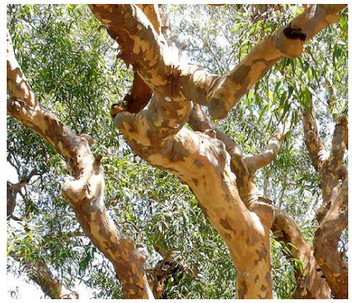
SIKH GRAMMAR SCHOOL - ROUSE HILL

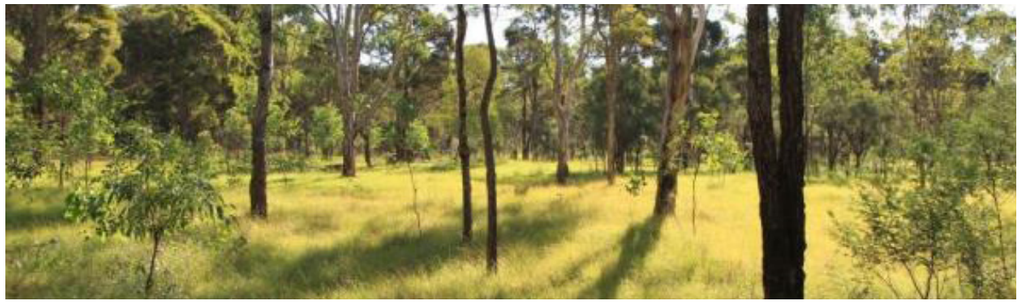
SSDA LANDSCAPE DESIGN REPOR (REVISED)
NOVEMBER 2020

Rouse Hill Campus

PMDL ARCHITECTURE INTERIORS MASTERPLANNING — WILLOW TREE PLANNING — sym. studio Landscape Planning

The word 'tallawong' is derived from the Darug word 'dalawang' for the rough barked apple tree (Angophora Costata).





The Cumberland Plain Woodland

In 1877 Cumberland Plain Woodlands covered 107,000 hectares occupying approximately 30 per cent of the Sydney Basin. This community type was once widespread in the Plains but has been reduced to a few fragmented stands by human use for farming, industry and housing. Today less than six per cent remains in small fragments scattered across the western suburbs of Sydney, totaling only 6400 hectares. The remaining fragments occur in areas subject to intense pressure from urban development.

The most commonly found trees in the woodland are Grey Box Eucalypts Eucalyptus moluccana, Forest Red Gums Eucalyptus tereticornis, Narrow-Leaved Ironbarks Eucalyptus crebra and Spotted Gum Eucalyptus maculata. A variety of other lesser-known Eucalypts as well as shrubs, grasses and herbs are also found. It is the dominance of Grey Box and Forest Red Gum that makes the community distinctive.

The many colours of Sikhism & Punjab

The Fauna of Punjab

- Tortoise
- Peacock
- Monkey
- Lark
- Cuckoo
- Leopard
- Fish (rohu and mahseer)
- Cobra
- Bumblebee

The flora of Punjab

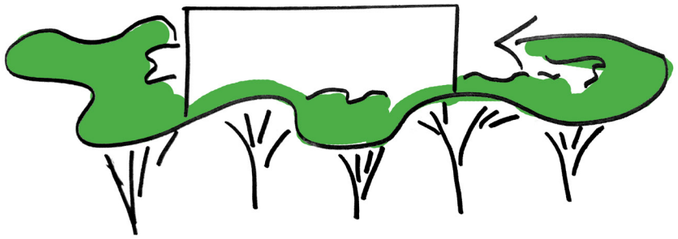
- Babul (Acacia nilotica)
- Sunflower
- Mango Tree (and groves)
- Date trees (and groves)
- Ber Tree (Ziziphus mauritiana) also known as Indian plum
- Bamboo on the stony hills
- Balsam
- Mulberry tree (Morus alba)
- Kakar (pistacia integerrima)

The flora of Sikhism

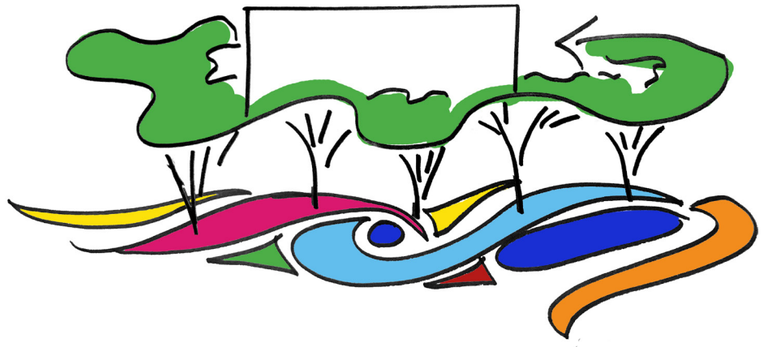
- Pipal tree (Ficus religiosa), Sacred fig referenced in Sikh prophecy.
- Simmal Tree. (Bombax ceiba)

Have you ever seen a Simmal Tree? Its as straight as an arrow, very tall and thick. But the birds which sit on it return disappointed. Its fruits are tasteless, its flowers are nauseating, and its leaves are useless. (Ang 470)

An integrated landscape response that celebrates the Australian Sikh community.....

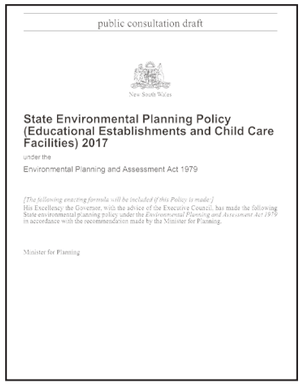


BUILTFORM EMBRACED BY LOCAL (VEGETATION) COMMUNITY.



A VIBRANT GROUND PLANE FOSTERING CREATIVE LEARNING & DIVERSITY OF CULTURE.

.....distinctly of its place


public consultation draft

New South Wales

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

under the

Environmental Planning and Assessment Act 1979

[The following enacting formula will be included if this Policy is made.]
His Excellency the Governor, with the advice of the Executive Council, has made the following State environmental planning policy under the *Environmental Planning and Assessment Act 1979* in accordance with the recommendation made by the Minister for Planning.

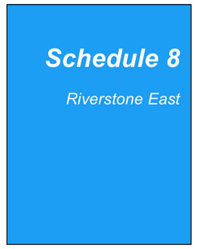
Minister for Planning

STATE ENVIRONMENTAL PLANNING POLICY (EDUCATIONAL ESTABLISHMENTS AND CHILD CARE FACILITIES) 2017

Schedule 4 Schools—design quality principles

Principle 1—context, built form and landscape
Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage, including Aboriginal cultural heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate.
Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites.
School buildings and their grounds on land that is identified in or under a local environmental plan as a scenic protection area should be designed to recognise and protect the special visual qualities and natural environment of the area, and located and designed to minimise the development's visual impact on those qualities and that natural environment.
Principle 2—sustainable, efficient and durable
Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling.
Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.
Principle 3—accessible and inclusive
School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities.
Note. Wayfinding refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space.
Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.
Principle 4—health and safety
Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.
Principle 5—amenity
Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood.
Schools located near busy roads or near rail corridors should incorporate appropriate noise mitigation measures to ensure a high level of amenity for occupants.
Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.
Principle 6—whole of life, flexible and adaptive
School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.
Principle 7—aesthetics
School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood.
The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood.

BETTER PLACED - DESIGN GUIDE FOR SCHOOLS
Government Architect NSW - NSW Government



BLACKTOWN CITY COUNCIL GROWTH CENTRE PRECINCTS DEVELOPMENT CONTROL PLAN (DCP) 2018

A landscape plan and associated documentation is to be submitted with the DA, identifying existing vegetation and community plant species and/or existing design elements of the site layout.

2.3.4 Native vegetation and ecology

4.1 Site responsive design

4.2.6 Landscaped Area

4.2.7 Private Open Space

6.3 Landscape Design

6.3.2 Allotment Landscape

OVERVIEW
sym. studio has been commissioned by PMDL Architecture + Design on behalf of Sikh Grammar Australia to prepare a landscape package for State Significant Development (SSD) Application. This property 151-161 Tallawong Road, Rouse Hill, is situated between the suburbs of The Ponds, Scholfields and Riverstone towards the North Eastern edge of Blacktown City Council Municipality. As identified within Blacktown City Council Growth Centre Precincts DCP (2018) the site is within The Riverstone East Precinct

The project is an important and much needed contribution to both the local Sikh community and wider local community. Local area statistics indicate that After English, Hindi and Punjabi are the 2nd and 3rd most spoken languages and India is the 2nd highest birthplace in the surrounding suburbs of Schofields, Riverstone and The Ponds. This school is a important and much needed inclusion for the community, as stated by Kuldeep Singh, spokesman for the Sikh Grammar School Committee in an ABC radio interview

"there are 19 Jewish schools, 39 Islamic schools and about 1,700 Christian schools across Australia but no school for the Sikh community."

Rouse Hill Sikh Grammar School will be the first of it's kind in Australia. Sym Studio understand the important role landscape has in providing a space that is safe and welcoming and acessible for students, staff and visitors that celebrates the Sikh culture within its greatly valued Australian context.

The proposed development consists of a series of distinctive semi-public and private outdoor education spaces that respond to the associated building programming. The landscape approach is to create a unified environment with a variety of spaces as fluid extensions to the built form. Thoughtfully designed adaptable outdoor spaces work to balance the varying needs of boarding student residence, staff leisure, place of worship, public event/gathering space, community activities aswell as ELC, Primary and Secondary outdoor learning environments.

LANDSCAPE CHARACTER & IDENTITY
The existing landscape character of this greenfield site is highly modified and predominantly cleared with low grasses and 5 existing trees within the site boundary that are unable to be retained due to development impact. The natural gradient of the land slopes towards the western boundary with a large depression and dam collecting overland water in the centre. The site fronts Tallawong Road to the northeast and abuts similar greenfield allotments to the remaining aspects. The site is ideally positioned with a 9 minute drive from Rouse Hill Town Centre and a 5 minute walk from the new Cudgegong Metro Station (currently under construction) on the North West Metro Line. Amenity access and connection will only improve over time as the Riverstone East DCP layout plan is realised. Internal site linkages will connect internal elements to the broader town context including a less than 5 minute walk to future 'local town centre' and approx 5 minute walk to two local parks (either north or south) or a 8-10 minute walk to large sporting fields at the junction of Tallawong and Rouse Road. (Riverstone East DCP, Figure 3-1 Indicative layout plan).

Sym Studio drew from surrounding vegetation communities to inform the landscape response, in addition to the sites existing character. (Whilst not present on site) the endangered Cumberland Plain Woodland inspired a landscape vernacular of tall canopy trees with an open 'midstorey' and expansive low growing understorey, interpreted to a strong tree canopy of local vegetation that 'embraces' the built form and a low lying but activated groundplain. Consistent canopy cover of Corymbia maculata and Angophora costata street trees work to unify the site and ground the buildings within the landscape whilst the open midstorey creates visual connections between the spaces and aids in passive surveillance. Species selection of Angophora costata reference the local history with the word 'tallawong' derived from the Darug word 'dalawang' for the rough barked apple tree (Angophora costata).

An integrated landscape response that celebrates the Australian Sikh community..... .....distinctly of its place.

The plant pallete uses mostly natives with selected plant species included from Blacktown Growth Centre DCP 'Prescribed Trees and Preferred Species' List instilling a strong sense of place and ensuring a hardy pallette well suited to its environment.. (Refer Plant Schedule) Local species such as Banksia integrifolia, Doryanthes excelsa & Grevillea are used in different areas of the site depending on local aspect & microclimate to create layered landscape experience that reinstates the historical local vegetation.

A mix of evergreen and deciduous trees will provide valuable solar access as well as seasonal colour and variation. Proven exotic species have also been used for their day-one-impact, compact form, low water use characteristics and suitability to harsh rooftop conditions. Edible species such as Salvia and Rosmary have been included for educational, culinary and sensory benefits. The rooftops on slab will utilise above ground planters and mounding to achieve adequate soil depth for small tree planting. Wherever possible landscape has been designed access existing deep soil for more established planting.

Landscaped edges and predominantly indigenous boundary planting work to emphasize the pedestrian scale, provide visual privacy to students, reduce visual impact of built form and create an enhanced and unified street character suited to its 'Growth Centre Precinct' zoning.

Whilst Blacktown Council's Bushfire Prone Land Map does not identify the subject site as being bushfire prone. (Refer Bushfire Assessment Report, 2019) the landscape strategy will be in keeping with general bush fire prevention strategies (Planning for Bush Fire Protection – 2006 (PBP)) with special consideration if existing grasslands are to be retained during staged constructions. Shrub planting close to proposed buildings will be minimal, well spread out, not to form a connected canopy, have low flammability and located at a distance from the buildings.

AUSTRALIAN SIKH CULTURE & ART
Local influences of surrounding locality, native landscape and local history were drawn from as design generators in combination to the broader but equally important context of Sikhism and Punjab. The bright colours and textures of Punjab are interpreted through planting selection, material choice and landscape form throughout the groundplane, creating vibrant spaces that foster creative learning and diversity of culture.

Sikhs have lived in Australia for more than 200 years and hold a strong connection to county since early trading endeavors in the 1800's as well as fighting alongside the Anzacs in WW1. Part of the client brief was to communicate this important connection within landscape. Rows of Rosemary officinalis at street level and brass sculptures of Sikh Anzacs riding horseback at the Arrival Plaza pay tribute to the strong Sikh Anzac connection and present a strong message to the community of cultural connection to Australia. (Refer Concept Imagery Plan, Page 12)

WATER & COMFORT
The proposed water cycle for the site collects through open biofiltration swales, filters through raingardens, stores through OSD which will be re-used through irrigation of ground and rooftop.

This combination of engineered and landscape driven solutions tell an educational water story and teach environmental custodianship.

The central water elements or 'The Dams' serve multiple functions - to tell a water story of the sites pre-existing character and large central dam, to collect and filter water through biofiltration and to increase comfort through mitigating air temperate. Additional design elements such as permeable paving, irrigated (recycled water) artificial lawn, tree cover and built form work to create adaptable spaces and comfortable microclimates throughout the day that can both capture morning winter sun and mitigate hot summer afternoon sun (Refer concept diagrams)

OPEN SPACE ACTIVATION
A variety of semi public and private open spaces connect to the built form an activate the site. The landscape experience can be broken into key zones of Arrival Forecourt, Civic Heart Plaza, Village Green, Multipurpose Playing Courts, Boarding House Courtyard, Primary Discovery 'Forest' with Natural Play, Seniors Forest Retreat, 3 x rooftop terraces, ELC as well as high quality streetscapes.

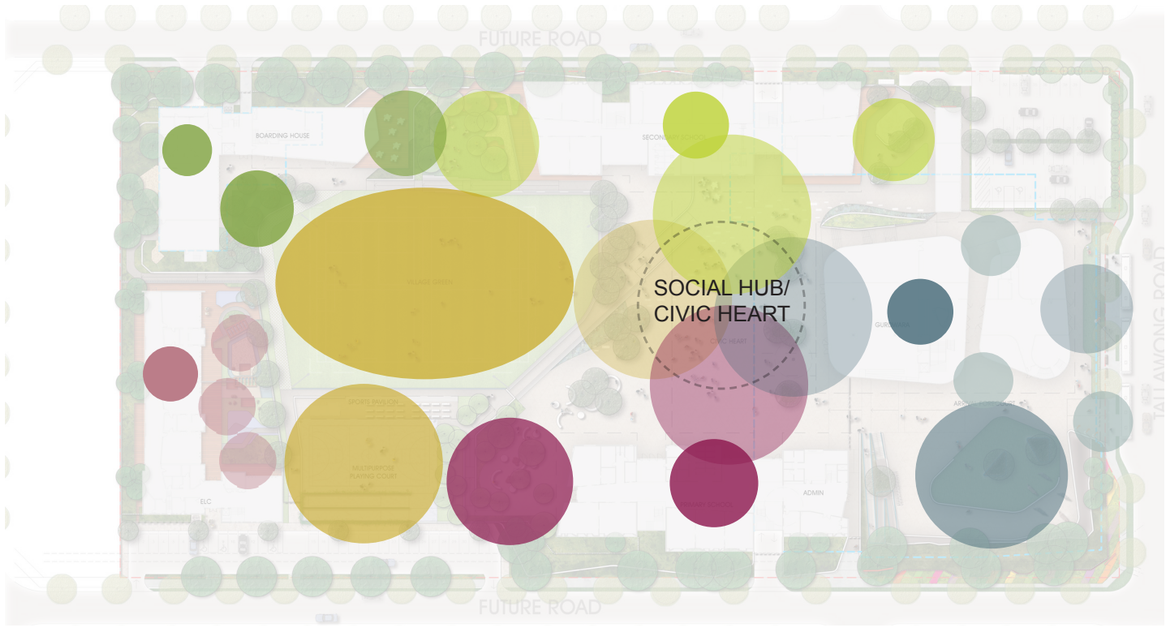
High quality materials and integrated furniture will create flexible spaces for learning, discovery study & play. The public realm and openspace will have a distinctively identifiable character unique to the site to create a strong sense of place and community pride/sense of ownership in the development. A durable hardscape palette materials will focus on natural materials including masonry paving, exposed aggregate concrete paths and timber/timber look materials that are sympathetic to the site character, durable and accessible for variety of ages and abilities.

The 'Arrival Forecourt' works on a variety of levels to welcome visitors, allow cluster & connection area after worship, host events, markets and open days as well as gather and protect students as they wait after drop-off and before pickup with ample passive surveillance and a raised lawn away from the street. The multipurpose spaces allow for a variety of programming, exploration and creative learning within the environment. The community focus extends to amenity access with facilities including the Gurwara and multipurpose play courts and cricket nets open to the community outside of school hours.

The overall approach to ELC, Primary & Seniors outdoor spaces is to utilise the landscape as a classroom extension and learning tool. The outdoor experience is designed to be highly programmable but not overly controlled. Eco areas with natural play elements foster imagination, exploration & discovery and a strong connection to the environment.

The development embraces Sikh Australian identity with a strong outward focus to surrounding neighborhood, emphasising core beliefs of the Sikh philosophy. Complimentary vegetarian meals at the Langar and Aboriginal, Sikh & Australian flags and the entry exemplify the spirit of the development and Sikh Culture in welcoming people of all beliefs and walks of life. The result is a layered landscape experience that respects the site, foster a sense of community and inspires creativity and learning.

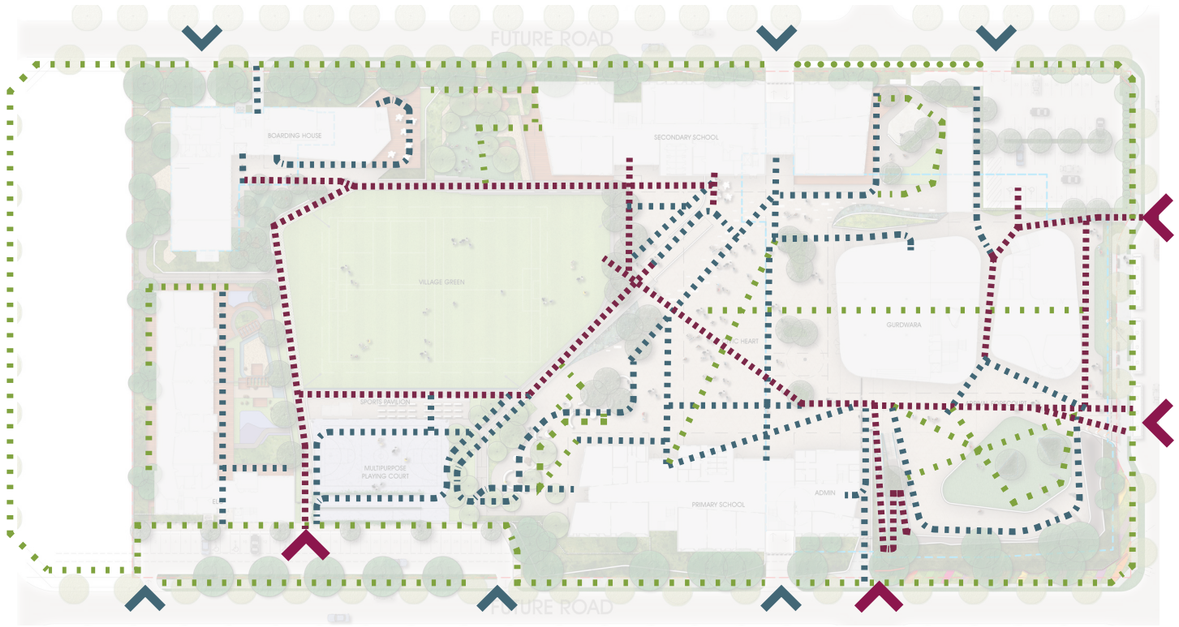
OPENSPACE PROGRAMMING & NODES



- Boarding House
- Early Learning Centre
- Sports & Active Recreation
- Seniors School
- Primary School & Admin
- Gurdwara, Worship & Ceremony

- *Provide a flexible open space for easy programming & uninterrupted circulation.*
- *Connect key spaces & desire lines through pathway axis and visual cues.*
- *Design spaces that respond to circulation axis and desire lines.*

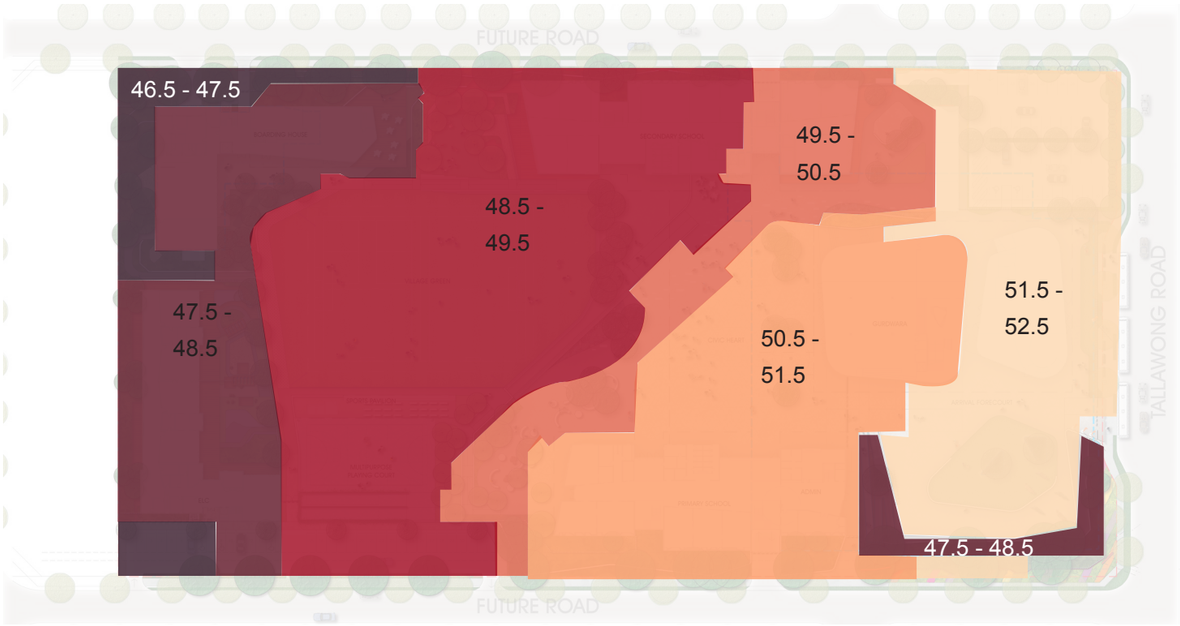
CIRCULATION & DESIRE LINES



- Primary Pedestrian Desire Line
- Secondary Pedestrian Desire Line
- Tertiary Pedestrian Desire Line
- Main Pedestrian Entry
- Vehicular Entry

- *Provide a flexible open space for easy programming & uninterrupted circulation.*
- *Connect key spaces & desire lines through pathway axis and visual cues.*
- *Design spaces that respond to circulation axis and desire lines.*

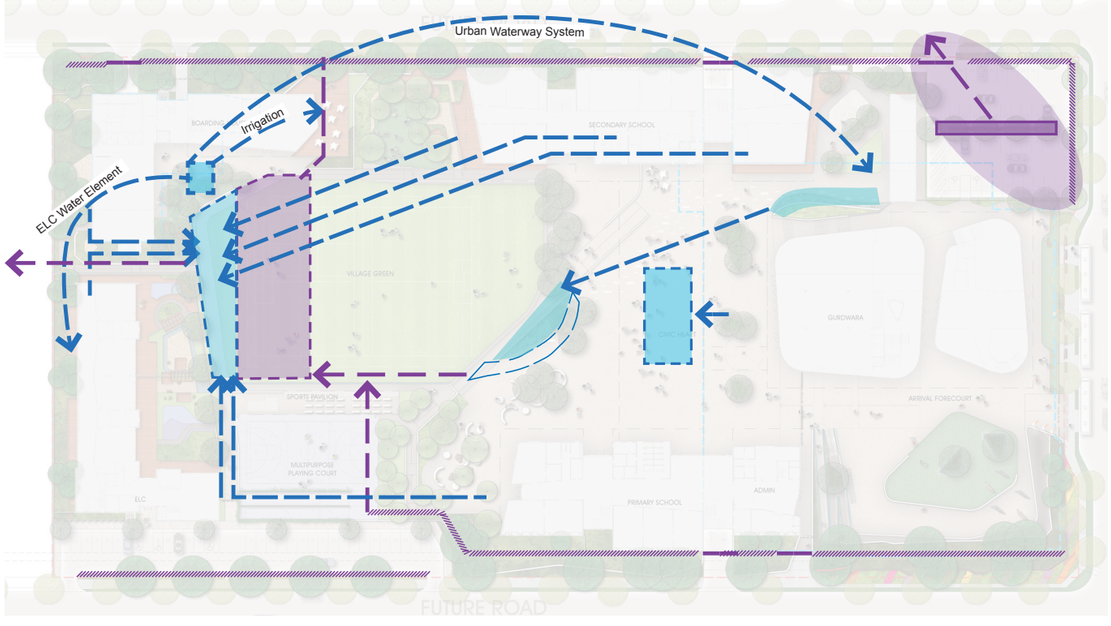
GRADING & LEVELS



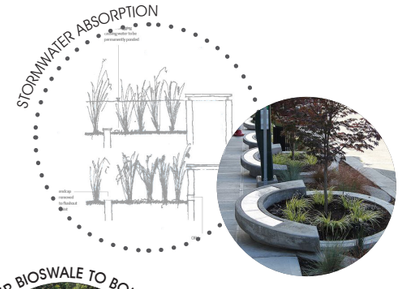
- 46.5 - 47.5
- 48.5 - 49.5
- 50.5 - 51.5
- 47.5 - 48.5
- 49.5 - 50.5
- 51.5 - 52.5

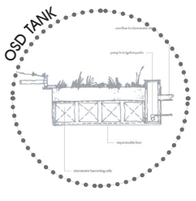
- *Utilise topography to seperate age groups that responds to programming*
- *Adapt level changes to create subtle separation between spaces without barriers*
- *Connect space programming through level 'planes'*

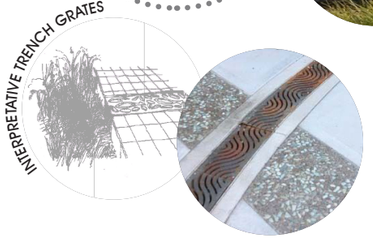
HYDROLOGY



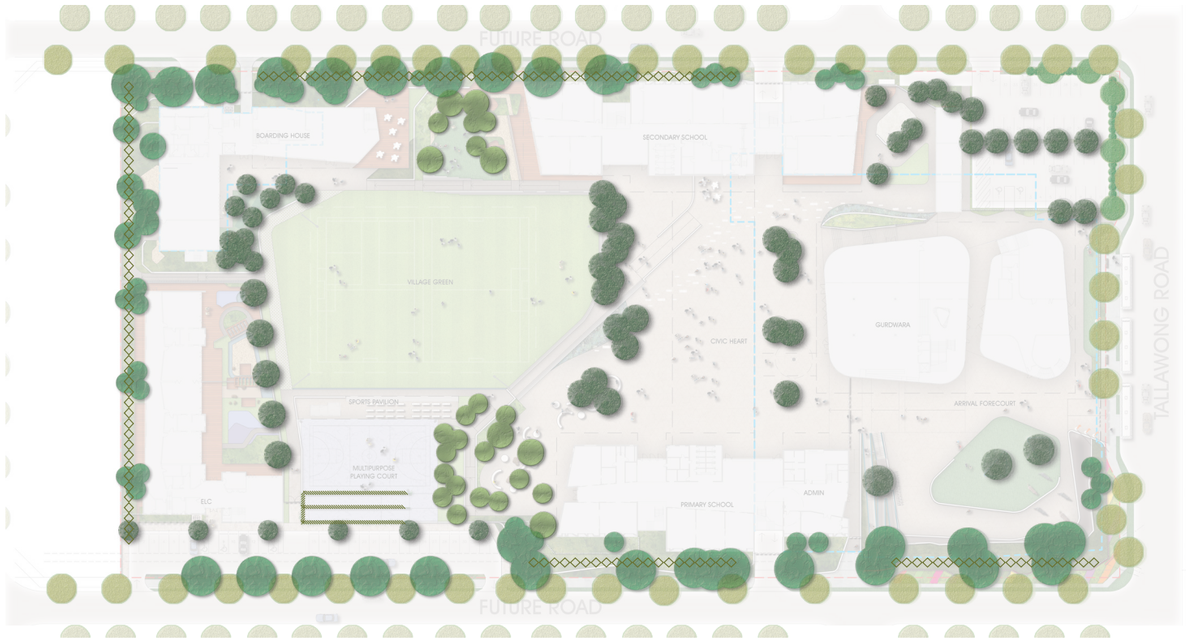
- Stormwater Harvesting OSD Tank
- Rainwater Harvesting OSD Tank
- Landscape Bio Retention
- Stormwater Overland Flow
- Rainwater Water Feature
- Stormwater Bio Swale
- Stormwater Underground Connection
- Rainwater Underground Connection







TREE CANOPY COVER

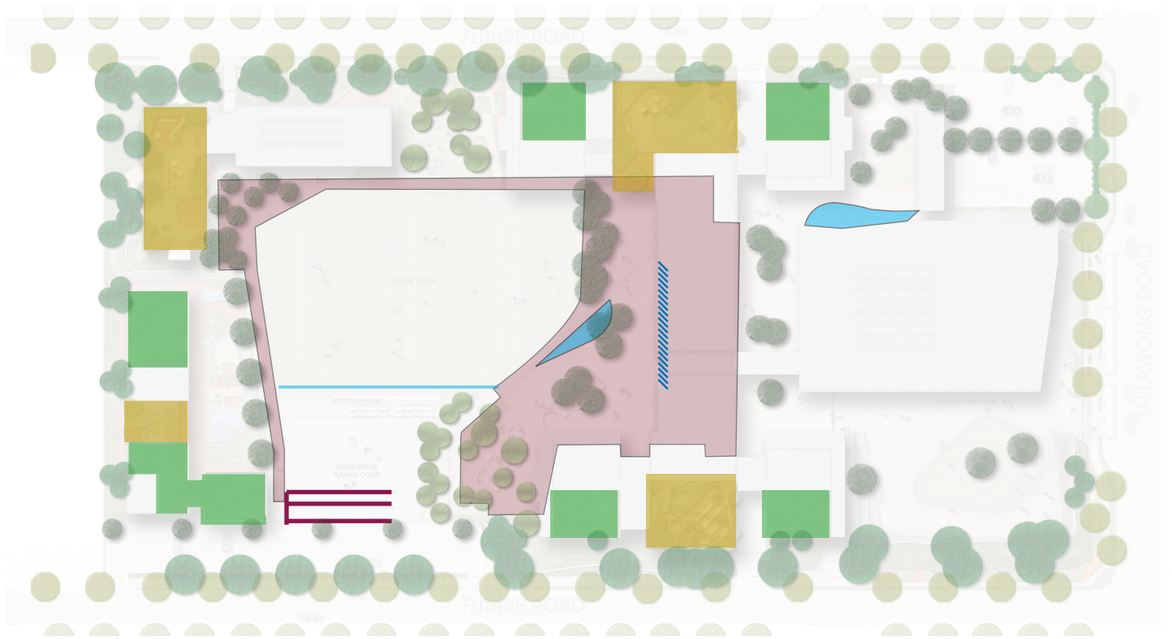


- Street Trees
- Boundary Tree Planting
- Urban Plaza Canopy
- Eco Area Canopy
- Vegetation Buffer
- Vertical Landscape Screen

- *Create a pedestrian focused community streetscape which addresses and reflects local street character.*
- *'Embrace' buildings a/ clustering endemic canopy trees b/ micro climates & reduced heat island effects.*
- *Arrangement of trees to create visual links from urban plaza to village green.*
- *Utilise endemic vegetation with high moisture content.*

MICRO-CLIMATE & THERMAL COMFORT

"In Western Sydney, maximum summer temperatures can be up to 9 degrees hotter than the Sydney CBD.... "The number of days over 35 degrees in Western Sydney has increased by 250% since 1965 (compared with 22% in Central Sydney". (LCL Guide To Urban Cooling Strategies 2017)

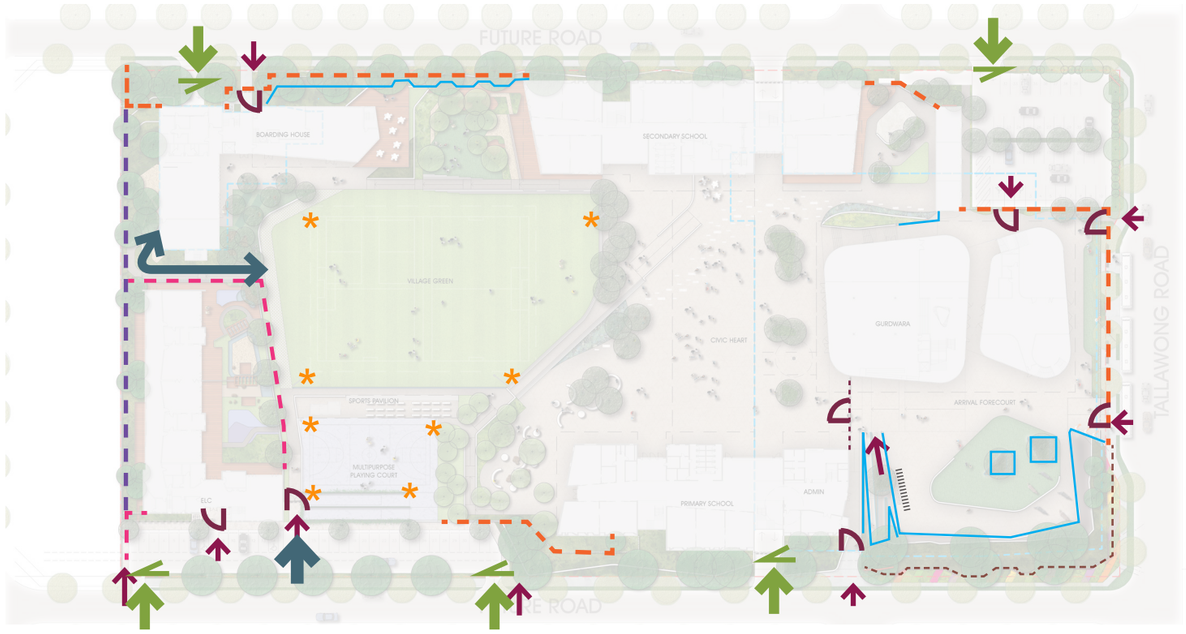


- Intensive Green Roof (Trafficable)
- Extensive Green Roof (Non-Trafficable)
- Evaporation Cooling System
- Water Features/Bioretention
- Permeable Paving
- Tree Canopy
- Green Walls/Screen

- *Utilising 'cool' paving materials.*
- *Cooling via increased permeability/porous paving.*
- *Increased shade through vegetation cover*
- *Utilisng running water play elements where possible*
- *Integrating green infrastructure with the built form through rooftop gardens and green walls/ screens.*
- *Evaporative spray cooling systems*

- *Utilise the building along the boundary rather than fencing where practical*
- *Visually soften fencing with vegetation both sides*
- *Obscure perceived height by utilising grade change*

HEALTH & SAFETY



Fence type 1 - (1.2mH)
Fence type 2 - (1.5mH)
Fence type 3 - (1.5mH)
Balustrade - (1.2mH)
Sculptural Safety Barrier - (1.2mH)
Active Amenity Lighting
Pedestrian Entry
Pedestrian Gate
Boomgate
Vehicle Entry
Service Vehicle Entry
Bicycle Parking (Outdoor)

Fence type 1 -
ELC child friendly scale, semi-permeable, screening external staging area (dropoff) incl.

Prams

Fence type 2 -
School safety, semi-permeable - passive

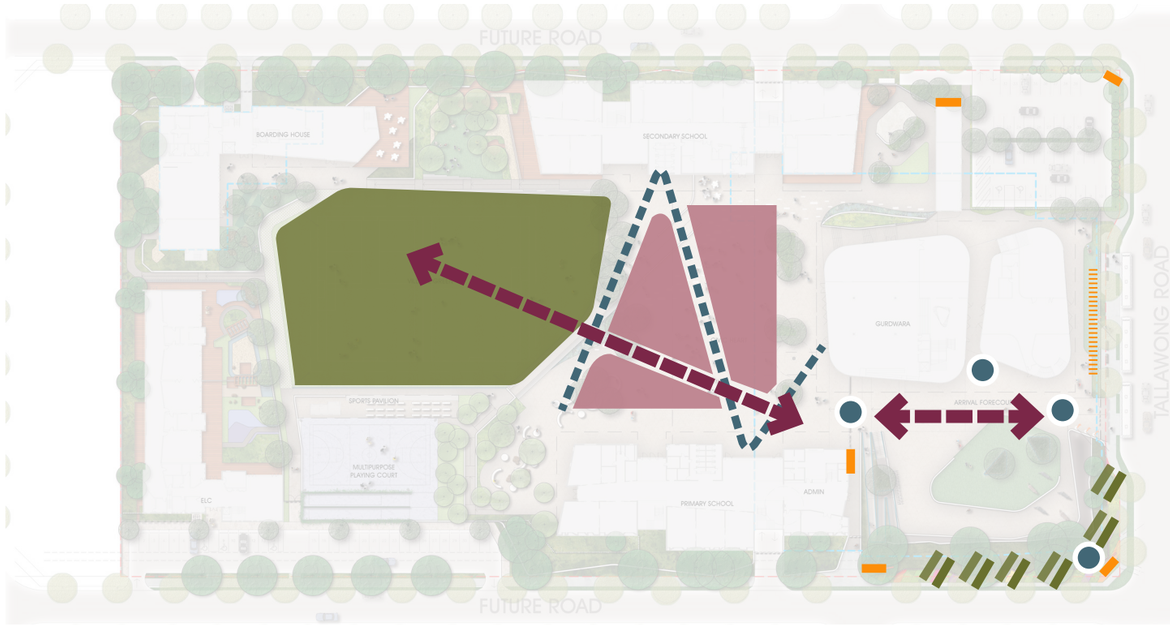
surveillance

Fence type 3 -
Security /privacy

Balustrade
School safety, semi-permeable - passive surveillance

Sculptural Safety Barrier to top of embankment and Entry backdrop.

KEY MOVES & CULTURAL IDENTITY

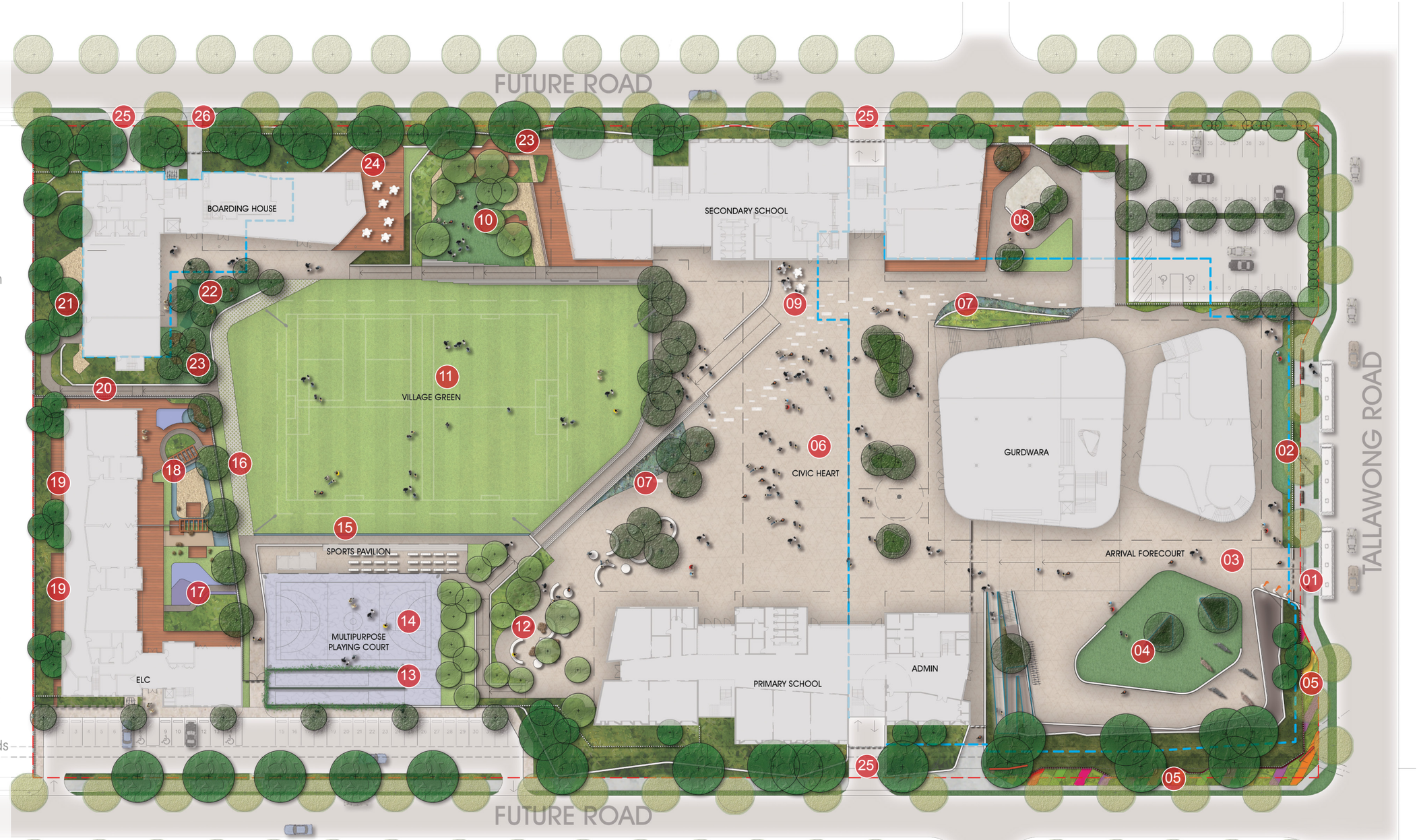


Axis /Visual Connections
Civic Heart
Identity Nodes
Village green
Sikh/Anzac Cultural Planting
Identity Signage
Ceremonial Flags/Lawn

- *'Horticultural Painting'; a mixture of vibrant colours against a backdrop of olive green.*
- *Sculpture signifying connectivity, creativity and remembrance.*
- *Variety of multifunctional spaces connecting large (shared) spaces with smaller (intimate) areas.*
- *External spaces as outdoor classrooms; reflecting the curriculum and modern pedagogy.*
- *Responsive to the full range of climactic conditions including, hot sun, cold, rain and wind.*
- *Importance of rainwater harvesting, stormwater buffer basins; long term resilience of hydrated soil profiles.*

KEY

01 Tallawong Road Entry Sequence
02 Ceremonial Lawn & Flag
03 Arrival Forecourt
04 Multi-functional Lawn & Anzac Memorial Sculpture
05 Sikh/Anzac Cultural Planting
06 'Civic Heart' Undercroft Plaza
07 'The Dams', Cooling open Bioretention Systems
08 Science & Technology Innovation Outdoor Work Rooms
09 Cafe 'breakout' Seating
10 'Forest' Retreat, Natural Play
11 'Village Green', Open Lawn
12 Discovery 'Forest', Natural Play
13 Cricket Nets with Green Screen
14 Mulitpurpose Playing Court
15 Linear Bioretention Swale
16 Periphery student loop & Emergency Access
17 ELC, Play (2-4)
18 ELC, Play (4-6)
19 Outdoor Learning 'Breakout' Courtyards
20 Maintenance Access Path
21 Maintenance Staff Outdoor 'Breakout' Garden
22 Boarding House 'Games Court' & Outdoor Study Space
23 Teen Socialisation 'Hang Out' Pods
24 Boarding House 'Outdoor Dining and Family Meeting'
25 Basement Entry
26 Boarding House Formal Entry/Exit



LEGEND

- Property Boundary
- Extent of basement (below)
- Existing trees to be retained & Protected
- (as per AS4970) Existing trees to be removed
- Proposed Trees
- Mass Planting
- Lawn - Natural
- Lawn - Artificial
- Fencing
- Landscape Walling
- WSUD Elements
- Outdoor Furniture
- Paving Type 1, Decking
- Paving Type 2, Concrete
- Paving Type 3, Stone Masonry Unit Pavers
- Paving Type 4, Grasscell
- Paving Type 5, Decomposed Granite
- Paving Type 6, Multipurpose Play Surfaces/Soft Fall

Rouse Hill Campus

PMDL ARCHITECTURE INTERIORS MASTERPLANNING — WILLOW TREE PLANNING — sym. studio Landscape Planning

1:400@A1
1:800@A3

KEY

BOARDING ROOFTOP

01 Primary Rooftop Access
02 Secondary Rooftop Access
03 Village Green Viewing Deck
04 Picnic/Study/Games lawn
05 Raised Productive Garden
06 Outdoor Kitchen w/ BBQ & Shade Structure
07 Family Style Dining
08 Kinetic Sculptural Element

SECONDARY SCHOOL ROOFTOP

09 Primary Rooftop Access
10 Mounded Study/Games lawn
11 Kinetic Sculptural Element
12 Village Green Viewing Deck
13 Shade Structure

PRIMARY SCHOOL ROOFTOP (STAFF ONLY)

14 Primary Rooftop Access
15 Synthetic Mounded Picnic Lawn
16 BBQ & Utility Bench w Shade Structure
17 Hanging Greenery w/ night lighting
18 Family Style Lunch Tables
19 Herb & Citrus Orchard in Movable Raised Planters

ELC

20 Utility Bench w Shade Structure Shade Structure
21 Village Green Viewing Deck
22 Mounded Natural Lawn

GENERAL

23 Extenstive Green Rooftop (Non Trafficable)

LEGEND

- Property Boundary
- Existing trees to be retained & Protected
- (as per AS4970) Existing trees to be removed
- Proposed Trees
- Mass Planting
- Lawn - Natural
- Lawn - Artificial
- Fencing
- Landscape Walling
- Shade Structure/Pergola
- Integrated Bench Seating
- Miscellaneous Outdoor Furniture
- Paving Type 1, Decking
- Paving Type 2, Concrete
- Paving Type 3, Stone Masonry Unit Pavers
- Sculptural Element

Rouse Hill Campus

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1:400@A1
1:800@A3

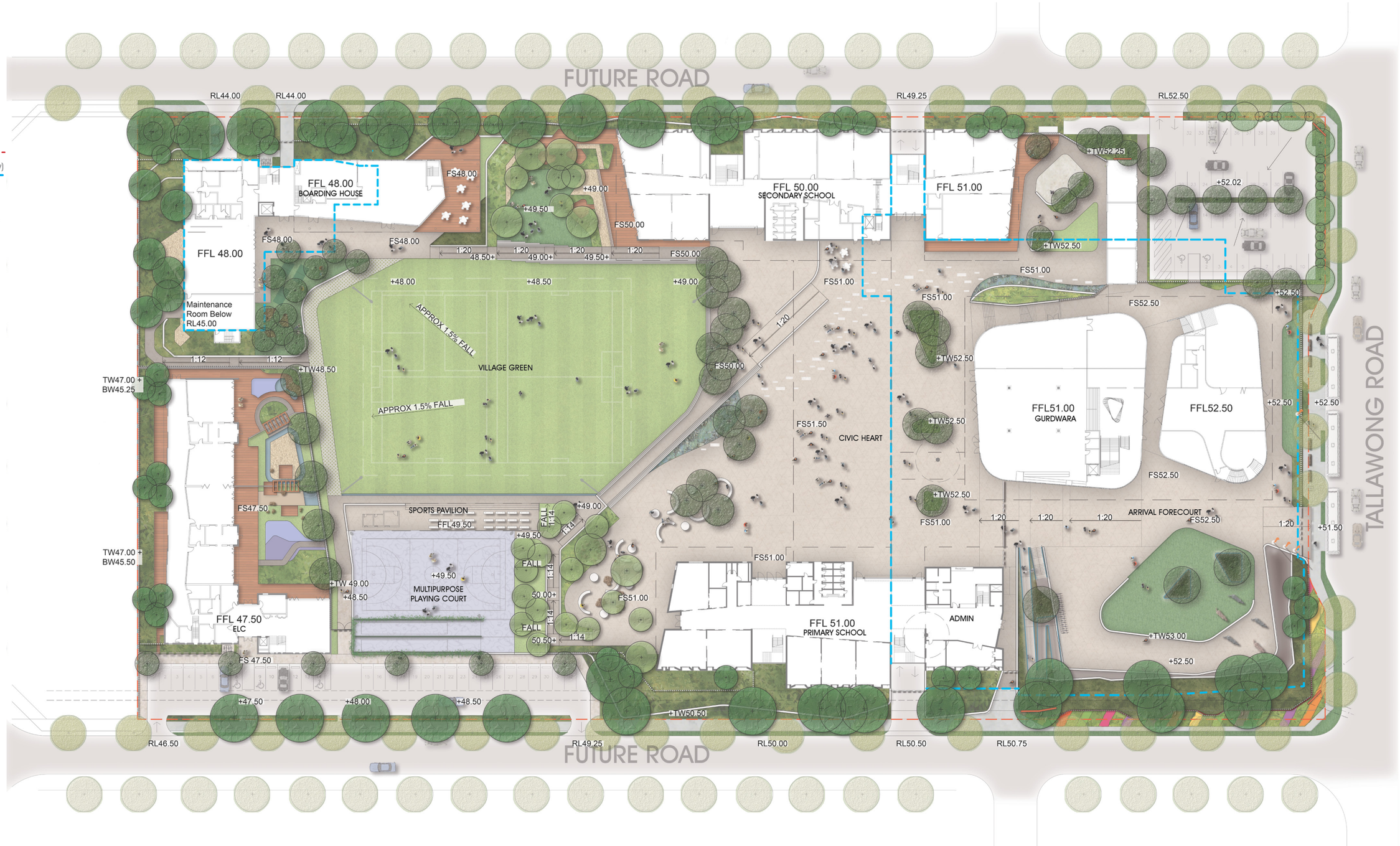
Rouse Hill Campus

PMDL ARCHITECTURE INTERIORS MASTERPLANNING — WILLOW TREE PLANNING — sym. studio Landscape Planning

1:400@A1
1:800@A3

LEGEND

- Property Boundary
- Extent of basement (below)
- (x.xx) Existing Spot Heights
- + x.xx Proposed Spot Heights
- TW Top of Wall
- TF Top of Fence
- FS Finished Surface Level
- FFL Finished Floor Level



Abbrev	Botanical Name	Common Name	Endemic (EN), Native (N) or Exotic (EX)	Mature Height (m)	Pot Size	Qty /Spacing
Trees						
ACA dec	Acacia decurrens	Black Wattle	EN	10	45L	6
ACE bue	Acer buergerianum	Trident Maple	EX	6	100L	6
ACM smi	Acmena smithii	Lilly Pilly	N	15	45L	9
ANG flo	Angophora floribunda	Rough Barked Apple	EN	18	45L	12
BAC myr	Backhousia myrtifolia	Grey Myrtle	N	8	75L	-
BAC cit	Backhousia citridora	Lemon Myrtle	N	10	75L	-
BAN int	Banksia integrifolia	Coast Banksia	N	8-10	45L	9
CAS gla	Casuarina glauca	Swamp She-Oak	EN	10-15	75L	11
COR cit	Corymbia citriodora	Lemon Scented Gum	N	20	100L	23
COR mac	Corymbia maculata	Spotted Gum	EN	20	200L	6
CYA coo	Cyathea cooperi	Tree Fern	N	4-6	45L	-
DIC ant	Dicksonia antartica	Soft Tree Fern	N	4-6	45L	-
ELA rev	Elaeocarpus reticulatus	Blueberry Ash	N	6-8	75L	10
ELA eum	Elaeocarpus eumundi	Eumundi Quandong	N	10-12	75L	3
EUC cre	Eucalyptus crebra	Narrow-Leaved Ironbark	EN	20-30	75L	20
EUC pil	Eucalyptus pilularis	Blackbutt	N	20-45	75L	6
EUC ter	Eucalyptus tereticornis	Forest Red Gum	EN	20-50	75L	6
EUC mol	Eucalyptus moluccana	The Grey Box	EN	30	75L	4
MEL alt	Melaleuca alternifolia	Tea Tree	EN	2-2.5	75L	-
MEL lin	Melaleuca linarifolia	Snow in Summer	EN	8	75L	8
POD ela	Podocarpus elatus	Illawarra Plum		8-12 (containerised)	100L	6
TRI lau	Tristaniopsis laurina	Water Gum	N	5-15	75L	13
WAT flo	Waterhousea floribunda	Giant Water Gum	N	5-8	75L	7
Street Trees (or council nominated species)						
BRA ace	Brachychiton acerifolius	Illawarra flame tree	N	10-20	100L	8
PYR cal B	Pyrus calleryana bradford	Bradford Pear	EX	12	100L	21
SYN glo	Syncarpia glomulifera	Turpentine	N	60	100L	8
ZEL ser	Zelkova serrata	Japanese zelkova	EX	30	100L	18
Shrubs						
ALY hue	Alyogyne huegelia 'Monterey Bay'	Blue Hibiscus	N	2.5	5L	-
BAE lin	Baeckea linifolia	Flax Leaf Heath Myrtle	N	2	5L	-
BAN spi	Banksia spinulosa	Hairpin Banksia	EN	2	45L	-
CALcit LJ	Callistemon citrinus 'Little John'	Dwarf Bottle Brush	N	1.5	5L 5L	-
CER gum	Ceratopetalum gummiferum	Christmas Bushs	N	5	5L	-
COR alb	Correa alba	White Correa	N	1.5-2	5L	-
ERI myo	Eriostemon myoporoides	Long Leaf Waxflower	N	1.5-2	140mm	-
GRE hon	Grevillea 'Honey Gem'	Grevillea	N	3-4	5L	-
HEL pet	Helichrysum petiolare	Licorice Plant	N	0.5	5L	-
PIT tob	Pittosporum tobira 'Miss muffet'	Miss Muffet Tobira	EX	1-2	5L	-
PLE arg	Plectranthus argentatus	Silver Spur Flower	N	1	5L	-
ROS off	Rosmarinus officinalis	Rosemary	EX	1.5	5L	-
SAL off	Salvia officinalis	Sage	EX	1	5L	-
SYZ cas	Syzygium 'Cascade'	Cascade Lilly Pilly	N	2-3	5L	-
SYZ boo	Syzigium 'Boomer'	Lilly Pilly	N	1.5	5L	-
SYZ aus	Syzigium australe 'Southern'	Lilly Pilly	N	5	5L	-
VIB tin	Viburnum tinus	Laurustinus	EX	3	5L	-
WES wyn	Westringia 'Wynyabbie Gem'	Coastal Rosmary	N	0.5	5L	-
WES fru	Westringia fruiticosa	Coastal Rosemary	EN	1.5	5L	-
Accent						
ANI amb	Anigozanthos flavidus (orange)	Kangroo paw	EN	0.5	140mm	-
ANI bus	Anigozanthos flavidus (pink)	Kangroo paw	EN	0.5	140mm	-
ANI god	Anigozanthos flavidus (yellow)	Kangroo paw	EN	0.5	140mm	-
ANI rub	Anigozanthos flavidus (red)	Kangroo paw	EN	0.5	140mm	-
DOR exc	Doryanthes excelsa	Gymea Lily	EN	2-4	25L	-
LAV den	Lavandula dentata	French Lavender	EX	0.6	25L	-
MAC com	Macrozamia communis	Burrawang	N	2-3	25L	-
PTE umb	Pteris umbrosa	Jungle Fern	N	1	5L	-
Grasses						
CAR app	Carex apperssa	Tall sedge	EN	1	V/cell	-
DIA cae	Dianella caerulea var. producta	Blue Flax Lily	EN	0.6-0.7	V/cell	-
DIA tas	Dianella tasmanica 'Destiny'	Verigated Flax Lily	N	0.35	V/cell	-
FIC nod	Flcinia nodosa	Knobby Club Rush	EN	0.8	V/cell	-
LOM hys	Lomandra hystrix	Fine Mat Rush	N	0.6	V/cell	-
LOM lon	Lomandra longifolia	Mat Rush	EN			-
LOM tan	Lomandra tanika	Fine Mat Rush	N	0.5	V/cell	-
Groundcovers						
BAN spi BC	Banksia spinulosa 'Birthday Candles'	Birthday Candles Bankia	N	0.4-0.5	25L	-
BRA mul	Brachyscome multifida 'Break O Day'	Native Daisy	E	0.2-0.3	140mm	-
CAR gla	Carpobrotus glaucescens	Pig Face	N	-	140mm	-
CER tom	Cerastium tomentosum	Snow In Summer	EX	0.2	140mm	-
CHR max	Chrysanthemum maximum	Shasta Daisy	EX	0.9	140mm	-
DIC rep	Dichondra repens	kidney weed	E	-	V/cell	-
EVO pil	Evolvulus pilosus	Blue Eyes	N	0.5	140mm	-
GAZ tom	Gazania tomentosa	Gazania	EX	-		-
GRE poo	Grevillea 'Poorinda Royal Mantle'	Creeping Grevilea	E	-	140mm	-
GRE gau	Grevillea 'Gaudi Chaudii'	Grevillea gaudichaudii	N	-	140mm	-
HAR vio MHH	Hardenbergia violacea 'Mini Ha Ha'	False sarsparilla	E		140mm	-
HIB sca	Hibbertia scandens	Climbing Guinea Flower	EN	-	140mm	-
MYO par	Myoporum parvifolium	Creeping Boobialla	N	-	V/cell	-
PEL aus	Pelargonium australe	Coastal geranium	N	-	140mm	-
TRA jas	Trachelospermum jasminoides	Star Jasmine	EX	-	140mm	-
SCA aem	Scaevola aemula	Fairy Fan-flower	N	-	140mm	-
VIO hed	Viola hederacea	Native Violet	E	-	140mm	-

Indicates species from Blacktown Growth Centre DCP 'Prescribed Trees and Preferred Species' List


TREES


SHRUBS


GRASSES & GROUNDCOVERS


PAINTING WITH THE LANDSCAPE - MASS PLANTING IN BLOCK COLOURS

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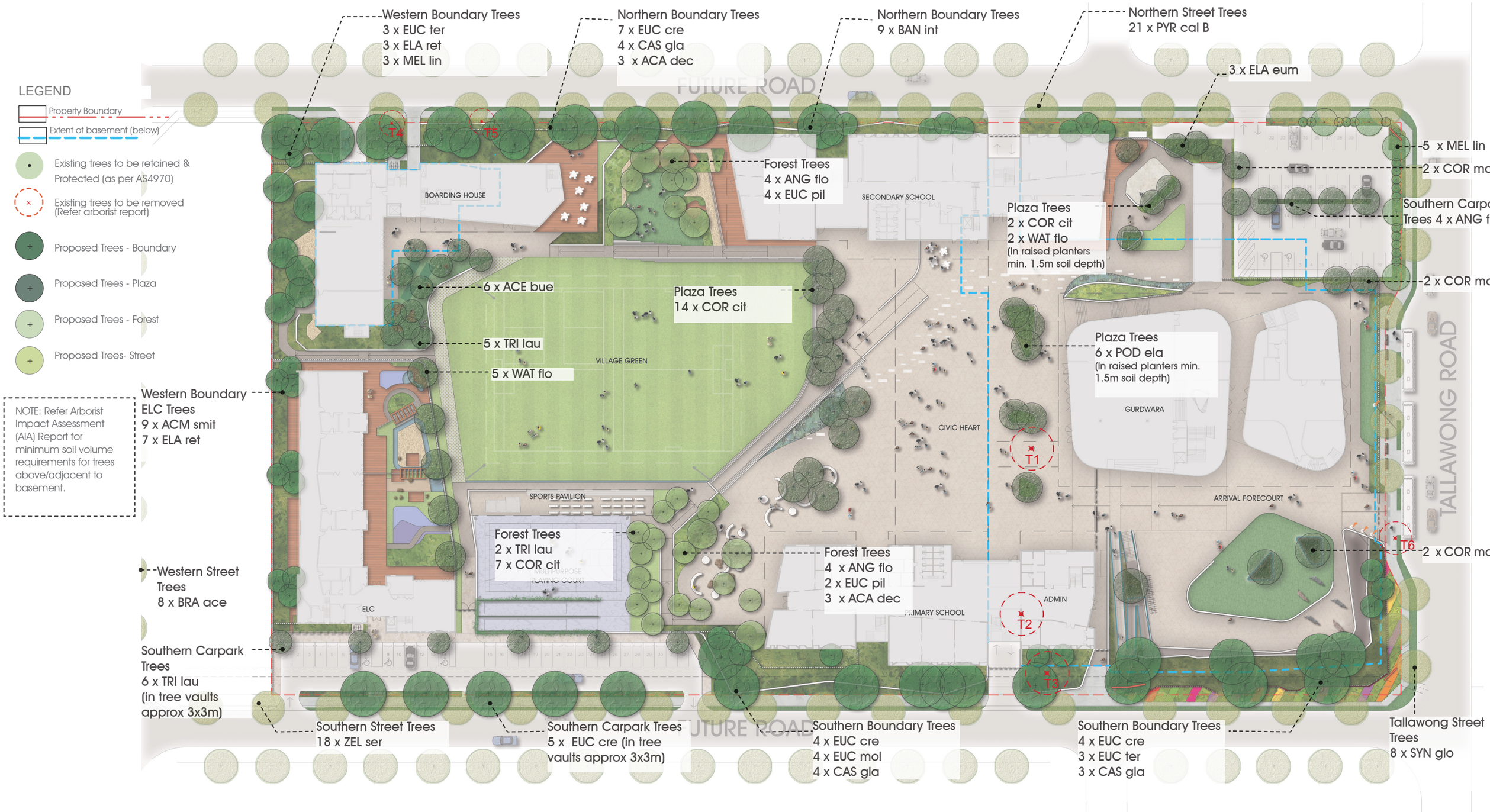

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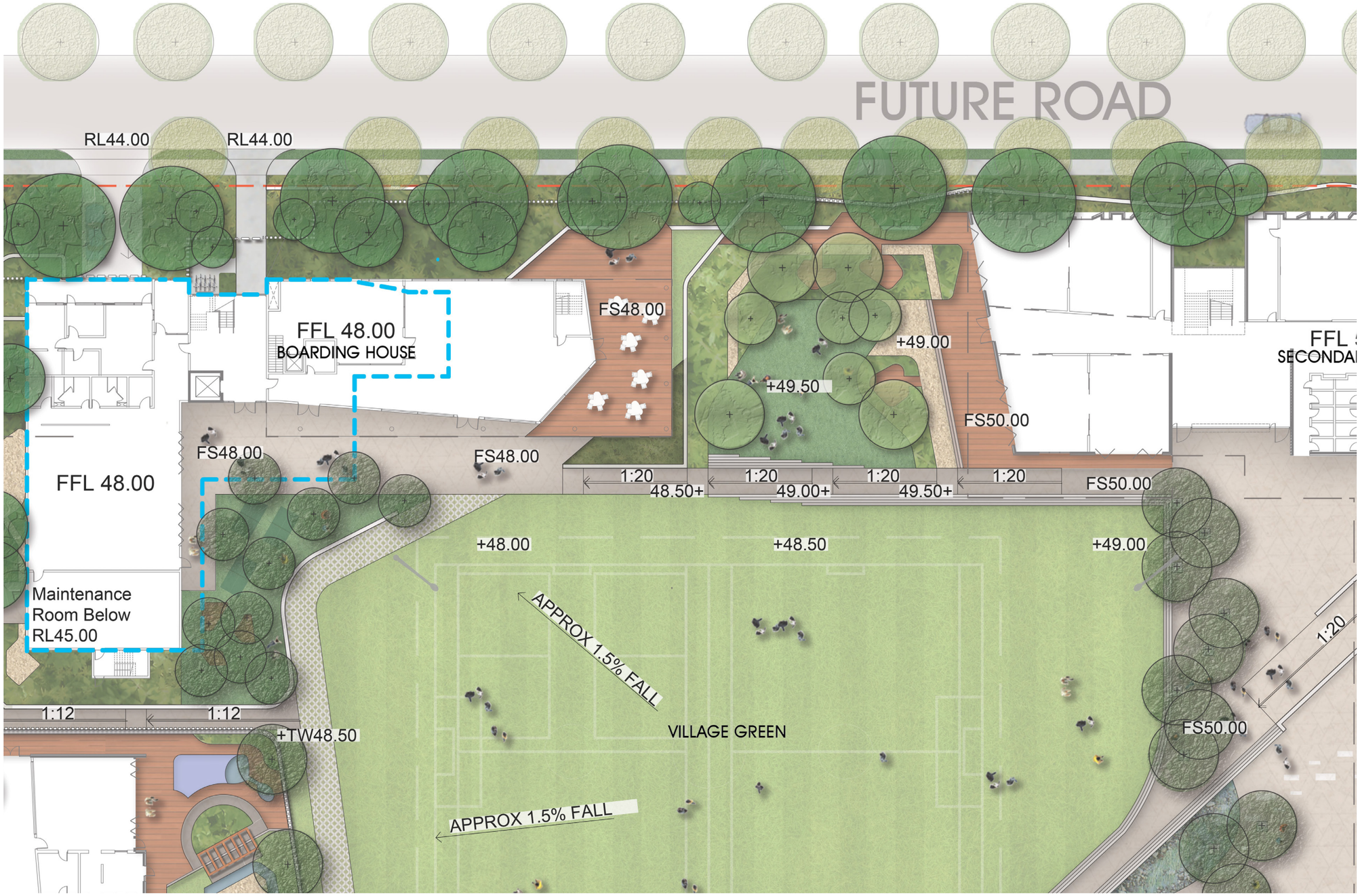
1:400@A1
1:800@A3

LEGEND

- Property Boundary
- Extent of basement (below)
- Existing trees to be removed
- Proposed Trees
- Mass Planting
- Lawn - Natural
- Lawn - Artificial
- Fencing
- Landscape Walling
- WSUD Elements
- Outdoor Furniture
- Paving Type 1, Decking
- Paving Type 2, Concrete
- Paving Type 3, Stone Masonry Unit Pavers
- Paving Type 4, Grasscell
- Paving Type 5, Decomposed Granite
- Paving Type 6, Multipurpose Play



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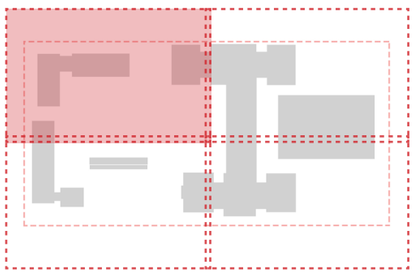

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1:200@A1
1:400@A3

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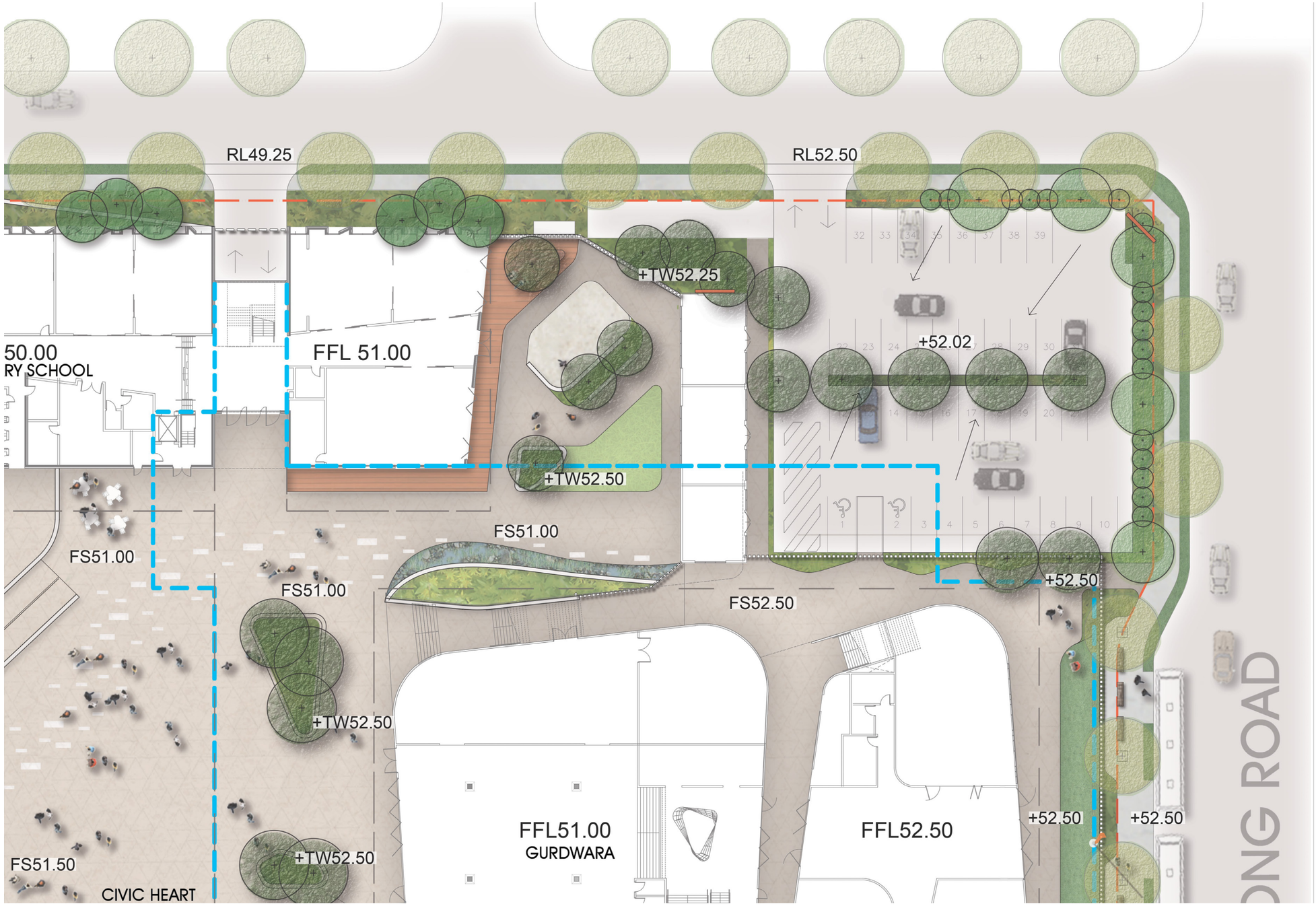

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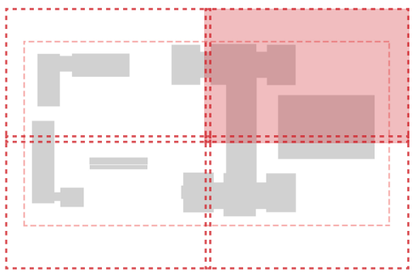

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1:200@A1
1:400@A3

PMD-DA-108 E

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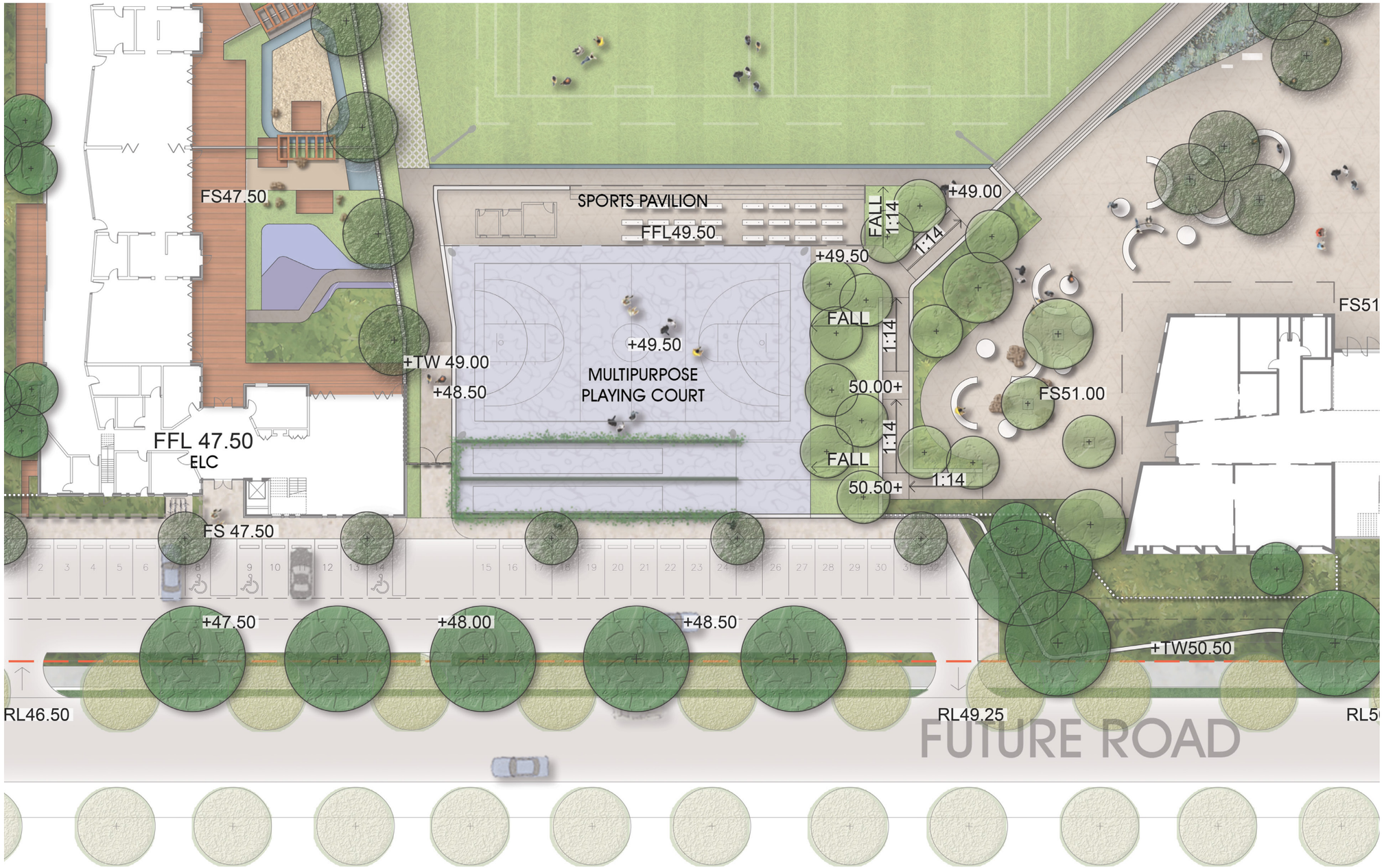

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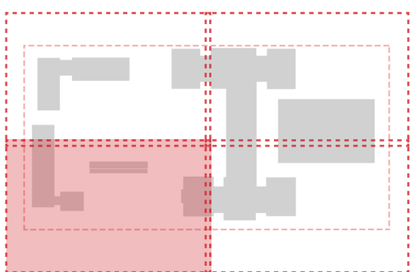

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1:200@A1
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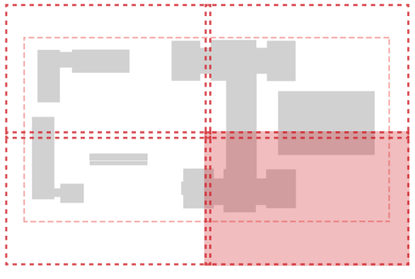

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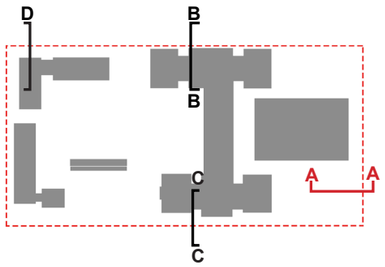

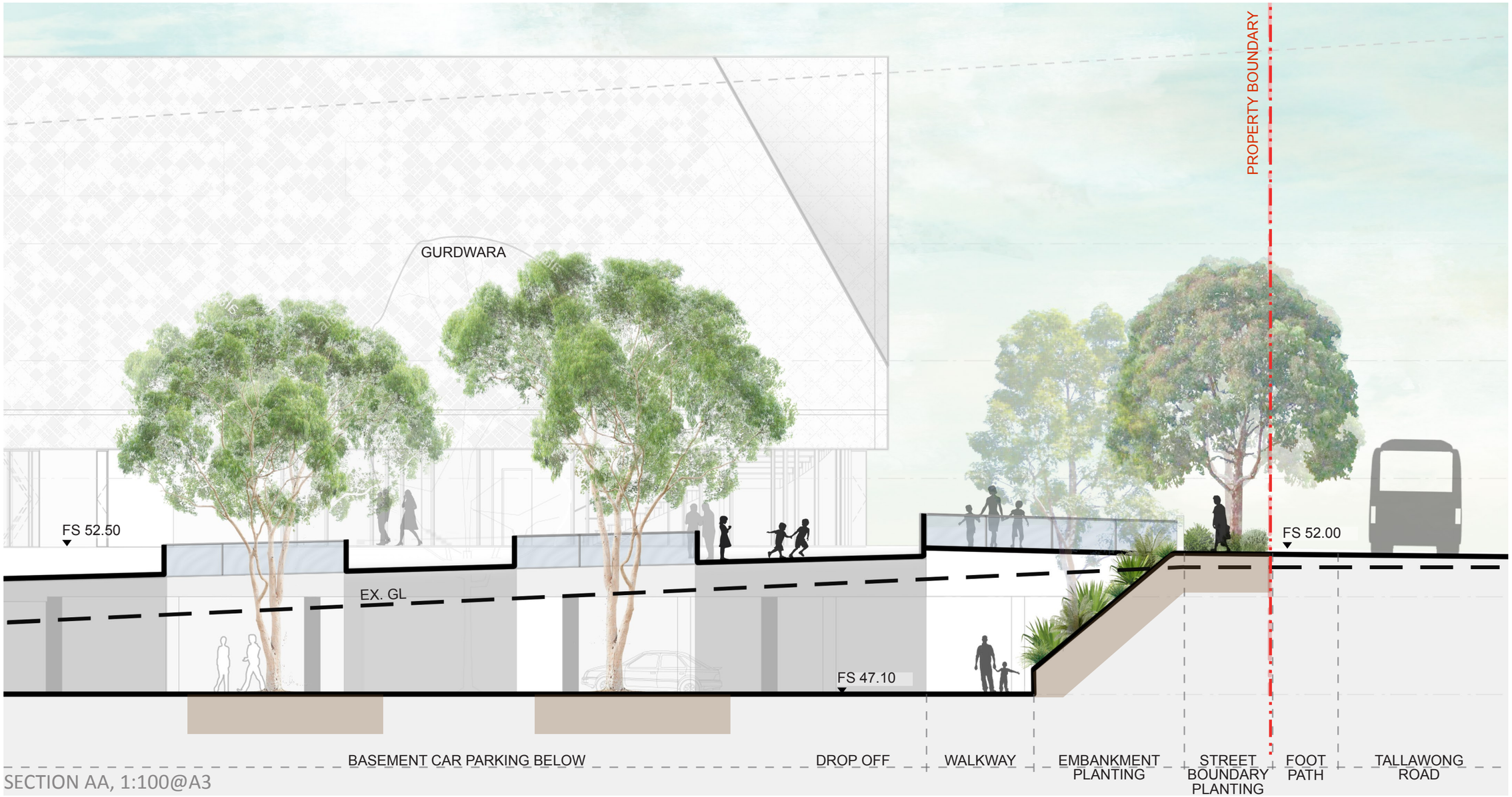

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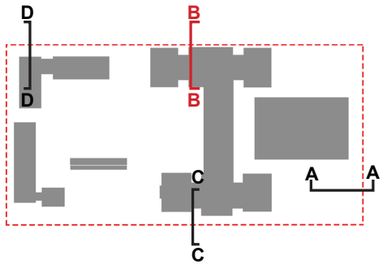

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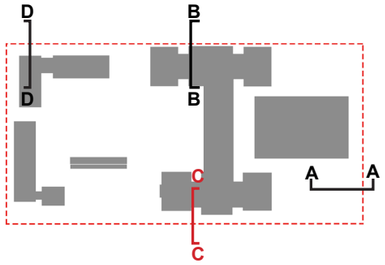

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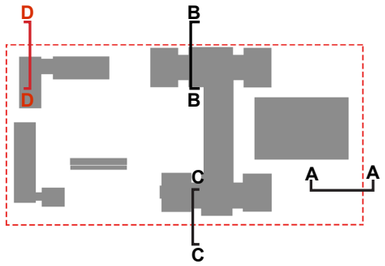
WILLOW TREE PLANNING

sym. studio Landscape Planning



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