottlebrush

|                         |             |
|-------------------------|-------------|
| Inspected:              | 18 May 2026 |
| Height:                 | <5 metres   |
| Spread:                 | <5 metres   |
| Health:                 | Good        |
| Structure:              | Good        |
| Form:                   | Fair        |
| Trunk Circumference:    | <1 metres   |
| Useful Life Expectancy: | >20 years   |
| Notional Root Zone:     | 2.00 metres |
| Structural Root Zone:   | 1.50 metres |

### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.



### Legislative Status

Unregulated

This tree does not achieve a regulated trunk circumference and is therefore not regulated by the Planning, Development and Infrastructure Act 2016.

### Development Impact

Conflicted

The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

### Action

Removal Required

Tree removal is required to facilitate the proposed development.

## Gawler Hybrid Bottlebrush

|                         |             |
|-------------------------|-------------|
| Inspected:              | 18 May 2026 |
| Height:                 | <5 metres   |
| Spread:                 | <5 metres   |
| Health:                 | Fair        |
| Structure:              | Good        |
| Form:                   | Fair        |
| Trunk Circumference:    | <1 metres   |
| Useful Life Expectancy: | >10 years   |
| Notional Root Zone:     | 3.00 metres |
| Structural Root Zone:   | 1.94 metres |

### Observations

This tree is considered to be in fair overall condition as evidenced by the moderately reduced foliage density throughout its crown.



### Legislative Status

Unregulated

This tree does not achieve a regulated trunk circumference and is therefore not regulated by the Planning, Development and Infrastructure Act 2016.

### Development Impact

Conflicted

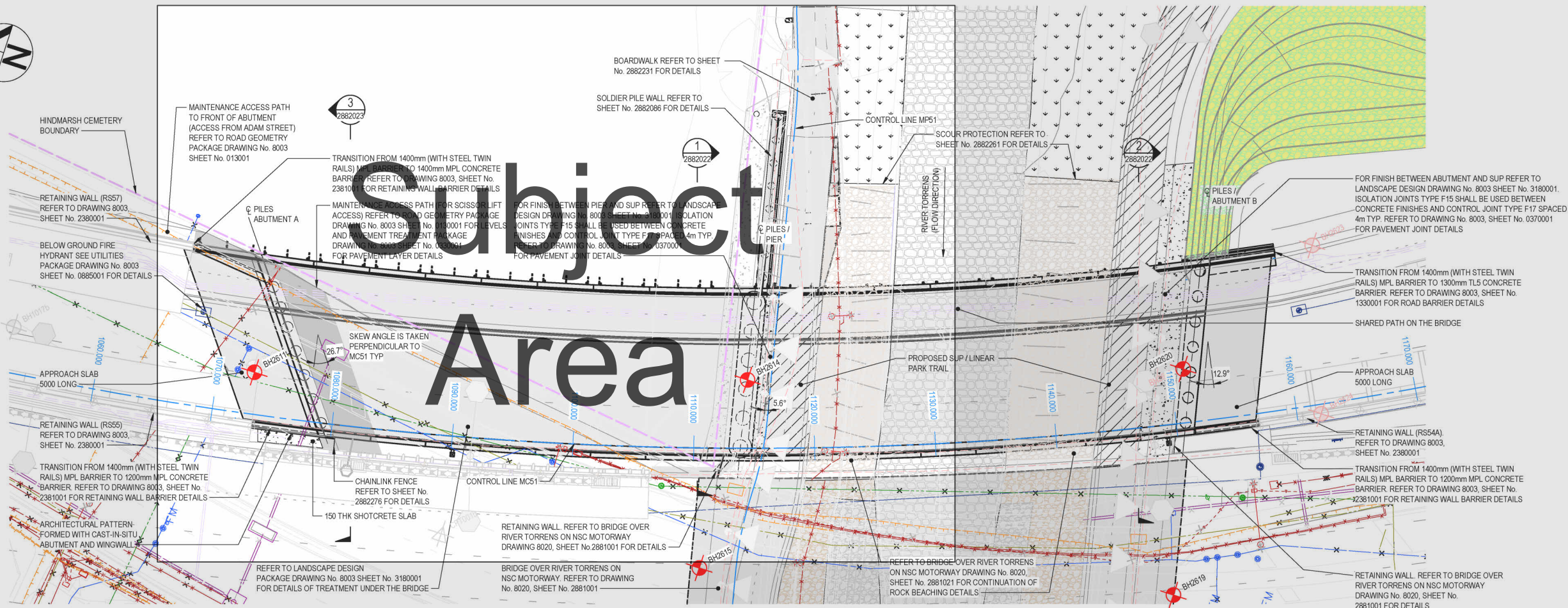
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

### Action

Removal Required

Tree removal is required to facilitate the proposed development.

## Appendix C - Mapping



## LEGEND

### GENERAL

- PROJECT BOUNDARY
- BRIDGE CONTROL LINE
- GABION RETAINING WALL. REFER TO LANDSCAPE DESIGN PACKAGE DRAWING No. 8003 SHEET No. 3180001 FOR DETAILS
- UNGRADED ROCK BEACHING TYPE 5 IN ACCORDANCE WITH VICROADS SECTION 713

### GEOTECHNICAL

- EXISTING BOREHOLE
- EXISTING PENETRATION TEST
- EXISTING TEST PIT
- PROPOSED BOREHOLE
- PROPOSED PENETRATION TEST
- PROPOSED TEST PIT

### UTILITIES - EXISTING

- EXISTING ELECTRICAL - OVERHEAD (SAPN)
- EXISTING ELECTRICAL - UNDERGROUND (SAPN)
- EXISTING ELECTRICAL - UNDERGROUND (DIT)
- EXISTING COMMUNICATIONS
- EXISTING STORMWATER - PIPE / CULVERT
- EXISTING GAS
- EXISTING SEWER
- EXISTING WATER
- UTILITIES TO BE DECOMMISSIONED / REMOVED

### UTILITIES - PROPOSED

- PROPOSED ELECTRICAL - OVERHEAD (SAPN)
- PROPOSED ELECTRICAL - UNDERGROUND (SAPN)
- PROPOSED ELECTRICAL - UNDERGROUND (DIT)
- PROPOSED COMMUNICATIONS
- PROPOSED GAS
- PROPOSED SEWER
- PROPOSED WATER

### DRAINAGE

- PROPOSED DRAINAGE - PIPE
- PROPOSED DRAINAGE - OPEN SPOON CHANNEL
- PROPOSED DRAINAGE - OPEN VEGETATED CHANNEL
- PROPOSED GRATED FIELD PIT
- PROPOSED GRATED INLET PIT
- PROPOSED DOUBLE GRATED INLET PIT
- PROPOSED DOUBLE GRATED SIDE ENTRY PIT
- PROPOSED SIDE ENTRY PIT

### LIGHTING AND ITS - PROPOSED

- PROPOSED ITS - CONDUIT ELECCOMMS
- PROPOSED ITS - PIT
- PROPOSED LIGHTING - CONDUIT ELEC
- PROPOSED LIGHTING - OUTREACH + LUMINAIRE (DIT)
- PROPOSED LIGHTING - OUTREACH + LUMINAIRE (COUNCIL)

### ROCK LEVEL LEGEND:

- ROCK LEVELS ARE INFERRED AND MAY VARY ON SITE
- TOP OF POORAKA FORMATION
- TOP OF ALLUVIUM
- TOP OF HINDMARSH CLAY (UPPER)

## PLAN

SCALE 1:200

OVERALL LENGTH OF DECK ON CONTROL LINE MC51 = 73033

## ELEVATION

SCALE 1:200

## NOTES

- FOR GENERAL NOTES REFER TO SHEET No. 2882005 TO 2882008.

PROJECT DOCUMENT REFERENCE  
T2DPAA-T2D-N5S-BR-DRG-102021

|                                                          |                       |    |       |            |      |                                |
|----------------------------------------------------------|-----------------------|----|-------|------------|------|--------------------------------|
| C3 ISSUED FOR ECD COMMENT CLOSE OUT                      |                       |    |       | T2DA       | T2DA | 14.07.26                       |
| C2 ISSUED FOR ECD COMMENT CLOSE OUT                      |                       |    |       | T2DA       | T2DA | 22.05.26                       |
| C1 ISSUED FOR ECD COMMENT CLOSE OUT                      |                       |    |       | T2DA       | T2DA | 12.05.26                       |
| B ISSUED FOR DETAILED DESIGN DOCUMENTATION               |                       |    |       | T2DA       | T2DA | 23.03.26                       |
| A ISSUED FOR PRELIMINARY DESIGN DOCUMENTATION            |                       |    |       | T2DA       | T2DA | 15.08.25                       |
| No.                                                      | AMENDMENT DESCRIPTION | BY | CHECK | ACCEPTANCE | DATE | UNCONTROLLED COPY WHEN PRINTED |
| 100 MILLIMETRES ON ORIGINAL DRAWING                      |                       |    |       |            |      |                                |
| ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE |                       |    |       |            |      |                                |

INDEX SHEET REFERENCE: 8030 SHEET 2882002

T2D→

TORRENS TO DARLINGTON

DISCLAIMER:  
BACKGROUND MODEL INFORMATION SHOWN ON THIS DRAWING IS PROVIDED FOR REFERENCE ONLY. THE BACKGROUND DESIGN MAY BE SUBJECT TO ONGOING DESIGN DEVELOPMENT AND REFINEMENT.

DESIGNER:  
D. WONG

QUALIFICATION:  
DATE:  
REVIEWER:  
D. TALBOT

QUALIFICATION:  
DATE:  
INDEPENDENT DESIGN CERTIFIER (IF REQUIRED):

QUALIFICATION:  
DATE:

PROJECT No.:  
31921901

FILE No.:  
2020/10577

DESIGN No.:  
#15551401

SURVEY No.:  
#15551401

PROJECT START ROAD RUNNING DISTANCE:  
NOT APPLICABLE

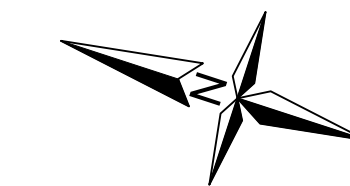
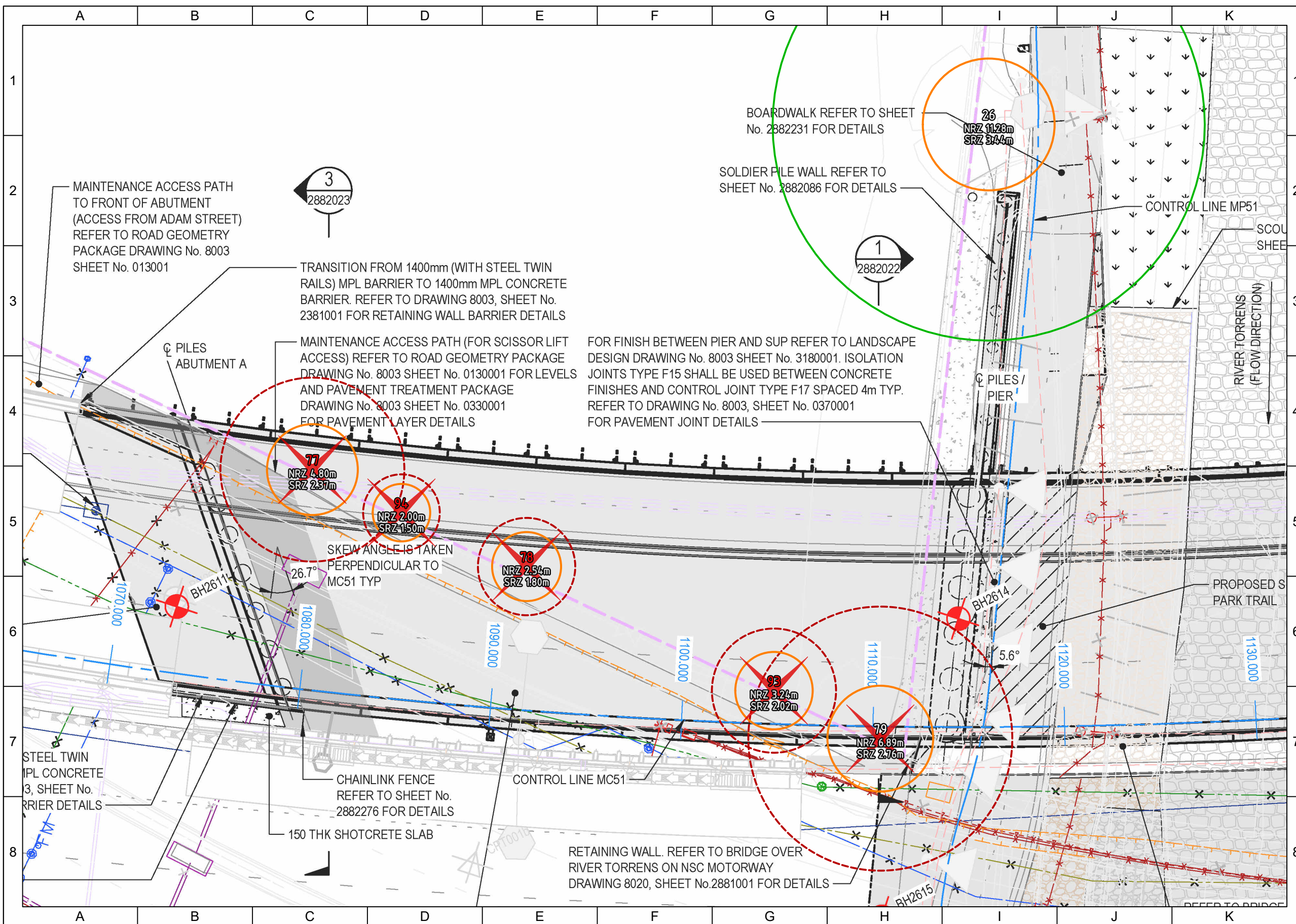
PROJECT END ROAD RUNNING DISTANCE:  
NOT APPLICABLE

SCALES:  
4000 0 2000 4000 6000 8000  
1:200

ROAD No. 62043  
SOUTH ROAD  
MANTON STREET - HENLEY BEACH ROAD  
SOUTHBOUND CARRIAGEWAY BRIDGE OVER RIVER TORRENS  
GENERAL ARRANGEMENT - SHEET 01

DESIGNED: T2DA  
DRAFTED: T2DA  
ACCEPTED FOR USE: T2DA  
ACCEPTANCE FORM KNET No.:  
DRAWING No.:  
8030  
SHEET No.:  
2882021  
AMEND No.:  
C3  
IN ACCORDANCE WITH DP013  
SHEET LATITUDE -34.91172  
SHEET LONGITUDE 138.56472

FILE NAME: Autodesk Docs//T2D - Torrens to Darlington /T2DPAA-T2D-N5S-BR-DRG-100324.rvt



| Legend                                |              |
|---------------------------------------|--------------|
| <span style="color: green;">○</span>  | NRZ - Retain |
| <span style="color: red;">⊗</span>    | NRZ - Remove |
| <span style="color: orange;">○</span> | SRZ          |

Red identifiers denote trees not present in the site detail survey. Their locations should be considered approximate only.

NRZ and SRZ dimensions are expressed as a radius from the centre of the trunk.

Date: 17/07/2026  
Ref: ATS8208-NorthBri03DIR-R2

Arborman Tree Solutions  
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## NRZ Locations and Proposed Removals

### T2D - North - Bridge 03

0 8 16 m  
1:200 @ A3

## Appendix D – Tree Assessment Summary

# Tree Assessment Summary

| Tree No. | Botanic Name                        | Legislative Status | Development Impact | NRZ Radius   | Observations                                                                                                                                 | Action                   |
|----------|-------------------------------------|--------------------|--------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 26       | <i>Platanus orientalis digitata</i> | Significant        | Low                | 11.28 metres | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Specialised Construction |
| 75       | <i>Callistemon 'Harkness'</i>       | Significant        | Conflicted         | 5.90 metres  | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Removal Required         |
| 76       | <i>Melaleuca styphelioides</i>      | Exempt             | Conflicted         | 3.96 metres  | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Removal Required         |
| 77       | <i>Eucalyptus torquata</i>          | Regulated          | Conflicted         | 4.80 metres  | This tree is considered to be in fair overall condition due to the moderate level of deadwood, reduced foliage density throughout the crown. | Removal Required         |
| 78       | <i>Melaleuca styphelioides</i>      | Unregulated        | Conflicted         | 2.54 metres  | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Removal Required         |
| 79       | <i>Angophora costata</i>            | Significant        | Conflicted         | 6.89 metres  | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Removal Required         |
| 93       | <i>Corymbia maculata</i>            | Unregulated        | Conflicted         | 3.24 metres  | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Removal Required         |
| 94       | <i>Callistemon 'Harkness'</i>       | Unregulated        | Conflicted         | 2.00 metres  | The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.                     | Removal Required         |
| 95       | <i>Callistemon 'Harkness'</i>       | Unregulated        | Conflicted         | 3.00 metres  | This tree is considered to be in fair overall condition as evidenced by the moderately reduced foliage density throughout its crown.         | Removal Required         |

## Appendix E - Tree Protection Zone Guidelines

## Tree Protection Zone General Specifications and Guidelines

The Tree Protection Zone(s) is identified on the site plan, the TPZ is an area where construction activities are regulated for the purposes of protecting tree viability. The TPZ should be established so that it clearly identifies and precludes development/construction activities including personnel.

If development activities are required within the TPZ then these activities must be reviewed and approved by the Project Arborist. Prior to approval, the Project Arborist must be certain that the tree(s) will remain viable as a result of this activity.

### **Work Activities Excluded from the Tree Protection Zone:**

- a) Machine excavation including trenching;
- b) Excavation for silt fencing;
- c) Cultivation;
- d) Storage;
- e) Preparation of chemicals, including preparation of cement products;
- f) Parking of vehicles and plant;
- g) Refuelling;
- h) Dumping of waste;
- i) Wash down and cleaning of equipment;
- j) Placement of fill;
- k) Lighting of fires;
- l) Soil level changes;
- m) Temporary or permanent installation of utilities and signs, and
- n) Physical damage to the tree.
- o) Any other activity that could impact on the tree.

## Protective Fencing

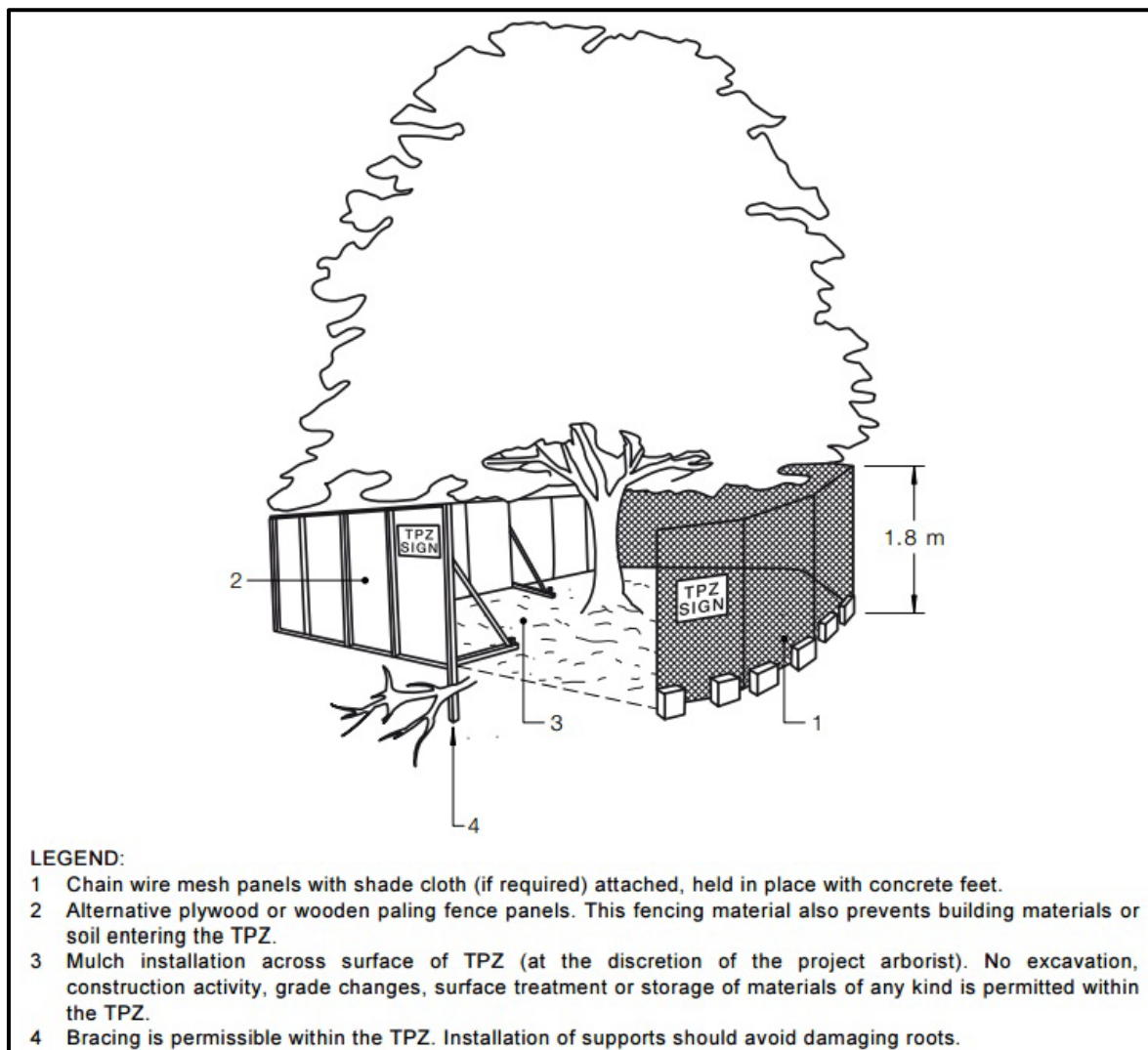
Protective fencing must be installed around the identified Tree Protection Zone (See Figure1). The fencing should be chain wire panels and compliant with AS4687-2007 *Temporary fencing and hoardings*. Shade cloth or similar material should be attached around the fence to reduce dust, other particulates and liquids entering the protected area.

Temporary fencing on 28kg bases are recommended for use as this eliminates any excavation requirements to install fencing. Excavation increases the likelihood of root damage therefore should be avoided where possible throughout the project.

Existing perimeter fencing and other structures may be utilised as part of the protective fencing.

Any permanent fencing should be post and rail with the set out determined in consultation with the Project Arborist.

Where the erection of the fence is not practical the Project Arborist is to approve alternative measures.



**Figure 1 Showing example of protection fencing measures suitable.**

## Signage

The TPZ must be clearly identified with signs placed around the edge of the TPZ and be visible within the development site. Example of a Tree Protection Zone Sign at the end of this document.

## Other Protection Measures

There are other protection methods that should be implemented within the development site and these include:-

### General

When a TPZ exclusion area cannot be established due to practical reasons or the area needs to be entered to undertake construction activities then additional tree protection measures may need to be adopted. Protection measures should be compliant with AS4970-2025 and approved by the Project Arborist.

### Installation of Scaffolding within Tree Protection Area.

Where scaffolding is required within the TPZ branch removal should be minimised. Any branch removal required should be approved by the Project Arborist and performed by a certified Arborist and performed in accordance with AS4373-2007. Approval to prune branches must be documented and maintained.

Ground below scaffold should be protected by boarding (e.g. scaffold board or plywood sheeting) as shown in Figure below. The boarding should be left in place until scaffolding is removed.

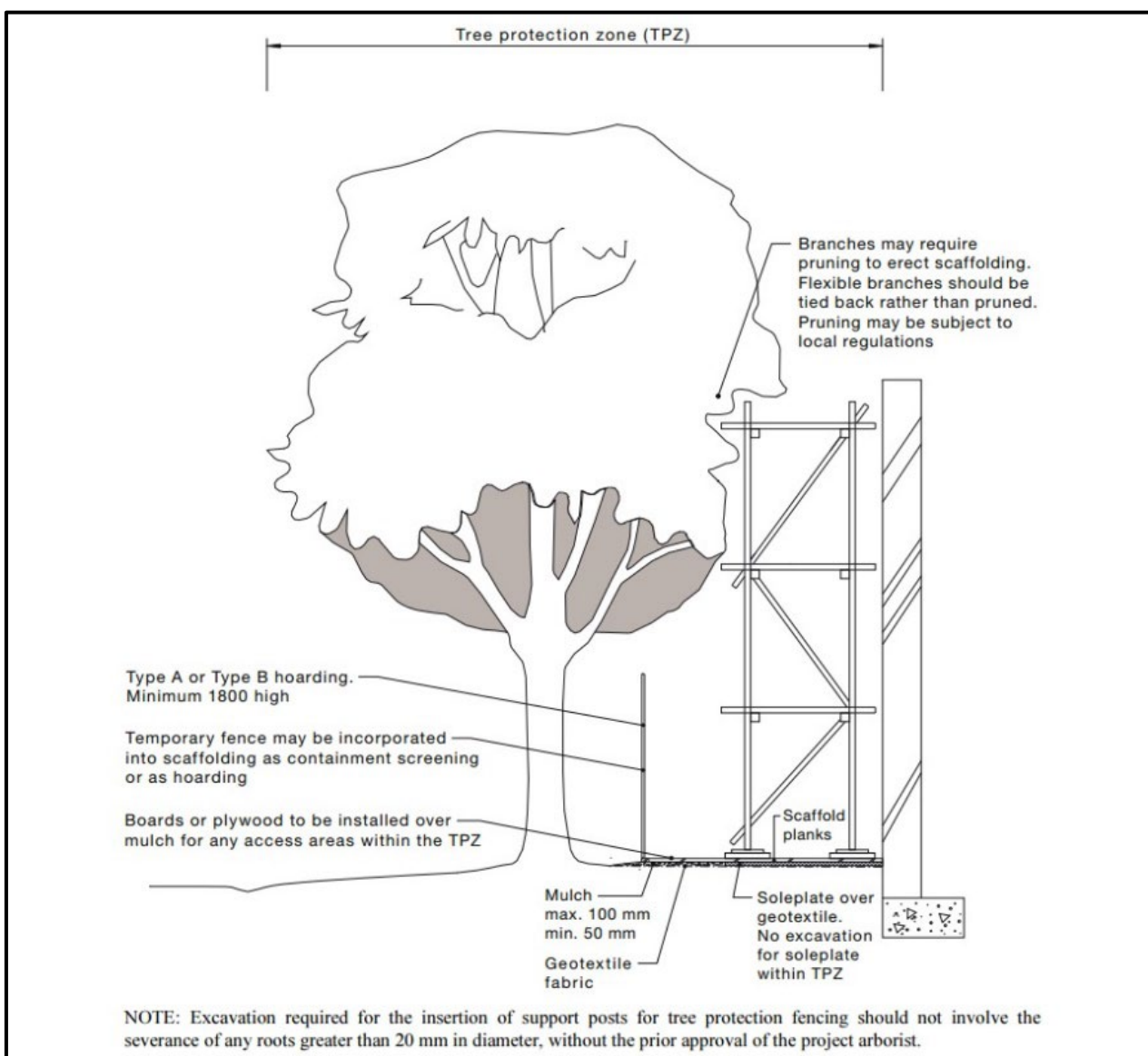


Figure 2 – Showing scaffold constructed within TPZ.

### Ground Protection and TPZ Access

Temporary access within the TPZ can be achieved by the installation of suitable ground protection. The purpose of ground protection is to prevent damage to tree roots and avoid compaction of the soil.

Ground protection methods include the placement of a permeable membrane beneath a layer of non-compactable material such as mulch or a no fines gravel which is in turn covered with rumble boards or steel plates.

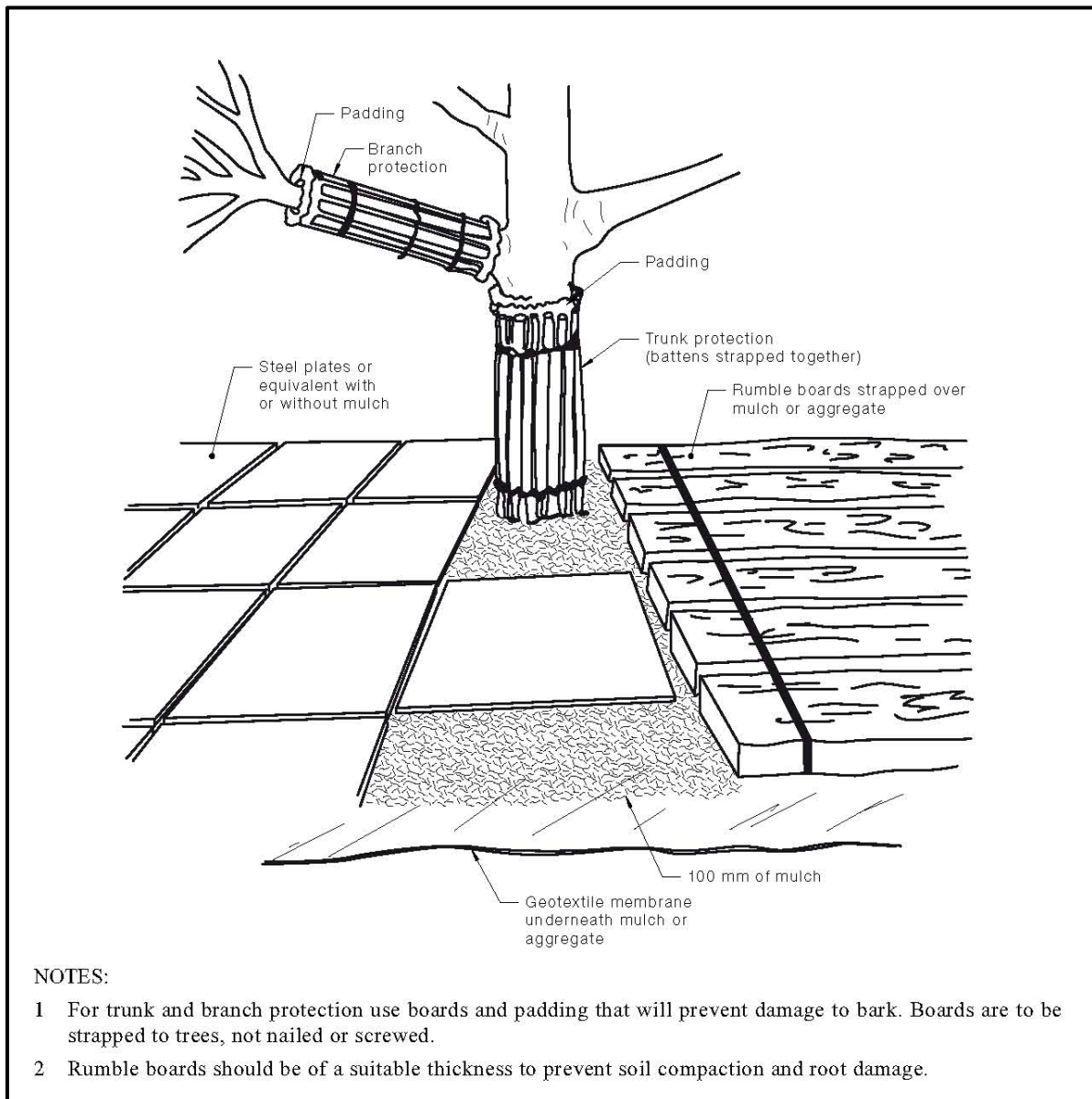


Figure 3 – Ground protection methods.

### **Document Source:**

The previous three diagrams in this document are sourced from AS4970-2025 Protection of trees on development sites. Further information and guidelines are available in within that document.

### Paving Construction within a Tree Protection Zone

Paving within any Tree Protection Zone (TPZ) must be carried out above natural ground level unless it can be shown with non-destructive excavation (AirSpade® or similar) that no or insignificant root growth occupies the proposed construction area.

Due to the adverse effect filling over a Tree Protection Zone (TPZ) can have on tree health; alternative mediums other than soil must be used. Available alternative mediums include structural soils or the use of a cellular confinement system such as *Ecocell*®.

### **Ecocell®**

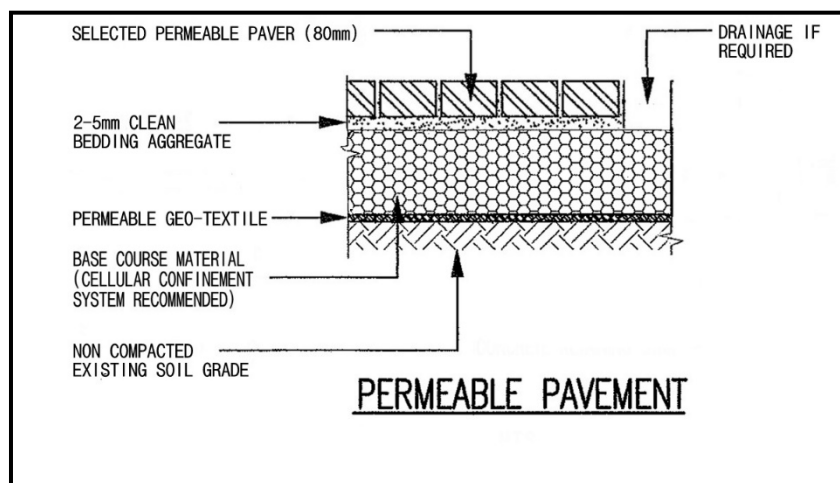
Ecocell® systems are a cellular confinement system that can be filled with large particle sized gravels as a sub-base for paving systems to reduce compaction to the existing grade.

### **Site preparation**

- Clearly outline to all contracting staff entering the site the purpose of the TPZ's and the contractors' responsibilities. No fence is to be moved and no person or machinery is to access the TPZ's without consent from the local council and/or the Project Arborist.
- Fence off the unaffected area of the TPZ with a temporary fence leaving a 1.5 metre gap between the work area and the fence; this will prevent machinery access to the remaining root zone.

### **Installation of Ecocell® and EcoTrihex Paving®**

- Install a non-woven geotextile fabric for drainage and separation from sub base with a minimum of 600mm overlap on all fabric seams as required.
- Add Ecocell®, fill compartments with gravel and compact to desired compaction rate.
- If excessive groundwater is expected incorporate an appropriate drainage system within the bedding sand level.
- Add paving sand to required depth and compact to paving manufacturer's specifications.
- Lay EcoTrihex Paving® as per manufactures specifications and fill gaps between pavers with no fines gravel.
- Remove all debris, vegetation cover and unacceptable in-situ soils. No excavation or soil level change of the sub base is allowable for the installation of the paving.
- Where the finished soil level is uneven, gullies shall be filled with 20 millimetre coarse gravel to achieve the desired level.



This construction method if implemented correctly can significantly reduce and potentially eliminated the risk of tree decline and/or structural failure and effectively increase the size of the Tree Protection Zone to include the area of the paving.

## Certificates of Control

| Stage in development                       | Tree management process                                                                                                                                                 |                                                                                                       |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                            | Matters for consideration                                                                                                                                               | Actions and certification                                                                             |
| Development submission                     | Identify trees for retention through comprehensive arboricultural impact assessment of proposed construction.<br>Determine tree protection measures<br>Landscape design | Provide arboricultural impact assessment including tree protection plan (drawing) and specification   |
| Development approval                       | Development controls<br>Conditions of consent                                                                                                                           | Review consent conditions relating to trees                                                           |
| <b>Pre-construction (Sections 4 and 5)</b> |                                                                                                                                                                         |                                                                                                       |
| Initial site preparation                   | State based OHS requirements for tree work                                                                                                                              | Compliance with conditions of consent                                                                 |
|                                            | Approved retention/removal                                                                                                                                              | Tree removal/tree retention/transplanting                                                             |
|                                            | Refer to AS 4373 for the requirements on the pruning of amenity trees                                                                                                   | Tree pruning<br>Certification of tree removal and pruning                                             |
|                                            | Specifications for tree protection measures                                                                                                                             | Establish/delineate TPZ<br>Install protective measures<br>Certification of tree protection measures   |
| <b>Construction (Sections 4 and 5)</b>     |                                                                                                                                                                         |                                                                                                       |
| Site establishment                         | Temporary infrastructure<br>Demolition, bulk earthworks, hydrology                                                                                                      | Locate temporary infrastructure to minimize impact on retained trees                                  |
|                                            |                                                                                                                                                                         | Maintain protective measures<br>Certification of tree protection measures                             |
| Construction work                          | Liaison with site manager, compliance<br>Deviation from approved plan                                                                                                   | Maintain or amend protective measures<br>Supervision and monitoring                                   |
| Implement hard and soft landscape works    | Installation of irrigation services<br>Control of compaction work<br>Installation of pavement and retaining walls                                                       | Remove selected protective measures as necessary<br>Remedial tree works<br>Supervision and monitoring |
| Practical completion                       | Tree vigour and structure                                                                                                                                               | Remove all remaining tree protection measures<br>Certification of tree protection                     |
| <b>Post construction (Section 5)</b>       |                                                                                                                                                                         |                                                                                                       |
| Defects liability/maintenance period       | Tree vigour and structure                                                                                                                                               | Maintenance and monitoring<br>Final remedial tree works<br>Final certification of tree condition      |

### Document Source:

This table has been sourced from AS4970-2025 Protection of trees on development sites. Further information and guidelines are available in within that document.

# Tree Protection Zone



## NO ACCESS

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## Appendix 5. Stakeholder meetings

### Pre-lodgement meetings

Preliminary meetings were held by the Alliance with representatives of key stakeholders - being Heritage SA (19 February 2026), the Office of Design and Architecture South Australia (ODASA) (27 February 2026) and the City of Charles Sturt (5 March 2026).

In addition to the above meetings, a formal pre-lodgement planning meeting coordinated by DHUD was held on 27 March 2026, and comprised representatives from the above stakeholders and City of West Torrens, Adelaide Airport, the Department (Transport Assessment), Attorney-General's Department (Aboriginal Affairs and Reconciliation) and the Green Adelaide Landscape Board.

Feedback received during the above meetings is summarised in below:

Table 10: Pre-lodgement meeting stakeholder feedback

| Aspect             | Feedback                                                                                                                                                                                                                                                                                                                          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bridge             | Explore opportunities to reduce width / increase height of bridge to increase natural light<br><br>Consideration of Crime Prevention Through Environmental Design (CPTED)/safety, vandalism and maintenance,<br><br>Improve user experience – in relation to: light, noise, landscaping, appearance. Compensate for user impacts. |
| Surface treatments | Ground treatments within cemetery should be softened with patterns and made less utilitarian,<br><br>Consider re-use of brickwork.                                                                                                                                                                                                |
| Fencing            | Duplicate fencing should be avoided,<br><br>If fencing removed, visual representation of the original boundary is desired.                                                                                                                                                                                                        |

A subsequent pre-lodgement planning meeting, held with representatives from DHUD, ODASA, Heritage SA and the cities of Charles Sturt and West Torrens, was held on 22 May 2026.

Feedback received during the meeting included:

- The height and width of the bridge, and the 'overbearing' presence of the structure.
- Incorporation of lighting and other measures to address the risk of anti-social behaviour below the bridge.
- Re-consider design of cladding to be slimmed / tapered.
- Suggest landscaping is simpler.
- Heritage value of the cemetery is the grid pattern alignment. The complex edging within the Cemetery should be simplified.
- Include some terra-forming within undercroft (mounding, undulations).
- Queried whether there was an opportunity to remove SUP fencing give the duplication of fencing in the immediate area.

## Urban Design Review Panel

Bridge 03 was presented to the UDRP at a meeting held on 9 April 2026. The proceedings and recommendations provided by the UDRP are confidential.

## Kaurna Urban Design Working Group

Bridge 03 and the works along the River Torrens / Karrawirra Parri were considered by the Kaurna Urban Design Working Group at its meeting of 20 November 2025 following a site walkover along the river on 18 November 2025.

## Kaurna Yerta Aboriginal Corporation

The T2D Project elements for the northern precinct and their expression of Kaurna culture were presented to the Kaurna Yerta Aboriginal Corporation (KYAC) Board on 19 May 2026 and subsequently endorsed.