

**Client: Saint Bernards College**

C/o MP Project Management

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**Open Space Management**

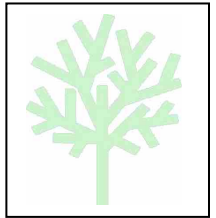
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**23/3/2021**

Dear Sir

Please find attached my Tree Management & Protection Plan report as requested.

**Preliminary Tree Assessment & Tree Management Plan - TMP.**

**Saint Bernards College: No.41 Rosehill Rd - Essendon**

**Moonee Valley City Council:** Planning Application - No.

*"Proposed Year 12 Senior Centre Building Development"*

- o TMP Instructions and Schedule. Construction Management Induction & Decommissioning of TMP.
- o This report constitutes a Bona-fide Tree Management Plan (TMP) that is relevant to the Applicant.
- o As per Baldasso Cortese Architects: Suite of Plans: Project No.20200064. Rev E – Feb` 20<sup>th</sup> 2021
- o Site Preparation for excavation is critical before any works start. This report is pre-emptive.
- o Includes necessity to reconvene on-site for possibly; more than one occasion.

This includes: \*Report \*Digitally Adjusted Plans & Photos \*Tree Terminologies \*Arboricultural Consultancy Assumptions & Limiting Conditions. \*This report is relevant to a recent tree safety audit and works program by Open Space Management dated – 7/2/2021 and is now relevant for permit compliance – pending any RFI.

**Important Note:** A previous safety audited by Arbor-site dated 8/3/2012 is relevant to the numbered trees herewith.

**Note:** There are only x4 relevant trees cited in this report and they were recently audited, being T37. T49. T53 & T54.

**SCOPE of WORKS:**

- Report on the viability and safe useful life expectancy of four (x4) trees affected by works.
- Provide an effective Tree Management Plan (TMP) as normally requested by permit conditions.
- This report is a Scheduled TMP upholding typical Council endorsed instructions. For T37: Oak.

I trust that this report is satisfactory & effective to your needs at this stage, should you require any clarification or assistance with these matters; please contact me. I will need to re-attend the site.

Yours faithfully

**Andrew J Patrick**

(Adv Cert Hort. Dip Hort/Arb. WTA Cert 4)

## Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon

### Discussion:

- There are no instructions from Council at this stage except for a Recent Pre-Application On-site meeting.

**Appointment of a Project Arborist:** A Project Arborist must be appointed to supervise and advise on the actions that are required to be undertaken during all stages of development and construction. The Project Arborist must be suitably qualified and experienced in tree protection protocols on development sites. The Project Arborist must hold a minimum AQTF Level 5 in Arboriculture or show equivalent and actual relevant experience in accordance with Australian Standard for Protection of Trees on Development sites: AS4970-2009.

**Roles and Responsibilities of the Project Arborist:**

The Project Arborist is responsible for the monitoring and certification requirements found in this report. Only the Project Arborist may vary the requirements of this report under written consent of Moonee Valley Council. Only the Project Arborist may submit any staged updates and/or recommendations if and when required by this report and/or Moonee Valley Council. This is usually a condition of permit; penalties may apply. The Project Arborist is Mr Andrew Patrick of OSM.

- There are x4 Trees nominated here for consideration T37: Oak. T49. T53 & T54. \*Trees are number-tagged.
- **Note:** Trees: \*T49: Oak. \*T53: Desert Ash & \*T54: Desert Ash are decrepit & past their SULE.
- A Tree Management Plan (TMP) is a conditional permit item to the site development and this includes preparation of the site and trees prior to excavation of the site as shown in Plans.
- General Tree Protection instructions are needed for only x1 Trees. T37: Algerian Oak as shown.
- Note: Three other trees and some decrepit rotten Cootamundra wattles are nominated here for probity.
- Design Response Plans by Baldasso Cortese Architects: Suite of Plans: Project No.20200064. Rev A – Feb` 15<sup>th</sup> 2021 is included with detailed Photoshop graphics by OSM & comments for construction works & tree protection as instructions. \*Refer drawings & Detailed Photos.
- 'The Australian Standard for the Protection of Trees on Development Sites' has been considered and is now generally relevant to the tree protection process during excavation & construction works. Tree Protection Fencing must be erected for T37: Algerian Oak before any works start.
- Includes detailed plan graphics to describe Temporary-fencing & Rumble-Hoarding to protect T37 on plans.
- Note: Works are intended within the indicative TPZ of T37 but are easily manageable as described, because of the proposed encroachment to T37 does not exceed 10%. Other weedy trees & Gas-facility infrastructure exists within the existing hard-landscape & road influence and currently restrict the TPZ on some aspects but T37:Algerian Oak can withstand these influences.
- **T37: Important note:** Note also that the actual position of the proposed stairs is acceptable.
- **Refer:** Baldasso Cortese Architects: Project No.20200064. Rev E. Plan SK04. Ground-floor – 10/2/2021
- Relative to the Scheduled TMP Page 10 the consulting Arborist will attend for prescribed tree protection fencing and Rumble-board Hoarding erection and works-supervision prior to and during demolition & site excavation. This is the initial works application included at that time of works commencement. Another x1 visit during construction for stairs in close proximity to T37 is recommended in preparation for further construction. Finally decommissioning of the whole TPZ fencing after the landscaping-works is completed – TBA as the project progresses.
- Remove x3 Trees T49. T53. T54. They are decrepit Ageing and Not-viable. Past their SULEs.

## Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon

### Conclusion:

There are only x4 trees within the proposed building site for consideration with various shrubs & wattles. Protect Tree T37 as shown in Tree Protection Plan and Remove Trees T49. T53 & T54 are self-explanatory. Refer Baldasso Cortese Architects Design & detailed photos by OSM. TPZ Fencing & Hoarding to be installed. NOTE: Tree Protection Fencing describes the existing road and K&C. Rumble-board & mulch is mandatory. NOTE: The proposed new stairs encroach only 10% and rumble-board hording allows access within the TPZ. Further minor Under-pruning with arborist-supervision may be required to clear the stairs in due course. Proceed with current plans by Baldasso Cortese Architects: Project No.20200064. Rev E. Plan SK04. Ground-floor. Protect T37: Algerian Oak only. Remove T49: Oak. And T53 & T54: Desert Ashe`s.

<b>Saint Bernards College Yr 12 – New Senior Building</b>	<b>Retain &amp; Protect x1 Tree</b> as indicated in the TPP on Pages 6+7.	<b>Remove x3 Trees.</b>
X4 Trees Surveyed. T37. T49. T53. T54.	T37: Algerian Oak – Viable.	T49. T53 & T54 – Not Viable.

**Note:** The tree protection issues relative to this project are very simple and easily managed. Finally, the staged installation of new access stairs will be supervised by the consulting arborist. Landscaping must be undertaken at the end of civil building-works under supervision to Council permit satisfaction as per endorsed plans. \*Note use of Rumble-board within the TPZ for Access.

### Recommendation:

\*RETAIN & Protect a single nominated tree; namely: T37: Algerian Oak. \*Remove T49. T53 & T54.

Note: Consulting Arborist must attend during TPZ Set-up, excavation & construction-stages build and landscaping before decommissioning of the TPZ Fencing; builder / project manager to maintain diarised photos of stages. Protect Tree T37: Algerian Oak within the TPZ fencing until completion. Remove the other x4 trees. \*Note: New stairs near T37 adjoining are straight-forward due to current levels and allowable 10% encroachment as shown in drawings. \*Note: very minor pruning and possible tree roots within 10% Encroachment must be supervised by the project arborist should this be a requirement for works.

NOTE: The Tree Protection Zones (TPZs) must be established and mulched behind the temp-fencing and beneath the Rumble-board encroachment with Geo-fab textile on top of composted organic mulch, as shown.

Tree Management Plan conditions now apply only for T37 Only and requires temp` fencing panels & hoarding.

**RETAIN:** T37: Algerian Oak. Protect with squared-off & fixed temporary fencing as described in SK04 Dwg.

**Note:** The staged process of works near T37: Algerian Oak will happen early in the project before any demolition or excavation; tree protection works near T37 is a design strategy and included retention of the existing Kerb & Channel prior to and during works as described in drawings. Once all tree protection fencing & rumble-board hoarding is established surrounding Tree T37 as shown in plans; demolition and excavation & building works can commence once a council permit is issued with this TMP/TPP. Tree Protection for T37 adjoining is dictated by current K&C and existing Gas infrastructure. The TPZ fences will be retained until during the final stages before landscape works are finalized. Note: Refer to Scheduled TMP & Staged Works process as shown on Page 11 of this report.

## Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon

**Saint Bernards College – Trees.** Construction of Proposed Year 12 Senior Centre Building - Baldasso Cortese.

**Tree Data Table:** Refer to Plans & Detailed Photos. **NOTE:** R1/Z. ESO/2 & LSIO dictate minimum trunk diameter threshold for permit triggers only if trunks are greater than 400mm Diameter a 1300mm above grade.

No.	Species	Age	Height mtrs	Canopy Diam mtrs	DBH mm at 1.4Mtr	Condition. SULE & TPZ	Comments
<b>T37</b>	<b>Algerian Oak:</b> <i>Quercus canariensis</i>	Mature	8.5	11	520	Fair-Good SULE Medium Cat: 2a+d.	Good Specimen. Growing close to existing roadway and K&C. Dead/Dying Cootamundra Wattles beneath canopy. Note High-pressure Gas Meter Manifold Good Form Health Structure & Vigour. Recently under-pruned as per College Biennial Tree Safety Audit & Works - Feb 2021 (OSM). *TPZ=6.2Mtrs Radius. *SRZ=2.5Mtrs Radius. Encroachment for new building Stairs=10% only. Incorporate Rumble-board Hoarding within the TPZ for trades egress. Use Geo-fab Textile & Composted Mulch. Very Minor pruning for the building to be determined. *Retain & Protect as shown in TPP: Tree Protection Plan. *The Project Arborist must Supervise all work-stages.
<b>T49</b>	<b>English Oak:</b> <i>Quercus robur</i>	Mature Plus	7	6	350	Poor-Fair SULE Short Cat: 3a-d.	Small Suppressed. Poor Form. Asymmetry. Recently Pruned. No Merit. *Remove.
<b>T53</b>	<b>Desert Ash:</b> <i>Fraxinus oxycarpa</i>	Mature Plus	9.5	7	350	Poor-Fair SULE Short Cat: 3a-d.	Small Suppressed. Poor Form. Asymmetry. Weed Tree. Recently Pruned. No Merit. *Remove.
<b>T54</b>	<b>Desert Ash:</b> <i>Fraxinus oxycarpa</i>	Senescent	8.5	9	185. 245. 250. 150. CAV = 420mm	Poor SULE V. Short Cat: 3a-d Cat: 4aefg.	Multi-stemmed. X4 Stems. Some Rotten & Hollow. Asymmetry. Gross dead-wood. Weed Tree. Recently Pruned. No Merit. *Remove.

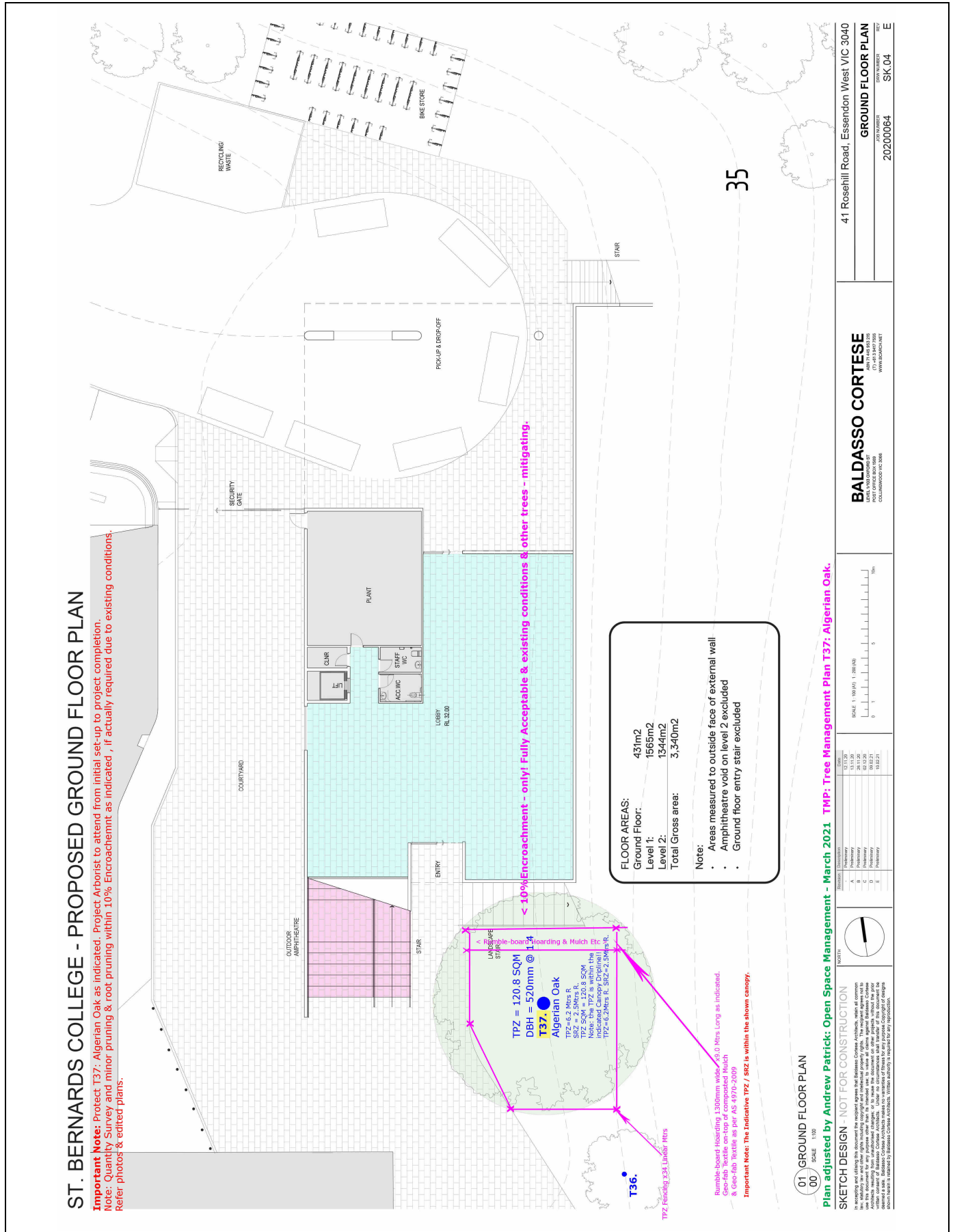
# Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon

Site Plan & Numbered Trees: Recent survey plan by Open Space Management supplied for Biennial Tree-maintenance Audit - 2021.



# Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon

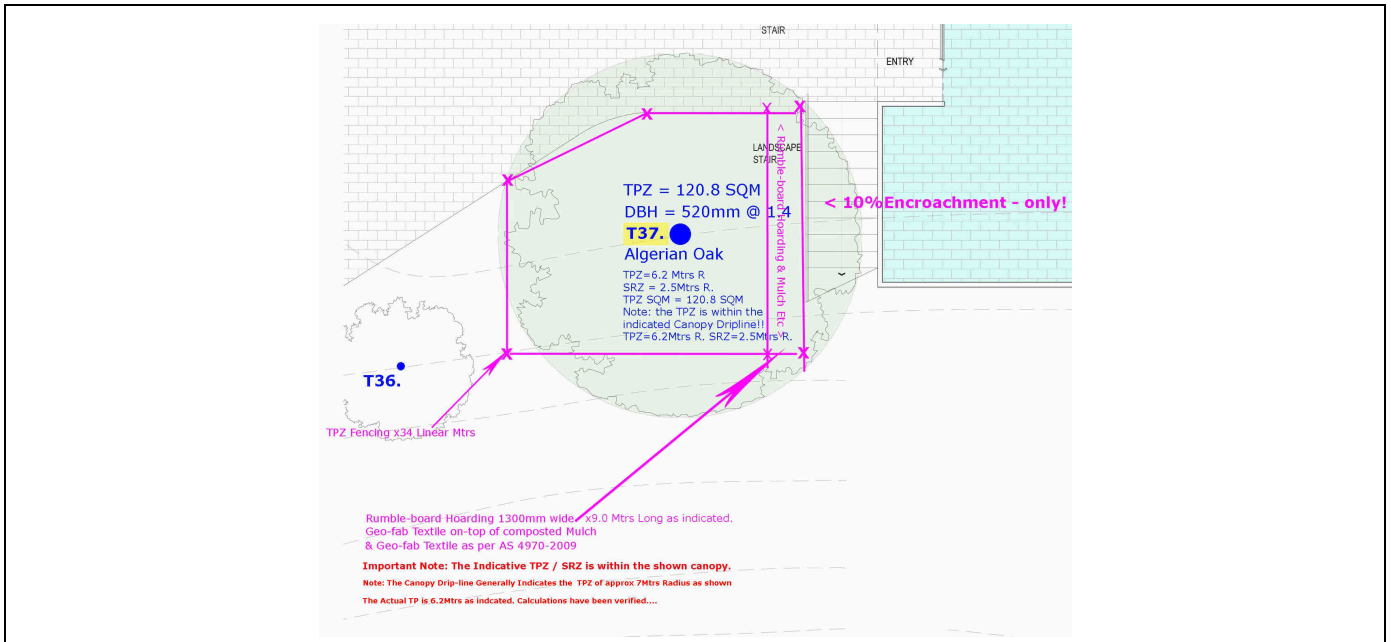
Design Plan: By Baldasso Cortese Architects: Project No.20200064. Rev E. Ground-floor Plan SK04 – 10/2/2021.





# Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon

## TPP: Tree Protection Plan Excerpt: T37: Plan describing the TPZ & Hoarding to assist with new stairs works.



## TREE PROTECTION NOTES: General commentary, commensurate within the TMP/TPP for retained tree – T37

TREE PROTECTION NOTES	
<p>Tree Protection measures are to be in accordance with Australian Standard AS 4970-2009 Protection of Trees on Development Sites</p>	<p>5. Any root and branch pruning requirements are to be carried out by the appointed Project Arborist and be in accordance with Australian Standard AS 4373-2007 Pruning of Amenity Trees. Where a root diameter of 20mm or greater is encountered during site works, these shall be cleanly pruned by hand, and never torn from the ground by machinery.</p>
<p>1. All trees to be retained are to be identified and fenced off prior to demolition and construction works commencing, or any heavy machinery entering the site. Tree protection fencing is to be established to create an exclusion zone around the tree at the distance from the trunk specified as the Tree Protection Zone (TPZ) or as indicated on the Landscape Plan. Once erected, these areas are to be maintained as 'no go' zones to limit trafficking through the TPZs and avoid inadvertent mechanical damage by construction vehicles and equipment during construction. Fencing is to remain in place until soft landscaping works commence as part of the final stage of site works.</p>	<p>6. Throughout construction works the Project Arborist is to undertake regular inspections of trees and carry out remedial works as required to ensure trees retain good health and where necessary install additional trunk, branch or ground protection.</p>
<p>2. If access or temporary relocation of protective fencing is required e.g. to allow for the demolition of existing structures, it must be with the approval and supervision of a Project Arborist. The appointed Project Arborist is to be an appropriately experienced and skilled professional with a minimum qualification of Certificate V (or equivalent) in Arboriculture.</p>	<p>7. These general protection requirements apply throughout the development process:</p> <ul style="list-style-type: none"> <li>No heavy machinery is to enter the fenced areas of the TPZ without the express permission of the Project Arborist (emergency service vehicles excluded);</li> <li>No trenching or removal of soil is to take place. Existing levels must be maintained. Garden beds must be constructed using existing site soil;</li> <li>No fill to a depth greater than 100mm is to be installed;</li> <li>Any vegetation located within Tree Protection Zones is to be removed by hand so that no heavy machinery enters into TPZ;</li> <li>No trenched services are to pass through the TPZ. If services are required they are to be bored beneath the root zone to a depth approved by the Project Arborist, or non-destructively excavated, such as hydro excavation, to retain significant roots in situ;</li> <li>No drainage or subsurface irrigation lines are to be installed;</li> <li>No fuel, oil dumps or chemicals shall be allowed in or stored on the Tree Protection Zone. The servicing and refuelling of equipment and vehicles must be carried out away from the root zone;</li> <li>No storage of materials, equipment or temporary buildings will take place over the root zone;</li> <li>No fixtures of any sort shall be attached to the trees for any reason;</li> <li>The Project Arborist is to be consulted prior to heavy machinery accessing any of the fenced TPZ;</li> <li>All machinery is to be kept clear of the tree canopy to prevent impact damage.</li> <li>If damage of any sort is to occur to any tree on site, the Project Arborist must be contacted to take immediate remedial action.</li> <li>Any changes to the building/landscaping design which alter surface or below ground works within the fenced TPZ are to be subject to the approval of the Project Arborist prior to proceeding.</li> </ul>
<p>3. Tree Protection fencing is to be constructed of temporary security fencing (or similar) securely fixed to block bases. No holes are to be dug for fence construction unless outside the specified TPZ. Fencing is to be of a minimum height of 1.8m and is to be secure, so as to deter easy entry. At least one weatherproof sign per side is to be attached to each fenced TPZ and is to clearly state 'TREE PROTECTION ZONE, ENTRY RESTRICTIONS APPLY, DO NOT REMOVE FENCE, CONTACT THE CONTRACTOR IF ENTRY IS REQUIRED, NO EXCAVATING OR TRENCHING, NO STORAGE OF MATERIALS OR WASTE' and is to have the Contractor's (or appointed site foreman) and Project Arborist's contact details.</p>	
<p>4. The ground within all TPZs within the site (both fenced and unfenced) and outside of the building footprints is to be maintained with a 50-100mm layer of coarse woodchips. Woodchips are to be well composted and are to be kept a minimum of 300mm back from the tree's trunk. The soil surface is to be thoroughly wet immediately prior to the installation of the mulch layer. Unless during water restrictions, irrigation is to be provided for each of the trees from December to March inclusive. A weed control program is to be implemented for mulched areas.</p>	
<p>General Tree Protection Notes: Andrew Patrick - Open Space Management for No. 41 Rosehill Rd - Essendon. Tree No T37.</p>	

**NOTE: Refer Tree Data & Relative TPZ/SRZs including Quantity Survey for fencing and rumble-board hoarding, mulch & geo-fab textile; TPZ Fencing: \*T37 =x34 Linear Mtrs. \*Note 10% Encroachment is only 3000mm wide. \*T37: Rumble-board=9Mtrs long & 1.3Mtr Wide. Note The maximum total encroachment of the new Stairs near T37 as shown is only <10.0% for the nominated stairs construction. Note: Refer to current descriptive & annotated site photos on Page 8 Here and includes additional Rumble-board Hoarding & Mulch.**



**Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon**

**Photo Samples: T37 Oak tree to be protected – note existing high-pressure gas manifold.**



T37: Retain. All Others to be removed. General Position of Proposed New Building Outside Canopy.



T37 & Restrictions.



T37: General Description.



**Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon**

**Photo Samples: T37 Oak tree to be protected – note existing high-pressure gas manifold.**



T49, T53 & T54: Remove. General Position of Proposed New Year 12 Senior Centre Building.



T49 & T53.



T54 & Others.

**IMPORTANT Note** – x25 Detailed & Annotated Photos are archived for reference here.

**Note that Trees:** T49, T53 & T54 are Not-Viable within the new development site as shown!

**Note:** Tree T37: Algerian Oak will be Retained & Protected within the TMP as described here-in.

### RECOMMENDATIONS: *continued ...*

Refer to Tree Management Plan Scheduled Format - Page 11.

### Tree Preservation

In achieving low impact modifications around retention trees` it is important to retain soil oxygen, moisture and preserve roots. If trees are to be preserved, the following principles apply:

#### **(TPZ): Tree Protection Zones**

Tree Protection Zone (TPZ) has been adopted for x1 Nominated Retained Tree: T37: Algerian Oak.

The Tree Preservation Zone is the minimum amount of root zone required by a tree to maintain health and structural stability relative to site constraints. It is a measure used to determine the distance at which tree roots may be severed on one side of the trunk only; in this instance it is as per the existing site lay-out and the nominated TPZ recommendations as per adjusted Plans by OSM and by Baldasso Cortese Architects: Suite of Plans: Project No.20200064. Rev E. TP04.

#### **Site Plan: Tree Protection Zones: OSM &**

The calculated indicative tree protection zone is dependent on a number of factors including tree health, age, site constraints & features and tolerance of the species to root damage as determined. In this case the TPZs is the SRZ due to site constraints, previous tree positions and infrastructure has been deemed by this report to be as indicated as shown. The actual designated Tree Protection Zones are herewith diminished due to existing conditions and marked-out on plans as requested. Refer Building Plans by Baldasso Cortese Plan SK04. Excerpt: Tree Protection Fencing for T37.

**IMPORTANT NOTE:** Major construction issues are programmed within the indicative TPZ for T37 only on single aspects of trees as shown on Baldasso Cortese Architects ground-floor plan SK04 Rev E and do not encroach beyond 10% of the indicative TPZ, the encroachment will be made-up contiguously elsewhere outside the indicative TPZ of T37 towards T36; works will be supervised & staged. Pragmatically due to the existing infrastructure and Kerb & Channel; there will be no damage to any nominated trees as shown. \*Refer to detailed tree assessment.

**T37:** Universal Tree Protection Fencing must be erected prior to any site works as per AS 4687-2007 Temporary Fencing & Hoarding. Fences established within the site either side of the trunk and situated within the existing Kerb & Channel, do not impede pedestrian egress; install signs.

**Note:** Total tree protection fencing required = approx. 34Mtrs for T37 to be erected outside the Canopy Drip-line as shown in plan. Total x34 Linear Mtrs to protect T37. Includes 9Mtrs Rumble-board Hoarding. Geo-fab Textile & Composted Mulch. Project Arborist must be in attendance for this initial action to commence works prior to commencement of any demolition & excavation.

**Note:** The general position of tree protection fencing is established in conjunction with Rumble-board Hoarding. Geo-fabric Textile and Composted Organic Mulch within the TPZ of T37 Oak.



## TREE MANAGEMENT PLAN schedule: 41 Rosehill Rd. Essendon in schedule format:

**SCHEDULE & Staged Works:** Refer attached Ground-floor Plans. The TPP and Plan Mark-ups.

**REFER: TPP:** As per Baldasso Cortese Architects: Project No.20200064. Rev E. Ground-floor Plan SK04 – 10/2/2021.

**Important Note:** Only T37: Algerian Oak is potentially affected by these works. \*Remove T49. T53 & T54.

**1 – RETAIN T37 close to the proposed construction with fencing & rumble-board hoarding as shown.**

**Note:** Minor canopy-pruning is required towards new building above the new stairs in due-course; possibly for scaffold.

**2 – PROTECT T37** close-to and adjoining the site-works prior to and during works; easily accomplished.

Delegate Contractor Site Induction prior to construction works as per Construction Site Management Plan.

In constructing the new building and associated excavations the TPZ MUST be set-up prior to works.

**IMPORTANT NOTE:** The Consulting Arborist will be required to attend or advise further in regard to staged commencement of works and tree protection fencing close to designated TPZs; notably for T37 only.

**Note:** The staged process of works near T37: Algerian Oak adjoining the work-site must be initiated at the prior to any excavation, all tree protection fencing & rumble-board must be established on the out-set.

Total tree protection fencing quantity survey as shown is approximately x34 Linear Metres as shown.

**IMPORTANT NOTE:** Prior to any works, tree protection fencing & rumble-board hoarding must be installed as described in this document, samples on Pages 16 & 17 for T37: Algerian Oak. Project Arborist to supervise.

NOTE: No utility services are allowed within conceptual TPZs unless tunnel bored to a minimum depth of 600mm below.

**3 – SUPERVISE:** Removal of other Shrubs & Wattles near to T37. Establish TPZ & Hoarding – Initially.

**4 – MANAGE:** Mulching is fully relevant in this instance especially under the Rumble-board Hoarding.

NOTE: Minor tree-pruning is required in this instance and must be supervised by the project arborist.

**5– INSPECT:** Policing site during construction works commence. Project Diary to be kept by designated Project Manager for the Builder. Consulting Arborist will advise & attend as required.

**6 – DECOMMISSION of TPZ:** Consulting Arborist to report on Tree Protection and Tree Condition at conclusion of Works and sign-off; this must coincide with any strategic or staged Services connection-works.

**7 – MONITOR:** Review tree condition annually for 3 years post construction. Create a report diary and note damage or decline of any trees after removal of Tree Protection Zone fencing - authorised by Council.

**Important Note:** The timeliness of stages is dependent on many variables; the Project Arborist must be consulted for any proposed additional works near THE Nominated Tree – T37: Algerian Oak.

\*72 Hrs notice must be given to the project arborist with lead-in time to attend if needed.

**NOTE: Immediate attendance by the project arborist cannot be guaranteed and lead-in time must be arranged prior to staged-works.**

**Note: The Project Arborist is not responsible for works undertaken without contractor consultation & consensus with Council.**



## **RECOMMENDATIONS:** *continued...*

**Tree Retention:** The TMP must be specifically adopted for Significant Trees: T37 - close to new building. Successful Retention is dependent on the following tree protection perspectives & staged work being upheld.

### **Tree Protection and Services Installation: General Commentry for 41 Rosehill Rd - Essendon.**

- **PROTECT T37:** Tree protection fencing must be established for T37: Algerian Oak before any demolition & construction works are undertaken on the site. This involves the following and forms the TPZ concept.
- Firmly establish a 2 metre (approx) high Council approved semi-permanent Cyclone-type Safety Mesh Cyclone type fencing to surround T37: Algerian oak at variable distances indicated either-side of the centre-point of the trunk for the width of the TPZ as shown and maintain safe construction egress.
- No other trees nominated will be affected due to their ageing and failing low-retention rating.
- T37: This will be important in minimising impact to the subject tree. Temporary Fencing must prevent access into the Tree Preservation Zone (TPZ) on all sides and must protect any surface roots and tree trunk from mechanical damage throughout the entire project as indicated. Remove Trees: T49. T53. T54.
- T37: The tree preservation zone marked by the fencing is not to be accessed by personnel or machinery except for the purpose of ensuring the recommendations of this report & only under arborist supervision.
- No storage of materials and equipment should occur in the TPZ area and nothing whatsoever should be affixed to a protected tree. Penalties may apply. \*TPZ Fencing is completely out-of-bounds at all times.
- No cement, fuel, paint wash or any other potentially toxic materials should be allowed near or within the tree protection zone. Absolutely None. TPZ Fencing is completely out-of-bounds. Penalties may apply.
- No excavation for any purpose should occur within the TPZ area unless of an Arborist approved nature for tree friendly construction and supervised by a qualified Arborist; this is relevant to works near T37: Oak as describe; Council approves and confirms these TPZ set-backs for T37: Algerian Oak - as in The Permit.
- **NOTE:** Any in ground services required within a trees TPZ should be tunnel-bored 600mm in depth below the root-plate so as to avoid any root severance. Council to approve. Beware of all existing services.
- **NOTE:** Tree roots within a nominated TPZ/SRZ, must not be compromised by excavations for service installation or attachment. Recommend to design all utility services away from the designated SRZs.
- Beware existing underground services and pre-existing structures within the vicinity of any TPZ/SRZ.
- **Note:** Apparently no remedial tree pruning is required in this instance but should it be required must be undertaken by competent and qualified Arborists in accordance with the *Australian Standard for the Pruning of Amenity Trees AS 4373 1969/07*; or supervised by the project arborist – Andrew Patrick.

**RECOMMENDATIONS:** *continued...*

A sturdy tree protection fence and rumble-board hoarding is erected by a qualified person after consultation with the designated Project Manager marked at all times and stating its purpose with signage. **Note:** In this case there is a legitimate encroachment of 10% around T37: Oak for a proposed stair-case and protection must be maintained with Temporary fencing and Rumble-board as shown in attached drawings by Open Space Management & Baldasso Cortese Architects SK04.

**Appendix A.**

*The sign should display the following or similar:*

**Attention**

**TREE PROTECTION ZONE**

**NO ACCESS**

- No persons, vehicles or machinery to enter the Tree Protection/Exclusion Zone without the consent of the Site Manager or Consulting Arborist.
- No fuel, oil dumps or chemicals shall be allowed in or stored on the Tree Protection/Exclusion Zone and the servicing and re-fuelling of equipment and vehicles should be carried out away from the root zones wherever possible.
- No storage of material, equipment or temporary building should take place over the root zone the tree.
- Nothing whatsoever should be attached to any tree including temporary services wires, nails, screws or any other fixing device.
- Absolutely NO EXCAVATION is allowed within the Tree Protection Zone unless authorised by the responsible authority.

**PENALTIES MAY APPLY**

**Contact Number of Consulting Project Arborist**

**Andrew J. Patrick**  
**'OPEN SPACE MANAGEMENT'**

**Phone: 0402 084 502**

The Project Arborist is Mr Andrew Patrick of Open Space Management.

## **RECOMMENDATIONS:** *continued...*

### **Tree Protection Zones.**

#### **Background:**

Tree protection guidelines relate specifically to the protection of trees \*Before, \*During and \*After Construction. Tree Protection or exclusion zones are necessary in order to stop any detrimental effects due to soil compaction and or excavation. In order to be effective an exclusion zone should be installed to protect the designated Tree Protection Zone (T.P.Z.). Construction can be approved within the T.P.Z. provided a Tree Management Plan (TMP) is implemented to protect the tree and construction is supervised by a qualified Arborist or the relevant Authority. The preparation of a tree protection zone (TPZ) includes some or all of the following:

#### **Mulching:**

Mulching should be undertaken around the tree to the extent of the T.P.Z. This can also include areas outside the tree protection/exclusion zone if necessary. The application of mulch will help reduce soil compaction from vehicular or pedestrian traffic and soil moisture loss through evaporation. A layer of composted organic mulch should be placed over the tree protection zone to a depth of 75-100 millimetres to assist with moisture retention and to reduce the impact of compaction. Organic mulch can later be substituted with other materials, which may include permeable surfaces such as granitic sands, crushed rock, or surface cultivation landscaping such as the establishment of garden bed areas and lawns subject to the approval of a qualified Arborist.

[Mulching is considered appropriate & is compulsory in this instance; rumble-board is also fully relevant.](#)

**Note:** One Cubic metre of Mulch translates approximately 5 Square metres of coverage.

Note: Council may provide access to Mulch as required

#### **Irrigation:** \*(Not Relevant in this instance).

Irrigation should be established under the mulch to maintain optimum soil moisture. The installation of a low-pressure, drip irrigation system connected to a timer is recommended in this regard. The extent of watering must be on an as and when required basis largely dictated by dry weather patterns.

NOTE: Over watering can be harmful, therefore it is important to regularly monitor irrigation requirements. Watering may not be mandatory in this instance as the seasons will determine the need - Council to advise.

NOTE: Further, in regard to the ongoing management of these specimens and the Tree Management Plan during construction; possible Melbourne and Regional Water Restriction Guidelines must be abided by or special dispensation from Council sought to apply these recommendations. AP. [NA in this instance for 41 Rosehill Rd - Essendon.](#)

#### **Nutrient and Plant Health Care Requirements:**

Any nutrient deficiencies present must be corrected and plant health care issues treated. (Not currently relevant in this instance). [NA in this instance for 41 Rosehill Rd - Essendon.](#)

#### **Tree Protection Zone Fencing:** [Fully relevant in this instance for 41 Rosehill Rd; most especially T37.](#)

This fence is erected by a qualified person after consultation with the Project Manager or Consulting Arborist and is marked at all times, stating its purpose with an appropriate sign. Removal of said fencing must also take place under supervision to ensure that no further mechanical damage is inflicted upon the tree. Drainage & Crossover issues are contingent with this. Penalties may apply.

Yours faithfully



Andrew J Patrick  
(Adv Cert Hort. Dip Hort/Arb. WTA Cert 4)



**RECOMMENDATIONS:** *continued...*

**Appendix B.** AS per: AS 4687-2007 Temp` Fencing & Hoarding – recommended for T37: Algerian Oak.

**Sample Option -Tree Protection Fences:** Portable semi-permanent Cyclone type fencing as used in the building industry is popular and effective if properly fixed. MOONEE VALLEY CC preferred type to be used.

Figure 1  
This shows a representative cross-sectional view of a well constructed tree protection zone

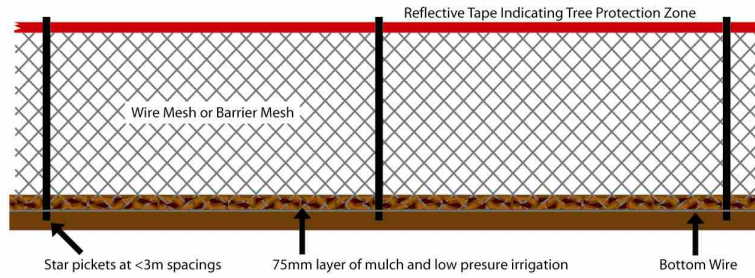


Figure 2  
Many building sites erect Tree protection zones which consist of only star pickets and tape. This is not sufficient as it only marks the extent of the zone without adequately protecting the tree during development.

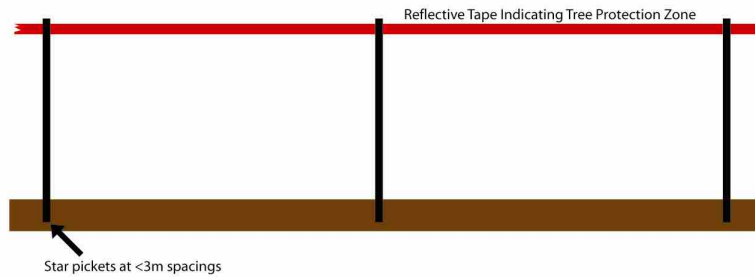
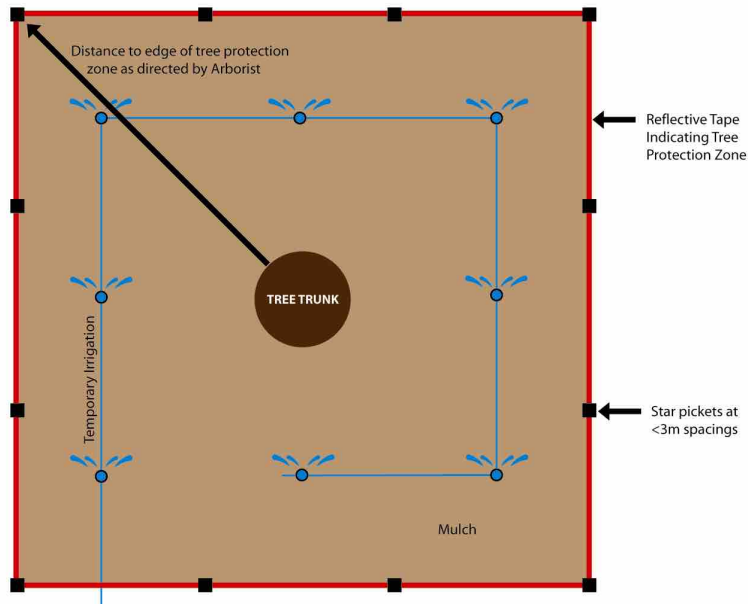
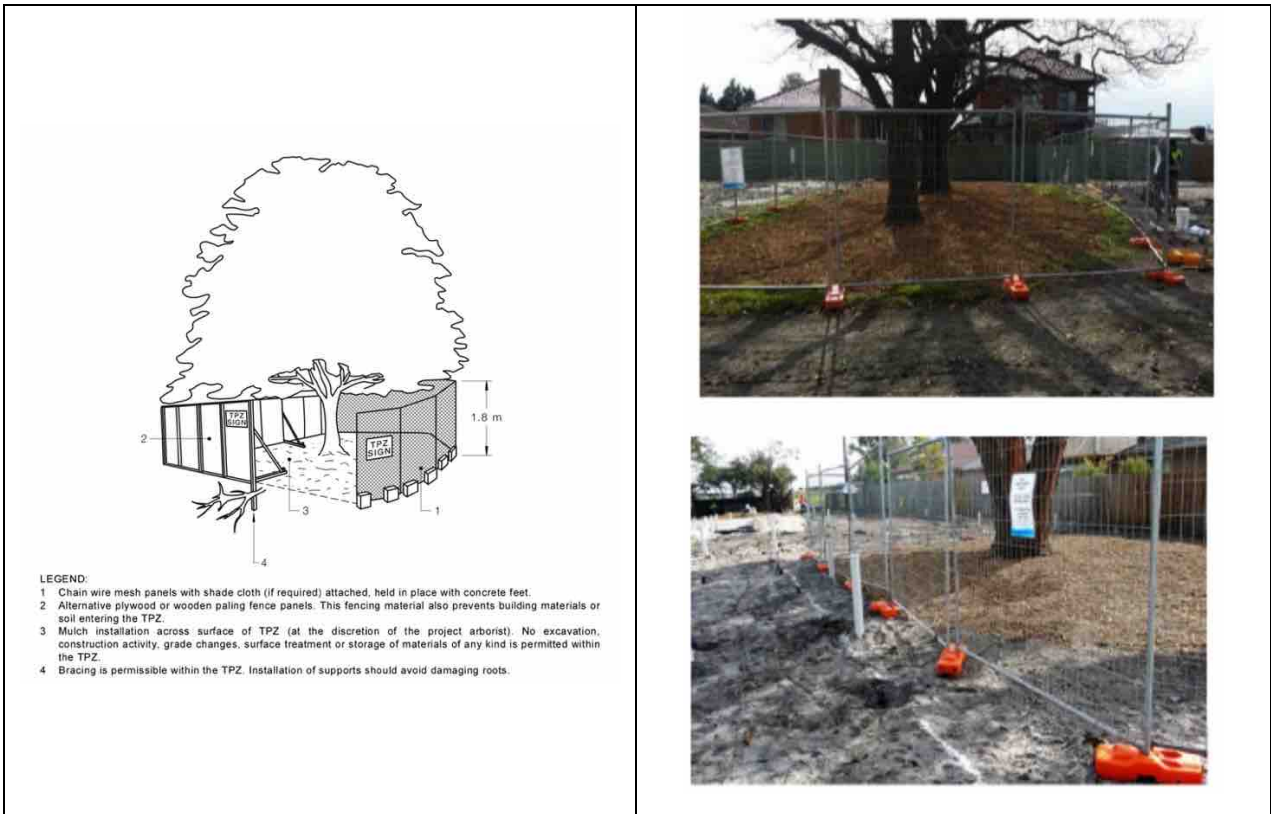


Figure 3  
This shows a plan view typical acceptable tree protection zone, with tree protection fencing mulch and temporary irrigation in place.



## Examples of Tree Protection Measures: AS 4970-2009

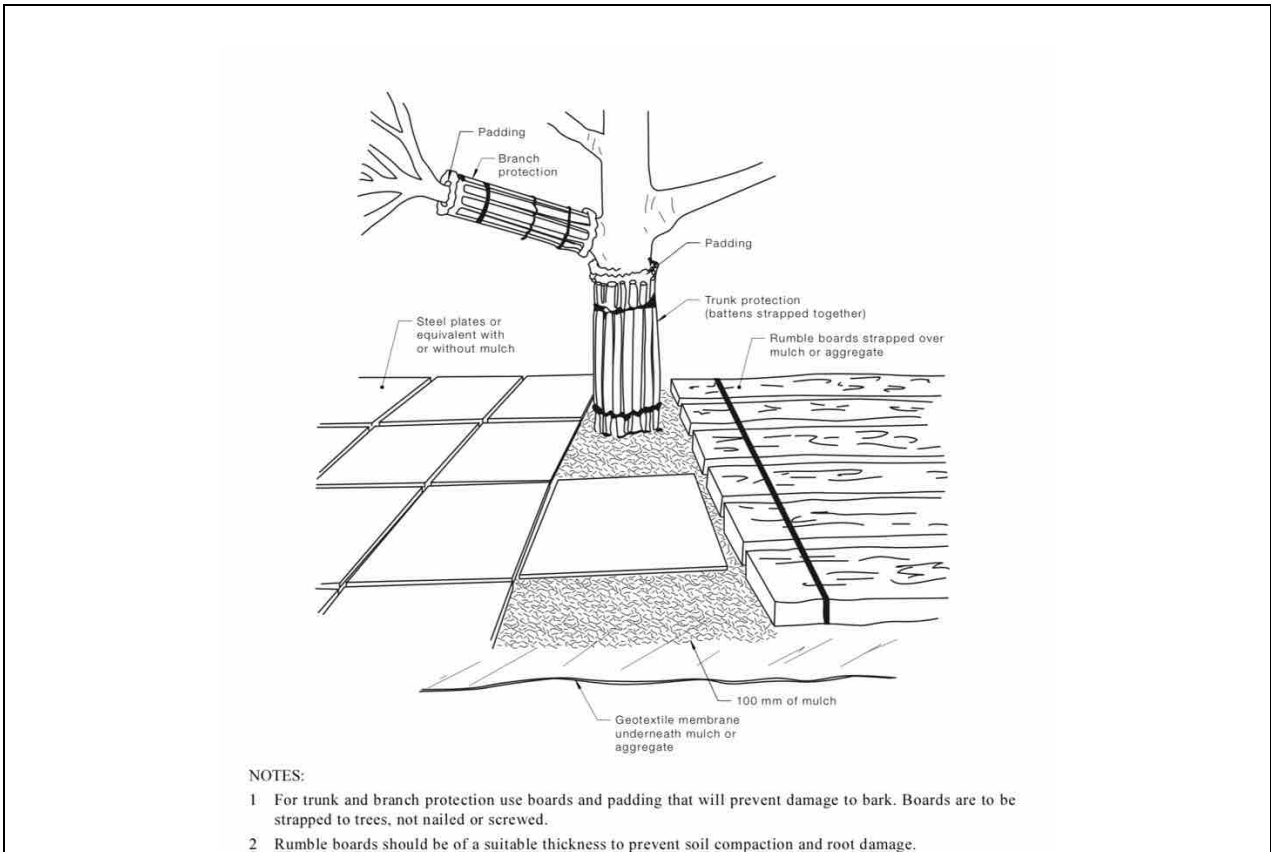
**Tree Protection Fencing:** In some instances, para-webbing & star-pickets are suitable.



**Tree Protection Signage:** Name & Contact of Project Arborist or Building Supervisor attached.



**Examples of Tree Protection Measures: AS 4970-2009**  
**Ground, Trunk & Branch Protection: Rumble-boards. Geo-fab textile. Mulch or Aggregate.**



**SAMPLES: Rumble-board Hoarding. Mandatory requirement in this instance for T37: Algerian Oak-tree.**





## **Tree Assessment & Management Plan: 41 Rosehill Rd. Essendon**

### **REFERENCES:**

Refer recent Tree Assessment by Open Space Management dated - 7/2/20121. Conditions have since changed.

Standard Schedule for such a task. Includes general permit advice relative to the nominated tree: T37: Oak only.

Trees and Development: A Technical Guide to Preservation of Trees During Land Development –ISA 1998.P73

CSIRO Publication Sheet BTF18 'Foundation Maintenance and Footing Performance – A Home Owners Guide'

Arboriculture: Integrated Management of Landscape Trees, Shrubs & Vines. Harris. Matheny & Clark – 1999.

As per Baldasso Cortese Architects: Suite of Plans: Project No.20200064. Rev E – Feb` 20<sup>th</sup> - 2021

The Australian Standard for Protection of Trees on Development Sites - AS 4970 2009.

Council Arborists of Victoria (CAV) - Tree Protection Calculator & Algorithm

Tree Guide: Britain & Europe. Johnson & More: Harper Collins 2004

Trees for South Eastern Australia - Ken Simpfendorfer

Building Code Australia 3.1.2-5. 1996 & Amendments

Urban Landscape Management – Hitchmough 1994.

AS 4687-2007 Temp` Fencing & Hoarding

## TREE DESCRIPTORS & TERMINOLOGY - OPEN SPACE MANAGEMENT

### AGE:

Young	Juvenile tree recently planted. Last 1-5 yrs
Semi-mature	Tree/s is still growing within the current environment.
Mature	Specimen has reached expected size in current situation.
Senescent	Tree is over mature and in decline or past its respective SULE for the site

### FORM:

Good	Canopy full and symmetrical.
Fair.	Minor asymmetry or suppression. Considered typical for species in situation.
Poor	Canopy suppressed, major asymmetry. Stump re-growth.

### HEALTH:

Good	Crown full, with good density. Foliage entire with good colour & minimal or no pathogen damage. Good growth indicators, e.g. extension growth. No or minimal canopy dieback. Good wound-wood development.
Fair	Tree is exhibiting one or more of the following symptoms; Tree has <30% dead wood, or can have minor canopy dieback, Foliage generally with good colour, some discolouration may be present, minor pathogen damage present. Typical growth indicators, e. g. extension growth, leaf size, canopy density for species in location may be slightly abnormal.
Poor	Tree has >30% dead wood. Canopy Die-back present. Discoloured or distorted leaves and/or excessive Epicormic regrowth. Pathogen is present and/or stress symptoms that could lead to or are leading to decline of tree.
Dead	Tree is dead.

### STRUCTURE:

Good	Good branch attachment and/or no minor structural defects. Trunk and scaffold branches sound or only minor damage. Good trunk and scaffold branch taper. No branch over extension. No damage to structural roots and/or good buttressing present. No obvious root pests or diseases.
Fair	Some minor structural defects and/or minor damage to trunk. Bark missing. Cavities could be present. Minimal or no damage to structural roots. Typical structure for species in the situation.
Poor	Major structural defects and or trunk damaged and or missing bark. Large cavities and or girdling or damaged roots that are problematical.
Hazardous	Tree poses immediate hazard potential that should be rectified as soon as possible.

### VIGOUR:

Good, Fair or Poor. This describes the ability of a tree to promote extension-growth and wound-callus effectively; this is directly related to the annual progress of tree growth, including root matrix systems which are dependent on in-situ and environmental conditions both current & previous; some which may require archived reference.

### GENERAL CONDITION:

Describes a tree or group of trees in a broad term of convenient précis that considers all of these Tree Descriptors as mentioned in Documents, Tree Data Tables. Plans & Photos.

### SAFE USEFUL LIFE EXPECTANCY (SULE): [As per AS 4970-2009](#)

Safe Useful Life Expectancy (SULE) means that in a planning context the length of time a tree can be maintained as a useful amenity and not a liability is by far the most important long-term consideration. SULE is contingent on a number of obvious management assumptions and the fundamental principles of public safety and usefulness in the landscape. Trees are a renewable resource.

## **Arboricultural Consultancy Assumptions and Limiting Conditions - OSM**

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownerships to any property are assumed to be good. No responsibility is assumed for matters legal in character.
2. It is assumed that any property/project is not in violation of any applicable codes, ordinances, statutes or other government regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified in so far as possible, however; the consultant can neither guarantee nor be responsible for the accuracy of the information provided by others.
4. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the person to whom it is addressed, without the prior written consent of the consultant.
7. Neither all nor any part of the contents of this report, nor any copy thereof, shall be used for any purpose by anyone but the person to whom it is addressed, without the written consent of the consultant; not shall it be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the written consent of the consultant.
8. This report and any values expressed herein represent the opinion of the consultant and the consultant's fee is in no way contingent upon the reporting of the specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. Sketches diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
10. Unless expressed otherwise: Information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection.
11. The inspection is limited to visual examination accessible components without dissection, excavation or probing; unless otherwise indicated within report.
12. There is no warranty or guarantee, expressed or implied that the problems or deficiencies of the plants property in question may not arise in the future.