

**INFRASTRUCTURE SERVICING REPORT**  
**490-500 BURWOOD HIGHWAY**  
**VERMONT SOUTH**  
**WHITEHORSE CITY COUNCIL**  
**FOR**  
**PLANNING SCHEME AMENDMENT**

**CLIENT: DANDENONG VIEWS PTY LTD**  
**REEDS REF: 24157E**  
**DATE: 23 January 2023 Version: 1**



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| 1               | 23/01/2023        | Complete      | G Templeton   |                |                 |
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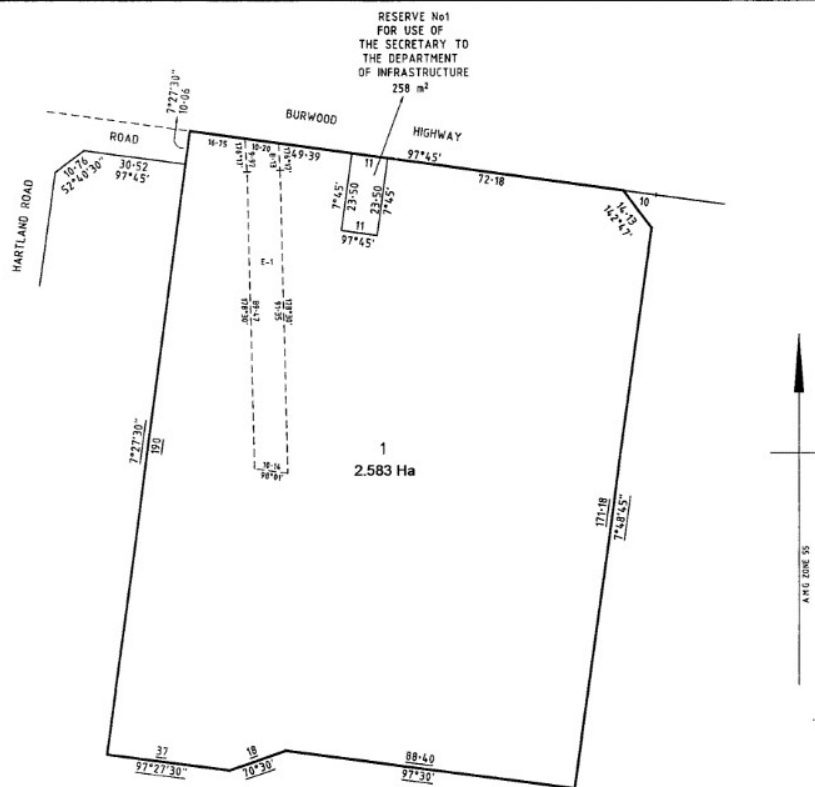
**1.0 GENERAL**

This report has been prepared on behalf of Dandenong Views to provide an overview of the Infrastructure Servicing issues and requirements for the development of the 490-500 Burwood Highway Vermont South site.

The information contained in this report is based on preliminary investigations by Reeds Consulting that has been facilitated by information provided by the servicing authorities including Whitehorse City Council, Yarra Valley Water and Melbourne Water. The information received is subject to confirmation at the time that the development proceeds and formal service applications are lodged.

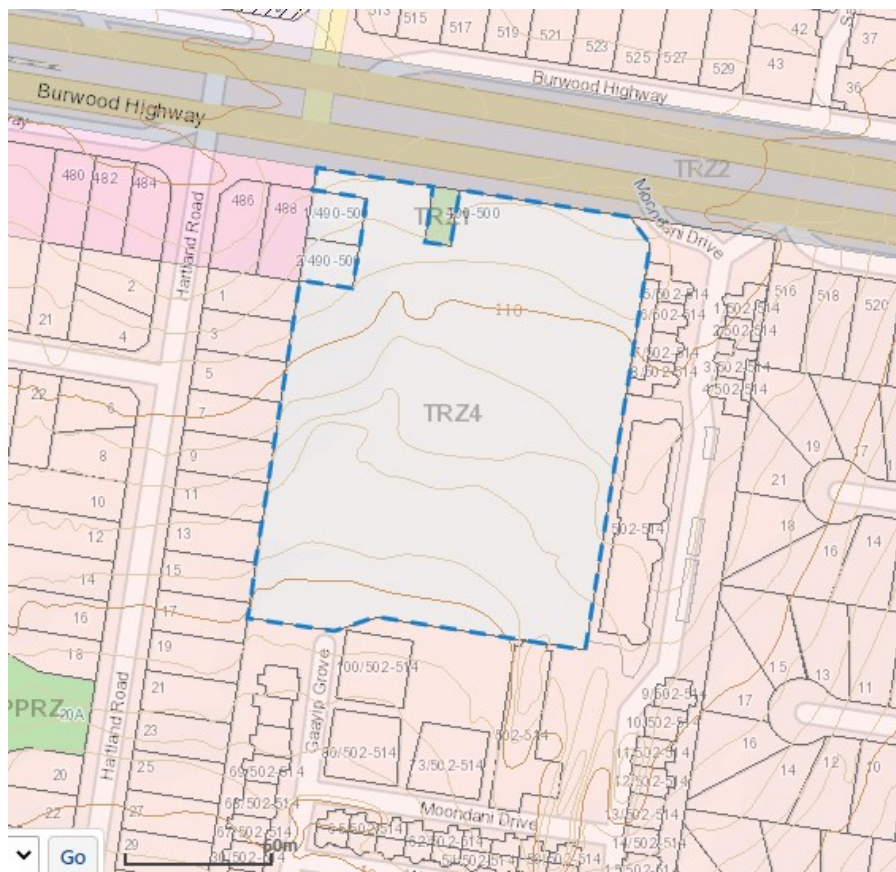
The site is located within the Whitehorse City Council and consists of a total area of approximately 2.583 hectares. The site has frontage to Burwood Highway to the north. The western site boundary abuts existing residential allotments which have street address to Hartland Road. The eastern and southern site boundaries abut a retirement estate known as Victoria Grange Residential Community.

The site generally falls toward the south, with a high point of RL114 in the north-western corner falling to a low point near the south-western corner of RL104.3



**Figure 1: Extract from the Certificate of Title**

The site includes a 10 metre easement in favour of United Energy for powerline.



**Figure 2: VicPlan contours**

## 2.0 SERVICES

### 2.1 ROADS

The Department of Transport (formerly Vic Roads) is the responsible authority for main roads and the Whitehorse City Council is the responsible authority for the other public roads.

The Department of Transport is responsible for Burwood Highway.

Burwood Highway is a constructed six (6) lane highway with central median and associated turn lanes.

The site has two existing driveways which provide vehicle access to the site as listed below;

1. Off the Burwood Highway Service Road at the north-eastern corner of the site.
2. Directly off Burwood Highway approximately 77 metres east of the north-western corner of the site.

Council is responsible for other roads in the general area.

The site does not have access to the Council roads.

**2.2 STORM WATER DRAINAGE**

Melbourne Water is the responsible authority for main drainage facilities and the Whitehorse City Council is the responsible authority for local drainage.

Note that there are no Melbourne Water underground drainage assets within or adjacent to the site, based on the note from the Dial Before U Dig response. There is a Melbourne Water drain further to the south in Western Drive

The information provided by Whitehorse City Council indicates that there is existing Council storm water drainage infrastructure to the west of the site and a connection to the site via an existing 600 millimetre diameter pipe in the south-western corner of the site.



**Figure 3: Whitehorse City Council drainage assets, extract from Dial Before U Dig.**



The fall of the land and surrounding areas indicates that in the normal rainfall event there is no external catchment. In more severe events a portion of Burwood Highway may drain into the site along with the Hartland Road properties. It is however noted that while the Burwood Highway road pavement crossfall is toward the site, the site is located just to the east of the high point which will minimise external catchment draining toward the site.

### 2.2.1 STORMWATER MANAGEMENT STRATEGY

Cardno have prepared a Stormwater Management Plan (SMP), which has been reviewed at a high level and the concept is generally supported.

The conclusion from Cardno's report is included below;

## 5 Conclusion

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Cardno have prepared a Stormwater Management Plan (SMP) to support an application to the City of Whitehorse for the rezoning of land at 500 Burwood Highway, Vermont to facilitate its medium-high density residential development.

The SMP for the 500 Burwood Highway comprises of the following key elements

- 150 m<sup>3</sup> of on-site detention storage (separate to the bio-retention basin) discharging into the existing 600 mm pipe located on the south-western corner of the site.
- Stormwater treatment to be provided via a combination of:
  - Rainwater tanks to each future dwelling to capture roof runoff and for use within toilets;
  - 4 x 2.25 m<sup>2</sup> tree pits, located within the internal road reserve/s; and
  - A bioretention system (rain garden) with a treatment area of 50 m<sup>2</sup>, to be located within the internal road reserve or internal open space/landscaping area.

Our assessment concludes that the proposed stormwater management measures will serve to satisfy the water quality and water quantity requirements of approval authorities for the purposes of obtaining approval from Whitehorse City Council.

Upon planning approval being obtained for the proposed development, further work will be required to advance the concept level designs to more detailed level stormwater management designs for construction. These more detailed designs would be accompanied by plans to maintain these assets to ensure their ongoing function and performance is realised.

The Cardno SMP includes connecting to the existing 600 millimetre diameter Council drain in the southwest corner of the site.

I have noted the following relatively minor matters;

Page 2 Paragraph at the top of the page, second sentence includes a typo as based on the information available the site is not subject to flooding.

Page 4 & 12 Dimensions of the bio-retention basin and OSD need to be resolved.

Based on my review of the Cardno report I am confident that proposed conceptual SMP, once progressed into a construction document will ensure that the appropriate requirements are achieved.

### 2.3 WATER SUPPLY RETICULATION

Melbourne Water is the responsible authority for main water supply. Yarra Valley Water is the Water Supply Authority for the subject land and the surrounding area.

Based on our investigations to date there are no Melbourne Water water supply infrastructure assets in the area.

Yarra Valley Water does have existing water mains located adjacent to the north of the site, 180mm diameter PE and a 357mm diameter MSCL, in Burwood Highway, south side of the road reservation.

Prior to receiving Yarra Valley Water’s formal advice, the following is our suggested water supply strategy for the proposed development of the site based on the assumption that due allowance has been made for the site.

To facilitate the provision of water supply to the site an estimated 100 to 150mm dia water main (TBC) property connection and potential ring main will need to be constructed, connecting to the existing 180mm dia PE main in Burwood Highway. The private (or potentially public) ring main will follow the alignment the proposed road layout. In addition, there will be a network of smaller water mains to provide each building/dwelling with water supply.

Water supply contributions are payable to Yarra Valley Water in association with the creation of new dwellings.





**Figure 4: Yarra Valley Water assets for water supply, overall and detail view**

## 2.4 SEWERAGE RETICULATION

Melbourne Water is the responsible authority for main sewer outfall. Yarra Valley Water is the Sewer Authority for the subject land and the surrounding area.

Based on our investigations to date there are no Melbourne Water sewer infrastructure assets in the area.

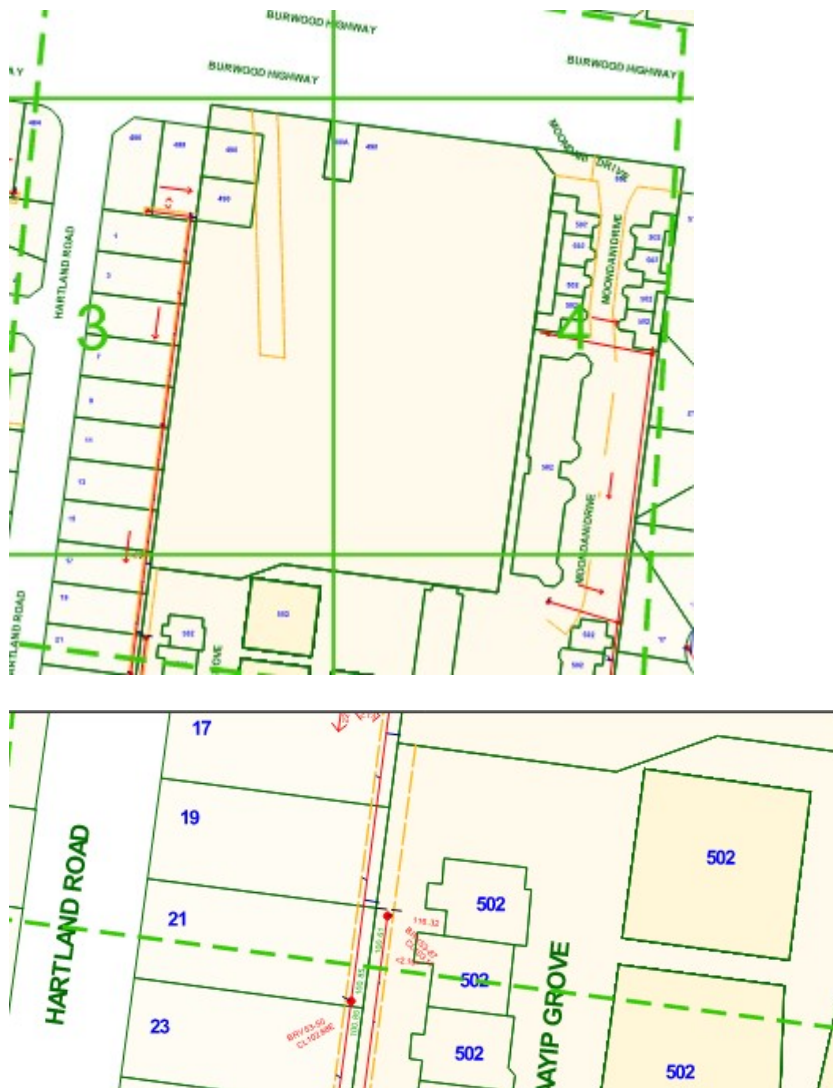
Yarra Valley Water has existing sewer mains located adjacent to the west of the site. The existing sewer mains to the west are 150mm dia at the rear of the existing allotments fronting Hartland Road.

Prior to receiving Yarra Valley Water’s formal advice, the following is our suggested sewer main strategy for the proposed development of the site based on the assumption that due allowance has been made for the site.

To facilitate the provision of sewer outfall to the site a new manhole will be required to be constructed on the existing sewer in the rear of number 15 or 17 Hartland Road to provide the point of connection (a YVW requirement) and a network of reticulated private (or potentially public) sewer mains, potentially 100mm dia and 150mm dia mains will need to be constructed, along with connections to each building/dwelling.

Sewer contributions are payable to Yarra Valley Water in association with the creation of new dwellings.





**Figure 5: Yarra Valley Water assets for sewer, overall and detail view**

**2.5 RECYCLED WATER**

Yarra Valley Water is the Recycled Water Authority for the general area, but recycled water is not mandated and not available in the area and hence is not available to the development site.

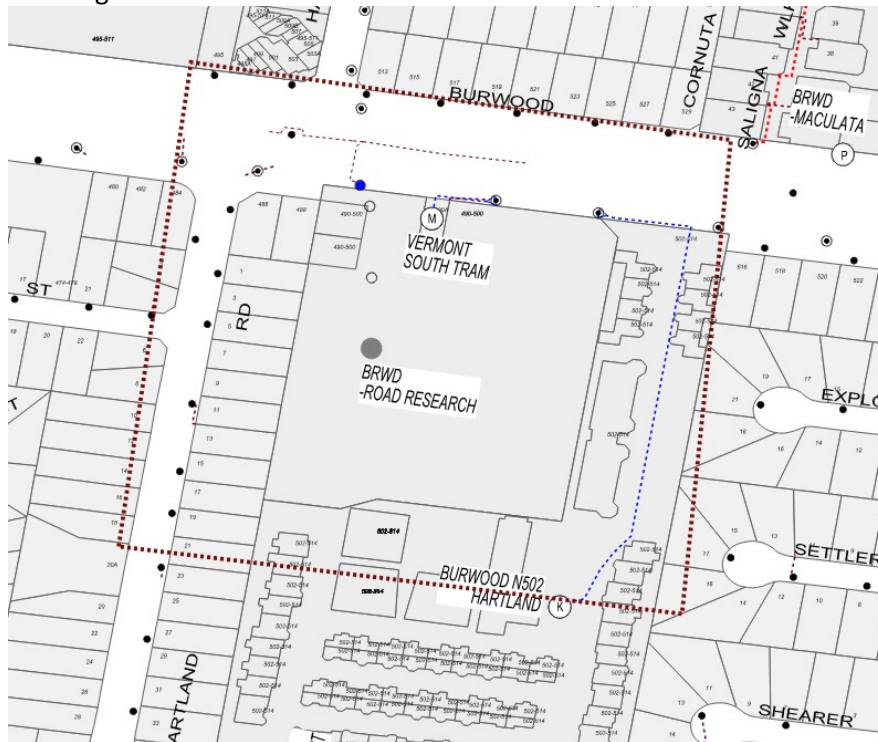
**2.6 ELECTRICITY**

United Energy is the local electricity company responsible for supply to the subject site.

The information provided in the MOCS from United Energy along with a street view inspection confirms that there are existing overhead electricity supply assets adjacent to the site in Burwood Highway.

In addition, there was overhead electricity cable within the site, presumed to be within the easement.

Based on our experience with land development projects it is likely that a series of substations will be required, on the basis of a substation per 70 to 80 dwellings.



**Figure 6: United Energy assets for electricity.**

## **2.7 TELECOMMUNICATIONS**

Telstra/NBN is the local telecommunications company responsible for supply to the subject site.

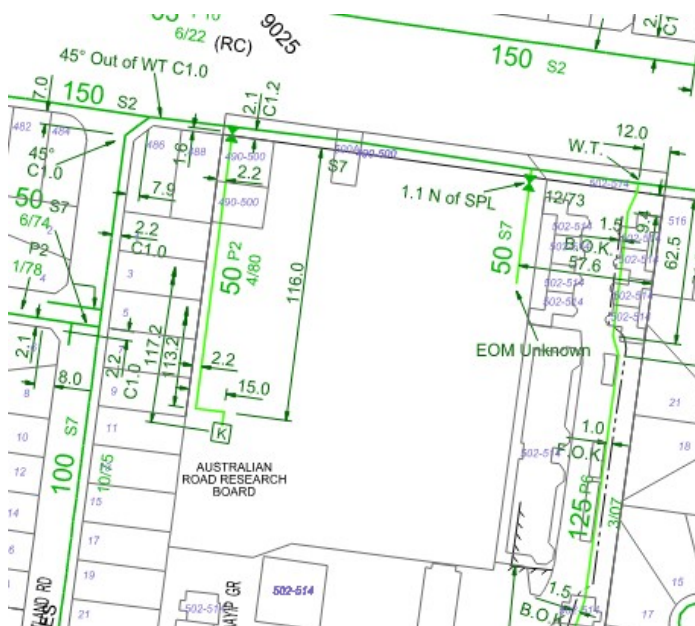
Telstra and NBN have confirmed that there are existing Telstra and NBN assets adjacent to the site, which is likely to be NBN cables located within the Telstra “pit and pipe”. Based on the advice from NBN co. this infrastructure would be utilised to bring optical fibre telecommunications cable to the site.

It is noted that a T-fan will be required for every 1,600 dwellings, which requires electricity and is approximately 1/3 of the size of an electrical substation, which is above ground and approximately 1 square metre.

The developer will need to provide the pit and pipe within the development which is acceptable by NBN Co. for the optical fibre to be provided by NBN.

Depending upon what allowances had been included for the original development on the site, there may be a required for the local exchange to be updated to allow for the increase in connection requirements/ dwellings.





**Figure 8: Multinet assets for gas supply**

**2.9 OTHER**

As a part of the Dial Before U Dig process emails including associated information was received form Yarra Trams and VicTrack.

Their interest in the area relates to the small rectangular allotment of 258 square metres fronting Burwood Highway, approximately 77 metres east of the north-western corner of the site. The existing building on this allotment appears to include a substation associated with the tram network.

In relation to any development on the site due care and consideration will need to be made for works occurring in close proximity to this allotment.



**Figure 9: Yarra Trams/VicTrack assets associated with tram network.**

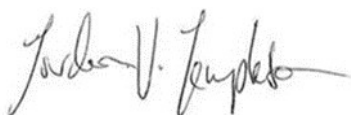
### **3.0 SUMMARY & CONCLUSION**

Based on the servicing investigations and review of information provided by the relevant Authorities and consultants there are no difficulties as there is sufficient existing authority infrastructure located adjacent to the site boundaries and the servicing and the development of the site will be able to proceed in accordance with the standard procedures and requirements.

The ultimately developed site will require the construction of new connections to authority infrastructure along with the construction of works within the site, as with many urban renewal sites located within the well established areas.

Prepared by:

**REEDS CONSULTING PTY LTD**

A handwritten signature in black ink, appearing to read "Gordon V. Templeton".

**GORDON TEMPLETON**

Engineering Associate | Engineering Project Coordinator  
MIEA CPENG NER Registered Professional Engineer

**Disclaimer**

The information contained within this report has been obtained from various servicing Authorities either verbally or in writing however, until such time as formal applications made, conditions and the appropriate approvals obtained, it should only be used as a guide. Any party wishing to use the material contained within this report should make their own inquiries to satisfy themselves to the accuracy of the information.