

**ARBORICULTURAL IMPACT ASSESSMENT FOR DEVELOPMENT at
165 Alexandra St + 680 682 684 688 East Street East Albury NSW.**

1. INTRODUCTION.

There is planned development by NSW Department of Planning and Environment, Land and Housing Corporation at five joining properties identified as 680, 682, 686, 688 East Street and 165 Alexandra Street East Albury, NSW 2640.

An arboricultural impact assessment is required to support the development application. The development proposes the demolition of the 5 existing dwellings and construction of two new buildings, two story with a total of 24 units/apartments across the existing footprint.

2. SCOPE AND PURPOSE.

The report has been commissioned by Mr. Adam Bower, Land and Housing Corporation Development Manager, Delivery South West Sydney and Southern NSW. He can be contacted on (02) 9374 3650.

The site was formally inspected on Wednesday 31 March 2021 and a preliminary report for development design was provided – dated 5 April 2021.

This report is designed to provide;

- accurate identification of tree vegetation,
- tree condition, including any hazards present
- evaluation of the trees relative to their contribution to the environment, amenity and any other identified values
- proposed development impact on the current tree population
- evaluation of known and potential development impacts on trees to be retained
- recommendations for management of the issues identified and interpretation of Albury City Council (ACC) Development Control Plan 2020 – Preservation of Trees and related requirements.

The following documents were provided as part of the impact assessment.

Site Analysis 165 Alexandra St + 680 682 684 688 East Street East Albury – Development Feasibility. NSW Planning Industry and Environment – plotted date 27/11/2020.

Site Analysis – Development of 24 Units under SEPP Housing 2021. 680, 682, 684, 688 East Street and 165 Alexander Street East Albury, NSW. NSW Planning and Environment Land and Housing Corporation. Brewster Murray Pty Ltd. Drawing – Sketch Design. BM – BGXPC – Sheet DA02 Rev 6.

The Site Analysis provides positive tree numbers, locations and specified Tree Protection Zones. The Site Plan is reproduced at the conclusion of this report.

Interpretation of impacts and recommendations are based on the author's interpretation of *Australian Standard 4970-2009 Protection of trees on development sites.*

- [Diagram 1](#) provides the location of the assessment site within East Albury.

- [Diagram 2](#) provides an overlay of the trees across the existing site with allocated tree numbers.
- [Diagram 3](#) provides allocated tree numbers and comments to the developed Site Plan Site (the proposal) referenced above.
- [Table 1](#) provides details and assessment of the 17 trees across the site with details of impacts
- [Photographs](#) of each tree are provided at the conclusion of the report to aid in identification and relevant assessment details.

3. Site Conditions and Background.

The site currently comprises 5 joining single story dwellings on the 5 cited residential address. Each address is approximately 680 square meters in area. The total development footprint is approximately 3400 square meters.

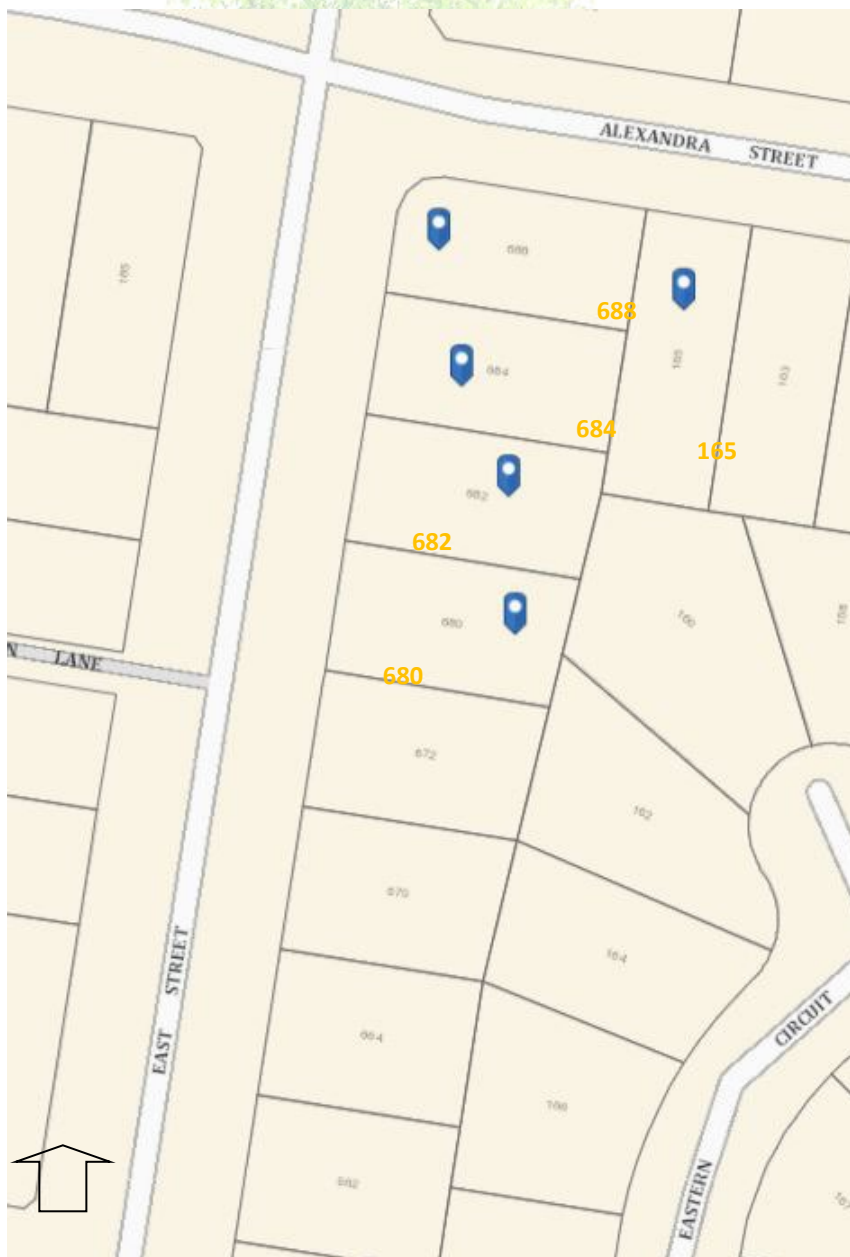


Diagram 1– Location of Assessment site – 5 lots. Property numbers and flags have been added. Adapted from NSW Government Spatial Map Viewer 2020.

There is one large endemic or indigenous tree on the assessment area (Tree 13), the remaining trees are all exotic in origin.

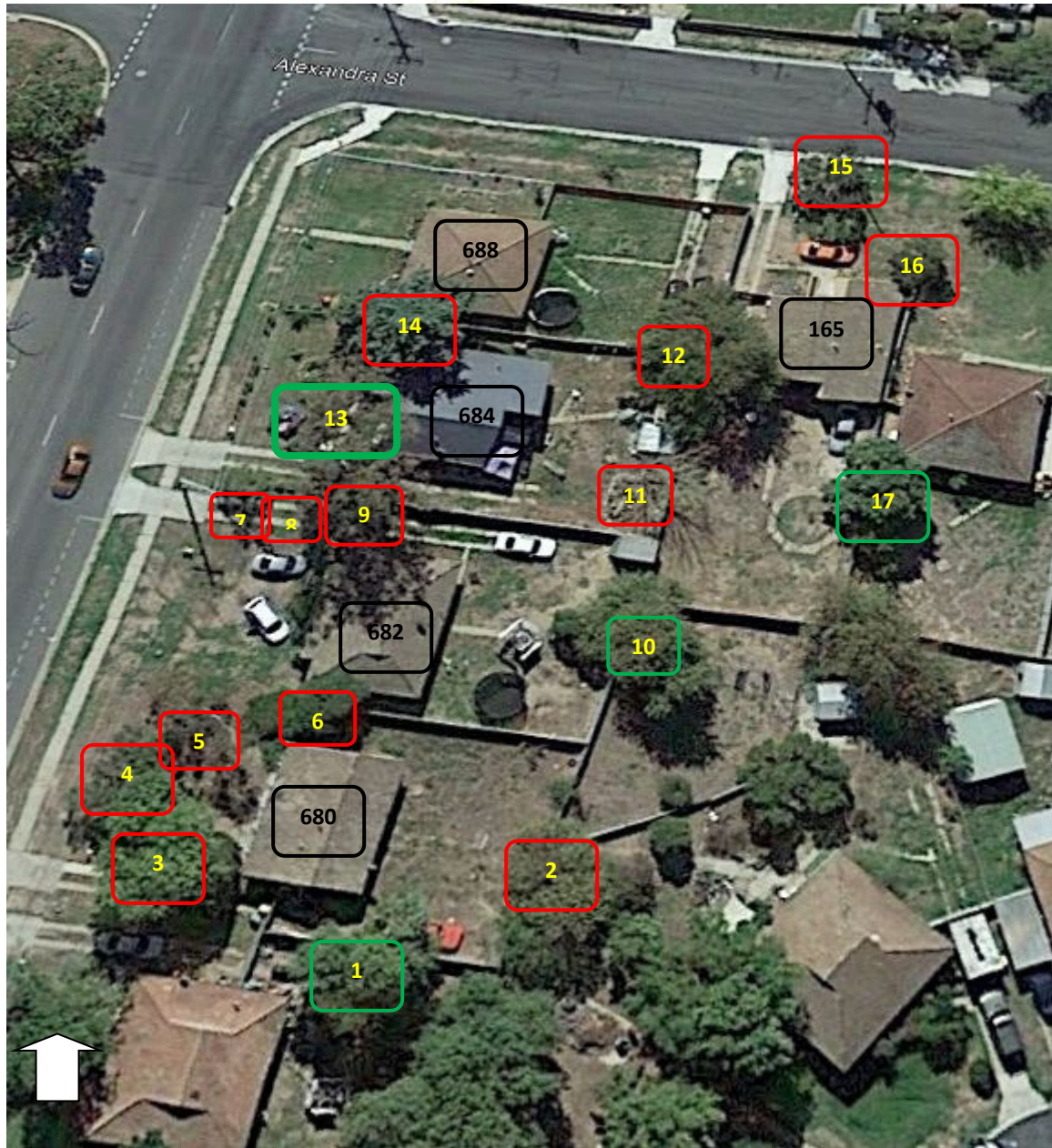


Diagram 2 - Tree numbers and property address have been overlayed on aerial image of assessment site. 17 Trees are identified across the 5 property address.

Green – Development Retention

Red – Development removal.

Adapted from– Google Earth 2021.

**The following Details and Descriptors are used in Table 1
Tree Inspection details.**

Age Class. N= New planting Y=Young Semi =semi mature M=Mature OM=Over mature S=Senescent D=Dead

Dimensions – D =Stem diameter measured at 1.4m above ground in m
H=Height estimated in m. C=Canopy diameter in m.

Condition – Consideration of stem & canopy structure, root system, defects, form, canopy vigour, extent of any decay, pest or disease

Useful Life Expectancy (ULE). The anticipated period of time that the tree is likely to remain a viable asset under current conditions.

TPZ/SRZ – Tree Protection Zone specified area above and below ground and at a given distance from the trunk set aside for the protection of the 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.

Structural Root Zone – the area around the base of a tree required for the tree's stability in the ground - calculated in meters radially from stem centre.
From *Australian Standard 4970-2009 Protection of Trees on development sites*

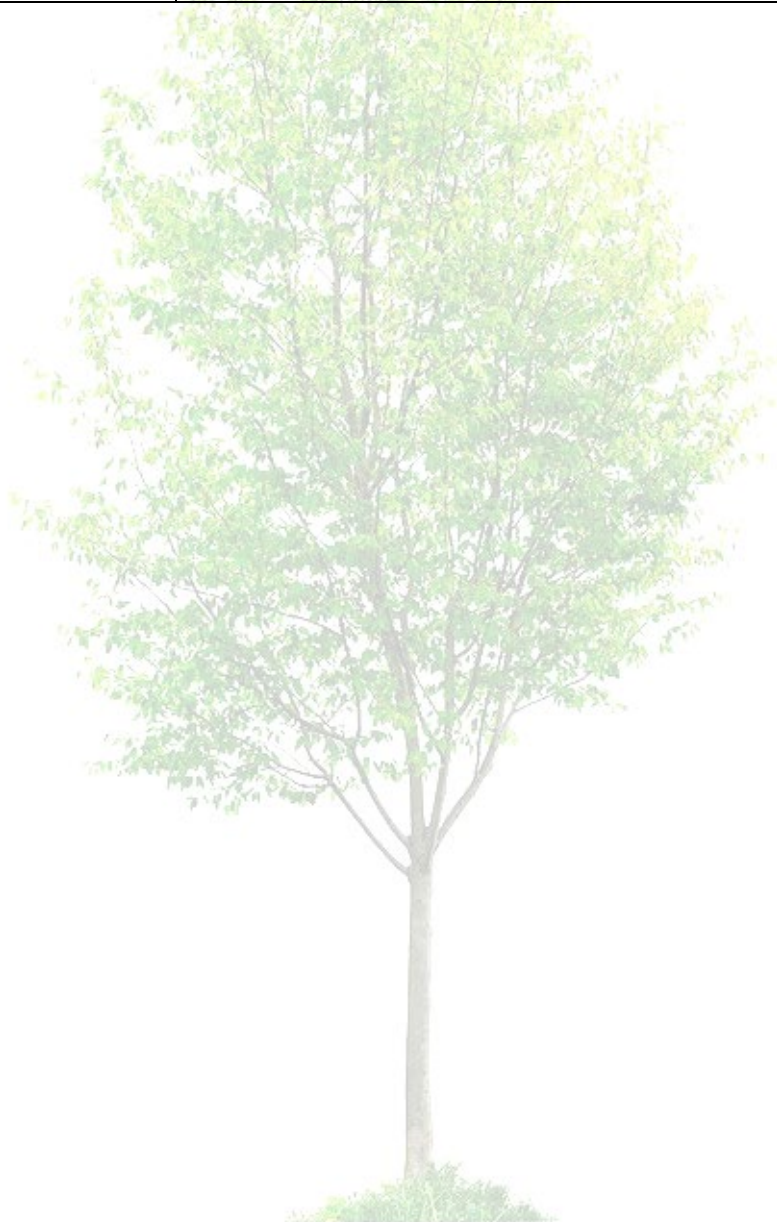
TPZ Impact -Percentage of encroachment into TPZ – impacts of more than 10% are considered major.

Retention Values- Very High, High, Medium, Low, Very low.

Considerations – Tree Significance, Environmental and habitat values, condition, safety or hazard risks, heritage, amenity and scenic values, species performance and site condition, weed status or listed undesirable, potential for property damage.

Environmental Rating		Evaluation Considerations/Criteria
1	Very High	Normally Old growth Remnant Tree, multiple hollows important to endangered fauna, replacement would be well in excess of 100 years
2	High	Mature or semi mature Endemic Tree with or without hollows, plays an important part in local ecology, or Australian Native that has high substitute values as endemic tree replacement would take 50-100 years
3	Medium	Young or semi mature Endemic tree or Australian native species that has some positive values for local fauna - replacement would take 20 or more years.
4	Low	Normally exotic species, or small, young endemic or native that could be replaced in the short term 5-10 years
5	Very Low	Listed Weed or nuisance species; or very small value or insignificant to local ecology - could be replaced within 5 years or readily replaced with species of greater value

Significant Tree values/criteria	
Very Significant	<ul style="list-style-type: none">• Defined as Significant Tree by regulatory or other authority or• Environmental rating 1 or• Heritage Listed or Very High Cultural or heritage Values
Significant	<ul style="list-style-type: none">• Medium to large tree with Environmental value 2 or• Medium or larger tree in fair to excellent condition, suited to local environment and<ul style="list-style-type: none">○ Imposing within the local landscape - with long life expectancy or○ Strong amenity values or some cultural or heritage links



4. Table 1 – Tree Assessment Detail.								
Tree No Location	Species Origin Age Class Dimensions D/H/C (m)	Enviro Rating	Condition & ULE	TPZ (m)	Tree Comments	Significant Tree	Retention Value	Development Impact and Recommendations
1 Fence joining 680 East in 672 East Street In joining property to project	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Mature - Exotic. 0.58 x 15 x 14	Low	Good to Fair 20+	7m	Tree in joining property – stem centre about 1m from fence. Not fully inspected due to limitation of access. Stem diameter estimated Tree presents as sound with long life expectancy. Species listed as undesirable under ACC Tree preservation	Not significant	Low to Medium	<ul style="list-style-type: none"> TREE TO BE RETAINED AND PROTECTED. Storm Water impacts to manage inside TPZ Demolition and construction new fence Project Tree Protection Plan applies – impacts acceptable but require management
2 Fence joining 680 East Street in 160 Eastern Court 162	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Young - Exotic. 2 Stems 0.28 x 6 x 12	Very low	Very Poor 0-1	3.4	Tree in joining property – but property managed by LAHC. Tree stem located at fence line of development site Tree has codominant stems from ground – partial failure has occurred with the west stem leaning hard on the fence Stem will fail if fence is removed. Species listed as undesirable under ACC Tree preservation	Not significant	Very low	<ul style="list-style-type: none"> REMOVAL – POOR CONDITION Small tree – amenity loss very low – replacement time 0-5 years. Species is listed undesirable Stem failure very high risk. Landscape Plan will easily compensate loss
3 Front yard of 680 East Street	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Mature - Exotic.	Low	Good 20+	5.9	Tree presents as sound in good condition. Species listed as undesirable under ACC Tree preservation	Not significant	Low to Medium	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 5-10 years.

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Tree No Location	Species Origin Age Class Dimensions D/H/C (m)	Enviro Rating	Condition & ULE	TPZ (m)	Tree Comments	Significant Tree	Retention Value	Development Impact and Recommendations
	0.49 x 11 x 11							<ul style="list-style-type: none"> ACC Exempt species
4 2 Shrubs Front of 680 East Street.	2 x <i>Callistemon</i> <i>Species</i> (Bottle Brush) Mature Australian Native. 0.2 x 5 x 5	Low	Fair 10+	2	Shrubs just meet height requirement of ACC Tree preservation	Not significant	Low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Amenity loss low – easily replaced within 0-5 years. Landscape Plan will easily compensate loss
5 Front yard 680 East St on boundary of 682	<i>Eucalyptus</i> <i>mannifera</i> (Brittle Gum) Australian Native. 2 Stems from ground 0.42 x 9 x 14	Low	Poor 1-5	5	Tree is formed by two coppice stems from old tree stump cut at ground level. Stems have poor attachment and present is high risk of failure.	Not significant	Low.	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Amenity loss low – replaced within 5-10 years Tree has some environmental values as Aust. Native, but poor retention values due to structure Low retention value.

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Tree No Location	Species Origin Age Class Dimensions D/H/C (m)	Enviro Rating	Condition & ULE	TPZ (m)	Tree Comments	Significant Tree	Retention Value	Development Impact and Recommendations
6 682 East St south fence joining 680	<i>Ligustrum lucidum</i> , Young Broad- leaf privet – Exotic 0.2 x 7 x 6	Very low	Fair 0	2.4	Tree growing between fence and dwelling. Species listed as nuisance species and generally considered weed Likely seeded in location	Not significant	Very low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 0-5 years. ACC Exempt species Landscape Plan will easily compensate loss
7 682 East street fence line of 684	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Young - Exotic. 0.2 x 6 x 4	Very low	Fair 1-5	2.4	Species listed as nuisance species Likely seeded in location	Not Significant	Very Low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 0-5 years. ACC Exempt species Landscape Plan will easily compensate loss
8 682 East street fence line of 684	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Dead - Exotic. 0.25 x 8 x 4	Very Low	Very Poor 0	N/A	Small Dead Tree Exempt under ACC preservation of trees.	Not significant	Very low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 0-5 years. ACC Exempt species Landscape Plan will easily compensate loss

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9 682 East St south fence joining 684	<i>Ligustrum lucidum</i> , Young Broad- leaf privet – Exotic 0.2 x 5 x 4	Very low	Fair 0	2.4	Tree growing between fence and dwelling. Species listed as nuisance species and generally considered weed Likely seeded in location	Not significant	Very low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 0-5 years. Landscape Plan will easily compensate loss ACC Exempt species
10 In 160 Eastern Court east fence of 684 East st	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Mature - Exotic. 0.5 x 15 x 14	Low	Good to Fair 20+	6m	Tree in joining property – stem centre about 1m from fence. Not fully inspected due to limitation of access. Stem diameter estimated. Species listed as undesirable under ACC Tree preservation	Not significant	Low to Medium	<ul style="list-style-type: none"> TREE TO BE RETAINED Impacts to be managed – demolition and construction of new fence 2 % encroachment one side only See tree Protection Plan
11 Rear Yard of 684 East Street	<i>Acer negundo</i> (Box Elder) Senescent tree Exotic. 0.46 x 8 x 9	Very low	Very Poor 0-5	5.77	Tree in mid to late stages of senescence. Stem heavily decayed live canopy only 20%	Not Significant	Very low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 0-5 years. Tree Senescent Landscape Plan will easily compensate loss
12	<i>Fraxinus excelsior</i>	Very low	Good 10+	2	Satellite indicates a much larger tree – presents as there was a tree in 165 Alexander that is no longer present.	Not Significant	Very low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT.

4. Table 1 – Tree Assessment Detail.								
Tree No Location	Species Origin Age Class Dimensions D/H/C (m)	Enviro Rating	Condition & ULE	TPZ (m)	Tree Comments	Significant Tree	Retention Value	Development Impact and Recommendations
Rear Yard of 684 East Street	(Desert Ash or European ash) Young - Exotic. 0.1 x 7 x 6				Young tree seeded in location. Species listed as undesirable under ACC Tree preservation			<ul style="list-style-type: none"> Replacement time frame 0-5 years. Landscape Plan will easily compensate loss ACC Exempt species
13 Front Yard of 684 East Street	<i>Eucalyptus blakelyi</i> (Red Gum) Large mature tree – indigenous to site – possibly remnant 0.85 x 20 x 20	High	Good 40+	10.2	Large tree with high environmental values. No defects noted in tree - vigour fair to good condition good Important tree in the local ecosystems	Significant	Very High	<ul style="list-style-type: none"> RETAIN AND PROTECT TREE. Impacts to manage including building footprint and storm water 12.5% encroachment from buildings and pathways See Tree Protection Plan – impacts acceptable if managed.
14 Front yard of 684 East Street on boundary of 688	<i>Cupressus arizonica</i> (Arizona cypress) Mature – exotic 0.84 x 13 x 12	Low	Good 20+	10.1	Medium tree in good condition no noted defects Species has low environmental values and poor substitution for indigenous species Tree has some positive amenity values	Not Significant	Low to moderate	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 10-15 years.
15 Council Street Tree	<i>Fraxinus raywood</i> (Claret Ash)	Very low	Poor 0-5	6	ACC Street Tree Tree in poor condition – canopy dieback 50%	Not Significant	Low	<ul style="list-style-type: none"> REMOVAL and REPLACEMENT to ACCOMMODATE DEVELOPMENT.

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Tree No Location	Species Origin Age Class Dimensions D/H/C (m)	Enviro Rating	Condition & ULE	TPZ (m)	Tree Comments	Significant Tree	Retention Value	Development Impact and Recommendations
165 Alexander	Overmature – exotic 0.5 x 9 x 8							<ul style="list-style-type: none"> In principle approval from ACC obtained. Replacement time frame 5-10 years. Positive longer term outcome for community
16 165 Alexander St Front yard joining 163 Alexander	Two small trees <i>Fraxinus excelsior</i> (Desert Ash or European ash) Young - Exotic. 0.25 x 5 x 6	Very low	Poor 0-5	3	Two small trees as one - epicormic shoots formed as coppice stumps – or lopped stems. Species listed as undesirable under ACC Tree preservation	Not significant	Very Low	<ul style="list-style-type: none"> REMOVAL to ACCOMMODATE DEVELOPMENT. Replacement time frame 0-5 years. Landscape Plan will easily compensate loss ACC Exempt species
17 163 Eastern Circuit East Fence of 165 Alexander	<i>Fraxinus excelsior</i> (Desert Ash or European ash) Young - Exotic. 0.3 x 10 x 8	Very low	Good ULE Unknown	3.6	Tree in joining property outside project. Tree could not be properly evaluated due no access. Species listed as undesirable under ACC Tree preservation	Not significant	Likely Low	<ul style="list-style-type: none"> TREE TO BE RETAINED AND PROTECTED. Building footprint inside TPZ – 10.8 % encroachment to TPZ one side only – acceptable impact. Demolition and construction of new fence.

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Tree No Location	Species Origin Age Class Dimensions D/H/C (m)	Enviro Rating	Condition & ULE	TPZ (m)	Tree Comments	Significant Tree	Retention Value	Development Impact and Recommendations
								<ul style="list-style-type: none">Project Tree Protection Plan applies

5. Discussion and Impact Summary

The following discussion points are provided in summary to Table 1.

- There are 17 trees on site identified and reported.
- Tree 13 is the only tree identified as significant and is to be retained and protected. Impacts to manage – specifically around the storm water within TPZ - A Tree protection plan applies.
- 8 Trees are identified for removal to accommodate development – all eight are small trees and exempt species under ACC Tree Preservation Policy – the loss of vegetation can easily be offset by the Landscape Plan.
 - Trees 2, 3, 6, 7, 8, 9, 12, 16
- 4 other trees and shrubs that are protected under ACC Tree Preservation policy are identified for removal to accommodate the development. None of the trees are significant. The Landscape plan will offsets the loss of these trees and shrubs.
 - Trees 4, 5, 14, 16.
- Tree 15 is an ACC Trees tree in poor condition and in principle approval from ACC has been obtained to remove the tree and replace it. This is a positive outcome for the community as the tree is in decline.
- 3 Trees are identified in joining properties and are to be retained and protected – impacts required to be managed. A Tree Protection Plan applies.
 - Trees 1, 10, 17.
- There are 4 Trees to be retained and protected – Trees 1, 10, 13 and 17.

6. Recommendation Summary.

- All trees and shrubs on site 4.5 meters in height or greater have been recorded and evaluated in Table 1. 4.5 m in height is the height at which ACC Tree preservation requirements commence.
- The loss of current vegetation can easily be offset by the Landscape Plan – which has the opportunity to improve the current canopy coverage whilst retaining the one significant tree and three trees on joining properties.
- **A Project Tree Protection Plan** has been developed for the Project as a separate document. The following recommendations are provided for the development.
 1. The Project Tree Protection Plan should form part of the overall project management plan.
 2. Brief requirements for Tree Protection measures should form part of the site induction for all workers.
 3. Specifically Tree 13 is a significant tree and there are known impacts to the TPZ which will require management – as well as work around the tree during the project.
 4. There will be hold points required for some of the works within Tree Protection zones – where a Project Arborist will be required to review the proposed works and impacts on the tree/s. Not all potential issues or impacts can be foreseen at this point in time.
 5. If the project requires certification at completion as to the tree protection measures then it is advised that a project Arborist is engaged at the start of the project and attend site at routine points to verify tree protection measures. It is not feasible for an Arborist to attend site at the completion of the project and verify compliance.

Tree Photos.







T5 above and stem defect
below



Tree 11 – Tree in later stages of decline and decay in stem - circled



Tree 12





WY -

5 April 2022.

Wade Ryan Contracting – Independent Arboriculture Consultant AQF Level 5.

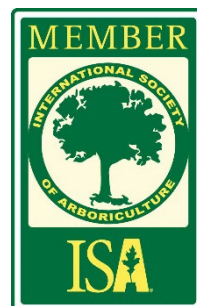
BAppSc(EnvHort) – AdvDip OH&S

Institute of Australian Consulting Arboriculturists (IACA) Associate Member ASM0622018

QTRA – Registered Advanced User (4519).

Member - International Society of Arboriculture

Associate Member – The Arboriculture Association (UK)



™ ISA Member : 257486



AS8205.



Quantified Tree Risk Assessment

4519

Additional References.

ACC (2020). *Albury City Council Exempt tree list*. Accessed online 5/04/2021 at;
<https://www.alburycity.nsw.gov.au/environment/trees-and-vegetation/trees/private-trees/exempt-tree-species>

ACC (2020b). *Albury City Council preservation of trees*. Accessed online 5/04/2021 at;
<https://www.alburycity.nsw.gov.au/environment/trees-and-vegetation/trees/private-trees>

NSW DPI (2020). *NSW Weed Wise. NSW Department of Primary Industries Privet - broad-leaf (Ligustrum lucidum)*. Accessed online 16/11/2020 at;
<https://weeds.dpi.nsw.gov.au/Weeds/PrivetBroadleaf>

Terms, Conditions and Limitations that apply.

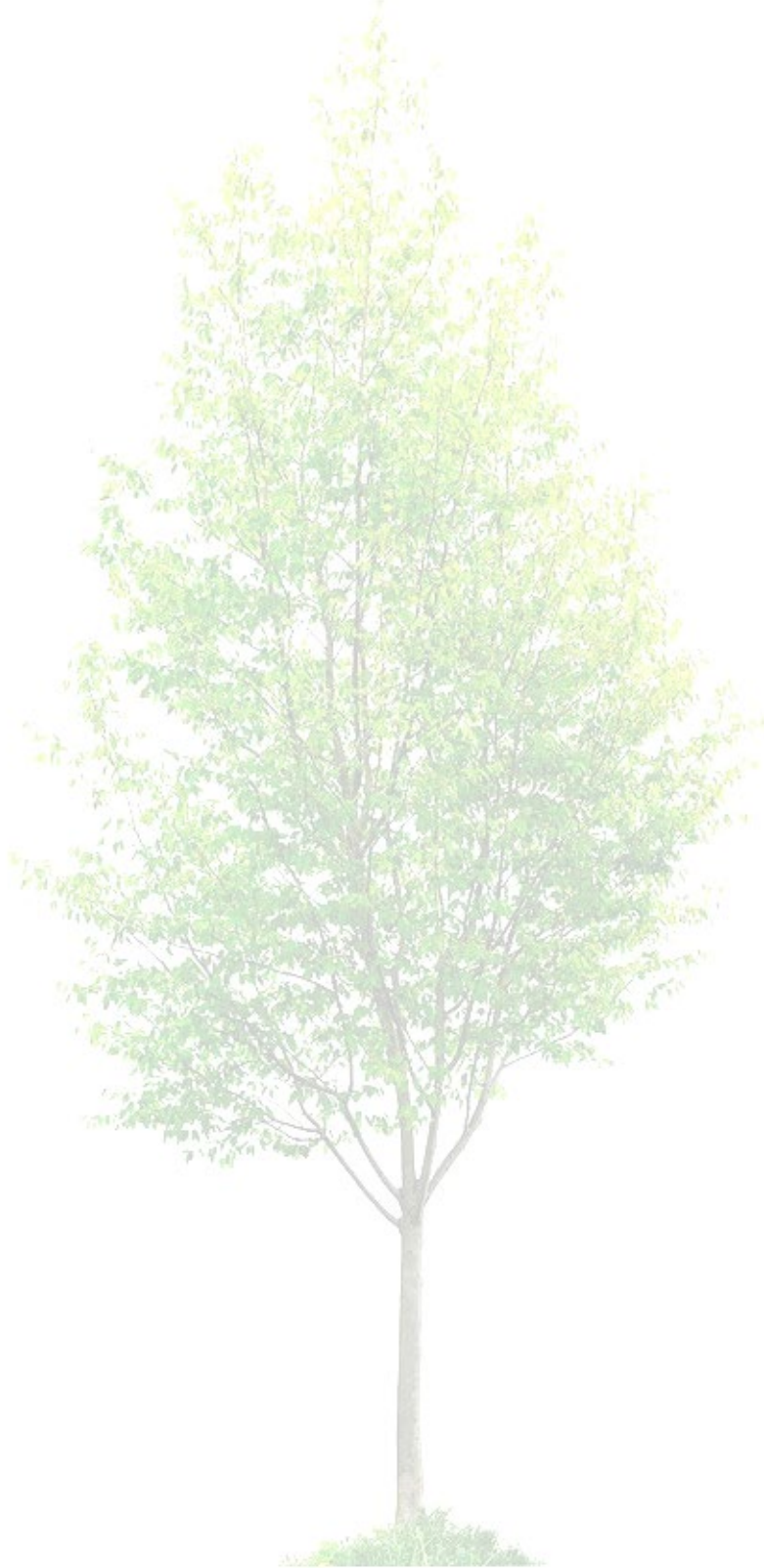
Obviously, visual tree assessment from the ground has some limitation as every single portion of the tree cannot be observed or inspected. Most or the large majority of defects and tree issues can be observed from the ground. Where aerial inspection or other investigative means should be considered the report or email will recommend or provide those as an additional considerations. The integrity of the root zone of trees can often be difficult to determine from visual inspection – particularly on steep slopes and on shallow soil profiles. Unless there are indicators of some instability then most trees are effectively assessed as stable as part of Visual Tree Assessment.

Trees are a valuable asset and necessary part of both the urban and natural environment. They are the cornerstone of our environment and provide numerous benefits to our social wellbeing, biodiversity and ecology of any area. They provide water balance stability, salinity and erosion control, amenity, cultural, public health and aesthetic benefits; efforts should be made to preserve and plant new trees where possible. As an asset they require appropriate management and resource inputs.

It should be noted that trees cannot be guaranteed 'risk free'. All trees represent some degree of risk. Arboriculture is not an exacting science; rather it is an educated interpretation of the interaction of biotic and environmental circumstances, which change over time. It is not possible to determine or predict all limb or tree failures. This report is such an interpretation at the time of inspection.

Unless Quantified Tree Risk Assessment (QTRA) has been specifically applied and reported, then this report or email does not constitute a risk assessment. The Author does not seek to

determine what level of risk any individual or organisation is prepared to accept but serves to provide tree managers with tree condition, hazards and other salient issues associated with the tree or trees; and provide or recommend management options.





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TO BUS STOP: 60m
TO LOCAL SHOPS: 190m

EAST STREET

NOISE SOURCE FROM ROAD

TO BUS STOP: 80m
TO LOCAL SHOPS: 150m

STING ROAD CROSSING

10 PM

00 PM

10

3

TPZ - 7 m

TPZ - 6 m

TPZ - 3.6 m

SITE CHARACTERISTICS & POTENTIALS

SITE CONSTRAINTS

EXISTING SEWER: NEW RILL DINGS MAY NEED TO BE BRIDGED OVER

LARGE EXISTING TREES ON SITE - HIGH RETENTION & MEDIUM RETENTION VALUE
VEHICULAR NOISE FROM EAST STREET
AIRCRAFT NOISE (PROXIMITY TO ALBURY AIRPORT)
EXISTING SEWER - NEW PIPING MAY NEED TO BE BRIDGED OVER

THE CHARACTER OF SURROUNDING DEVELOPMENTS CONSISTS OF DETACHED SINGLE STOREY & TWO STOREY RESIDENTIAL DWELLINGS

SITE IS IN CLOSE PROXIMITY TO BUS STOPS IN BOTH DIRECTIONS

SITE IS IN CLOSE PROXIMITY TO LOCAL SHOPS

RELATIVELY FLAT SITE AIDS ACCESSIBILITY WITHIN THE SITE (0.27m CROSS FALL FROM WEST TO EAST)

SITE IS NOT FLOOD AFFECTED , LOTS DRAIN TOWARDS FRONT OF THE LOTS ON EAST STREET

EXISTING TREES IN CENTRE OF SITE PROVIDE PLEASANT OUTLOOK

EXISTING NEIGHBOURS ARE SINGLE STOREY , WITH MINIMAL OVERSHADOWING

APPROX. 13 ON-STREET PARKING SPACES (7 ON EAST STREET, 6 ON ALEXANDRA ST)

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