

LANDSCAPE DESIGN REPORT

DUDLEY ROAD AND KOPA STREET

WHITEBRIDGE NSW

Revision B August 20, 2014.

Client: SNL Building P/L 22 PENDLEBURY Rd Cardiff NSW 2285

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1.0 BACKGROUND

1.1 Introduction

Whitebridge is a suburb of Newcastle located approximately 15 kilometres from the Newcastle CBD and about 3.0 kilometres form the Charlestown shopping and business precinct.

Whitebridge is characterised by low density single dwelling housing predominantly built in the 1940's and 50's on large lots. These dwellings are mostly single storey with a mix of materials for cladding and roofing types.

Streets are wide and generally without planned street trees, overhead power is present on all roads and footways generally occur on one side of the street only.

Some large lots have experienced higher density with newer projects taking advantage of the large lots and zoning to increase housing density.

The landscape character of the area is dominated by the remnant bushland areas which are extensive and the scattered tall canopy native trees that occur within dwelling lots.

Access to open space is easy with sporting facilities and playgrounds nearby. The Fernleigh Track is adjacent to the proposed development site and provides excellent recreational opportunities for a broad age group.

Both primary and secondary schools are within walking distance.

Local shops are located adjacent to the proposed development site.

1.2 The Site

The proposed site is known as Lot 1-3 D.P. 436503, Lot 1-3 DP 349377, Lot 4 DP 663765, Lot 4-5 DP 26039. Total Site area is 24398.81 square metres (roughly 2.5 ha).

Three Zones cover the site – Residential (Urban Living) ,Urban Centre and Conservation (Secondary)

The site slopes toward the north east corner and the Fernleigh Track connection point



Existing site. North is to the top of the image.

The site is bounded by Kopa Street to the North, the Fernleigh Track to the east, Dudley Road to the South and existing residential to the west.

The site is adjacent to the existing Whitebridge shopping precinct.



Illustrative Master Plan (STZ) North is to the right top hand corner of the image.

1.3 The Proposal

The proposal consists of a Development Application to Lake Macquarie City Council by SNL Building Pty Ltd for the construction of dwellings, access roads and associated open space.

A mix of commercial and residential options are included in the proposal .

The Dudley Road street presentation will be designed to allow a visual corridor into the site from Dudley road in the form of an active laneway. This laneway will connect at a human scale the residential precinct with the Dudley Road precinct..

Part of the site is Conservation (Secondary) and accounts for 3980m2 of the site. This part of the site will be upgraded to improve water quality, ecological value.

The Kopa Street alignment will contain residential dwellings only, continuing the existing residential theme and overall enjoyment for residents and public..

Two residences currently located on Kopa Street will be demolished to make way for new dwellings as part of this proposal.

The proposal includes areas of both private and shared open space in a series of connected spaces, each with a dedicated purpose and design character tailored to the needs of the residents and commercial tenants.

These spaces can be broadly described as -

- Roads
- Lot 1 Combination of commercial and residential development
- Lot 2-8 Terrace houses above basement parking
- Lot 3- 9 Terrace houses above basement parking
- Lot 4- 18 Terrace houses above basement parking
- Lots 5 13 Single dwelling residences on Torrens Title lots
- Lots 14 20 Single dwelling residences on Torrens Title lots
- Lots 21 24 Single dwelling residences on Torrens
 Title lots
- Lot 25 Open Space for Park.
- Lot 26 Conservation (Secondary)

2.0 SITE ANALYSIS

Site Context

Community and Current Use

The site is currently majority cleared and vacant with two existing dwelling houses.

The site is well located for both pedestrian and vehicular connections to local facilities and to a broader context which includes a regional center at Charlestown.

The local shopping Centre is adjacent to the site. This is in the form of a separated 'high street' complete with bus stop, pedestrian crossing and on street parking.

A desire line for pedestrian access is noted in a diagonal formation across the site connecting the Fernleigh Track crossing and the Whitebridge Shopping centre

Both primary and high schools are within the site context less than 800m walk.

Sporting facilities, clubs, play grounds and the Fernleigh Track provide recreational options.

Dudley Beach is less than 2.0 kilometers to the east.

The Fernleigh Track pedestrian connection is adjacent to the north eastern portion of the site.

This alignment will be modified to keep the connection outside the site boundary.





Looking south west across the site from the existing path connection to the Fernleigh Track. The site is cleared of vegetation in this direction with one Callistemon species shown. The fence shown is located on the site boundary and will remain. The existing commercial (Bottle Shop) is visible at the top of the site.

The Conservation Zone adjoins the fence line.





Existing dwelling in Kopa Street to be demolished.



Existing Whitebridge commercial center and shops.

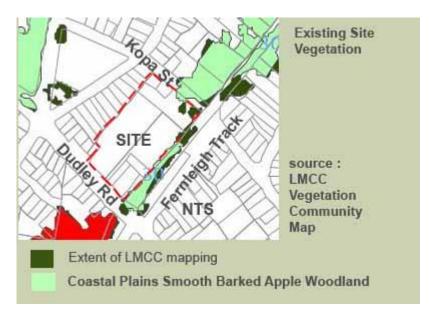
Existing Site Landscape

The existing landscape may be described as degraded with a Kikuyu and Couch grass cover over an undulating surface.

The LMCC Vegetation Community Map appears to show an area of remnant Scribbly Gum Open Woodland Vegetation Community on site however the arborist report and survey location of trees has identified four trees (Tree 15, 18, 19 and 20) in the north east corner of the site plus a large Camphor Laurel (Tree 1) on the Dudley Road boundary.

The condition of the 4 trees is described in detail in the arborists report.

The Fernleigh Track on the north east boundary is vegetated with the two communities noted on the LMCC Vegetation Community Map.



Existing Context Landscape Character

The landscape surrounding the site can be broadly separated into two main character types – remnant bushland and sub-urban.

The Fernleigh Track has a community of tall canopy Eucalypts with some understory and grasses associated with the relevant vegetation community.

The surrounding streets have typical mature sub-urban landscape typologies with a mix of natives and exotics in formalized settings.



Typical street presentation – Lonus Avenue to the west of the site.



The mature trees are located within the Fernleigh Track easement. Looking north east across the site to the Fernleigh Track.

Existing Zoning

3980 sq mtrs of land adjacent to the Fernleigh Track boundary is zoned 7 2 Conservationl and as such this land will not be developed.

Landscape improvements will be made to this area of land and it is expected that the ecological value of the corridor will increase from the current condition.

Existing Trees on Site

Current vegetation cover is minimal with a small group of Eucalypts in the north east corner. These trees have been identified in the arborists report by Treeology Pty Ltd dated August 2013.

There is a large Angophora costata (Smooth Barked Apple) adjacent on the western boundary. Rear courtyard design for Lots 5-13 have taken into account the extent of the root zones that may be present within the lots . No strip excavation is proposed at the boundary or within the root zones of existing trees.

New fencing is proposed for this boundary alignment however pad footings for posts will be used and located so as to reduce any impact on the trees. The project arborist will be consulted during this process.

Two mature Liyy Pillis are located on the boundary in the far north western corner. These trees will be removed from site It is intended for these trees to remain as a screen if possible.

A small group of existing native trees in the south east corner of the site will be removed as part of the Kopa Street road and cycle ways extension works.

3.0 SITE TREES AND TREE RETENTION

A number of trees have been identified on site and a full report on these trees is available in the Arborist Report from Treeology P/L.

Site trees will not be retained however a number of deep soil zone opportunities are available on site for the inclusion of tall canopy local native trees to be incorporated into the design.

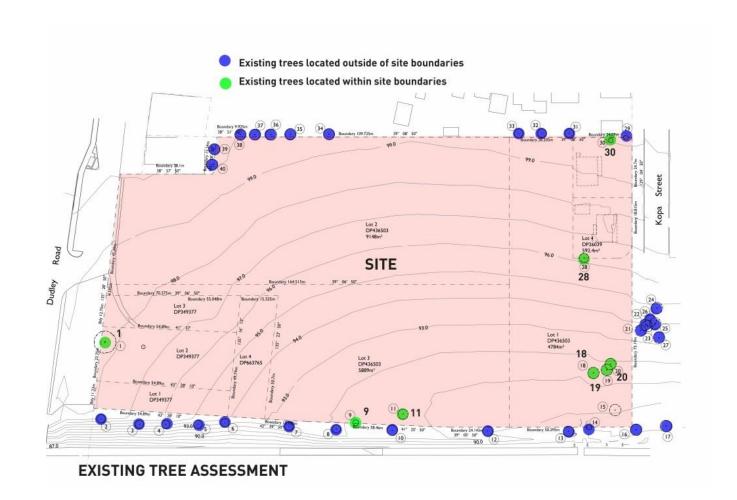
The design of the proposal has minimized any significant level change at the boundary transitions as a consideration of trees existing on adjacent property. Impacts, if any, are expected to be nil to minimal.

An assessment of the trees from information obtained from the arborists report indicate that of 40 trees identified in the report , 8 are located on site.

These 8 are

- Tree 1 Camphor laurel
- Tree 9 Mature Casaurina in poor health
- Tree 11 Melaleuca stypheliodes in good health.
- Tree 18 White Stringybark in moderate health
- Tree 19 White Stringybark in good health
- Tree 20 Scribbly Gum in moderate health
- Tree 28 Crepe Myrtle
- Tree 30 Brush Cherry in good health.

Further information is detailed in the Arborists report.



4.0 LANDSCAPE DESIGN CONCEPT

OVERVIEW

The landscape design concept seeks to balance the multiple landscape types and site uses to create a cohesive whole.

A number of design considerations have informed the landscape approach for this development and they include

- the need to incorporate increased landscape opportunity for water quality and habitat in the landscaped corridor adjacent to the Fernleigh Track.
- The provision of shared recreational space for apartment dwellers along Dudley Road.
- Opening up the site by providing a park area for all users.
- Creating an urban scaled internal streetscape complete with paths, connections and shaded trees.
- Creating a 'node' as an identifier which has resulted in the Town Square area
- Respecting Heritage and interpreting the past to give meaning to spaces and form.



GENERAL LANDSCAPE ARRANGEMENT

PART 1 – LANDSCAPED CORRIDOR

The LANDSCAPED CORRIDOR is located adjacent to the Fernleigh Track boundary and runs the length of the site from the Dudley Road boundary in the south east to Kopa Street boundary in the north east.

With the exception of the south east corner, the width of the conservation zone is 20.m and contributes 3,980 square metres of unbuilt land to the site. This significant parcel of land provides an opportunity for improvement of the ecological value of the land

The intention of the landscape proposal for this area of the site is to include water quality devices in the form of a swale and rain gardens and to revegetate this area of land to improve both ecological value and landscape amenity .

The swale will collect water from roads within the estate only and will discharge into the existing table drain adjacent to the Fernleigh Track.

The corridor will contain a 2.0m wide path that links the Fernleigh Track access point through the site to the Dudley Road area.

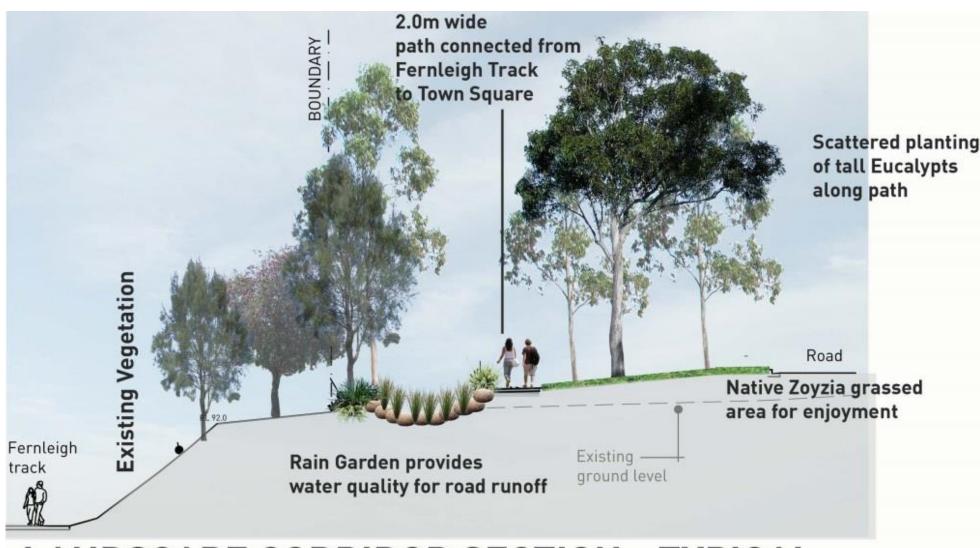
Generally, the landscape approach for this part is to mass plant with native grasses between the area of the Fernleigh Track boundary and the pathway while keeping open and accessible a central area of turf on the opposite side of the path.

This area of the site has a number of changes in grade which has resulted from the perimeter road design. These changes in level will be taken up by mass planted embankment areas where the embankments are 1:3 or similar. No grades are steeper than 1:3 in this area. Refer to Forum Engineering plans for further detail.

Tree selection for the corridor will be primarily from the Coastal Plains Smooth-Barked Apple Woodland plant communities as this community has been identified as being present near the site in the LMCC Vegetation Community Map for the area.

Suitable tree species from this community include

- Angophora costata (Smooth Barked Apple)
- Corymbia gummifera (Red Bloodwood)
- Eucalyptus capitellata (Brown Stringy Bark)



LANDSCAPE CORRIDOR SECTION - TYPICAL

These trees will be installed within the mass planted areas and as individual specimens in grassed spaces to provide shade and habitat without canopies touching at maturity to mitigate bush fire risk.

PRESENTATION TO THE FERNLEIGH TRACK

The current cycle/pedestrian connection from the Fernleigh Track towards Kopa Street will be realigned further east outside of the site to connect with the pathway on the northern side of Kopa Street. These works do not form part of this application and will be completed by Council.

The re-alignment of the path connection north will allow the continuation of the conservation zone further north and east within the site. This will provide effective screening from the path into the site as there is ample opportunity for increasing vegetation density at this point should that be required.

Dwellings are set back 20.0m from the eastern boundary and will be only partially visible from the crossing point

PART 2 - STREETSCAPES

2.1 DUDLEY ROAD STREETSCAPE

The Dudley Road streetscape aims to continue the existing commercial character currently existing along Dudley Road to the north west of the proposal.

This commercial extension will continue south east in the proposal for part of the site frontage with the balance of the site frontage proposed as residential. These two separate land uses will be separated by an 'Urban' space that will provide access to the site and spatial separation between residential terraces and the commercial space at ground level.

New works will include parking bays located at the front of the commercial space and further south in front of the Town Square area and entry to the residential apartments.

Landscaped bays between parking bays will separate the parking spaces and an opportunity to provide shade trees in the car park area. These bays are constructed with 90 degree upright kerbs in accordance with the appropriate LMCC planting detail for 100 litre street trees in car park areas.

PLANTING

Trees species selected for the Dudley Road streetscape are Pyrus 'Capital', a narrow cultivar of the Flowering Pear. This tree species is well suited to an urban landscape being disease resistant and low water requirements once established. Branching structure is narrow and upright to around 11.0m with a spread contained to 4.0 -5.0 metres.

The trees will be protected by tree guards preferred as standard by LMCC and under planted with Lomandra 'Tanika', a native grass cultivar with soft narrow foliage that grows to around 800mm.



Pyrus autumn colour



Pyrus in Spring Flower



Dudley Road perspective looking from Dudley Road south west of the site .

PAVING

Pedestrian Paving in front of the commercial shops will be Adbri Eurostone $400 \times 400 \text{mm} \times 40 \text{mm}$ in non trafficable areas and $400 \times 400 \times 55 \text{mm}$ in trafficable areas .

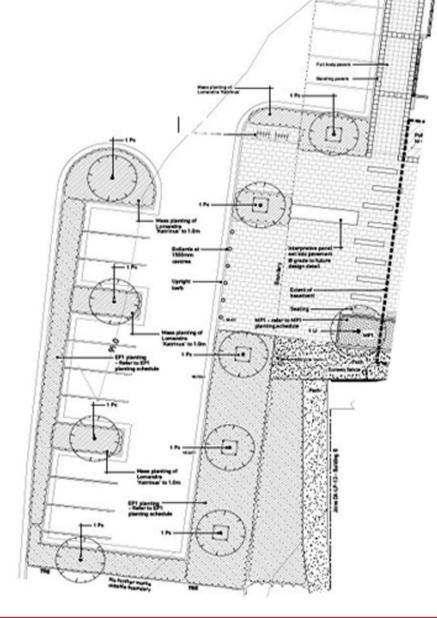
This paver is a reconstituted stone product with a Very Low-Slip P5 rated shot blast exfoliated surface.

The colour chosen for the main body of pavers outside the commercial shops is 'Zurich' with a banding treatment of the same size paver in 'Prague'

A colour and format size in paving will change south from the café space where Adbri 600 x 400 x 400mm paving will be laid in a general east west orientation from Dudley Road through the laneway entry to the internal street of the development. The main body paver for this area will be 'Prague' with an accent of 'Riverina' infill detail representing the railway sleepers used along the Fernleigh Track.

COLOUR OPTIONS





2.2 KOPA STREET STREETSCAPE

Kopa Street at present is a short street on the north east boundary of the site. This street will be extended under this proposal further towards the Fernleigh Track. The eastern side of Kopa Street will contain a footpath connection to the Fernleigh Track. This connection will be provided by LMCC.

Two dwellings currently facing Kopa Street on the south west side of the street will be demolished as part of the proposal for the site.

For approximately two thirds of the Kopa St length a series of two storey terrace houses will face the street. On the lower side of the entry road, the architectural style changes to a corner lot presentation with a private driveway off the Kopa Street entry to the site.

PLANTING

The streetscape design intent for Kopa Street is to create a strong identity for residents that frame the entry to the development and introduces a new seasonal characteristic in contrast to the bushland.

Additionally, courtyards long Kopa Street face the morning sun and have lovely views of the bushland across the road. The lot sizes are also narrow so a tree planted outside of each lot would reduce solar access considerably.

In response to these design considerations the use of Pyrus 'Capital ' as a street tree in this location also appeared to be a good choice as the species is deciduous allowing sun access in winter, provides good seasonal colour and form and provides privacy to upper levels of the dwellings from the street. The species will also visually lead into the development and create a point of difference from surrounding native vegetation.

FENCING

All dwellings on Kopa Street face the street and will be provided with front fencing and gates for pedestrian entry.

Terrace houses will have vertical powder coated aluminium picket fencing 1000mm high with matching gate and individual letter boxes in contemporary colours to match and complement architectural finishes.

A hedge of glossy evergreen Syzigium 'Resiliance' will be planted behind the fence and trimmed to 1200mm design height.



Contemporary style fencing is proposed for the Terraces

FOOTPATHS

A standard LMCC footpath will be installed in the road reserve outside the fronts of the terrace dwellings.

The footpath will not extend past the entry road .The private driveway leading to dwelling K8.1 will act as a pedestrian extension for this unit. The space created between the proposed cycleway connection from the Fernleigh Track and the private driveway will be landscaped with tall canopy Eucalypt species local to the site area.

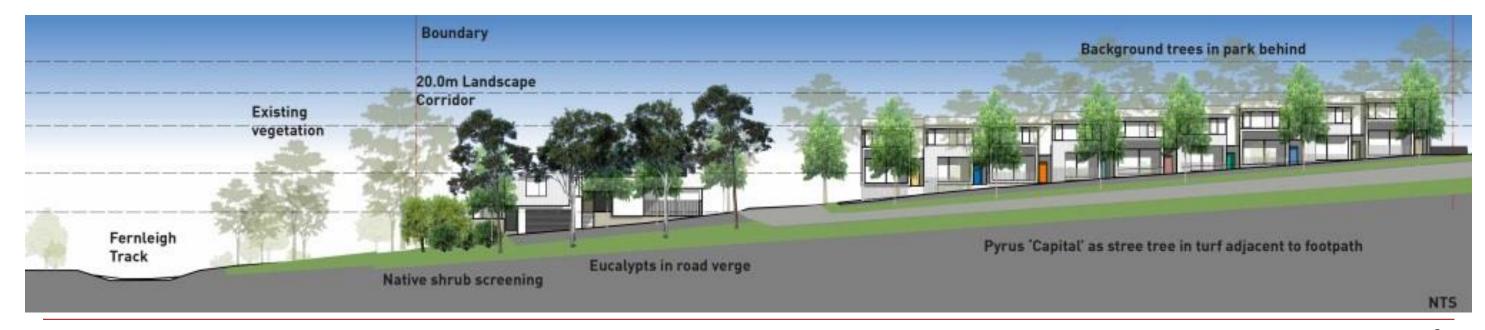
Towards the Fernleigh Track end of the street, vegetation will be selected to enhance the ecological corridor amenity and value. This will consist of a range of tall canopy natives such as Eucalypts, Casurinas plus smaller shrubs such as Melaleuca and Banksia with ground covers planted more densely towards the track to provide connectivity with the existing vegetation where possible. These will be planted to the east and north of the K8 dwellings to provide privacy for the residents and to transition the development towards the Fernleigh Track.



Pyrus 'Capital'

Autumn and Spring





PART 3 TOWN SQUARE

The Town Square area provides a hub for a variety of functions and experiences.

This important space links the internal road system of the development with the Dudley Road frontage and is effectively the public 'face' and entry point for residents and public pedestrians.

The area of the square is around 300 square metres

The design development of this space has considered the following elements and influences.

- The need for clear ground plane way finding in an area that will be transversed in many directions.
- Achieving a related but separate transition between the commercial pavement area and the town square pavement area. This is achieved by means of using the same paver product but changing the pattern direction, colour and sizing.
- Pavement material for the apartment entry south east of the Town Square is not related to materials used in the square.
 Refer to architects drawings for material selection.
- Easy access to parking
- Bollards to prevent parking in the square
- Access for emergency vehicles is provided
- Seating and gathering spaces are located away from the desire lines of pedestrian traffic
- Generous separation of apartment building at ground level with planter boxes at 1.0m depth allowing mass planting of groundcovers and shrubbery to develop mature root systems in irrigated growing media with cell drainage. Planting in this bed includes Russelia equisetiformis (Coral Fountain), dwarf Raphaolepis indica 'Spring Pearl' and Trachelospermum asiaticum (Asian Jasmine)
- Plenty of bike racks visible from café space and apartment entry
- Appropriate trees for urban spaces that have predictable upright form and relate to the scale of the buildings. These trees will be under pruned to 2400mm to provide clear sight lines across the space and be under planted with Lomandra 'Tanika'.
- Contrast tree, Bauhinia x blakeana (Hong Kong Orchid Tree) selected for apartment entry area in deep soil zone has a broadly domed canopy and softer flowering form in Spring relating more to the residential aspect of this space. This variety is sterile and does not produce seed pods.

- A smaller evergreen native tree, Buckinghamia Celsissima (Ivory Curl Tree) denotes the beginning of the access path to the internal dwellings and apartment entry areas.
- The area will be shaded by the commercial residential building to the north west of the space so there will be ample opportunity in summer to find shade.
- Heritage interpretation includes contrast pavers inserted as 'railway sleeper' like band, Corten panels with stylized graphics of bridge trusses and rail lines in the café area and a space for the inclusion of any relics found during site excavation or the interpretation of such finds. Additionally, tree guards will have side panels of stylized Fernleigh Track construction graphics.
- The inclusion of water refill station near bike racks and bins to complement street furniture suite



STREET FRUNITURE SUITE

The proposed street furniture suite for the Town Square is the GHD range from Street and Park Furniture.

This range is classic yet contemporary with a mix of metal, timber and Corten elements that will blend with the Corten interpretive panels.

The GHD 'Spring' seat has been selected for use against the planter box walls and has been chosen for the design of the support which is reminiscent of springs on a wagon train possibly and has an industrial design feel.



GHD "Spring' Seat



Optional seat with back rest

The bin has a perforated exterior (option to insert heritage image) and a 'tusk' (manufacturers word) that could also be interpreted as a stylized wagon brake handle.



An accessible drinking fountain will also be installed in the Town Square precinct.

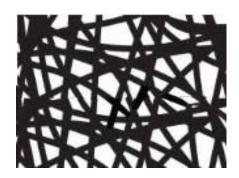
Bollards are simple Corten flange construction with a section reminiscent of rail lines .These will be surface mounted onto the pavement.



Interpretive Panels

Interpretive panels will be located within the Town Square precinct.

The concept pattern is shown below in Black and White . The Corten material is shown on the sample screen images.







PART 4 -PARK

A park is centrally located within the development and will be a total of around 1000 square metres in size.

The design has the space divided into two main areas with a connecting path across the centre of the space.

This has allowed for flexible activity use and separation of active and passive space if required.

The path also provides a circular track for small tricycles and prams.

The path positioning has allowed for the location of two triangular shapes designed to provide mass planted beds to screen car lights as they enter the development from Kopa Street . Additionally, kerb side planting just outside the park will provide a green vegetated terminus view of Pyrus 'Capital' at the end of the entry road.

A small area of play equipment will be provided in a dedicated softfall zone for young children.

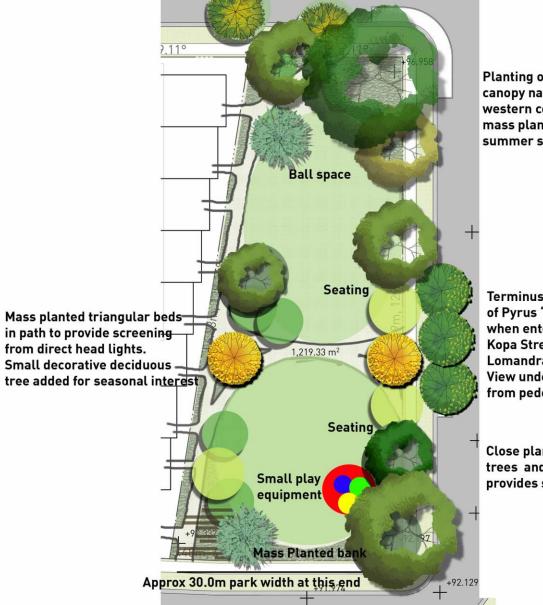
Some shaping of this lot will be required to create level play spaces.

Design level height differences between the lower road and the lower play area will be taken up with path steps at the lower end and a mass planted embankment.

The upper level will also have some embankment shaping providing opportunity for better play space.

Seating from the project furniture suite will be provided in shaded areas.





Planting of mixed tall canopy native trees on north western corner of park in mass planted beds provides summer shade to play area.

Terminus view
of Pyrus 'Capital'
when entering from
Kopa Street underplanted with
Lomandra 'Tanika'.
View under canopy into park
from pedestrian and car user.

Close planting of mixed native trees and shrubs provides shade for play area

PART 5 –Lot 1 DWELLINGS

5A- Maisonettes

The Maisonettes are located behind the commercial development that fronts Dudley Road and along the internal road to the south east corner of the site.

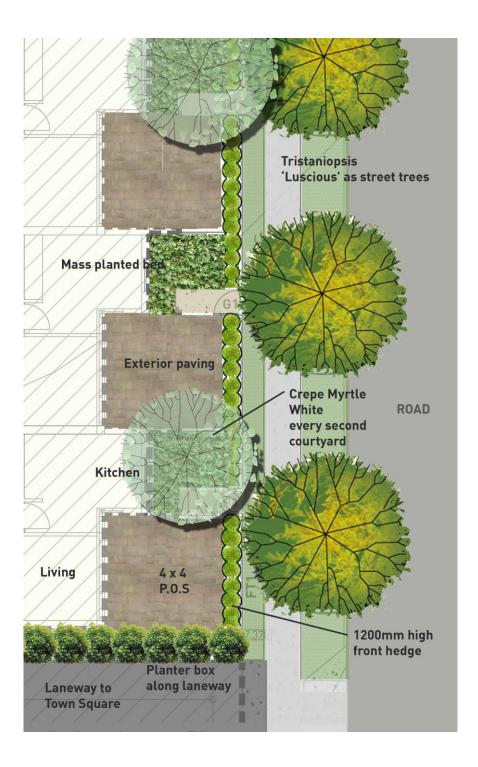
Dwellings behind the commercial development have dual access from both the internal development road through an individual private gate and courtyard off the street or from a communal shared landscaped space between the commercial building and the maisonettes that is access via a secure intercom arrangement.

This communal space is shared by the apartment residents above the commercial buildings as well.

The Maisonettes have their private open space located in the front garden area off an internal living area.

The landscape design for this space does not intend to screen the private open space from the street but rather enhance the streetscape /private realm experience by planting a dense hedge to 1200mm high behind the fence which provides separation but not enclosure for the resident and allows engagement with street life.





13

5 B - Internal Courtyard Space

A communal courtyard is accessible from apartments along Dudley Road and from the Maisonettes.

This courtyard area will contain raised planter boxes and custom seating to provide a shared area of relaxation in a mostly shaded setting.

Planting selections for this area will include

- Cissus anatarctica (Kangaroo Vine) as a major plant element for the groundcovers
- Dwarf Baekia virgita planted in groups to provide mounded soft foliage



Entry to Maisonettes

5 c – SOUTH WEST APARTMENT BUILDING

The apartment building on the south east corner of the site overlooks the site in all directions.

The elevation below shows the building elevation fronting the landscape corridor.

Large scale native trees have been planted to complement the existing vegetation of the Fernleigh Track and to create a bush land context for the apartment building.

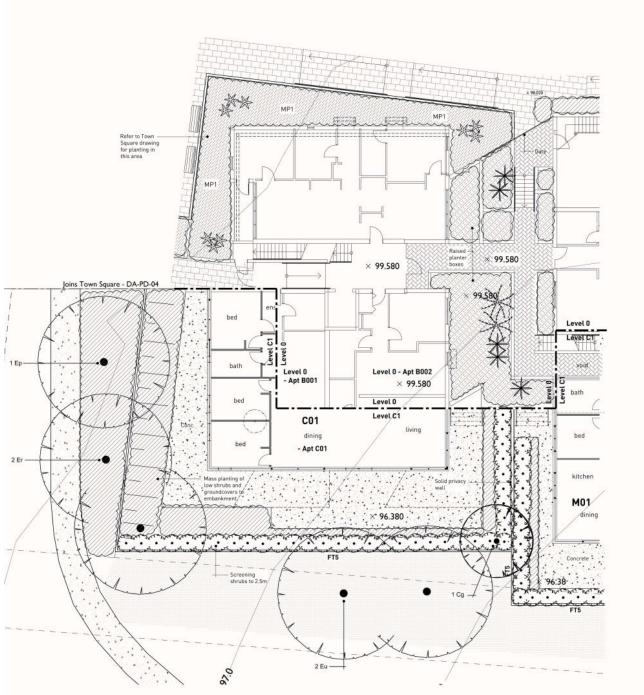
The mature height of the trees also provides scale to the built form with the building relevant to the landscape scale surrounding it.

The large embankment adjoining the path is planted with massed native groundcover to increase micro habitat in this area and reduce run-off.

Residents are screened at ground level by a hedge of Syzyigium 'Cascade' – a weeping dwarf form of Lilli Pilli .

Planter boxes are mass planted with a mix of hardy natives and exotics and some specimen plantings such as Phormium add architectural interest.





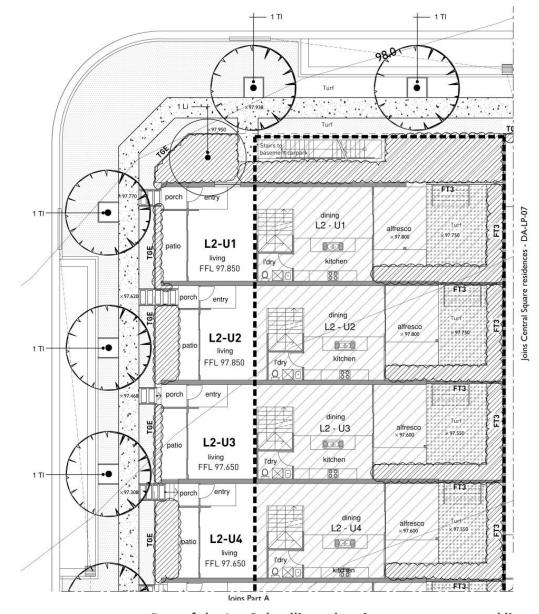
PART 6 – LOT 2 DWELINGS

Lot 2 dwellings are a series of 8 terraces over basement car parking,

Deep soil zone planting is available at the front of the terraces where shrubbery planting will be installed off the entry patios.

A 1200mm picket fence and gates are installed on the boundary to separate the public and private space.

Rear patios will be provided with raised planted beds to 1.0m high and 1.0m wide planted with Raphaolepis 'Spring Pearl' at the rear of the bed, variegated Sansevieira trifasciata (Snake Plant), and Trachelospermum asiaticum (Asian Jasmine)



Part of the Lot 2 dwellings showing rear terraces and line of basement car parking.



PART 7 –LOT 3 DWELLINGS

Lot 3 dwellings are a series of 9 terraces over basement car parking that front the park.

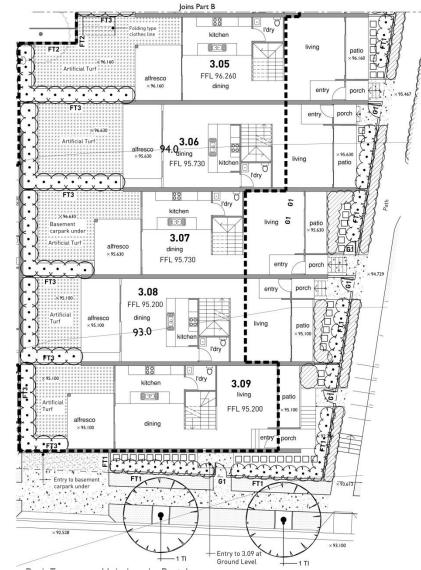
These terraces have generous rear patios leading from internal living spaces with 1.0m high x 1.0m wide planter boxes on two sides providing flexible private outdoor space.

Synthetic turf on the ground surface of the rear terraces will keep reflectivity to a minimum and provide a cool, low maintenance surface in the summer time.

All terraces have pedestrian entry from a front porch onto a path that runs through the park area.

Small courtyards in the front of the buildings allow for screen planting behind a 1200mm picket fence.

Tree planting within front setbacks is kept to a minimum as larger scale landscape is borrowed from the Park landscape.





Massed planting on embankment

LOT 3 - NODTH-EAST ELEVATION

Vertical picket fencing to 1200mm behind massed planting adjacent to path Low mixed planting in courtyards behind fence

PART 8 - LOT 4 DWELLINGS

Dwellings on this lot are a series of terraces houses over basement car parking.

These dwellings front Kopa Street for approximately half of the lot space and front internally to the development for the balance of the lot.

Kopa Street dwellings benefit from morning sun into the front courtyard areas and have a rear private open space area .

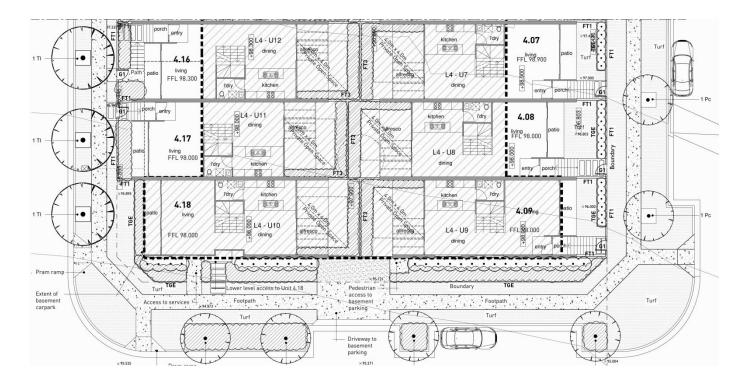
The internal facing terraces receive sunshine mid-morning and afternoons with sun into the rear private space in the mornings.

Both front and rear patio and courtyard areas provide flexible seasonal open space options for residents.

Rear courtyards will be provided with a 1.0×1.0 raised planter box mass planted with low maintenance plants.

Front patio setback areas are on natural ground and will have hedging behind 1200mm open metal fencing and gates to provide separation from public space.

See 2.2 Streetscape for Kopa Street Elevation



PART 9 - LOT 5 - 13 DWELLINGS

Lots 5 -13 contain dwellings which have a common boundary with existing dwellings on Lonus Avenue.

Houses along this part of the site have been designed to work with the existing slope of the land which will minimise any excavation along the boundary.

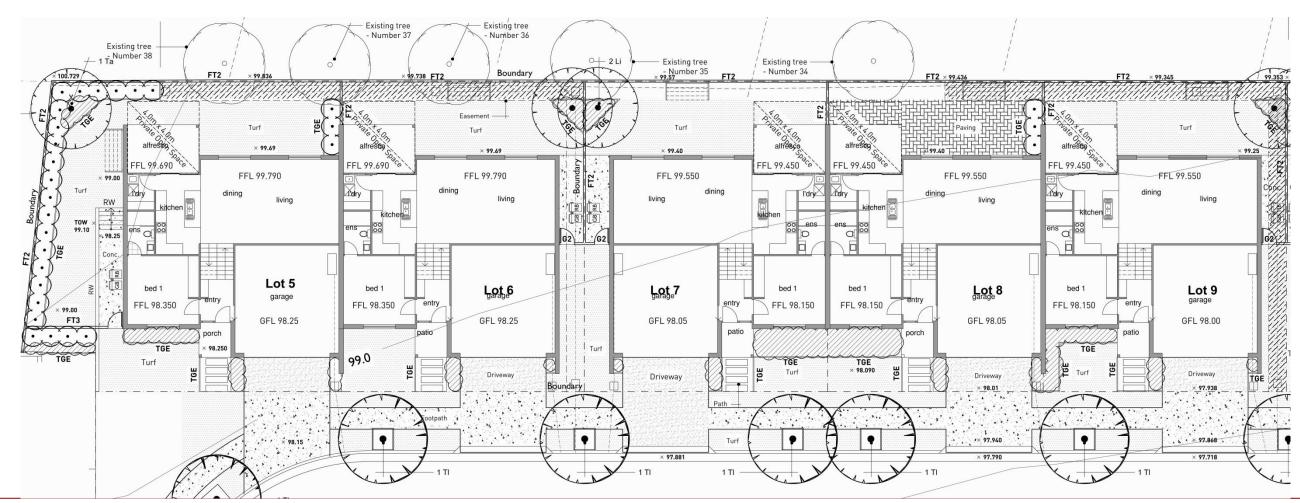
Residents access the back yard from living areas that are close to natural grade

No front fencing is proposed for the dwellings along this alignment.

Dwellings are built on natural ground with front garages directly off the street.

Landscape is designed to enhance the separate dwelling nature of the built design and connect the house frontage with the street

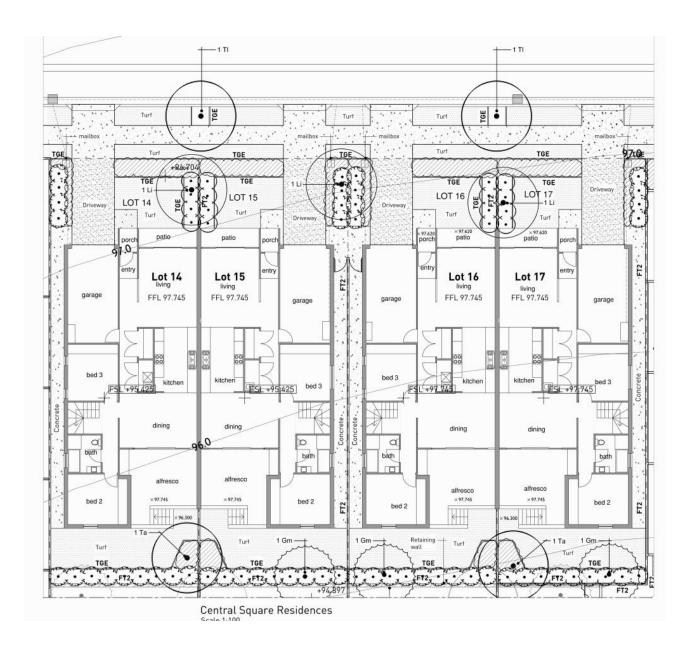




PART 10 - LOTS 14 -20 DWELLINGS

These lots are a series of semi-detached dwellings in the centre of the site with off street garaging at street level.

Natural soils in the garden areas allows for planting of small trees and larger hedge types creating a small backyard with useful open space.





PART 11 - LOTS 21 - 24 DWELLINGS

Lots 21 – 24 are four semi- detached dwellings located near the Fernleigh Track access path.

The rear of the dwellings have borrowed views of the landscape corridor and look out to bushland and the track alignment.

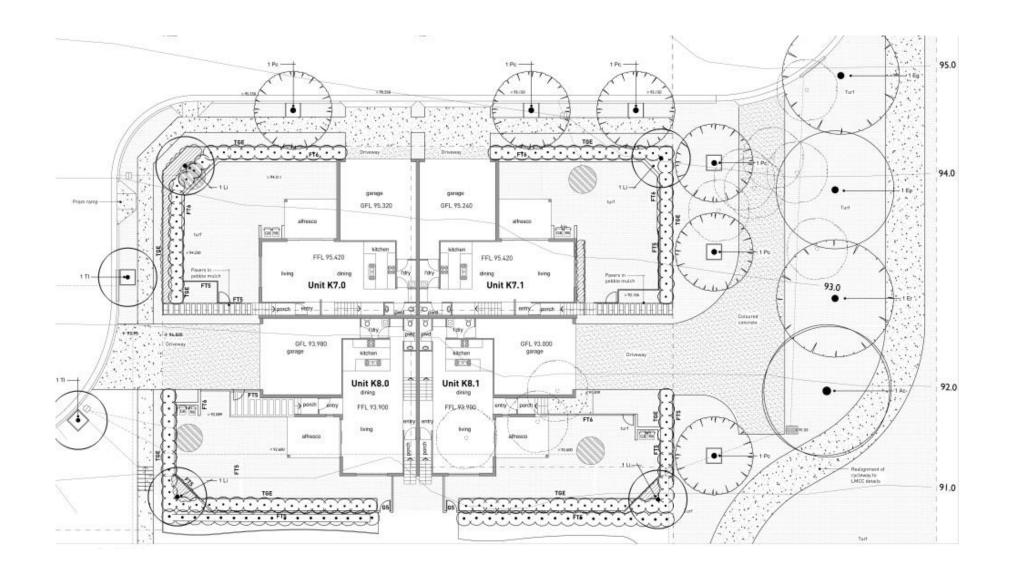
The front of the dwellings contain the private open space and this area is screened by a mixture of solid and open fencing located to maximise the private space for residents.

Solid 1800mm block work fencing faces the access road.

Planting of Syzigium 'Resiliance' is within the first 1.0m of the lot setback for all lots, returning around the corners of the lots towards the Fernleigh Track and internally for boundary definition and privacy.

Unit K8.1 has a drive access off the main entry road between the cycleway path and the lot boundary.

This design arrangement has created a space that will be planted out with native understorey planting and tall canopy native trees local to the site.





PART 12 FENCING

Three fencing types will be installed on site for the project.

- Colourbond 'Woodland Grey'- various heights to 1800mm
- Charcoal palisade fencing-various heights to 1800mm
- Custom slim line picket fencing to 1200m

Gates will be installed to dwellings where access to the rear of the property is available.

Security gates and palisade fencing will be installed off the laneway to apartment buildings.

The existing fencing along the Fernleigh Track boundary will remain or be replaced with like for like should that be required.

Typical picket fencing images below















Colourbond 'Woodland Grey' – mini orb profile shown

Rendered Block Wall

PART 13 HERITAGE

The Fernleigh Track is an important heritage item which is close to the site and provides opportunity for recreation and enjoyment for the public

The railway corridor, and the bridge over the rail culvert, Whitebridge, are historical features embedded into the Whitebridge community fabric.

Historical records tell of the hard work – yakka – that the fettlers had to endure to lay the sleepers for the rail link to the mines. The bridge cutting was hand cut and blasted out with black powder.

Both Aboriginal and white men laboured hard in rough dwellings and camps along the line in what was then a remote area of Newcastle.

As part of the development application three items will be designed, interpreted and incorporated into the project around the town square area and one near the existing Fernleigh Track crossing point.

The first heritage element proposed is for use in two Corten panels and relates to the interpretation of the design and structural elements of the bridge trusses and railway sleepers. The elements are hard, angular and strong and represent the hard work and the final result of the finished bridge and line.

These elements have been reduced to provide strong line work for the Corten screens concept that will be placed near the café and the entrance to Building B from the laneway.

A small plaque will be affixed to each screen with text approved by LMCC Heritage Officer.





Concept Line work for Corten screens based on bridge structure- final line work to future design

Secondly, railway sleepers have been interpreted in the paving pattern of the Town Square area. These appear as stylised paver inserts of contrast colour into the paved surface of the Town Square area and provide a visual indication and direction to the Fernleigh Track and Whitebridge overpass.

Fettlers on site at or near Whitebridge would have spent many hours shaping sleepers and making gang nails to secure them to the track.



Thirdly, there is a heritage element that relates to the workings of the area and what may be hidden under the surface of the site and revealed during construction.

An interpretive space has been allowed in the pavement of the Town Square adjacent to a shade tree.

At present a concept that includes site 'finds' or the interpretation of finds is being developed for this area and during construction any exposed finds will be bought to the attention of the LMCC Heritage officer for possible inclusion, retention or interpretation into this area.



Whitebridge Station 1990



Fettlers Camp - Adamstown 1901.

Additionally, LMCC have developed interpretive signage that will be installed on the old Whitebridge Station platform area or nearby.



Part of the proposed LMCC Heritage Interpretation sign that will be placed on the old Whitebridge Platform.

Image source

http://history.lakemac.com.au/page-local-history.aspx?pid=1085&vid=20

TYPICAL PLANTING PALLETTE





Raphaolepis 'Pearl'





Scribbly Gum- bark



Westringia





White Crepe Myrtle Ivory Curl Tree Flower

Lomandra



CONSULTANTS DECLARATION.

This document has been complied by Helen Mansfield who is qualified as a category 3 consultant with Lake Macquarie City Council

Registered Landscape Architect 1426 AAILA



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