



NOTICE

of

COUNCIL ASSESSMENT PANEL MEETING

TO BE HELD IN

**COUNCIL CHAMBERS
PLAYFORD CIVIC CENTRE
10 PLAYFORD BOULEVARD, ELIZABETH**

MEMBERS MAY PARTICIPATE BY ELECTRONIC MEANS

ON

21 JUN 2021 AT 6:00PM

THIS MEETING WILL ALSO BE VIEWABLE AT
<https://www.youtube.com/user/CityOfPlayford>

A handwritten signature in blue ink, appearing to read "S Green".

**SAM GREEN
CHIEF EXECUTIVE OFFICER**

Issue Date: Thursday, 17 June 2021

MEMBERSHIP

MR GEOFF PARSONS – PRESIDING MEMBER

Mr Stephen Coppins

Mr Nathan Grantham

Mr Paul Mickan

Ms Olivia Franco (*Deputy*)

**City of Playford
Council Assessment Panel Meeting**

**AGENDA
21 JUN 2021 AT 6:00PM**

1 ATTENDANCE RECORD

- 1.1 Present
- 1.2 Apologies
- 1.3 Not Present

2 CONFIRMATION OF MINUTES

RECOMMENDATION

The Minutes of the Special Council Assessment Panel Meeting held 7 June 2021 be confirmed as a true and accurate record of proceedings.

3 APPLICATIONS WITHDRAWN

4 DECLARATIONS OF INTEREST

5 APPLICATIONS FOR CONSIDERATION – PERSONS WISHING TO BE HEARD

Nil

6 APPLICATIONS FOR CONSIDERATION – NO PERSONS TO BE HEARD

- 6.1 Removal of a Significant tree (Eucalyptus cladocalyx) (292/2550/2020)
(Attachments).....6

Representors: Nil
Applicant: Mr K Nicholls

7 APPLICATIONS FOR CONSIDERATION - CATEGORY 1

Nil

8 OUTSTANDING MATTERS – APPEALS AND DEFERRED ITEMS

8.1 Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure (292/985/2019) (Attachments).....83

Representors: Mr M Marks
Mr J Clark
Ms J K McKinnon & Kym Smith
Applicant: T M Vu

9 OTHER BUSINESS

9.1 STAFF REPORTS

Nil

10 CONFIDENTIAL MATTERS

Nil

11 POLICY DISCUSSION FORUM

Nil

12 CLOSURE

APPLICATIONS FOR CONSIDERATION

**APPLICATIONS FOR
CONSIDERATION –
NO PERSONS TO BE HEARD**

6.1 REMOVAL OF A SIGNIFICANT TREE (EUCALYPTUS CLADOCALYX) (292/2550/2020)

Snapshot

Author:	Tom Gregory, <i>Consultant Planner</i>
Proposal:	Removal of a Significant tree (Eucalyptus cladocalyx)
Development Number:	292/2550/2020
Date of Lodgement:	15 December 2020
Owner:	Mr K Nicholls
Applicant:	Mr K Nicholls
Location:	16 Lawder Road, Blakeview
Zone:	Suburban Neighbourhood
Classification:	Merit
Public Notification Category:	1
Representation Received:	No
Development Plan:	Consolidated 30 April 2020
Request for Additional Information Made?	Yes
Recommendation:	To Refuse Planning Consent

Attachments:	1 ↓ . Development Application Form
	2 ↓ . Certificate of Title
	3 ↓ . Zone Overlay Map
	4 ↓ . Site Plan
	5 ↓ . Applicants Photographs
	6 ↓ . Applicants Arborist Report
	7 ↓ . Tree Services Advice
	8 ↓ . Independent Arborist Report

1. The Subject Land

The subject land is 16 Lawder Road, Blakeview. The land is comprised of a single parcel and is formally described as Allotment 265 in Deposited Plan 120566 with a Certificate of Title reference: Volume 6219 / Folio 978.

The allotment retains an area of approximately 575m² with a frontage to Lawder Road of 15 metres. The land contains a single storey detached dwelling that was constructed in mid-late 2020. (Development Plan Consent for the dwelling was granted by a Private Certifier pursuant to the Residential Code and it would appear that regard may not have been given to the status of the tree at the time of decision. If the status of the tree was known it is suggested that the certifier may not have been able to determine the application as the Residential Code and 'complying' assessment pathway may not have been applicable to the dwelling on the land.)

The dwelling, at its closest point, is setback approximately 7 metres from the front property boundary. The dwelling contains a double width concrete driveway on the western side which had recently been formed at the time of inspection (23 April 2021).

The subject tree is located centrally on the allotment frontage, approximately 1 metre to the east of the newly formed driveway and adjacent to the main entrance of the dwelling.

There are no easements or Land Management Agreements registered on the Certificate of Title. An encumbrance is applicable to the land however it is understood that its content does not relate to the proposed development.

2. The Locality

The locality is residential in nature, predominantly consisting of recently constructed single and two storey dwellings at medium to low residential densities. Also within the locality is a circa 1970s dwelling on a large allotment on the southern side of Lawder Road. This land appears to have the potential for additional infill development and could accommodate dwellings at a density consistent with the predominant pattern of development within the locality.

The topography of the land within the locality has gentle fall from east to west.

A distinctive feature of the locality is the avenue of trees within the front yards of the properties along the northern side of Lawder Road. The trees contribute to a distinct and unique character with an overall moderate to high level of amenity. The land developer for the estate intended to retain 12 significant trees along the former paddock boundary to create an avenue along Lawder Road as a visual segue to the view of the Hills Face looking east down Lawder Road.

Of the twelve trees, four are located on Council Land west of the subject land and one is located east on the corner of Lewis Drive and Lawder Road. A total of two trees east of the subject land have been removed due to development encroaching on the trees. The remaining five trees including the subject tree are located on private land.

Each of the significant trees including the subject tree received reduction/veteran tree management prior to this development, this was organised by the land developer in the view of these trees being retained and to ensure long term sustainability of the intended streetscape.

2.1 Locality Plan



2.2 Zoning

The subject land is depicted on Zone Map Play/18 in the Mapping Section of the Development Plan.

3. Background

The application was referred internally to Council's Tree Services department for comment. Following an inspection of the tree on 11 February 2021 Council's Arboriculturalist provided the following comments:

Tree Services does not support the removal of this tree.

The tree presents as fair health and structure with a moderate-long useful life expectancy.

Prior to development of the area, the tree was situated within a private paddock area, with Lawder Road adjacent to the tree being a dirt road at that stage.

Changes in the locality have seen the upgrade of Lawder Road to sealed bitumen road with kerbing and footpath installed. The tree received reduction/veteran tree management prior to this development, this was organised by the land developer in the view of these trees being retained.

Approval for the house at 16 Lawder Road appears to have been privately certified with limited consideration made for the tree and associated protection zone.

From a distance the tree appears to have a sparse, open canopy, upon closer examination it is visible that the tree has good vigour with new distal growth of good colour forming. As normal for a species of this maturity, the tree is also forming a secondary internal canopy.

Some over-extension in limbs is present to the North and upper canopy. At the base the tree has a dead portion of old growth which likely would have been 'topped' historically while in paddock setting. The live portion of the trunk displays good adaptive growth which is visible by the new growth bark, the tree has also over the last 6 months increased in girth/circumference...

This demonstrates that the vigour and natural bracing of primary structure of the tree is taking place...

Further into crown a historic failure is visible where there is currently a bee hive within this hollow, this failure occurred away from the union and would have likely been associated with a combination of environmental stresses and excessive torsional loading upon the part when the tree was within the previous land use setting.

No active pests are visible, a few borer holes within trunk, though none appear recent nor is there an apparent infestation, it is a normal occurrence for this species of tree. The submitted Arborist Report appears to put a large emphasis on this without taking into consideration the species profile, which is seen as being a Eucalypt that has a higher level of defence/resistances against beetles/borers...

Regarding the encroachment into the TPZ and SRZ of the tree, it is not seen as having a large detrimental effect. It is believe that the majority of earthmoving and construction of dwelling has occurred outside of the SRZ, as such we do not believe there are underground structural issues. The TPZ has been encroached upon to an extent that over 30% incursion has occurred through the construction of the dwellings nearby, though Lawder Road to the south of the tree is an existing road that was historically compacted dirt/rubble, it is not envisioned that there would have been or are substantial roots under this portion of road, and thus it is unlikely to have been effected by the change in road surface...

The driveway of 16 Lawder Road has yet to be installed and is unknown if approval has been given. Granted it sites within the TPZ, it is still recognised as having the potential for Tree-Damaging-Activity unless it can be demonstrated that design options will be tree sensitive, e.g. permeable paving/concrete.

Despite the change of land use and construction work undertaken around the tree (note - the driveway was not constructed at the time of the advice) it is the belief of Council Arborists that the tree demonstrates an improved health response since last inspected in mid-2020.

Council's Arboriculturalist undertook a risk assessment using the QTRA (Quantified Tree Risk Assessment) method. The risk assessment considers potential impact of limbs falling on targets including: roadway vehicle traffic; property (vehicles parked in driveway, roadway & property of dwelling); pedestrian traffic and occupancy (based upon occupancy within front yard and area directly around the tree). The advice received states: *It is believe that all of these risks will be lowered to Broadly Acceptable (low risk) and maintainable if pruning is undertaken to the tree. See the attached document 'reduction pruning option'. This pruning firs within the Australian Standard AS 4373-2007 Pruning of Amenity Trees as a form of Remedial (Restorative) pruning.*

Regarding the driveway referred to above, upon inspection of the land for the purposes of this report, a conventional driveway had recently been formed approximately 1 metre to the east of the tree. Council's Arboriculturalist and Development Compliance officers were made aware of the driveway formation in February 2021, and noted tree roots of approximately 50-60mm in diameter had been damaged near the footpath. It is unknown what damage may have occurred under the rubble which the contracts have laid and compacted. The works have also occurred within the TPZ and it is suggested by the Arboriculturalist that it is likely that the driveway installation has not taken into consideration the needs for the tree and is non-confirming to AS 4970-2009 Protection of trees on development sites.

No approvals have been sought/obtained for the potential tree damaging activity.

Following the provision of the above advice, Council's Tree Services commissioned the preparation of an independent arboricultural assessment to be undertaken by Tree Vision (refer attachments).

The Tree Vision report identifies the tree as an '*...average representation of the species.*'

In summary the Tree Vision report states:

- The tree is in a fair physiological condition. The vigour displayed by the tree appears to be good with evidence of shoot elongation, good leaf size and colour.
- The dieback observed appears consistent with mature trees of this size and aged and is not a sign of ill health.
- The tree is in a fair structural condition.
- The tree displays a slight crown bias to the north and west which is consistent with many trees in South Australia as they track the sun.
- The tree overhangs the new dwelling by approximately 3 metres.
- A secondary, internal crown is beginning to form – this likely a reaction to the previous reduction / veteran pruning that was completed prior to recent development.
- A large dead section is present at the base of the tree. This is where it was historically topped. There is new, live growth around this section that is supporting the crown above.
- Some decay of the deadwood is noted along with some minor historic insect activity.
- Historic failure wounds are present in the crown and cavities are starting to develop.
- Based on the relevant Australian Standards the tree has a Tree Protection Zone (TPZ) of 13.44 metres and a Structural Root Zone (SRZ) of 3.38 metres.
- The construction of the new dwelling encroaches approximately 29% into the TPZ which is considered a 'major encroachment' under the relevant standards.
- The formation of the driveway is within the SRZ.
- Given the level of encroachment from the development it is considered that most of the works occurred outside of the SRZ and has therefore not detrimentally impact the tree.
- The earthworks required for the construction of the dwelling has resulted in the slight raising of the ground levels within the TPZ, and as such it is likely that the underground parts of the tree have not been structurally compromised.
- It is recommended that the concrete (waste) that has been dumped at the base of the tree be removed and the area around the base of the tree be mulched to a depth of 50-75mm.
- Maintenance pruning to remove dead wood greater than 30mm should be completed within the next 6 months. Further pruning works to reduce the crown by approximately

5-6 metres back to the secondary crown should be completed over the next 3-4 years in a staged approach. This is to provide for a small more compact tree.

- It is also recommended that the tree be the subject of regular inspection by a competent, insured, and qualified Consulting Arboriculturalist initially every 12 months for the 2-3 years and then every 2-3 years and after severe storm events.
- The recommended remedial arboricultural works do not require Development Approval.

4. The Proposal

The Applicant is seeking Planning Consent and Development Approval for the removal of a significant tree in the front yard of the subject land.

The tree is a mature Sugar gum (*Eucalyptus cladocalyx*) – significant tree (3.21m circumference at 1m); identified by Council's Arborists as being of fair health, with a fair structure and a moderate to long useful life expectancy.

The tree was originally planted with a number of Eucalypts as part of a wind break on private property extending over 200 metres in length along the boundary of a former rural allotment that extended along a third of the length of Lawder Road.

Prior the division of the land for housing Lawder Road was an unsealed road that was 3 times longer than it is currently. The Developer of the land, Lendlease Communities (Blakeview) Pty Ltd, reduced the length of the road to match the extent of the planted windbreak to create an avenue of established trees and in turn a unique character within the division.

For various reasons including (but not limited to) the pre-existing width of Lawder Road and the location and provision of services and infrastructure, the land division resulted in the avenue of trees being retained on private property, albeit now on residential sized allotments in various ownerships.

In acknowledging the trees were to be retained (particularly given their regulated/significant status) the Developer retained the trees and created allotments of a size to accommodate both a reasonable sized dwelling and the retention of the trees.

The protection of the trees was reliant on the *Development Act 1993* in which a 'tree damaging activity' to a regulated or significant tree constitutes 'development' requiring consent.

The Applicant seeks the removal of the tree which is a 'tree damaging activity' which constitutes 'development' pursuant to Section 4(fa) of the *Development Act 1993*. The justification provided is based on a safety concern for the Applicant and their family.

The Arborist report submitted by the Applicant suggests that the tree is not one that possesses the attributes worthy of retention. The report states the health and structure of the tree is 'poor', and that the tree is declining in health due to environmental stressors which has allowed a secondary pests to begin damaging the tree.

The report notes extensive decay through the trunk, and evidence of multiple branch failures that has created a structure of poor form.

The report notes extensive non tree sensitive development within the TPZ and SRZ and suggests the defects and stressors are weakening the tree structure.

The recommendations includes a number of options, two of which are considered plausible with the others suggesting either significant land use modification (a permanent exclusion zone) and/or the construction of a 400m² under crown protective structure. The less intrusive and more plausible recommendations include:

- a) pruning of the tree in accordance with relevant standards, however it is the consulting arborists opinion that this would not assist in reducing the associated risk of tree failure or prevent further structural damage;
- b) removal of the tree as this will eliminate the level of material risk the tree poses to people, particularly considering the tree is identified (by the Consulting Arborist) to have a less than ten (10) year safe useful life expectancy and poses an unacceptable risk to people and property in its current form.

The applicant proposes to remove the tree entirely.

5. Procedural Matters

5.1 Classification

A 'tree damaging activity' is not identified within the Zone as being a 'complying' or 'non-complying' form of development, and therefore the proposal is a 'consent on-merit' form of development for assessment purposes.

5.2 Public Notification

The proposed development is Category 1 for the purposes of public notification pursuant to Schedule 9 Part 1(13) of the *Development Regulations 2008*. As such, no public notification is required.

5.3 Statutory Referrals

No statutory referrals are required to be undertaken pursuant to Section 37 of the *Development Act 1993* or *Development Regulations 2008*.

6. Key Issues

The following matters are considered pertinent in reaching a recommendation for the proposal:

- Assessment of the tree contribution to the character or visual amenity of the locality.
- The environmental benefit of the tree.
- The health of the tree.
- The risk of the tree to public safety.
- If the removal of the tree is reasonable and expected.
- Whether the tree prohibits reasonable development of the site.

7. Planning Assessment

The Development Plan details a number of relevant provisions to assist in determining if the removal of regulated/significant trees is appropriate. The relevant provisions are detailed within the Regulated Trees and Significant Trees module within the General Section of the Playford Council Development Plan.

7.1 Assessment of the trees contribution to the character of visual amenity of the locality

The Environment, Resources and Development Court (ERD Court) has provided guidance as to how applications for the removal of regulated and significant trees should be assessed. The ERD Court has determined there is an initial question that must be asked:

Does the proposal amount to the removal of a tree(s) that has a high aesthetic merit by making an important contribution to the character or amenity and/or forming a notable visual element of the landscape?

As a result of pollarding to create a denser windbreak associated with the previous rural land use, the appearance and form of the tree is unique. The tree is not an example of an untouched specimen. In saying this however, the tree and the remaining trees that form the avenue are considered to be of a high aesthetic merit as they make an important contribution to the character and amenity of Lawder Road.

In undertaking this assessment it is important to consider the contribution the tree makes in isolation, and in my view it is equally important in this instance to consider the tree in the context of the collective (or avenue) of trees. The avenue of trees undoubtedly contributes positively to the unique character of the locality.

The removal of the tree would have an impact on this character and distort the visual amenity by disconnecting the avenue. It is conceded that some of the trees of the former windbreak have been removed (for various reasons), however the avenue is considered to be more or less intact.

From a visual amenity perspective, the removal of the tree is not supported. The proposal is considered to be at variance with General Section – Regulated Tree Objective 1 and 2(a), General Section – Significant Tree Principle of Development Control 1(a) and (f).

7.2 Environmental benefit of the tree

Sugar Gums (*Eucalyptus cladocalyx*) are not indigenous to the locality but are indigenous to South Australia.

The tree is not a rare or endangered species and is very commonly cultivated, naturally occurring, and found in numerous locations throughout Greater Metropolitan Adelaide and regional South Australia.

The Tree Vision report notes that the tree is an important habitat for native fauna as it provides an important habitat and feeding opportunities, and the structural features presented by the tree further enhance the opportunities for native fauna.

The report notes there are a number of other trees within the local area, including others elsewhere in the street and neighbouring properties, and is important for maintaining biodiversity within the locality area.

The proposed removal is considered to be at variance with General Section – Regulated Tree Objective 1 and 2(d), and General Section – Significant Tree Principles of Development Control 1(c) and (e) of the Development Plan.

7.3 Tree health assessment

The reports prepared by the consulting Arborists (the one provided by the Applicant and the one commissioned by Council) are divided in their findings on the health of the tree. The applicants report suggests the health and structure of the tree is 'poor' and Council's consulting arborist states that the tree is in a fair physiological condition.

The applicant's report suggests the tree is diseased and has a short life expectancy. It also suggests the tree presents an unacceptable risk to public or private safety.

The assessment undertaken by Council's Tree Services department states that the tree presents in fair health and structure (it is not diseased and displays fair-good vigour) with a moderate-long useful life expectancy. The advice states the risk associated with the tree is 'tolerable', as there are options available to mitigate and lower the risk further.

Based on the evidence provided, and the options to further mitigate risks, the proposal appears to be in conflict with the General Section – Regulated Tree Principle of Development Control 2(a) or General Section – Significant Tree Principle of Development Control 3(a)(i) of the Development Plan.

7.4 Public risk assessment / Damage to building or structure

The Applicant's report states that the tree is threatening to cause substantial damage to the dwelling, and that it presents an unacceptable risk to public or private safety.

The Tree Environs report (commissioned by Council) suggests that the tree does not present an unacceptable risk to private safety.

Council's Tree Services is of the view that the tree has been risk assessed for property damage as 'tolerable' and that this can be reduced through further mitigation. It also suggests that the footings construction report for the dwelling gives consideration to the tree.

Although the views are again divided, on the basis that further mitigation works can be undertaken to lessen safety concerns, the proposal is considered to be at variance with General Section – Regulated Tree Principle of Development Control 2(b) and (c) and or General Section – Significant Tree Principle of Development Control 3(a)(ii), 3(b) and (e)(iv) of the Development Plan.

7.5 Reasonable development

Despite the encroachment of the dwelling within the TPZ and the recent addition of the driveway within the SRZ the Tree Vision report suggests that most of the works occurred outside of the SRZ and has therefore not detrimentally impacted the tree. As identified above, it also recognises that the earthworks required for the construction of the dwelling has resulted in the slight raising of ground levels within the TPZ, and as such it is likely that the underground parts of the tree have not been structurally compromised.

On balance and on account of the advice received, an argument suggesting the tree will prevent reasonable development of the land is unfounded.

The removal of the tree is therefore at variance with General Section - Regulated Tree Principle of Development Control 2(d) and General Section – Significant Tree Principle of Development Control 3(d) and (e)(iv).

8. Conclusion

The tree (and the avenue of trees) is an important and significant contribution to the amenity and character of the locality.

The tree has an environmental benefit and is important for local biodiversity.

Whilst there may be some level of risk associated with an unmaintained tree, it is evident that risk levels can be reduced or mitigated through maintaining pruning and ongoing inspection of the tree.

It is evident that if maintained, the tree would have a moderate-long useful life expectancy despite the encroachment into the TPZ and SRZ.

Overall the proposal is considered to be at variance with a number of Objectives and Principles of the Playford Council Development Plan to the extent that the development does not warrant the issuing of Planning Consent.

It is recommended that the Council Assessment Panel resolve to refuse the application.

9. Recommendation

STAFF RECOMMENDATION

That pursuant to the authority delegated to the Council Assessment Panel by the Council, it is recommended that the Council Assessment Panel:

- a) DETERMINES that the proposed development is not seriously at variance with the policies in the City of Playford Development Plan; and
- b) REFUSES Planning Consent to the application by Mr K Nicholls to the removal of one (1) significant tree at 16 Lawder Road, Blakeview as detailed in Development Application 292/2550/2020 on the following grounds:
 1. The tree is considered to significantly contribute to the character and amenity of the locality and therefore considered at variance with the following provisions:
 - i. *Objective 1 (Regulated Trees) The conservation of regulated trees that provide important aesthetic and/or environmental benefit.*
 - ii. *Principle of Development Control 2 (Regulated Trees) Development in balance with preserving regulated trees that demonstrate one or more of the following attributes:*
 - (a) *significantly contributes to the character or visual amenity of the locality*
 - iii. *Objective 1 (Significant Trees) The conservation of significant trees, in Metropolitan Adelaide, that provides important aesthetic and environmental benefit.*
 - iv. *Principle of Development Control 1 (Significant Tree) Development should preserve the following attributes where a significant tree demonstrates at least one of the following attributes:*
 - (a) *makes an important contribution to the character or amenity of the local*

area;

(f) forms a notable visual element to the landscape of the local area.

2. The proposal is contrary to preservation of the tree as an environmental benefit and therefore considered at variance with the following provisions:

i. *Objective 1 (Regulated Trees) The conservation of regulated trees that provide important aesthetic and/or environmental benefit.*

ii. *Principle of Development Control 2 (Regulated Trees) Development in balance with preserving regulated trees that demonstrate one or more of the following attributes:*

(d) an important habitat for native fauna.

iii. *Objective 1 (Significant Trees) The conservation of significant trees, in Metropolitan Adelaide, that provides important aesthetic and environmental benefit.*

iv. *Principle of Development Control 1 (Significant Tree) Development should preserve the following attributes where a significant tree demonstrates at least one of the following attributes:*

(c) represents an important habitat for native fauna

(e) is important to the maintenance of biodiversity in the local environment.

3. A regulated tree should not be removed if the removal criteria is not achieved in accordance with the following provisions:

i. *Principle of Development Control 2 (Regulated Trees) Development in balance with preserving regulated trees that demonstrate one or more of the following attributes:*

(a) the tree is diseased and its life expectancy is short

(b) the tree represents a material risk to public or private safety

(c) the tree is causing damage to a building

(d) development that is reasonable and expected would not otherwise be possible

(e) the work is required for the removal of dead wood, treatment of disease, or is in the general interests of the health of the tree.

ii. *Principle of Development Control 2 (Significant Trees) The conservation of significant trees in balance with achieving appropriate development.*

iii. *Principle of Development Control 3 (Significant Trees)*

(a) in the case of tree removal, where at least one of the following apply:

(i) the tree is diseased and its life expectancy is short

(ii) the tree represents an unacceptable risk to public or private safety

(iii) the tree is within 20 metres of a residential, tourist accommodation

or habitable building and is a bushfire hazard within a bushfire prone area

- (b) the tree is shown to be causing or threatening to cause substantial damage to a substantial building or structure of value*
- (c) all other reasonable remedial treatments and measures have been determined to be ineffective*
- (d) it is demonstrated that all reasonable alternative development options and design solutions have been considered to prevent substantial tree damaging activity occurring.*
- (e) in any other case, any of the following circumstances apply:*
 - (i) the work is required for the removal of dead wood, treatment of disease, or is in the general interests of the health of the tree*
 - (ii) the work is required due to unacceptable risk to public or private safety*
 - (iii) the tree is within 20 metres of a residential, tourist accommodation or habitable building and is a bushfire hazard within a bushfire prone area*
 - (iv) the tree is shown to be causing or threatening to cause damage to a substantial building or structure of value*
 - (v) the aesthetic appearance and structural integrity of the tree is maintained*
 - (vi) it is demonstrated that all reasonable alternative development options and design solutions have been considered to prevent substantial tree damaging activity occurring.*

CALL
(08) 8256 0333

POST
12 Bishopstone Road
Davoren Park SA 5113

EMAIL
playferd@playford.sa.gov.au
plan

VISIT
Playford Civic Centre
10 Playford Boulevard
Elizabeth SA 5112

Stretton Centre
307 Peachey Road
Munno Para SA 5115



DEVELOPMENT APPLICATION FORM

1. Application type			
<input type="checkbox"/> Planning and building consent		<input type="checkbox"/> Building consent privately certified	
<input checked="" type="checkbox"/> Planning consent only		<input type="checkbox"/> Residential Code (Council assessed)	
<input type="checkbox"/> Building consent only (Schedule 1A)			
2. Applicant details			
Family name: NICHOLLS		Given name/s: KANE	
Postal address: 16 LAWDER ROAD, BLAKEVIEW		Post code: 5115	
Email:		Phone: 0449 755 320	
3. Owner details			
		<input checked="" type="checkbox"/> As above	
Family name:		Given name/s:	
Postal address:		Post code:	
Email:		Phone:	
4. Contact person for further information			
		<input checked="" type="checkbox"/> As per applicant/owner	
Family name:		Given name/s:	
Postal address:		Post code:	
Email:		Phone:	
5. Description of proposed development			
Description of development: <small>(eg. dwelling, verandah)</small> REMOVAL OF A TREE			
Intended use: 3.2m			
Floor area (Sqm):		Building rules classification sought: <small>(eg. 1a, 10a)</small>	
Development cost: \$ 2,618.00 - Plus GST.			
6. Location of proposed development			
House No: 16		Lot No: 265	
		Title Volume/Folio:	
Street: LAWDER ROAD		Suburb: BLAKEVIEW	
		Post code: 5115	

**NEXT
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CITY**

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7. Work type	
<input type="checkbox"/> New build	<input type="checkbox"/> Addition or alteration
<input type="checkbox"/> Demolition	<input type="checkbox"/> Other (Please specify)
Wall / Wall Cladding	
<input type="checkbox"/> Brick veneer	<input type="checkbox"/> Colorbond or steel
<input type="checkbox"/> Fibro-cement	<input type="checkbox"/> Not applicable
<input type="checkbox"/> Other (Please specify)	
Floors	
<input type="checkbox"/> Concrete	<input type="checkbox"/> Timber
<input type="checkbox"/> Other (please specify)	
Roof	
<input type="checkbox"/> Colorbond or steel	<input type="checkbox"/> Tiles
<input type="checkbox"/> Not applicable	<input type="checkbox"/> Other (please specify)
Frame	
<input type="checkbox"/> Steel	<input type="checkbox"/> Timber
<input type="checkbox"/> Other (please specify)	

8. Builder/supervisor details		Registration no:	
Family name:		Given name/s:	
Postal address:		Post code:	
Email:		Phone:	

9. Applicant Declaration

Building Near Power Lines and Underground Cables
 I declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 86 of the *Electricity Act 1996*. I make this declaration under clause 2A(1) of Schedule 5 of the *Development Regulations 2008*.
 NB: If this declaration is not made, a referral to the Office of the Technical Regulator is required.

Copyright of Plans
 I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the *Development Act 1993* and *Regulations 2008*. This includes display on Council's website and electronic media.

Street Infrastructure and Driveways / Entranceways
 I declare that I have examined the site of the application and drafted site plans and drainage plans for my proposal and to the best of my understanding acknowledge the proposed entranceways, crossways and driveways are not less than one (1) metre from existing or proposed street infrastructure. In the event that a proposed entranceway, crossway and/or driveway is less than 1 metre from existing or proposed street infrastructure, I will amend any such proposal to comply with the one (1) metre clearance required from such street infrastructure. I understand that the City of Playford is not obligated to relocate any street infrastructure as a result of my development proposal, and is not liable to meet any costs associated with the relocation of any street infrastructure.

Applicant's Signature:  Date: 14/12/20





Product Register Search (CT 6219/978)
Date/Time 08/12/2020 05:58PM
Customer Reference Kane nicholls
Order ID 20201208010292

REAL PROPERTY ACT, 1986



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 6219 Folio 978

Parent Title(s) CT 6208/948
Creating Dealing(s) RTC 13065094
Title Issued 15/02/2019 **Edition** 2 **Edition issued** 27/05/2020

Estate Type

FEE SIMPLE

Registered Proprietor

MELANIE LILY NICHOLLS
 KANE EDWARD ALLAN DAYMOND NICHOLLS
 OF 16 LAWDER ROAD BLAKEVIEW SA 5114
 AS JOINT TENANTS

Description of Land

ALLOTMENT 265 DEPOSITED PLAN 120566
 IN THE AREA NAMED BLAKEVIEW
 HUNDRED OF MUNNO PARA

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13304783	ENCUMBRANCE TO LENDLEASE COMMUNITIES (BLAKEVIEW) PTY. LTD. (ACN: 131 672 403)
13304784	MORTGAGE TO WESTPAC BANKING CORPORATION (ACN: 007 457 141)

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



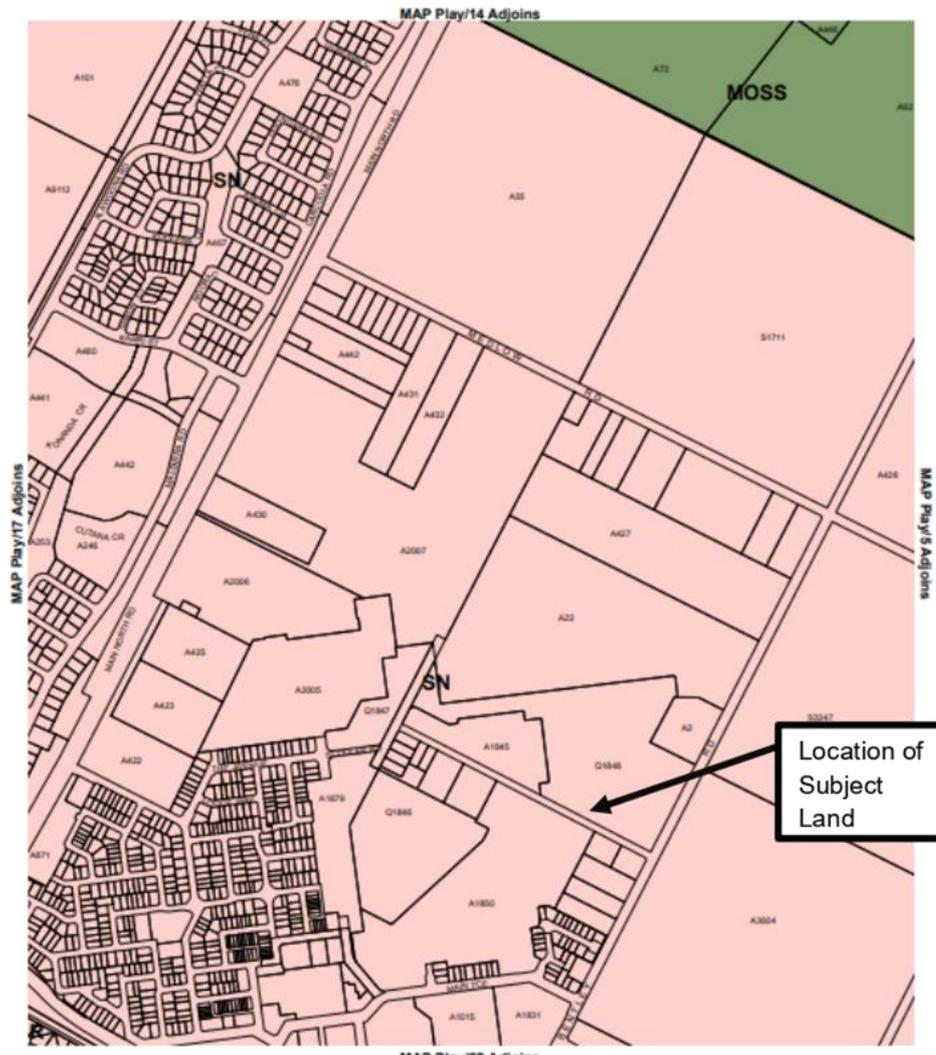
Product Historical Search
Date/Time 08/12/2020 05:58PM
Customer Reference Kane nicholls
Order ID 20201208010292

Certificate of Title

Title Reference: CT 6219/978
Status: CURRENT
Parent Title(s): CT 6208/948
Dealing(s) Creating Title: RTC 13065094
Title Issued: 15/02/2019
Edition: 2

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
22/05/2020	27/05/2020	13304784	MORTGAGE	REGISTERED	WESTPAC BANKING CORPORATION (ACN: 007 457 141)
22/05/2020	27/05/2020	13304783	ENCUMBRANCE	REGISTERED	LENLEASE COMMUNITIES (BLAKEVIEW) PTY. LTD. (ACN: 131 672 403)
22/05/2020	27/05/2020	13304782	TRANSFER	REGISTERED	MELANIE LILY NICHOLLS, KANE EDWARD ALLAN DAYMOND NICHOLLS

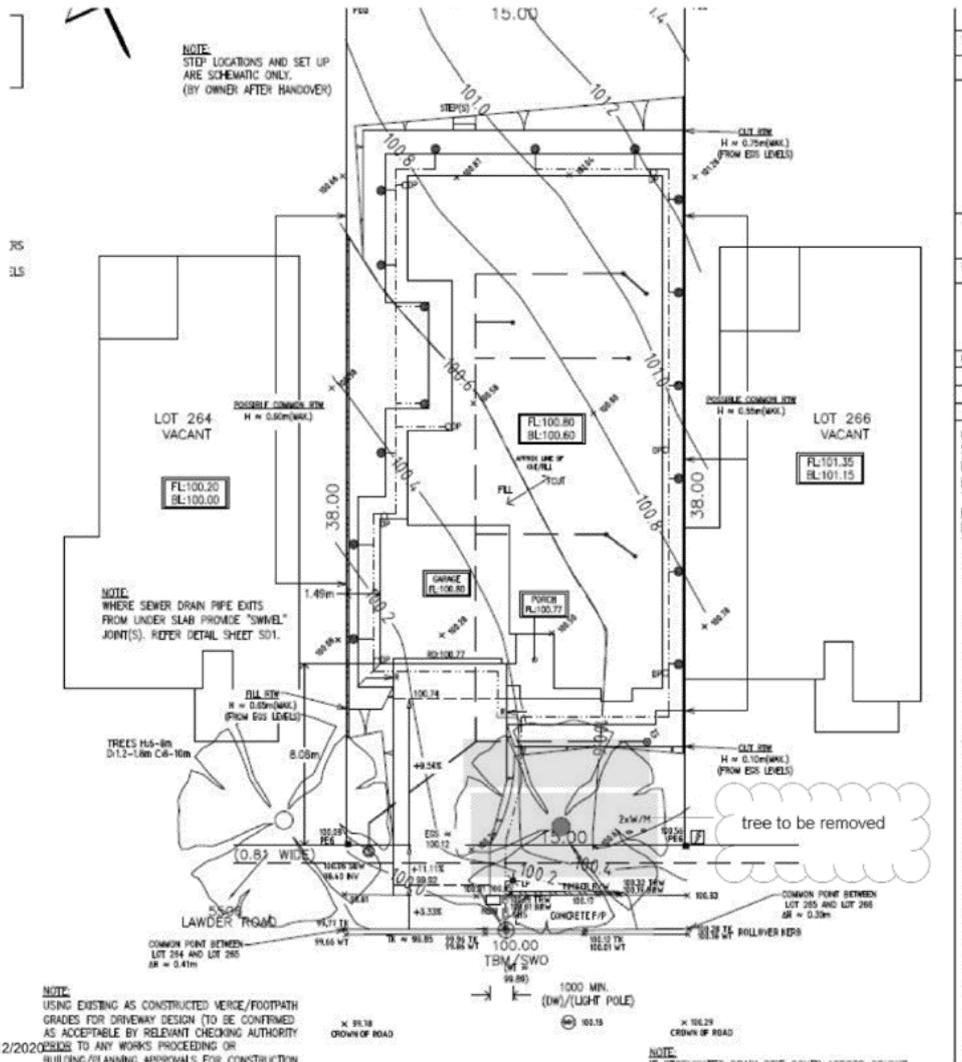


Lambert Conformal Conic Projection, GD84



- Zones**
- MOSS** Metropolitan Open Space System
- R** Residential
- SN** Suburban Neighbourhood
- Zone Boundary

Zone Map Play/18



Document Set ID: 3933467
 Version: 1, Version Date: 16/12/2020



Document Set ID: 3933467
Version: 1, Version Date: 16/12/2020



From: melanie foreman
Sent: Fri, 5 Feb 2021 09:45:39 +1030
To: Plan
Subject: Kane Nicholls Lawder Road Blakeview SA.pdf 292/2550/2020
Attachments: Kane Nicholls Lawder Road Blakeview SA.pdf

⚠ **EXTERNAL EMAIL:** Do not click any links or open any attachments unless you trust the sender and know the content is safe. ⚠

Please find attached arborist report for application number 292/2550/2020 which will provide justification for the tree removal as it is a safety concern for our family as stated in our previous application.

We wish to have this tree removed ASAP, we hope to hear from you soon.

Kane and Melanie Nicholls

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TERTIARY TREE CONSULTING PTY LTD

Forming Relationships - Delivering Solutions
 ABN 48 629 289 078
 PO Box 1234, Glenelg South, SA 5045
 dylan@ttconsulting.net.au
 www.ttconsulting.net.au
 Phone 0400-259-505

DYLAN TEMPEST – ARBORICULTURAL CONSULTANT

AQF Level 8 Graduate Certificate of Arboriculture 1st class honours The University of Melbourne (Grad Cert Arb)
 AQF Level 5 Diploma of Arboriculture (Dip Arb)
 AQF Level 3 Certificate 3 of Arboriculture (Cert III Arb)
 QTRA Advanced Quantified Tree Risk Assessor User 5637
 QTRA Quantified Tree Risk Assessor User 5637
 ISA TRAQ International Society of Arboriculture Tree Risk Assessment Qualification
 Gold Australian Arborist Industry License No: AL2360

Continued Studies: MSc Master of Arboriculture and Urban Forestry

5 Million Professional Indemnity Insurance
 20 Million Public Liability Insurance

Date 04 February 2021

Arboricultural Report Revision A

CLIENT

Kane Nicholls
 16 Lawder Road
 Blakeview
 SA 5114
 P: 0449 755 320
 E: kanenicholls84@gmail.com

SITE ADDRESS

16 Lawder Road
 Blakeview
 SA 5114



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CLIENT BRIEF:

The client brief is to provide an assessment and report for the condition of the *Eucalyptus cladocaylx* located within the property of 16 Lawder Road Blakeview SA 5144. This assessment will consider the health and structure of the tree as well as any risk this tree may pose to people and property. This report is to include management recommendations for the nominated tree.

TREE PROFILE:

Family: Myrtaceae

Scientific Name: *Eucalyptus cladocaylx*

Common Name: Sugar Gum

LOCATION:

This *Eucalyptus cladocaylx* is located on the property of 16 Lawder Road Blakeview SA 5144 and is positioned in the front yard. The nominated tree to be assessed is indicated on the figure below by the green circle.



Figure 1: Overhead site map showing the nominated tree indicated by the green circle. Note: there is a newly constructed dwelling on this block that is not shown in this figure.

TREE DIMENSIONS AND LEGAL STATUS:

<i>Eucalyptus leucoxylon</i>	
Approximate Tree Height	20 m
Approximate Canopy Spread Diameter	17 m
Tree Age	Over mature
Circumference at 1m above ground level (South Australian Development Act 1993 / Development Regulations 2008)	>3000 mm
Legal Status (South Australian Development Act 1993/Development Regulations 2008)	Significant Tree
DBH at 1.4 m above ground level or as altered by AS4970-2009 due to stem positions, union positions and or deformities	1110 mm
Root Collar Diameter	1170 mm
TPZ radius (AS4970-2009)	13.32
SRZ radius (AS4970-2009)	3.53

METHODS LEVEL 2 BASIC VISUAL TREE ASSESSMENT (VTA):

This ground-based level 2 VTA was conducted with a sounding mallet, diameter tape, trowel, probe and smart phone on 03 February 2021 at 5:00 pm. The height of the tree was estimated and the spread of the canopy was paced out.

The health of the tree was assessed and rated within the following parameters,

1. **Good:** The tree / vegetation demonstrates a full canopy of foliage or living tissue for the species. The tree/ vegetation should be free of or exhibit only minor signs of decline or pest or disease signs and symptoms.
2. **Average:** The tree / vegetation demonstrates a moderate canopy of foliage or living tissue for the species. The canopy may contain dead branches and may exhibit minor to moderate signs of decline or pest or disease signs or symptoms.
3. **Below Average:** The tree/ vegetation demonstrates a declining canopy of foliage or failing tissue for the species. The canopy may contain multiple dead or dying sections and may display moderate to significant signs of decline or pest or disease signs or symptoms.
4. **Poor:** The tree/ vegetation shows signs of extreme stress and or decline. A high percentage of the canopy foliage may be made up of declining epicormic growth. A high percentage of the canopy foliage may be chlorotic or necrotic. A high percentage of the canopy foliage and tissue may be dead. Or the tree has declined and is not producing defenses sufficient to stop secondary insect and or pathogen attack.
5. **Dead:** The tree / vegetation shows no signs of life

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The structure of the tree was assessed and rated within the following parameters,

1. **Good:** The approximate structural root zone appears unaffected; the trunk exhibits proportional buttressing and taper. Stem and branch unions are free of recognisable flaws, few if any insect or fungal signs or symptoms are visible.
The tree is considered a good example of the species.
2. **Average:** Minor impacts may have occurred in the approximate structural root zone, the trunk exhibits proportional buttressing and taper, some second or third order branch unions may contain recognisable flaws, insect or fungal signs or symptoms may be visible. The tree could be retained with some corrective pruning.
3. **Poor:** Damage to the structural root zone may be likely, damage to the trunk may be likely, the tree may exhibit multiple branch failures, trunk buttressing and taper may be disproportionate, the main union has recognisable flaws, first, second and/or third order branch unions may contain recognisable flaws, insect or fungal signs or symptoms are visible and have progressed to beyond moderate levels, the tree is unlikely to be repaired with corrective pruning.

The risk the tree poses was assessed using QTRA Advanced.

The life expectancy / retention rating of the tree was assessed using the Legend for S.T.A.R.S Footprint Green Matrix Assessment System.

The Barrell Safe Useful Life Expectancy (SULE) method was used to determine the trees SULE.

The findings of this tree assessment are addressed and scientifically referenced using the Harvard Referencing System throughout this Arboricultural Report.

TREE CONDITION:

Trunk and Canopy:

- The health of the tree is rated as poor.
- The structure of the tree is rated as poor.
- The tree is declining due to environmental stressors which has allowed a secondary pest to begin damaging the tree.
- There is Longicorn Borer (*Phoracantha* sp.) damage to the trunk. Longicorn Borer (*Phoracantha* sp.) are a secondary pest. This indicates the tree is stressed from abiotic and biotic stressors inclusive of heat and water stress.
- There is extensive decay through the trunk extending up to approximately eight metres above ground level where a large bee hive is located. As can often be the case there is no fungal fruiting body present to identify if the decay is white, brown or soft rot.
- The tree has a history of multiple branch failures with similar branches present. The has created a structure of poor form.
- The tree does have the majority of its foliage within its distal area. This is a species-specific trait.

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- The tree is approximately 20 metres tall and so has a high ground to crown clearance.
- There is extensive non tree sensitive development within the TPZ and SRZ of the tree being a new footpath, road and dwelling. The council have allowed this dwelling to be built without considering and protecting this significant tree. The TPZ is a radius 13.32 metres from the centre of the tree trunk. The SRZ is a radius 3.53 metres from the centre of the tree trunk. The TPZ impact from this dwelling and road is 69.4%, and includes an SRZ impact. These are major impacts. The council are party to tree damaging activity as defined within the *South Australian Development Regulations 2008* under the *South Australian Development Act 1993*. Tree damaging activity penalties include fines of up to \$120,000.00 and criminal convictions. The TPZ and SRZ impacts are an added stress to the tree.

These defects and stressors are weakening the tree structure. They effect the tree as discussed below.

TRUNK AND CANOPY:

Australia is the driest continent on earth with South Australia being the driest state in Australia (Brears 2020). Precipitation reductions leading to reduced water availability coupled with warm temperatures have deleterious effects on vegetation. These issues are linked to the decline and mortality of trees and plants on all six vegetated continents inclusive of Australia and its Eucalypts. These effects are more prevalent in seedlings and the tallest trees (M^cDowell *et al.*, 2008).

Water limitations are a causal factor of tree decline and mortality world-wide. Water shortage causes trees to respond by closing their stomata which is an inbuilt self-preservation mechanism. Stomatal closure stops the flow of water through the xylem to the leaves by stopping the cohesive tension created by the transpiration pull created by open stomata. This reduces the water consumption of the tree. However, with the stomata closed, the tree is unable to absorb carbon dioxide which must enter the Calvin cycle via open stomata as an essential element in photosynthesis. The tree is no longer making simple and complex carbohydrates but is continuing to respire and is now reliant on stored nonstructural carbohydrate (NSC) energy reserves. Trees in this situation are performing photorespiration which is deleterious to trees (Servanto 2013; M^cDowell *et al.*, 2008).

Elevated temperatures typically accompany dryer conditions and the higher temperature increases tree respiration which in turn further depletes the stored energy causing carbon starvation and tree decline leading to mortality (Servanto 2013; M^cDowell *et al.*, 2008).

Carbon starvation is also a risk in low intensity drawn out dry periods lasting longer than the trees carbon energy reserves (M^cDowell *et al.*, 2008).

If trees do not close their stomata during times of water deficit as aforementioned, they risk hydraulic failure through cavitation and embolism which is a major cause of tree stress leading to tree mortality. This is because even within favorable climate conditions, trees operate at narrow embolism thresholds. With water deficit due to dry soils and the stomata open, the xylem water conduits become gas filled causing cavitation and embolism (Tomasella *et al.*, 2019). Complete desiccation of the trees hydraulic system can

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occur through this process leading to cellular death rendering the hydraulic conduit system useless causing tree stress leading to mortality (McDowell *et al.*, 2008).

Increased temperatures accompany dryer periods increasing tree stress. Photosystem two, within the chloroplasts in leaves within the thylakoid membrane is a critical component of photosynthesis as it makes NADPH and ATP which leave the thylakoid membrane, enter the stroma, and are the energy that critically drive the Calvin cycle. Damage to photosystem two caused by temperatures above 40-50°C appears to be irreversible. These temperatures sound high, however, both trees and soils reach temperatures higher than the ambient air temperature of a day because of high light levels termed thermal solar radiation. Still conditions on hot days exacerbate the solar radiation effect (Hirons and Thomas 2018). This axiomatic deleterious situation is given further momentum by manmade surfaces creating urban heat islands (Chang *et al.*, 2007) interfering with the water cycle as they restrict water availability limiting evapotranspirational cooling of the leaves (Hirons and Thomas 2018).

Further deleterious effects on cellular, leaf and whole tree growth and function caused by high temperatures include,

- Photosystem two
- Rubisco activity
- Photosynthesis
- Stomatal conductance
- Transpiration
- Leaf area development
- Growth
- Fecundity

(Hirons and Thomas 2018)

Trees enduring the aforementioned stressors build thinner structured growth rings year on year (DeSoto *et al.*, 2020) because cell expansion is unable to occur as is required (Hirons and Thomas 2018).

Weakened trees have lower defense capability and attract biotic stressors by releasing volatile organic compounds including ethanol. Certain pathogens and insects that damage trees thrive in such situations obtaining omnipotent status inclusive of increased fecundity increasing tree stress and mortality risk (Hirons and Thomas 2018; McDowell *et al.*, 2008).

Longicorn Beetle (*Phoracantha* sp.) ring bark trees as they eat the symplasm and apoplasm and weaken the tree structure in the process reducing the trees elastic modulus causing tree failure (Dunster *et al.*, 2017; Crawford 2015). As little as a 14% reduction in elastic modulus can reduce the impact bending strength by more than 60% (Schwarze *et al.*, 2000).

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The appearance of epicormic growth can be a sign of disturbance to a tree's local environment. Epicormic growth can also be a sign of injury or the presence of an internal physiological stress within the subject tree (Hirons and Thomas 2018).

Trees declining from environmental stressors have a reduced ability to use carbon plus simple and complex carbohydrates gained from photosynthesis for all growth including thigmomorphogenesis to maintain and grow sufficient structure (Hirons and Thomas 2018; Lonsdale 2013; Lilly 2010; AS4970-2009).

Summer limb failure also termed sudden limb drop and summer limb drop are a type of failure occurring in many genera inclusive of *Eucalyptus* sp. Failures typically occur during hot weather. High temperatures can allow wood fibers to slide past each other with more ease resulting in the branch elastic modulus being exceeded. Heat stress induced stomatal closure is thought to be a cause, however, it appears there are a multitude of environmental stressors involved making this topic difficult to research. Sudden limb failure does often occur in branches with the majority of their foliage within their distal area (Gilman 2012).

Brown rot fungi are Basidiomycetes especially from the family Polyporaceae. Hosts are both angiosperms and gymnosperms. These fungi degrade the cellulose and hemicellulose leaving the damaged wood fragile, powdery and brown with cracks and clefts causing drastic reduction of bending and impact strength (Schwarze *et al.*, 2000).

As the brown rot decay progresses the wood shrinks cracking into cubical blocks and so brown rots have also been termed cubical rots. Brown rots cause major losses in bending strength. Brown rots can be harder to identify within trees pre-failure as the breaking down of the cellulose while leaving the lignin initially holds the affected areas rigid. Because of this fact, there is usually little excess movement before the affected areas become brittle enough to begin to fail. This means trees pre-failure do not produce response growth which is an identifying marker for other rots (Dunster *et al.*, 2017).

White rot fungi come in both simultaneous rot and selective delignification. White rot simultaneous rots are both Ascomycetes and Basidiomycetes. Hosts are often angiosperms. These rots degrade the cellulose, hemicellulose and lignin leaving the host brittle causing brittle fractures. In the initial stages there are great reductions in impact bending strength. White rot selective delignification rots are both Ascomycetes and Basidiomycetes. Hosts are both angiosperms and gymnosperms. These rots degrade first lignin and hemicellulose then later the cellulose leaving the host fibrous and stringy causing ductile fracture. In the initial stages there can be a slight increase in impact bending strength (Schwarze *et al.*, 2000).

Soft rot fungi are Ascomycetes, Basidiomycetes and Deuteromycetes. Hosts are angiosperms, gymnosperms and especially wooden structures. Soft rots degrade the cellulose, hemicellulose and strongly the lignin, leaving the host consistency brittle causing high stiffness brittle fracture (Schwarze *et al.*, 2000).

Branches and stems act as cantilever beams. The effect of this means these areas are biomechanically vulnerable if formed defectively (Hirons and Thomas 2018).

Cluster branch form occurs because of a lack of science-based maintenance pruning during the life of a tree. Too many scaffolds and first order branches too closed together cause the structural weakness. The

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outer scaffolds and first order branches become dominant by acting as a sink. This means they demand the majority of the water and mineral nutrient which allows them to grow at an accelerated rate while subordinating the central leader. This type of structure is weak and has an increased likelihood of failure (Gilman 2012).

Trees with a history of branch failure often have continued branch failure (Dunster et al 2017). This tree has a history of 1st order branch failure. The tree has similar branches present to these that have previously failed (Dunster et al 2017; Hayes 2014).

The risk to targets is elevated by the height a failure would come down from being approximately up to 20 metres above ground level (Dunster 2017). Height will increase the force with which the tree strikes the ground and targets. This is because the force of fall is proportional to tree height to the fifth power (height^5) (Coder 2000).

ROOTS AND EDAPHIC RESTRICTION:

The tree roots mechanical function is to anchor the tree keeping it stable in the ground. Damage to roots in the structural root zone (SRZ) near the trunks of mature trees does frequently create hazards and increases the likelihood of wind throw as tree anchorage is diminished (Roberts *et al*; 2018; Lonsdale 2013; AS4970-2009; Harris *et al.*, 2004). This damage can also lead to the introduction of decay causing pathogens softening and weakening the woody xylem tissues (Watson 2008; Schwarze *et al.*, 2000). Root decay increases as root size increases. Injury to roots near the trunk results in decay extending up the trunk creating more extensive defects as decay travels and spreads faster proximal from the damaged root(s) (Watson 2008).

Tree roots also provide the function and viability of a tree by supplying a tree with water, minerals and provide functional equilibrium between the roots and shoots including the production and movement of growth regulators (Lonsdale 2013; Lilly 2010). This area is referred to as the tree protection zone (TPZ) (AS4970-2009).

Compaction of the soil and restricted soil water hydrology from the laying of the hard-impermeable surfaces used in non tree sensitive development creates inhospitable root growth environments affecting all the outlined above tree root functions. It also damages roots causing decay which enters the trunk (Handreck and Black 2010; AS4970-2009; Watson 2008).

TPZ and SRZ encroachments caused by development compromise the soil aeration process required for trees to survive. Soil air near the surface is composed of 79% nitrogen, 20% oxygen and 0.25% carbon dioxide with the remaining 0.75% consisting of other gases with all gasses moving in and out of the soil by diffusion (Roberts *et al.*, 2018).

Soil is compacted before sealing/development increasing the bulk density removing available pore space. Soil compaction adversely affects the relative gas diffusivity as aforementioned. Furthermore, root growth is heavily restricted by high bulk density levels required for non-tree sensitive impermeable sealed surfaces.

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The effect is roots are unable to penetrate through the compacted soil (Handreck and Black 2010) resulting in reduced root growth, increased root death and reduced tree vitality (Weltecke and Gaertig 2012).

Sealing the soil with impermeable surfaces is highly disruptive to soil gaseous exchange. These environments have low diffusion rates while soil carbon dioxide levels increase from microbial and root respiration (Roberts *et al.*, 2018). This essential gaseous exchange process is called the relative gas diffusivity. When it is restricted at the soil-atmosphere interface, soil carbon dioxide levels increase right through the soil horizons (Weltecke and Gaertig 2012).

Soil gas diffusivity is up to ten times lower at sealed than non-sealed sites (Weltecke and Gaertig 2012). Low oxygen levels and high carbon dioxide levels cause root asphyxiation leading to root death (Roberts *et al.*, 2018; Gaertig *et al.*, 2002).

Organic matter from nutrient cycling is the original slow release fertiliser. Approximately 90% of soil nutrition is derived from nutrient cycling with only 10% coming from weathering of parent material and atmospheric deposits (Hirons 2015). Nutrient cycling is interrupted when soil is compacted and sealed having ruinous impacts on the soil food web (Hirons and Thomas 2018; Watson *et al.*, 1996).

This interruption depletes soil nutrition inclusive of the 14 essential plant nutrients. These are essential because they are directly involved in plant metabolism, cannot be substituted by other nutrients with plants unable to complete their lifecycle in their absence (Hirons 2015). The 14 essential plant nutrients are listed below.

Table 1: Micro Plant Essential Nutrients (Hirons 2015)

Micronutrients		
Chlorine (Cl)	Cl ⁻ anion	Role in photosynthetic O ₂ evolution, osmoregulation
Boron (Bo)	Hydrogen borate (H ₂ BO ₃) Borate (BO ₃ ⁻) Undissociated boron (B(OH) ₃)	Role in cell wall structure, membrane function, reproductive growth and development, role in root elongation and shoot growth
Iron (Fe)	Ferric cations (Fe ³⁺) Ferrous cations (Fe ²⁺)	Chlorophyll synthesis, proteins, enzymes
Manganese (Mn)	Mn ²⁺ , Mn ³⁺ , Mn ⁴⁺ cations	Enzymes, cofactor to enzymes, photosynthetic O ₂ evolution
Zinc (Zn)	Zn ²⁺ cation	Component of enzymes, activation of enzymes, involved in protein synthesis, involved in carbohydrate metabolism
Copper (Cu)	Low molecular weight humic and fulvic acids Cupric ion (Cu ²⁺)	Proteins, important for lignification, role in pollen formation and fertilization
Nickel (Ni)	Ni ²⁺ cation	Component of enzymes, role in nitrogen metabolism
Molybdenum (Mo)	Molybdate anion (MoO ₄ ²⁻)	Enzyme for N ₂ fixation, component of enzymes and enzyme cofactors

* Sources: Marschner (2012) and Jones (2012)

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Table 2: Macro Plant Essential Nutrients (Hirons 2015)

Nutrient	Available forms	Functions
Macronutrients		
Nitrogen (N)	Nitrate (NO ₃ ⁻) Ammonium (NH ₄ ⁺)	Proteins, phospholipids, nucleic acids, chlorophyll, co-enzymes, phytohormones, secondary metabolites
Potassium (K)	K ⁺ cation	Enzyme activation, proteins, regulation of stomatal aperture, phloem transport, stress resistance
Calcium (Ca)	Ca ⁺ cation Calcium carbonate (CaCO ₃) Calcium sulphate (CaSO ₄)	Cell wall stabilization, cell extension, secretory processes, membrane stabilization, osmoregulation
Magnesium (Mg)	Mg ⁺ cation	Chlorophyll, enzyme activation, phosphorylation
Phosphorus (P)	Dihydrogen phosphate (H ₂ PO ₄ ⁻) Monohydrogen phosphate (HPO ₄ ²⁻) Al, Fe, and Ca phosphates	ATP (energy transfer), nucleic acids, phospholipids, coenzymes, starch, sugars
Sulphur (S)	Sulphate (SO ₄ ²⁻)	Amino acids, proteins, coenzymes, secondary metabolites, cellular resistance to dehydration and frost damage

Carbon dioxide formed by organisms and root respiration is unable to be removed from the soil by diffusion due to non-tree sensitive developments leading to low oxygen levels and high carbon dioxide levels causing root asphyxiation leading to root death (Roberts *et al.*, 2018).

Soil compaction and sealing alters the water course preventing water absorption into the edaphic environment (Handreck and Black 2010; Watson *et al.*, 1996). When trees do not receive sufficient water, they decline. If this situation persists, trees die from either hydraulic failure through cavitation and embolism (Tomasella *et al.*, 2019; Hirons and Thomas 2018; McDowell *et al.*, 2008), or carbon starvation (Hirons and Thomas 2018; Sevanto 2013; McDowell *et al.*, 2008).

Hydraulic failure occurs when there is a water deficit and the tree's stomata remain open. The effect is insufficient water is available to fill the xylem water column leading to desiccation and damage rendering the system useless (Tomasella *et al.*, 2019; Hirons and Thomas 2018; McDowell *et al.*, 2008).

Carbon starvation occurs when there is a water deficit and trees keep their stomata closed stopping photosynthesis. The tree will continue respiring with no new carbohydrate production. This depletes the stored nonstructural carbohydrates causing death from carbon starvation (Hirons and Thomas 2018; Sevanto 2013; McDowell *et al.*, 2008).

COUNCIL APPROVED DEVELOPMENT CAUSING TREE DAMAGING ACTIVITY:

Playford Council "Development Plan" Consolidated – 30 April 2020 Significant Trees

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PRINCIPLES OF DEVELOPMENT CONTROL 3 (e) states,

“4. Development involving ground work activities such as excavation, filling, and sealing of surrounding surfaces (whether such work takes place on the site of a significant tree or otherwise) should only be undertaken where the aesthetic appearance, health and integrity of a significant tree, including its root system, will not be adversely affected.”

“5. Land should not be divided or developed where the division or development would be likely to result in a substantial tree-damaging activity occurring to a significant tree.”

The council approved development, footpath and road is within the TPZ with an incursion of 69.4% which also extends into the SRZ (refer figure 8).

AS4970-2009 section 1.4.5 defines the SRZ as,

“Structural root zone (SRZ)

The area around the base of a tree required for the tree’s stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres.

This zone considers a tree’s structural stability only, not the root zone required for a tree’s vigour and long-term viability, which will usually be a much larger area”.

AS4970-2009 section 1.4.7 defines the TPZ as,

“A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree’s roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development”.

AS4970-2009 section 3.3.3 defines a major encroachment as,

“If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ (see Clause 3.3.5), the project arborist must demonstrate that the tree(s) would remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods and consideration of relevant factors listed in Clause 3.3.4”.

The council approved development work falls within the definition of major encroachment from AS4970-2009. Therefore, to reiterate, AS4970-2009 section 3.3.3 states “the project arborist must demonstrate that the tree(s) would remain viable”.

There has been no project arborist on this development site. The council’s obligation is to realise the significant tree as part of the development approval process and instruct the client to employ a consulting arborist to write an Arboricultural Impact Assessment and Tree Protection Plan to submit in the development application and act as project arborist through the development. The council have failed in their duty and have caused tree damaging activity. Due to the councils failing, a total 69.4% TPZ impact and a large portion SRZ impact has occurred.

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There is no scientific arboricultural literature in existence available for a consulting arborist to use to demonstrate that cutting out such large quantities of a tall mature tree's roots (69.4% of the TPZ and a large portion of the SRZ in that area) is a viable solution and that the nominated tree would remain stable and viable.

ADVANCED QTRA USER NUMBER 5637 LEVEL 2 BASIC TREE RISK ASSESSMENT (VTA):

The level of risk this *Eucalyptus cladocaylx* poses has been calculated using the Advanced Quantified Tree Risk Assessment Method (QTRA user number 5637) on 03 February 2021 at 5:00 pm.

The methods and outcome of this risk assessment are outlined below.

Part: Scaffold

Risk to people

- Target Range (2) 2.4 hours – 15 minutes per day
- Size of Part (1) >450 mm diameter
- Probability of Failure (3)
- **Level of Risk (Risk of Harm) RoH = 1:4,000 and increasing with time.**
- QTRA Advanced 5.3 states, if the risk is 1:100K or higher and the risk is expected to increase before the next inspection, this risk increase must be assessed. Due to the aforementioned condition of the tree, the risk is expected to increase by a factor of one (1) before the next inspection **therefore the risk is rated as 1:400.**

Part: Scaffold

Risk to property (dwelling)

- Target Range (2) \$36,000 -> \$3,600 (expected damage range from a failure)
- Probability of Failure (3)
- **Level of Risk (Risk of Harm) RoH = 1:30,000 and increasing with time.**
- QTRA Advanced 5.3 states, if the risk is 1:100K or higher and the risk is expected to increase before the next inspection, this risk increase must be assessed. Due to the aforementioned condition of the tree, the risk is expected to increase by a factor of one (1) before the next inspection **therefore the risk is rated as 1:3,000.**

The risk to people and property is at a level deemed unacceptable to enforce on a 3rd party without their consent. The client has advised he does not accept this level of risk being enforced on himself or his family inclusive of his wife and three children aged five, seven and thirteen visitors and pedestrians.

LEGEND FOR S.T.A.R.S MATRIX ASSESSMENT:

When this tree is assessed within the Legend for S.T.A.R.S Matrix Assessment, the nominated tree is within the following category.

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Hazardous/Irreversible Decline - The tree is structurally unsound and/or unstable and is considered potentially dangerous, - The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

View appendix 2 of this arboricultural report for further details.

SAFE USEFUL LIFE EXPECTANCY (SULE):

Using the Barrell 1993 Safe Useful Life Expectancy (SULE) table the tree has a Remove SULE being a tree with a high level of risk that would need removing within 5 years (Roberts *et al.*, 2018)

(b) **Dying or suppressed and trees declining through disease or inhospitable conditions.** (The nominated tree is declining and dying as aforementioned within the Tree Condition section herein this Arboricultural Report).

(c) **Dangerous trees through instability.** (The nominated tree has an unstable structure as aforementioned within the Tree Condition section herein this Arboricultural Report).

(d) **Dangerous trees through structural defects including cavities, decay, including bark wounds or poor form.** (The nominated tree is dangerous and structurally defective as aforementioned within the Tree Condition section herein this Arboricultural Report).

(e) **Damaged trees that are considered unsafe to retain.** (The nominated tree has a damaged structure as aforementioned within the Tree Condition section herein this Arboricultural Report).

And so is not worthy of retention in its current form (Roberts *et al.*, 2018).

RISK REDUCTION:

The installation of a permanent exclusion zone within the target area of the tree can reduce and or eliminate material risk to people and property. This option is not viable as the tree is in a residential site spanning 2 front yards and a footpath and road. This would not extend the short life expectancy of the tree.

Material risk to people and property could be reduced by constructing a sufficiently engineered protective structure under the tree canopy. Any structure would need to span over the aforementioned area. To not damage the tree, this structure would be required to adhere to tree sensitive design requirements remaining water permeable, allowing nutrient cycling and be installed without root disturbance or edaphic restriction following the *South Australian Development Act 1993*, the *South Australian Development Regulations 2008* and *AS4970-2009* requirements. The load bearing requirement of such a structure is expected to be cost prohibitive and therefore unreasonable considering the size of the tree and so required size and loadbearing capabilities of such a structure. The engineering and cost of such a structure is outside the scope of this report as it would require design, economic and engineering advice. It is estimated this structure would be in the order of 20 m x 20 m being 400 m² being the approximate area of the tree canopy. The structure would not increase the short life expectancy of the tree.

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Further risk mitigating strategies such as pruning in accordance with AS4373-2007 Pruning of Amenity Trees would not assist in reducing associated risk to tree failure or prevent further structural damage. This is because removing large amounts of the crown to reduce loads on the defects will reduce the trees ability to produce $C^6H^{12}O^6$ which is essential for continued growth and survival (Lilly 2010).

LEGISLATION (SECTIONS RELEVANT TO THIS TREE):

Playford Council "Development Plan" Consolidated – 30 April 2020

Playford Council General Section Significant Trees

Significant Trees

OBJECTIVES 1

The conservation of significant trees, in Metropolitan Adelaide, that provide important aesthetic and environmental benefit.

2 The conservation of significant trees in balance with achieving appropriate development.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should preserve the following attributes where a significant tree demonstrates at least one of the following attributes:

- (a) **makes an important contribution to the character or amenity of the local area; or**
No, the tree is a declining specimen with poor form due to its history of branch failure and does not make an "important" contribution to the character or amenity of the local area.
- (b) **is indigenous to the local area and its species is listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species**
No, the tree is not listed as under the National Parks and Wildlife Act 1972 as a rare or endangered species.
- (c) **represents an important habitat for native fauna**
The tree is a native species and could be considered to represent an important habitat for native fauna. However, no nests or dreys were in the tree at the time of inspection, nor were there any fauna scratch marks fecal matter or odors to indicate its use in this manner.
- (d) **is part of a wildlife corridor of a remnant area of native vegetation**
No, the tree is within a stand of *Eucalyptus cladocaylx*, however, it is not a wildlife corridor, the locality of the tree is that of habitat fragmentation due to human development.
- (e) **is important to the maintenance of biodiversity in the local environment**
Yes, the tree is important to the maintenance of biodiversity in the local environment.
- (f) **forms a notable visual element to the landscape of the local area.**
No, the tree is a declining specimen with poor form due to its history of branch failure and does not form a notable visual element to the landscape of the local area.

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2 Development should be undertaken so that it has a minimum adverse effect on the health of a significant tree.

3 Significant trees should be preserved, and tree-damaging activity should not be undertaken, unless:

(a) in the case of tree removal, where at least one of the following apply:

(i) the tree is diseased and its life expectancy is short

Yes, this report has demonstrated the tree is diseased and its life expectancy is short.

(ii) the tree represents an unacceptable risk to public or private safety

Yes, this report has demonstrated the tree represents an unacceptable risk to public or private safety.

(iii) the tree is within 20 metres of a residential, tourist accommodation or habitable building and is a bushfire hazard within a bushfire prone area

No, the tree is not within a bushfire prone area.

(b) the tree is shown to be causing or threatening to cause substantial damage to a substantial building or structure of value

Yes, this report has demonstrated the tree is threatening to cause substantial damage to a substantial building or structure of value.

(c) all other reasonable remedial treatments and measures have been determined to be ineffective

Yes, this report has demonstrated that all other reasonable remedial treatments and measures have been determined to be ineffective.

(d) it is demonstrated that all reasonable alternative development options and design solutions have been considered to prevent substantial tree-damaging activity occurring.

Yes, this report has demonstrated that all reasonable alternative development options and design solutions have been considered to prevent substantial tree-damaging activity occurring.

(e) in any other case, any of the following circumstances apply:

Not applicable except

4. Development involving ground work activities such as excavation, filling, and sealing of surrounding surfaces (whether such work takes place on the site of a significant tree or otherwise) should only be undertaken where the aesthetic appearance, health and integrity of a significant tree, including its root system, will not be adversely affected.

Refer the section of this report "Council Approved Development Causing Tree Damaging Activity."

5. Land should not be divided or developed where the division or development would be likely to result in a substantial tree-damaging activity occurring to a significant tree.

Refer the section of this report "Council Approved Development Causing Tree Damaging Activity."

SUMMARY FINDINGS AND RECOMMENDATIONS:

The tree does not meet the significant tree objectives 1 (a) (b) (c) (d) and (f) to demonstrate it is a tree possessing attributes worthy of a significant tree. The tree meets the principals of development control 3A (i) (ii) (b) (c) and (d) in support of tree removal. (e) was found to be not applicable.

The council are party to tree damaging activity with fines of up to \$120,000.00 as defined by the *South Australian Development Act 1993* and *South Australian Development Regulations 2008*.

The client does not accept the level of risk the tree poses being enforced on himself, his family, visitors or pedestrians nor the fact that the imposed risk will increase with time and so does not want the tree on his property in its current form.

The options presented below may provide the opportunity to reduce to an acceptable level, the material risk the tree poses to people.

Option 1: Significant Land Use Modification

The installation of a permanent exclusion zone within the target area of the tree can reduce and or eliminate material risk to people and property. This option is not viable as the tree is in a residential site spanning 2 front yards and a footpath and road. This would not extend the short life expectancy of the tree.

Option 2: Construction of an Under Crown Protective Structure

Material risk to people and property could be reduced by constructing a sufficiently engineered protective structure under the tree crown. Any structure would need to span over the aforementioned area. To not damage the tree, this structure would be required to adhere to tree sensitive design requirements remaining water permeable, allowing nutrient cycling and be installed without root disturbance or edaphic restriction following the *South Australian Development Act 1993*, the *South Australian Development Regulations 2008* and AS4970-2009 requirements. The load bearing requirement of such a structure is expected to be cost prohibitive, therefor, unreasonable considering the size of the tree and so required size and loadbearing capabilities of such a structure. The engineering and cost of such a structure is outside the scope of this report as it would require design, economic and engineering advice. It is estimated this structure would be in the order of 20 m x 20 m being 400 m² being the approximate area of the tree crown. A structure of this nature will require council approval. The structure would not increase the short life expectancy of the tree.

Option 3: Pruning to AS4373-2007

Further risk mitigating strategies such as pruning in accordance with AS4373-2007 Pruning of Amenity Trees would not assist in reducing associated risk to tree failure or prevent further structural damage. This is because removing large amounts of the crown to reduce loads on the defects will reduce the trees ability to produce C⁶H¹²O⁶ which is essential for continued growth and survival (Lilly 2010).

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Option 4: Tree Removal

Considering the tree has a less than Ten (10) year safe useful life expectancy and poses unacceptable risk to people and property in its current form, complete removal of this tree will eliminate the level of material risk the tree poses to people. This would require council approval as the tree is a significant tree as defined by the *South Australian Development Act 1993* and *South Australian Development Regulations 2008*.

Kind regards



Dylan Tempest Grad Cert Arb, Dip Arb, Cert III Arb, QTRA Adv, QTRA, ISA TRAQ, Lic AL2360

Tertiary Tree Consulting

Ph: 0400 259 505

dylan@ttconsulting.net.au

www.ttconsulting.net.au

DISCLAIMER:

This report only covers identifiable defects present at the time of inspection. The author accepts no responsibility or can be held liable for any structural defect or unforeseen event/situation that may occur after the time of inspection.

The author cannot guarantee trees contained within this report will be structurally sound under all circumstances, and cannot guarantee that the recommendations made will categorically result in the tree being made safe.

Unless specifically mentioned this report will only be concerned with above ground inspections, that will be undertaken visually from ground level. Trees are living organisms and as such cannot be classified as safe under any circumstances. The recommendations are made on the basis of what can be reasonably identified at the time of inspection; therefore, the author accepts no liability for any recommendations made.

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the author can neither guarantee nor be responsible for the accuracy of information provided by others.

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APPENDICES:

Appendix 1 Tree and Site Photos:



Figure 2: Nominated tree.



Figure 3: Borer damage and decaying section of the trunk.

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Figure 4: Tree displaying poor form, epicormic growth and non tree sensitive council approved development within the TPZ and SRZ.

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Figure 5: Decaying failing structure displaying poor form, epicormic growth and a history of multiple branch failure.



Figure 6: Decaying failing structure displaying poor form, epicormic growth and a history of multiple branch failure.

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Figure 7: Decaying failing structure displaying poor form, epicormic growth and a history of multiple branch failure.

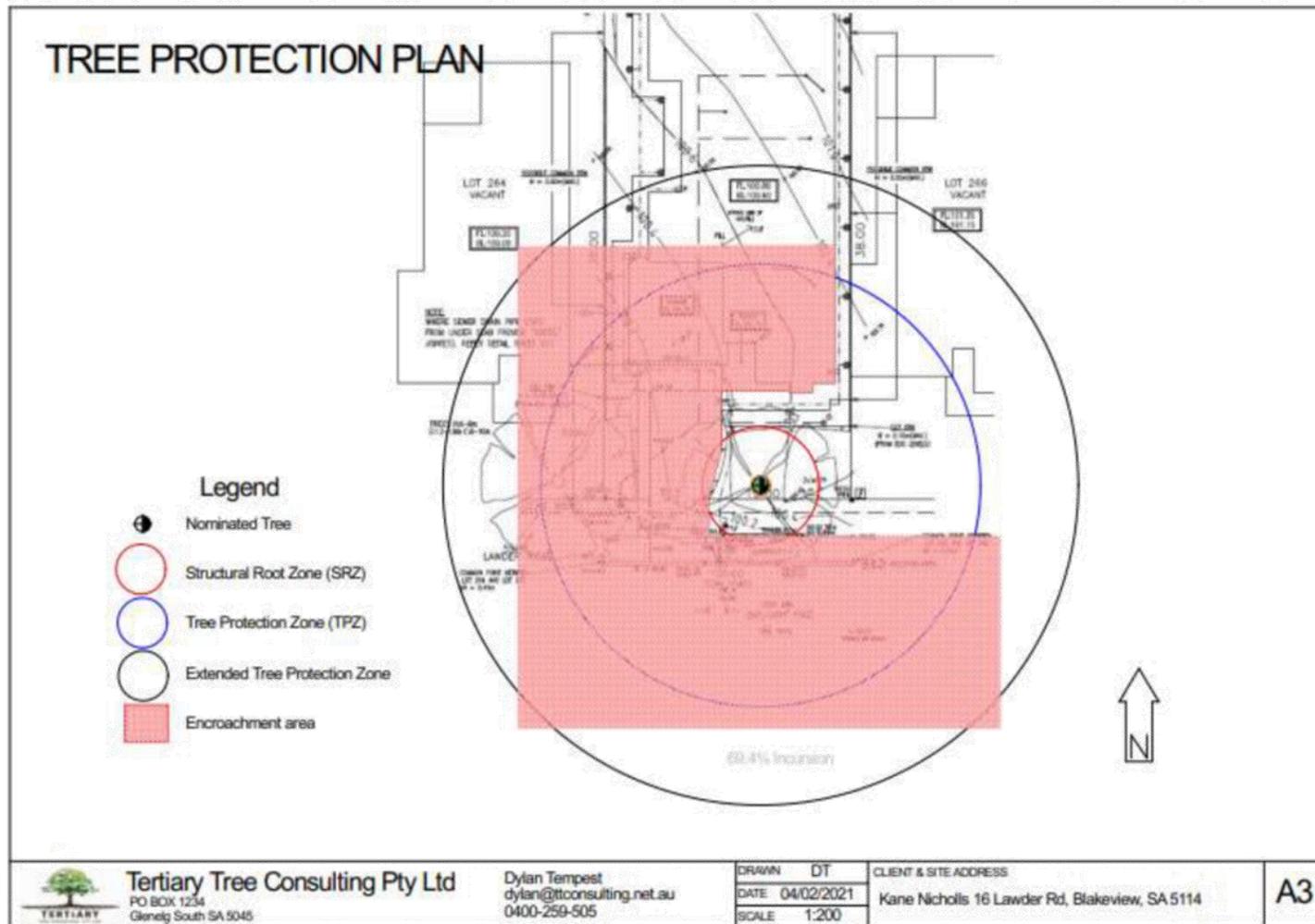


Figure 8: Council approved combined major TPZ impact of 69.4% inclusive of an SRZ impact amounting to tree damaging activity.

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Appendix 2, Legend for S.T.A.R.S Matrix Assessment:

IACA Significance of a Tree, Assessment Rating System (STARS) © (IACA 2010) ©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the Tree Significance - Assessment Criteria and Tree Retention Value - Priority Matrix, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of High, Medium and Low significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined.

Table 1.0 Tree Retention Value - Priority Matrix

Estimated life expectancy	Significance				
	1. High	2. Medium	3. Low		
	Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
1. Long >40 years					
2. Medium 15-40 Years					
3. Short <1-15 Years					

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	Dead		
Legend for Matrix Assessment			
	Priority for Retention (High) - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 Protection of trees on development sites. Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.		
	Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical; however, their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.		
	Consider for Removal (Low) - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.		
	Priority for Removal - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.		

Tree Significance - Assessment Criteria:

1. High Significance in landscape:

- The tree is in good condition and good vigour; - The tree has a form typical for the species; - The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age; - The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register; - The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity; - The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values; - The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ - tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour; - The tree has form typical or atypical of the species; - The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area - The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street, - The tree provides a fair contribution to the visual character and amenity of the local area, - The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

3. Low Significance in landscape

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- The tree is in fair-poor condition and good or low vigour; - The tree has form atypical of the species; - The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings, - The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area, - The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen, - The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ - tree is inappropriate to the site conditions, - The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms, - The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species - The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties, - The tree is a declared noxious weed by legislation.

Hazardous/Irreversible Decline - The tree is structurally unsound and/or unstable and is considered potentially dangerous, - The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

From: Richard Hill
Sent: Fri, 12 Feb 2021 11:16:04 +1030
To: Jamie Hanlon; Ben Halls
Cc: Timothy Fischer
Subject: RE: 292/2550/2020, 16 Lawder Road, BLAKEVIEW SA 5114, Significant Tree Application
Attachments: 18794 - Sugar Gum - 16 Lawder Road BLAKEVIEW.pdf, reduction pruning option.pdf

Hello,

The tree situated within the private yard of 16 Lawder Road, Blakeview is a mature Eucalyptus cladocalyx. Measured circumference at 1m is 321cm, the tree is Significant.

A visual inspection and assessment was undertaken upon the tree on the 11 February 2021 by Tim Fischer and Richard Hill.

The tree presents as fair health and structure with a moderate-long ULE. Prior to development of the area, the tree was situated within a private paddock area, with Lawder Road adjacent to the tree being a dirt road at that stage. Changes in the locality have seen the upgrade of Lawder Rd to a sealed bitumen road with kerbing and footpath installed. The tree received reduction/veteran tree management prior to this development, this was organised by the land developer in the view of these trees being retained. Approval for the house at 16 Lawder Road appears to have been privately certified with limited consideration made for the tree and associated protection zone.

From a distance the tree appears to have a sparse, open canopy, upon closer examination it is visible that the tree has good vigour with new distal growth of good colour forming. As normal for species of this maturity, the tree is also forming a secondary internal canopy.

Some over-extension in limbs is present to the North and upper canopy. At the base the tree has a dead portion of old growth which likely would have been 'topped' historically while in paddock setting. The live portion of the trunk displays good adaptive growth which is visible by the new growth bark, the tree has also over the last 6 months increased in girth/circumference @1m, being measured in Aug 2020 at 315cm, it currently measures at 321cm. This demonstrates that the vigour and natural bracing of primary structure of tree is taking place. Further into crown an historic failure is visible where there is currently a bee hive within the hollow, this failure occurred away from the union and would have likely been associated with a combination of environmental stresses and excessive torsional loading upon the part when the tree was within the previous land use setting.

No active pests are visible, a few borer holes within trunk, though none appear recent nor is there an apparent infestation, it is a normal occurrence for this species of tree. The submitted Arborist Report appears to put large emphasis on this without taking into consideration the species profile, which is seen as being a Eucalypt that has a higher level of defence/resistance against Phoracantha sp. beetles/borers (Hanks *et al.*, 1995).

Regarding the encroachment into the TPZ and SRZ of the tree, it is not seen as having a large detrimental effect. It is believed that the majority of the earthmoving and construction of dwelling has occurred outside of the SRZ, as such we do not believe there are underground structural issues. The TPZ has been encroached upon to an extent that over 30% incursion has occurred through the construction of the dwellings nearby, though Lawder Road to the South of the tree is an existing road that was historically compacted dirt/rubble, it is not envisioned that there would have been or are substantial roots under this portion of road, and is thus unlikely to have been effected by the change in road surface. Proceeding the change in land use and road upgrade, the tree was pruned to reduce height, spread and hazards. It is believed this would have reduced the extent of the trees needed nutrient uptake through its root system, this would be one reason why the tree has not shown a deterioration in health since the road was upgraded in Jan 2019.

The driveway of 16 Lawder Road has yet to be installed and is unknown if approval has been given. Granted it sits within the TPZ, it is still recognised as having the potential for Tree-Damaging-Activity unless it can be demonstrated that design options will be tree sensitive, e.g. permeable paving/concrete.

Despite the change of land use and construction works undertaken around tree, it is of the belief of the Council Arborists that the tree demonstrates an improved health response since last inspected in mid-2020.

Further enhancement of the secondary canopy and improved colour within leaves, show the trees uptake of nutrients and water has not been hampered.

The species of this tree has shown to withstand development stresses along with environmental stresses, historically many landholders would undertake large reduction pruning of these trees and manage the new growth into smaller formed canopies.

In most instances as long as care is taken and reduction is staged, there is not likely to be an adverse effect to health and overall ULE of the tree, but would instead offer the ability to extend the ULE in the current setting.

Species	<i>Eucalyptus cladocalyx</i>
Common name	<i>Sugar Gum</i>
DBH (Diameter at Breast Height) 1.4m	104 cm
Circumference @ 1m	321 cm - Significant
Height	18 m
Canopy Width	14 m
Health condition	Fair
Structure condition	Fair

Risk assessments was undertaken upon the tree using the QTRA (Quantified Tree Risk Assessment) method.

When observing for targets and parts of limbs that have a probability of failure, whole tree structure is taken into account, and only those parts with a higher probability of failure and higher targets are assessed.

Despite the cavities within the tree structure, the adaptive growth and natural bracing of the unions make it unlikely that larger limbs will fail, it is not believed that any major damage to the critical roots

has occurred during construction, so it is not viewed as having a high probability of failure of basal structure.

For Probability of Failure, the benchmark of range 7 could not be used for observed parts due to age related and potential for unseen defects, nor is it assessed that range 1 could be used as the tree and parts assessed still showed signs of adaptive growth, structural acclimatisation and increased vigour, as such the probability of failure was assessed as range 4. Since the reduction and hazard pruning undertaken by developer there has been no known failures with the structure of this tree.

Target = Roadway vehicle traffic

Target range: 3 (vehicle frequency 470-48 @ 50kph)

Part = Canopy limb failing of smaller diameter – crossing limb, self-braced.

Size: 3 (250mm - 110mm diameter)

Probability of Failure: 4 (1/1k – 1/10k)

Risk of Harm = <1/1M Broadly Acceptable (capped at <1/1m – actual 1/5m = low risk)

Target = Property (vehicles parked in driveway, roadway & property of house dwelling)

Target range: 3 (property value \$36,000 – \$3,600)

Part = Canopy limb failing of smaller diameter – roadside crossing limb, self-braced.

Part = Canopy limb, failing from over-extension point on property side.

Size: N/A – property

Probability of Failure: 4 (1/10k – 1/100k)

Risk of Harm = 1/300k Tolerable

Target = Pedestrian traffic

Target range: 2 (pedestrians & cyclists 7/hour – 2/hour)

Assessed as higher target during the building construction within locality, this target range will likely reduce once development in area completed.

Part = Canopy limb failing of smaller diameter – crossing limb, self-braced.

Size: 3 (250mm - 110mm diameter)

Probability of Failure: 4 (1/1k – 1/10k)

Risk of Harm = 1/500k Tolerable

Target = Occupancy (based upon occupancy within front yard and area directly around tree)

It is believed that no tree part of a large enough mass would be likely to fall so as to mean occupancy within dwelling, which is viewed itself as acting as a mitigating structure for potential smaller failures (pg.8 QTRA User Manual v5.3).

Target range: 2 (occupancy period 2.4hrs/day – 15min/day)

Parts = Canopy limb failing of smaller diameter – roadside crossing limb, self-braced.

Canopy limb, failing from over-extension point on property side.

Size: 3 (250mm - 110mm diameter)

Probability of Failure: 4 (1/1k – 1/10k)

Risk of Harm = 1/500k Tolerable

It is believed that all of these risks will be lowered to Broadly Acceptable (low risk) and maintainable if pruning is undertaken to the tree. See the attached document 'reduction pruning option'.

This pruning fits within the Australian Standard AS4373-2007 Pruning of Amenity Trees as a form Remedial (Restorative) pruning.

Assessed against the City of Playford Development Plan:

Significant Trees

OBJECTIVES

1 The conservation of significant trees, in Metropolitan Adelaide, that provide important aesthetic and environmental benefit.

- This tree meets the requirements of this statement, and should be conserved/retained.

2 The conservation of significant trees in balance with achieving appropriate development.

- Development is unimpeded by tree.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should preserve the following attributes where a significant tree demonstrates at least one of the following attributes:

- (a) *makes an important contribution to the character or amenity of the local area; or*
- Yes, the tree is part of a stand of same species trees, they remain as some of the only mature, larger canopy trees within locality. The land was developed in the view the trees are important and to be retained within the development.
- (b) *is indigenous to the local area and its species is listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species*
- No.
- (c) *represents an important habitat for native fauna*
- Yes, the tree has hollows and high potential to form more. Though not visible at time of inspection, this tree and others along road have been observed to have parrots and other birdlife.
- (d) *is part of a wildlife corridor of a remnant area of native vegetation*
- No the tree is not remnant vegetation, though does contribute and is part of a wildlife corridor, linking the nearby Blue Tongue reserve watercourse with nearby mature trees in established properties linking to the native vegetation on the hill face.
- (e) *is important to the maintenance of biodiversity in the local environment*
- Yes, due to the lack of established, fauna supporting trees in the area, these trees are important for the biodiversity of the local area.
- (f) *forms a notable visual element to the landscape of the local area.*
- Yes, the tree is large and visual from multiple angles and nearby roads.

2 Development should be undertaken so that it has a minimum adverse effect on the health of a significant tree.

3 Significant trees should be preserved, and tree-damaging activity should not be undertaken, unless:

- (a) *in the case of tree removal, where at least one of the following apply:*
- (i) *the tree is diseased and its life expectancy is short*
- No, the tree is not diseased, displays fair-good vigour, with moderate-long ULE.
- (ii) *the tree represents an unacceptable risk to public or private safety*
- No, the tree has been risk assessed as Tolerable risk, there are options in mitigation to lower risk further.
- (iii) *the tree is within 20 metres of a residential, tourist accommodation or habitable building and is a bushfire hazard within a bushfire prone area*
- No.

- (b) *the tree is shown to be causing or threatening to cause substantial damage to a substantial building or structure of value*
- No. Tree has been risk assessed for property damage as Tolerable, this can be reduced through mitigation further. Original House plan/Footings Construction Report shows that consideration of tree was taken into account with house footings.
- (c) *all other reasonable remedial treatments and measures have been determined to be ineffective*
- No, we believe there are options to reasonably manage the tree through further reduction pruning into lower growth points, where foliage can be managed for long-term retention.
- (d) *it is demonstrated that all reasonable alternative development options and design solutions have been considered to prevent substantial tree-damaging activity occurring.*
- No.
- (e) *in any other case, any of the following circumstances apply:*
- (i) *the work is required for the removal of dead wood, treatment of disease, or is in the general interests of the health of the tree*
- N/A – applicant seeks removal
- (ii) *the work is required due to unacceptable risk to public or private safety*
- N/A – applicant seeks removal
- (iii) *the tree is within 20 metres of a residential, tourist accommodation or habitable building and is a bushfire hazard within a bushfire prone area*
- N/A – applicant seeks removal
- (iv) *the tree is shown to be causing or threatening to cause damage to a substantial building or structure of value*
- N/A – applicant seeks removal
- (v) *the aesthetic appearance and structural integrity of the tree is maintained*
- N/A – applicant seeks removal
- (vi) *it is demonstrated that all reasonable alternative development options and design solutions have been considered to prevent substantial tree-damaging activity occurring.*
- N/A – applicant seeks removal
- 4 *Development involving ground work activities such as excavation, filling, and sealing of surrounding surfaces (whether such work takes place on the site of a significant tree or otherwise) should only be undertaken where the aesthetic appearance, health and integrity of a significant tree, including its root system, will not be adversely affected.*
- N/A
- 5 *Land should not be divided or developed where the division or development would be likely to result in a substantial tree-damaging activity occurring to a significant tree.*
- N/A

Tree Services do not support the removal of this tree.

Please keep us up to date with the progress of this application. We are open to engaging an external Arborist to undertake a Tree Report also.

Kind regards,



Richard Hill | Arborist - Tree Services
City of Playford

P: (08) 8256 0452 | M: 0418 890 525

rhill@playford.sa.gov.au

www.playford.sa.gov.au

12 Bishopstone Road, Davoren Park, SA 5113

The new My Playford
mobile app is here



-----Original Message-----

From: Ben Halls <BHalls@playford.sa.gov.au>

Sent: Tuesday, 9 February 2021 1:40 PM

To: Richard Hill <RHill@playford.sa.gov.au>

Subject: FW: 292/2550/2020, 16 Lawder Road, BLAKEVIEW SA 5114, Significant Tree Application

Hi Richard,

Could you please have a look at this request.

Thanks

Ben

-----Original Message-----

From: Jamie Hanlon <jhanlon@playford.sa.gov.au>

Sent: Monday, 8 February 2021 2:05 PM

To: Ben Halls <BHalls@playford.sa.gov.au>

Subject: 292/2550/2020, 16 Lawder Road, BLAKEVIEW SA 5114, Significant Tree Application

Plans for this application can be viewed in ECM.

Please provide comments in the Referral task Details box in Pathway. Please refer to email labelled 292-2550-2020 Updated Arborist Report

When you have added your comments please Complete the task.

Additional Info:

Attachment links to 292/2550/2020, 16 Lawder Road, BLAKEVIEW SA 5114



Sugar Gum Tree ID #18794
16 Lawder Road

Tree	
Primary ID:	18794
Status:	Alive
Common Name:	Sugar Gum
Latin Name:	Eucalyptus cladocalyx
Code:	EUCL
Genus:	Eucalyptus
Number of Stems:	1
DBH [in]:	43
DBH [cm]:	110
DBH [cm] Stem 1:	
DBH [cm] Stem 2:	
DBH [cm] Stem 3:	
DBH [cm] Stem 4:	
DBH [cm] Stem 5:	
DBH [cm] Stem 6:	
DBH Range:	>75cm
Tree Height (Estimated) [m]:	18
Height Range:	10-20 Metres
Canopy Width (Estimated) [m]:	14
Diameter at Root Flare (DRF) [m]:	1.17
Tree Protection Zone (TPZ) [m]:	13.2
Structural Root Zone (SRZ) [m]:	3.53496760117681
Condition (Health):	Fair
Condition (Structure) :	Fair
ULE:	20 + years
Tree Age:	Over Mature
Foliage:	Evergreen
Year Planted (if known or approx.):	
Observations:	Cavity Decay, Nutrient Deficiency, Crown Dieback, Co-dominant or Bifurcated Structure, Over-extended, Wounds / Limb failures

Document Set ID: 3967164
Version: 1 Version Date: 17/02/2021

Photos



Percent Dieback (%):	<25%
Tree Comments:	
Legislative Status:	Significant (over 3m circumference)
Circumference:	321cm
Archived:	No

Location	
Organization:	City of Playford trees
Address:	16 Lawder Road
Address Number:	16
Address Street:	Lawder Road
Street the tree is on?:	
Suburb:	Blakeview
Park Name:	
Overhead Infrastructure:	None
Suitability to Location:	Fair
Growing Space:	Private Yard
Land Use:	Single Family
Planting Site Width:	Class II (medium) - 2-8m
Pit Size:	
Surface / Soil type:	Dirt / Tree Debris
Location Comments:	
Latitude:	-34.676100795589
Longitude:	138.71019835701

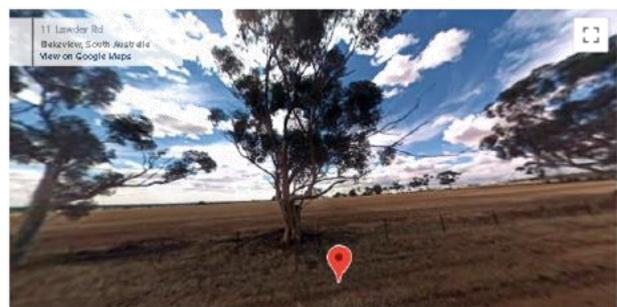
Management	
Clearance Conflicts:	
Tree Work Required:	
Work Priority :	None
Work Requirements:	None
Maintenance Comments:	
Watering:	None
Next Inspection:	02/10/2022
Last Inspection:	02/10/2021
Inspection Cycle:	1 Year
User:	rhill
Date Added:	06/03/2020
Last Modified User:	rhill
Last Modified:	02/11/2021
Amenity tree value [\$]:	



Retention value:	High
Risk Assessment	
Assessed Tree Part:	
Likelihood of Failure:	
Likelihood of Impacting Target:	
Likelihood:	
Consequence of Failure:	
Risk Rating:	
QTRA - Target:	Target 2
QTRA - Size:	(3) 250-110mm
QTRA - Probability of Failure:	(4) 1/1K - >1/10K
QTRA - Risk of Harm Rating:	Tolerable 1/500K (Low)
Risk Assessment Date:	02/10/2021
Risk Assessment comments:	RHILL - Target road T3, S3, PoF5 = broadly acceptable, target property, T3, PoF4 = broadly acceptable, target pedestrian footpath, T2 reduce to T3 once building works in area completed, S3, PoF4 = broadly acceptable. Target occupancy T2, S3, PoF4 = tolerable 1/500k



Street View



Map



Eco Benefits

Overall Monetary Benefit (\$):	84.37
Stormwater Monetary:	27.96

Runoff Prevention (Gallons):	5,065.04
Property Value Total (\$):	0.01
Energy Savings (\$):	42.23
Energy Saved (kWh):	209.59
Natural Gas Savings (\$):	-0.28
Heat Prevention (Therms):	-0.41
Air Quality Monetary Benefit (\$):	14.19
Pollutants removed (lb):	3.77
Carbon Monetary Benefit (\$):	0.36
Carbon Sequestered (lb):	0.00
Carbon Avoided (lb):	135.76

Tree Inspections						
INSPECTION ID	INSPECTION NOTES	INSPECTED BY	DATE	TREE HEIGHT (ESTIMATED) [M]	CONDITION (HEALTH)	OBSERVATIONS
1209		rhill	08/26/2020	18	Fair	Cavity Decay, Nutrient Deficiency, Crown Dieback, Co-dominant or Bifurcated Structure, Wounds / Limb failures
1210	Tree displays,aya fair health with open canopy, growth still appears good with new distal growth visble. Adaptive growth appears good and is visble around base and within canopy at pruning and fail points. Over extension of limbs is prominent with the sparse canopy. Vigour of tree still appears good and there could be management options of further reduction into lower forms to growth points where foliage growth can than be managed.	rhill	02/10/2021	18	Fair	Cavity Decay, Nutrient Deficiency, Crown Dieback, Co-dominant or Bifurcated Structure, Wounds / Limb failures

Report prepared: February 11, 2021

There are options for retention of the tree through reduction pruning, which would mitigate risk, as well as keeping in place all of the habitat and biodiversity benefits of the tree, while also maintaining its important contribution to the character of the locality.



16 Lawder Road, Blakeview - 292/2550/2020



Reduction (utilising veteran tree management principles) to the tree as shown in the above images could be undertaken to reduce risk and preserve tree. Pruning to suitable growth points this would leave a lower canopy that would be easier to maintain going forward, but would still retain the habitat within the tree.

16 Lawder Road, Blakeview - 292/2550/2020

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



Arboricultural Assessment



Prepared for: City of Playford – Ben Halls (Manager Tree Services)
Issue Location: 16 Lawder Road, Blakeview SA 5114
Council Area: City of Playford
Date: 25th March 2021

Thursday, 25th March 2021

Document Set ID: 4001738
Version: 1 Version Date: 20/04/2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



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 Response to Principles of Development Control: *Eucalyptus cladocalyx* 10

Thursday, 25th March 2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



Summary & Recommendations:

This report describes and provides qualified arboricultural recommendations following a visual arboricultural inspection of a 'Significant' tree at 16 Lawder Road, Blakeview. Mr Ben Halls (Manager Tree Services) of City of Playford Council requested a visual arboricultural inspection be carried out following the construction works within the tree's sphere of influence.

The tree in question has been identified as a *Eucalyptus cladocalyx* (Sugar Gum), and further as an average representative of the species. This document and the information contained within support the on-going retention of this tree and recommendations are made for its sustainable management on the site.

The following deductions and recommendations are made following the above-mentioned assessment of the tree in question:

- i. The *Eucalyptus cladocalyx* in this instance is in a fair physiological condition. The vigour displayed by the tree appears to be good with evidence of shoot elongation, good leaf size and colour. The crown density appears to be fair with only limited dieback of small diameter (less than 25mm) branches within the upper crown.
- ii. The dieback observed appears to be consistent with a mature tree of this size and age and is not considered to be a sign of ill health. Given the changes in land use around the tree over the last few years some dieback is expected.
- iii. The structural condition of the tree can be described as fair. It displays a single stem structure to approximately 1.8m above ground level where it forks into four secondary stems. These secondary stems form the main structural framework of the tree. The tree displays a slight crown bias to the north and west and this is consistent with many trees in South Australia as they track the sun in the sky. It overhangs the new erected dwelling by approximately 3m.
- iv. A secondary, internal crown is beginning to form, as is often the case with large mature trees such as this. It is likely a reaction to the previous reduction / veteran pruning that was completed prior to the recent develop works.
- v. A large dead section is present at the base of the tree to approximately 1.8m. This is where the tree was historically topped. There is new, live growth around this dead section that is supporting the crown above. Some decay of this deadwood was noted along with some minor evidence of historic insect activity.
- vi. Historic failure wounds are present in the crown and cavities are starting to develop. They are located on a limb stub at 5m above ground level close to a union with the main stem and at 6m on a western primary limb. In both instances bees were found to be using these cavities.
- vii. A new dwelling has recently (within the last 12 months) been constructed immediately to the north of the tree. The closest point of the dwelling is approximately 4.5m. The driveway for the property was being formed at the time of the assessment and was within 2m of the base of the tree.
- viii. Under the definitions within the Australian Standard – Protection of Trees on Development Sites, AS 4970-2009 the tree has a Tree Protection Zone (TPZ) of 13.44m and a Structural Root Zone (SRZ) of 3.38m. The construction of the new erected dwelling represents approximately 29% encroachment into the TPZ and is considered major encroachment under AS 4970-2009. The formation of the driveway to service the property is being formed within the designated SRZ.

Thursday, 25th March 2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



- ix. Given the level of encroachment from the development it is considered that most of the works occurred outside of the designated SRZ and has there for not detrimentally impacted the tree. It is further recognized that the earth works required for the construction of the dwelling has resulted in the slight raising of the ground levels within the TPZ. And as such it is likely that the underground parts of the tree have not been structurally compromised.
- x. At the time of the assessment the earth works to form the driveway had begun and no damage to roots was observed. However, the representatives from City of Playford Council have previously indicated that two medium diameter (50-60mm) roots have been damaged close to the footpath.
- xi. It is recommended that the concrete that has been dumped at the base of the tree be removed and as much of the ground around the base of the tree be mulched to a depth of approximately 50-75mm. Maintenance pruning to remove dead wood greater than 30mm should be completed within the next 6 months. Further reduction pruning works to reduce the crown by approximately 5-6m back to the secondary crown be completed over the next 3-4 years in a staged approach. This is to provide for a small more compact tree.
- xii. Finally, it is also recommended that the tree be the subject of regular inspection by a competent, insured, and qualified Consulting Arboriculturalist initially every 12 months for the 2-3 years and then every 2-3 years and after severe storm events.

Finally, the recommended works do not require the prior Development Approval to be completed. The recommended, remedial arboricultural works are considered permissible under the terms and definitions as described within the SA Development Act.

Thursday, 25th March 2021

Author: Duncan McGregor
 Phone: 0416929717
 Address: 9 Armiger Court Holden Hill SA 5088
 E-mail: consultant@treevision.com.au



Caveat:

This report makes recommendations based on information provided and recommendations made are limited to the day (12 March 2021) on which the inspection was carried out.

When trees are subject to inspection it is important to note that all arboricultural species are living organisms and can therefore be highly unpredictable by nature. Thus, an attempt is made in all circumstances to minimise the risk associated with all trees to a manageable or "acceptable" level, which is highly variable depending on the scenario.

Issue Location:



Figure 1 – Showing geographical location of the Eucalyptus dadocalyx at 16 Lawder Road, Blakeview in relation to buildings and surrounding vegetation.

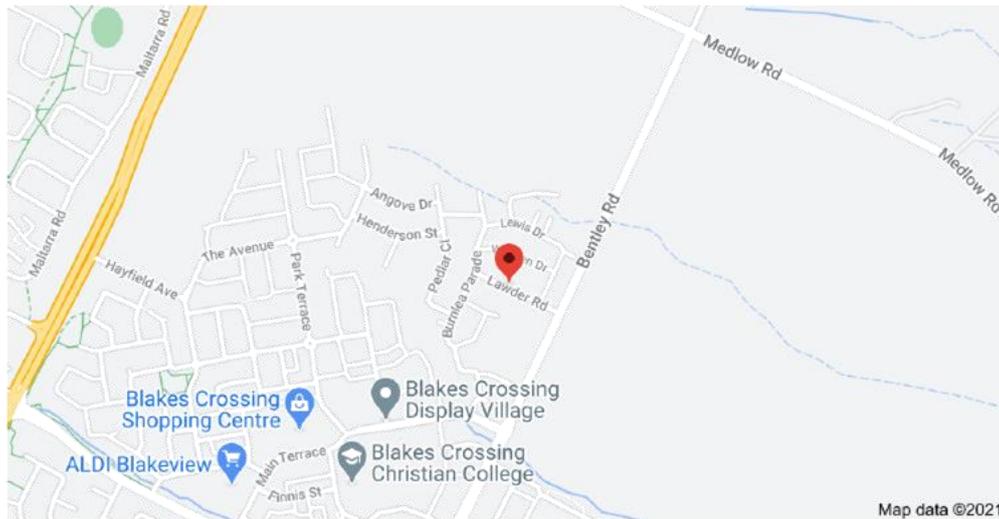


Figure 2 – showing site location in relation to major arterial, residential roads.

Thursday, 25th March 2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



Tree Inspection: *Eucalyptus cladocalyx*

The tree in question has been identified as a *Eucalyptus cladocalyx* (Sugar Gum). It is a single stemmed specimen with a circumference of 3.16 metres at 1m above natural ground level making it a 'Significant Tree' under terms and definitions set by SA Development Act 1993. It has an estimated height of 17m and a spread at its widest point of 14m.



The image above shows the tree in its location in the roadside verge in front of 16 Lawder Road, Blakeview. The image shows the tree to have a slight crown bias to north where it overhangs the newly built dwelling by approximately 3m.

Thursday, 25th March 2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



The image above shows part of the upper crown of the tree and some of the dieback and deadwood that was observed. It is considered that reduction in the height of the tree is recommended to allow the secondary crown to develop at approximately 10-12m.



The image above shows the lower crown and main structural framework of the tree. This image demonstrates some of the vigorous new growth that is displayed within the tree.

Thursday, 25th March 2021

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Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



The image above shows the base and main stem of the tree, including the dead section. It also shows the concrete that is left on and around the base. It is strongly recommended this is removed and the area around the base of the tree mulched to as large an area as possible.

Thursday, 25th March 2021

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Final Recommendations:

A risk assessment of the tree using the Quantified Tree Risk Assessment (QTRA) method ([QTRA Practice Note](#)) was completed at the time of the assessment. Under the method the considered target range for the tree was 3 (the dwelling). Further assessment of the tree to assess the size and probability of the failure found the overall Risk of Harm (RoH) to be a ratio of 1/1,000,000. This is considered to be within the 'Broadly Acceptable' threshold.

It is recommended that some remedial arboricultural pruning works are completed to remove deadwood within the next six months. Reduction pruning is recommended to be completed in a staged process to reduce the height and spread of the crown by approximately 5-6m back to the secondary crown at approximately 10-12m. This works should be completed over the next 2-4 years depending on the growth response exhibited by the tree.

To further manage the tree, it is strongly recommended that a layer of mulch is placed around the base of the tree to as big an area as possible over the root system, following the removal of the concrete that has been thrown on the ground around the tree. Typically, the mulch can be a course blend of forest mulch to a thickness of approximately 50-75mm. The mulch should be topped up every two to three years depending on the rate at which it degrades.

It is also recommended that the tree is the subject of regular formal inspections by a competent and qualified Arborist approximately every 24-36 months and after severe storm events.

Thank you very much for the opportunity of preparing this assessment, and I hope it meets your requirements. Please feel free to contact me with any questions you may have or issues you need clarified.

Sincerely,

A handwritten signature in blue ink, appearing to read "Duncan McGregor".

Duncan McGregor

Chartered Arboriculturalist

BScFor, AATech Cert, MICFor

Thursday, 25th March 2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



Principles of Development Control: *Significant & Regulated Trees*

City Of Playford Development Plan Consolidated – 30th April 2020

The *Eucalyptus cladocalyx* (Sugar Gum) in question has a total stem circumference >3.0m making it 'Significant' under the SA Development Act 1993. The tree is located <10m from a 'dwelling' and it is not listed as a species individually exempt from legislative protection, and therefore the tree still qualifies for protection under all recent amendments to the Regulated and Significant tree legislation.

Response to Legislative Objectives: *Eucalyptus cladocalyx*

1. The conservation of significant trees that provide important aesthetic and/or environmental benefit.
The tree provides important aesthetic and environmental benefits to the locality.
2. Development in balance with preserving significant trees.
No further development is proposed for the site at this time.

Response to Principles of Development Control: *Eucalyptus cladocalyx*

1. Development should preserve the following attributes where a significant tree demonstrates at least one of the following attributes:

- a) Significantly contributes to the character or visual amenity of the locality;

The tree in question does significantly contribute to the visual amenity of the locality and is visible from the surrounding streets.

- b) Indigenous to the locality;

No, but the tree is indigenous to South Australia.

- c) A rare or endangered species;

No, the tree is not a rare or endangered species. The tree is very commonly cultivated, naturally occurring, and found in numerous locations throughout Greater Metropolitan Adelaide and the region South Australia.

- d) An important habitat for native fauna.

Yes, the species is indigenous to South Australia and is naturalised in the local area. As such it provides an important habitat and feeding opportunity for native fauna. The structural features presented by the tree further enhance the opportunities for native fauna.

- e) Part of wildlife corridor of remnant, native vegetation

Yes, there are number of other trees within the local area, including others elsewhere in the street and neighbouring properties.

- f) Maintains biodiversity in the local environment

Due to the species, the habitat and feeding opportunities for native fauna the tree is important for maintaining biodiversity within the local area.

Thursday, 25th March 2021

Author: Duncan McGregor
Phone: 0416929717
Address: 9 Armiger Court Holden Hill SA 5088
E-mail: consultant@treevision.com.au



Response to Principles of Development Control: *Eucalyptus cladocalyx*

2. Development should have minimum adverse effects on significant trees.

It is not recommended for the tree to be removed. The recommended works are provided to have the minimum adverse effect on the tree.

3. A significant tree should not be removed or damaged other than where it can be demonstrated that one or more of the following apply:

a)

- I. The tree is diseased and its life expectancy is short;

The tree in question does not appear diseased and its life expectancy does not appear to have been shortened.

- II. The tree represents a unacceptable risk to public or private safety;

No, it has not been demonstrated that the tree presents an unacceptable risk to public and private safety.

- III. The tree is within 20 metres of a residential, tourist accommodation or habitable building and is a bushfire hazard within a bushfire prone area.

The tree is within 20metres of residential building but is not within a bushfire prone area.

- b) The tree is causing damage to a building;;

At the time of the assessment there was no evidence of damage to adjacent buildings and no evidence has been provided that demonstrates the tree is causing damage to adjacent buildings

- c) All reasonable remedial treatments and measures have been determined to be ineffective;

A few remedial options are available and have been recommended.

- d) development that is reasonable and expected would not otherwise be possible;

Recent development works have been completed within the tree's sphere of influence.

- e) the work is required for the removal of dead wood, treatment of disease, or is in the general interests of the health of the tree.

The recommended works in this instance are for the removal of deadwood and is in the general interest of the tree.

- f) Tree damaging activity other than removal should seek to maintain the health, aesthetic appearance, and structural integrity of the tree.

Tree damaging works are not recommended. The recommended works are exempt from the development control under the terms and definitions of the SA Development Act and the associated regulations in relation to regulated and significant trees.

Thursday, 25th March 2021

OUTSTANDING MATTERS – APPEALS AND DEFERRED ITEMS

8.1 CONSTRUCTION OF AN IMPLEMENT SHED, PACKING SHED, OFFICE, SALES ROOM ASSOCIATED WITH HORTICULTURE, TWO (2) GREENHOUSE BUILDINGS AND SHADE SAIL STRUCTURE (292/985/2019)**Snapshot**

Author:	Jamie Hanlon
Proposal:	Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure
Development Number:	292/985/2019
Date of Lodgement:	04/07/2019
Owner:	Anders Partner Pty Ltd
Applicant:	T M Vu
Location:	2 Talbot Road, Waterloo Corner
Zone:	Primary Production Zone
Classification:	Merit
Public Notification Category:	2
Representation Received:	Yes
Development Plan:	Consolidated 27 June 2017
Request for Additional Information Made?	2
Recommendation:	To Grant Planning Consent

Attachments:	1 ↓ . Development Application Form
	2 ↓ . Certificate of Title
	3 ↓ . Zone Overlay Map
	4 ↓ . Plans
	5 ↓ . Elevation Drawings
	6 ↓ . Site Management Plan (Amended)
	7 ↓ . Stormwater Management Plan
	8 ↓ . Council Storm Water Engineer Response to SWMP
	9 ↓ . Representations
	10 ↓ . Applicants Response to Representations
	11 ↓ . Local Flood Mapping (New)
	12 ↓ . CAP Agenda 3 May 21 Extract
	13 ↓ . CAP Minutes 3 May 21

1. Background

The Application seeks to retain the existing dwelling approved prior to 1988 and continue its use along with existing outbuildings within its curtilage. An existing storage and garage shed for the storage of farm equipment as well as domestic storage (Development Application 292/237/2009) will be converted to a chemical shed.

Development Application 292/985/2019 was lodged in July 2019 after significant changes to pre-lodgement proposals for warehousing. These proposals involved items such as packaging materials, required by the horticultural industry however did not have a primary association with horticulture. Therefore the location of such warehousing in the Zone was not a necessity and staff advised this was not supported in the Zone. Accordingly the proposal has been amended to that now under the consideration of the Panel.

Due to the lack of stormwater infrastructure in the locality Councils Engineers have been careful to ensure the proposal will not cause flooding on nearby roads and properties. A number of versions of the stormwater plan were submitted by the Applicant before the last achieved appropriate retention of stormwater on the land.

The Desired Outcome for the Rural Horticulture Zone is as follows:

- Intensive agriculture in the form of horticulture and associated value-adding enterprises and activities.
- The establishment of appropriately scaled industries for washing, processing, bottling and packaging primary produce and servicing and supporting horticulture.
- Manage interface conflict between horticulture and other land uses.

The Application was publicly notified as a Category 2 notification. A total of three (3) representations were received. One Representor, Michiel Marks, was heard at the CAP meeting.

The subject application was tabled at Playford Council CAP meeting on the 3rd of May 2021 (Attachments 12 & 13) with a staff recommendation for approval. At this meeting, the following resolution was passed:

PANEL RESOLUTION CAP469

Consideration of the application be deferred to seek further additional information, particularly relating to the operation and management of the proposed facility.

CARRIED

Following this resolution and subsequent deferral, the applicant has provided additional information to assist in the Panel's consideration (Attachment 13). This application has been reviewed by Council Staff and has been tabled for decision.

2. The operation and management of the proposed facility

The Applicant has provided an amended Site Management Plan (Attachment 6) clarifying the operation of the proposed horticulture packing shed, office and sales room.

2.1 Horticulture

The proposal features the operation of hydroponics in two (2) proposed nylon greenhouses for growing capsicum, cucumbers or tomatoes. The two (2) greenhouses will supply 30%-40% of vegetables to be packed on site.

The greenhouses will be staffed seven (7) days a week between 9.00am to 5.00pm in winter and 7.00am to 3.00pm in summer.

Horticulture is an Objective and envisaged use within the Primary Production Zone and there are no constraints to operation times outside of noise generating activities over 45 dB(A).

2.2 Packing shed and anticipated traffic generation

Also proposed is the construction of a 492 square metre (12m x 41m) shed with a wall height of six (6) metres and seven (7) metres at the gable and featuring a 70m² Cold room, packing area and temporary store.

The packing shed will operate Monday to Friday and on Saturdays at peak harvesting times. Operation on these days will change seasonally between 9.00am to 5.00pm in winter 7.00am to 3.00pm in summer.

The shed will be used to pack produce grown on site and off site with 60%-70% of produce sourced off-site. Produce sourced off-site will be obtained from 20-40 greenhouses and nearby local farms within in a 20km radius (from Waterloo Corner, Virginia, and Penfield Gardens to Angle Vale).

Produce will be transported by a Light two (2) axle truck with a maximum capacity of 14 pallets. Frequency of traffic will depend on harvests up to approximately four (4) trucks per usual day with two (2) trips in the morning and two (2) trips in the afternoon.

Appropriateness of proposed packing shed

Industry (e.g. packing, bottling, processing, and freezing) and warehousing is only acceptable in the Zone where there is a direct relationship with primary production. The co-location of processing or packaging of produce within farming areas is essential to maintain freshness and quality of produce for market.

There is no requirement within the Zone for industry to be located on the same allotment produce is grown and the Zone allows industry associated with processing primary production as a land use in its own right. Notwithstanding this, industry and warehousing is only acceptable where it is unlikely to limit or inhibit the use of adjoining land for primary production and requires a site in proximity to agricultural produce.

This proposal is unlikely to limit or inhibit the use of adjoining land for primary production and is located in proximity to agricultural produce sourced both on site and off site.

Appropriateness of anticipated traffic generation

The proposed development is located within a primary producing area. Whilst the proposal is relatively intensive on a parcel which is not as large as is typical for primary production the impacts in terms of noise from activities and traffic generated is well within what is expected in a primary production area.

The hours of operation between 7.00am to 5.00pm are within normal business hours. In terms of traffic generated by the activities, four (4) medium sized trucks equates to eight (8) trips a day with a further 14 trips by employees and anticipated five (5) visitors within a day. The total number of trips over a business day will have a light traffic impact on the surrounding road network and the number of journeys to an

allotment is not unexpected in the Primary Production Zone where horticulture and industry associated with primary production is anticipated.

2.3 Ancillary administration, sales room (shop) and amenities building

Included in the proposal is the construction of a 113 square metre administration and amenities building featuring;

- A 12 square metre office ;
- A 19.5 square metre sales room (shop) for wholesale sales; and
- Kitchen, workers lounge and amenities.

The administration and amenities building will operate Monday to Friday and on Saturdays at peak harvesting times consistent with the hours of packing activities. s with the operation of the packing shed these hours are 9.00am to 5.00pm in winter and 7.00am to 3.00pm in summer.

Appropriateness of the ancillary administration, sales room (shop) and amenities building

The Zone requires that shops are ancillary to primary production and located on the same site as the primary use.

The proposed sales room (shop) will be located on the same site as the proposed hydroponic activities. Whilst only approximately 30%-40% of produce traded through the sales room will be sourced from the land, the proposal meets the intent of the Zone insofar as the sales room attracting up to an anticipated five (5) customers in a day remains a relatively minor element to the proposed primary production activities on the land.

The proposed office with ancillary shop and packing shed will also support the continuation of the primary production activities not only on the land but has the potential to encourage and future expansion of primary production in the area, further reinforcing the desired land uses in the locality. This is considered to satisfy Objectives 1,3,6 and 7 and PDCs 1, 4 (a),(b),(d),and 5(a),(b),6(a),(b),(d),7,(a),(b), 11 and 13 of the Primary Production Zone.

2.4 Parking

The proposal requires 5-6 full-time employees for farming and packing. At harvest peak-time, a farming contractor will be employed totalling a maximum of seven (7) employees on site at one time.

A four (4) Bay visitor's carpark will be provided and internal vehicle paths constructed with compacted gravel; and Sealed internal through road and 10 bay employee car park.

Appropriateness of proposed on-site parking

In relation to car parking provision for the proposed activities off-site parking or loading is not encouraged in the rural areas. Given the scale of the proposal it is unlikely that the demand for parking would result in employees or visitors parking on the roads. Table Play/3 of the development Plan would require over 25 car parking spaces for the packing shed being industry outside of the Urban Employment Zone.

The proposal includes a maximum of seven (7) employees and anticipated over a day a maximum of five (5) visitors. Packing sheds in the scale of the proposal employ

people to undertake multiple tasks not confined to packing in the shed which makes the application of parking rates for other buildings on agricultural allotments unnecessary.

Although not located in the Policy Area the proposal does meet the parking rates for Value Adding (Virginia) Policy Area 25 which is located closer to Virginia. Value Adding (Virginia) Policy Area 25 encourages larger scale packaging and processing for primary produce and these operations operate in a manner similar to the proposal albeit at a larger scale.

The parking rate requirement for industrial development Value Adding (Virginia) Policy Area 25 is 0.75 per employee requiring 6 car parking spaces for the packing shed. The Development Plan does not provide rates for the shop or office which are in any case ancillary to the packing shed and horticultural activities. The proposal requires for seven (7) employees and five (5) visitors requiring a total of 12 car parking spaces and however is providing 14 spaces not including the parking space ancillary to the farmhouse. The proposed parking for the proposed land use is therefore satisfactory for the intended use.

2.5 Farm implement shed and ancillary store

The proposal also comprises the construction of a 492 square metre (12m x 41m) shed with a wall height of six (6) metres and seven (7) metres at the gable and featuring a farm implement and equipment store and ancillary packing material store. This shed is ancillary to both horticultural production and the packing shed activities.

Ancillary implement sheds and storage provide important support to the agricultural industry and promote the efficient use of land for primary production and as ancillary to horticulture and agricultural industry is consistent with PDC 3 of the Zone.

2.6 Waste Management

The proposal features the conversion of existing 270 square metre implement shed seven (7) metres high at the gable to an ancillary chemical shed. This shed will provide an appropriate mixing and storage area for chemicals. Chemical waste will be disposed by the ChemClear programme and chemical containers to be managed by DrumMUSTER programme

Greenwaste and hardwaste will be stored in commercial bins separately located under the shade sail areas between the two large sheds. Waste will be removed twice a month.

2.7 Stormwater management

Stormwater management of the site features;

- Stormwater collection Retention Basin with a capacity of 639.6kL;
- Four 25 KL and one 10 KL water tanks totalling a site capacity of retaining 749KL of stormwater;
- Rainwater from new development including the 2 storage sheds, the administration and amenities building shed and greenhouse rows will be collected, filtrated and reused for farming irrigation;
- Overflow water from concrete surfaces will be collected from grating pits, filtrated and then stored to a detention basin;
- Rainwater from the existing house will be collected and reuse for toilet flushing;

- The new ground finished level and internal traffic will be the same as street level with 0.5 degree slope rising internally;
- Waste water from vegetable washing will be reused for irrigation.

Effectiveness of the Storm Water Management Plan

As discussed in the report to CAP in the May 3, 2021 meeting, a condition enforcing the adoption of the SMP will ensure the development does not cause flooding of the adjacent roads or neighbouring properties. The proposal meets the General Section Natural Resources Water Sensitive Design as it captures and re-uses stormwater; minimises surface water run-off; prevents soil erosion and water pollution. It also protects existing public system from damage during a minimum of a 1-in-100 year average return interval flood

The development will not cause flooding in the locality and the proposal is considered to satisfy Zone PDCs 17(a), (b) and Objectives 1 and 4 of the Hazards in the General Section of the Development Plan and PDC 1(c) and 5 of Infrastructure and Objectives 6(b),(d),(e),(f),7 and PDCs 5,7(a),(b),(f),8(b),9,10,11,12,14(a),(b),(i),(iii),24(a),(b),(d),(j), 25,29(b) and (c).

3. Conclusion

The proposal for the greenhouses, implement and packing sheds, ancillary office and sales room, facilitates and supports primary production in the Primary Production Zone satisfying the Objectives and envisaged uses in the Zone.

Each proposed element other than the total height of each implement and store shed and packing shed only one 1 metre above maximum height (see original report Attachment 12) is entirely consistent with the requirements of the Zone.

The proposed operation including hours of operation of the proposed development is reasonable considering there are no restrictions to operation times within the Zone and are not at times which risk adverse impacts on neighbours.

As stated in the previous report, Council's Stormwater Engineer has reviewed the proposed Stormwater Management Plan and is satisfied that stormwater runoff from the development will not cause flooding on local roads or neighbouring properties.

Having received the additional information requested by the Panel and further considering all the relevant Objectives and Principles of the Development Plan in relation to the operations of the proposal, the conclusion of the original report has not been changed. The proposal is not considered to be seriously at variance with Council's Development and warrants Planning Consent.

4. Recommendation

STAFF RECOMMENDATION

That pursuant to the authority delegated to the Council Assessment Panel by the Council, it is recommended that the Council Assessment Panel:

- A. DETERMINES that the proposed development is not seriously at variance with the policies in the City of Playford Development Plan; and
- B. GRANTS Planning Consent to the application by City of Playford for the Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure at 2 Talbot Road, Waterloo Corner, as detailed in Development Application No. 292/985/2019 subject to the following conditions:

1. The development must be undertaken, completed and maintained in accordance with the plan(s) and information detailed in this Application except where varied by any condition(s) listed below;

2. The hours of operation herein approved are as follows:

7.00am to 5.00pm

Any variation to these hours of operation will require a further consent.

Reason: To minimise the impact on adjoining properties.

3. Any proposed new crossing place or alterations to a crossing place shall meet the minimum standard of design and construction as detailed on City of Playford drawings.

These are available from Councils website under www.playford.sa.gov.au/standarddrawings

Reason: To maintain consistency of the streetscape and protect the infrastructure within the road verge.

4. All storm water shall be managed on site in accordance with ;

- Harnett Engineering *Storm Water Plan*, Job Number HE15719/Date 06/07/2020
- Harnett Engineering *Engineering-Storm Water Management*, Job Number HE15719/Revision C October 2020

so that it does not flow or discharge onto land of adjoining owners or, in the opinion of Council, detrimentally affect structures on this site or any adjoining land.

Reason: To ensure storm water is disposed of in a controlled manner.

5. The greenhouse and associated structures herein approved as part of this Application must be maintained in a reasonable condition to the satisfaction of Council.

Reason: To ensure that the greenhouse and associated structures do not become unsightly

6. Hazardous substances/chemicals/fuels storage shall comply with the best practices guidelines for the storage and handling of such materials to the reasonable satisfaction of Council and other relevant bodies.

Reason: To minimise the impact on adjoining properties.

7. No waste materials, including biological waste and hard waste shall be stored on site for more than 30 days. Within this period, biological waste shall be stored in sealed bins or containers and hard waste shall be contained in a tidy and sightly manner until it is removed from the site.

Reason: To minimise the risk of disease and pollution and to preserve the amenity.

8. Any lighting on the subject land must be directed and screened so that overspill of light is avoided, does not create a nuisance to adjoining properties and motorists are not distracted.

Reason: To minimise the impact on adjoining properties and drivers.

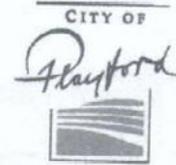
CALL
(08) 8256 0333

POST
12 Bishopstone Road
Davoren Park SA 5113

EMAIL
playford@playford.sa.gov.au

VISIT
Playford Civic Centre
10 Playford Boulevard
Elizabeth SA 5112

Stretton Centre
307 Peachey Road
Munno Para SA 5116



DEVELOPMENT APPLICATION FORM

1. Application type	
<input type="checkbox"/> Planning and building consent	<input type="checkbox"/> Building consent privately certified
<input checked="" type="checkbox"/> Planning consent only	<input type="checkbox"/> Residential Code (Council assessed)
<input type="checkbox"/> Building consent only (Schedule 1A)	

2. Applicant details	
Family name: VU	Given name/s: TUAN MINH
Postal address: 2 Talbot Rd Waterloo Corner SA	Post code: 5110
Email: minhqmp68@gmail.com	Phone: 0723 009 707

3. Owner details		<input type="checkbox"/> As above
Family name: VU	Given name/s: TUAN MINH	
Postal address: 8 Sage Ct, Point Cook VIC	Post code: 3030	
Email: minhqmp68@gmail.com	Phone: 0723 009 707	

4. Contact person for further information		<input type="checkbox"/> As per applicant/owner
Family name: TRAN	Given name/s: NHAN (MICHAEL)	
Postal address: U 25-2 MIDDLETON DRIVE SEATON	Post code: 5023	
Email: TTNUUU@YAHOO.COM	Phone: 0450 667 422	

5. Description of proposed development	
Description of development: NEW BUILD: FARM NYLON HOUSE @ PACKAGING SHEDS	
Intended use: FARMING + PACKAGING PRODUCTS	
Floor area (Sqm): 950 m ²	Building rules classification sought: (eg. 7a, 10a)
Development cost: \$	

6. Location of proposed development		
House No:	Lot No:	Title Volume/Folio:
Street: 2 TALBOT RD.	Suburb: WATERLOO CORNER	Post code: 5110



7. Work type	
<input checked="" type="checkbox"/> New build	<input type="checkbox"/> Addition or alteration
<input type="checkbox"/> Demolition	<input type="checkbox"/> Other (Please specify)
Wall / Wall Cladding	
<input type="checkbox"/> Brick veneer	<input checked="" type="checkbox"/> Colorbond or steel
<input type="checkbox"/> Fibro-cement	<input type="checkbox"/> Not applicable
<input type="checkbox"/> Other (Please specify)	
Floors	
<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Timber
<input type="checkbox"/> Other (please specify)	
Roof	
<input checked="" type="checkbox"/> Colorbond or steel	<input type="checkbox"/> Tiles
<input type="checkbox"/> Not applicable	<input type="checkbox"/> Other (please specify)
Frame	
<input checked="" type="checkbox"/> Steel	<input type="checkbox"/> Timber
<input type="checkbox"/> Other (please specify)	

8. Builder/supervisor details		Registration no:	
Family name: <u>TBA</u>		Given name/s:	
Postal address:		Post code:	
Email:		Phone:	

9. Applicant Declaration

Building Near Power Lines and Underground Cables
 I declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 86 of the *Electricity Act 1996*. I make this declaration under clause 2A(1) of Schedule 5 of the *Development Regulations 2008*.
 NB: If this declaration is not made, a referral to the Office of the Technical Regulator is required.

Copyright of Plans
 I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the *Development Act 1993* and *Regulations 2008*. This includes display on Council's website and electronic media.

Street Infrastructure and Driveways / Entranceways
 I declare that I have examined the site of the application and drafted site plans and drainage plans for my proposal and to the best of my understanding acknowledge the proposed entranceways, crossways and driveways are not less than one (1) metre from existing or proposed street infrastructure. In the event that a proposed entranceway, crossway and/or driveway is less than 1 metre from existing or proposed street infrastructure, I will amend any such proposal to comply with the one (1) metre clearance required from such street infrastructure. I understand that the City of Playford is not obligated to relocate any street infrastructure as a result of my development proposal, and is not liable to meet any costs associated with the relocation of any street infrastructure.

Applicant's Signature: [Signature] Date: 20.06.19

10. Payment information

CREDIT CARD PAYMENT – CARD TYPE: Visa Mastercard

Card number:

Expiry Date: ____/____/____ Cardholder's Name: _____

Amount: _____ Signature: _____





Government of South Australia
Department of Planning
Transport and Infrastructure

Product	Register Search (CT 5618/923)
Date/Time	17/05/2017 07:48AM
Customer Reference	AUSTWIDE R/E
Order ID	20170517000208
Cost	\$27.75

REAL PROPERTY ACT, 1986



South Australia

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 5618 Folio 923

Parent Title(s)	CT 2981/74		
Creating Dealing(s)	CONVERTED TITLE		
Title Issued	01/02/1999	Edition 7	Edition Issued 09/12/2015

Estate Type

FEE SIMPLE

Registered Proprietor

THANH HIEN NGUYEN
HUE THI NGUYEN
OF 7 ANJANTO ROAD WATERLOO CORNER SA 5110
AS JOINT TENANTS

Description of Land

ALLOTMENT 9 DEPOSITED PLAN 6978
IN THE AREA NAMED BOLIVAR
HUNDRED OF PORT ADELAIDE

Easements

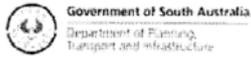
NIL

Schedule of Dealings

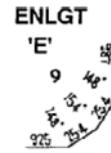
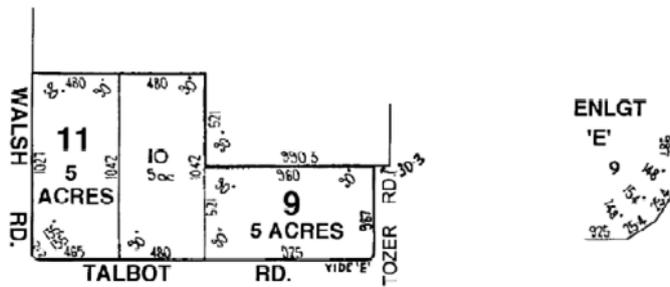
Dealing Number	Description
12420299	MORTGAGE TO WESTPAC BANKING CORPORATION (ACN: 007 457 141)

Notations

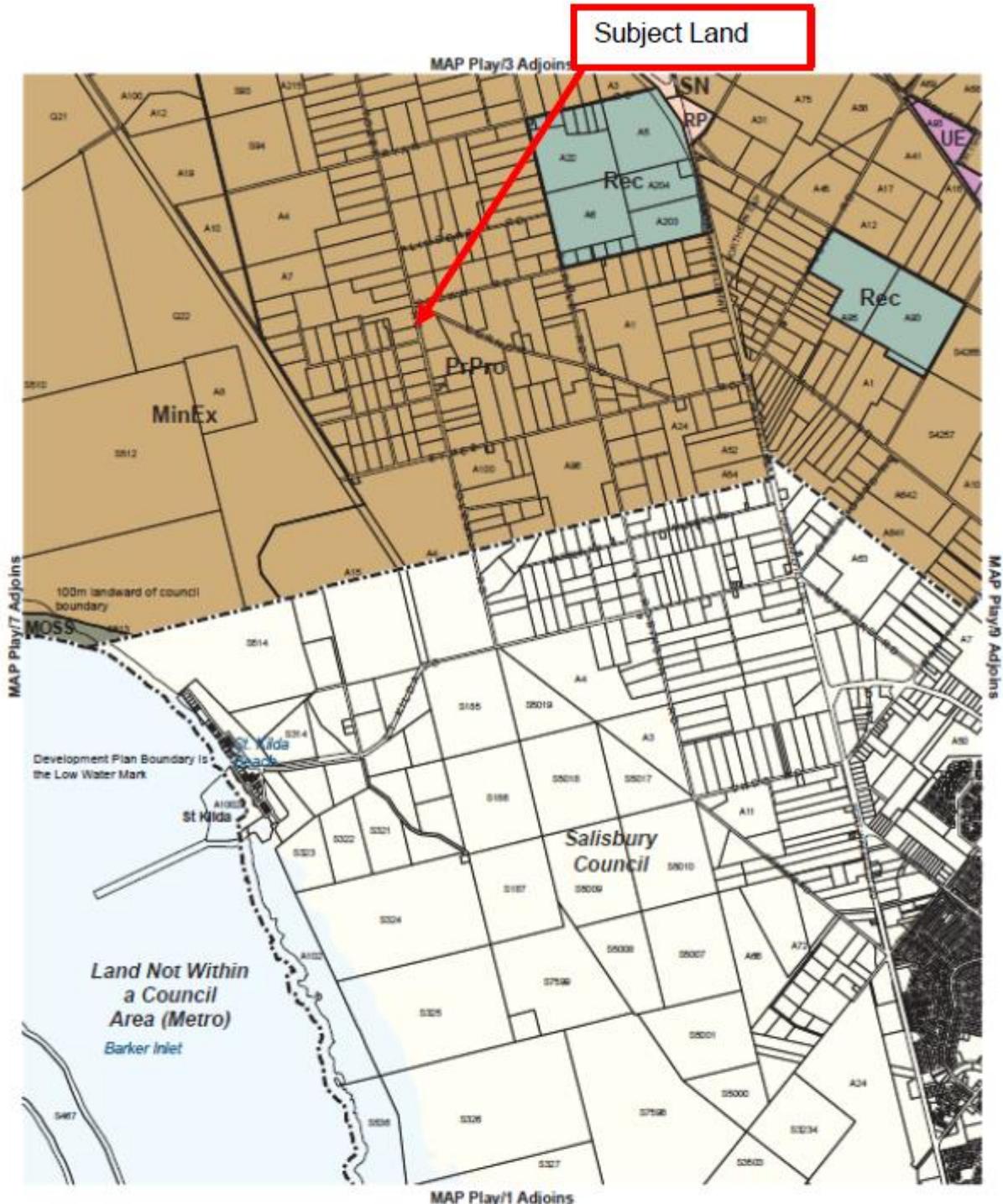
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



Product Register Search (CT 5618/923)
 Date/Time 17/05/2017 07:48AM
 Customer Reference AUSTWIDE R/E
 Order ID 20170517000208
 Cost \$27.75



FOR METRIC CONVERSION	
1 LINK	= 0.201168 METRES
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404688 HECTARES
1 ROOD	= 1011.7 m ²
1 PERCH	= 25.29 m ²



Lambert Conformal Conic Projection, GDA94

- Zones**
- MOSS Metropolitan Open Space System
 - MinEx Mineral Extraction
 - PiPro Primary Production
 - Rec Recreation
 - RP Residential Park
 - SN Suburban Neighbourhood
 - UE Urban Employment
 - Zone Boundary
 - Development Plan Boundary

Zone Map Play/8

PLAYFORD COUNCIL
Consolidated - 30 April 2020



GREEN PYRAMID
Construction Design and Services
14/13/2019 12:06
14/13/2019 12:06
14/13/2019 12:06
14/13/2019 12:06

TRUNG LUONG CONSTRUCTION
Address: 8 Durrant Ave,
Rushey, VIC 3005
Phone: 03 9451 1696

Notes:

REV.	DATE	AMENDMENT
A	08/23/2019	ISSUE FOR PERMIT
B	08/23/2019	ISSUE FOR PERMIT
C	08/23/2019	ISSUE FOR PERMIT
D	08/23/2019	ISSUE FOR PERMIT
E	08/23/2019	ISSUE FOR PERMIT
F	08/23/2019	ISSUE FOR PERMIT
G	08/23/2019	ISSUE FOR PERMIT
H	08/23/2019	ISSUE FOR PERMIT

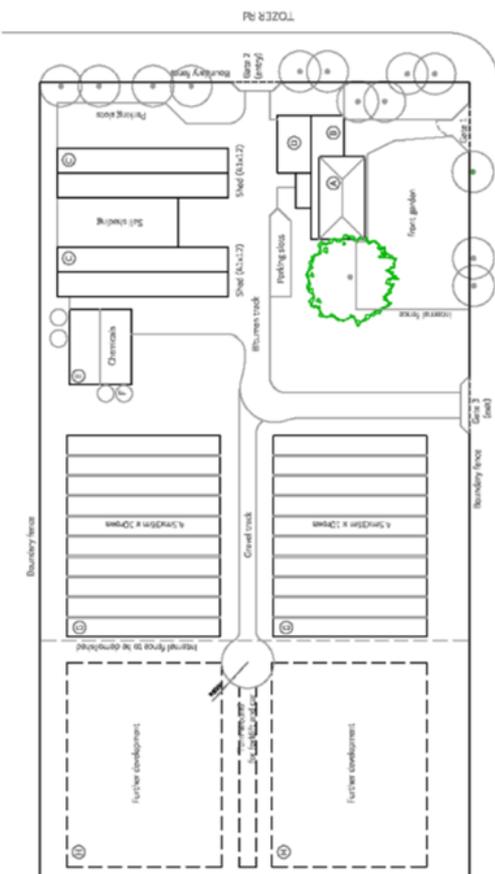
ALTERATION + NEW BUILD

SITE PLANS

Client: Minh Vu
Address: 02 Talbot Rd,
Warrifoo Corner
Design: Michael Nham Tran
Builder:
Engineer:
Certified:
Date: 09-2019
Scale: 1/500
Size: A1
Drawing No: SP-001



EXISTING SITE PLAN
Scale 1/500



PROPOSED SITE PLAN
Scale 1/500

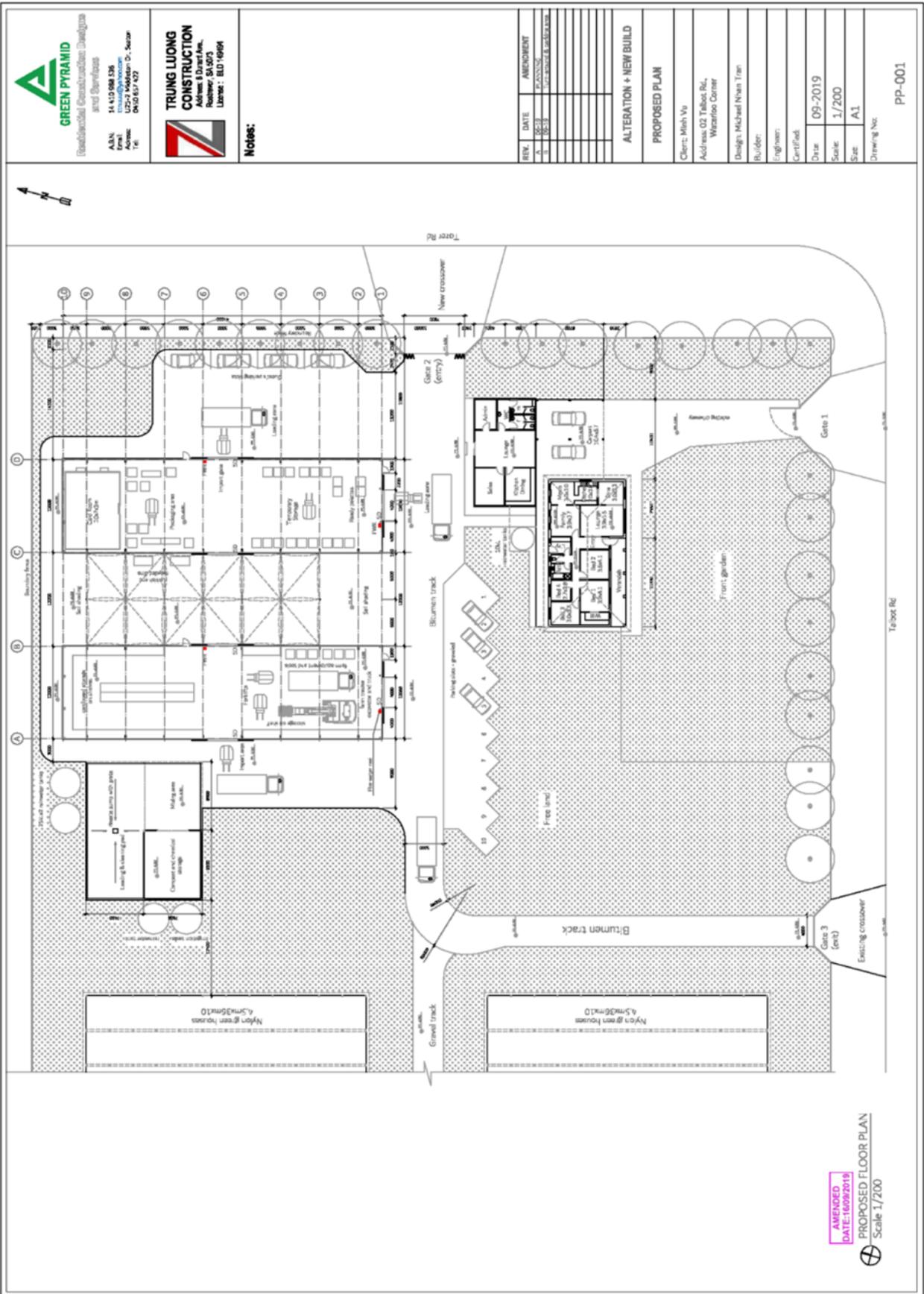
LEGEND

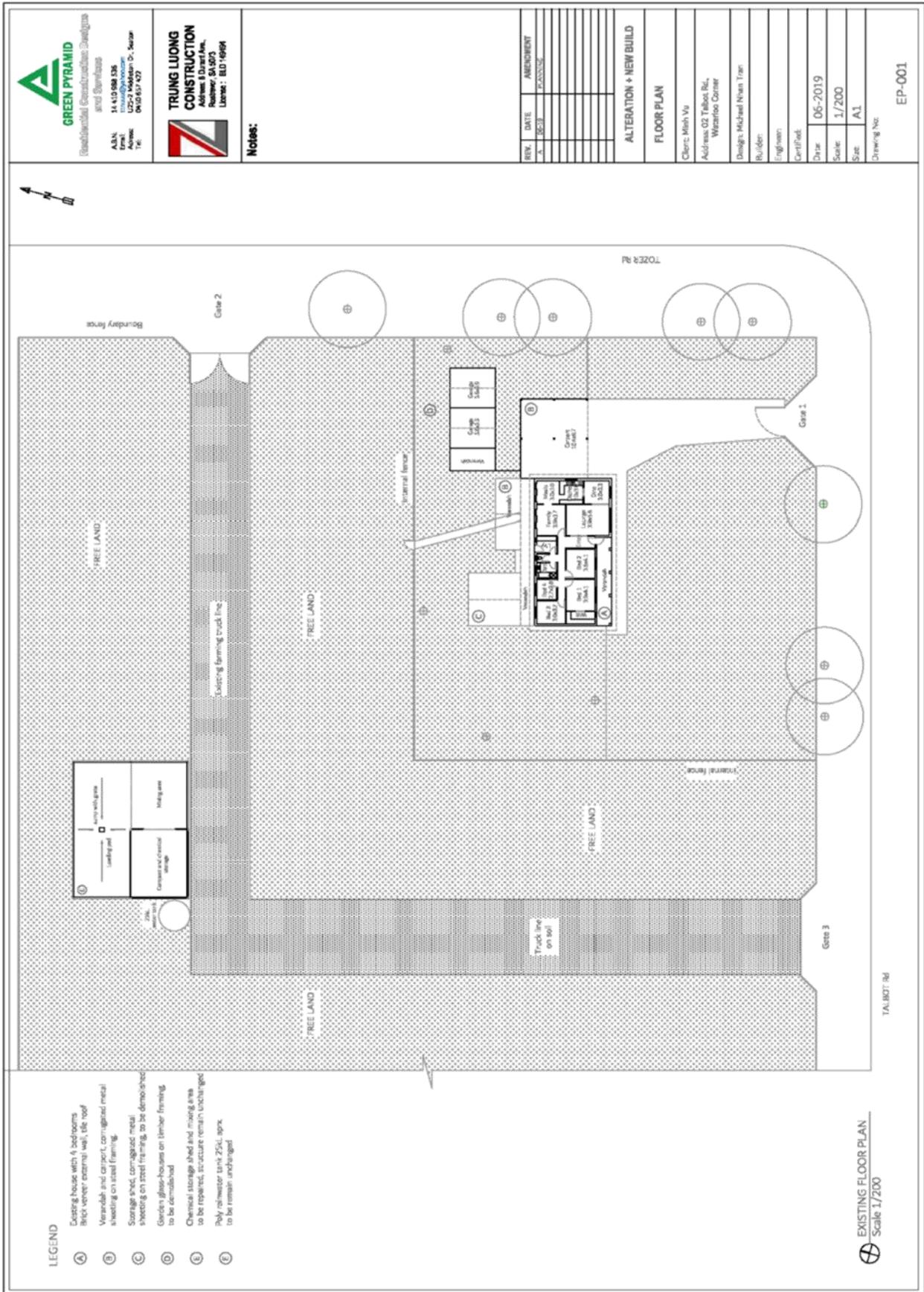
- (A) Existing house with 4 bed rooms
Brick veneer external wall, tile roof
- (B) Verandah and carport, corrugated metal sheeting on steel framing
- (C) Storage shed, corrugated metal sheeting on steel framing, to be demolished
- (D) Garden glass-houses on timber framing to be demolished
- (E) Chemical storage shed and mixing area to be remain unchanged
- (F) Poly silo/water tank 250L approx to be remain unchanged

DEVELOPMENT NOTES

- (A) The house to be renovated internal for living purpose only. Structure and rooms remains unchanged.
- (B) Existing domestic carport and verandah remains unchanged
- (C) Storage shed for farming tools, tractors, forklift, farming vehicles and cartboard on trays
- (D) Preparing shed for own growing products and agricultural distribution agency
- (E) Near admin shed included toilet and kitchen for workers
- (F) Existing chemical shed to be cleaned up and repaired to be reused structure to be remain unchanged
- (G) Move silo/water tanks to collect roof water from the new shed
- (H) Nylon farm house for short-term crops (cassava, tomatoes, cucumber)
- (I) Further development

AMENDED
DATE: 16/09/2019

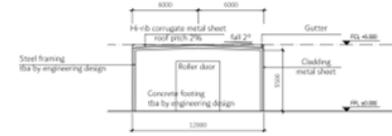




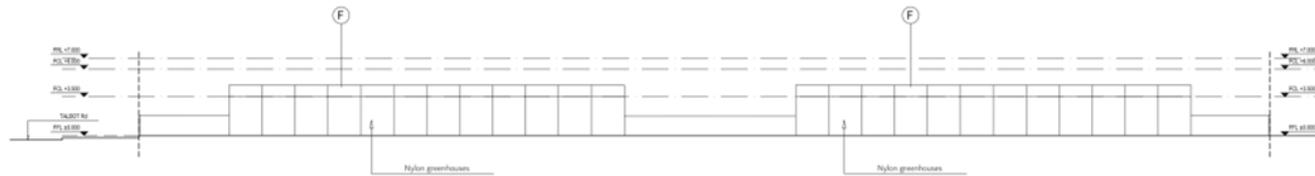
DEVELOPMENT NOTES

- (A) The house to be renovated internal for living purpose only. Structure and rooms remains unchanged.
- (B) Carport remains unchanged
- (C) Storage shed for farming tools, tractors, forklift and cardboard on pallets
- (C) Packing shed for self product packing and agency
- (D) New admin shed included unisex toilet
- (E) Existing chemical shed to be repaired without interfering structure, for pesticides and compost
- (F) Nylon farm house for hydraulic farming (tomatoes, capsicum)
- (G) Farm houses for further development

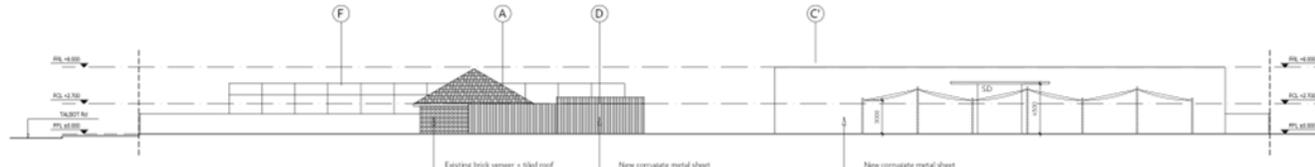
AMENDED
DATE: 29/04/2021



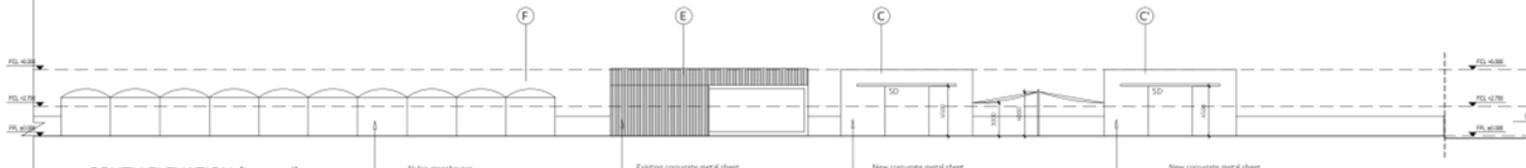
SECTION OF THE PACKING SHED
Scale 1/500



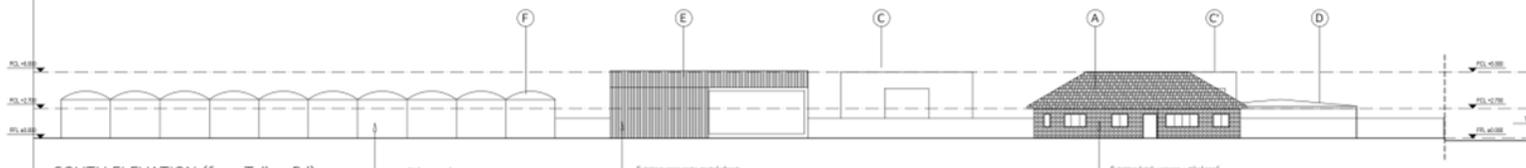
EAST ELEVATION (internal)
Scale 1/500



EAST ELEVATION (from Tozer Rd)
Scale 1/500



SOUTH ELEVATION (internal)
Scale 1/500



SOUTH ELEVATION (from Talbot Rd)
Scale 1/500

GREEN PYRAMID
Residential Construction Designs
and Services

ABN: 14 410 988 536
Email: trunhvu@pyramid.com.au
Address: U25-2 Middleton Dr, Seaton
SA50 657 422

TRUNG LUONG CONSTRUCTION
Address: 8 Durant Ave.,
Rostrevor, SA 5073
License: BLD 149494

Notes:

REV.	DATE	AMENDMENT
A	08-19	PLANING
B	09-19	Turn-around & parking area
C	05-20	Storm water planning
D	01-21	Building height and roof pitch

ALTERATION + NEW BUILD

PROPOSED ELEVATIONS

Client: Minh Vu
Address: 02 Talbot Rd.,
Waterloo Corner

Design: Michael Nhan Tran

Builder:

Engineer:

Certified:

Date: 01-2021

Scale: 1/500

Size: A1

Drawing No:
PE-001

**AMENDED
DATE: 11/06/2021**

Development: Horticulture greenhouses and packing shed

Address: 02 Talbot Rd., Waterloo Corner, SA 5110

1. Land Use

- a. Operation days:
 - Agricultural Farmhouses: from Monday to Sunday, each day in Summer and 2-3 days per week on Winter
 - The Packing Shed: generally on Monday to Friday, including Saturday at peak harvesting times.
- b. Operation hours:
 - The Packing Shed and the Office: from 9 am to 5 pm in Winter, 7 am to 3 pm in Summer
 - Agricultural Farmhouses: from 9 am to 5 pm in Winter, 7 am to 3 pm in Summer
 - All Packing Sheds and Agricultural Farmhouses will stop operating when the outside temperature is over 37°C
 - There is no plan for working overtime, on public holidays and Sunday for the full-time employees
- c. The number of employees: around 5-6 full-time employees for farming and packing. For harvest peak-time, a farming contractor will be employed.
- d. Activities: farming, packing, delivering
- e. Types of produce: The farmhouse will be applied the hydraulic system for higher yield and faster growth. Due to the market demand, the farmhouse will plant capsicum or cucumber or tomato. The onsite production will play 30%-40% of the total packing shed capacity. The shed will receive veggies from nearby farms by bins or plastic bags on pallets by van and small truck. Then the workers will process products into packaging and stack them on pallets.
- f. The Office provides meeting space and facilities for workers. There are no sealing activities for the public members. Orders from farmers and the market will be received by phone; thus, no visiting need to buy the product. Visitors are mainly farm owners for wholesaling.
- g. There are approximately from 2 to 5 visitors or clients per day.
- h. All the business relating to cardboard packaging will be shifted to another place in Virginia.

2. Packing shed operation

- i. For packing operation, seasonal vegetables are mainly sourced from 20-40 greenhouses and nearby local farms in 20km radius (from Waterloo Corner, Virginia, Penfield Garden to Angle Vale)
- j. Onsite and off-site local vegetables will be delivered to the packing shed by forklift or truck on pallets and bins.
- k. Packaging has been manufactured and provided from Melbourne before stored in the other shed.
- l. Products will be classified and labelled into cardboard boxes stacked on the pallet before delivered to the market.

3. Waste management

- m. Wastes will be classified as green, recycled and general waste.
- n. Three commercial front-lift bins will be emptied twice a month.
- o. Wastewater by cleaning vegetables from the Packing Shed will be reused for irrigation purpose
- p. There is no burning activity without Council's permission

4. Chemicals

- q. Chemicals and pesticides will be mixed inside the designated area: the chemical shed.
- r. Chemical containers to be managed by DrumMUSTER programme
- s. Chemical waste to be disposed of by ChemClear programme

5. Stormwater management

- t. Rainwater from new development: 2 storage sheds, one admin shed and greenhouse rows will be collected, filtrated and reused for farming irrigation
- u. Rainwater from the existing house will be collected and reused for toilet flushing and garden irrigation.
- v. Overflow water from the concrete surface will be collected from grating pits, filtrated and then stored in a detention basin.
- w. All water will be collected and recycled inside the property. There shall be no water discharged to the street basin.

6. Earthworks

- x. The site will be levelled for horticulture greenhouses and concrete flatform
- y. The new ground finished level, and internal traffic will be the same as street level with a 0.5-degree slope down to the water collection pits
- z. Employee and guest's car park will be permeable pavement to increase groundwater infiltration

7. Traffic

- aa. Light truck 2 axles which contains a maximum of 14 pallets
- bb. Frequency of traffic: depends on harvesting times, approximately 4 trucks per usual day (2 at morning session, 2 at afternoon)
- cc. The parking area and farm lane shall be levelled by compacted rubble and gravel to avoid land erosion.



ENGINEERING REPORT

- STORM WATER MANAGEMENT

ADDRESS: 2 TALBOT ROAD, WATERLOO CORNER, S.A.

CLIENT: MINH VU

JOB NUMBER: HE15719

OCTOBER 2019

REVISION A MAY 2020

REVISION B JULY 2020

REVISION C OCTOBER 2020

HARNETT ENGINEERING

SAM HARNETT BE.Hons (UniSA), MIEAust, NER.

34 MAIN NORTH ROAD

WILLASTON SA 5118

PHONE: 0402 518 871

EMAIL: sam@harnettengineering.com.au

Design Brief – Statement

This report contains advice supplied by Harnett Engineering for the design of stormwater management. Should the owner have any issues with any part of this service then the owner must contact Harnett Engineering in writing prior to any commencement of any work in order to determine if an adjustment is required to the design brief.

Design Brief

The design brief used for the design of stormwater management by Harnett Engineering and for building projects is to complete the minimum design requirements in accordance with the latest Building standards of Australia and any other relevant building rules/codes at the time of this reports production.

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1.0 INTRODUCTION & ASSUMPTIONS

The proposal for this site is to construct 2 farm sheds, nylon green housing and an associated gravel car park and bitumised driveway. The aim of this report is to determine the stormwater detention requirements for the site and provide a storm water management plan. The site is currently predominantly vacant with an existing house and shed and a larger storage shed.

The sites area is approximately 20356m² or 2.0356ha



Please refer to storm water management drawing/s.

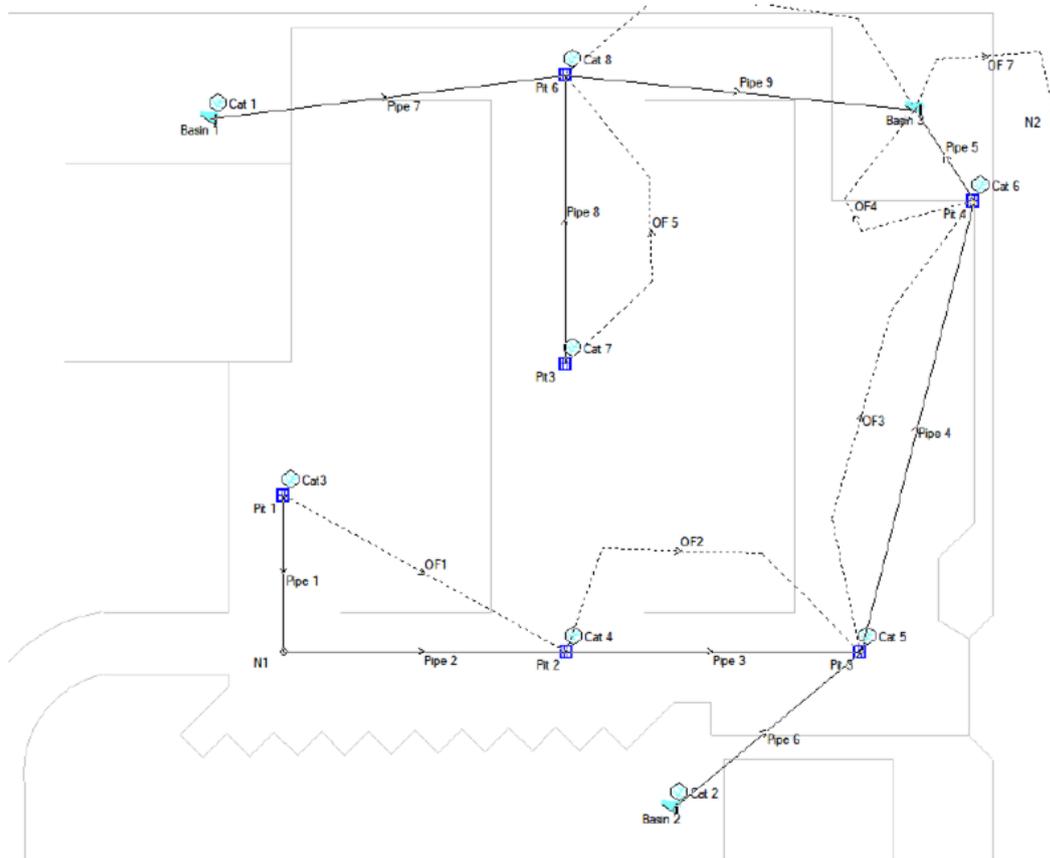
Assumptions

- There is little chance of overflows from the street gutter coming through the property.
- Roof water is collected from the vertical downpipes. Each downpipe can be assumed to drain the associated roof.
- All pipes are PVC (plastic pipes, $k=0.015\text{mm}$)
- Roofed area, $C_r=1$, unroofed, impervious, paved area, $C_i=0.9$, Unroofed pervious area, $C_p=0.1$

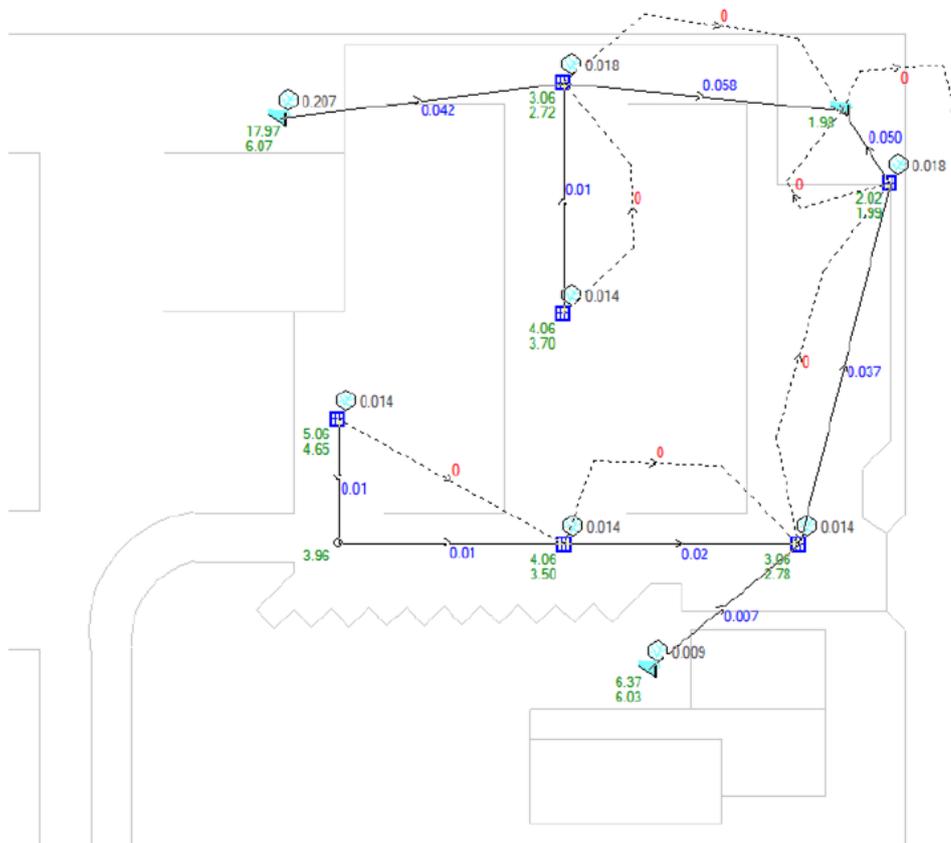
2.0 STORMWATER MANAGEMENT

2.1 Post Development Site Discharge and DRAINS Analysis

A DRAINS model was created for the proposed site. The DRAINS model was run for a range of storms for a 1% AEP to find the critical storm event. The DRAINS model can be seen below.



2.1.1 DRAINS Analysis 1 in 100yr ARI



PIT / NODE DETAILS		Version 14																		
Name	Type	Family	Size	Ponding Volume (cu.m)	Pressure Change Coeff. Ku	Surface Elev (m)	Max Pond Base Depth (m)	Inflow (cu.m/s)	Blocking Factor	x	y	Bolt-down lid	Part Full Shock Loss	Inflow Hydrograph	Pit is	Internal Width (mm)	Inflow Misalign	Minor Saf Pond Dep	Major Saf Pond Depth	
Pit 3	Sag	Transport TSA Single	10	10	1.5	4	0.15	0	0.5	-140385	132132	No	3.1 x Ku	No	New			0.15	0.2	
Pit 6	Sag	Transport TSA Single	10	10	1.5	3	0.15	0	0.5	-140389	155344	No	6.1 x Ku	No	New			0.15	0.2	
Pit 1	Sag	Transport TSA Single	10	10	1.5	5	0.15	0	0.5	-162865	121487	No	5.1 x Ku	No	New			0.15	0.2	
N1	Node					4.5		0		-162873	108958.7		13	No						
Pit 2	Sag	Transport TSA Single	10	10	1.5	4	0.15	0	0.5	-140312	108920.4	No	4.1 x Ku	No	New			0.15	0.2	
Pit 3	Sag	Transport TSA Single	10	10	1.5	3	0.15	0	0.5	-116850	108904.2	No	2.1 x Ku	No	New			0.15	0.2	
Pit 4	Sag	Transport TSA Single	10	10	1.5	2	0.15	0	0.5	-107821	145221.5	No	1.1 x Ku	No	New			0.15	0.2	
N2	Node					1		0		-101340	152438.4		16	No						
DETENTION BASIN DETAILS																				
Name	Elev	Surf. Area	Not Used	Outlet Tyf	K	Dia (mm)	Centre RL	Pit Family	Pit Type	x	y	HED	Crest RL	Crest Len	id					
Basin 3	1	650		None						-112465	152563.4	No								15
	12	650																		
	14	650																		
	16	650																		
	18	650																		
	2	650																		
	22	650																		
	24	650																		
	26	650																		
	28	650																		
Basin 2	6	2		Orifice		76	6.05			-131840	96313.43	No								19
	6.2	2																		
	6.4	2																		
	6.6	2																		
	6.8	2																		
	7	2																		
Basin 1	6	8.5		Orifice		76	6.05			-168715	151813.4	No								21
	6.2	8.5																		
	6.4	8.5																		
	6.6	8.5																		
	6.8	8.5																		
	7	8.5																		

SUB-CATCHMENT DETAILS																											
Name	Pit or Node	Total Area (ha)	Paved Area %	Grass Area %	Supp Area %	Paved Time (min)	Grass Time (min)	Supp Time (min)	Paved Length (m)	Grass Length (m)	Supp Length (m)	Paved Slope (%)	Grass Slope (%)	Supp Slope (%)	Paved Slope	Grass Slope	Supp Slope	Lag Time or Factor	Gutter Length (m)	Gutter Slope %	Gutter Flow	Gutter Flow	Rainfall Multiplier				
Cat7	Pit3	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat8	Pit6	0.04	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat3	Pit1	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat4	Pit2	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat5	Pit3	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat6	Pit4	0.04	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat2	Basin2	0.02	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Cat1	Basin1	0.45	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
PIPE DETAILS																											
Name	From	To	Length (m)	U/S/L (m)	D/S/L (m)	Slope (%)	Type	Dia (mm)	I.D. (mm)	Rough	Pipe Is	No. Pipes	Chg From	At Chg	Chg (m)	RI (m)	Chg (m)	RL (m)	etc (m)								
Pipe 8	Pit3	Pit6	23.2	3.411	2.519	3.84	upVC, unc	90	86	0.03	New	1	Pit3	0	0												
Pipe 9	Pit6	Basin3	27.541	2.5	1	5.45	upVC, unc	225	242	0.03	NewFixed	1	Pit6	0	0												
Pipe 1	Pit1	N1	12.555	4.411	3.911	3.98	upVC, unc	90	86	0.03	New	1	Pit1	0	0												
Pipe 2	N1	Pit2	22.365	3.892	3.392	2.24	upVC, unc	100	105	0.03	New	1	N1	0	0												
Pipe 3	Pit2	Pit3	23.727	3.343	2.343	4.21	upVC, unc	150	154	0.03	New	1	Pit2	0	0												
Pipe 4	Pit3	Pit4	37.404	2.313	1.5	2.17	upVC, unc	150	154	0.03	New	1	Pit3	0	0												
Pipe 5	Pit4	Basin3	8.378	1.5	1	5.97	upVC, unc	225	242	0.03	NewFixed	1	Pit4	0	0												
Pipe 6	Basin2	Pit3	19.353	6	2.5	18.09	upVC, unc	150	154	0.03	NewFixed	1	Basin2	0	0												
Pipe 7	Basin1	Pit6	28.428	6	2.5	12.31	upVC, unc	150	154	0.03	NewFixed	1	Basin1	0	0												

DETAILS of SERVICES CROSSING PIPES															
Pipe	Chg (m)	Bottom Elev (m)	Height of Chg (m)	Bottom Elev (m)	Height of Chg (m)	Bottom Elev (m)	Height of Chg (m)	Bottom Elev (m)	Height of Chg (m)	Bottom Elev (m)	Height of Chg (m)	Bottom Elev (m)	Height of Chg (m)	Bottom Elev (m)	
CHANNEL DETAILS															
Name	From	To	Type	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Base Wdt (m)	L.B. Slope (1:?)	R.B. Slope (1:?)	Manning n	Depth (m)	Roofed		
OVERFLOW ROUTE DETAILS															
Name	From	To	Travel Time (min)	Spill Level (m)	Crest Length (m)	Weir Coeff. C	Cross Section	Safe Dept (m)	SafeDepth (m)	Safe Minor Sto (m)	Safe Major Sto (m)	Safe D/V (sq.m/sec)	Bed Slope (%)	D/S Area Contributing %	id
OF 5	Pit 3	Pit 6	0.2				10m road	0.3	0.15	0.15	0.6	0.6	1	0	39
OF 6	Pit 6	Basin 3	0.3				7.5 m roac	0.3	0.15	0.15	0.4	0.4	1	0	38
OF 7	Basin 3	N2	0.3	2	10	1	Swale wit	0.15	0.1	0.1	0.6	0.6	1	0	36
OF1	Pit 1	Pit 2	0.2				10m road	0.3	0.15	0.15	0.6	0.6	1	0	32
OF2	Pit 2	Pit 3	0.2				7.5 m roac	0.3	0.15	0.15	0.4	0.4	1	0	33
OF3	Pit 3	Pit 4	0.3				10m road	0.3	0.15	0.15	0.6	0.6	1	0	34
OF4	Pit 4	Basin 3	0.2				Swale wit	0.15	0.1	0.1	1	1	1	0	35
PIPE COVER DETAILS															
Name	Type	Dia (mm)	Safe Cove Cover (m)												
Pipe 8	uPVC, unc	86	0.5	0.39	Unsafe										
Pipe 9	uPVC, unc	242	0.5	-0.25	Unsafe										
Pipe 1	uPVC, unc	86	0.5	0.5											
Pipe 2	uPVC, unc	105	0.5	0.5											
Pipe 3	uPVC, unc	154	0.5	0.5											
Pipe 4	uPVC, unc	154	0.5	0.34	Unsafe										
Pipe 5	uPVC, unc	242	0.5	-0.25	Unsafe										
Pipe 6	uPVC, unc	154	0.5	-0.16	Unsafe										
Pipe 7	uPVC, unc	154	0.5	-0.16	Unsafe										

PIT / NODE DETAILS							Version 8	
Name	Max HGL	Max Pond HGL	Max Surfa Flow Arriv (cu.m/s)	Max Pond Volume (cu.m)	Min Freeboarc (m)	Overflow (cu.m/s)	Constraint	
Pit3	3.7	4.06	0.015	2.1	0.3	0	Inlet Capacity	
Pit 6	2.72	3.06	0.02	2.7	0.28	0	Inlet Capacity	
Pit 1	4.65	5.06	0.015	2.1	0.35	0	Inlet Capacity	
N1	3.96		0					
Pit 2	3.5	4.06	0.015	2.1	0.5	0	Inlet Capacity	
Pit 3	2.78	3.06	0.015	2.2	0.22	0	Inlet Capacity	
Pit 4	1.99	2.02	0.02	2.7	0.01	0	Inlet Capacity	
SUB-CATCHMENT DETAILS								
Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)	Supp. Tc (min)	Due to Storm	
Cat 7	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat 8	0.018	0.018	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat3	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat 4	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat 5	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat 6	0.018	0.018	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat 2	0.009	0.009	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
Cat 1	0.207	0.207	0	5	0	0	0 1% AEP, 5 min burst, Storm 1	
PIPE DETAILS								
Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm			
Pipe 8	0.01	1.72	3.497	2.721	1% AEP, 10 min burst, Storm 3			
Pipe 9	0.058	1.44	2.697	1.984	1% AEP, 15 min burst, Storm 8			
Pipe 1	0.01	2.12	4.497	3.976	1% AEP, 10 min burst, Storm 3			
Pipe 2	0.01	1.73	3.959	3.496	1% AEP, 10 min burst, Storm 3			
Pipe 3	0.02	1.2	3.471	2.782	1% AEP, 10 min burst, Storm 3			
Pipe 4	0.037	1.97	2.567	1.989	1% AEP, 10 min burst, Storm 3			
Pipe 5	0.05	1.09	1.985	1.984	1% AEP, 10 min burst, Storm 3			
Pipe 6	0.007	0.77	6.077	2.782	1% AEP, 10 min burst, Storm 3			
Pipe 7	0.042	2.27	16.153	2.721	1% AEP, 30 min burst, Storm 4			
CHANNEL DETAILS								
Name	Max Q (cu.m/s)	Max V (m/s)	Due to Storm					
OVERFLOW ROUTE DETAILS								
Name	Max Q U/s	Max Q D/s	Safe Q	Max D	Max DxV	Max Wdth	Max V	Due to Storm
OF 5	0	0	2.459	0	0	0	0	0
OF 6	0	0	1.201	0	0	0	0	0
OF 7	0	0	0.159	0	0	0	0	0
OF1	0	0	2.459	0	0	0	0	0
OF2	0	0	1.201	0	0	0	0	0
OF3	0	0	2.459	0	0	0	0	0
OF4	0	0	0.159	0	0	0	0	0
DETENTION BASIN DETAILS								
Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level			
Basin 3	1.98	639.6	0	0	0			
Basin 2	6.37	0.7	0.007	0.007	0			
Basin 1	17.97	101.7	0.042	0.042	0			
Run Log for MODEL2.drn run at 12:17:46 on 6/7/2020								

Results of a simplified bottom up HGL analysis. This provides a simple analysis that can be checked manually. It is useful where Council insists on a manual check on HGLs. The HGLs shown here may be different to the more accurate values normally calculated by Drains. The maximum flows and HGLs throughout the system occur at the same time. In fact, in different parts of the system, they may occur during different storms, or even at different times within the one storm, and that flow is steady.

SUB-CATCHMENT DETAILS																			
Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)	Supp. Tc (min)	Due to Storm												
Cat 7	0.014	0.014	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 8	0.018	0.018	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 3	0.014	0.014	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 4	0.014	0.014	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 5	0.014	0.014	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 6	0.018	0.018	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 2	0.009	0.009	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
Cat 1	0.207	0.207	0	5	0	0	0.1% AEP, 5 min burst, Storm 1												
PIPE DETAILS																			
Pipe	Flow (cu.m/s)	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Int Dia (mm)	Rough (mm)	Nom Cap V (cu.m/s)	(m/sec)	D/S HGL (m)	Friction Loss (m)	U/S HGL (m)	Node	Headloss Coeff (Ku)	Shock Loss (m)	HGL (m)	Free-board	Overflow (cu.m/s)	
Pipe 9	0.058	27.541	2.5	1	5.45	242	0.03	0.199	14	1.984	0.606	2.59	Basin 3	1.5	0.121	2.711	1.984	0.29	0
Pipe 5	0.05	8.378	1.5	1	5.97	242	0.03	0.208	1.1	1.984	0.034	2.018	Basin 1	1.5	0.091	2.109	6.073	-0.11	0
Pipe 4	0.037	37.404	2.313	1.5	2.17	154	0.03	0.037	2	2.109	0.801	2.909	Pit 3	1.5	0.298	3.208	3.208	-0.21	0
Pipe 3	0.02	23.727	3.343	2.343	4.21	154	0.03	0.053	1.2	3.208	0.201	3.409	Pit 2	1.5	0.088	3.497	6.024	0.5	0
Pipe 1	0.01	12.555	4.411	3.911	3.98	86	0.03	0.011	2.1	3.976	0.5	4.476	Pit 1	1.5	0.227	4.704	3.958	0.3	0
Pipe 8	0.01	23.2	3.411	2.519	3.84	86	0.03	0.011	1.7	2.711	0.782	3.493	Pit 3	1.5	0.227	3.72	3.72	0.28	0
OVERFLOW ROUTE DETAILS																			
Name	Max Q (U/S)	Max Q (D/S)	Safe Q	Max D	Max Dv	Max Wd	Max V	Due to Storm											
OF 5	0	0	2.459	0	0	0	0	0											
OF 6	0	0	1.201	0	0	0	0	0											
OF 7	0	0	0.159	0	0	0	0	0											
OF 1	0	0	2.459	0	0	0	0	0											
OF 2	0	0	1.201	0	0	0	0	0											
OF 3	0	0	2.459	0	0	0	0	0											
OF 4	0	0	0.159	0	0	0	0	0											
PIT & NODE DETAILS																			
Pit	Node	Headloss Coeff (Ku)	Shock Loss (m)	HGL (m)	Free-board	Overflow (cu.m/s)													
	Basin 1	1.5	0.091	2.109	-0.11	0													
	Basin 2	1.5	0.298	3.208	-0.21	0													
	Basin 3	1.5	0.121	2.711	0.29	0													
	Pit 1	1.5	0.227	4.704	0.3	0													
	Pit 2	1.5	0.088	3.497	0.5	0													
	Pit 3	1.5	0.227	3.72	0.28	0													

3.0 WATER BALANCE MODEL

Reference Appendix 4.2C of AS1547 and BOM data.

Values are based on annual averages:

Water balance equation:

$$P+CR = Et + RO + IF + DI + \Delta S$$

$$P = \text{Precipitation} = 536\text{mm/yr}$$

$$CR = \text{Capillary rising flow from a shallow water table} = 0\text{mm/yr}$$

$$Et = \text{Evapo-transpiration from a vegetated soil surface} = 500\text{mm/yr}$$

$$RO = \text{Run off} = 0\text{mm/yr}$$

$$IF = \text{Interflow (Lateral surface seepage)} = 3\text{mm/yr}$$

$$DI = \text{Deep infiltration (groundwater recharge)} = 3\text{mm/yr}$$

$$\Delta S = \text{Changes in the amount of water stored in the soil} = 30\text{mm/yr}$$

$$536 + 0 = 500 + 0 + 3 + 3 + 30$$

$$536\text{mm/yr} = 536\text{mm/yr}$$

$$\text{Since, } \Delta S = 30\text{mm/yr}$$

$$= 30\text{L/yr}$$

This will be captured by the retention basin.

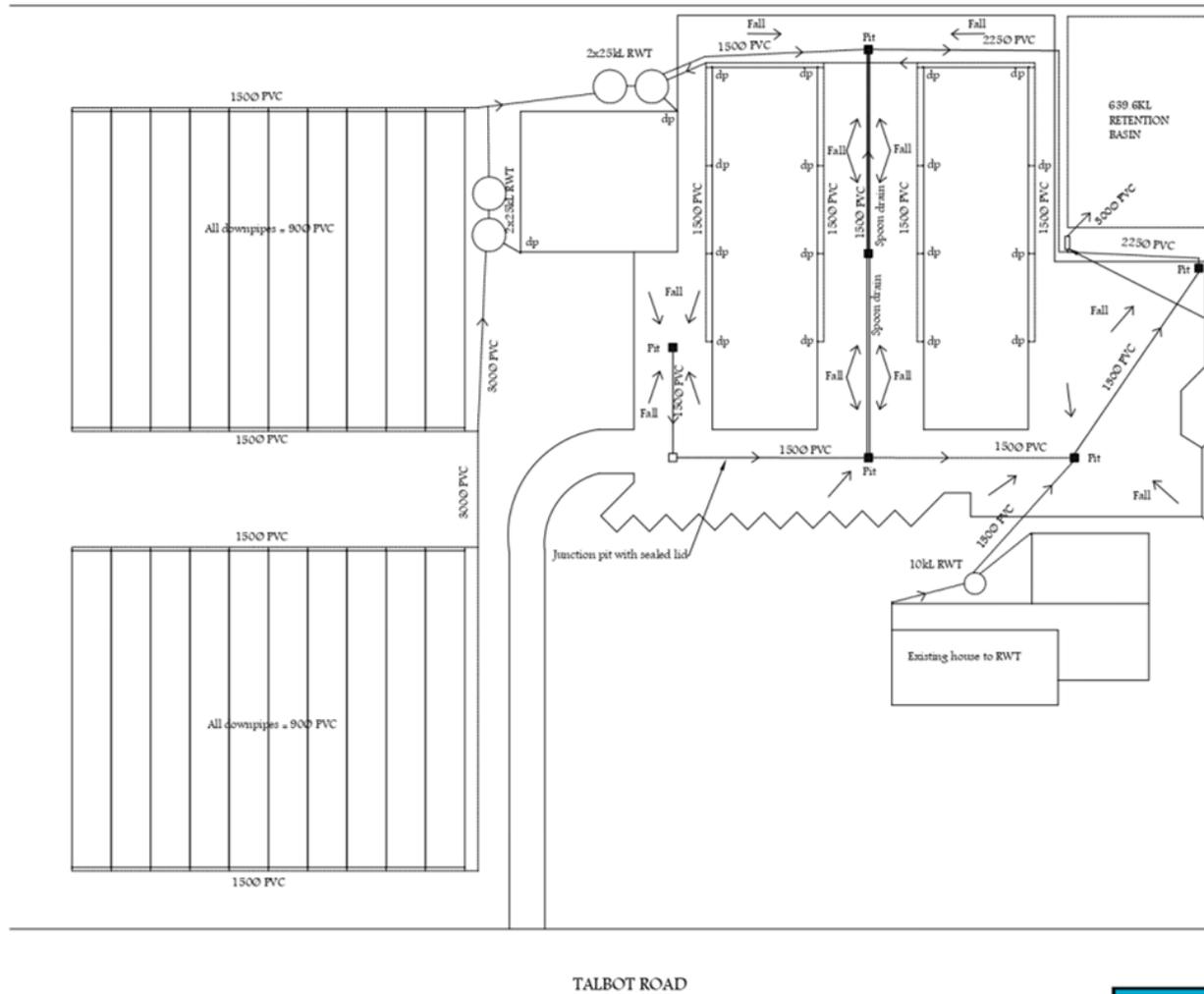
Therefore, it is proven that the basin has ample capacity to cater for a 1% AEP storm and subsequent storm.

4.0 CONCLUSION

The site is to retain 639,600L to contain the 1% AEP storm event.

All stormwater from the development is to be directed to the storm water basin and reused for irrigation within the greenhouses.

Refer to the storm water management plan.



STORM WATER NOTES

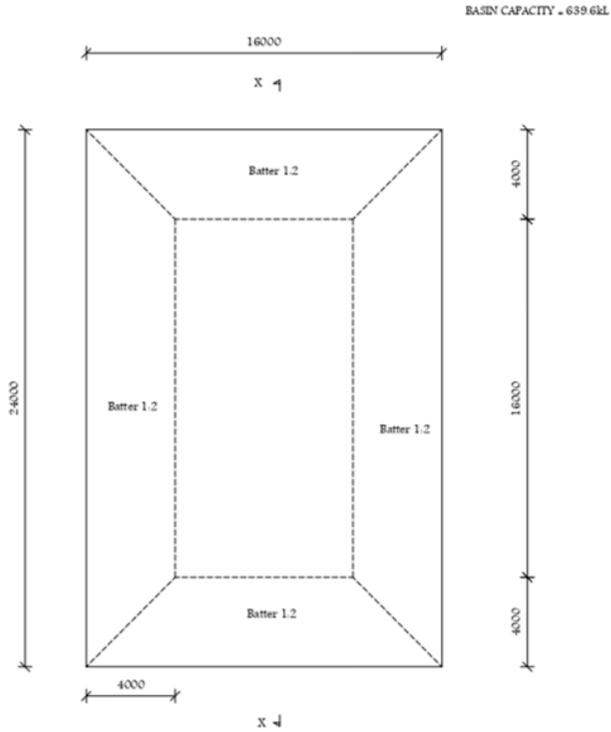
- This plan is to be read in conjunction with all architectural drawings and the site stormwater engineering report
- Confirm all levels on site to ensure minimum pipe slopes of 1:200 and 500mm cover to trafficable areas, minimum 100mm cover under paths and garden beds.
- All roof stormwater is to be directed to rain water tanks via sealed wet system.
- The retention basin has a capacity of 639.6kL.
- The stormwater retention basin is to reuse water for agricultural purposes.
- 'dp' - denotes 90mm downpipe.
- All pits are 600x600

SPEL Class 1 Stormceptor and hydro system compliant with ENS58 SPEL to provide MUSC model

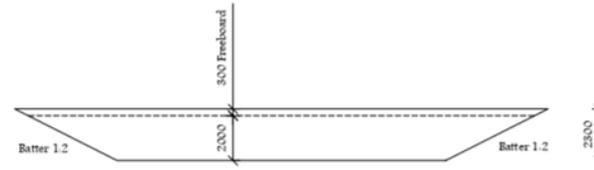
TOZER ROAD

TALBOT ROAD

	STORM WATER MANAGEMENT PLAN	SHEET: 01 of 02
	CLIENT: MNH VU ADDRESS: 2 TALBOT ROAD, WATERLOO CORNER, S.A.	JOB NUMBER: HE15719 REVISION: B DATE: 06/07/2020 SCALE: 1:500 as on A3 Sheet
34 Main North Road Wilton S.A. 5118 Phone: 0402518871	© Copyright This drawing is subject to copyright and unauthorized copying and/or use, whether in part or full is not permitted. Legal action will be instigated against any infringement, without prior approval.	



RETENTION BASIN PLAN VIEW



SECTION X-X

STORM WATER NOTES

- This plan is to be read in conjunction with all architectural drawings and the site stormwater engineering report
- Confirm all levels on site to ensure minimum pipe slopes of 1:200 and 500mm cover to trafficable areas, minimum 100mm cover under paths and garden beds.
- All roof stormwater is to be directed to rain water tanks via sealed wet system.
- The retention basin has a capacity of 639 6kL.
- The stormwater retention basin is to reuse water for agricultural purposes.
- "dp" - denotes 90mm downpipe.
- All pits are 600x600

	RETENTION BASIN DETAILS	SHEET: 02 of 02
	CLIENT: MINH VU ADDRESS: 2 TALBOT ROAD, WATERLOO CORNER, S.A.	JOB NUMBER: HE15719 REVISION: 8 DATE: 06/07/2020 SCALE: 1:200 a.n A3 Sheet
34 Main North Road Wilston S.A. 5118 Phone: 0432518871		*Copyright This drawing is subject to copyright and unauthorized copying and/or use, whether in part or full is not permitted. Legal action will be instigated against any infringement, without prior approval.



Kean Fai Lau | Senior Land Development Engineer
City of Playford

P: (08) 8256 0473 | M: 0466 502 399
kflau@playford.sa.gov.au
www.playford.sa.gov.au

12 Bishopstone Road, Davoren Park, SA 5113



PlayfordNews.

February 2021



Kean Fai Lau
Senior Land Development Engineer •
City of Playford

P. (08) 8256 0473 • M. 0466 502 399
E. KFLau@playford.sa.gov.au
12 Bishopstone Road, Davoren Park, SA 5113

www.playford.sa.gov.au

**SOUTH AUSTRALIA'S NEW
PLANNING SYSTEM IS NOW LIVE**



From: Jamie Hanlon <JHanlon@playford.sa.gov.au>
Sent: Wednesday, 24 March 2021 4:46 PM
To: Kean Fai Lau <KFLau@playford.sa.gov.au>
Subject: FW: Development Application 292/985/2019

Hi Kean,

This is the amended plan for the Talbot SMP. Is this a 'minor' variation from an engineering perspective?

Regards,



Jamie Hanlon | Development Officer - Planning
City of Playford

P: (08) 8256 0327
jhanlon@playford.sa.gov.au
www.playford.sa.gov.au

12 Bishopstone Road, Davoren Park, SA 5113



PlayfordNews.

February 2021



Jamie Hanlon

Development Officer - Planning •
City of Playford

P. (08) 8256 0327 • E. JHanlon@playford.sa.gov.au
12 Bishopstone Road, Davoren Park, SA 5113

www.playford.sa.gov.au

SOUTH AUSTRALIA'S NEW
PLANNING SYSTEM IS NOW LIVE



From: TRAN THIEN NHAN <ttuuu@yahoo.com>
Sent: Tuesday, 23 March 2021 10:03 AM
To: Jamie Hanlon <JHanlon@playford.sa.gov.au>
Cc: d2marks2@internode.on.net
Subject: Re: Development Application 292/985/2019

⚠ **EXTERNAL EMAIL:** Do not click any links or open any attachments unless you trust the sender and know the content is safe. ⚠

Hi Jamie

Regarding to our discussion yesterday, here is the amended revision of storm water report and drawing which show neither discharged pipe to Tozer Rd, nor Talbot Rd.

The engineer has emphasized that the dam has been designed as the "retention" not "detention" dam, hence doesn't need to discharge overflow water to the street.

I also send Cc a copy to Michael Marks.

Kind regards

Michael

Jamie Hanlon

DEVELOPMENT ACT, 1993
STATEMENT OF REPRESENTATION
Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/985/2019**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation: Michael Marks

Postal address: 10A Tozer Rd

Contact telephone No. 0439802907

Nature of Interest / Affected by Development (eg adjoining resident, owner of land in vicinity, or on behalf of an organisation or company) adjoining property

Reasons for representation (please attach additional sheet(s) if required) Concerns of
Flooding my property as it floods
twice a yr at present due to easement

I support the proposal I do not support the proposal

My representation would be overcome by: (state action sought) (please attach additional sheet(s) if required)
all water to be directed towards
Kalbot Rd, no water to enter 10A Tozer
Rd at all

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO NOT WISH TO BE HEARD

I DESIRE TO BE HEARD PERSONALLY

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY

Name: _____

Signed:



Date:

11/2/2021

Jamie Hanlon

**DEVELOPMENT ACT, 1993
STATEMENT OF REPRESENTATION**

Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/985/2019**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation:

**John Clark
197 Curnow Road
Waterloo Corner SA 5110
Ph 0407 391 770**

Postal address:

Contact telephone No.

Nature of Interest / Affected by Development
(eg adjoining resident, owner of land in vicinity,
or on behalf of an organisation or company)

Adjacent Resident

Reasons for representation (please attach
additional sheet(s) if required)

Vide the attached letter.

**I do not support the proposed
development**

I support the proposal

I do not support the proposal

My representation would be overcome by:
(state action sought) (please attach additional
sheet(s) if required)

Vide attached letter

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO NOT WISH TO BE HEARD

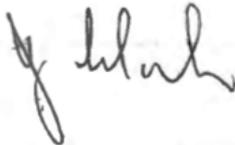
I DESIRE TO BE HEARD PERSONALLY

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY

Name: _____

Signed:



Date:

16/2/2021



John Clark
Registered Conveyancer

197 Curnow Road
Waterloo Corner 5110
Phone (08) 8280 8492
Mobile 0407 391 770

16th February 2021

Re :- Application No. 292/985/2019

I have perused the application and offer the following comments.

I note that since the date of this development application (20/06/2019) that the ownership of the property has changed. The current owner is Anders Partner Pty Ltd (ACN 630 095 948), a company registered in Victoria.

This is a substantial development proposal as would be expected in Policy Area 4 Horticulture West.

The Greenhouses as proposed are an appropriate development for this area.

The issue I see is the disposal of rain water runoff from the greenhouses. It is substantial - Over 50% of the 5 acres of land is covered in growing houses/packing sheds meaning approximately 10000 litres of water for each millimetre of rainfall needs to be retained in an onsite dam for irrigation reuse and to avoid the further stressing of the already overloaded water disposal drainage channel adjacent to the subject property which has had extensive council works over the past few years in an effort to alleviate local flooding from occurring which has inundated my property in the past, depriving me of an income from my land. Portion of my land has been covered by over a metre of water due to the areas poor stormwater drainage system. Council Officers are well aware of the stormwater drainage issues associated in Waterloo Corner and in particular my property.

I also note that the subject land has no Underground Water Allocation or a Bolivar Recycled Water Allocation. As such it is my belief that there is no intention to grow on the subject land and the intended use is for a Packing Complex. I note also that over the past year or so the subject land has been used for the storage of greenhouse waste (mainly plastic) which was removed late in 2020. I estimate some 10 – 20 shipping containers of greenhouse plastic were removed. Currently (today) a huge number of chemical drums and other products are stored/dumped on the subject land. This is potential environmental hazard that needs to be resolved immediately.

The packing Shed Complex.

The area in total of Packing Sheds is approximately 1000 Sq Metres. This is very substantial and in line with a wholesale vegetable receiving/processing/packing/distribution business. I believe it is outside the guidelines of Principle 1 of the Horticulture West Policy Area and not in accord with Objective 3. I dispute the hours of operation stated in the application for the packing shed. I have worked in the industry for 35 years. Pressure is always on the packing sheds and the growers to meet tight schedules. Late night packing and processing and working on Sundays are a necessity for any Packing Shed operations. We will see forklifts and trucks being operated into and off the site very late at night. 'Three am' or earlier produce pickups/deliveries are 'normal' for large/any packing sheds. The hours of operation as per the application are not correct and I believe intended to deceive. Most packing sheds must at times work late into the night to meet schedules. This complex is clearly for the processing of produce grown off site and is not appropriate for an area which is substantially residential in nature with some growing activities.

Waste Water – Packing Sheds use large quantities of water depending on the vegetables being processed. There is no provision in this application for waste water treatment or disposal.

Traffic – This development will have an adverse effect on local roads and Tozer/Talbot Roads in particular. I expect trucks of up to 42 tonnes to pick up produce on a daily basis. I suspect predominantly for the Victorian Market.

If any packing complex is to be approved at this site, the packing sheds should be placed West of the existing shed to minimise the impact on local residents. It is too close to Tozer Road. Light spill onto my property and night traffic will have an adverse impact on my dog kennels. I have kept dogs on my premises without incident for some 35 years.

I believe the greenhouses are an acceptable development subject to strict water catchment retaining facilities (dam). All greenhouse runoff water should be retained for re use. The Packing shed Complex should be rejected in its current form. Any Packing Shed approved should be built to the west of the existing shed and restricted to a maximum of 250 Sq Metres. This is not a development appropriate to a two hectare allotment.

Your Sincerely,

John Clark.

Jamie Hanlon

**DEVELOPMENT ACT, 1993
STATEMENT OF REPRESENTATION**

Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/985/2019**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation:

Jo McKinnon & Kym Smith
22 Talbot Rd, Waterloo Corner

Postal address:

Contact telephone No.

0400633 243

Nature of Interest / Affected by Development
(eg adjoining resident, owner of land in vicinity,
or on behalf of an organisation or company)

adjoining resident

Reasons for representation (please attach
additional sheet(s) if required)

see attached

I support the proposal

I do not support the proposal

My representation would be overcome by:
(state action sought) (please attach additional
sheet(s) if required)

The action we would
like is for No greenhouses to be built
in the paddock adjacent to our home and
any burning off to be done at the current
house on the property

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO NOT WISH TO BE HEARD

I DESIRE TO BE HEARD PERSONALLY

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY

Name: _____

Signed: 

Date: 17/2/21

Reasons for representation:

With a young child and a partner with severe asthma, we are concerned that the use of chemicals and fertilizers combined with the smell so close to our home would have a severely negative impact on our health and standard of living.

We are also concerned about regular burn offs being conducted on the property and the risk this would pose to our health, living standards and the potential fire danger to our home if these burn offs aren't monitored properly.

There is also the issue of extra water being added to the street water table. In the past the Council has pumped water from Tozer Rd into the street drainage along Talbot Rd, resulting in flooding to our front yard and contributed to filling up our septic tank, which resulted in us needing to pay to have it pumped out.

We also feel that having greenhouses so close to our home would impact on our view.

Dear Development Assessment Panel, City of Playford Council

In regarding to the objections and reasons of 3 representors, the owner and I have discussed with them via phone, text message and emails. At the end of the discussion, the result seems to be positive as their concerns have been met to the resolutions. Here are reports for 3 cases:

1. **Michael Marks**, the adjacent neighbour.

Michael Marks is happy to support the proposal if there will be no overflow pipe from the dam to be discharged to Tozer Rd.

Resolution: The water engineer commented that there is rare chance to discharge water to Tozer road table due to high capacity of the retention dam. However, the engineer was happy to design a manual pump to redirect the pipe to Talbot road.

Result: the representor has received the new drawing, amended and asked for the second design. He then received the final design and was satisfied with it.

2. **John Clark**, the registered conveyancer

John has written a comprehensive objection letter which clearly pointed out to the weaknesses of the proposal development.

- The name of the property owner
- Storm water management plan
- Grey water meter
- Green house waste
- Packing sheds: scale, operating hours, waste water, heavy traffic
- Position and orientation of the packing sheds

Resolution: I have spoken and emailed to John in order to clarify the intention and benefits of the development to nearby areas. Here are my dot points in that email:

- Anders Partner Pty Ltd is the business name of the investor to this development. The applicant's name on the proposal application is also the owner of that company. His business intention is not substantial as SA Mushrooms or the nearby businesses. It will be only a representative of his company in VIC to SA farming markets.
- Council had required Storm Water Management Plan to be designed by a registered agriculture and water engineer. We have been worked out for a year with 5 amendments to satisfy all standards and regulations. Moreover, the developing rate is only lower than 30% however all runoff water will be collected and reused. In this case, you should believe in Council Planning Team as they are responsible if any problem occurred.
- On this land, we also have grey water meter for irrigation and drinking water supplying to the existing house. In the attachment, there are some photos I have taken in 2019. Therefore, the land is ready for agricultural purposes.
- I have rung the owner for plastic waste, as I didn't see it when I inspected the site. He said they were there temporarily as he had nowhere to store. He said they have been cleared out immediately after that. There were some blue drums on the paddock and a chemical store shed which was empty at the second time I was there in 2020. This is the Cat.2 development, so Council will require us an environment report from EPA. However, it will happen in the second stage of the Building Rules Consent.

- The owner hasn't disclosed much about his business however I could generally clarify it as a designer. The owner wants to have all abilities and flexibilities on his development yet he doesn't decide to focus on which one. There are 2 sheds but only one is for packaging jobs, the other is for cardboard boxes storage as he also wants to trade to the other packaging businesses in this area. He might benefit by selling stuffs from VIC than the vegie packaging business however he must keep them all. Thus, there will be no heavy truck nor overtime intensive working. Due to Covid, border restriction might prevent him from interstate goods shipment.
- Consequently, the development will bring more jobs to local labours from building phases to operation. Nearby farm sheds will have local supplier for cardboard packaging and more opportunity exchanging goods to VIC markets. At the moment, our Australian economy is affected heavily by Covid which creates a huge unemployment problem. This investment is not substantial but essential for Policy Area 4 Horticulture West.

Result: John has received the email and did not respond to it. I assumed that he was happy with my answer.

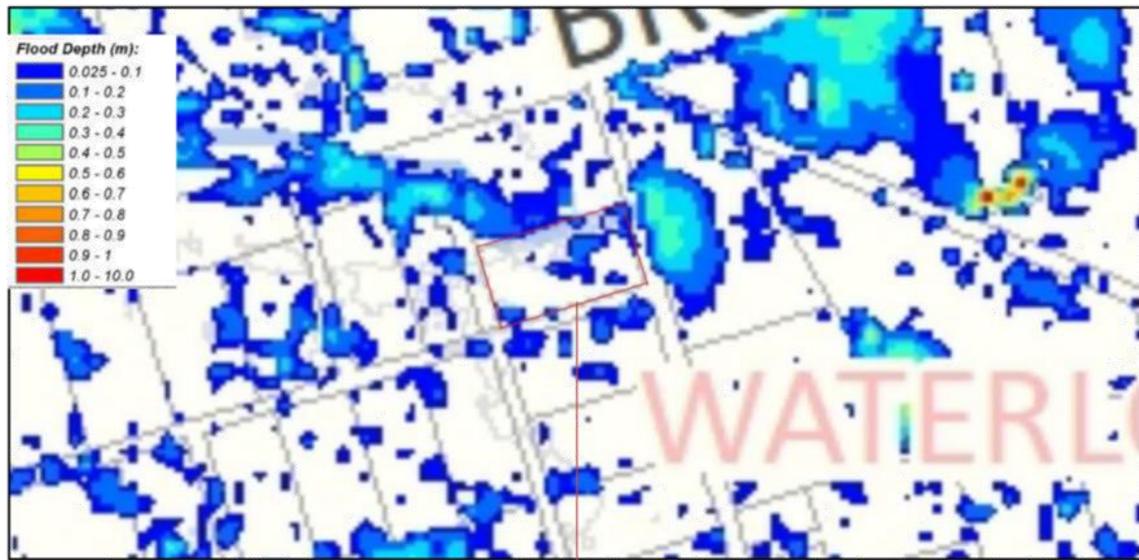
3. **Jo and Kym.** Adjacent neighbour.

They concerned about farming chemical and burnt hazards. They also don't want overflow water to be discharged to Tozer road. They don't want the greenhouses to be built near their property.

Resolution: I have texted them to explain that chemical, burning and storm water are strictly regulated by Council via design process and operating management. For the greenhouse, we intend to build 2 of the 4, so we could build the 2 that close to Talbot road first.

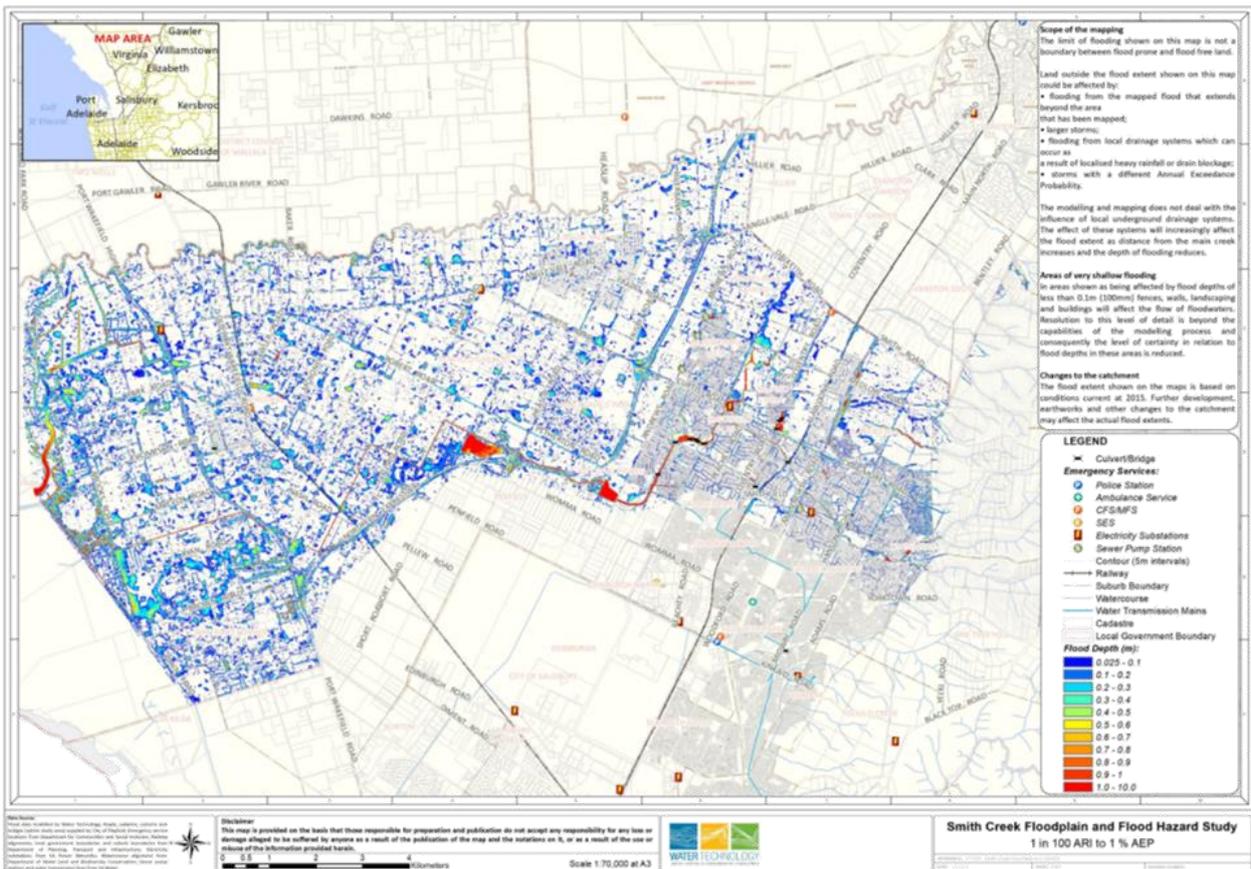
Result: They replied that they will discuss and reconsider.

Summary of 3 cases: The representors are adjacent neighbours who focus more on to storm water management as they are worry that water run off from Tozer road could overflow back to their property. The owner, sustainable designer and the water engineer are happy to redesign the storm water system in order to minimize that risks. The development will be constructed and operated step-by-step which allows Council to moderate the impact to nearby neighbours and the environment in time.



Source: Smith Creek Floodplain and Flood Hazard Study
1 in 100 ARI to 1% AEP

Subject Land





NOTICE

of

SPECIAL COUNCIL ASSESSMENT PANEL MEETING

TO BE HELD IN

**COUNCIL CHAMBERS
PLAYFORD CIVIC CENTRE
10 PLAYFORD BOULEVARD, ELIZABETH**

MEMBERS MAY PARTICIPATE BY ELECTRONIC MEANS

ON

MONDAY, 3 MAY 2021 AT 6:00PM

THIS MEETING WILL ALSO BE VIEWABLE AT
<https://www.youtube.com/user/CityOfPlayford>

A handwritten signature in blue ink that reads "S Green".

**SAM GREEN
CHIEF EXECUTIVE OFFICER**

Issue Date: Thursday, 29 April 2021

MEMBERSHIP

MR GEOFF PARSONS – PRESIDING MEMBER

Mr Stephen Coppins

Mr Nathan Grantham

Mr Paul Mickan

Ms Olivia Franco (*Deputy*)

**City of Playford
Special Council Assessment Panel Meeting**

**AGENDA
MONDAY, 3 MAY 2021 AT 6:00PM**

1 ATTENDANCE RECORD

- 1.1 Present
- 1.2 Apologies
- 1.3 Not Present

2 CONFIRMATION OF MINUTES

RECOMMENDATION

The Minutes of the Council Assessment Panel Meeting held 19 April 2021 be confirmed as a true and accurate record of proceedings.

3 APPLICATIONS WITHDRAWN

4 DECLARATIONS OF INTEREST

5 APPLICATIONS FOR CONSIDERATION – PERSONS WISHING TO BE HEARD

- 5.1 Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure (292/985/2019) (Attachments).....6

Representors: Mr M Marks
 Mr J Clark
 Ms J K McKinnon & Kym Smith
Applicant: T M Vu

- 5.2 Construction of aged persons' accommodation facility consisting of 4 accommodation buildings and one administration and services building, with associated infrastructure, car parking, landscaping and tree damaging activity in the form of the removal of 4 significant trees and 16 regulated trees over 3 stages (DA 292/2631/2020) (Attachments)54

Representors: Mr B and Mrs J Penn
Applicant: ACH Group

6 APPLICATIONS FOR CONSIDERATION – NO PERSONS TO BE HEARD

Nil

7 APPLICATIONS FOR CONSIDERATION - CATEGORY 1

Nil

8 OUTSTANDING MATTERS – APPEALS AND DEFERRED ITEMS

Nil

9 OTHER BUSINESS**9.1 STAFF REPORTS**

Nil

10 CONFIDENTIAL MATTERS

Nil

11 DEVELOPMENT PLAN POLICY DISCUSSION FORUM

Nil

12 CLOSURE

APPLICATIONS FOR CONSIDERATION

APPLICATIONS FOR CONSIDERATION – PERSONS WISHING TO BE HEARD

5.1 CONSTRUCTION OF AN IMPLEMENT SHED, PACKING SHED, OFFICE, SALES ROOM ASSOCIATED WITH HORTICULTURE, TWO (2) GREENHOUSE BUILDINGS AND SHADE SAIL STRUCTURE (292/985/2019)

Snapshot

Author:	Jamie Hanlon
Proposal:	Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure
Development Number:	292/985/2019
Date of Lodgement:	04/07/2019
Owner:	Anders Partner Pty Ltd
Applicant:	T M Vu
Location:	2 Talbot Road, Waterloo Corner
Zone:	Primary Production Zone
Classification:	Merit
Public Notification Category:	2
Representation Received:	Yes
Development Plan:	Consolidated 27 June 2017
Request for Additional Information Made?	2
Recommendation:	To Grant Planning Consent

Attachments:	<ul style="list-style-type: none"> 1. Development Application Form 2. Certificate of Title 3. Zone Overlay Map 4. Plans 5. Elevation Drawings 6. Site Management Plan 7. Storm Water Management Plan 8. Council Storm Water Engineer Response to SWMP 9. Representations 10. Applicants Response to Representations
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1. The Subject Land

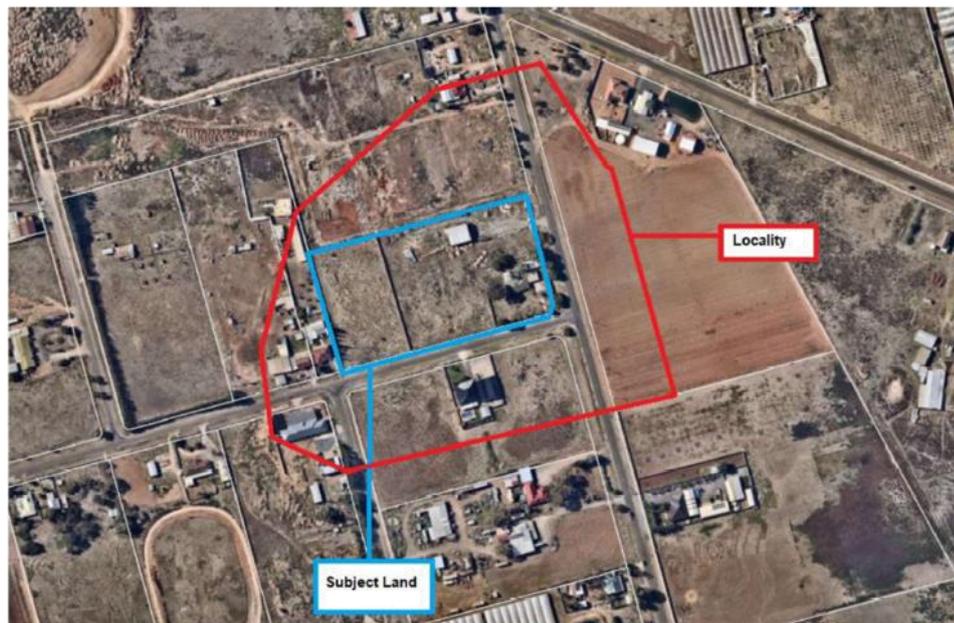
The land is rectangular in shape, relatively flat and is located on the northern side of Talbot Road, in the suburb of Waterloo Corner. The allotment features a frontage of approximately 281 metres and an average depth of 178 metres, with an overall area of approximately 20,234 Square Metres.

The land features a detached dwelling with a few small outbuildings enclosed in a fenced rear yard and a larger shed covering 275 square metres located approximately 10 metres from the northern boundary. The dwelling and the larger shed each have their own access. The site also features a fence separating a third of the allotment on the western side of the land.

2. The Locality

Based on the visual impact of the allotment, the extent of the locality is considered to include the subject land and portions the adjacent allotments surrounding the subject land. This extends to a dwelling on the abutting allotment north of the land and reduces to the west due to buildings obscuring views.

2.1 Locality Plan



The locality contains relatively small primary production allotments compared to the typically large allotments surrounding Virginia. The size of allotments within the locality range between 6100 square metres to 48000 square metres however the average size allotment is around 20,000 square metres and this land pattern extends approximately 7 kilometres along the western side of Port Wakefield Road into the Salisbury Local Government Area to the South.

The allotments within the locality accommodate detached dwellings, ancillary outbuildings and rural sheds whilst greenhouses and ancillary buildings are a common feature in the wider locality.

2.2 Zoning

The subject land is depicted on Zone Map Play/8 in the Mapping Section of the Development Plan.

By virtue of its location, the land is entirely within Zone Map and Policy Area Map Play/8 within:

- The Primary Production Zone; and
- The Horticulture West Policy Area.

3. Background

The Application seeks to retain the existing dwelling approved prior to 1988 and continue its use along with existing outbuildings within its curtilage. An existing storage and garage shed for the storage of farm equipment as well as domestic storage (Development Application 292/237/2009) will be converted to a chemical shed.

Development Application 292/985/2019 was lodged in July 2019 after significant changes to pre-lodgement proposals for warehousing. These proposals involved items such as packaging, required by the horticultural industry however does not have a primary association with horticulture. Therefore the location of such warehousing in the Zone was not a necessity and staff advised this was not supported in the Zone.

Due to the lack of stormwater infrastructure in the locality Councils Engineers have been careful to ensure the proposal will not cause flooding on nearby roads and properties. A number of versions of the stormwater plan were submitted by the Applicant before the last achieved appropriate retention of stormwater on the land.

The Desired Outcome for the Rural Horticulture Zone is as follows:

- Intensive agriculture in the form of horticulture and associated value-adding enterprises and activities.
- The establishment of appropriately scaled industries for washing, processing, bottling and packaging primary produce and servicing and supporting horticulture.
- Manage interface conflict between horticulture and other land uses.

4. The Proposal

It is considered the proposal is best described as follows:

'Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure'

The proposal will feature the operation of hydroponics and the packing of produce grown on the site and nearby sites and consists of 24 interrelated elements;

- The construction of a 492 square metre (12m x 41m) shed with a wall height of 6 metres and 7 metres at the gable and featuring a 70m² Cold room, packing area and temporary store;
- The construction of a 492 square metre (12m x 41m) shed with a wall height of 6 metres and 7 metres at the gable and featuring a farm implement and equipment store and ancillary packing material store;
- Conversion of existing 270 square metre implement shed 7 metres high at the gable and to ancillary chemical shed;

- The construction of a 4 metre high, 357 square metre shade sail area;
- Stormwater collection Retention Basin with a capacity of 639.6KL;
- Four 25 KL and one 10 KL water tanks totalling a site capacity of retaining 749KL of stormwater;
- The construction of 2 nylon greenhouses;
- Seasonal operation hours contained between 7am to 5pm;
- A maximum of 7 employees;
- Hydroponic Farming;
- Packing of produce grown on site and off site;
- Ancillary storage of packaging;
- Separated waste stored in commercial bins removed twice a month;
- Chemical containers to be managed by DrumMUSTER programme;
- Chemical waste to be disposed by ChemClear programme;
- Rainwater from new development: 2 storage sheds, 1 admin shed and greenhouse rows will be collected, filtrated and reused for farming irrigation;
- Rainwater from the existing house will be collected and reuse for toilet flushing;
- Overflow water from concrete surface will be collected from grating pits, filtrated and then stored to a detention basin;
- The site will be levelled for horticulture greenhouses and concrete platform;
- The new ground finished level and internal traffic will be the same as street level with 0.5 degree slope up to inside;
- Separate forward entry and exit to and from the site;
- Sealed internal through road and employee car park;
- Guest's carpark and internal vehicle paths constructed with compacted gravel;
- Largest vehicles, a Light truck with 2 axles which contains maximum 14 pallets;
- Frequency of traffic: approximately 4 trucks over the business day; and
- Boundary planting of trees along the Talbot Road and Tozer Road frontage.

5. Procedural Matters

5.1 Classification

The packing shed (industry) is an exception to non-complying in the Zone when it involves a winery or the packing, processing or storage of primary produce and is located outside of Policy Areas 5 and 6.

The proposed office is located in a building shared with a sales room (shop) and staff amenities with the office 12 square metres in area. An Office is an exception to non-complying in the Zone when it is located within Horticulture West Policy Area 4 and is ancillary to and in association with a horticultural industry undertaken on site, as well as having a floor area less than 50 square metres.

A sales room (shop) is an exception to non-complying in the Zone when it is located within Horticulture West Policy Area 4 and involves the retail sale of products grown or produced on the same site as the shop and has a site area 50 square metres or less. Interpreting the intended meaning of site as floor area, the sales room is 19.5 square metres and thereby satisfying the exception.

As such, the proposal has been dealt with as a Merit form of development.

5.2 Public Notification

The Procedural Matters section of the Primary Production Zone Section in the Development Plan assigns all forms of development not listed as Category 1 as a Category 2 development.

Seven properties were notified of the development during the public notification process. Three representations were received in response to public notification and it is summarised as follows:

Representor	Objection
Michiel Marks	<ul style="list-style-type: none"> Concerns with flooding <p>Michiel Marks representation can be overcome by directing water toward Talbot Road</p>
John Clarke	<ul style="list-style-type: none"> Concerns with the disposal of Stormwater and flooding; Subject land has no water allocation therefore there is no intention to grow produce on the land and the land will be used only for a packing facility; The land has historically been used to store greenhouse waste and there are fears of contamination; Packing shed too large for production on the land; Does not agree that the hours of operation will be adhered to; Waste water from packing operations has not been addressed; Fears that 42 tonne trucks will use the site; Light spill will have an adverse effect on Representors dog kennels; and The packing shed should be reduced and located west of an existing shed.
Jo McKinnon and Kym Smith	<ul style="list-style-type: none"> Young child and partner have asthma and chemical and fertiliser smell will impact on the health of the household; Concerns with the fire danger from burn-offs; Concerns with health effects from burn-offs; and Concerns with flooding on the roads which fills the Representor septic Tank.

The Applicant has provided a response as follows:

- In response to Michael Marks concerns with flooding of the roads :
The (Applicants) Storm water engineer noted that due to the capacity of the retention dam it is unlikely there will be a need to discharge water to Tozer road table. Notwithstanding this the engineer is able to design a manual pump to redirect the pipe to Talbot road. This has been provided to the Representor and he is satisfied with it.
(Note: Council's Engineer will not accept a redirection of the pipe to Talbot Road and requires onsite detention of stormwater. The aforementioned design has not been forwarded to Council, nor does it form part of the stormwater design in this Application).
Notwithstanding this in Response to Jo McKinnon and Kym Smith's concerns regarding flooding on the roads the Applicant advises that storm water is strictly regulated by Council.
- In response to Representors concerns with stormwater; the Storm Water Management Plan has been designed by a registered agriculture and water engineer. This has been subject to 5 amendments to satisfy all standards and regulations required by Council. Stormwater Runoff is lower than 30% however all runoff water will be collected and reused. This is acceptable by Council's Engineers.
- In response to concerns the site has no water allocation. The property has access to grey water meter for irrigation and potable water is supplied to the existing house. Photographs included with this response support the appropriateness of primary production on the land.
- In relation to the complaint regarding the storage of plastic waste on the site, this was temporary and has been removed.
- In his response the Applicant mentions the historical storage of drums and a chemical store shed. The Applicant also mentions Council will require an environment report from the Environmental Protection Authority (EPA) at the second stage of the Building Rules Consent. (Note this is not a requirement as the proposal is not a change from a non-sensitive use to a sensitive use).
- In response to Jo McKinnon and Kym Smith's concerns regarding farming chemicals and fire danger and health hazards from burn-offs. Chemical use and burn-offs are strictly regulated by Council and are operationally managed.
- In response to John Clark concerns with the intensification of use. The intent for the proposal is not to expand to large operations on site as it acts as a representative of the company located in VIC to SA farming markets.
Horticulture will be conducted on the site and the two greenhouses of the four greenhouses closest to Talbot road will be built first.

5.3 Statutory Referrals

No statutory referrals were required for this proposal.

6. Key Issues

The following matters are considered pertinent in reaching a recommendation for the proposal:

- Whether the proposed development is appropriate in the Primary Production Zone;
- Whether the development will create an adverse impact and conflict between land uses;
- Whether the development will cause flooding in the locality.

7. Planning Assessment

7.1 Whether the proposed development is appropriate in the Primary Production Zone

The existing land uses within the locality consist of primary production albeit there appears to be tendency toward rural living and horse keeping. Outside of the immediate locality, within the general locality, allotments generally feature detached dwellings, ancillary outbuildings, glass houses and various sized crops. The potential future land uses desired in the locality are for farming and horticultural and development directly associated with the agricultural industry or the handling, packaging or processing of primary produce.

Industry (e.g packing, bottling, processing, and freezing) and warehousing is only acceptable in the Zone where there is a direct relationship with primary production. Furthermore, industry and warehousing is only acceptable where it is unlikely to limit or inhibit the use of adjoining land for primary production and requires a site in proximity to agricultural produce and would be inappropriate within a township.

The Zone requires shops are ancillary to primary production and located on the same site as the primary use. The Zone also requires that dwellings should only be developed if there is a demonstrated connection with primary production and will not inhibit the continuation of primary production or other development that is in keeping with the provisions of the zone.

The proposed office with ancillary shop and packing shed will also support the continuation of the primary production activities not only on the land but has the potential to encourage and future expansion of primary production in the area, further reinforcing the desired land uses in the locality. This is considered to satisfy Objectives 1,3,6 and 7 and PDCs 1, 4 (a),(b),(d),and 5(a),(b),6(a),(b),(d),7,(a),(b), 11 and 13 of the Primary Production Zone.

The height of the proposed packing and implement sheds are 7 metres in total height at the gables. Primary Production Zone PDC 14 (a) requires a maximum height of 6 metres for buildings in the Zone. Generally this height is to ensure buildings should not detract from the rural character of the locality in terms of built form elements.

The difference of 1 metre in height over setback distances of over 21 metres from Tozer Road and 57 metres from Talbot Road and 96 metres from the dwelling to the north. The sheds will be screened by the greenhouses and existing dwelling and in any case the proposed tree planting along the boundaries will eventually screen the proposed sheds from the two roads.

Notwithstanding this the bulk and scale of the buildings are expected in primary production areas that feature modern agricultural practices.

Aside from not satisfying Primary Production Zone PDC 14 (a) The proposal directly supports primary production and the built form is characteristic of what is expected in the Zone and therefore is considered to satisfy Zone Objectives 1, 2, 3 and PDCs 11. The setbacks from boundaries of the proposed buildings satisfy PDC 14(b), and PDC 15 of the Primary Production Zone.

In terms of land use and built form the proposal is appropriate in the Primary Production Zone.

7.2 Whether the development will create an adverse impact and conflict between land uses

Development should be located and designed to minimise adverse impact and conflict between existing and potential future land uses desired in the locality. Desired land uses should also be protected from the encroachment of incompatible development.

Development should also not detrimentally affect the amenity of the locality or cause unreasonable interference through the emission of effluent, odour, smoke, fumes, and dust or other airborne pollutants, noise, vibration, electrical interference, light spill, glare, hours of operation or traffic impacts

The proposed development is located within a primary producing area. Whilst the proposal is relatively intensive on a parcel which is not as large as is typical for primary production the impacts in terms of noise from activities and traffic generated is well within what is expected in a primary production area. The hours of operation between 7am to 5pm are within normal business hours. In terms of traffic generated by the activities, 4 medium sized trucks equates to 8 trips a day with a further 14 trips by employees which has a light traffic impact on the surrounding road network and not unexpected in a primary production area.

The proposed use of the land is consistent with the existing and potential future land uses of the locality. Given the hours of operation are restricted to business hours, the proposed land use is appropriate given the proximity of nearby dwellings.

In their Representation Representors Jo McKinnon and Kym Smith have expressed concerns relating to spray drift. Whilst this is a reasonable concern for residents in primary production areas the proposed activities are typical and encouraged in the Zone which in Waterloo Corner is characterised by greenhouses and open air horticulture.

Notwithstanding this, spray drift is controlled by legislation and chemical spraying should be practiced in a manner to avoid off-site contamination. Chemical spraying requires to be undertaken by a licenced operator and is regulated under the *Controlled Substances (Pesticides) Regulations 2003* which is regulated by Primary Industries South Australia. Under the Regulations, chemical spraying can only be undertaken under prescribed weather conditions within prescribed buffers with appropriate and maintained equipment. Trespass of chemicals over property boundary lines is an offence and it should not be assumed that the Applicant will misuse chemicals and commit an offence.

Representors Jo McKinnon and Kym Smith also expressed concerns relating to fumes from burning off. The burning off of waste does not form part of the proposal and it also requires Council to issue a permit for the activity. This is subject to the requirements of the *Environment Protection (Air Quality Policy) 2016*. Nevertheless, the proposal includes the separation of waste and the removal of waste twice a month. It is unlikely there will be a need for the operators to require burning.

The proposal is considered to satisfy Zone PDCs 17(a), (b) and Objectives 1, 2 and 3 of the *Interface Between Land Uses* in the General Section of the Development Plan including PDCs 1, 2 and 14.

On this basis, it is considered that the proposed development will not create an adverse impact and conflict between land uses.

7.3 Whether the development will cause flooding in the locality

The Horticulture West Policy Area requires Water Sensitive Urban Design (WSUD) systems, including the harvest, treatment, storage and reuse of storm water to be integrated within the site and building level.

All three Representations expressed concerns the built form will create localised flooding. As there is no adequate street infrastructure to accommodate any runoff from hard surfaces in the locality, Councils Engineers required all stormwater run-off from hard surfaces be contained on site. Following a number of versions of the Stormwater Management Plan (SMP), Councils Storm Water Engineer accepted the latest version as the plan and proposed basin and rainwater tanks achieves the retention of run-off from the land.

A condition to reaffirms the proposed development is constructed in accordance with this accepted version of the SMP will ensure the development does not cause flooding of the adjacent roads or neighbouring properties.

The adoption of the SMP will also ensure the proposal meets the General Section *Natural Resources* Water Sensitive Design as it captures and re-uses stormwater; minimises surface water run-off; prevents soil erosion and water pollution. It also protects existing public system from damage during a minimum of a 1-in-100 year average return interval flood

The development will not cause flooding in the locality and the proposal is considered to satisfy Zone PDCs 17(a), (b) and Objectives 1 and 4 of the *Hazards* in the General Section of the Development Plan and PDC 1(c) and 5 of *Infrastructure* and Objectives 6(b),(d),(e),(f),7 and PDCs 5,7(a),(b),(f),8(b),9,10,11,12,14(a),(b),(i),(iii),24(a),(b),(d),(j), 25,29(b) and (c).

8. Conclusion

The proposal for the greenhouses, implement and packing sheds, ancillary office and sales room, facilitates and supports primary production in the Primary Production Zone satisfying the Objectives and envisaged uses in the Zone. The proposed land use and built form the proposal is appropriate in the Primary Production Zone.

The proposed operations are expected in the Zone and hours of operation the proposed development will restrict impacts to normal business hours and will not create an adverse impact and conflict between the subject land and allotments within the locality that are used as rural living allotments.

Council's Stormwater Engineer has reviewed the proposed Stormwater Management Plan and is satisfied that stormwater runoff from the development the will not cause flooding on local roads or neighbouring properties.

Having considered all the relevant Objectives and Principles of the Development Plan, the proposal is not considered to be seriously at variance with Council's Development and warrants Development Plan Consent.

9. Recommendation**STAFF RECOMMENDATION**

That pursuant to the authority delegated to the Council Assessment Panel by the Council, it is recommended that the Council Assessment Panel:

- A. DETERMINES that the proposed development is not seriously at variance with the policies in the City of Playford Development Plan; and
- B. GRANTS Planning Consent to the application by City of Playford for the Construction of an implement shed, packing shed, office, sales room associated with horticulture, two (2) greenhouse buildings and shade sail structure at 2 Talbot Road, Waterloo Corner, as detailed in Development Application No. 292/985/2019 subject to the following conditions:

1. The development must be undertaken, completed and maintained in accordance with the plan(s) and information detailed in this Application except where varied by any condition(s) listed below;

2. The hours of operation herein approved are as follows:

7am to 5pm

Any variation to these hours of operation will require a further consent.

Reason: To minimise the impact on adjoining properties.

3. Any proposed new crossing place or alterations to a crossing place shall meet the minimum standard of design and construction as detailed on City of Playford drawings.

These are available from Councils website under www.playford.sa.gov.au/standarddrawings

Reason: To maintain consistency of the streetscape and protect the infrastructure within the road verge.

4. All storm water shall be managed on site in accordance with ;

- Harnett Engineering *Storm Water Plan*, Job Number HE15719/Date 06/07/2020
- Harnett Engineering *Engineering-Storm Water Management*, Job Number HE15719/Revision C October 2020

so that it does not flow or discharge onto land of adjoining owners or, in the opinion of Council, detrimentally affect structures on this site or any adjoining land.

Reason: To ensure storm water is disposed of in a controlled manner.

5. The greenhouse and associated structures herein approved as part of this Application must be maintained in a reasonable condition to the satisfaction of Council.

Reason: To ensure that the greenhouse and associated structures do not become unsightly

6. Hazardous substances/chemicals/fuels storage shall comply with the best practices guidelines for the storage and handling of such materials to the reasonable satisfaction of Council and other relevant bodies.

Reason: To minimise the impact on adjoining properties.

7. No waste materials, including biological waste and hard waste shall be stored on site for more than 30 days. Within this period, biological waste shall be stored in sealed bins or containers and hard waste shall be contained in a tidy and sightly manner until it is removed from the site.

Reason: To minimise the risk of disease and pollution and to preserve the amenity.

8. Any lighting on the subject land must be directed and screened so that overspill of light is avoided, does not create a nuisance to adjoining properties and motorists are not distracted.

Reason: To minimise the impact on adjoining properties and drivers.

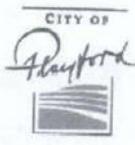
CALL
(08) 8266 0333

POST
12 Bishopstone Road
Davoren Park SA 5113

EMAIL
playford@playford.sa.gov.au

VISIT
Playford Civic Centre
10 Playford Boulevard
Elizabeth SA 5112

Stretton Centre
307 Paschoy Road
Munno Para SA 5115



DEVELOPMENT APPLICATION FORM

1. Application type

Planning and building consent

Planning consent only

Building consent only (Schedule 1A)

Building consent privately certified

Residential Code (Council assessed)

2. Applicant details

Family name: VU Given name/s: TRAN MINH

Postal address: 2 Talbot Rd Waterloo Corner SA Post code: 5110

Email: minhngmp68@gmail.com Phone: 0723 009 707

3. Owner details

As above

Family name: VU Given name/s: TRAN MINH

Postal address: 8 Sage Ln, Point Cook VIC Post code: 3030

Email: minhngmp68@gmail.com Phone: 0283 000 707

4. Contact person for further information

As per applicant/owner

Family name: TRAN Given name/s: NHAN (MICHAEL)

Postal address: U 25-2 MIDDLETON DRIVE SEATON Post code: 5023

Email: TTN UUU @YAHOO.COM Phone: 0750 667 422

5. Description of proposed development

Description of development: NEW BUILD: FARM NYLON HOUSE @ PACKAGING SHEDS
(eg. dwelling, verandah)

Intended use: FAEMING + PACKAGING PRODUCTS

Floor area (SqM): 950 M² Building rules classification sought:
(eg. 7a, 7b)

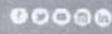
Development cost: \$

6. Location of proposed development

House No: Lot No: Title Volume/Folio:

Street: 2 TALBOT RD. Suburb: WATERLOO CORNER Post code: 5110





playford.sa.gov.au

7. Work type	
<input checked="" type="checkbox"/> New build	<input type="checkbox"/> Addition or alteration
<input type="checkbox"/> Demolition	<input type="checkbox"/> Other (Please specify)
Wall / Wall Cladding	
<input type="checkbox"/> Brick veneer	<input checked="" type="checkbox"/> Colorbond or steel
<input type="checkbox"/> Fibro-cement	<input type="checkbox"/> Not applicable
<input type="checkbox"/> Other (Please specify)	
Floors	
<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Timber
<input type="checkbox"/> Other (please specify)	
Roof	
<input checked="" type="checkbox"/> Colorbond or steel	<input type="checkbox"/> Tiles
<input type="checkbox"/> Not applicable	<input type="checkbox"/> Other (please specify)
Frame	
<input checked="" type="checkbox"/> Steel	<input type="checkbox"/> Timber
<input type="checkbox"/> Other (please specify)	

8. Builder/supervisor details		Registration no:
Family name: <u>TBA</u>	Given name/s:	
Postal address:	Post code:	
Email:	Phone:	

9. Applicant Declaration

Building Near Power Lines and Underground Cables
 I declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 95 of the *Electricity Act 1996*. I make this declaration under clause 2A(1) of Schedule 5 of the *Development Regulations 2008*.
 NB: If this declaration is not made, a referral to the Office of the Technical Regulator is required.

Copyright of Plans
 I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the *Development Act 1993* and *Regulations 2008*. This includes display on Council's website and electronic media.

Street Infrastructure and Driveways / Entranceways
 I declare that I have examined the site of the application and drafted site plans and drainage plans for my proposal and to the best of my understanding acknowledge the proposed entranceways, crossways and driveways are not less than one (1) metre from existing or proposed street infrastructure. In the event that a proposed entranceway, crossway and/or driveway is less than 1 metre from existing or proposed street infrastructure, I will amend any such proposal to comply with the one (1) metre clearance required from such street infrastructure. I understand that the City of Playford is not obligated to relocate any street infrastructure as a result of my development proposal, and is not liable to meet any costs associated with the relocation of any street infrastructure.

Applicant's Signature: [Signature] Date: 20.06.19

10. Payment information

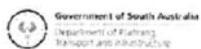
CREDIT CARD PAYMENT – CARD TYPE: Visa Mastercard

Card number:

Expiry Date: ____/____/____ Cardholder's Name: _____

Amount: _____ Signature: _____





Product	Register Search (CT 5618/923)
Date/Time	17/05/2017 07:48AM
Customer Reference	AUSTWIDE R/E
Order ID	20170517000208
Cost	\$27.75



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 5618 Folio 923

Parent Title(s) CT 2981/74
Creating Dealing(s) CONVERTED TITLE
Title Issued 01/02/1999 **Edition** 7 **Edition Issued** 09/12/2015

Estate Type

FEE SIMPLE

Registered Proprietor

THANH HIEN NGUYEN
HUE THI NGUYEN
OF 7 ANJANTO ROAD WATERLOO CORNER SA 5110
AS JOINT TENANTS

Description of Land

ALLOTMENT 9 DEPOSITED PLAN 6078
IN THE AREA NAMED BOLIVAR
HUNDRED OF PORT ADELAIDE

Easements

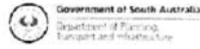
NIL

Schedule of Dealings

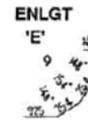
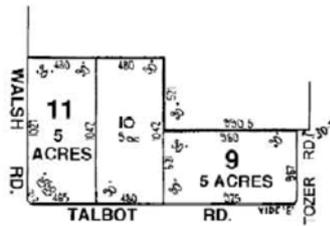
Dealing Number	Description
12420299	MORTGAGE TO WESTPAC BANKING CORPORATION (ACN: 007 457 141)

Notations

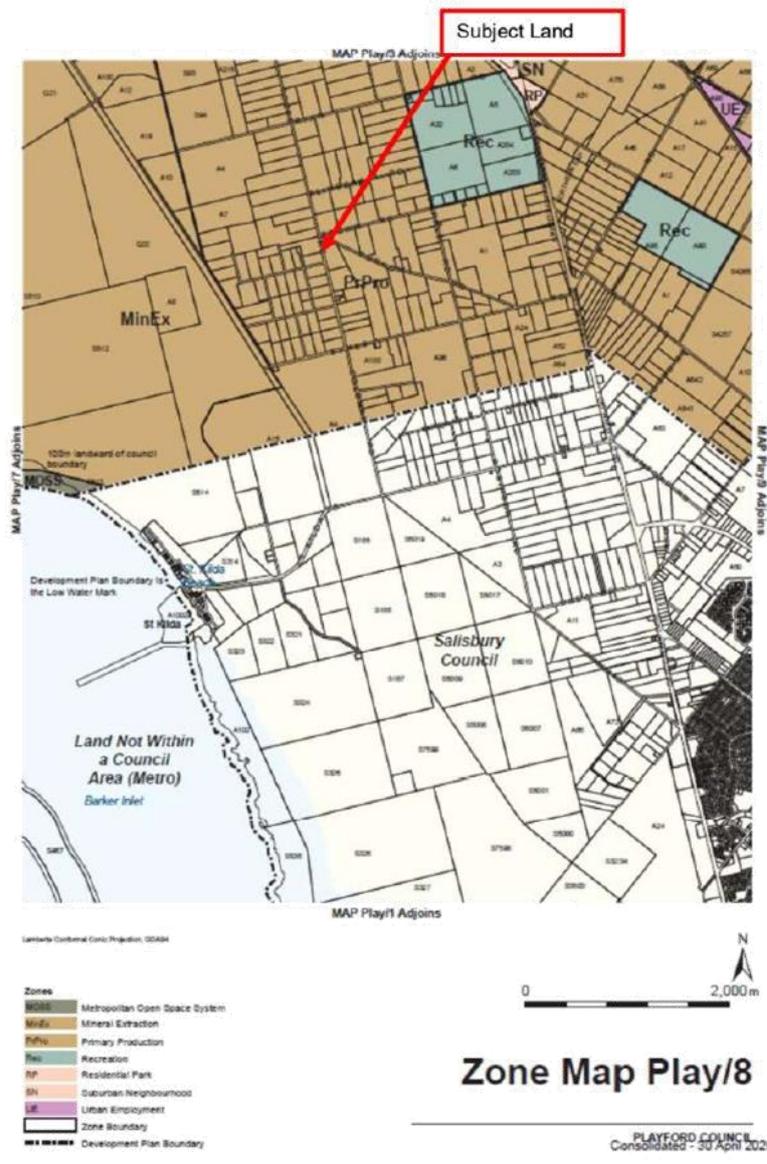
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

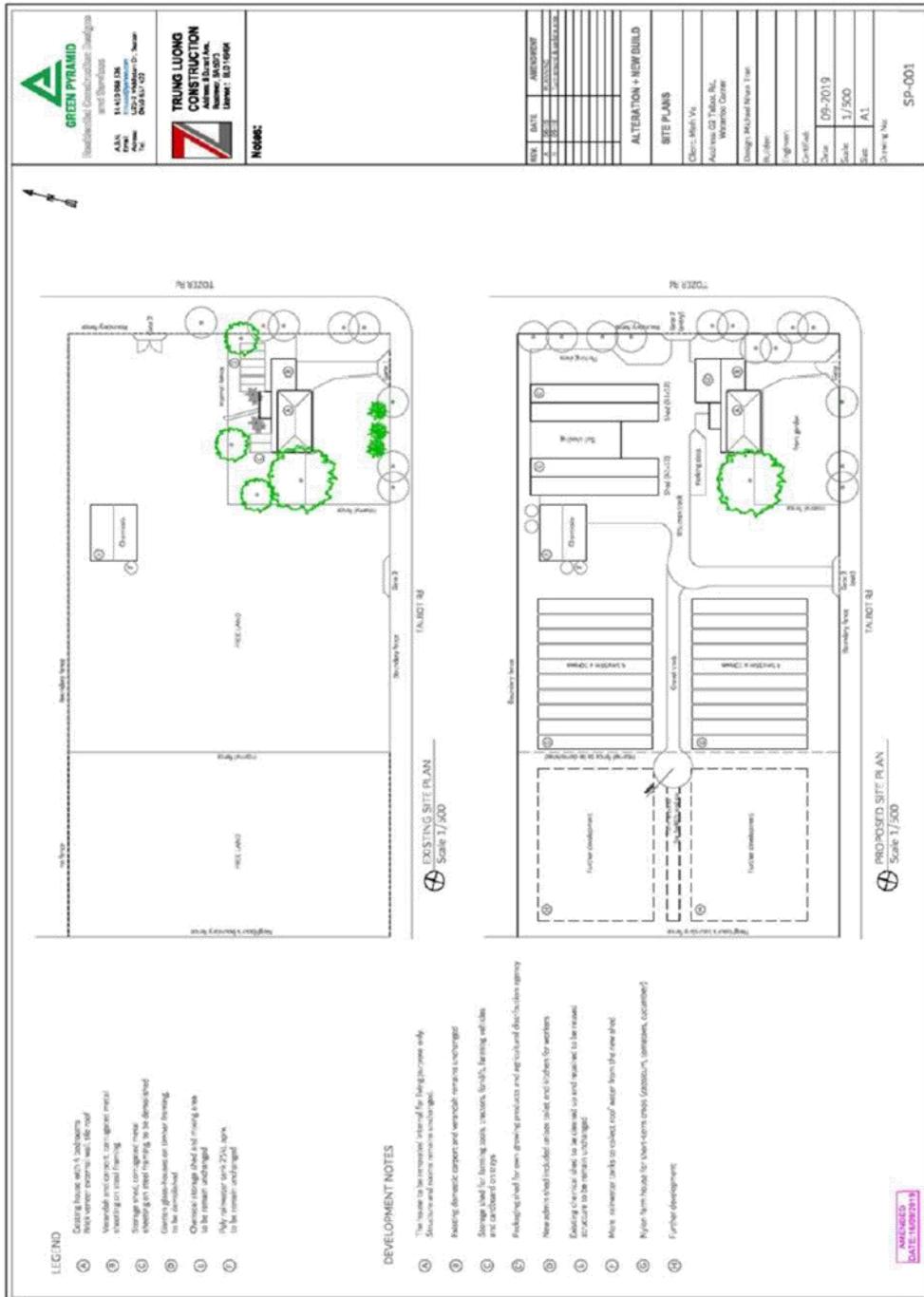


Product Register Search (CT 5618/923)
 Date/Time 17/05/2017 07:48AM
 Customer Reference AJSTWIDE R/E
 Order ID 20170517000208
 Cost \$27.76



FOR METRIC CONVERSION	
1 LINK	= 0.201168 METRES
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404686 HECTARES
1 ROOD	= 1011.7 m ²
1 PERCH	= 25.29 m ²





GREEN PYRAMID
 Residential Construction Designers
 and Developers
 14120813K
 A.N.
 P.O. Box
 1224 Malvern, Vic. 3009
 Tel: 08 8371 027

TRUNG LUONG CONSTRUCTION
 14120813K
 A.N.
 P.O. Box
 1224 Malvern, Vic. 3009
 Tel: 08 8371 027

Notes:

NO.	DATE	DESCRIPTION
1	05-2019	Issue for tender
2	05-2019	Issue for tender
3	05-2019	Issue for tender
4	05-2019	Issue for tender
5	05-2019	Issue for tender
6	05-2019	Issue for tender
7	05-2019	Issue for tender
8	05-2019	Issue for tender
9	05-2019	Issue for tender
10	05-2019	Issue for tender

ALTERATION + REBUILD

SITE PLANS

Client: MWH Vics
 Address: 25 Talbot St, Werribee Centre
 No./Rm:
 Designer: Michael Neve Tra
 Engineer:
 Certified:
 Date: 05-2019
 Scale: 1/500
 Size: A1
 Drawing No: SP-001

- LEGEND**
- 1 Existing house with 4 bedrooms, three carport, and 180' roof
 - 2 New 4 bedroom house, two carport, metal structure, 180' roof
 - 3 Storage shed, corrugated metal structure, 180' roof, to be demolished
 - 4 Concrete slab on ground, 180' x 180'
 - 5 Concrete storage shed, 180' x 180'
 - 6 Polyurethane 20% spray, to be re-apply

DEVELOPMENT NOTES

- 1 The house to be incorporated into a 180' x 180' structure and existing concrete structure.
- 2 Existing concrete carport and concrete structure to be demolished and replaced with a new structure.
- 3 Storage shed for farming tools, tractors, trucks, farming vehicles and associated storage.
- 4 Proposed shed for farm growing products and agricultural distribution space.
- 5 New shed to be included within shed and tractors for workers.
- 6 Existing concrete shed to be demolished and replaced with a new structure to be replaced with a shed.
- 7 New concrete slab to be laid on top of the existing concrete slab.
- 8 Nylon form house for 180' x 180' (existing, concrete, concrete).
- 9 Further developments.

APPROVED DATE: 05/2019

GREEN PYRAMID
Sustainable Construction Design
144-11000 130
144-11000 130
144-11000 130
144-11000 130
144-11000 130

TRUNG LUONG CONSTRUCTION
Address: 1A-073
Phone: 84-90542-4322
Licence: BLD 18694

NOTES:

REV.	DATE	REVISION
1	01-2021	Issue for public comment
2	01-2021	Revised drawings and details
3	01-2021	Final drawings and details

ALTERATION + NEW BUILD

PROPOSED ELEVATIONS

Client: Minh Vu
Address: 07 Talbot Rd, Waterloo Corner
Design: Michael Nhan Tran
Builder:
Engineer:
Certificate:
Date: 01-2021
Scale: 1/500
Site: A1
Drawing No: PE-001

DEVELOPMENT NOTES

- A. This house to be indicated internal for living purpose only. Structure and rooms remains unchanged.
- B. Carport remains unchanged.
- C. Storage shed for farming tools, tractors, bushy, and cardboard on jacking.
- C. Parking shed for self-product parking and agency.
- D. New white shed included under table.
- E. Existing frame of shed to be repaired without iron roofing structure for pesticides and compost.
- F. Nylon farm house for hydraulic farming (tomatoes, cucumbers).
- G. Farm houses for further development.

SECTION OF THE PACKING SHED
Scale 1/500

EAST ELEVATION (internal)
Scale 1/500

EAST ELEVATION (from Toser Rd)
Scale 1/500

SOUTH ELEVATION (internal)
Scale 1/500

SOUTH ELEVATION (from Talbot Rd)
Scale 1/500

Development: Horticulture greenhouses and packing shed

Address: 02 Talbot Rd., Waterloo Corner, SA 5110

Land Use

- Operation days: normally Monday to Friday, including Saturday at peak harvesting times.
- Operation hours: from 9am to 5pm in Winter, 7am to 3pm in Summer
- Number of employees: around 5-6 full-time employees for farming and packing. For harvest peak-time, farming contractor will be employed.
- Activities: farming, packing, delivering
- Types of produce: hydraulic farming for tomato and capsicum

Packing shed operation

- For packing operation, seasonal vegetables are mainly sourced from 20-40 greenhouses and nearby local farms in 20km radius (from Waterloo Corner, Virginia, Penfield Garden to Angle Vale)
- Onsite and local vegetables will be delivered to the packing shed by forklift or truck on pallets and bins.
- Packaging has been manufactured and provided from Melbourne before stored in the other shed.
- Products will be classified and labelled to cardboard boxes, stacked on pallet before delivered to the market.

Waste

- Wastes will be classified to green, recycled and general waste.
- 3 commercial front-lift bins will be emptied twice a month.

Chemicals

- Chemical containers to be managed by DrumMUSTER programme
- Chemical waste to be disposed by ChemClear programme

Stormwater

- Rainwater from 2 new sheds and the inner block of greenhouses will be collected to 3x25kL rainwater tank
- Rainwater from the new admin shed and the existing house will be collected to 10kL rainwater tank
- Rainwater from the outer block of greenhouses will be discharged to street water table
- Overflow water from concrete surface will be collected to grating pits then discharged to street water table.

Earthworks

- The site will be levelled for horticulture greenhouses and concrete flatform
- The new ground finished level and internal traffic will be the same as street level with 0.5 degree slope up to inside
- Employee and guest's carpark will be gravelled at the first stage of development.

Traffic

- Light truck 2 axes which contains maximum 14 pallets
- Frequency of traffic: depends on harvesting times, approximately 4 trucks per usual day (2 at morning session, 2 at afternoon)
- Parking area and farm lane shall be levelled by compacted rubble and gravel to avoid land erosion.



ENGINEERING REPORT

- STORM WATER MANAGEMENT

ADDRESS: 2 TALBOT ROAD, WATERLOO CORNER, S.A.

CLIENT: MINH VU

JOB NUMBER: HE15719

OCTOBER 2019

REVISION A MAY 2020

REVISION B JULY 2020

REVISION C OCTOBER 2020

HARNETT ENGINEERING

SAM HARNETT BE.Hons (UniSA), MIEAust, NER.

34 MAIN NORTH ROAD

WILLASTON SA 5118

PHONE: 0402 518 871

EMAIL: sam@harnettengineering.com.au

Design Brief – Statement

This report contains advice supplied by Harnett Engineering for the design of stormwater management. Should the owner have any issues with any part of this service then the owner must contact Harnett Engineering in writing prior to any commencement of any work in order to determine if an adjustment is required to the design brief.

Design Brief

The design brief used for the design of stormwater management by Harnett Engineering and for building projects is to complete the minimum design requirements in accordance with the latest Building standards of Australia and any other relevant building rules/codes at the time of this reports production.

INDEX

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1.0 INTRODUCTION & ASSUMPTIONS

The proposal for this site is to construct 2 farm sheds, nylon green housing and an associated gravel car park and bitumised driveway. The aim of this report is to determine the stormwater detention requirements for the site and provide a storm water management plan. The site is currently predominantly vacant with an existing house and shed and a larger storage shed.

The sites area is approximately 20356m² or 2.0356ha



Please refer to storm water management drawing/s.

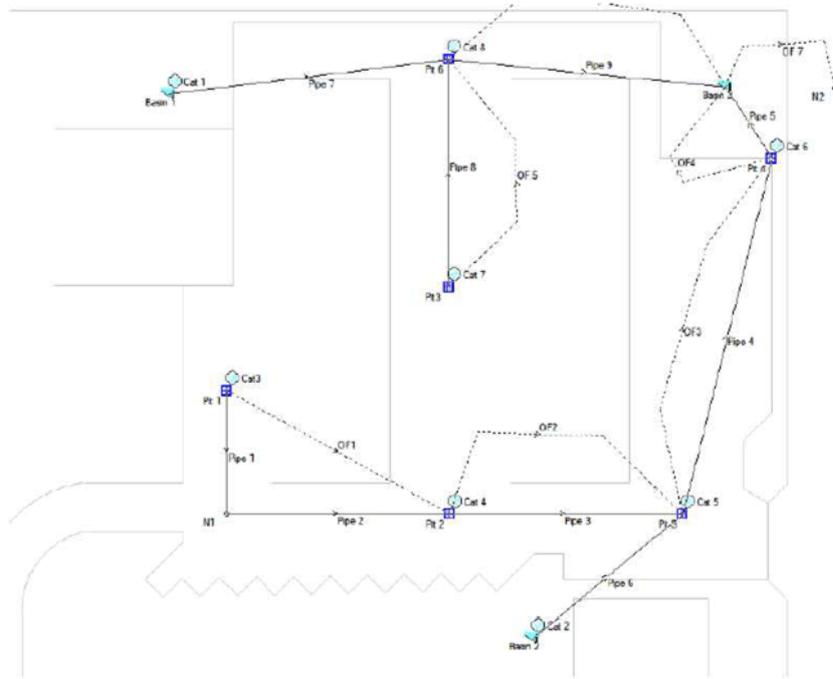
Assumptions

- There is little chance of overflows from the street gutter coming through the property.
- Roof water is collected from the vertical downpipes. Each downpipe can be assumed to drain the associated roof.
- All pipes are PVC (plastic pipes, $k=0.015\text{mm}$)
- Roofed area, $C_i=1$, unroofed, impervious, paved area, $C_i=0.9$, Unroofed pervious area, $C_i=0.1$

2.0 STORMWATER MANAGEMENT

2.1 Post Development Site Discharge and DRAINS Analysis

A DRAINS model was created for the proposed site. The DRAINS model was run for a range of storms for a 1% AEP to find the critical storm event. The DRAINS model can be seen below.



L

SUB-CATCHMENT DETAILS																					
Name	Picor Node	Total Area (ha)	Paved Area %	Grass Area %	Supp Area %	Paved Time (min)	Grass Time (min)	Supp Time (min)	Paved Length (m)	Grass Length (m)	Supp Length (m)	Paved Slope (%)	Grass Slope (%)	Supp Slope (%)	No Pipes	Pipes	Pipes Chg from At Chg	Chg (m)	RL (m)	Gutter Slope %	Gutter Flow Rate Multiplier
Cat 7	Pic 3	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 8	Pic 6	0.04	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 3	Pic 1	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 4	Pic 2	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 5	Pic 3	0.03	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 5	Pic 4	0.04	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 2	Basin 2	0.02	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cat 1	Basin 1	0.45	100	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PIPE DETAILS																					
Name	From	To	Length (m)	I/S I/L (m)	O/S I/L (m)	D/S I/L (m)	Slope (%)	Type	Dia (mm)	I/D (mm)	Rough	Pipes	No Pipes	Pipes Chg from At Chg	Chg (m)	RL (m)	Gutter Slope %	Gutter Flow Rate Multiplier			
Pipe 8	Pic 3	Pic 6	23.2	3.411	2.519	3.84	upVC, unc	90	86	0.03	New	1	Pic 3	0	0	0	0	0	0	1	
Pipe 9	Pic 6	Basin 3	27.541	2.5	1	5.45	upVC, unc	225	242	0.03	New	1	Pic 6	0	0	0	0	0	0	1	
Pipe 1	Pic 1	N1	11.555	4.411	3.911	3.96	upVC, unc	90	86	0.03	New	1	Pic 1	0	0	0	0	0	0	1	
Pipe 2	N1	Pic 2	22.365	3.892	3.392	2.24	upVC, unc	100	105	0.03	New	1	N1	0	0	0	0	0	0	1	
Pipe 3	Pic 2	Pic 3	23.727	3.249	2.349	4.21	upVC, unc	150	154	0.03	New	1	Pic 2	0	0	0	0	0	0	1	
Pipe 4	Pic 3	Pic 4	37.404	2.318	1.5	2.17	upVC, unc	150	154	0.03	New	1	Pic 3	0	0	0	0	0	0	1	
Pipe 5	Pic 4	Basin 3	8.378	1.5	1	5.97	upVC, unc	225	242	0.03	New	1	Pic 4	0	0	0	0	0	0	1	
Pipe 6	Basin 2	Pic 3	19.353	6	2.5	13.09	upVC, unc	150	154	0.03	New	1	Basin 2	0	0	0	0	0	0	1	
Pipe 7	Basin 1	Pic 6	28.428	6	2.5	12.31	upVC, unc	150	154	0.03	New	1	Basin 1	0	0	0	0	0	0	1	

PIT / NODE DETAILS							Version 8
Name	Max HGL	Max Pond HGL	Max Surfa Flow Arriv (cu.m/s)	Max Pond Volume (cu.m)	Min Freeboarc (m)	Overflow (cu.m/s)	Constraint
Pit3	3.7	4.06	0.015	2.1	0.3	0	Inlet Capacity
Pit 6	2.72	3.06	0.02	2.7	0.28	0	Inlet Capacity
Pit 1	4.65	5.06	0.015	2.1	0.35	0	Inlet Capacity
N1	3.96		0				
Pit 2	3.5	4.06	0.015	2.1	0.5	0	Inlet Capacity
Pit 3	2.78	3.06	0.015	2.2	0.22	0	Inlet Capacity
Pit 4	1.99	2.02	0.02	2.7	0.01	0	Inlet Capacity

SUB CATCHMENT DETAILS							
Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)	Supp. Tc (min)	Due to Storm
Cat 7	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat 8	0.018	0.018	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat3	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat4	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat 5	0.014	0.014	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat 6	0.018	0.018	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat 2	0.009	0.009	0	5	0	0	0 1% AEP, 5 min burst, Storm 1
Cat 1	0.207	0.207	0	5	0	0	0 1% AEP, 5 min burst, Storm 1

PIPE DETAILS					
Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm
Pipe 8	0.01	1.72	3.497	2.721	1% AEP, 10 min burst, Storm 3
Pipe 9	0.058	1.44	2.697	1.984	1% AEP, 15 min burst, Storm 8
Pipe 1	0.01	2.12	4.497	3.976	1% AEP, 10 min burst, Storm 3
Pipe 2	0.01	1.73	3.959	3.496	1% AEP, 10 min burst, Storm 3
Pipe 3	0.02	1.2	3.471	2.782	1% AEP, 10 min burst, Storm 3
Pipe 4	0.037	1.97	2.567	1.989	1% AEP, 10 min burst, Storm 3
Pipe 5	0.05	1.09	1.985	1.984	1% AEP, 10 min burst, Storm 3
Pipe 6	0.007	0.77	6.077	2.782	1% AEP, 10 min burst, Storm 3
Pipe 7	0.042	2.27	16.153	2.721	1% AEP, 30 min burst, Storm 4

CHANNEL DETAILS			
Name	Max Q (cu.m/s)	Max V (m/s)	Due to Storm

OVERFLOW ROUTE DETAILS								
Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max D/v	Max W/dt	Max V	Due to Storm
OF 5	0	0	2.459	0	0	0	0	0
OF 6	0	0	1.201	0	0	0	0	0
OF 7	0	0	0.159	0	0	0	0	0
OF1	0	0	2.459	0	0	0	0	0
OF2	0	0	1.201	0	0	0	0	0
OF3	0	0	2.459	0	0	0	0	0
OF4	0	0	0.159	0	0	0	0	0

DETENTION BASIN DETAILS					
Name	Max WL	Max Vol	Max Q Total	Max Q Low Level	Max Q High Level
Basin 3	1.98	639.6	0	0	0
Basin 2	6.37	0.7	0.007	0.007	0
Basin 1	17.97	101.7	0.042	0.042	0

Run Log for MODEL2.drn run at 12:17:46 on 6/7/2020

3.0 WATER BALANCE MODEL

Reference Appendix 4.2C of AS1547 and BOM data.

Values are based on annual averages:

Water balance equation:

$P+CR$	=	$Et + RO + IF + DI + \Delta S$	
P	=	Precipitation	= 536mm/yr
CR	=	Capillary rising flow from a shallow water table	= 0mm/yr
Et	=	Evapo-transpiration from a vegetated soil surface	= 500mm/yr
RO	=	Run off	= 0mm/yr
IF	=	Interflow (Lateral surface seepage)	= 3mm/yr
DI	=	Deep infiltration (groundwater recharge)	= 3mm/yr
ΔS	=	Changes in the amount of water stored in the soil	= 30mm/yr

$$536 + 0 = 500 + 0 + 3 + 3 + 30$$

$$536\text{mm/yr} = 536\text{mm/yr}$$

$$\text{Since, } \Delta S = 30\text{mm/yr}$$

$$= 30\text{L/yr}$$

This will be captured by the retention basin.

Therefore, it is proven that the basin has ample capacity to cater for a 1% AEP storm and subsequent storm.

4.0 CONCLUSION

The site is to retain 639,600L to contain the 1% AEP storm event.

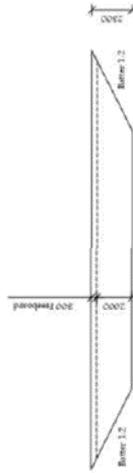
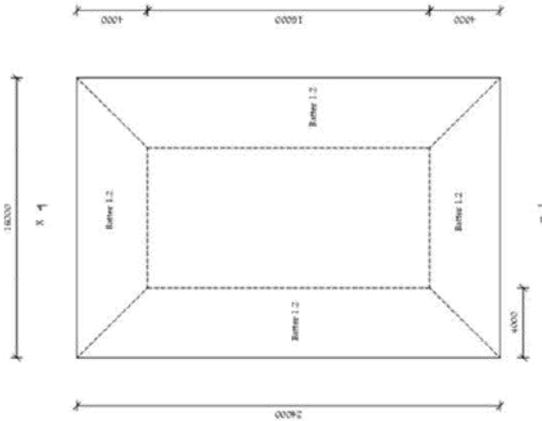
All stormwater from the development is to be directed to the storm water basin and reused for irrigation within the greenhouses.

Refer to the storm water management plan.

GENERAL NOTES

- This plan is to be read in conjunction with all architectural drawings and the site stormwater engineering report.
- Confirm all levels on site to ensure minimum pipe slopes of 1:200 and 1:500 as per the applicable codes and standards.
- All roof stormwater is to be directed to rain water tanks via sealed roof systems.
- The retention basin has a capacity of 620 000L.
- The stormwater retention basin is to retain water for agricultural purposes.
- 1/4" = 1:1000 (Unless otherwise specified)
- All pits are 600x600.

BAWV CAPACITY = 620 000L



HARNETT ENGINEERING		SHEET: Q2/22 DRAWING NUMBER: HES/21/01 REVISION: B DATE: 02/02/2022 SCALE: A3/20mm	
15 ELLENBOROUGH AVENUE CLIENT: BAWV ADDRESS: 171 ALBURY ROAD, WATERLOO CROSSING, SA		© Copyright This drawing is subject to copyright and mechanical copying without consent, whether in part or full is prohibited. Legal action will be instigated against any infringement, without prior approval.	
M. Harnett 171 Waterloo Road Waterloo, SA 5118 Phone: 0842258871			

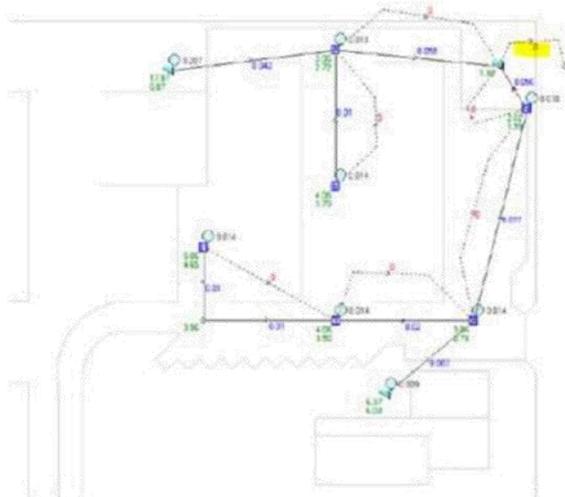
Jamie Hanlon

From: Kean Fai Lau
Sent: Thursday, 25 March 2021 3:22 PM
To: Jamie Hanlon
Subject: RE: Development Application 292/985/2019 - ES civil comments
Attachments: HE15719 - Minh Vu-STORMWATER PLANS 6-7-20.pdf; HE15719 Minh Vu - Stormwater Engineering Report REV C.pdf; RE: Applicants response: FW: 292/985/2019 Number 2 Talbot, Waterloo Corner - the farm shedConstruction of an implement shed, packing shed, office, sales room, two (2)greenhouse buildings & shade sail structure; FW: 292/985/2019 - Further information

Hi Jamie,

As mentioned, the attached plans are consistent with what I have reviewed previously. The proposal has a combination of rainwater tanks and basin (Up to 750kL of storage) with irrigation reuse within the greenhouse to manage the stormwater generated for up to and including 1% AEP (1 in 100 year ARI) major storm event. The stormwater model below shows that there is no stormwater runoff from the site for 1% AEP storm – Highlighted in yellow.

2.1.1 DRAINS Analysis 1 in 100yr ARI



Kind regards,



**Kean Fai Lau | Senior Land Development Engineer
City of Playford**

P: (08) 8256 0473 | M: 0466 502 399
kflau@playford.sa.gov.au
www.playford.sa.gov.au

12 Bishopstone Road, Davoren Park, SA 5113



PlayfordNews.

February 2021



Kean Fai Lau
Senior Land Development Engineer •
City of Playford

P. (08) 8256 0473 • M. 0466 502 399
E: KFLau@playford.sa.gov.au
12 Bishopstone Road, Davoren Park, SA 5113
www.playford.sa.gov.au

**SOUTH AUSTRALIA'S NEW
PLANNING SYSTEM IS NOW LIVE**



From: Jamie Hanlon <JHanlon@playford.sa.gov.au>
Sent: Wednesday, 24 March 2021 4:46 PM
To: Kean Fai Lau <KFLau@playford.sa.gov.au>
Subject: FW: Development Application 292/985/2019

Hi Kean,

This is the amended plan for the Talbot SMP. Is this a 'minor' variation from an engineering perspective?

Regards,



**Jamie Hanlon | Development Officer - Planning
City of Playford**

P: (08) 8256 0327
jhanlon@playford.sa.gov.au
www.playford.sa.gov.au

12 Bishopstone Road, Davoren Park, SA 5113



PlayfordNews.

February 2021



Jamie Hanlon
Development Officer - Planning •
City of Playford

P. (08) 8256 0327 • E. JHanlon@playford.sa.gov.au
12 Bishopstone Road, Davoren Park, SA 5113

www.playford.sa.gov.au

SOUTH AUSTRALIA'S NEW
PLANNING SYSTEM IS NOW LIVE



From: TRAN THIEN NHAN <ttuuu@yahoo.com>
Sent: Tuesday, 23 March 2021 10:03 AM
To: Jamie Hanlon <JHanlon@playford.sa.gov.au>
Cc: d2marks2@internode.on.net
Subject: Re: Development Application 292/985/2019

⚠ **EXTERNAL EMAIL:** Do not click any links or open any attachments unless you trust the sender and know the content is safe. ⚠

Hi Jamie

Regarding to our discussion yesterday, here is the amended revision of storm water report and drawing which show neither discharged pipe to Tozer Rd, nor Talbot Rd.

The engineer has emphasized that the dam has been designed as the "retention" not "detention" dam, hence doesn't need to discharge overflow water to the street.

I also send Cc a copy to Michael Marks.

Kind regards

Michael

Jamie Hanlon

**DEVELOPMENT ACT, 1993
STATEMENT OF REPRESENTATION**

Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/985/2019**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation: Nichol Marks
Postal address: 10a Tozer Rd

Contact telephone No. 0439802907

Nature of Interest / Affected by Development adjoining property
(eg adjoining resident, owner of land in vicinity,
or on behalf of an organisation or company)

Reasons for representation (please attach additional sheet(s) if required) concerns of
Flooding my property as it floods
twice a yr at present due to easement

I support the proposal I do not support the proposal

My representation would be overcome by: _____
(state action sought) (please attach additional sheet(s) if required)
all water to be directed towards
Kalbot Rd, no water to enter 10a Tozer
Rd at all

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO NOT WISH TO BE HEARD

I DESIRE TO BE HEARD PERSONALLY

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY

Name: _____

Signed:



Date: 11/2/2021

Jamie Hanlon

**DEVELOPMENT ACT, 1993
STATEMENT OF REPRESENTATION**
Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/985/2019**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation:

John Clark
197 Curnow Road
Waterloo Corner SA 5110
Ph 0407 391 770

Postal address:

Contact telephone No.

Nature of Interest / Affected by Development
(eg adjoining resident, owner of land in vicinity,
or on behalf of an organisation or company)

Adjacent Resident

Reasons for representation (please attach
additional sheet(s) if required)

Vide the attached letter.

**I do not support the proposed
development**

I support the proposal

I do not support the proposal

My representation would be overcome by:
(state action sought) (please attach additional
sheet(s) if required)

Vide attached letter

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO NOT WISH TO BE HEARD

I DESIRE TO BE HEARD PERSONALLY

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY

Name: _____

Signed:

Date:

[Handwritten signature]

16/2/2021



John Clark
Registered Conveyancer

197 Curnow Road
Waterloo Corner 5110
Phone (08) 8280 8492
Mobile 0407 391 770

16th February 2021

Re :- Application No. 292/985/2019

I have perused the application and offer the following comments.
I note that since the date of this development application (20/06/2019) that the ownership of the property has changed. The current owner is Anders Partner Pty Ltd (ACN 630 095 948), a company registered in Victoria.

This is a substantial development proposal as would be expected in Policy Area 4 Horticulture West.

The Greenhouses as proposed are an appropriate development for this area.

The issue I see is the disposal of rain water runoff from the greenhouses. It is substantial - Over 50% of the 5 acres of land is covered in growing houses/packing sheds meaning approximately 10000 litres of water for each millimetre of rainfall needs to be retained in an onsite dam for irrigation reuse and to avoid the further stressing of the already overloaded water disposal drainage channel adjacent to the subject property which has had extensive council works over the past few years in an effort to alleviate local flooding from occurring which has inundated my property in the past, depriving me of an income from my land. Portion of my land has been covered by over a metre of water due to the areas poor stormwater drainage system. Council Officers are well aware of the stormwater drainage issues associated in Waterloo Corner and in particular my property.

I also note that the subject land has no Underground Water Allocation or a Bolivar Recycled Water Allocation. As such it is my belief that there is no intention to grow on the subject land and the intended use is for a Packing Complex. I note also that over the past year or so the subject land has been used for the storage of greenhouse waste (mainly plastic) which was removed late in 2020. I estimate some 10 – 20 shipping containers of greenhouse plastic were removed. Currently (today) a huge number of chemical drums and other products are stored/dumped on the subject land. This is potential environmental hazard that needs to be resolved immediately.

The packing Shed Complex.

The area in total of Packing Sheds is approximately 1000 Sq Metres. This is very substantial and in line with a wholesale vegetable receiving/processing/packing/distribution business. I believe it is outside the guidelines of Principle 1 of the Horticulture West Policy Area and not in accord with Objective 3. I dispute the hours of operation stated in the application for the packing shed. I have worked in the industry for 35 years. Pressure is always on the packing sheds and the growers to meet tight schedules. Late night packing and processing and working on Sundays are a necessity for any Packing Shed operations. We will see forklifts and trucks being operated into and off the site very late at night. 'Three am' or earlier produce pickups/deliveries are 'normal' for large/any packing sheds. The hours of operation as per the application are not correct and I believe intended to deceive. Most packing sheds must at times work late into the night to meet schedules. This complex is clearly for the processing of produce grown off site and is not appropriate for an area which is substantially residential in nature with some growing activities.

Waste Water – Packing Sheds use large quantities of water depending on the vegetables being processed. There is no provision in this application for waste water treatment or disposal.

Traffic – This development will have an adverse effect on local roads and Tozer/Talbot Roads in particular. I expect trucks of up to 42 tonnes to pick up produce on a daily basis. I suspect predominantly for the Victorian Market.

If any packing complex is to be approved at this site, the packing sheds should be placed West of the existing shed to minimise the impact on local residents. It is too close to Tozer Road. Light spill onto my property and night traffic will have an adverse impact on my dog kennels. I have kept dogs on my premises without incident for some 35 years.

I believe the greenhouses are an acceptable development subject to strict water catchment retaining facilities (dam). All greenhouse runoff water should be retained for re use. The Packing shed Complex should be rejected in its current form. Any Packing Shed approved should be built to the west of the existing shed and restricted to a maximum of 250 Sq Metres. This is not a development appropriate to a two hectare allotment.

Your Sincerely,

John Clark.

Jamie Hanlon

**DEVELOPMENT ACT, 1993
STATEMENT OF REPRESENTATION**
Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/985/2019**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation: Jo McKinnon & Kym Smith
Postal address: 22 Talbot Rd, Waterloo Corner

Contact telephone No. 0400633 243

Nature of Interest / Affected by Development adjoining resident
(eg adjoining resident, owner of land in vicinity,
or on behalf of an organisation or company)

Reasons for representation (please attach
additional sheet(s) if required)

see attached

I support the proposal I do not support the proposal

My representation would be overcome by: The action we would
(state action sought) (please attach additional like is for No greenhouses to be built
sheet(s) if required) in the paddock adjacent to our home and
any burning off to be done at the current
house on the property

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO NOT WISH TO BE HEARD

I DESIRE TO BE HEARD PERSONALLY

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY

Name: _____

Signed: 

Date: 17/2/21

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page]

Reasons for representation:

With a young child and a partner with severe asthma, we are concerned that the use of chemicals and fertilizers combined with the smell so close to our home would have a severely negative impact on our health and standard of living.

We are also concerned about regular burn offs being conducted on the property and the risk this would pose to our health, living standards and the potential fire danger to our home if these burn offs aren't monitored properly.

There is also the issue of extra water being added to the street water table. In the past the Council has pumped water from Tozer Rd into the street drainage along Talbot Rd, resulting in flooding to our front yard and contributed to filling up our septic tank, which resulted in us needing to pay to have it pumped out.

We also feel that having greenhouses so close to our home would impact on our view.

Dear Development Assessment Panel, City of Playford Council

In regarding to the objections and reasons of 3 representors, the owner and I have discussed with them via phone, text message and emails. At the end of the discussion, the result seems to be positive as their concerns have been met to the resolutions. Here are reports for 3 cases:

1. Michael Marks, the adjacent neighbour.

Michael Marks is happy to support the proposal if there will be no overflow pipe from the dam to be discharged to Tozer Rd.

Resolution: The water engineer commented that there is rare chance to discharge water to Tozer road table due to high capacity of the retention dam. However, the engineer was happy to design a manual pump to redirect the pipe to Talbot road.

Result: the representor has received the new drawing, amended and asked for the second design. He then received the final design and was satisfied with it.

2. John Clark, the registered conveyancer

John has written a comprehensive objection letter which clearly pointed out to the weaknesses of the proposal development.

- The name of the property owner
- Storm water management plan
- Grey water meter
- Green house waste
- Packing sheds: scale, operating hours, waste water, heavy traffic
- Position and orientation of the packing sheds

Resolution: I have spoken and emailed to John in order to clarify the intention and benefits of the development to nearby areas. Here are my dot points in that email:

- Anders Partner Pty Ltd is the business name of the investor to this development. The applicant's name on the proposal application is also the owner of that company. His business intention is not substantial as SA Mushrooms or the nearby businesses. It will be only a representative of his company in VIC to SA farming markets.
- Council had required Storm Water Management Plan to be designed by a registered agriculture and water engineer. We have been worked out for a year with 5 amendments to satisfy all standards and regulations. Moreover, the developing rate is only lower than 30% however all runoff water will be collected and reused. In this case, you should believe in Council Planning Team as they are responsible if any problem occurred.
- On this land, we also have grey water meter for irrigation and drinking water supplying to the existing house. In the attachment, there are some photos I have taken in 2019. Therefore, the land is ready for agricultural purposes.
- I have rung the owner for plastic waste, as I didn't see it when I inspected the site. He said they were there temporarily as he had nowhere to store. He said they have been cleared out immediately after that. There were some blue drums on the paddock and a chemical store shed which was empty at the second time I was there in 2020. This is the Cat.2 development, so Council will require us an environment report from EPA. However, it will happen in the second stage of the Building Rules Consent.

- The owner hasn't disclosed much about his business however I could generally clarify it as a designer. The owner wants to have all abilities and flexibilities on his development yet he doesn't decide to focus on which one. There are 2 sheds but only one is for packaging jobs, the other is for cardboard boxes storage as he also wants to trade to the other packaging businesses in this area. He might benefit by selling stuffs from VIC than the vegie packaging business however he must keep them all. Thus, there will be no heavy truck nor overtime intensive working. Due to Covid, border restriction might prevent him from interstate goods shipment.
- Consequently, the development will bring more jobs to local labours from building phases to operation. Nearby farm sheds will have local supplier for cardboard packaging and more opportunity exchanging goods to VIC markets. At the moment, our Australian economy is affected heavily by Covid which creates a huge unemployment problem. This investment is not substantial but essential for Policy Area 4 Horticulture West.

Result: John has received the email and did not respond to it. I assumed that he was happy with my answer.

3. **Jo and Kym.** Adjacent neighbour.

They concerned about farming chemical and burnt hazards. They also don't want overflow water to be discharged to Tozer road. They don't want the greenhouses to be built near their property.

Resolution: I have texted them to explain that chemical, burning and storm water are strictly regulated by Council via design process and operating management. For the greenhouse, we intend to build 2 of the 4, so we could build the 2 that close to Talbot road first.

Result: They replied that they will discuss and reconsider.

Summary of 3 cases: The representors are adjacent neighbours who focus more on to storm water management as they are worry that water run off from Tozer road could overflow back to their property. The owner, sustainable designer and the water engineer are happy to redesign the storm water system in order to minimize that risks. The development will be constructed and operated step-by-step which allows Council to moderate the impact to nearby neighbours and the environment in time.



MINUTES

of

SPECIAL COUNCIL ASSESSMENT PANEL MEETING

Pursuant to the provisions of Section 56A of the Development Act 1993

HELD IN

**COUNCIL CHAMBERS
PLAYFORD CIVIC CENTRE
10 PLAYFORD BOULEVARD, ELIZABETH**

ON

**MONDAY, 3 MAY 2021
AT 6:00PM**

The meeting commenced at 6:00pm.

1 ATTENDANCE RECORD

1.1 Present

MR GEOFF PARSONS – PRESIDING MEMBER

Mr Stephen Coppins Mr Nathan Grantham Mr Paul Mickan
Ms Olivia Franco
(Deputy) (via zoom)

Also in attendance for the meeting:

Manager, Planning Services (Assessment Manager)	Mr Matt Dineen
Senior Development Officer – Planning	Ms Danni Biar
Senior Development Officer – Planning (Major Projects)	Mr Adam Squires
Development Officer – Planning	Mr Jamie Hanlon
Cadet Planner	Ms Laura Goulden
Minute Taker	Ms Sara Howley
System Operator	Mrs Elise Clinton

1.2 Apologies

Nil

1.3 Not Present

Nil

2 CONFIRMATION OF MINUTES**PANEL RESOLUTION****CAP468**

The Minutes of the Council Assessment Panel Meeting held 29 March 2021 be confirmed as a true and accurate record of proceedings.

CARRIED**3 APPLICATIONS WITHDRAWN**

Nil

4 DECLARATIONS OF INTEREST

Nil

5 APPLICATIONS FOR CONSIDERATION – PERSONS WISHING TO BE HEARD**5.1 CONSTRUCTION OF AN IMPLEMENT SHED, PACKING SHED, OFFICE, SALES ROOM ASSOCIATED WITH HORTICULTURE, TWO (2) GREENHOUSE BUILDINGS AND SHADE SAIL STRUCTURE (292/985/2019)**

Representors: Mr M Marks
Mr J Clark
Ms J K McKinnon & Kym Smith

Applicant: T M Vu

PANEL RESOLUTION**CAP469**

Consideration of the application be deferred to seek further additional information, particularly relating to the operation and management of the proposed facility.

CARRIED

5.2 CONSTRUCTION OF AGED PERSONS' ACCOMMODATION FACILITY CONSISTING OF 4 ACCOMMODATION BUILDINGS AND ONE ADMINISTRATION AND SERVICES BUILDING, WITH ASSOCIATED INFRASTRUCTURE, CAR PARKING, LANDSCAPING AND TREE DAMAGING ACTIVITY IN THE FORM OF THE REMOVAL OF 4 SIGNIFICANT TREES AND 16 REGULATED TREES OVER 3 STAGES (DA 292/2631/2020)

Representors: Mr B and Mrs J Penn
Applicant: ACH Group

PANEL RESOLUTION

CAP470

That pursuant to the authority to the Council Assessment Panel by the Council, it is recommended that the Council Assessment Panel:

- A. DETERMINES that the proposed development is not seriously at variance with the policies in the Playford Council Development Plan; and
- B. GRANTS Planning Consent, to the application by ACH Group for "Construction of aged persons' accommodation facility consisting of 4 accommodation buildings and one administration and services building, with associated infrastructure, car parking, landscaping and tree damaging activity in the form of the removal of 4 significant trees and 16 regulated trees over 3 stages" at Lot 47 Oldham Road and Lot 48 Mark Road, Elizabeth South as detailed in DA 292/2631/2020 subject to the following:

Conditions:

1. The development must be undertaken, completed and maintained in accordance with the plan(s) and information detailed in this Application except where varied by any condition(s) listed below.

Reason: To ensure that the development is constructed and operated in accordance with the plans and details provided.

2. Forty four (44) trees must be planted on the land to replace the trees herein approved for removal. These replacement trees shall be maintained in good condition at all times, to the satisfaction of Council. Replacement trees cannot be within a species specified under Regulation 3F(4)(b) of the *Planning, Development and Infrastructure (General) Regulations 2017*.

At the request of the applicant, payment may be made into the City of Playford Urban Tree Fund at the prescribed rate calculated in accordance with the Regulation 59(1) of the *Planning, Development and Infrastructure (General) Regulations 2017* and Part 5 (27) of the *Planning, Development and Infrastructure (Fees, Charges and Contributions) Regulations 2019*, in lieu planting 1 or more replacement tree (with the relevant number of required replacement trees adjusted accordingly).

Reason: To ensure compliance with the legislative requirement for the planting of replacement trees, pursuant to Section 127(1)(a) of the Planning Development and Infrastructure Act 2016.

3. The western boundary fence shall be installed prior to occupation of the site, in accordance with WSP Noise Assessment Report and updated correspondence dated 22 April 2021.

Reason: to ensure the residential amenity of the occupants is maintained.

4. All driveways, parking and manoeuvring areas must be formed, sealed with concrete, bitumen or paving, and be properly drained. They must be maintained in good condition thereafter.

Reason: To ensure useable and safe carparking.

5. All waste collection from the designated refuse area shall occur between 9.00am and 7.00pm on Sundays and Public Holidays; and between 7.00am and 7.00pm on any other day.

Reason: To ensure waste collection does not impede the amenity of the locality and that waste is managed in accordance with the plans and details provided

6. All lighting shall achieve relevant Australian Standards for the lighting of roads and public spaces and control of obtrusive effects of outdoor lighting.

Reason: To ensure that lighting does not impede the amenity of the locality.

7. Permeable fencing and/or low level landscaping below the 1.1m height standard specified in Austroads, shall be installed around the driveways to ensure safety for vehicles, pedestrians on Mark Road, confirmed in correspondence from GTA dated 22 March and Brown Falconer Porte Cochre Plan dated 18 March 2021.

Reason: to ensure vehicle and pedestrian safety.

8. All existing line marking, signage and curbing on Mark Road and Coglin Road shall be reinstated where necessary to ensure compliance with relevant Australian Standards and to the reasonable satisfaction of Council.

9. Prior to the construction of external works, detailed design plans of external works shall be provided to Council for approval.

10. Appropriate line marking, DDA pram ramps and signage shall be provided within the proposed carpark areas, e.g. drop-off zones, no entry, arrow line marking (one way), pedestrian crossing signs, private carpark sign etc., to the reasonable satisfaction of Council.

Reason: to ensure vehicle and pedestrian safety.

11. Landscaping is to be established in accordance with the approved Landscape Concept Plan prepared by Outer Space dated December 2020, within the first planting season following completion of the relevant stage of development and shall be maintained in good condition at all times, to the satisfaction of Council.

12. As identified in the Stormwater Management Plan prepared by WGA dated 30 April 2021 Revision F, an easement for drainage purposes in favour of Council shall be provided over that infrastructure required to divert overland flows as identified within Appendix I. The easement shall be granted prior to occupation of the proposed development at the full cost of the Developer. The width of the easement shall be to the reasonable satisfaction of Council.

Reason: to ensure Council can obtain access to the infrastructure for drainage purposes.

CARRIED

6 APPLICATIONS FOR CONSIDERATION – NO PERSONS TO BE HEARD

Nil

7 APPLICATIONS FOR CONSIDERATION - CATEGORY 1

Nil

8 OUTSTANDING MATTERS – APPEALS AND DEFERRED ITEMS

Nil

9 OTHER BUSINESS

Nil

9.1 STAFF REPORTS

Nil

10 CONFIDENTIAL MATTERS

Nil

11 DEVELOPMENT PLAN POLICY DISCUSSION FORUM

Nil

12 CLOSURE

The meeting closed at 7:20pm.