

CODE AMENDMENT LOT 485 RANDELL RD, HINDMARSH ISLAND

TRANSPORT INVESTIGATIONS REPORT





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Lot 485 Randell Road, Hindmarsh Island

Transport Investigations Report

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1. EXECUTIVE SUMMARY

CIRQA has been engaged to provide traffic impact investigations to inform the Code Amendment for the potential rezoning of land at Lot 485 Randell Road, Hindmarsh Island from Rural Living Zone to Rural Neighbourhood Zone.

This report includes assessment of the forecast traffic generation associated with the proposed rezoning and redevelopment of the subject land, the associated impact on the adjacent existing road network and consideration of potential infrastructure provisions and upgrades.

In preparing the assessment, it has been assumed that the Affected Area would facilitate approximately 42 dwellings if rezoned to Rural Neighbourhood Zone, with a minimum allotment size of 2,000 m².

The Affected Area is proposed to be accessed via an existing access point on Randell Road and a network of private circulation driveways internal to the site. The Hazards (Bushfire - High Risk) Overlay currently applies to the Affected Area and it is envisaged that this Overlay would continue to apply to the Affected Area as part of the Code Amendment (requiring consultation with referral bodies such as the CFS regarding future access and internal road network provisions).

Forecasting of the site's future traffic generation identifies that the proposed rezoning of the Affected Area will generate in the order of an additional 34 am and pm peak hour trips (approximate additional 336 daily trips).

It is anticipated that the forecast levels of traffic associated with future redevelopment of the Affected Area would be readily accommodated by the proposed public road network and an existing access point on Randell Road. The proposal would not alter the nature or function of Randell Road or adjacent public roads.

There is currently low demand for active transport facilities due to the low density of development within the Affected Area. Future demand for walking and cycling infrastructure may increase as development in the locality of the Affected Area intensifies.



2. BACKGROUND

2.1 AFFECTED AREA

The Affected Area comprises approximately 9.5 hectares of cleared pastoral land located between Randell Road and Batson Parade, Hindmarsh Island. Specifically, the Affected Area comprises Lot 485 Randell Road, Hindmarsh Island (Allotment 485 in F166859). The Affected Area is bounded by rural living allotments to the east, north-east and south and pastoral land on all other sides.

The Planning and Design Code identifies that the Affected Area is located within a Rural Living Zone. Vehicle access is currently provided via a free and unrestricted right of way over a portion of 6-10 Batson Parade (Allotment 486 in F166860) and an access point on Randell Road for Allotment 486 in F166860 (at which all turning movements are permitted).

The right of way over 6-10 Batson Parade bounds the Affected area to the west and is approximately 15.2 m wide and 557 m long. The length of the portion of right of way linking the Affected Area with Randell Road is approximately 305 m.





Figure 1 – Location of the Affected Area and adjacent road network.



2.2 ADJACENT ROAD NETWORK

Randell Road is identified as a 'sub-arterial road' under the care and control of Alexandrina Council by the LocationSA Map Viewer website. Randell Road comprises a 6.5 m wide carriageway (approximate) with a single traffic lane in each direction and unsealed shoulders on either side. Traffic data obtained from the Alexandrina Council indicates that Randell Road has an Annual Average Daily Traffic (AADT) volume in the order of 3,130 vehicles per day (vpd), of which approximately 1.2% are commercial vehicles. An 80 km/h speed limit applies on Randell Road.

Batson Parade is identified as a collector road under the care and control of Alexandrina Council by the LocationSA Map Viewer website. Batson Parade comprises a 5.5 m wide carriageway (approximate) with a single traffic lane in each direction and unsealed shoulders on either side. A 50 km/h speed limit applies on Batson Parade.

2.3 WALKING, CYCLING AND PUBLIC TRANSPORT

Given the rural nature of the locality, there are generally no formalised pedestrian or cyclist facilities provided on the roads adjacent the Affected Area.

Link SA provides daily public bus services to/from Hindmarsh Island via Victor Harbor, Noarlunga (Colonnades Shopping Centre), Marion (Marion Shopping Centre) and the Adelaide CBD.

Additional public transport options are provided to eligible residents of the area through the Southern Communities Transport Scheme (SCOTS), a community transport scheme provided by the City of Victor Harbor and Alexandrina Council that offers door-to-door transport services for medical appointments, social/family activities and shopping trips.



3. PROPOSED REZONING

3.1 LAND USE AND YIELD

The proposal seeks a rezoning of the Affected Area from Rural Living Zone to Rural Neighbourhood Zone. CIRQA's assessment has been based on the creation of approximately 42 residential allotments (as determined by structure planning for the Affected Area), with each allotment assumed to accommodate a single detached dwelling.

3.2 VEHICLE ACCESS AND ROAD INFRASTRUCTURE

The site is proposed to be accessed via the existing access point on Randell Road for Allotment 486 in F166860, at which all turning movements are permitted. Given that the right of way is approximately 15.2 m wide at the boundary with Randell Road, sufficient width is available for two-way access provisions.

The access point will provide connections to an internal road network comprising private circulation driveways that would be designed to accommodate the traffic volumes and vehicle types (including commercial vehicles such as refuse vehicles) anticipated to be associated with the development on the site. The design of the internal road network will be required to accommodate forward-in/forward-out movements, either via provision of a continuous road loop and/or via provision of turning facilities within the road network (i.e. cul-de-sacs or Tee-head facilities).



4. POLICY FRAMEWORK

A review of the policy framework of the Planning and Design Code has been undertaken in respect to traffic and transport aspects which may affect future development within the Affected Area as a result of the proposed rezoning as detailed below.

4.1 GENERAL DEVELOPMENT POLICIES

The General Development Policies 'Transport, Access and Parking' are generally considered appropriate in relation to potential future development within the Affected Area.

In respect to the parking provision requirements identified in the General Development Policies 'Transport, Access and Parking', it is anticipated that the parking rates outlined in 'Table 1 - General Off-Street Car Parking' will be applicable to future development within the Affected Area.

4.2 OVERLAYS

The Hazards (Bushfire - High Risk) Overlay currently applies to the Affected Area, with implications on traffic and transport provision. This Overlay seeks (for land divisions) "a continuous street pattern (avoiding the use of dead-end roads/culde-sac road design) to facilitate the safe movement and evacuation of emergency vehicles, residents, occupants and visitors. Where cul-de-sac / dead end roads are proposed, an alternative emergency evacuation route is provided".

The Overlay also seeks "at least two separate and safe exit points to enable multiple avenues of evacuation in the event of a bushfire" for land divisions, where 10 or more new allotments are proposed.

It is envisaged that the Hazards (Bushfire - High Risk) Overlay would continue to apply to the Affected Area as part of the Code Amendment and consultation would be undertaken with the Country Fire Service (CFS) regarding the proposed road network configuration and access arrangement (which comprises a single access point on the adjoining road network). While the site currently has limited options for additional formal access provision, it should be noted that there are multiple existing private access roads adjacent the Affected Area to the north (providing connection to Batson Road) and to the east (providing connection to Randell Road), which could potentially be used as secondary exit routes in an emergency. Development of the site should include allowance for connectivity to these adjacent properties which could be developed in the future and accommodate formal secondary emergency access routes (in particular, the properties within the Rural Neighbourhood Zone to the north which could accommodate access via Batson Parade).



5. TRAFFIC GENERATION AND DISTRIBUTION

5.1 FORECAST MOVEMENTS

Daily traffic generation rates in the order of 7.5 to 8.0 trips per dwelling are commonly applied and accepted for detached dwellings throughout South Australia (with 10% occurring during each of the am and pm peak hours). For conservatism, the higher of the above range (8.0 trips per dwelling) has been adopted for the following assessment.

On the basis of the above rates, it is forecast that future development of the 42 residential allotments could generate in the order of 336 daily vehicle trips (or approximately 34 peak hour trips based upon 10% occurring during the peak hours).

5.2 TRAFFIC DISTRIBUTION

For the purposes of this assessment, it has been assumed that 70% of the site's am peak hour traffic will exit the site and 30% will enter, and vice versa during the pm peak hour. This equates to 24 egress and 10 ingress movements during the am peak hour, and 10 egress and 24 ingress movements during the pm peak hour.

Furthermore, it has been assumed that 95% of movements at the Randell Road access point will be to/from the west and 5% of movements will be to/from the east.

The resulting distribution of am and pm peak hour trips forecast at the Affected Area's Randell Road access point is illustrated in Figure 2.

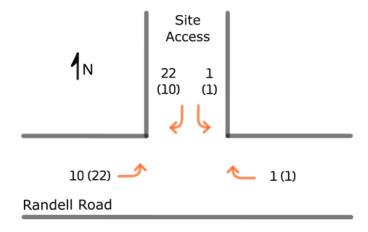


Figure 2 - Forecast traffic generated by the proposed Code Amendment at the proposed Randell Road access point during am (and pm) peak hour



5.3 TRAFFIC IMPACT

The additional 34 peak hour movements forecast to be generated by future development of the Affected Area is anticipated to be readily accommodated on the right of way and on Randell Road (without impacting its function as a subarterial road).

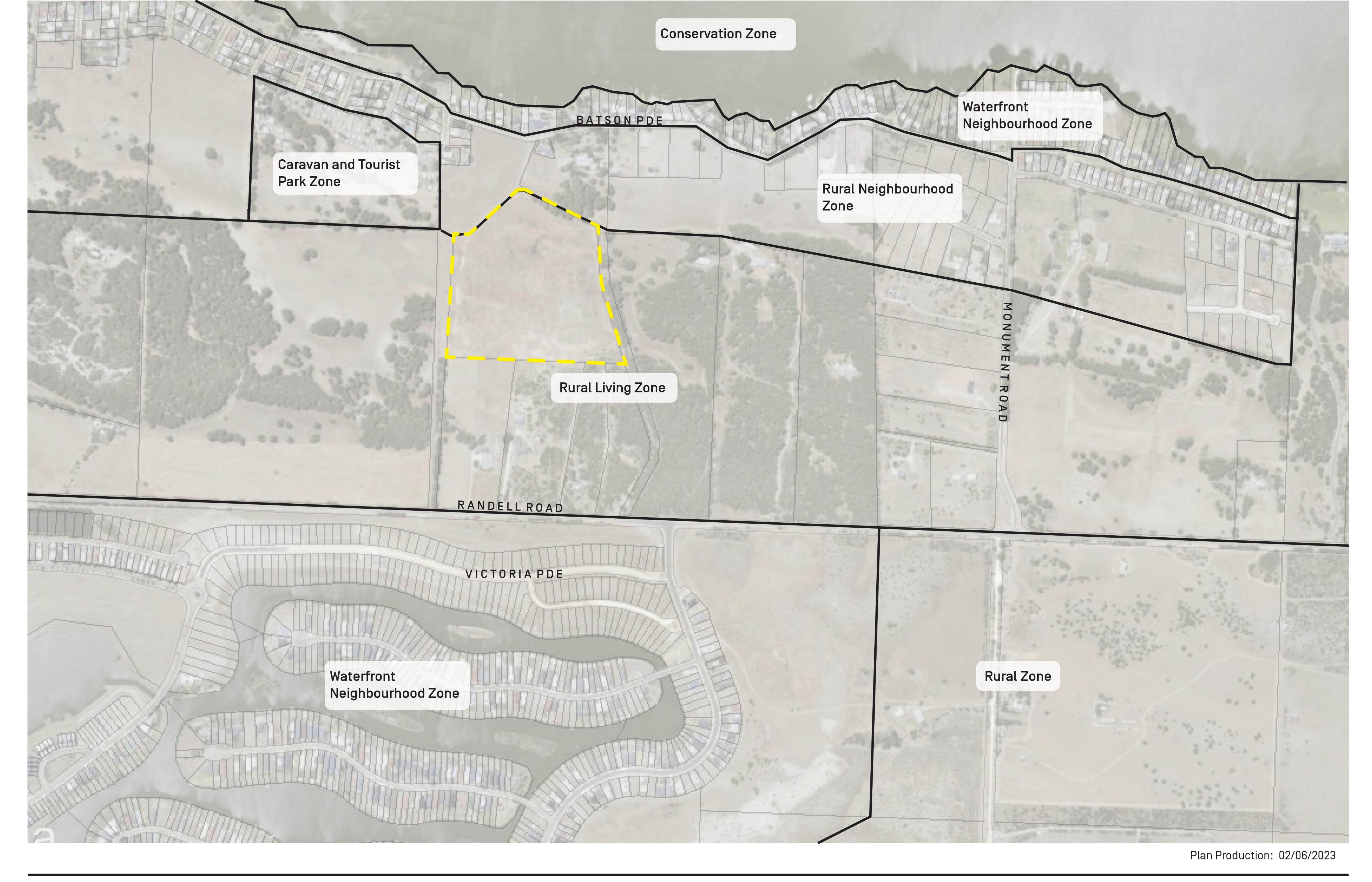
In order to determine whether an intersection treatment is warranted at the proposed Randell Road access point, an assessment has been undertaken against the requirements of the relevant Austroads' Guidelines (Figure 3.25 (b) of the "Guide to Traffic Management – Part 6: Intersections, Interchanges and Crossings Management" (AGTM6)).

Based on the forecast 10 left-in movements and 1 right-in movement during the weekday am peak hour and the forecast 22 left-in movements and 1 right-in movement during the weekday pm peak hour, as well as weekday peak hour traffic volumes on Randell Road of approximately 160 eastbound and westbound vehicles, the Austroads' Guide identifies that the traffic volumes generated by the potential future residential development associated with the proposed Code Amendment would theoretically warrant provision of basic right (BAR) turn and basic left (BAL) turn treatments at the Randell Road access point (i.e. the minimum treatment identified by the Austroads' Guide with separated turn lanes not warranted).

Vehicle movements are anticipated to be readily accommodated on the surrounding road network with minimal impact upon its operation, and without impacting upon its nature and/or function.



APPENDIX A PLAN OF AFFECTED AREA PREPARED BY FUTURE URBAN



Current Zoning

485 Randell Road, Hindmarsh Island LEGEND



APPENDIX B

CERTIFICATE OF TITLE FOR AFFECTED AREA (ALLOTMENT 485 IN F166859)



Product
Date/Time
Customer Reference
Order ID

Register Search (CT 6255/924) 20/06/2023 11:41AM Future Urban 20230620003843

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6255 Folio 924

Parent Title(s) CT 6007/41

Creating Dealing(s) TR:N 13557460

Title Issued 30/06/2021 Edition 1 Edition Issued 30/06/2021

Estate Type

FEE SIMPLE

Registered Proprietor

NOBLE INVESTMENTS SUPERANNUATION FUND PTY. LTD. (ACN: 135 046 409) OF GPO BOX 1572 ADELAIDE SA 5001

Description of Land

ALLOTMENT 485 FILED PLAN 166859 IN THE AREA NAMED HINDMARSH ISLAND HUNDRED OF NANGKITA

Easements

TOGETHER WITH EASEMENT(S) OVER THE LAND MARKED B AND C APPURTENANT ONLY TO THE LAND MARKED X (T 2763990)

TOGETHER WITH EASEMENT(S) OVER THE LAND MARKED B AND C APPURTENANT ONLY TO THE LAND MARKED Y (T 2858341)

TOGETHER WITH FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED A APPURTENANT ONLY TO THE LAND MARKED X

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

APPROVED FX256818

Administrative Interests NIL

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Product
Date/Time
Customer Reference
Order ID

Register Search (CT 6255/924) 20/06/2023 11:41AM Future Urban 20230620003843

