

**Undertaking given under Section 9.5 of the
Environmental Planning and Assessment Act
1979 (NSW) by ULTRA Building Co Pty Ltd
(ACN 609 453 876)**



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1 Person giving the Undertaking

- 1.1 This is the undertaking (**Undertaking**) given by ULTRA Building Co Pty Ltd (ACN 609 453 876) (**UBC**) to the Secretary of the Department of Planning and Environment (**Planning Secretary**) pursuant to of section 9.5 of the *Environmental Planning and Assessment Act 1979 (NSW)* (**EPA Act**).

2 Background

- 2.1 On or about 7 March 2018, the North Sydney Local Planning Panel granted consent being DA378/17 on behalf of North Sydney Council (**Council**) for the demolition of existing building and construction of 10 level mixed use building comprising residential and non-residential uses and underground car parking (**Consent**) at 160 Pacific Highway North Sydney and 1B Doohat Avenue, North Sydney (**the Site**).
- 2.2 The Consent (particularly conditions C18, C19 and E14), as modified by subsequent modification applications, requires the person acting on the Consent to protect and retain street trees in the vicinity of the Site, including:
- (1) a Rosea Red Ironbark (*Eucalyptus sideroxylon rosea*) located within the road reserve of Doohat Avenue (**Tree 1**),
 - (2) a Pink Flowering Ironbark (*Eucalyptus sideroxylon*) located within the road reserve of Doohat Avenue (**Tree 2**),
 - (3) a London Plane Tree (*Platanus x hispanica*) located within the road reserve of Pacific Highway (**Tree 3**).
- (Collectively, "**the Trees**")
- 2.3 Particularly, condition E14 of the Consent requires the Trees to be protected in accordance with AS4970-2009 and all recommendations contained in the arborist report by Redgum Horticulture (**DA Arborist Report**) dated 18 September 2017 must be implemented.
- 2.4 UBC is responsible for carrying out the development on the Site in accordance with the Consent.
- 2.5 Council is a public authority authorised by section 9.5 of EPA Act to negotiate an enforcement undertaking in connection with the subject matter of this Undertaking.

The Alleged Contravention

- 2.6 Council alleged:
- (1) UBC, through its employees or contractors, carried out excavation and development works within the road reserve of Doohat Avenue and Pacific Highway near the Trees;
 - (2) those works had been carried out in breach of condition E14 of the Consent in circumstances where:

- (a) contrary to the recommendations made in the DA Arborist Report in that excavation works had been carried out without supervision of a project arborist;
- (b) contrary to the recommendations made in the DA Arborist Report and AS4970-2009 in that the required tree protection measures were not implemented during the excavation; and
- (c) contrary to the recommendations made in the DA Arborist Report in that the excavation works were being carried out using machine tools in the Tree Protection Zone of the Trees.

(the Alleged Conduct).

2.7 The Alleged Conduct is considered by Council to have contravened the EPA Act as follows:

- (1) Section 4.2 provides that a person must not carry out development unless the development is carried out in accordance with a consent granted under the EPA Act;
- (2) The Alleged Conduct is contrary to the Consent, particular conditions C18, C19 and E14 of the Consent; and
- (3) It is an offence to contravene section 4.2 of the EPA Act.

(Alleged Contravention).

2.8 Council alleges that the Alleged Conduct had caused serious damage to the health of the Trees, which have become unviable and a public hazard.

2.9 In a period between March – August 2023, Council caused the Trees to be removed and incurred a fee of \$10,015.40 including GST (**Tree Removal Costs**).

2.10 UBC has:

- (1) acknowledged that the Alleged Conduct, if proven, would amount to a contravention of section 4.2 of the EPA Act;
- (2) reimbursed Council's Tree Removal Costs and
- (3) Negotiated with Council to offer this Undertaking to the Planning Secretary.

3 Commencement of this Undertaking

3.1 This Undertaking comes into effect when:

- (1) It is executed by UBC; and
- (2) it is accepted by the Planning Secretary or their delegate.

3.2 The Commencement Date of this Undertaking will be the date on which this Undertaking comes into effect in accordance with clause 3.1 above.

4 Undertaking

4.1 UBC undertakes that it will carry out the following steps at its own expense:

- (1) within 7 days from the Commencement Date, UBC will plant:

- (a) two 100L Spotted Gum (*Corymbia Maculata*) on Doothat Avenue, and
- (b) one 100L Plane Tree (*Platanus X Hybrida*) on Pacific Highway;

(collectively, the **Replacement Trees**)

- (2) if any of the Replacement Trees dies or become unviable within 12 months from the planting of that tree, UBC must replace that tree with a tree of the same type;
- (3) subject to paragraph (4) below, the Replacement Trees, and any replacement for the Replacement Trees, will be planted and maintained for a period of 12 months in accordance with the specifications set out in the Tree Management Plan Revision B by Sturt Noble Arboriculture dated 2 August 2023 (TMP) in Annexure A; and
- (4) UBC will install the rubber surrounds required by paragraph 2.2.4 of the TMP in accordance with the Standard Tree Planting in Structural Soil for Paved Areas diagram in Annexure B;

4.4 This Undertaking has effect unless and until all of UBC's obligations under clause 4.3 have been performed.

4.5 UBC must:

- (1) notify Council once a tree is planted in accordance with clause 4.3 above;
- (2) keep a record of any planting and maintenance works carried out in accordance with clause 4.3, and this record must include the nature of the work carried out, the date on which the work is carried out, and the identity and contact details of the person by whom the work is carried out, and
- (3) must supply this record to Council on request.

Acknowledgements



4.2 UBC acknowledges that:

- (1) UBC may not withdraw or vary this Undertaking without the Planning Secretary's consent;
- (2) Council may disclose the content of this Deed if it is obligated to do so under any Council policies or any law, including but not limited to the Government Information (Public Access) Act 2009 (NSW).

4.3 For the avoidance of doubt, nothing in this Undertaking may be construed as fettering Council's discretion to exercise its functions under Part 4 and 6 of the EPA Act. Nothing in this Undertaking may be construed as fettering the Planning Secretary's power under section 9.5 of the EPA Act.

Executed as an Undertaking

Executed by **ULTRA Building Co Pty Ltd** (ACN 609 453 876) pursuant to section 127(1) of the *Corporations Act 2001* by:

	
Signature of Director	Signature of Director / Company Secretary
ADRIANO SICARI	HAROLD OCCHINI
Name of Director (print)	Name of Director / Company Secretary (print)
Date 27/10/23	Date 14.11.23

Signed on behalf of the Council:



Date: 14.11.23

Accepted by the Secretary of the Department pursuant to section 9.5 of the *Environmental Planning and Assessment Act 1979* (NSW) on

Date: 27/11/2023

Secretary or their delegate:



Benjamin Harrison
Director Compliance

As nominee of the Secretary

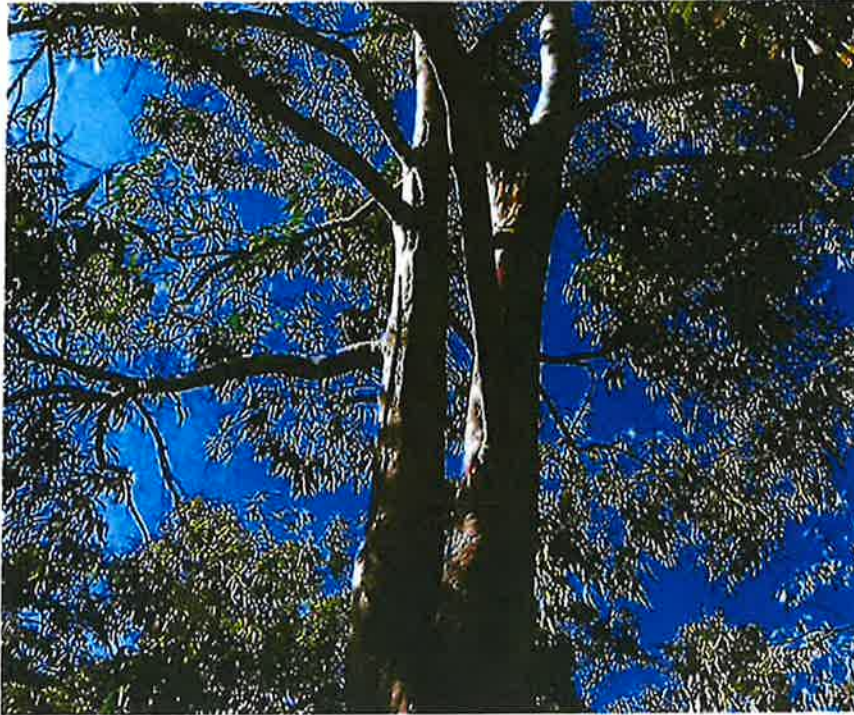
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Annexure A – Tree Management Plan

APAC-#68003608-v5

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**PACIFIC HIGHWAY & DOOHAT AVENUE;
NORTH SYDNEY
STREET TREE MANAGEMENT PLAN**

DOC No: TMP-2203-001
JOB No: 2203
REV: B
DATE: 02.08.2023

PREPARED BY:
Guy Sturt
B L Arch (UNSW) AILA Registered Landscape Architect
Dip. Arboriculture AQF5 Consulting Arborist

STURT NOBLE ARBORICULTURE
Suite 91, 330 Wattle Street, ULTIMO NSW 2007



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1.0 INTRODUCTION

This report documents the development of a Street Tree Management Plan for a section of Doohat Avenue in the North Sydney Council Local Government Area (LGA) that replaces three (3) existing trees which have been removed by Council.

The Street Tree Management Plan documents a Street Tree Management Plan for Pacific Highway & Doohat Avenue; North Sydney. The Plan includes:

Tree Installation:

- Location of above ground and below ground services and other infrastructure e.g. traffic signs, bus stops, driveways etc.
- Plan of proposed planting locations.
- Proposed tree species for installation considering mature size, aesthetics and soil requirements.
- Specification of stock size, and selection criteria according to NATSPEC.
- Specification of backfill soil, planting pit dimensions and setback from the kerb & gutter.
- Environmental controls i.e. removal of spill, sediment control etc.
- Specification of any soil improvements to the surrounding soil
- Tree planting detail.

Tree Maintenance to Establishment:

- Specification of a formative pruning strategy
- Watering schedule, timing, volume per tree and duration
- Specification of a fertilising regime including the type of fertiliser, application rates and timing
- List of pest, weed and disease species that may affect the trees. Documentation of control these from an Integrated Pest Management perspective, i.e. biological, mechanical & chemical controls.
- Environmental controls for the use of any chemicals
- WHS considerations for the use of any chemicals
- Specification of a pest and disease inspection schedule i.e. timing, who will carry out the inspections and reporting requirements
- Pest & disease inspection sheet as an attachment at the end of the plan

Monitoring and Evaluation:

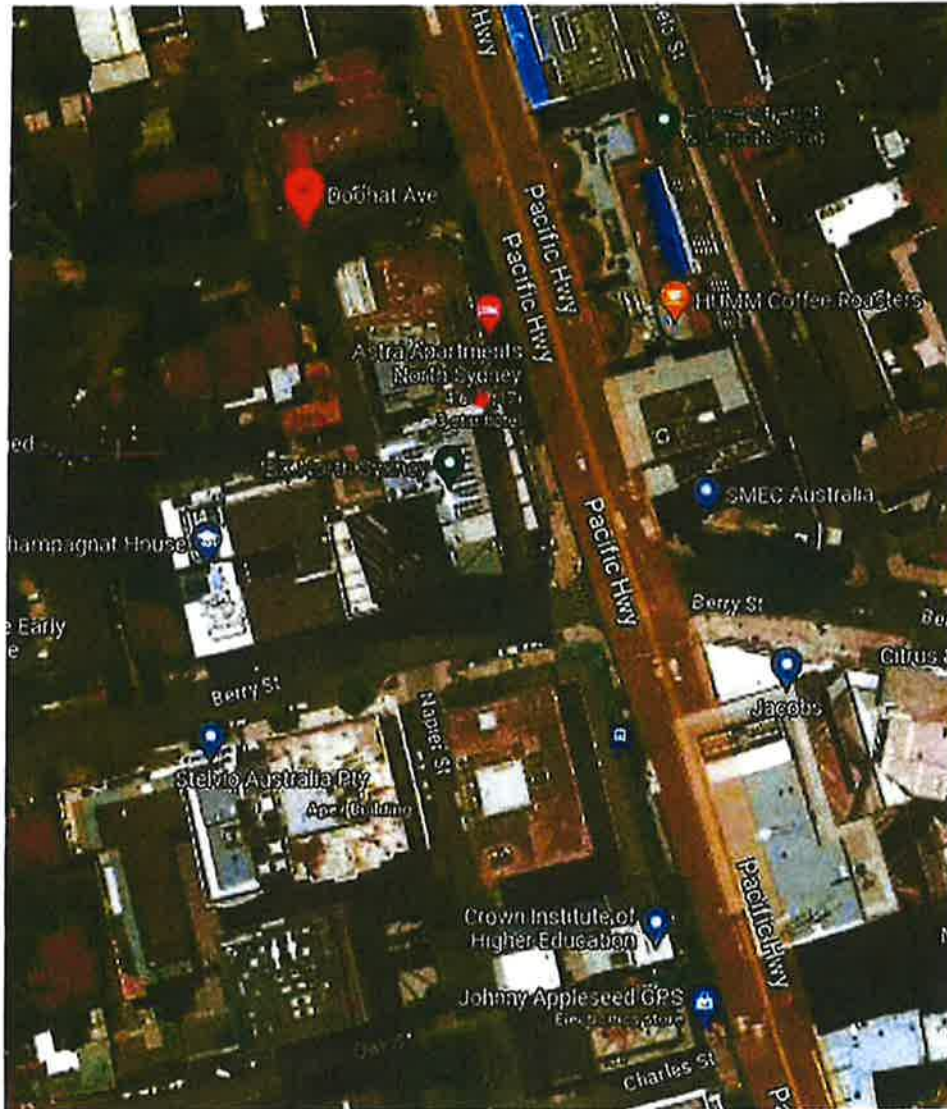
- Stages at which the plan will be reviewed for effectiveness
- Management of the Plan: Who will review the plan
- Key performance indicators to measure effectiveness

Review:

- Possible modifications to the plan e.g. fertilisers, pesticides etc.



FIGURE 1: LOCATION PLAN



2.0 PROPOSED TREES

2.1 Environmental considerations

Environmental considerations relating to the tree replacement strategy are an important part of the process. The Contractor installing shall ensure:

- that all materials and the execution of the work are ecologically sound, environmentally sensitive and consistent with the principles of sustainable development;
- that dust and noise caused by the works are kept to a minimum;
- the spread of dirt and mud along roads and paths shall be minimized and install localised sediment and erosion controls to work and stockpiles under their control and use;
- soil and water does not run into gutters and into stormwater;
- minimise the danger of fuel spills by refueling offsite and ensuring a spill kit is on hand;
- ensure waste is disposed of in registered landfill sites;
- ensure mulch from chipped trees is fully composted before been reused on other sites.

2.2 Tree Installation

2.2.1 Species Selection

North Sydney Council has specified replacement trees as 2 No. Spotted gums (*Corymbia maculata*) and 1 No. Plane Tree (*Platanus X Hybrida*) for Street Tree planting.

2.2.2 Services Location

All below ground services are located either in the roadway and/or or footpaths. Service information available from the main Contractor is provided in the Appendix but does not relieve the tree installer from doing their own investigations.

2.2.3 Street Tree Supply Specification

North Sydney Council has specified replacement trees are *Corymbia maculata* 2 No. x 100 litre pot size and *Platanus X Hybrida* 1 No. x 200 litre pot size With a rootball width of 520mm the 1.5m verge will accommodate a tree planting hole at 3 times the rootball size and allow for a large tree specimen to replace the existing trees.

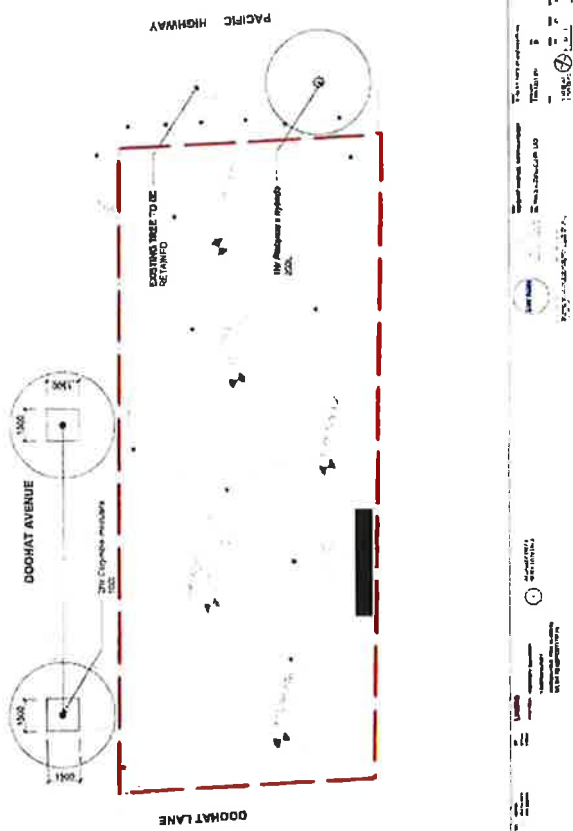
All trees to be planted are to conform to the NATSPEC guide and "Guide for assessing the quality of and purchasing of landscape trees" by Ross Clark 2003 and accordance with AS 2303:2018. The following specification details the requirements for the supply and transportation of trees.

Nursery stock shall meet design criteria for minimum dimensions, container size and shape, plant shape or special pruning requirements outlined in this above document summarised in the table below.

Container. Volume	Height above contai ner (metre s)	Calliper (at 300mm)	Clear Trunk Height (metres)
100 Litre	2.4 2.7	45-50 mm	1.4

FIGURE 2: STREET TREE PLANTING PLAN





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The NATSPEC guide and "Guide for assessing the quality of and purchasing of landscape trees" and AS 2303:2018 outlines the main criteria for tree supply as:

True to Type

Trees supplied shall be identified and confirmed as the species, and variety or cultivar specified.

Health and vigour

Trees supplied shall be healthy and vigorous at the time of delivery and planting. Trees shall be checked to ensure the extension growth and foliage size, texture and colour is consistent with the extension growth, size, texture and colour exhibited in healthy specimens of the species.

Pest and disease

Trees shall not be diseased or show evidence of pest attack that may affect the long term health of the tree or adjoining plantings. For native trees with a history of attack by native pests, evidence of previous attack must be restricted to less than 15% of the foliage and there must be no actively feeding insects or evidence of fungi.

Injury

Trees must be free from injury and wounds.

Self supporting

Supply only trees that are self supporting.

Stem Taper

Supply trees where the calliper at any given point on the stem is greater than the calliper at any point higher on the stem.

Pruning

Trees are not to be pruned into a saleable shape just prior to shipment. All pruning shall be a clean-cut at the branch collar, no lopping or topping of trees is to be carried out and the diameter of any wound must not exceed 50% of the caliper immediately above the point of pruning.

Clean stem height: trees shall be supplied with a clean stem height of 40% of total tree height.

Pruning wounds: Fresh cuts (i.e recent, non-calloused) must be less than 20% of total tree height.

Type: Ensure a clean-cut at the branch collar that complies with AS4373: Pruning of Amenity Trees.

Crown symmetry

The symmetry of the crown is an important aspect of the presentation and appearance of the tree in the landscape. Difference in crown distribution on opposite sides of the stem axis must not exceed 20%.

Stem structure

Species with an excurrent form: Supply trees with a defined central leader and the apical bud intact. Trees that have had their leaders cut or damaged will not be accepted. Supply trees with a single stem roughly in the centre of the tree with any deviation from vertical <15%.

Species with decurrent form: Supply trees where the central stem is not divided at any point lower than the clean stem height nominated, and that the stem junction at the point of division is sound.

All species: Ensure that branch diameter is less than or equal to one-half of the calliper immediately above the branch junction.

Included bark

Supply trees without inclusions and the bark ridge of co-dominant stems are convex, except for species prone to include bark that are known to remain strong.



Trunk position

Supply trees with the distance from the centre of the trunk to any extremity of the rootball must not vary by more than 10%.

Compatibility of graft unions

When purchasing named cultivars propagated by grafting, it is critical that the graft union is sound and that the scion and root stock are compatible. The union between the scion and the root stock must be sound for the entire perimeter of the graft. The diameter of the scion immediately above the graft must be equal to the diameter of the rootstock immediately below the graft (+or -20%).

Indication of north

For Trees in containers >100 litres: Indicate the northerly aspect during growth in the nursery and ensure it is marked so to withstand transport without being removed.

Root division

Trees in containers < or = 45 litre: Primary division of roots is to have occurred at not more than 100mm intervals.

Trees in containers >45 litre: Primary division of roots is to have occurred within the outer 50% of the rootball at <100mm intervals.

Root direction

Ensure that roots, from the point of Initiation, generally grow in outwards (radial) or downwards direction, and that any deviation from the established direction must not exceed 45°.

Root ball occupancy

Soil Retention: On shaking or handling of the unsupported rootball at least 90% of the soil volume shall remain intact.

Rootball depth

Rootball depth assessment for containers/rootballs 45 litres or larger must:

- have a depth of less than or equal to the maximum depth specified;
- have a diameter greater than or equal to their depth; and
- rootballs (regardless of size) must not exceed 550mm in depth

Height of root crown

Ensure that the trees root crown is at the surface of the rootball.

Non-suckering rootstock

Grafted cultivars/varieties: Supply trees grafted onto non-suckering rootstock.

Any tree not conforming to the specifications and standards listed should be rejected and suitable replacements provided.

2.2.4 Street Tree Installation

Tree planting works shall be undertaken by an Arborist or Horticulturist with minimum certification in accordance with Australian Qualifications Framework Level 2.

The scope of work for tree installation work will comprise:

1. Additional Stump grinding if required.
2. Excavation of subgrade for tree pits.
3. Supply and Installation of Imported and existing soil mixes.
4. Installation of trees.
5. Supply and installation of wooden stakes, ties where required to maintain tree security.
6. Installation of supplied tree guards if specified by Council.
7. Supply and installation of rubber surrounds after six (6) month soil settlement and tree establishment period.
8. Maintenance of planted trees for a specified period following completion of planting.

Standards

All works shall be in accordance with the relevant standards including:

- AS 4419-2003 Soils for landscaping and garden use;
- AS 4454-2003 Compost, soil conditioners and mulches;
- AS 4373-2007 Pruning of amenity trees.

Statutory requirements

The Contractor/ installer is responsible for compliance with all relevant statutory requirements.

The Contractor/ installer shall check with North Sydney Council if a Road Opening Permit is required and be able to demonstrate clear working programs. Site specific pedestrian and vehicular traffic control plans are to be submitted as part of this application and shall conform to NSW RMS guidelines. These plans shall include any requirements for parking of worksite vehicles and the delivery of materials.

Environmental controls

Environmental considerations relating to the tree removal and replacements strategy are an important part of the process. The Contractor installing shall ensure:

- that all materials and the execution of the work are ecologically sound, environmentally sensitive and consistent with the principles of sustainable development;
- that dust and noise caused by the works are kept to a minimum;
- the spread of dirt and mud along roads and paths shall be minimized and install localised sediment and erosion controls to work and stockpiles under their control and use;
- soil and water does not run into gutters and into stormwater;
- minimise the danger of fuel spills by refueling offsite and ensuring a spill kit is on hand;
- ensure waste is disposed of in registered landfill sites;
- ensure mulch from chipped trees is fully composted before been reused on other sites.

Site investigations, existing services and structures

The installer shall confirm with North Sydney Council the exact location of all tree pits associated with tree planting works.

In accordance with NSW electricity and gas supply regulations, all excavations for tree planting require the review of underground service plans sourced from Dial Before You Dig service. Specialist service location tools or expertise may be required when underground service plans are insufficiently detailed or where plans indicate that services are close to the intended planting location. The installer shall be responsible for the rectification of all pavement surfaces where inspections have been undertaken including the making good of any excavation or site markings.

The installer shall notify North Sydney Council immediately upon discovery of services or obstructions that prevent any planned tree planting. All services shall be considered live until determined otherwise.

In the event of any damage to any service, the installer shall immediately notify the relevant authority and North Sydney Council and satisfy all requirements of the authority concerned.

Spoil

Surplus excavated material must be immediately removed from the site. This includes debris resulting from site clearance and excavated material not reusable as topsoil, filling, mulch or the like, unless otherwise specified or directed. Existing topsoil with any stump grinding debris incorporated within it will be removed from site and not re-used in the new planting site.

The installer shall be solely responsible for the safe and harmless disposal of material away from the site. Surplus excavated material shall not be permitted to remain in place overnight.

Extent of excavations

Excavate to an equivalent depth of the new tree rootball. Do not disturb services, and excavate by hand around any existing services as required.

The installer shall determine the rootball depth of each tree to determine the appropriate tree pit depth. Allow additional depth to achieve specified falls for subsoil drainage lines and to satisfy finished levels. Safety precautions must be in place to prevent public entry to worksite area.

Subgrade preparation

Cultivate or rip the subgrade at the base and sides of tree pits to a depth of 100mm. During cultivation, thoroughly mix in any materials required to be incorporated into the subsoil. Remove stones exceeding 70mm and any rubbish or other deleterious material brought to the surface during cultivation. Grade the base of tree holes to the required design levels and shapes after cultivation.

Soil Mixes

TYPE A Soil mix: Commercially available premium grade manufactured sandy loam organic garden mix conforming to AS4454.

TYPE B Soil mix: Blended soil mix comprising 40% recovered existing site topsoil (or imported premium grade top soil) and 60% coarse sand.

COARSE SAND: Shall be washed, sharp coarse river sand 0.25 to 2.0 mm in diameter, free of weeds, debris or other deleterious material.

Planting conditions

Do not plant in unsuitable weather conditions such as extreme heat, cold wind or rain. Avoid planting where unseasonable and adverse weather is forecast within 24 hours of the operations. No trees are to be planted on days exceeding temperatures of 30. Celsius. Generally tree planting is preferred during the cooler months from March to October.

Watering

Thoroughly water the tree rootballs before planting and then immediately after planting. Prevent the rootballs from drying out during the planting phase.

Apply water so as not to disturb the soil. Raise the moisture within the root zone to field capacity. Ensure potted rootball is thoroughly wet through the entire soil profile. Continue watering at a rate and frequency as required to avoid water stress in the plant.

Lifting of trees

It is preferred that all trees are carried or slung via the root ball. In the event that the trees have to be repositioned or lifted by the trunk, the installer shall provide adequate soft padding to the trunk in the form of underfelt, carpet or rubber wrapping and use only soft slings during the lifting.

Placement

When the tree pit is excavated and the hole is the correct size, place the rootball in its final position. Ensure the trees are centred and plumb and the top of the rootball level with the finished surface of the surrounding soil mix.

Do not use the trunk of the tree as a lever in positioning or moving the tree in the planting hole.

Alignment and orientation

Position the tree at the setout distances as indicated in the details. Ensure trunks are set vertically and aligned with other new or existing trees.

Orientate the trees trunk north where indicated by supplied markings where applicable. (+or- 20°). Adjust within the above tolerances so that the primary lowest branches are generally aligned parallel with the kerb and road way (NOT extending into roadway).

Root trimming

All trees shall have the outer 10-25mm of the external root ball faces pruned or sliced away using secateurs or a sharp and clean spade. Avoid excessive disturbance to the remaining rootball during this trimming and discontinue if excessive rootball soil begins to fall away. Do not leave the rootballs exposed for extended periods. Cover the rootball with moist hessian if backfilling can not occur immediately.

Backfilling

Backfill with soil mix as specified in soil mixes and in accordance with the details and specification. Lightly compact the soil to ensure all voids around rootballs are filled and that no air pockets are retained. Ensure that the backfill soil is not paced over the top of the potted rootball. The top of the rootball and plant stem must be kept level with the top of the backfill.

Mulch

Mulch shall be free of deleterious and extraneous matter, including soil, weeds, rocks, twigs and the like. Lay mulch to nominal 80mm depth. Place the mulch so that it is not in direct contact with the trunk. Feather mulch away from trunk at base of root ball.

Mulch the areas in accordance with the details. The mulch types to be used are as follows:-
• Composted weed free organic leaf/timber chippings or recycled (no fines) wood waste."

2.2.5 Tree Planting Details

Figure 1 provides a suitable technical detail for planting of 100 Litre stock specified.

2.3 Tree Maintenance to Establishment

2.3.1 Tree Establishment Period

The tree establishment period commences after all the street trees have been installed (date of practical completion) for a period specified by the local Council –generally 12 months for this critical initial establishment period. However ongoing maintenance of street trees is also essential to ensure trees develop into healthy, vigorous and safe specimens and enhance streetscapes.

Tree maintenance works shall be undertaken by an Arborist or Horticulturist with minimum certification in accordance with Australian Qualifications Framework Level 2.

Works required during the planting establishment period include:-

- Watering;
- Fertilising;
- Control of weed growth;
- Replacement of dead, damaged or stolen plants
- Formative pruning.
- Pest and disease control;
- Adjustment, removal or replacement of stakes & ties;
- Mulching to maintain and reinstate 75mm depth.

A maintenance program shall be established. It is recommended that new tree plantings are checked

- Monthly for first 3 months.
- Bi monthly for remainder of year.
- Annually thereafter.

Inspection results and the maintenance procedures shall be recorded and submitted to Leichhardt Council every 2 months.

2.3.2 Tree Maintenance

Long term maintenance of street trees is critical essential to ensure trees develop into healthy, vigorous and safe specimens.

A. Pruning

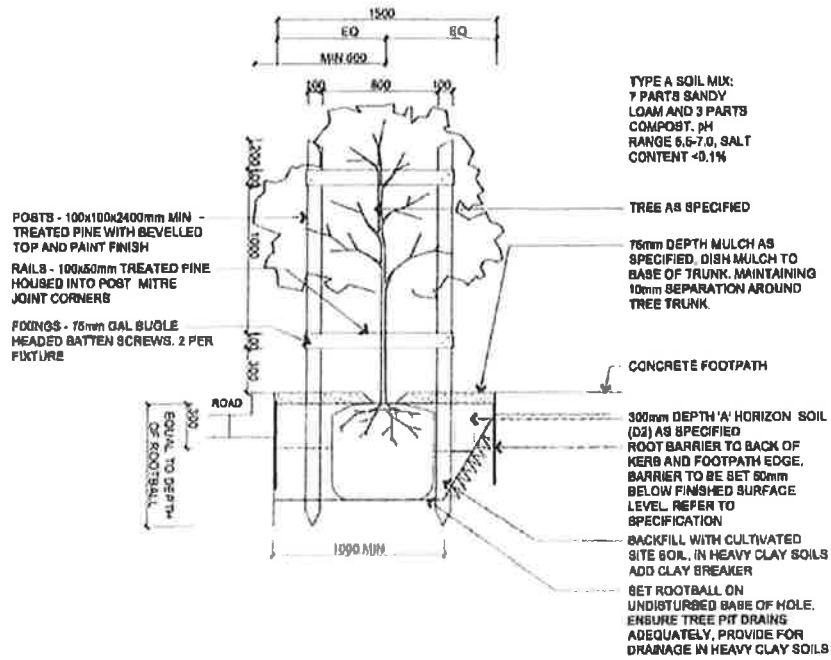
Formative pruning is the selective pruning of a young tree to promote good form and branching structure. Formative pruning is most critical in the early stages of growth of a tree, in particular the first five to ten years.

Limit pruning to the second or third year of growth, because newly planted trees need their leaves and shoot tips to provide food and substance to stimulate root production.

A formative pruning strategy is required. The pruning strategy should include:

- Removal dead branches of greater than 10mm in diameter as required.
- Selective removal of branches as required to promote proper form and branching habit, typical for the natural growth habit of the species. For species with an excurrent branching habit, ensure the development of a dominant central leader. Remove lesser competing leaders where required. Ensure that no greater than 25% of the total foliage area is removed at any one time.
- Removal of broken and defective branches as required.
- Removal of crossing and rubbing branches to ensure proper form and branching habit as required.
- Removal of lower branches as required to ensure adequate vehicular and pedestrian clearance. Remove branches progressively as the tree matures to ensure that no greater than one-third of the total height of the tree is removed at any one time.
- Use only clean, sharp pruning implements for all pruning work, ensuring that cuts are made without damage, tearing or bruising of vascular tissue.

FIGURE 1: TREE PLANTING DETAIL



All pruning shall be carried out in accordance with the Australian Standard No 4373-2007 Pruning of Amenity Trees and the NSW WorkCover Authority Code of Practice for the Amenity Tree Industry (1998) to ensure works are carried out to acceptable safety standards in accordance with current best practice. All pruning shall be carried out by a Qualified Arborist.

The Sydney Development Control Plan 2012 Section 3 – General Provisions provides excellent guidelines for pruning clearances.(Refer Table 2)

Table 1: Guideline for Tree Pruning

Location	Height to which pruning is permitted	Maximum diameter of branch which may be pruned
Major Arterial Roads	4.5m above the kerb.	100mm
Local Roads	2.5m over a parking lane and 4.5m above the kerb.	100mm
Council pedestrian paths	2.5m above the footpath.	100mm
Buildings	1m above any approved building, measured from the surface of the structural component, such as a wall or roof on the building's edge	50mm
Domestic power or Telecommunication lines	Must be 0.5m minimum and 1m maximum clearance from the service line	50mm

Note: Branch size is measured from the point of attachment to another branch or the trunk.

B. Tree Watering Schedule

Watering of the newly installed street trees is required to successfully establish the trees.

Water trees on a regular basis throughout the establishment maintenance period to ensure that the rootball is maintained in a moderately moist condition and the trees are free of moisture stress. Regular monitoring of soil moisture levels should be carried out by a Qualified Horticulturist to ensure optimum soil moisture levels are maintained throughout the Establishment Maintenance period.

We recommend the attached watering schedule (Refer Table 4) with timing, volume per tree and duration is followed.

This is based on work by Trees Impact nurseries (Ref. Draft Watering Schedule for newly planted trees for Eastern NSW: Trees Impact 13th June 2003) and indicates irrigation for plantings in, Spring/Summer, Early Autumn, Late Autumn, Winter and Early Spring. The watering period is designed to allow trees to be maintained through either their first full Autumn or until at least the following February.

C. Fertilising

Fertilise as required to maintain active plant growth. Prior to application of fertilizers, temporarily rake back the mulch to expose the topsoil. Supply and apply a 6-8 month Controlled Release Fertilizer in early autumn. The fertilizer shall be a balanced formulation containing all essential macro-nutrients and trace elements for normal plant growth. Modify the formulation where required for Phosphorus sensitive species. A slow release formulation using micro-pill technology such as Osmocote® or Nutricote® shall

be used. The fertilizer shall be applied evenly to the Root Zone by hand broadcasting at the manufacturer's recommended rate. Following fertilizer application, replace the mulch and replenish mulch cover as required.

The Technical Guidelines of the City of Sydney details the following fertiliser program.

Timing

	Product and application rate
<i>At time of planting</i>	<i>Slow Release landscape fertiliser suitable for trees and shrubs, 9 to 12 months release time. Osmocote or approved equivalent applied according to manufacturers directions.</i>
<i>6 months after planting and then monthly through to end of plant the establishment period.</i>	<i>Organic liquid fertiliser. Seasol or approved equivalent applied to soil as per manufacturers directions.</i>

D. Pest & Disease Control

The monitoring and control of pests and diseases shall be undertaken continuously with inspections including the following actions;

- Identification
- Assessment of damage
- Immediate action undertaken (If required)
- Reporting details

All inspections shall be undertaken by a qualified arborist with minimum AQF level 5 qualification in Arboriculture or demonstrated equivalent industry experience.

The Arborist shall inspect the trees on a regular basis to check for pest & disease infestation. An inspection shall be conducted at least twice during each season (i.e. eight times per annum). A short report detailing any problems observed and any proposed corrective action shall be supplied to the principal within a week of each site inspection. Where necessary, corrective action shall be carried out promptly to minimise damage to plant material and avoid death or loss of trees.

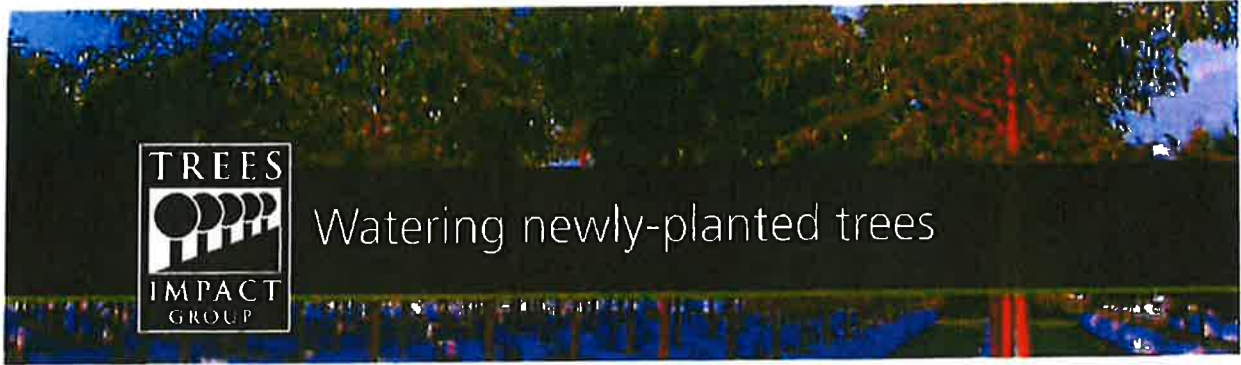
Control pests and diseases as required to ensure that trees are maintained in a healthy and vigorous condition and growth rate is not compromised. Minor pest infestations shall be controlled by hand removal of the insects or alternatively spraying with a low-toxicity contact pesticide such as Pyrethrin. Where systemic pesticides or fungicides are required, apply to the infestation evenly at the manufacturers recommended rate. Spraying shall only be undertaken when the weather conditions are fine and calm and there is no anticipated rainfall within the ensuing 24 hours.

The street trees recommended in this plan are generally pest free but are prone to some pest attacks. The Maintenance contractor and staff will need to Consider WHS considerations for the use of any chemicals

A person conducting a business or undertaking must manage risks associated with using, handling, generating or storing of hazardous chemicals at a workplace. In order to manage risk under the WHS Regulations, a duty holder must:

- a) Identify reasonably foreseeable hazards that could give rise to the risk
- b) eliminate the risk so far as is reasonably practicable
- c) If it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of risk control
- d) maintain the implemented control measure so that it remains effective

Table 2: *Tree Watering Schedule*



The following tables give suggested water application rates, frequency, and duration based on the best information available. It's important to remember that these and actual water needs will vary according to a range of site conditions and species.

Please also remember these suggested rates are broad estimates only. Always carefully monitor the trees in your project(s), paying particular attention to drainage and leaf droop, and vary as needed.

The process

1. Water trees on arrival

Water trees immediately after unloading at the rate of 50% of the rootball volume, e.g. 100L for 200L trees, 250L for 500L trees. If trees are not planted straight away, water – very slowly, to ensure it penetrates – at the rate of 25% of rootball volume daily until planted.

2. Water trees immediately after planting

As soon as trees have been planted, water in at the rate of 50% of rootball volume to ensure the rootball is fully 'wetted-up'.

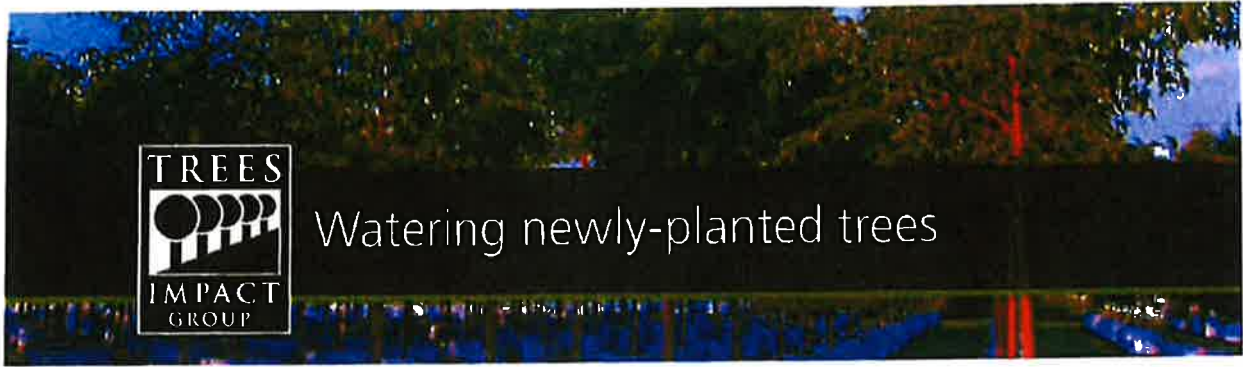
3. Suggested application rates

After planting, water trees, per application, at the rate shown in the table below.

100L	20L	
150L	30L	20L
200L	40L	30L
250L		35L
	60L	
400L		60L
	100L	
600L	120L	90L
700L	140L	
1200L		
1500L	100L	

4. Duration of watering

Continue watering as indicated in the table below or until the end of February the following year – whichever is longer. Always irrigate for Period 1 and add Period 2 if at all possible.



Watering Volume	Frequency	Duration
100L - 150L	3 times/week	10-15 minutes
400L - 500L	0-12 months	15-20 minutes

5. Watering frequency

Irrigate at the frequency shown in the table below.

Watering Volume	Frequency	Duration	Notes
100L - 150L	3 times/week	10-15 minutes	
400L - 500L	0-12 months	15-20 minutes	

*Delete a watering if rainfall in the 48 hours prior to the scheduled watering exceeds 50mm

Follow the above process at a minimum, water properly (once again, please refer to 'Watering newly-planted trees' document) and your newly-planted trees should thrive!

e) review, and if necessary revise all risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety

This WHS Code provides guidance on how to manage the risks associated with hazardous chemicals in the workplace by following a systematic process that involves:

- *Identifying hazards*
- *if necessary, assessing the risks associated with these hazards*
- *eliminating or minimising the risks by implementing and maintaining control measures*
- *reviewing control measures to ensure they are effective.*

When managing the risks, regard must be had to the following factors:

- *the hazardous properties of the hazardous chemical*
- *any potentially hazardous reaction (chemical or physical) between the hazardous chemical and another substance or mixture, including a substance that may be generated by the reaction*
- *the nature of the work to be carried out with the hazardous chemical*
- *any structure, plant or system of work that*
 - *is used in the use, handling, generation or storage of the hazardous chemical*
 - *could interact with the hazardous chemical at the workplace.*

Guidance on the general risk management process is available in the *Code of Practice: How to Manage Work Health and Safety Risks*.

Appendix 4 is an example of a pest & disease inspection sheet.

E. Mulch Replenishment

Organic mulches, such as composted materials, barks and woodchip, shall be replaced to ensure a minimum coverage of 50mm thickness and a maximum of 75mm thickness to the area surrounding the tree to the extent as originally specified. Mulches shall not be placed in direct contact with the trees trunk. The mulch material used shall if possible be the same as the original mulch cover specified at planting.

F. Weed Control

Control weed growth within the root zone area to minimise weed competition. Weeds shall be eradicated before they reach 100mm in height. Weeds shall be removed manually by hand or using hand held implements with minimal soil disturbance. Alternatively weeds shall be removed by applying non-selective herbicides eg. Glyphosate, sprayed directly onto the weeds at the Manufacturers recommended rate. Spraying shall only be undertaken when the weather conditions are fine and calm and there is no rainfall forecast within the next 24 hours.

G. Mowing & edging near trees

Use of Whipper-snippers shall not be carried out in proximity to the trees trunks. All trees damaged as a result of mowing and line trimming works shall be replaced at the Contractors expense. Minimise potential for damage during mowing operations by maintaining the full extent of mulch cover around the tree. Replace stakes damaged in mowing operations as required.

H. Adjustment and Replacement of Stakes and Ties

Check and adjust stakes and ties on a regular basis to ensure no damage or injury occurs to the plant stem, branches or foliage. Adjust ties as required to ensure sufficient movement of the plant stem to allow natural strengthening under normal weather conditions. Remove ties when sufficient anchorage and increase in stem taper and caliper has developed for the tree to support itself without overturning or excessive bending of the stem. Maintain stakes where necessary to protect trees from damage during mowing operations.

1. Replacement

Trees that die due to improper or inadequate maintenance during the establishment maintenance period shall be replaced with the same species in accordance with the original planting specification at the Contractors cost.

2.4 Monitoring and Evaluation

The plan will be reviewed for effectiveness on an annual basis.

The Council Tree Officer or a Qualified Arborist will review the plan.

Key performance indicators to measure effectiveness are:

2.4.1 Environmental :

- Not damaged by vandalism or accidental mechanical/ chemical damage.
- Growing true to form in good health and vigour.
- Not affected by Pests or Diseases.
- Not requiring high levels of maintenance to maintain minimal vigour.

2.4.2 Functional requirements:

- Not damaging underground services.
- Not damaging pavements or adjacent infrastructure or structures.
- Not growing beyond design envelope and growing into overhead wires and obstructing sightline.

2.4.3 Aesthetic and design requirements:

- Not unduly shading adjacent buildings.
- No excessive nuisance or hazard caused by dropping leaves, fruit or bark.

3.0 BIBLIOGRAPHY

City of Sydney. 5 December 2011; *City of Sydney Street Tree Master plan: Part B Tree Species Selection*

City of Sydney. 5 December 2011; *Part D Technical Guidelines of the City of Sydney Street Tree Master Plan*

City of Sydney 2012. *The Sydney Development Control Plan Section 3*

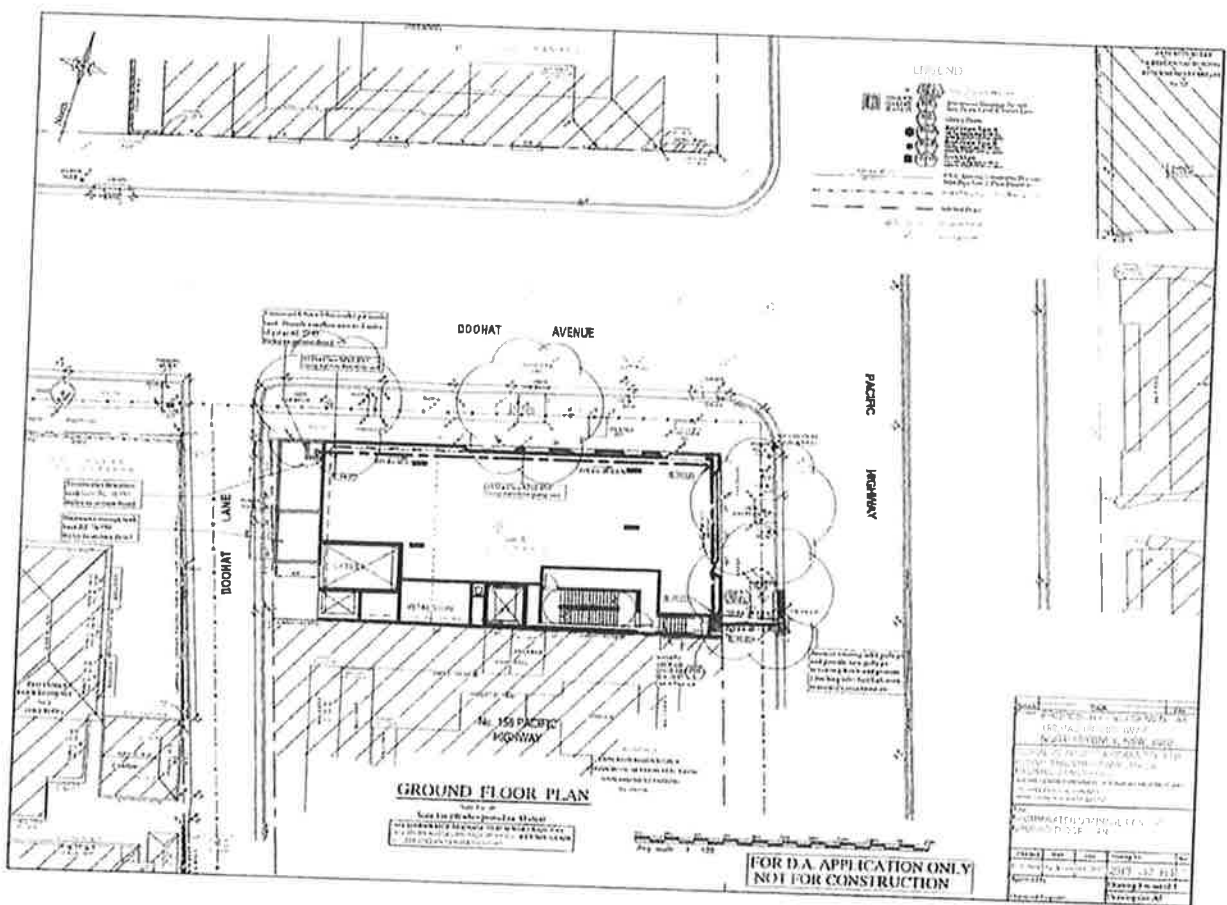
Clark, R. 2003. *Specifying Trees-a guide to the assessment of Tree quality*. NATSPEC/ Construction Information.

Googlemaps ©.

Landcom: May 2008. *Street Tree Design Guidelines*.

University of California Agriculture and Natural Resources. *Statewide Integrated Pest Management Program (UC IPM Online)* Viewed 18 March 2014; www.ipm.ucdavis.edu

4.0 APPENDIX: SERVICE DIAGRAMS





	<p>For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)</p>	<p>Sequence Number: 96793743</p>
<p>TELSTRA CORPORATION LIMITED A.C.N. 051 775 556</p>		<p>CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.</p>
<p>Generated On 17/04/2020 16:24:36</p>		

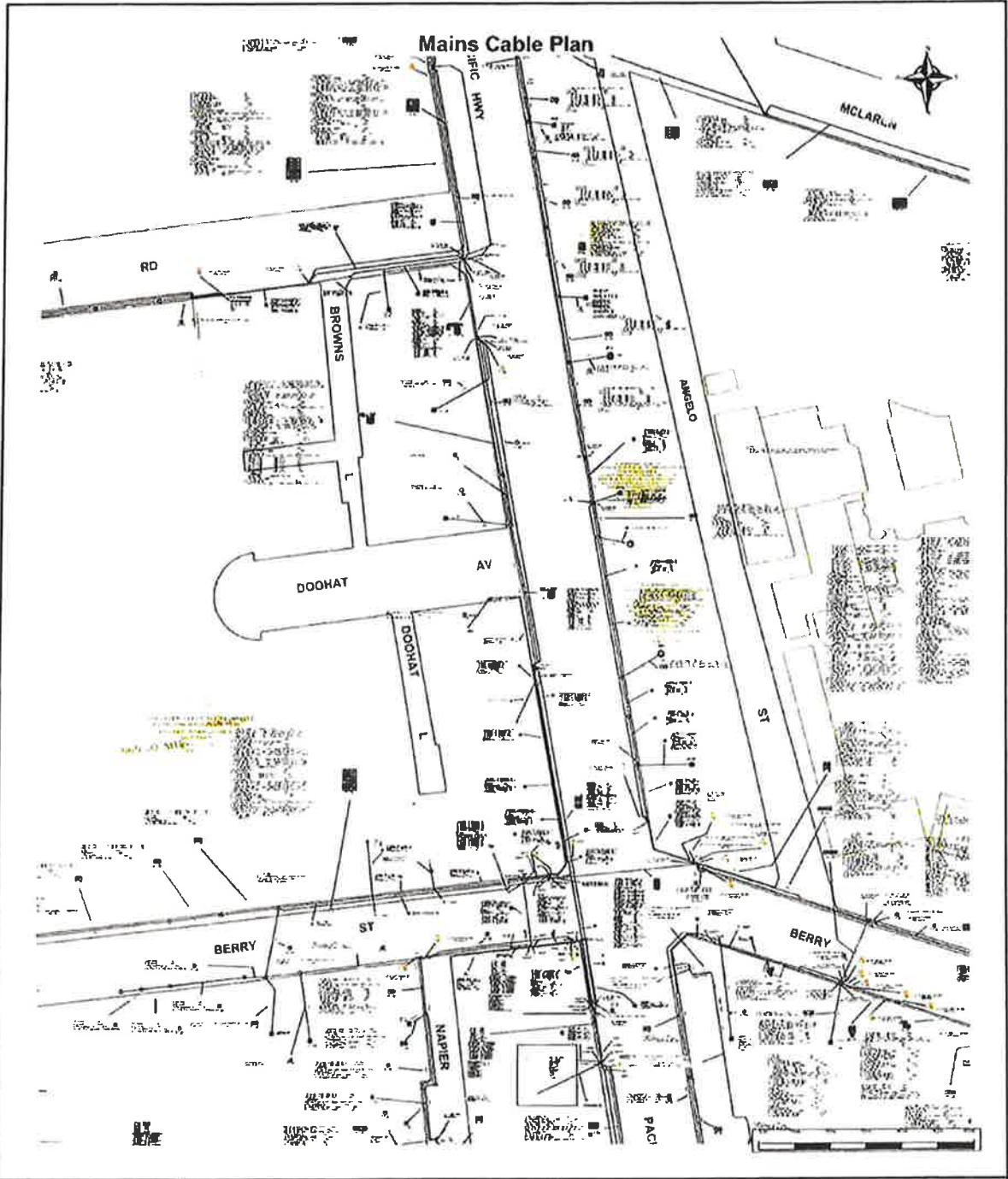
The above plan must be viewed in conjunction with the Mains Cable Plan on the following page


WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans

It is your responsibility to locate Telstra's underground plant by careful hand pole-polling prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans



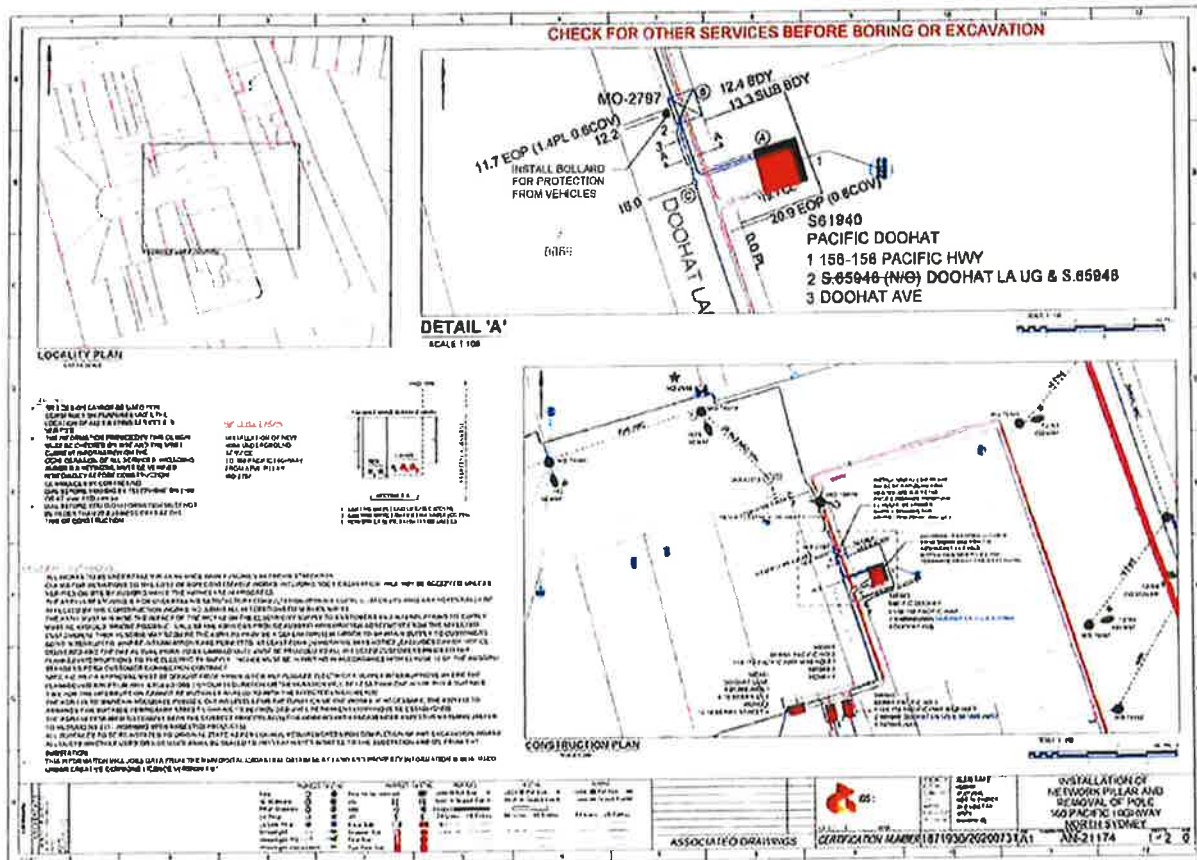
	<p>For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)</p>	<p>Sequence Number: 96793743</p>
<p>TELSTRA CORPORATION LIMITED A.C.N. 051 775 556</p>		<p>CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.</p>
<p>Generated On 17/04/2020 16:24:48</p>		

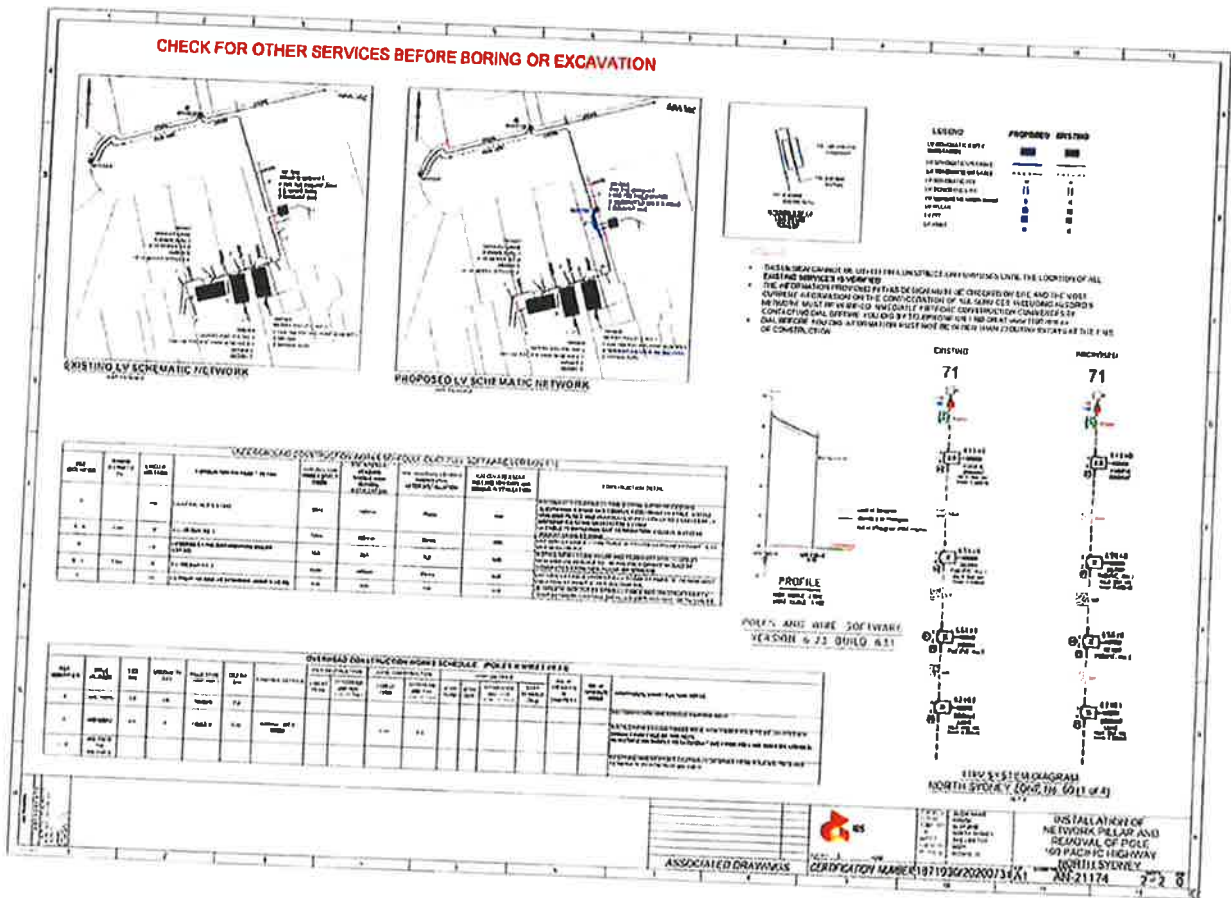
WARNING - Due to the nature of Telstra's underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

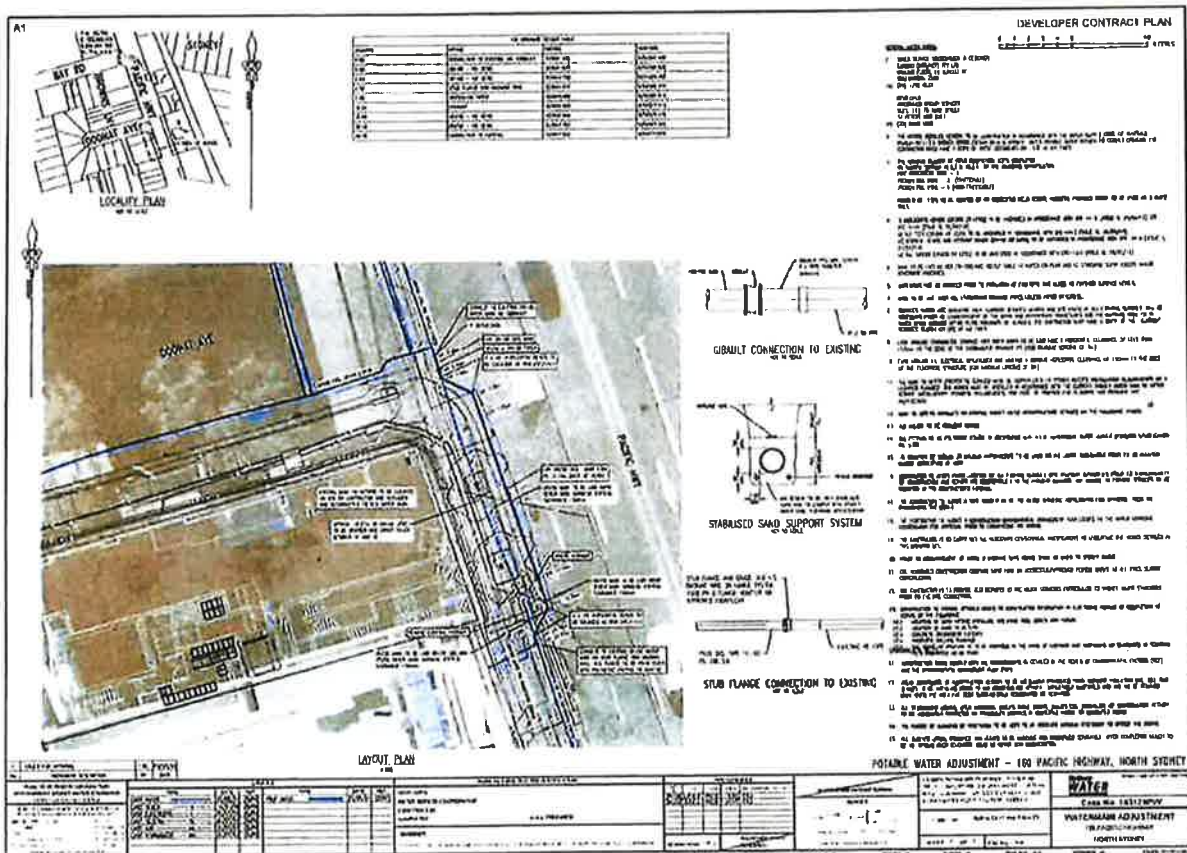
It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

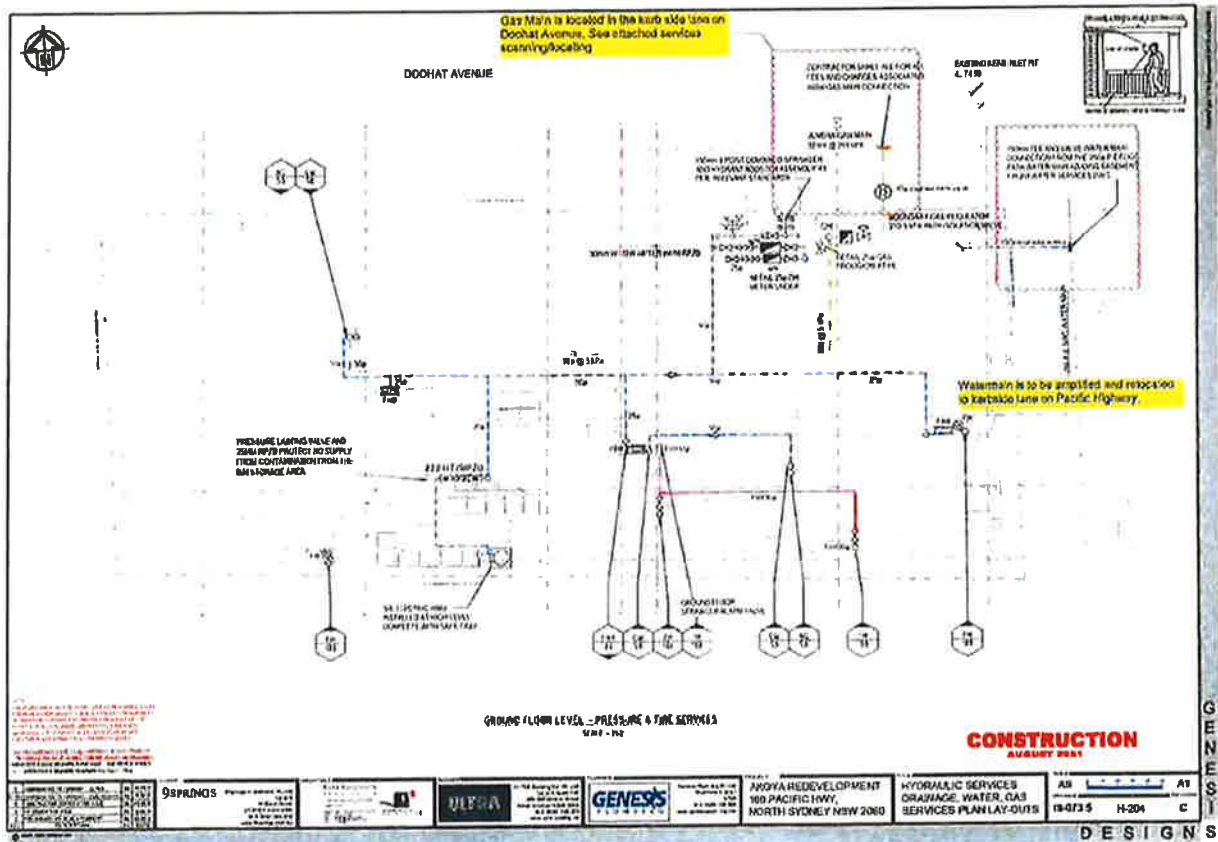
Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. **TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.**

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.









1. This drawing is to be read in conjunction with the following documents:
 2. The project description and specifications.
 3. The site plan and other drawings.
 4. The relevant standards and codes of practice.
 5. The relevant legislation and regulations.
 6. The relevant contracts and conditions of sale.
 7. The relevant permits and approvals.
 8. The relevant survey data and information.
 9. The relevant geotechnical and environmental data.
 10. The relevant health and safety information.

1	10/11/2023	AS	AS
2	10/11/2023	AS	AS
3	10/11/2023	AS	AS
4	10/11/2023	AS	AS
5	10/11/2023	AS	AS
6	10/11/2023	AS	AS
7	10/11/2023	AS	AS
8	10/11/2023	AS	AS
9	10/11/2023	AS	AS
10	10/11/2023	AS	AS

9SPRINGS	Project description	10/11/2023	AS	AS
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10/11/2023	AS	AS
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10/11/2023	AS	AS
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10/11/2023	AS	AS
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10/11/2023	AS	AS
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10/11/2023	AS	AS
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DESIGNS

GENESIS



UTILITY LOCATE REPORT

CLIENT	Ultra Building Group	DATE	31-05-2022
CLIENT CONTACT	Sam Boffa	PHONE	0410513230
SITE LOCATION	160 Pacific HWY North Sydney		
JOB DESCRIPTION	Locate services		
UTILITY LOCATOR	Brendan Mackay	PHONE	0431269208

PLAN INFORMATION

DBYD INQUIRY NUMBER:	32046154	DBYD START DATE:	31-May-2022
INTERNAL/PRIVATE PLANS	YES	NO	

UTILITY LOCATING QUALITY DESCRIPTIONS

QUALITY LEVEL A	Visualization/Confirmation of a service, position, and depth, by non- destructive digging methods or points of entry to pits or manholes. Recommended Quality Level prior to construction or excavation.
QUALITY LEVEL B	Locating of services using radio detection methods. Acceptable range of accuracy for Quality Level B is +/-300mm for position and +/-500mm for depth.
QUALITY LEVEL C	Services marked out using only surface features in the field. Surface features include hydrants, gas markers, pits etc. No indication of service location or depth can be attained from Quality Level C.
QUALITY LEVEL D	Services marked out using DBYD plans only. Offsets on plans can be used to obtain such indication of services in field but no indication of service confirmation can be given from Quality Level D.

The following report is an accumulation of information gathered from in field investigations at the time of the report and any changes of assets in the field cannot be accounted for. It is recommended that services be potholed for confirmation prior to any construction or excavations and a Quality Level A be achieved. This report does not replace the need for valid Dial Before You Dig plans to be always on site.

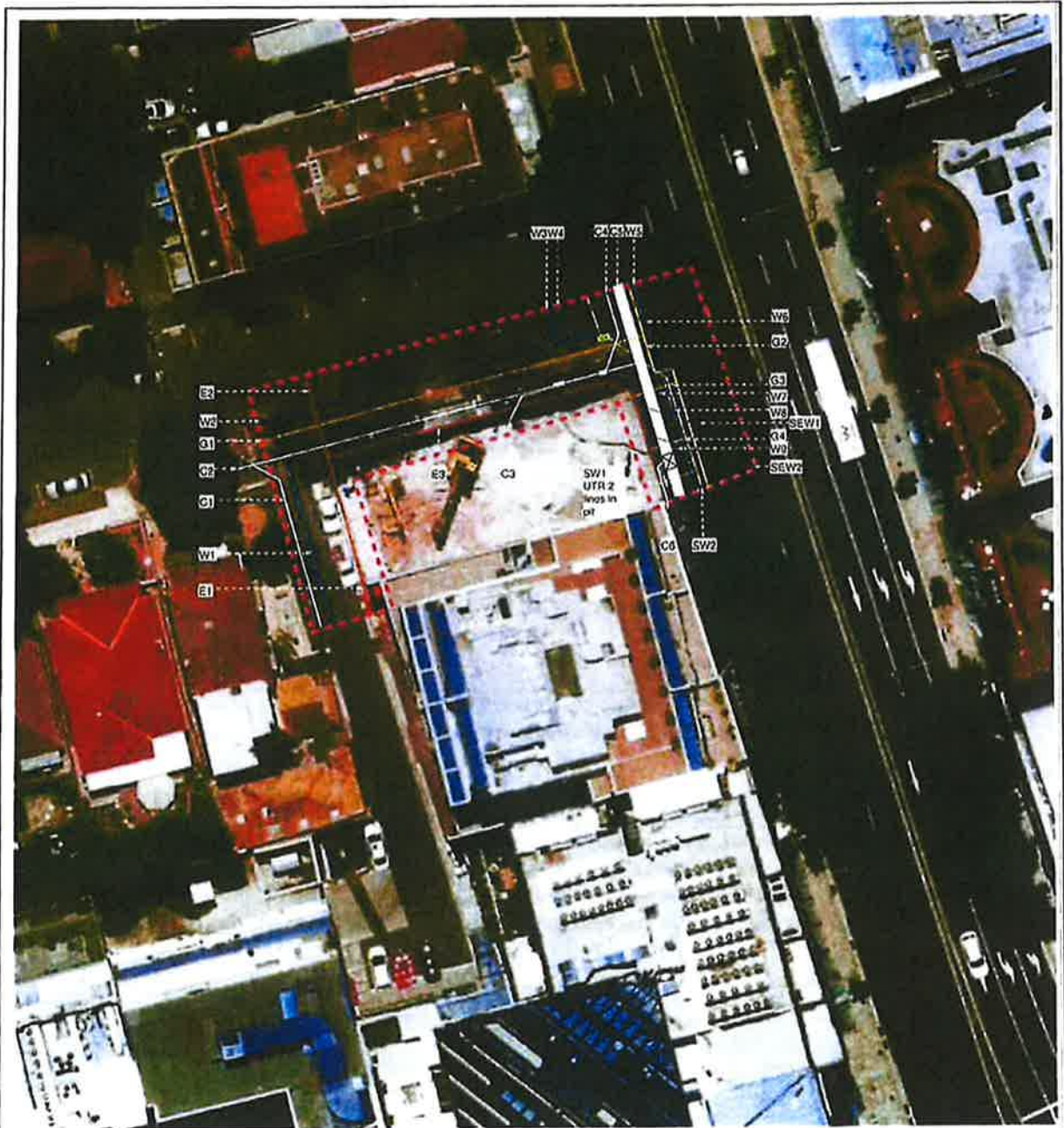
GEOSURV FIELD MARK UP COLOURS

	WHITE - COMMUNICATION SERVICE
	RED - ELECTRICAL SERVICE
	BLUE - WATER SERVICE
	YELLOW - GAS SERVICE
	GREEN - STORMWATER SERVICE
	PURPLE - SEWER SERVICE
	PINK - GPR/UNKNOWN SERVICE

geosurv[®]

with you from beginning to end

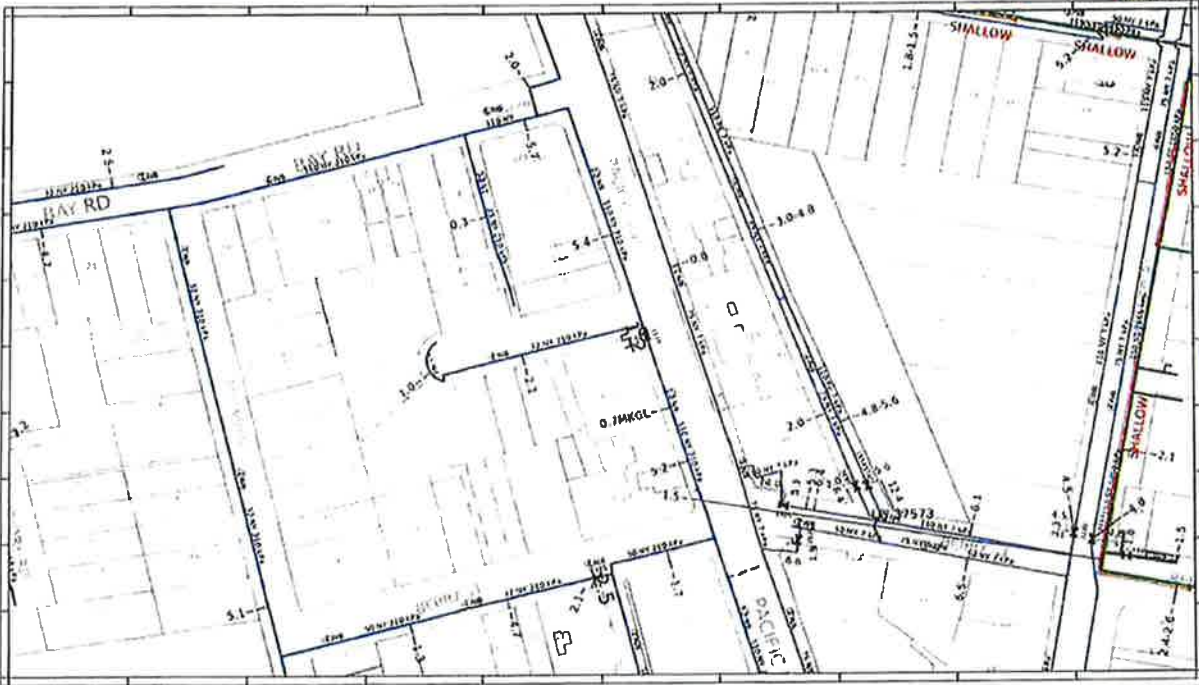
OVERVIEW PLAN



Please refer to DBYD Check Sheet and String Label Spreadsheet for more information on services drawn above.

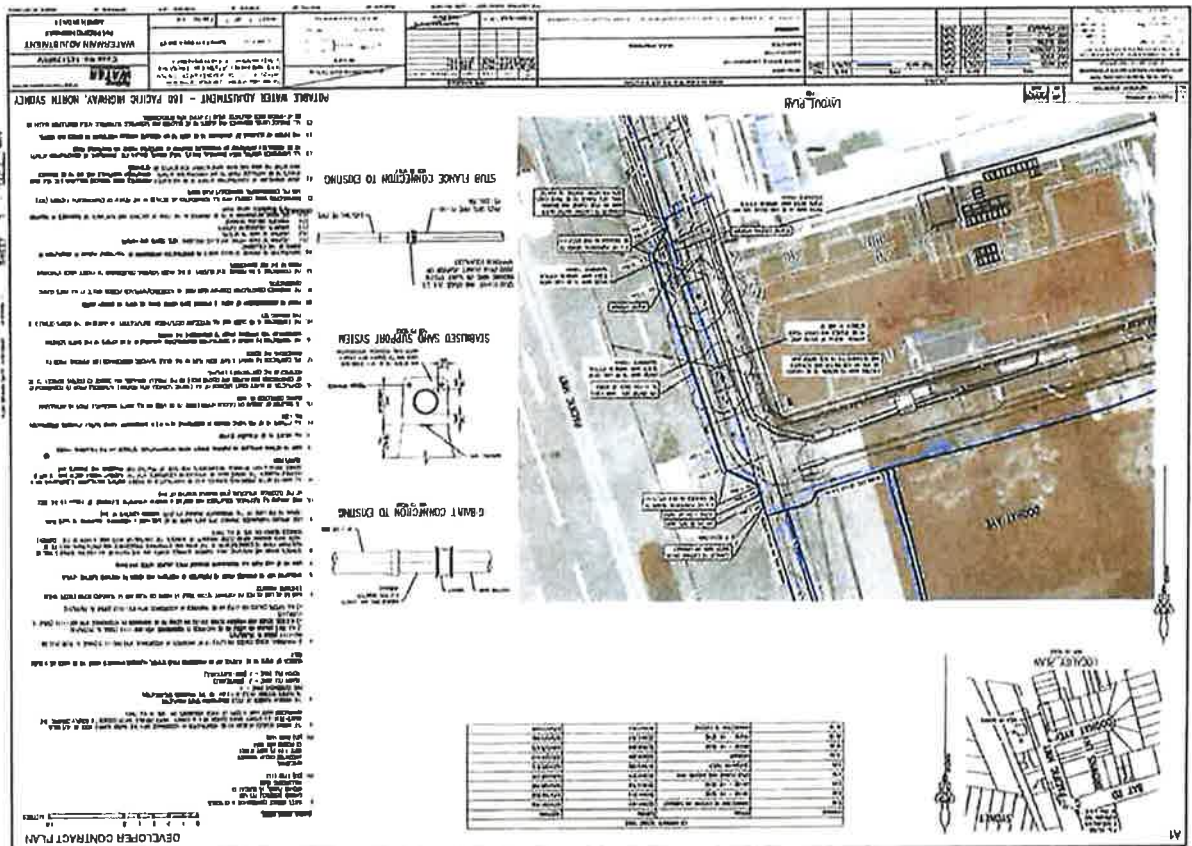
DBYD Authority: Jemena Gas Networks (NSW)

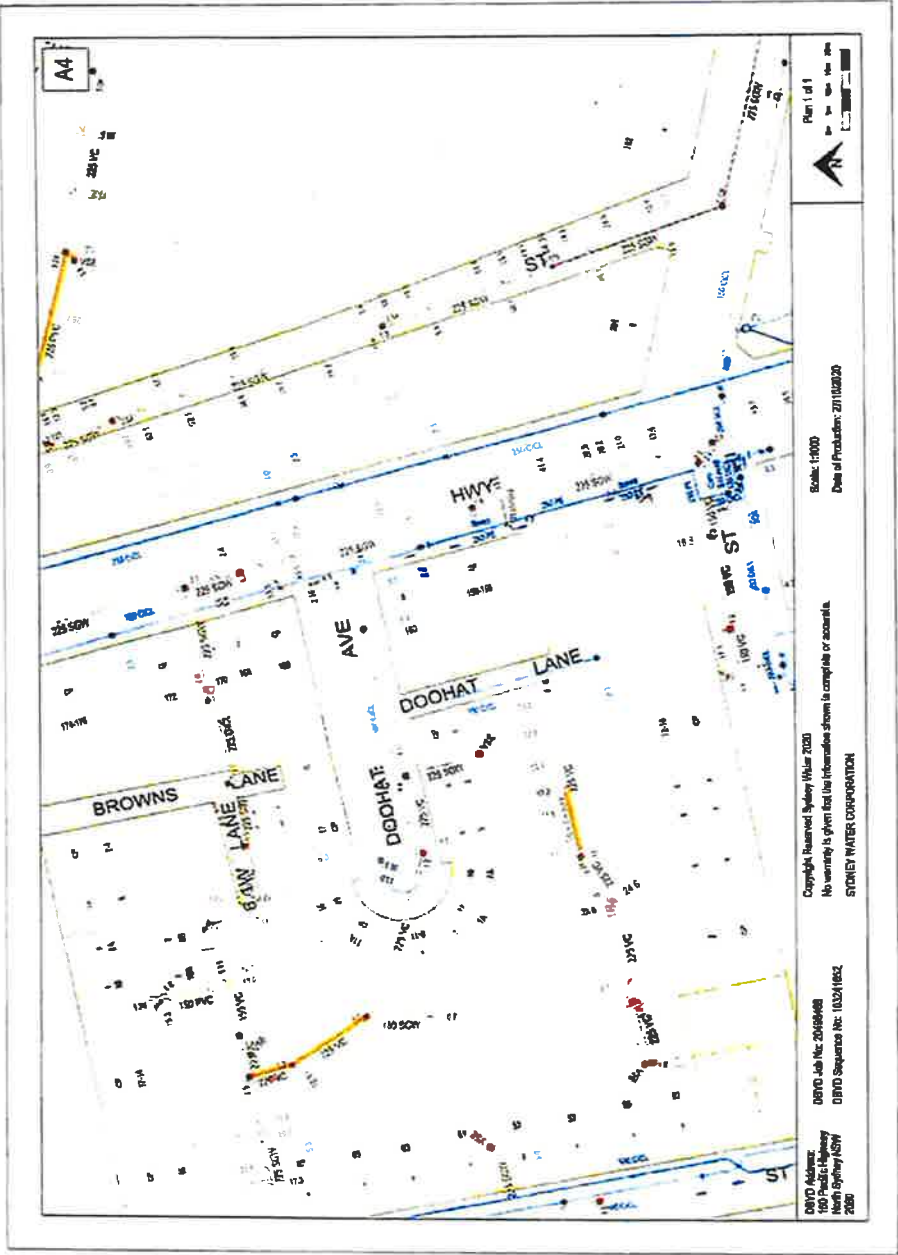
DBYD Location: 1611 PACIFIC HIGHWAY NORTH SYDNEY NSW 2050



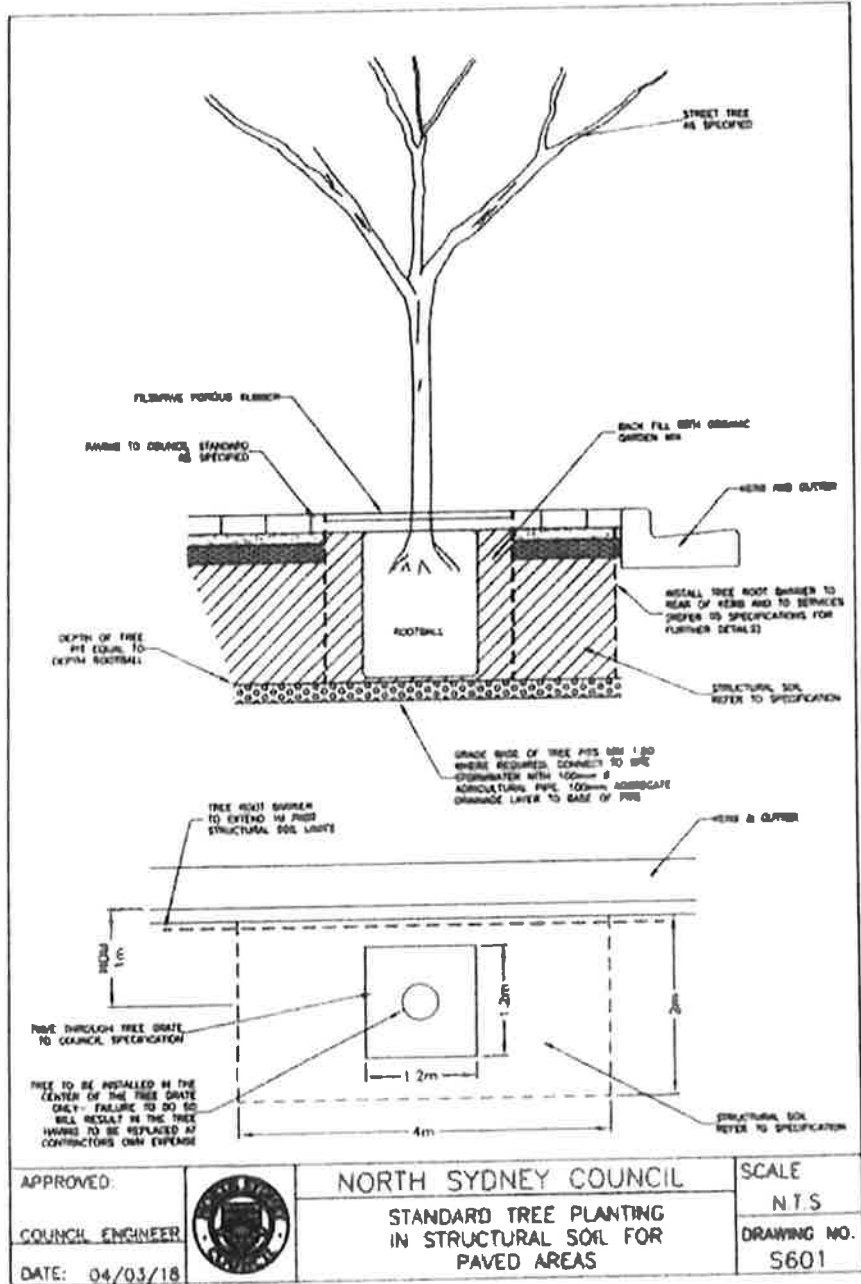
	For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.	 Scale: 1:2000	Issue Date: 3/10/2023 DBYD Seq No: 1/1/2023 DBYD Job No: 174/1/1/23
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WARNING: This drawing is a technical drawing and should be read in conjunction with the relevant specifications and standards. It is not to be used for construction without the approval of the relevant authority.





Annexure B – Standard Tree Planting in Structural Soil for Paved Areas



APPROVED: COUNCIL ENGINEER DATE: 04/03/18		NORTH SYDNEY COUNCIL STANDARD TREE PLANTING IN STRUCTURAL SOIL FOR PAVED AREAS	SCALE N.T.S. DRAWING NO. S601
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