



**Environment Protection Authority**

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OFFICIAL: Sensitive

EPA Reference: 21031284

9 March 2023

Ms Marie Molinaro  
Adelaide Hills Council  
63 Mount Barker Road  
Stirling SA 5152

[mmolinaro@ahc.sa.gov.au](mailto:mmolinaro@ahc.sa.gov.au)

Dear Ms Molinaro

**EPA Development Application Referral Response**

<b>Development Application Number</b>	<b>21031284</b>
<b>Applicant</b>	<b>Mr Timothy Beazley</b>
<b>Location</b>	<b>160 Longview Road Heathfield SA 5153</b>
<b>Proposal</b>	<b>24-hour retail fuel outlet with associated canopy, car cleaning and dog wash facilities, 70,000L underground fuel storage tank, pylon advertising sign, combined fence and retaining walls, car-parking and landscaping.</b>

This application was referred to the Environment Protection Authority (EPA) by the Adelaide Hills Council in accordance with section 122 of the *Planning, Development and Infrastructure Act 2016*. The following response is provided in accordance with section 122(5)(b)(ii) of the *Planning, Development and Infrastructure Act*.

**PROPOSAL**

The proposed development involves the establishment of a retail fuel outlet. More specifically, the proposal includes:

- a building of approximately 250m<sup>2</sup> which would include retail display and sales areas, a cool room, storeroom, freezer, preparation area and amenities.
- a retail fuel canopy and two rows of fuel pumps with eight fuel filling positions
- a fuel storage capacity of 70,000 litres in one tank.

- the installation of one auto car wash facility (operating from 7am to 10pm) and three manual car wash bays, a vacuum facility and a dog wash bay.

The facility would operate 24 hours per day, seven days per week.

## SITE

The subject land is located on a total area of 2,160m<sup>2</sup> at the southwestern corner of the intersection of Longwood Road and Scott Creek Road. The northern portion of the site fronting Longwood Road is developed with a single-story commercial building trading as “Heathfield Motors”, a motor repair station. The bulk of the land south of the motor repair station is undeveloped and this portion of the site and the Scott Creek Road reserve is populated with trees and vegetation. The entire property forms part of the recently created Rural Neighbourhood Zone under the Planning and Design Code.

The site and locality have not been inspected by EPA staff but has been viewed via GIS information systems and aerial photography available to the EPA.

## CONSIDERATION

The EPA assessment criteria are outlined in section 57 of the *Environment Protection Act 1993* (EP Act) and include the objects of the EP Act, the general environmental duty, relevant environment protection policies and the waste strategy for the State.

Advice in this letter includes consideration of the location with respect to existing land uses and is aimed at protecting the environment and avoiding potential adverse impacts upon the locality.

It should be noted that the referral trigger to the EPA for assessment is for ‘Petrol Stations’, being a facility for the storage and retail sale of petroleum products or other liquid organic chemical substances. The EPA has therefore provided an assessment of the potential environmental impacts associated with the proposed petroleum storage and dispensing activity only. Given this, the EPA has not undertaken an assessment of any potential noise impacts. The planning authority should satisfy itself that the proposed redevelopment would comply with the *Environment Protection (Noise) Policy 2007*.

## ENVIRONMENTAL ASSESSMENT

### Interface Between Uses

The EPA publication [Evaluation distances for effective air quality and noise management](#) (August 2016) recommends an evaluation distance of 200 metres between a service station/retail fuel outlet operating 24 hours per day not on a highway/freeway and a sensitive receiver (i.e., a dwelling, residential zone etc.). From an air quality perspective (human health and amenity), the EPA considers the 50 metre evaluation distance to be appropriate.

The distance from the bowsers to the nearest residential sensitive receiver is 9.5m. In this regard, air quality impacts are considered below.

## Air Quality

Petrol vapour emissions at retail petrol stations are a significant and growing source of air pollution in South Australia. Emissions of volatile organic compounds contribute to air pollution and are emitted from storage systems holding hydrocarbons (other than diesel and LPG), as well as from fuel bowsers and tanker deliveries.

Vapour recovery systems are designed to reduce petrol emissions into the atmosphere from underground storage systems. The proposal includes the installation of a Stage 1 vapour recovery system to the underground storage tanks, including the underground storage tank vent pipes being fitted with a pressure vacuum relief valve, to minimise loss during the unloading and storage of fuel. This is considered satisfactory to the EPA and a condition has been directed in this regard.

Given the small separation distance to the nearest sensitive receiver, as discussed above, the proposal also includes installation of a Stage 2 vapour recovery system on the fuel bowsers which would direct vapours back into the tank during vehicle refueling.

Given the proposed installation of both a Stage 1 and Stage 2 vapour recovery system, the EPA considers the petroleum storage and dispensing would not result in unacceptable air quality impacts. Conditions are directed below in this regard.

## Water Quality

Potentially contaminated stormwater runoff can be generated at retail petrol stations from the hard surfaced forecourt areas including refueling areas, parking areas, footpaths, loading areas and other trafficable areas. Pursuant to the *Environment Protection (Water Quality) Policy 2015*, occupiers of land must take all reasonable and practicable measures to avoid the discharge or deposit of pollutants (including petroleum products) into any waters or onto land in a place from which it is reasonably likely to enter waters.

Following the installation of the underground fuel storage tanks, all trafficked areas must be hard surfaced using either bitumen, concrete or other impervious material. It is acknowledged the proposal incorporates concrete forecourt areas over trafficable areas. This is acceptable to the EPA.

The applicant advised in the letter from Mr Tim Beazley dated 6 May 2022 and attached drawing titled *Civil Site Plan* (Drawing no. 2112097-C01/PB), prepared by TMK Consulting Engineers, dated 24 January 2022, that all runoff from hardstand areas (including the high-risk fuel dispensing and fuel delivery area) would be collected via a series of grated drains, grated inlet pits and grade changes and pass to a SPEL Purceptor (P.040) Class 1 full retention oil/water separator. It was also advised that a major spill on site from a delivery truck would be captured with the SPEL Purceptor (P.040) Class 1. This is satisfactory to the EPA and a condition to this effect is directed below.

The applicant confirmed that any sludge and oily waste collected within the Class 1 Full Retention System is considered waste and would be removed on an annual maintenance schedule by a waste transporter licensed by the EPA to carry such material to an appropriate waste facility. This is satisfactory to the EPA and a note to this effect is advised below.

## Site Contamination

### Leak Detection

In order to demonstrate the general environmental duty (as required under Section 25 of the EP Act) has been met, the EPA recommends that leak monitoring systems should be designed and installed in accordance with *Australian Standard 4897-2008 - The design, installation and operation of underground petroleum storage systems* (AS 4897-2008).

The new underground storage tanks are proposed to be double contained fiberglass with Automatic Tank Gauging (ATG) installed as a leak detection and monitoring system.

In addition, the delivery pipework (tanks to pumps) would be double contained with a mechanical pressure leak detection system which would test the pressure within the fuel lines when the dispensers are not in use. Should the system detect pressure anomalies, it would automatically shut off the fuel pump to prevent fuel from being pumped from the tanks and minimise any potential for fuel leakage.

The fuel lines from the tanker fill box to the underground storage tanks would be single walled and not fitted with a pressure leakage detection. The potential for leaks would be monitored through visual inspection at the time the fuel is being dispensed from the fuel delivery vehicle to the tanker loading box, and through submitting daily fuel reconciliation data for statistical inventory reconciliation analysis.

The proposed fuel storage methods and protection measures for minimisation and/or detection of leakage are in accordance with AS 4897-2008 and are satisfactory to the EPA. Conditions are directed below in this regard.

### Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) was submitted with the application and is titled *Construction Environmental Management Plan 160 Longwood Road, Heathfield*, prepared by Fyfe, dated 10 February 2023 (reference 80017-68 REV 0). The CEMP identifies necessary environmental protection measures that would be implemented during demolition and construction works, including the removal of underground storage tanks (UST) located at the site.

The EPA notes the provided CEMP includes:

- general project information and incident notification processes
- the roles and responsibilities of the project personnel with respect to the environmental performance of the project
- information about addressing the management of environmental issues, including odour and vapour management, unexpected finds and dust control
- a Health and Safety Management Plan (HASP) would be prepared by the Site Supervisor
- an Erosion and Sediment Control Plan is included as part of the CEMP.
- the existing USTs at the site to be removed and disposed of in accordance with *Australian Standard 4976:2008 - The removal and disposal of underground petroleum storage tanks and Protection of the Environment Operations (Underground Petroleum Storage Systems Regulation 2019)*.

- the validation of samples of soils excavated from the tank pits and remaining *in-situ* following UST exhumation would be collected and analysed for relevant contaminants. On conclusion of the works, Fyfe would prepare a UST removal and validation report. The report would be prepared in accordance with the *Guidelines for the assessment and remediation of site contamination* and would include site plans showing the former locations of the USTs and validation samples, photographs and descriptions of the conditions of the USTs and the laboratory analytical reports and summary tabulations.

The CEMP has been prepared in general accordance with the [Industry Guideline: Construction environment management plans \(CEMP\)](#) (updated October 2021) and [EPA publication Guidelines for the assessment and remediation of site contamination](#).

The EPA is satisfied that the CEMP appropriately addresses the issues likely to arise from the site works and provides relevant control measures to mitigate and/or manage those issues. A condition is directed below to ensure the CEMP is implemented during construction.

If in carrying out the activity, contamination is identified which poses actual or potential harm to the health or safety of human beings or the environment that is not trivial, taking into account the land use, the applicant may need to remediate the contamination in accordance with EPA guidelines. A note to this effect is advised below.

### Environmental Authorisation

The operation of a petrol station requires an Environmental Authorisation (EPA Licence) pursuant to the Environment Protection Act. A note is included below to remind the applicant of the need to obtain a licence.

### CONCLUSION

Based on the information provided with the application and provided the conditions are implemented below, the EPA is satisfied that the proposed petroleum storage and dispensing activity would not cause unacceptable environmental impacts.

### DIRECTION

**The relevant authority is directed to attach the following conditions to any approval:**

1. Prior to operation, all fuel storage tanks (apart from diesel and LPG) must be fitted with a Stage 1 vapour recovery system (which includes underground storage tank vent pipes being fitted with a pressure vacuum relief valve) that directs the displaced vapours back into the tank during filling.
2. Prior to operation, all fuel dispensers (apart from Diesel and LPG) must be fitted with a Stage 2 vapour recovery system that directs vapours back into the tank during vehicle refueling.
3. Prior to operation, all underground fuel storage tanks must be double-walled and fitted with a leak detection system designed and installed in accordance with clause 4.5 of *Australian Standard 4897-2008 The design, installation and operation of underground petroleum storage systems*.

3. Prior to operation, all fuel lines between the underground storage tanks and fuel dispensers must be double contained and fitted with a leak detection system, designed and installed in accordance with clause 4.5 of *Australian Standard 4897-2008 The design, installation and operation of underground petroleum storage systems*.
4. Stormwater runoff from all hardstand areas of the petrol station (including the refueling and fuel delivery areas) must be managed in accordance with the *Civil Site Plan* (Drawing no. 2112097-C01/PB), prepared by TMK Consulting Engineers, dated 24 January 2022, and must be directed to a SPEL Purceptor (P.040.) Class 1 full retention oil/water separator that:
  - a. Has a minimum spill capture capacity of 8,000 litres.
  - b. Reduces oil content in the outlet to less than 5mg/L at all times (as confirmed by independent third-party scientific testing).
  - c. Operates effectively in the event of a power failure.
5. Construction activities (which includes the removal and disposal of all underground storage systems) must be undertaken in accordance with the *Construction Environmental Management Plan 160 Longwood Road, Heathfield*, prepared by Fyfe, dated 10 February 2023 (reference 80017-68 REV 0) and a suitably qualified and experienced site contamination consultant must be engaged to:
  - a. manage and dispose of contaminated material in accordance with EPA and other relevant guidelines (as stated in the CEMP); and
  - b. validate the underground storage tanks (UST) excavation in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended 2013) and other EPA guidelines prior to backfilling or replacement of UST.

**The following notes provide important information in relation to the development and are requested to be included in any approval:**

- The applicant/owner/operator are reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that activities on the site and associated with the site (including during construction) do not pollute the environment in a way which causes or may cause environmental harm.
- An environmental authorisation (licence) is required for this development. Before commencing operation, the applicant/operator should contact the Environment Protection Authority on (08) 8204 2058 or email [EPALicensing@sa.gov.au](mailto:EPALicensing@sa.gov.au) for information about the licensing application process and requirements.
- A licence application may be refused where conditions of Development Approval directed by the Environment Protection Authority have not been complied with.
- The applicant/owner/operator are reminded that any sludge or oily residue collected within the forecourt full retention oil/water separator is considered waste and is required to be removed by an EPA licensed waste transporter to a licensed waste depot.
- If at any stage site contamination is identified which poses actual or potential harm to water that is not trivial, a notification of site contamination which affects or threatens groundwater pursuant to section 83A of the *Environment Protection Act 1993* is required to be submitted to the EPA.
- If in carrying out the activity, contamination is identified which poses actual or potential harm to the health or safety of human beings and/or the environment that is not trivial, the applicant may need to remediate the contamination in a manner which is consistent with EPA

publication *Guidelines for the assessment and remediation of site contamination* (found at: [https://www.epa.sa.gov.au/files/13544\\_sc\\_groundwater\\_assessment.pdf](https://www.epa.sa.gov.au/files/13544_sc_groundwater_assessment.pdf)) and other relevant EPA guidelines.

- More information about the Environment Protection Authority and the Environment Protection Act and policies can be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au)

If you have any questions regarding this response, please contact Christina Macdonald on 08 8204 2129 or email [christina.macdonald@sa.gov.au](mailto:christina.macdonald@sa.gov.au)

Yours faithfully

Courtney Stollznow  
Delegate  
**ENVIRONMENT PROTECTION AUTHORITY**

Friday, 25 March 2022

Project number: A220226  
Reference: A220226LT1

Marie Molinaro  
Adelaide Hills Council  
PO Box 44  
Woodside SA 5244

Dear Marie,

## **Proposed OTR Service Station, 160 Longwood Road, Heathfield Acoustic Peer Review**

Resonate have been engaged by Adelaide Hills Council to provide a peer review of the report *OTR Heathfield - Environmental Noise Assessment (S7036C1)* prepared by Sonus, December 2021.

The environmental noise assessment relates to a proposed OTR integrated service station development at 160 Longwood Road, Heathfield. The development comprises a service station, automatic carwash, manual wash bays, dog wash, vacuum units, and associated plant and equipment.

This peer review has been undertaken in accordance with *Association of Australasian Acoustical Consultants Guideline for Report Writing*, section 8.0 which relates to peer reviews. As recommended, comments are categorised as follows:

<b>Comment Category</b>	<b>Description</b>
<b>A</b>	Advice which is considered incorrect or inappropriate;
<b>B</b>	Advice which requires clarification or additional information;
<b>C</b>	Minor points which, in the peer reviewer's opinion, may not be the approach they would have taken, however, do not alter the outcome/ conclusion of the report.

In summary, the Sonus Environmental Noise Assessment adopts a Noise Policy **Residential** land use category for the site and nearest neighbouring receivers that is not, in our view, consistent with the *Guidelines for use of the Environment Protection (Noise) Policy 2007* based on the relevant Planning & Design Code assessment provisions .

Adoption of the correct **Rural Living** category would result in more stringent noise criteria at all receivers, which the Sonus assessment predicts will be exceeded by up to 5 dB(A) based on the currently proposed noise mitigation measures. Additional noise mitigation is therefore required.



Sonus Report Section	Comment	Comment Category
1 Introduction	<p>It is stated that “the assessment has been based on... [among other things] continuous noise logging conducted at the site between 20 and 25 August 2021”. The results of this noise logging are not presented or discussed further in the report.</p> <p>We note that the existing background noise levels at this location are likely to be low, however this fact alone is not expected to change the outcome of the assessment.</p>	C
2 Criteria	<p>Sonus have correctly identified that the proposed site and residences immediately to the south and west are located in a Rural Neighbourhood Zone and Adelaide Hills Subzone within the Planning and Design Code.</p> <p>However, Sonus consider that Rural Neighbourhood Zone and Adelaide Hills Subzone principally promote <b>Residential</b> land use based on the Planning and Design Code provisions and the allotment sizes.</p> <p>We consider that the Rural Neighbourhood Zone Desired Outcome of “Housing on large allotments in a spacious rural setting”, together with the Site Dimensions and Land Division requirements of the Adelaide Hills Subzone, are consistent with the <b>Rural Living</b> land use category in accordance with the <i>Guidelines for use of the Environment Protection (Noise) Policy 2007</i>. Resonate have also been provided with advice from the EPA which also places this zone and subzone within the Noise Policy <b>Rural Living</b> land use category.</p> <p>Adoption of the Rural Living category for the site and adjacent residences to the south and west results in the following noise criteria:</p> <p>Residences in the <i>Rural Neighbourhood Zone</i>:</p> <ul style="list-style-type: none"> <li>- 42 dB(A) <math>L_{eq}</math> day</li> <li>- 35 dB(A) <math>L_{eq}</math> night</li> <li>- 60 dB(A) <math>L_{max}</math> night</li> </ul> <p>Residences in the <i>Productive Rural Landscape Zone</i></p> <ul style="list-style-type: none"> <li>- 47 dB(A) <math>L_{eq}</math> day</li> <li>- 40 dB(A) <math>L_{eq}</math> night</li> </ul> <p>We note that these criteria are more stringent than those adopted by Sonus. Section 3.3 of the Sonus assessment indicates that these criteria will be exceeded at the nearest residences without further noise mitigation.</p>	A
3 Assessment	The prediction methodology and assumed meteorological conditions should be provided.	B
3.1 Operational Assumptions / Appendix B Noise Sources	Sonus should clarify whether assessment of noise from the dog wash includes noise associated with dogs barking.	B

Sonus Report Section	Comment	Comment Category
	The daytime assessment scenario includes a fuel or goods delivery truck attending the site, however this noise source does not appear in Appendix B.	C

Please let me know if you have any queries or wish to discuss the above.

Yours sincerely,



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## Marie Molinaro

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**From:** Stollznow, Courtney (EPA)  
**Sent:** Wednesday, 19 October 2022 2:13 PM  
**To:** Marie Molinaro  
**Subject:** RE: Seeking advice please re appropriate noise category - DA 21031284 - 160 Longwood Road, Heathfield

[EXTERNAL]

### OFFICIAL

Hi Marie,

Thanks for your email. I have consulted our noise advisors and provide the following advice in relation to your enquiry.

The EPA has reviewed the attached information. The EPA considers the Adelaide Hills Subzone of the Rural Neighbourhood Zone to be 'Rural Living' for the purposes of the *Environment Protection (Noise) Policy 2007* (Noise EPP). This is consistent with Resonate's view, and inconsistent with Sonus's attribution of the Zone to be 'Residential'.

The above advice is also consistent with the draft EPA publication '*Indicative noise level guidelines for the Environment Protection (Commercial and Industrial) Noise Policy 2022*' which is based on a review of PDI Act zoning that is currently in use.

[https://www.epa.sa.gov.au/files/15380\\_draft\\_indicative\\_noise\\_level\\_guidelines.pdf](https://www.epa.sa.gov.au/files/15380_draft_indicative_noise_level_guidelines.pdf)

Hope the above advice is useful.

Regards,

**Courtney Stollznow**  
Acting Principal Adviser Development Assessment

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MLM/23-0131

29 May 2023

Mr James Booker  
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Dear James,

### **PROPOSED RETAIL FUEL OUTLET – 160 LONGWOOD ROAD, HEATHFIELD**

I refer to your request to complete a review of the proposed retail fuel outlet at the above site. Further to this I have reviewed the proposed plans and the reports prepared by Stantec Australia. I have also visited the subject site.

The site is located on land adjacent the south-western corner of the Longwood Road/Scott Creek Road intersection in Heathfield. The Heathfield Motors workshop is currently located on this site, albeit it is no longer operating. The site had previously included two fuel pumps (one dispensing diesel and the other dispensing petrol) but these have now been removed.

Longwood Road forms a four-way intersection with Scott Creek Road. Based on the turning count data reported in the Stantec report, Longwood Road would have a traffic volume in the order of 3500 to 4000 vpd and Scott Creek Road would have a traffic volume of approximately 2000 vpd. These data affirm the role of Longwood Road, which provides the primary connection between the Stirling and Heathfield townships, as a major collector road. Scott Creek Road also provides a linkage between townships in the Adelaide Hills but has a lower order role in the hierarchy on the road.

Having reviewed the proposal, I am of the view that there are a number of road safety implications that would be realised should it be developed as currently proposed. I have detailed these further below.

The proposal includes a retail fuel outlet with four petrol filling points and a car wash facility with three wash bays and a drive-through automatic wash. Access to the site is proposed via four driveways, namely:

- an ingress to the car wash facility via Scott Creek Road;
- an egress from the car wash facility to Scott Creek Road;
- a two-way access to the retail fuel outlet via Scott Creek Road; and
- a two-way access to Longwood Road.

The site would fundamentally operate as two separate developments as there is no internal connection proposed between the car wash and retail fuel outlet facilities. This means that drivers would be required to circulate on the road between the two land uses.



Austrroads Guide to Road Design Part 4A Unsignalised and Signalised Intersections provides the following advice in respect to sight distance requirements at access points.

*Desirably, sight distances at accesses should comply with the sight distance requirements for intersections, i.e. that approach sight distance (ASD), safe intersection sight distance (SISD), and minimum gap sight distance (MGSD) are achieved.*

*The criteria above often cannot be obtained at accesses on roadways with tighter horizontal and vertical alignments, or vegetation. For new roads comprising such geometry, minimum sight distances at accesses should comply with the following:*

- *minimum gap sight distance in Section 3.2.3*
- *safe intersection sight distance using values given under the extended design domain (EDD) criteria for sight distance at intersections (Table A 9 to Table A 14).*

Given the nature of roads within the Adelaide Hills, it is my view that it is appropriate to apply the Extended Design Domain (EDD) criteria to the proposal. The EDD criteria includes observations times of 1.5 seconds, 2.0 seconds or 2.5 seconds. The 2.0 second observation time should be applied to this site, based on the following criteria in Table A8 of AGRD4A.

*T-intersections on single carriageway roads (two-lane, two-way roads and one-way roads) that have a traffic volume  $\geq 4000$  veh/d  
Cross intersections on single carriageway roads (two-lane, two-way roads and one-way roads) that have a traffic volume  $\geq 400$  veh/d.*

In assessing the sight distance, consideration must also be given to the sighting angle of drivers exiting the site. AGRD4A identifies a maximum sighting angle of  $120^\circ$  for drivers turning left out of an access and  $110^\circ$  for drivers turning right out of an access (that is, drivers looking to their right can effectively view at an angle up to  $120^\circ$ , while drivers can view oncoming traffic to their left at an angle of up to  $110^\circ$ ).

The Stantec report has identified measured speeds of vehicles on Longwood Road and Scott Creek Road. Austrroads identifies that the sight distance assessment can be based on the 85<sup>th</sup> percentile measured speed. On this basis, I am comfortable that the sight distance assessment on Longwood Road can be based on the measured 85<sup>th</sup> percentile speed of 60km/h. It is not clear what measured 85<sup>th</sup> percentile speed on Scott Creek Road was recorded. However, I accept that drivers will be required to decelerate to give-way at the Longwood Road intersection and that a speed of 50km/h is a reasonable assumption for this section of the road.

On the basis of these speeds, the following sight distances should be applied, noting that a sight distance assessment is applicable to all access points:

- a SISD (EDD) of 97m on Longwood Road;
- a SISD (EDD) of 89m on Scott Creek Road;

- a MGSD of 83m on Longwood Road; and
- a MGSD of 69m on Scott Creek Road.

Adopting the above criteria, I have reviewed the sight distance at the proposed access points. Figure 1 illustrates the MGSD at the proposed car wash ingress.

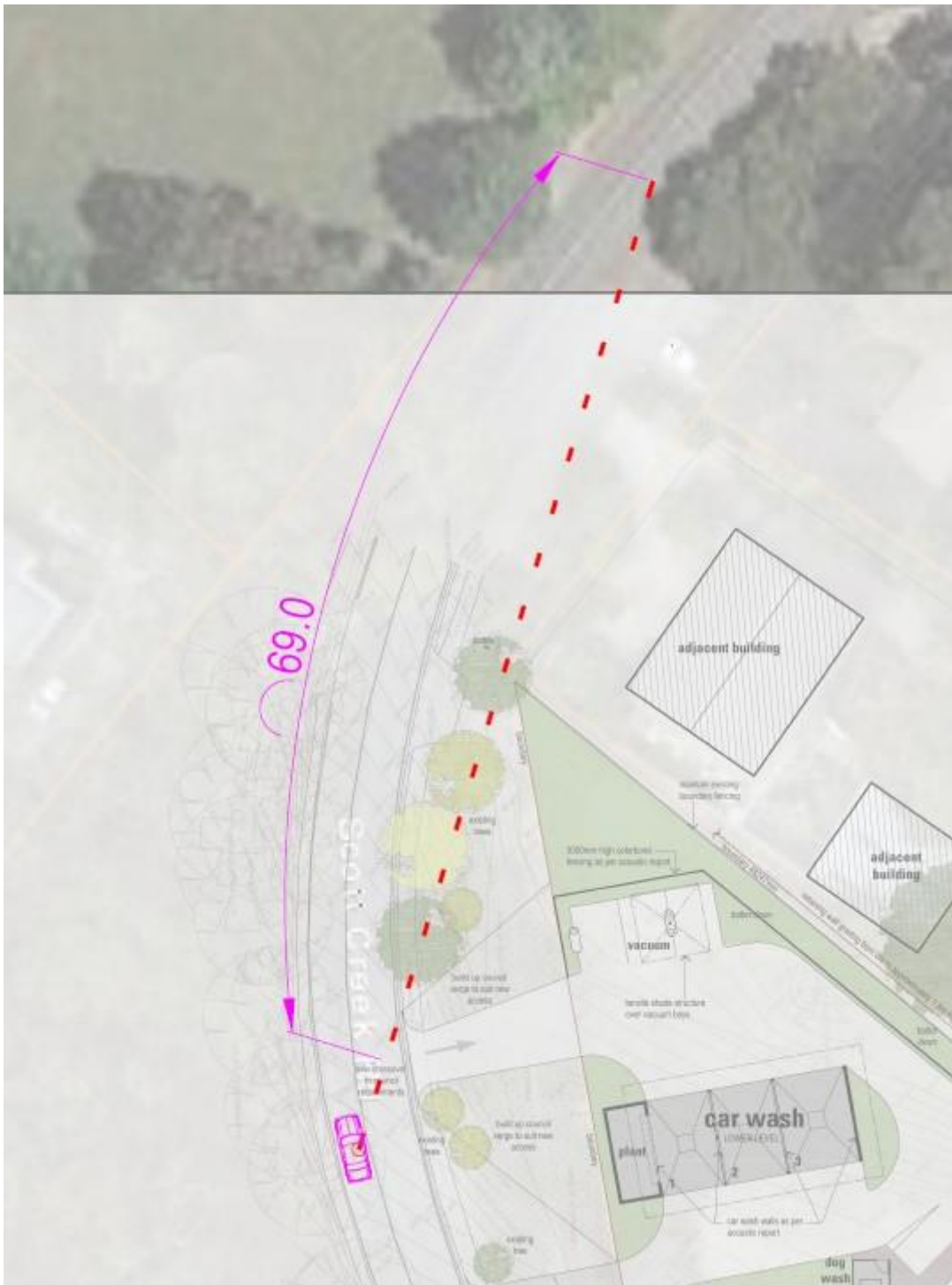


Figure 1: Required MGSD for a driver turning right to the proposed car wash



It can be seen from the above that the sight distance could be met subject to the vegetation being removed within the verge.

Figure 2 illustrates the SISD(EDD) and MGSD for a driver exiting the proposed car wash, having regard to the angle of observation in addition to the distance required.

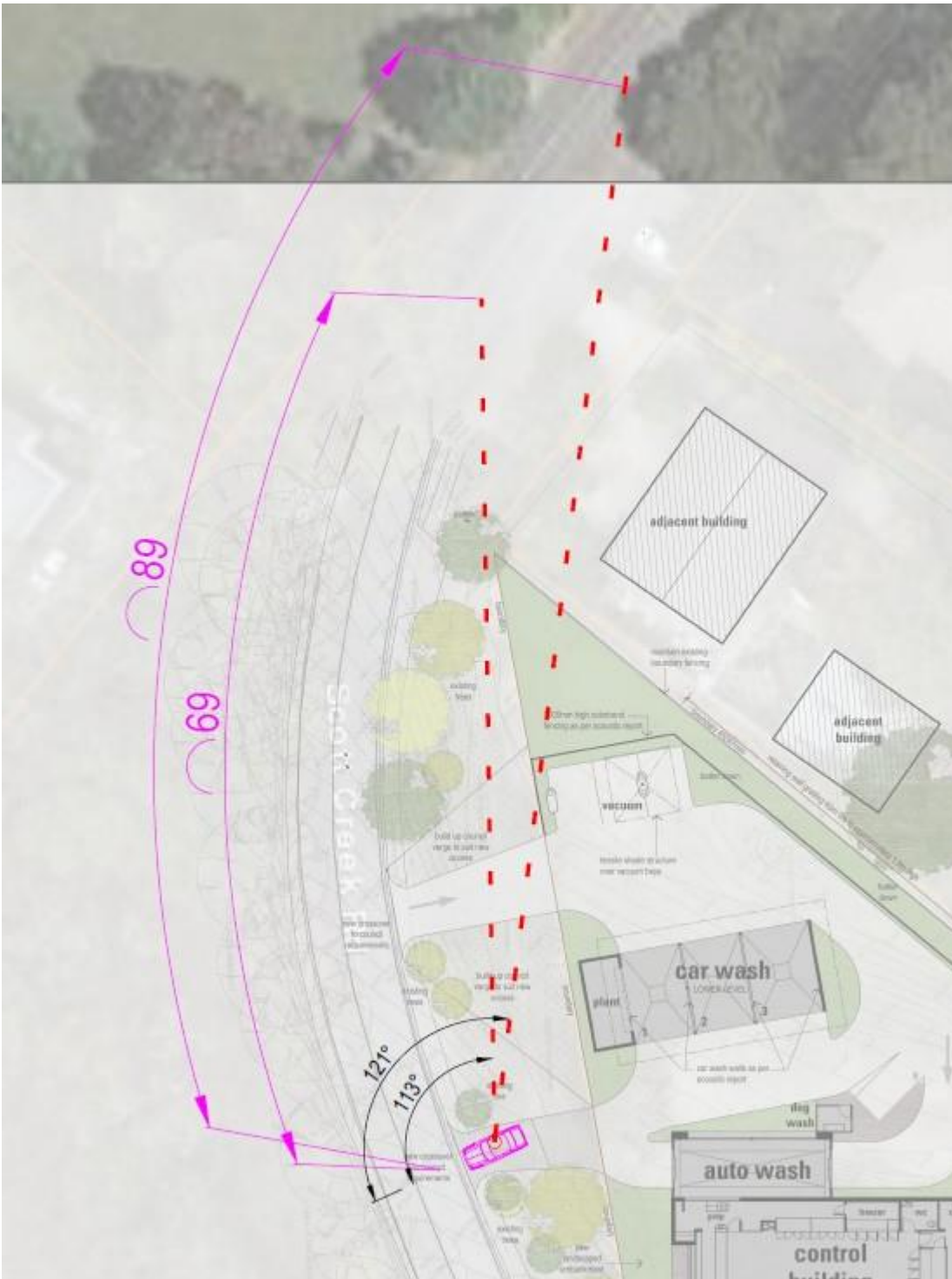
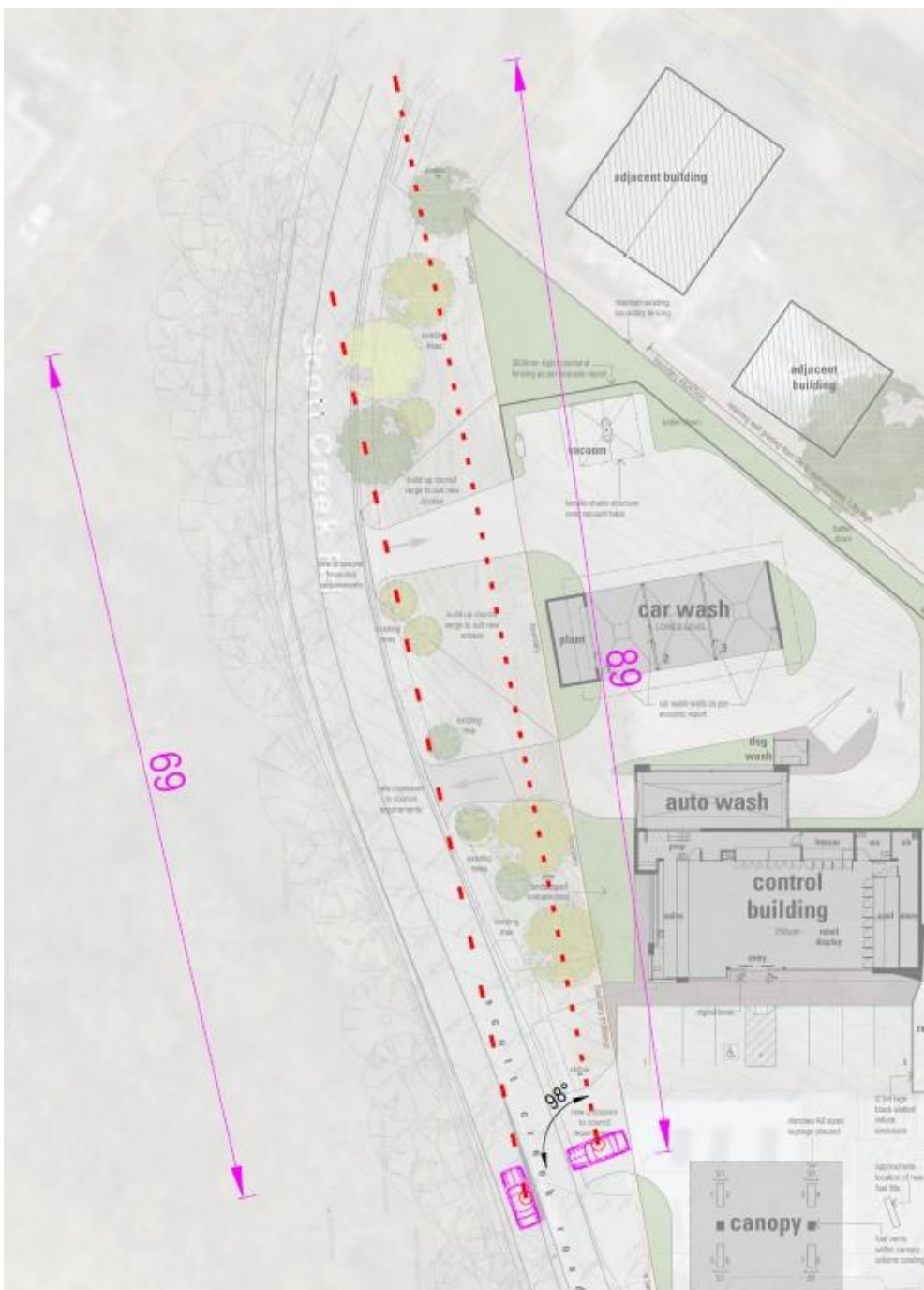


Figure 2: Required SISD(EDD) and MGSD for a driver exiting the proposed car wash

It can be seen from the above that the SISD(EDD) could not be met for drivers exiting at the proposed car wash egress. Even if the vegetation in the verge was to be removed and the marginal non-compliance of the sighting angle accepted, the line of sight for drivers would be across the neighbouring property and would be obstructed by fences.

Figure 3 illustrates the SISD(EDD) and MGSD for drivers using the proposed access to the retail fuel outlet on Scott Creek Road.

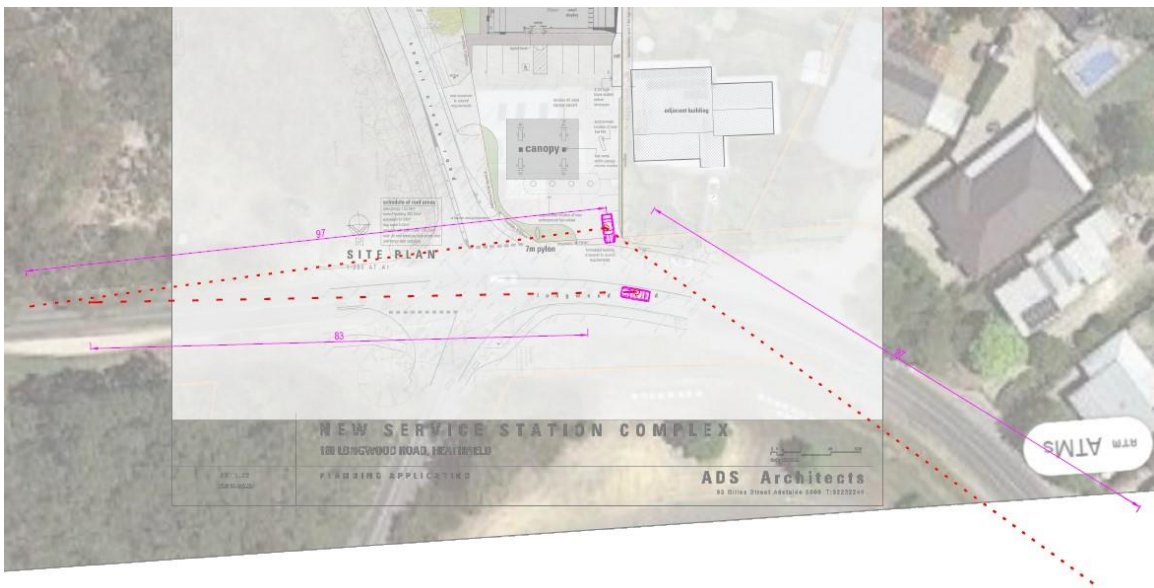


**Figure 3: Required SISD(EDD) and MGSD for a driver accessing the proposed retail fuel outlet on Scott Creek Road**



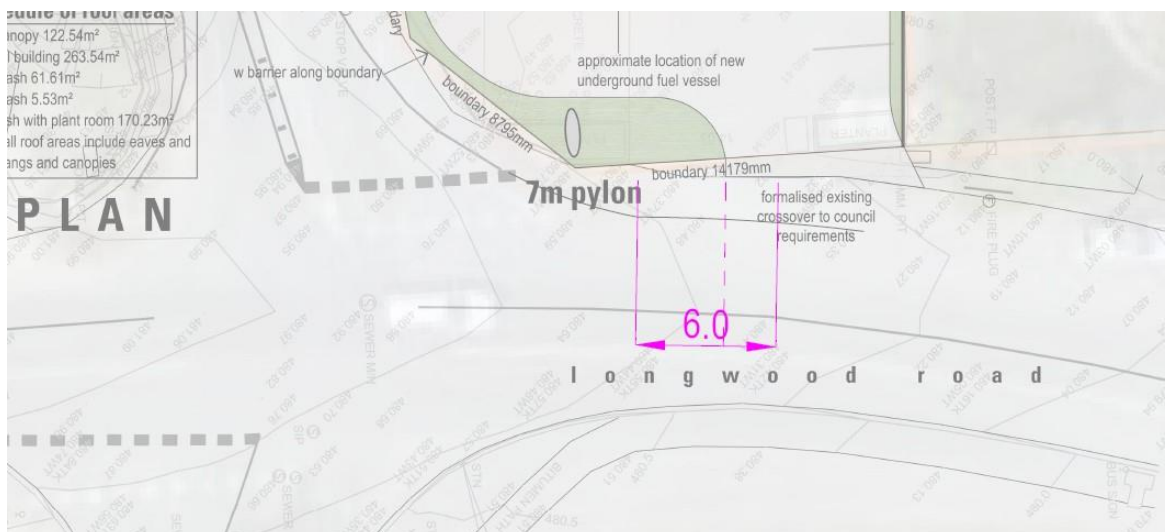
It can be seen from the above that the sight distance requirements could be met at the access, subject to removal of most of the vegetation in the verge.

Figure 4 illustrates the SISD(EDD) and MGSD for a driver accessing the retail fuel outlet via Longwood Road.



**Figure 4: Required SISD(EDD) and MGSD for a driver accessing the proposed retail fuel outlet on Longwood Road**

It can be seen from the above that the minimum sight distance requirements will be met for a driver entering and exiting the site on Longwood Road, albeit the sight distance for pedestrians as identified in AS/NZS2890.1:2004 is not provided at the proposed access. Notwithstanding this, the proposed access will be located within a prohibited access zone, as illustrated in Figure 5.



**Figure 5: Proposed Longwood Road access relative to the prohibited access zone for the Longwood Road/Scott Creek Road intersection, as defined in Figure 3.3 of AS/NZS2890.1:2004**



The above figure identifies that the proposed Longwood Road access is much closer to the intersection than permitted in the Standard. While there is an existing access at this location, the proposed development will significantly increase the volumes using the access and will therefore change the nature and function of the access and the category of the access.

Based on the above assessment, therefore, it is considered that minimum sight distance will not be provided at the proposed access points and the Longwood Road access would be within a prohibited access zone.

The Stantec report has identified that the proposed development would generate a volume of approximately 130 trips, of which a significant proportion would be passing trade. I consider that such a forecast is reasonable for the proposal and agree that the majority of trips would be passing trade.

Notwithstanding the above, the development will result in additional turning movements of drivers to facilitate entry and exit to and from the site. Stantec has estimated that there will be approximately 26 additional right turn movements during peak hour traffic periods from Longwood Road to Scott Creek Road as a result of the proposal.

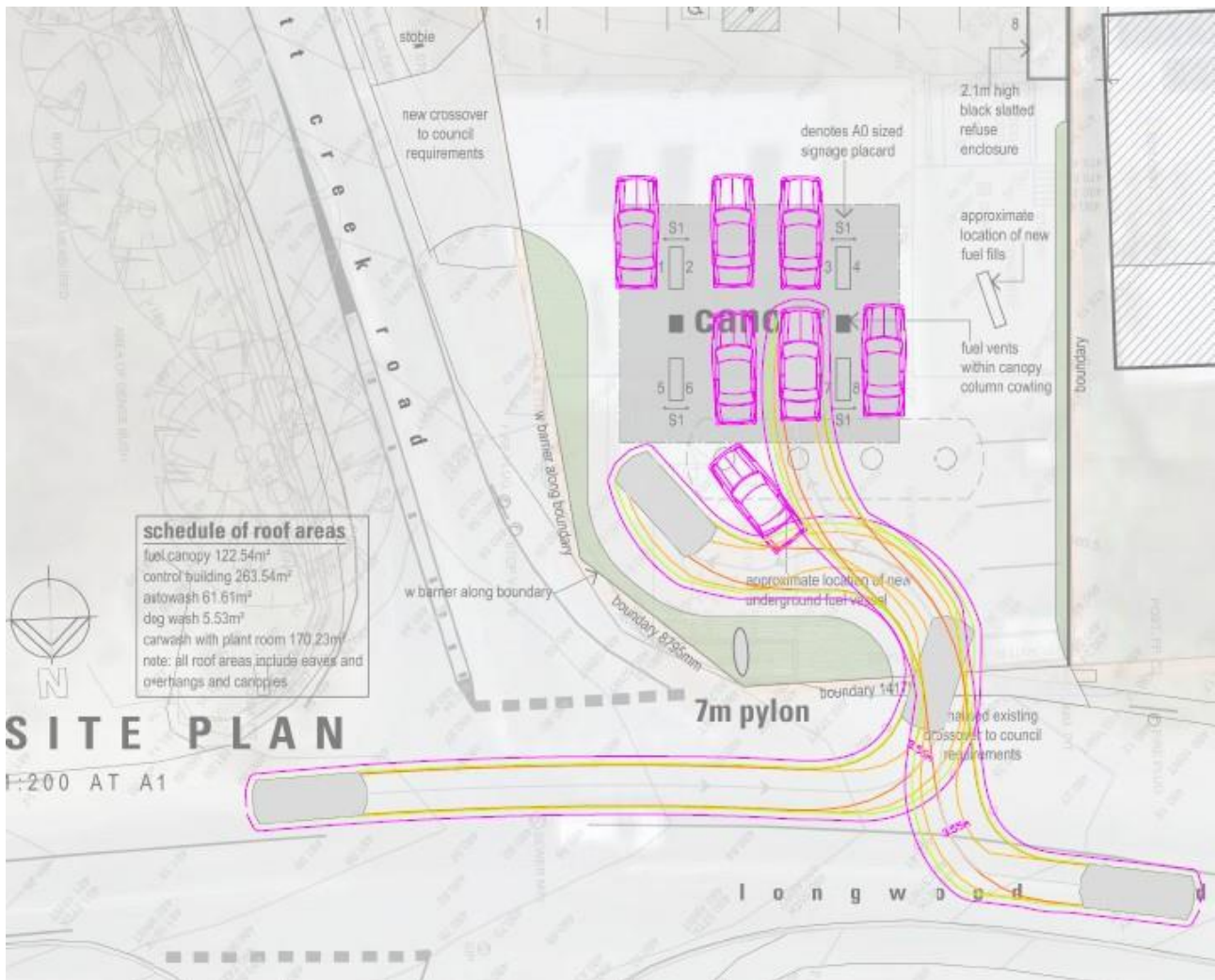
The Sidra modelling completed by Stantec identified that the additional volumes will not result in significant queues or delays and there will be adequate capacity at the intersection to cater for the anticipated volumes. I concur that the capacity of the intersection would not be compromised by the development.

However, Stantec has not provided an analysis of the requirements for channelised turn lanes at the intersection, noting that the criteria for this lane is a safety based assessment and not related to capacity. Figure 2.26 of Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings 2017 provides a warrant assessment relating to the requirements for channelised turn lanes to be provided at an intersection.

An assessment of the existing volumes identifies that a channelised right turn lane is not currently warranted on Longwood Road. In contrast, an analysis of the volumes identified in the Stantec report which are anticipated to occur post the construction of the facility identifies that the additional traffic will trigger the requirement for a channelised turn lane on Longwood Road at the intersection. Accordingly, there will be an adverse impact on safety on the road network as a result of the proposal.

In regard to the design of the proposal, we have reviewed the turn paths and consider that the proposed tanker and delivery vehicle will be able to service the site and will enter and exit in a forward direction.

Drivers will typically access the site such that the vehicle is positioned facing the control building. Queues at the pumps will potentially obstruct access to the fuel pumps, as illustrated in Figure 6.



**Figure 6: Queued vehicles at pumps obstructing access to refueling lanes**

The above issue will potentially be further compounded if the queued vehicles are not precisely parked adjacent the fuel pumps, given that the pumps are proposed to be located with less separation than would typically be provided.

In addition, the assumption that has been made by Stantec that all right turns will occur at the intersection means that drivers must turn to the site from Scott Creek Road. This means that it is proposed that the site will provide for entry and exit movements from Longwood Road and Scott Creek Road and all turns would be permitted at each access (I do not concur with Stantec that drivers will choose not to turn right to the site from Longwood Road, given that such a turn would be more easily executed at the access than a four-way intersection and that the Australian Road Rules permits drivers to cross a solid centreline when entering or exiting a property).

Figure 6 also demonstrates that the vehicle position at the front fuel pump would extend into the travel path of an exiting vehicle, thus creating a potential crash risk.



In summary, I consider that there are a number of safety issues associated with the proposed development. Most significantly, the proposed access arrangements will not achieve compliance with relevant Australian Standards and will not provide for safe and convenient access for the site. Further, the requirement for drivers to use the public road to circulate between facilities on the site and the constraints on the site will compound this safety issue.

Yours sincerely,  
**MFY PTY LTD**

A handwritten signature in black ink, appearing to read 'Melissa Mellen'.

**MELISSA MELLEN**  
Director



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