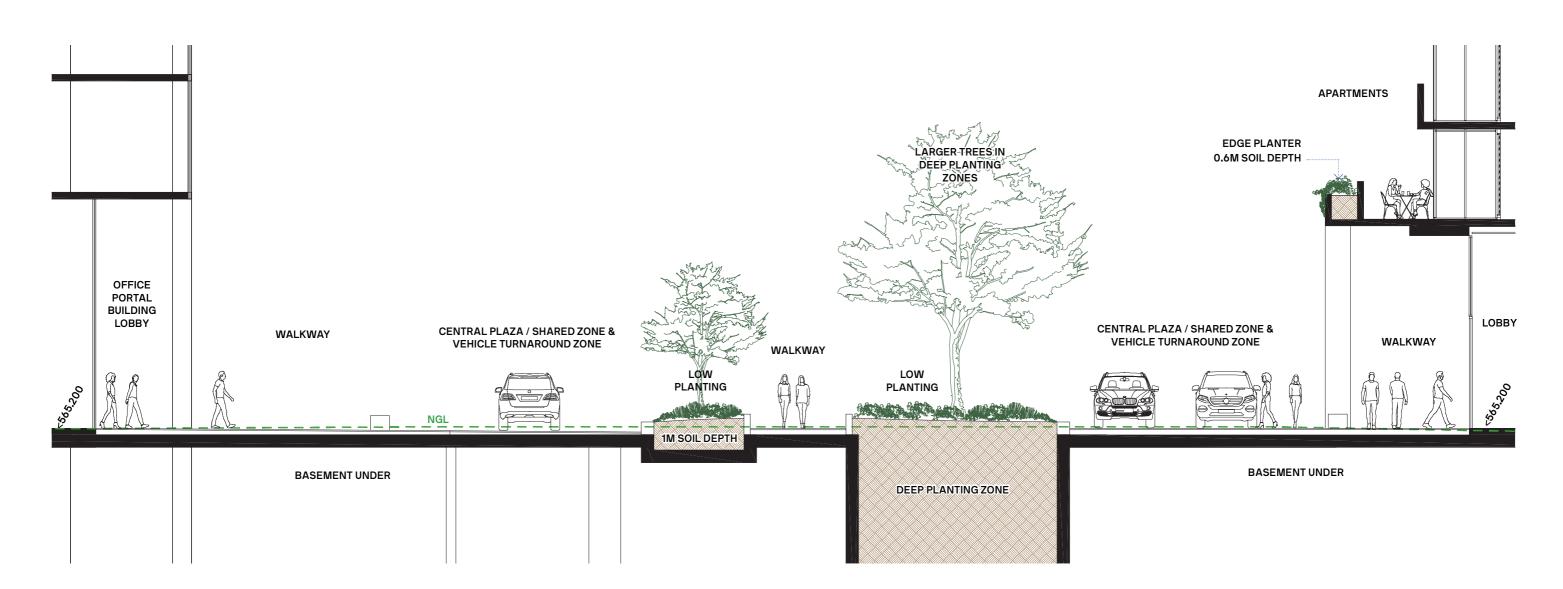
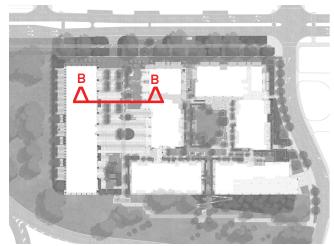
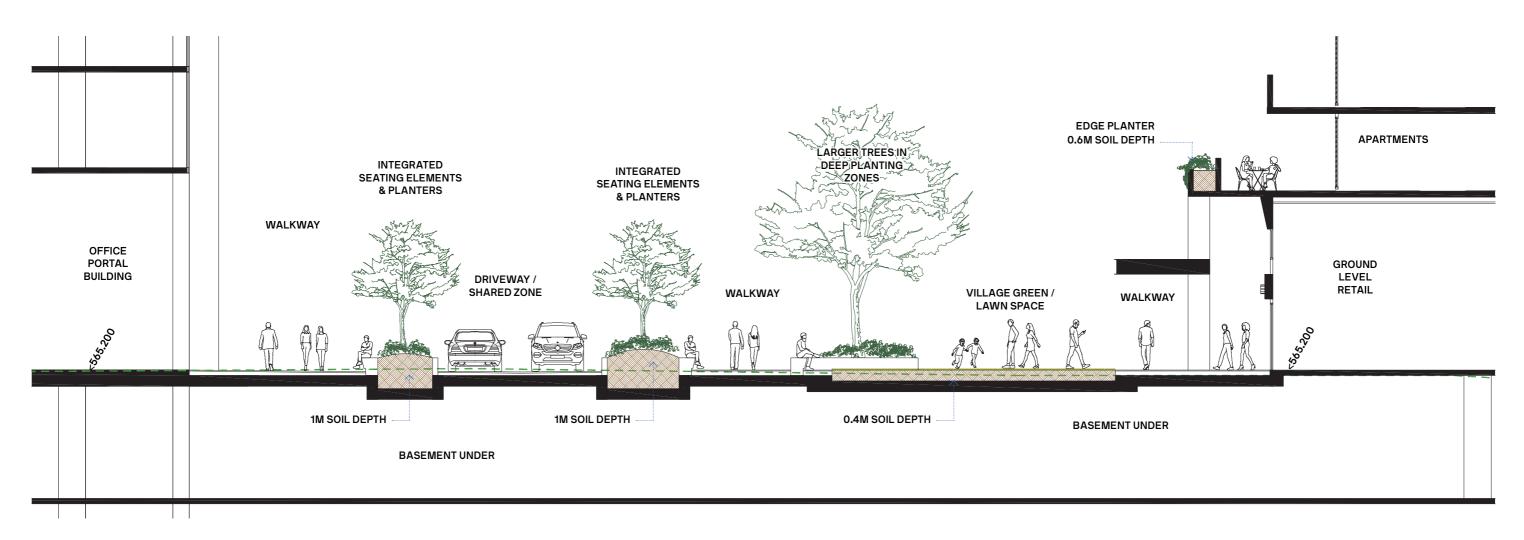


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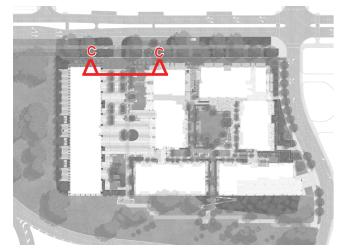




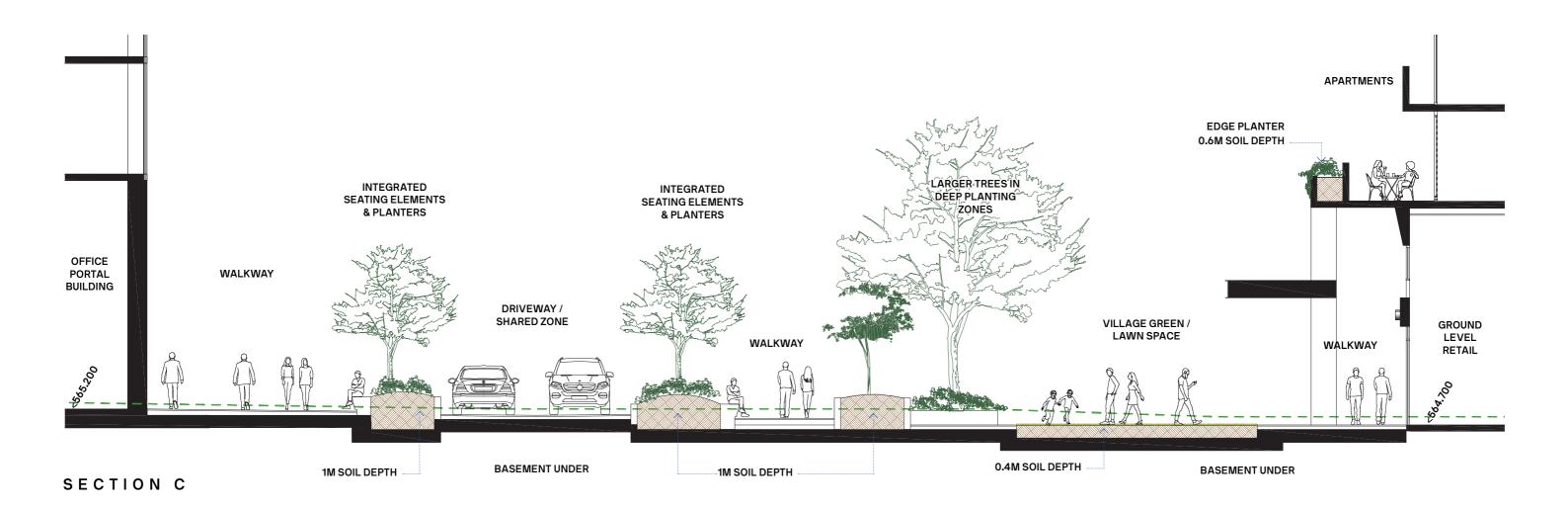
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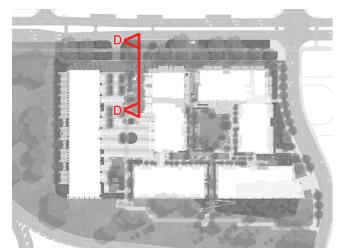


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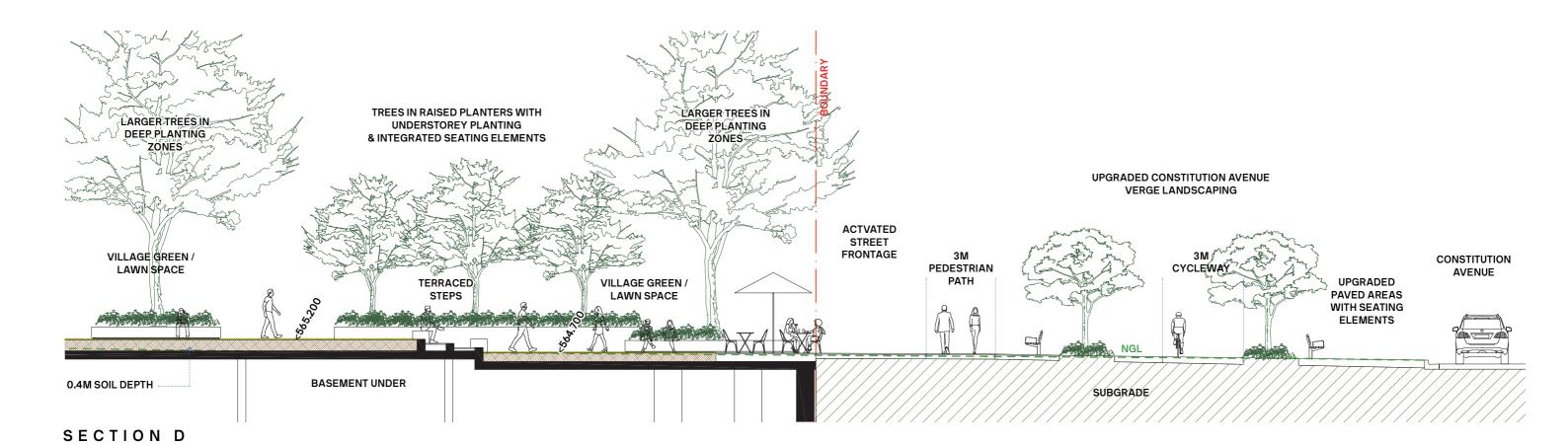


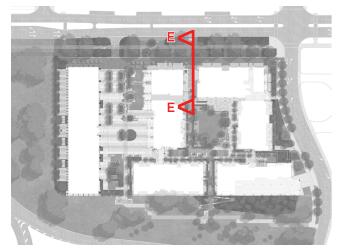
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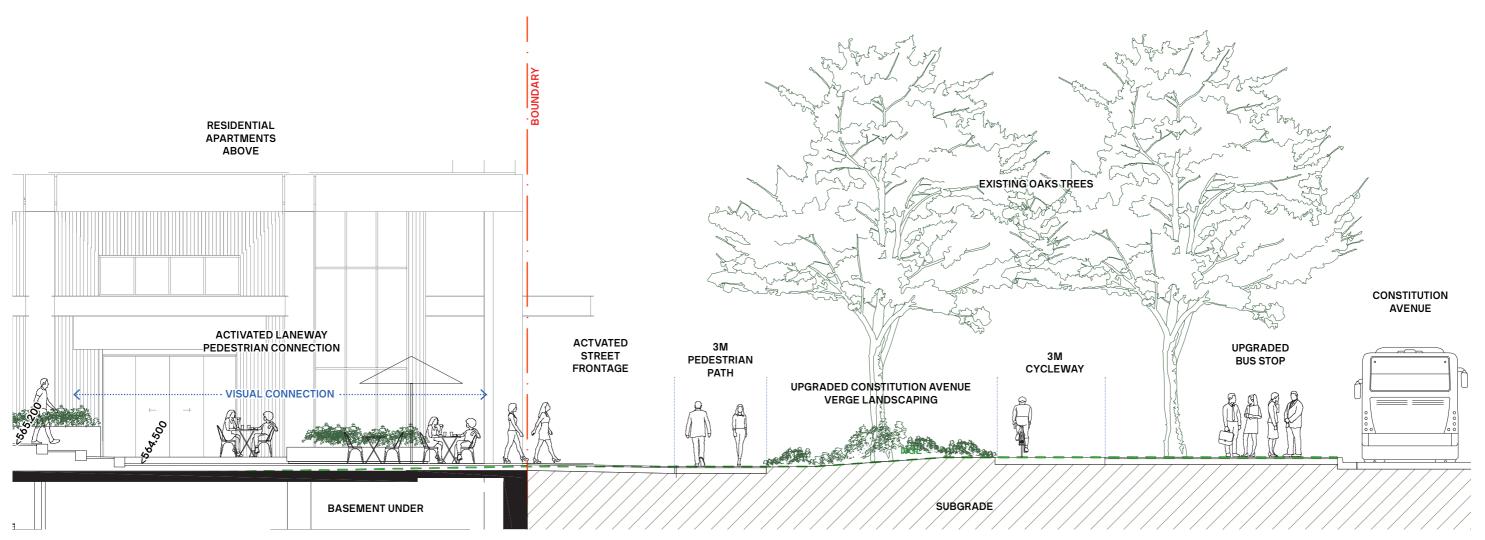


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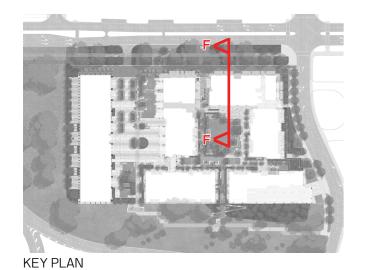


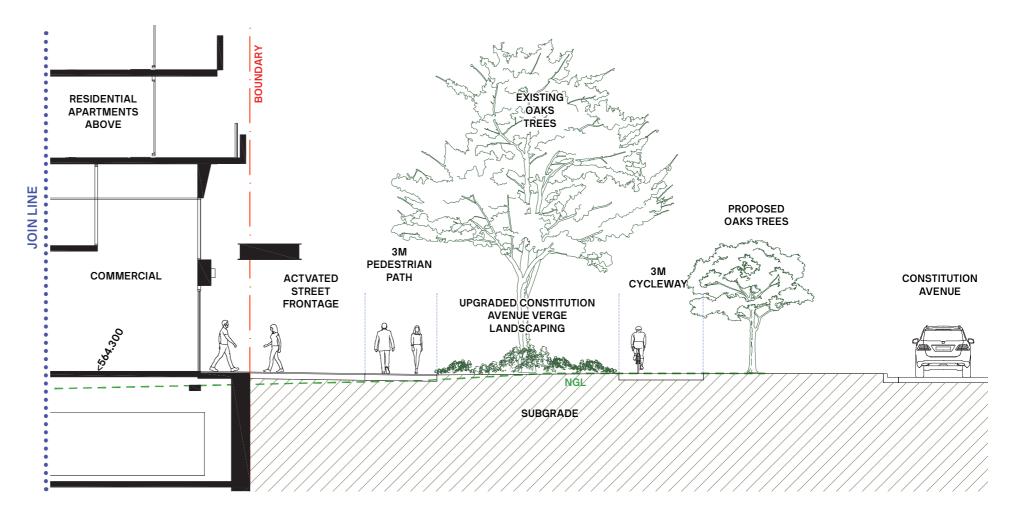


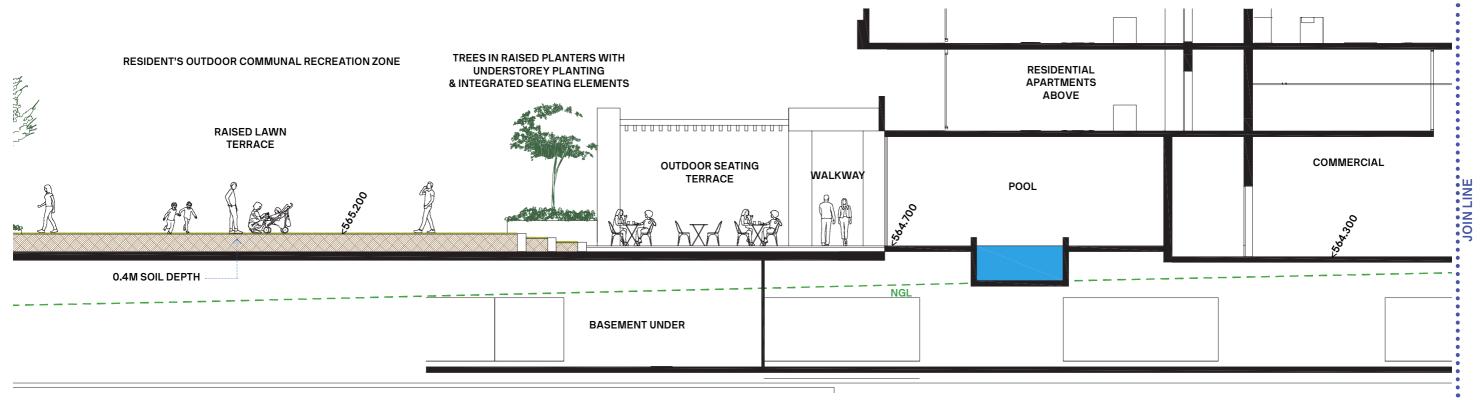
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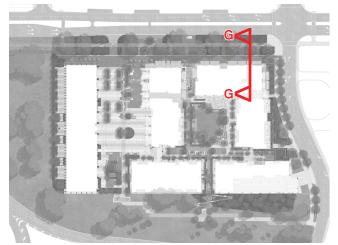
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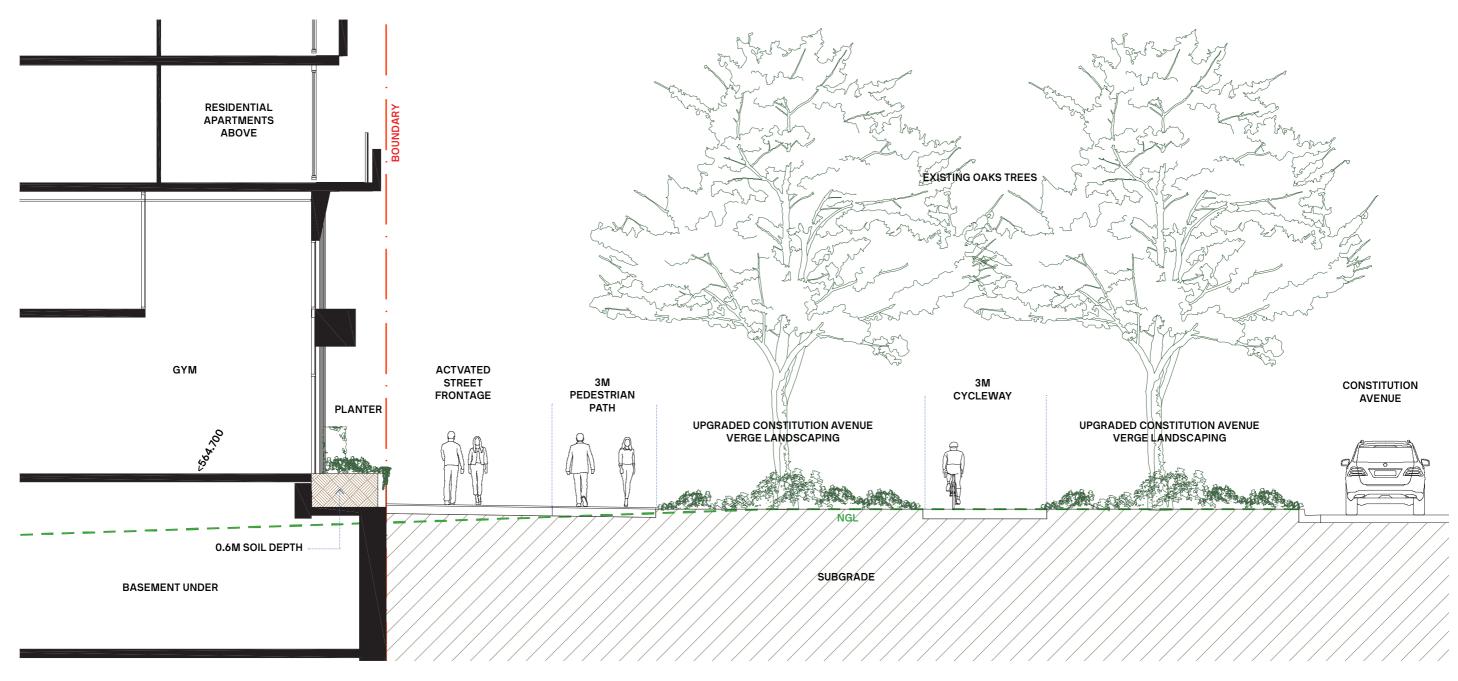




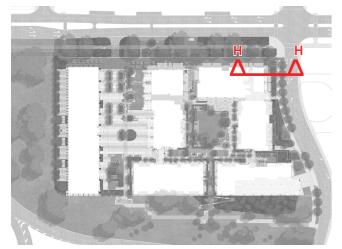
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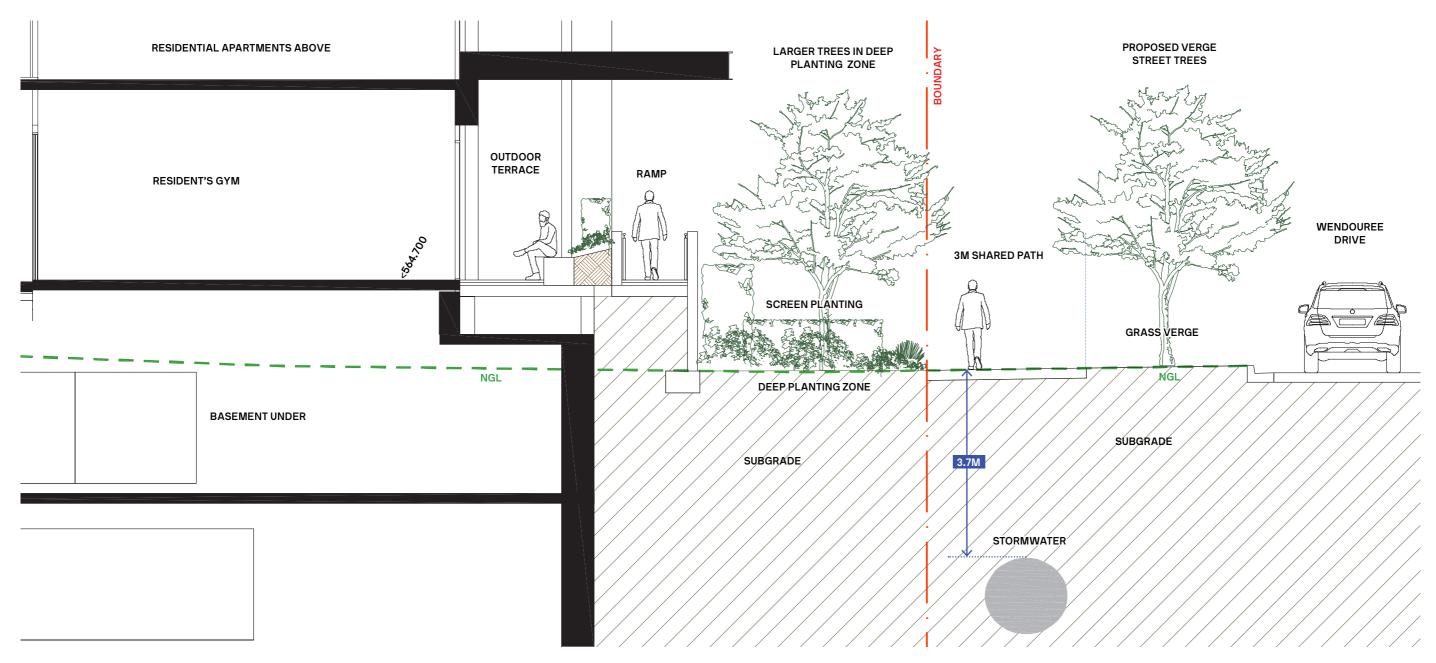
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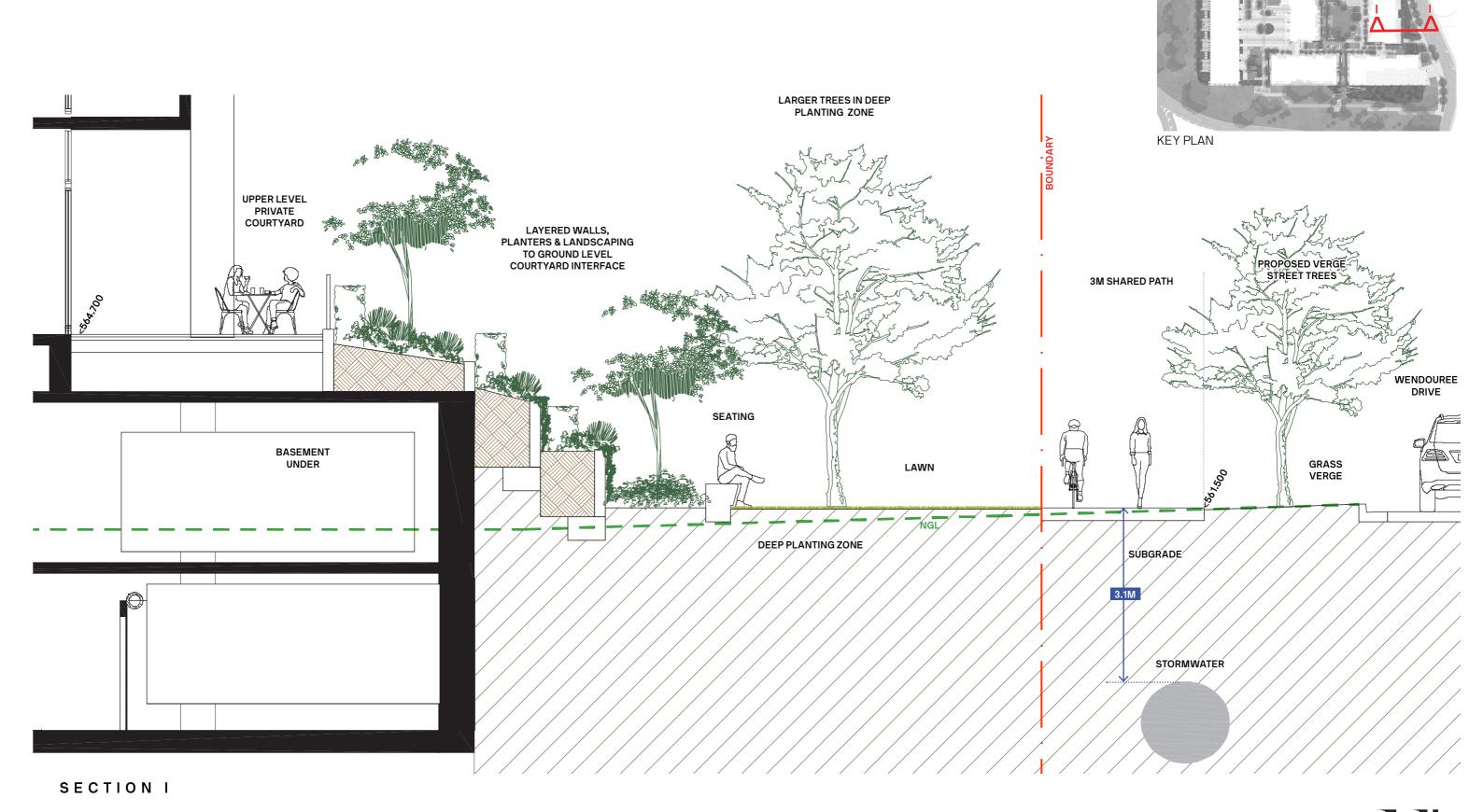


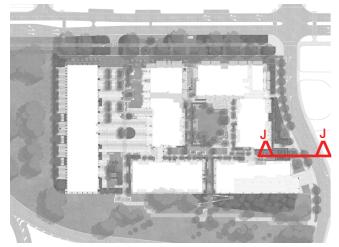
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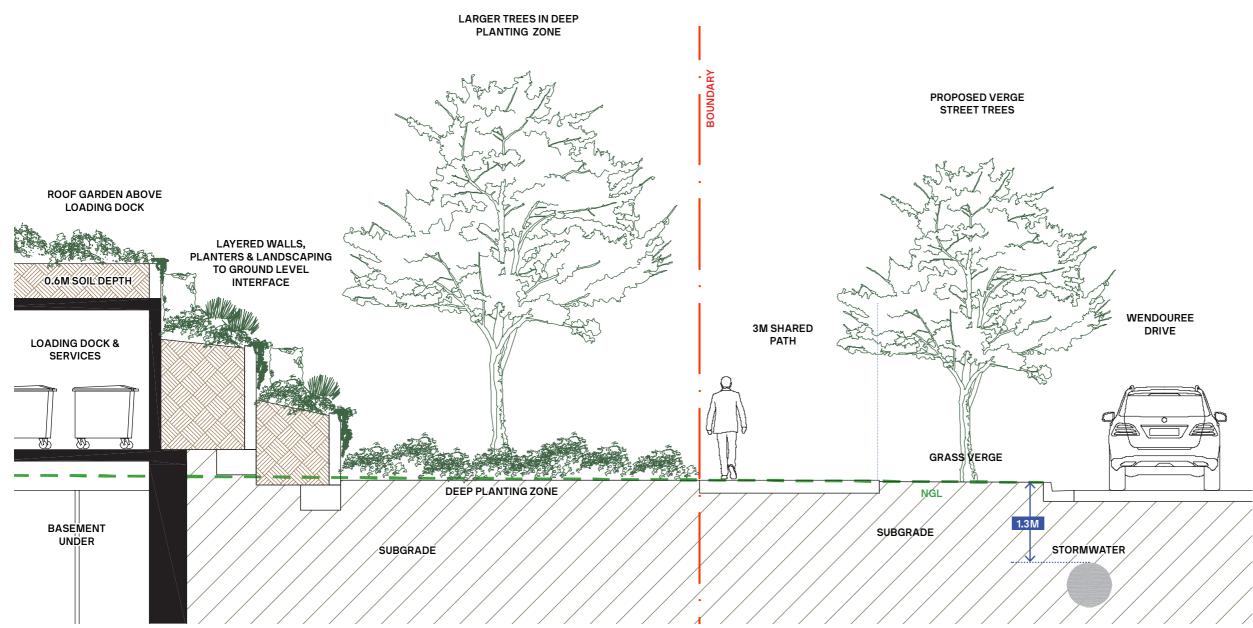
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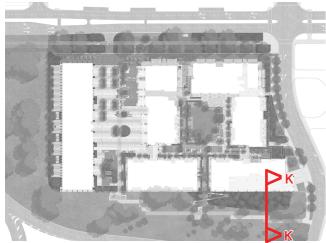




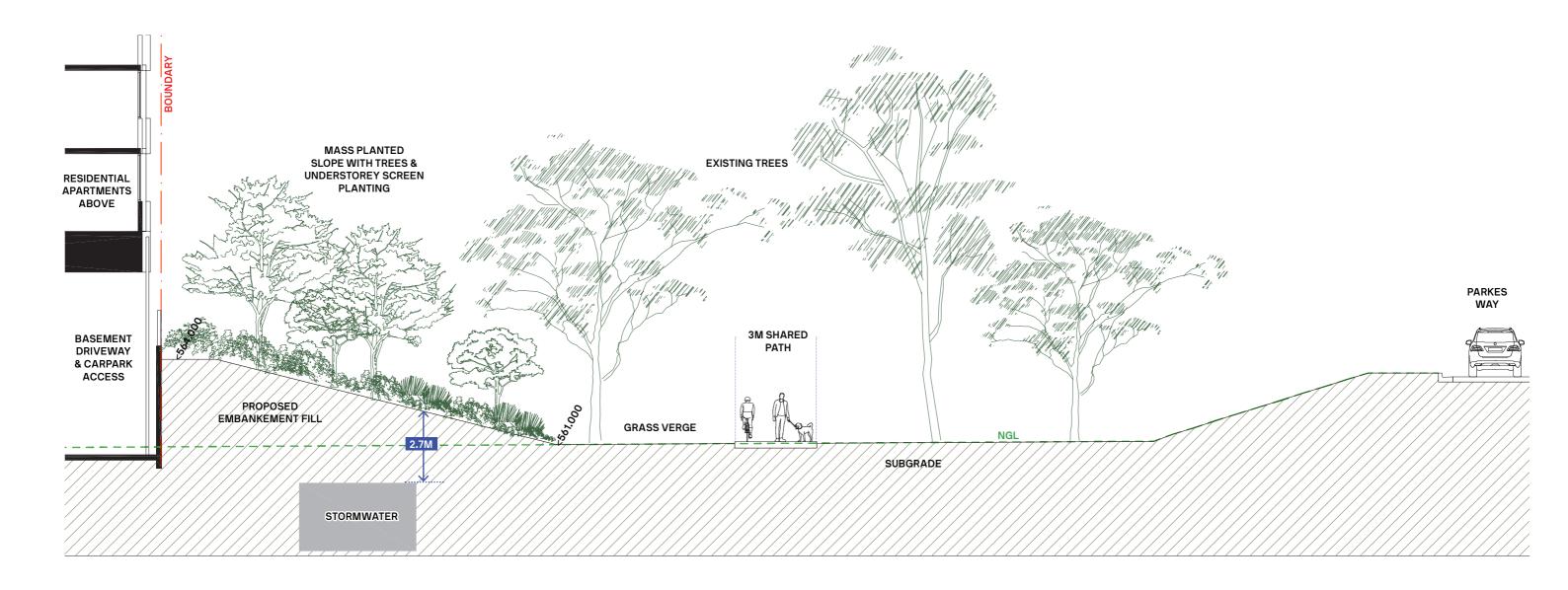
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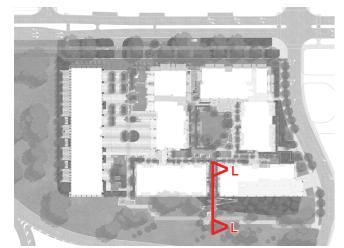


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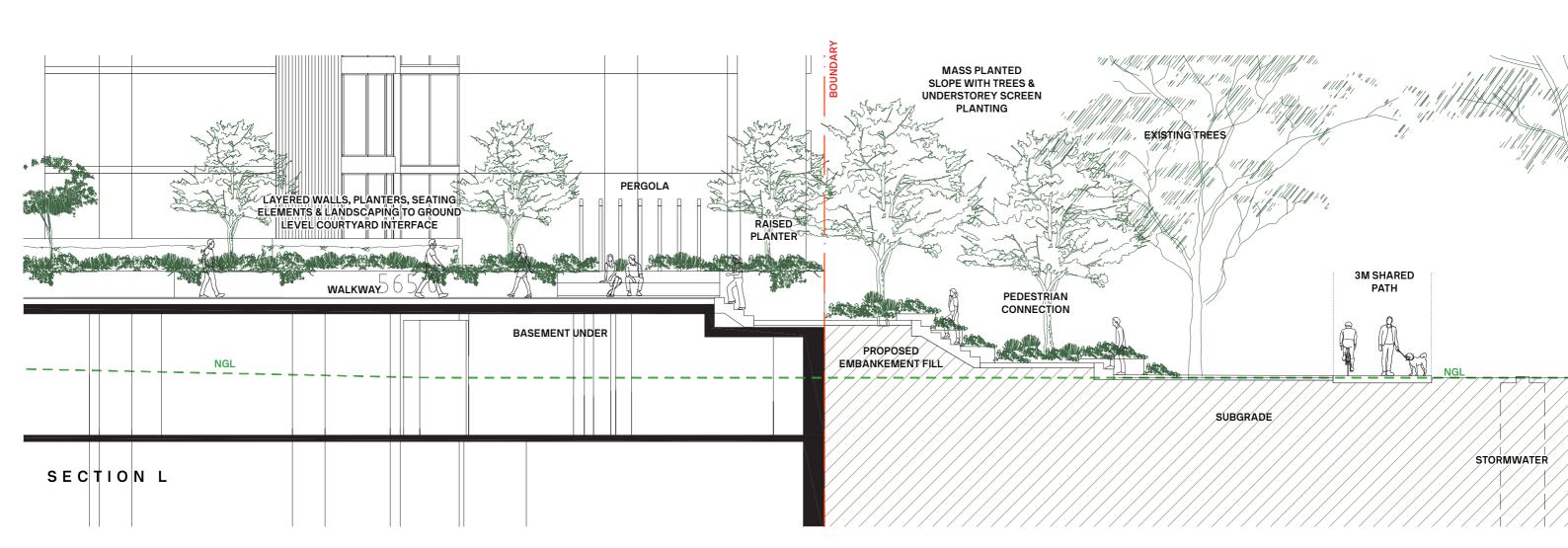


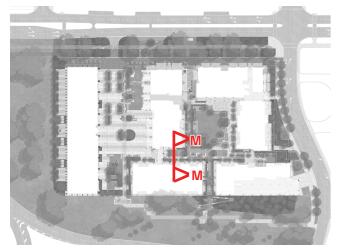
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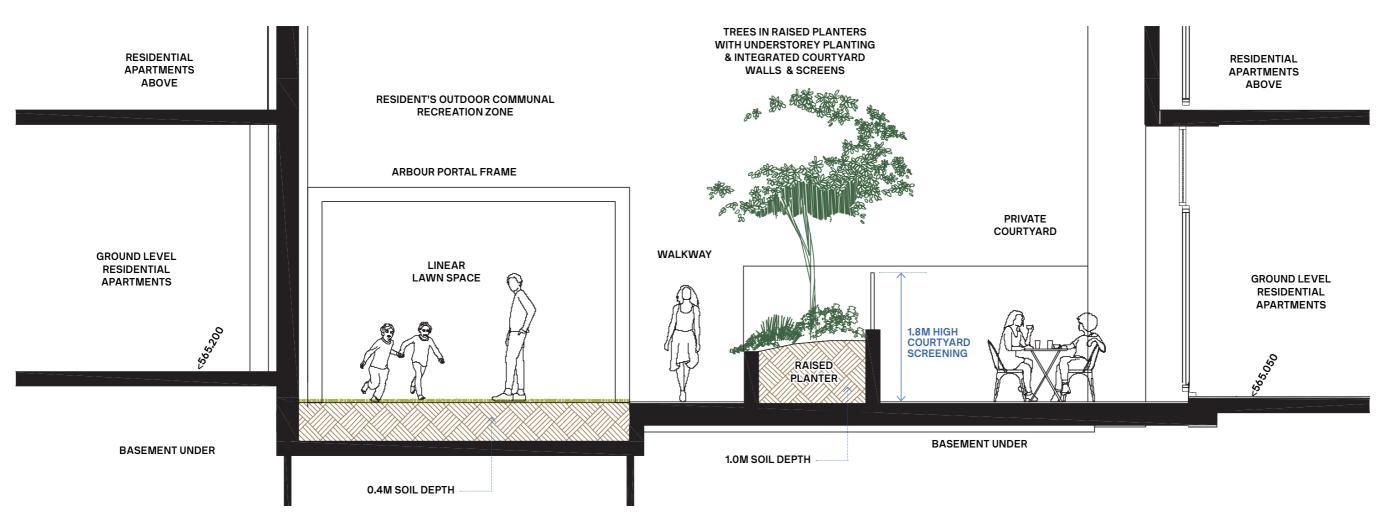


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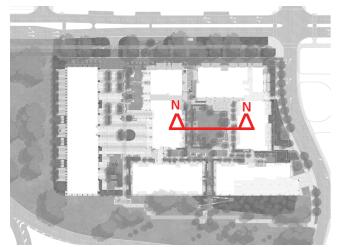




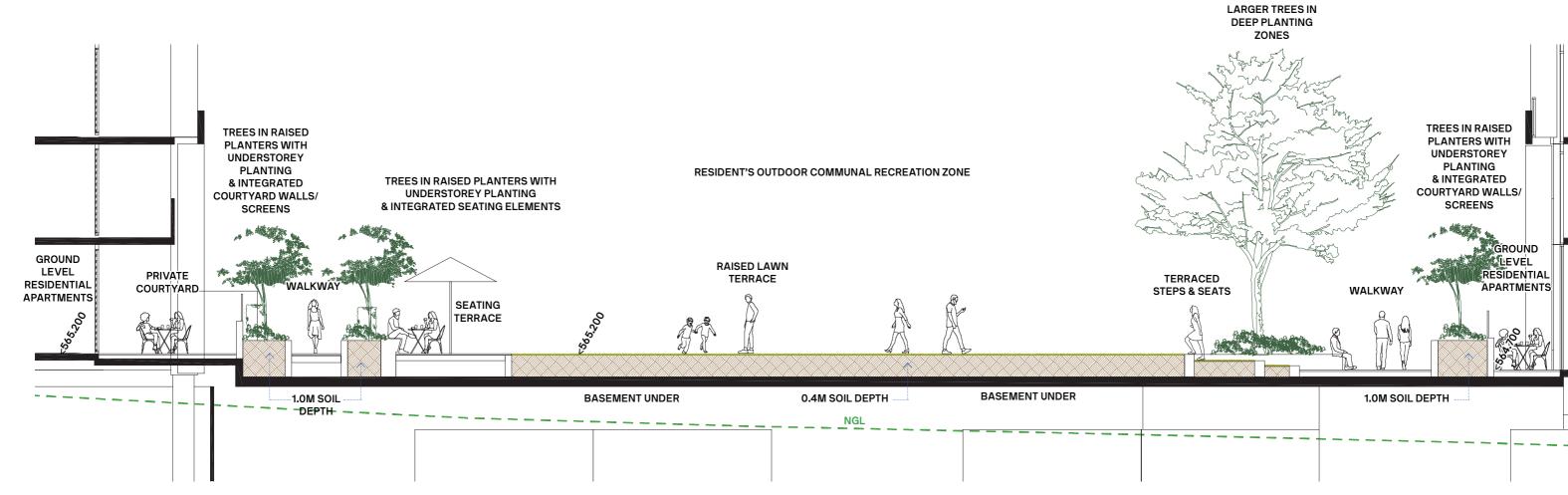
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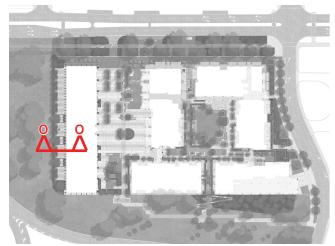


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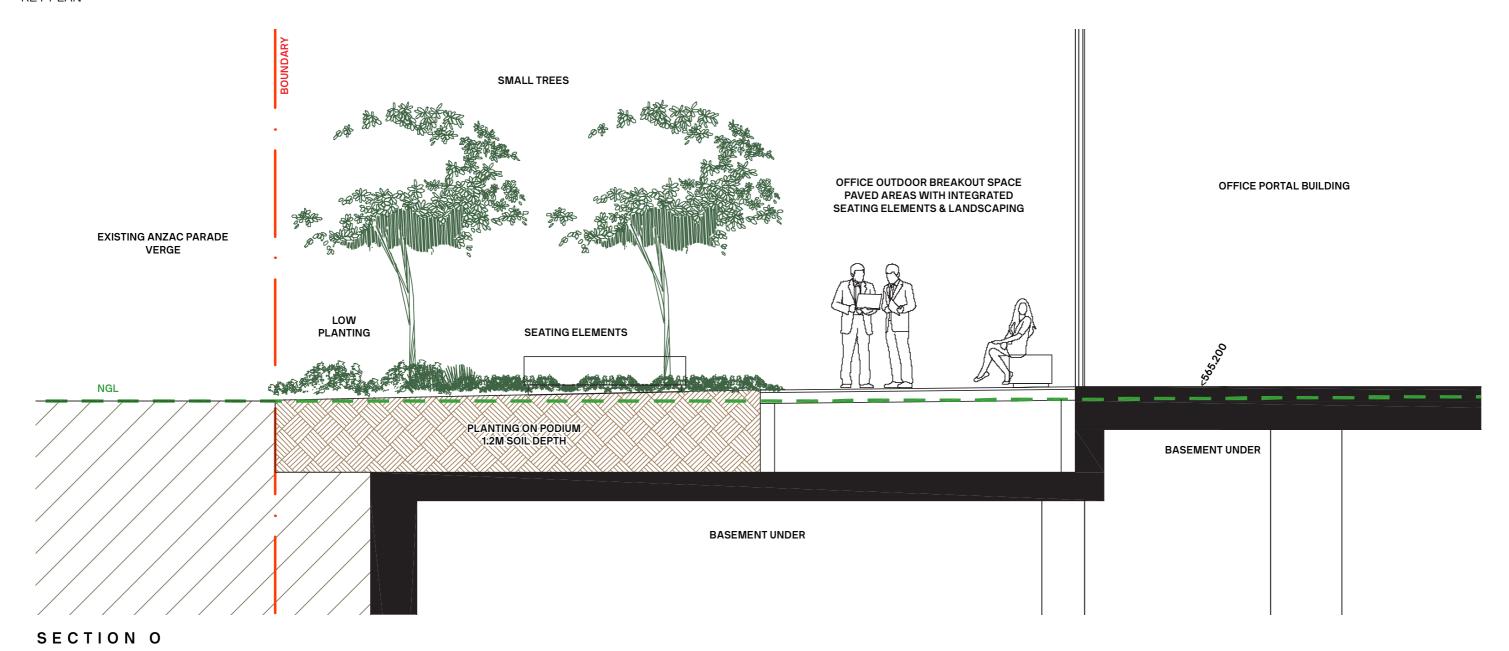


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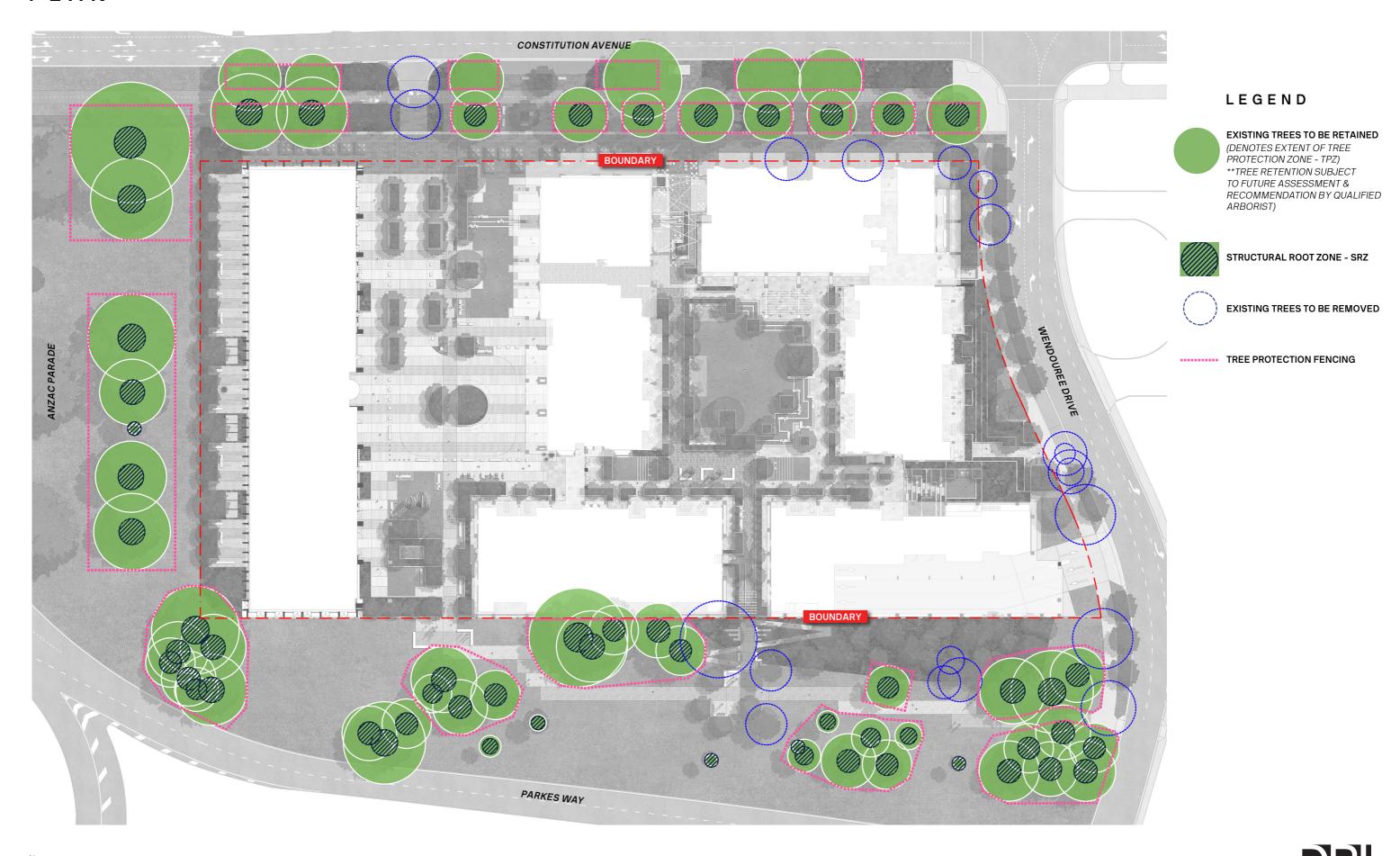


**KEY PLAN** 





## TREE PROTECTION PLAN



# LANDSCAPE MANAGEMENT & PROTECTION NOTES

#### **GENERAL:**

The proponent or their authorised representative is required to contact and consult with the ACT Transport Canberra and City Services (TCCS) or National Capital Authority (NGA) as applicable to seek approval for any use of Unleased Territory Land adjacent to the Lease.

Prior to commencement of works (demolition, clearing, excavation, construction), the applicant or their authorised representative must advise the relevant coordinator within TCCS Asset Acceptance in writing that the protective measures have been installed in accordance with the approved Landscape Management & Protection Plan.

All verge works shall comply with TCCS STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS and DESIGN STANDARDS FOR URBAN INFRASTRUCTURE and be to the satisfaction of TCCS Development Review & Co-ordinations (DRC) Asset Acceptance.

#### SITE PREPARATION

#### Inspection:

Give sufficient notice so that inspections may be made of the following:

- Areas to be cleared
- Enclosures for trees to be retained
- Trees to be removed.

#### Preparation:

- Ensure adequate control measures are implemented to manage erosion, dust, contamination/sedimentation of the site, surrounding areas & drainage systems.
- Only remove above surface items as specified in Landscape Plans.
- Ensure all items specified in Landscape Plans to be retained (including trees, planting, furniture, footpaths, lighting etc.) are not damaged during site preparation for tree removal works.
- Ensure no underground services are damaged during tree removal works. Before commencing tree removal works, locate and mark existing underground services in the areas which will be affected by the groundworks operations including clearing, excavating and trenching. Do not excavate by machine within 1 m of existing underground services.
- Tree removal work must be carried out by persons experienced in removal of trees. Remove trees in full - inclusive of all major root systems down to root size 50 mm diameter. Remove from site. When removing roots/root systems do not damage underground services/ structures.
- Eradicate weeds using environmentally acceptable methods, such as a non-residual glyphosate herbicide in any of its registered formulae, at the recommended maximum rate. Continue eradication throughout the course of works.
- Remove any vegetative spoil from site.
- Remove any excavated debris and other deleterious material from site (includes stones exceeding 50mm).
- Where existing ground surfaces are not required to be varied as part of the works, restore them to the condition existing at the commencement of the contract.

#### TREE PROTECTION

#### Warning Sign

- General: Display a sign in a prominent position at each entrance to the site, warning that trees and plantings are to be protected during the contract. Remove on completion.
- Lettering: Road sign type sans serif letters, 100 mm high, in red on a white background, to AS 1744.

#### TREES TO BE RETAINED

#### Marking

- General: Mark trees and shrubs to be retained using suitable noninjurious, easily visible and removable means of identification.
- Tags: 100 x 50 mm Zincanneal tags painted yellow and lettered to conform with the tree number on the drawings. Secure tags to trees using loose galvanised steel wire bands.
- Trees to be Retained: Refer Tree Protection Plan

#### Protection and Repair

- Protection: Protect from damage the trees and shrubs to be retained, including those beyond the site area, both above and below ground.
- Repair: Repair trees damaged during the work.

#### Tree Enclosures

- General: Provide temporary protective enclosures or guards at the tree drip line or as otherwise shown/directed.
- Mesh Enclosures: F62 reinforcing mesh 1800 mm high wired to 2400 mm long star pickets, driven 600 mm into the ground, spaced 1800 mm apart at a minimum distance of 2 m from the tree trunk.
- Sheeting to Excavations: Where excavations are to be made near trees, add continuous 900 mm high corrugated galvanised steel sheeting, bedded 150 mm into the ground, wired to the enclosure.
- Trees to be Enclosed: Refer Tree Protection Plan
- Type of Enclosure: Mesh Enclosure

#### Work Close To Trees

Where work close to trees to be retained is unavoidable, lash pine offcuts upright around the trunk of the tree in lieu of fencing. Offcuts to be 1.5 m high and spaced at no more than 150 mm around trunks. Lower ends to touch the ground with sawn faces facing outermost and painted white. Levels may be directed to be adjusted in the vicinity of the trees to minimise the effects of excavation or filling.

#### Work on Trees

 If it is proposed to perform work on trees, give notice and obtain instructions - any branches protruding/overhanging on to work/ work areas must be trimmed by a registered Tree Surgeon or other personnel as approved by the Landscape Architect.

#### Damaged Trees

If any tree is damaged and/or disfigured during the course of the works the Contractor will be directed to affect repairs or remove or replace the tree with a tree of the same physical attributes, size, height, spread, calliper and form and in the species as advised by the Landscape Architect. Where the repair work is considered impractical, or is attempted and fails, give notice and obtain instructions.
 Alternatively, others may be directed to repair or replace the damaged tree at the Contractor's expense.

#### WORK NEAR TREES

#### Harmful Materials

- Keep the area within the dripline free of construction material and debris. Do not place bulk materials and harmful materials under or near trees which may cause contamination of the soil - should such contamination nevertheless occur then the Contractor must:-
- (1) Advise the Landscape Architect immediately.
- (2) Remove the contaminated soil.
- (3) Dispose of the contaminated soil in accordance with Local Authority requirements.
- (4) Replace removed soil with imported topsoil complying with this Specification.
- Do not place spoil from excavations against tree trunks. Prevent windblown materials such as cement from harming trees and plants.

#### Damage

- Prevent damage to tree bark. Do not attach stays, guys and the like to trees.
- Work Under Trees
- General: Do not remove topsoil from, or add topsoil to, the area within the dripline of the trees.
- Excavation: If excavation is required near trees to be retained, give notice and obtain instructions. Open up excavations under tree canopies for as short a period as possible.
- Hand Methods: Use hand methods to locate, expose and cleanly remove the roots on the line of excavation. If it is necessary to excavate within the drip line, use hand methods such that root systems are preserved intact and undamaged.
- Root
- Do not cut tree roots exceeding 50 mm diameter. Where it is necessary to cut tree roots, use means such that the cutting does not unduly disturb the remaining root system. Immediately after cutting, apply a bituminous fungicidal sealant to the cut surface to prevent the incursion of rot or disease.
- Backfillin
- Backfill to excavations around tree roots with a mixture consisting of three parts by volume of topsoil and one part of well rotted compost with a neutral pH value, free from weed growth and harmful materials. Place the backfill layers, each of 300 mm maximum depth, compacted to a dry density similar to that of the original or surrounding soil. Do not backfill around tree trunks to a height greater than 300 mm above the original ground surface. Immediately after backfilling, thoroughly water the root zone surrounding the tree.
- Compacted ground
- Do not compact the ground under trees. If compaction occurs, give notice and obtain instructions.
- Watering
- Water trees as necessary, including where roots are exposed at temperatures above 35°C.

#### TREES TO BE REMOVED

#### General

 Refer locations on Tree Protection Plan for trees to be removed from site permanently.

#### Trees to be Removed Permanently

- Work must be carried out by persons experienced in removal of trees.
- Remove trees in full inclusive of all major root systems down to root size 50 mm diameter. Remove from site and:-
- (1) Mechanically chip for subcontractors own use.
- (2) Sell and/or dispose of in accordance with Local Authority requirements.



