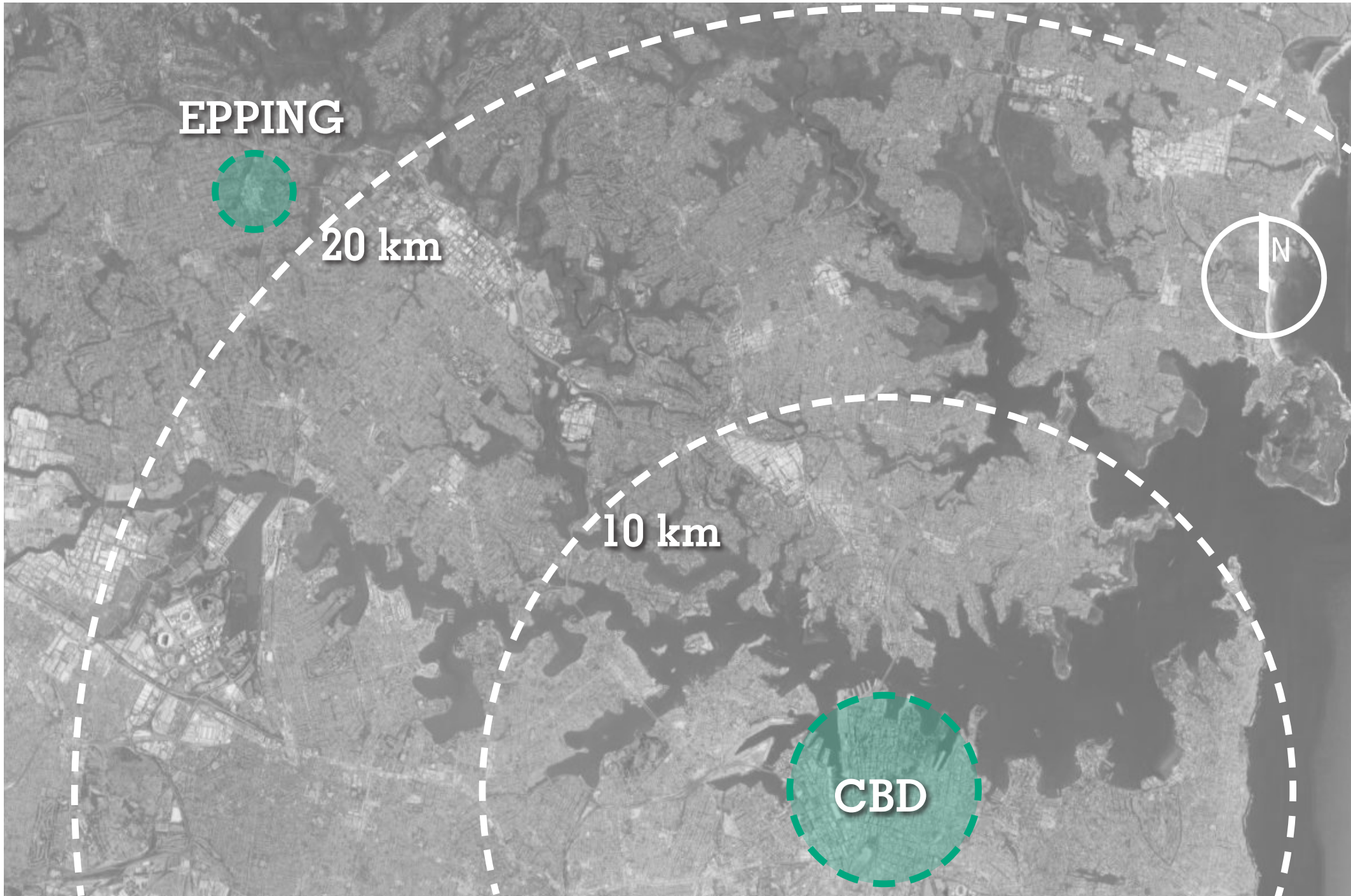


16-18 CAMBRIDGE STREET EPPING
JUST PROPERTIES GROUP PTY LTD
LANDSCAPE DEVELOPMENT APPLICATION
JANUARY 2019

SITE | CONTEXT + ANALYSIS

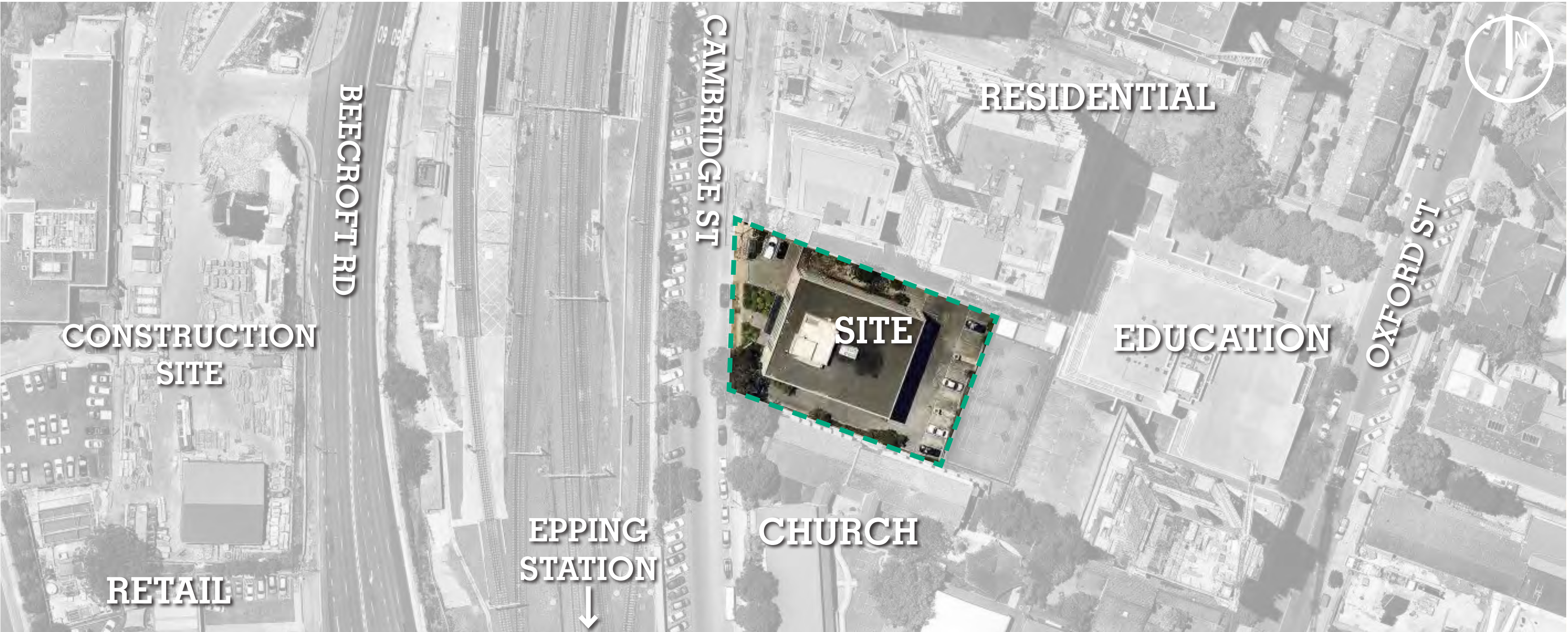
REGIONAL CONTEXT



LOCAL CONTEXT



SITE LOCALITY



LOCAL CONTEXT

The proposed development site lies within the Epping town centre, along Cambridge Street, facing onto the T1 railway line north of Epping Station. The site sits in a predominantly residential area with new developments coming up around.

In 2012 Epping was identified as the first Urban Activation Precinct due to its capacity to support high density growth in a well-served location.

The proposed development will aim to provide a significant new residential, commercial and retail offering to the existing town centre. The landscape will respond to the areas strong heritage while linking to the current uses.

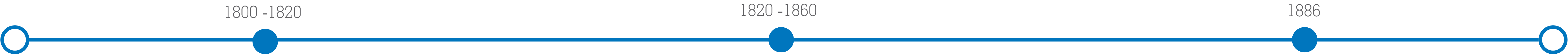
SITE | HERITAGE + HISTORY

SITE HISTORY

The area of Epping has strong historical significance during the establishment of the colony. It played a vital role with the **timber** industry and was then followed by farming and **orchards**. The importance of the area kept growing which resulted in the opening of a **railway** station in the centre of the district.

After the closure of the timber industry the landscape recovered and returned to its natural state where it was heavily forested with Blue Gum trees. This landscape was the influence for the naming of the area as it reminded residents of Epping Forest in England. The area is synonymous with trees, naturally occurring and planted in grid arrangements. There is a great opportunity to link the landscape for the development with Eppings connections to trees and its past use.

TIMELINE



TIMBER INDUSTRY

Epping played an important role during the early years of the colony due to its timber production and sawmills. The trees were tall and spreading with a mix of Blue Gum, Blackbutt and Cedar. The ground under the trees was covered in luxuriant kangaroo grass.



ORCHARDS

After the closure of the sawmills the area was used for the establishment of orchards and vegetable farming. The Mobbs family established citrus orchards in the 1820s. The produce was sent down the Parramatta river to the Sydney markets.



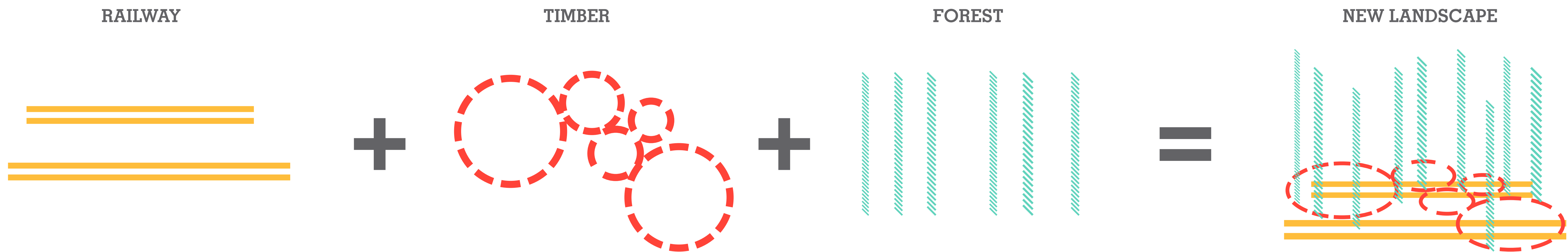
THE RAILWAY

Epping railway station opened on the 17th of September 1886. The area was previously named Carlingford but was renamed as Epping in 1898. Epping station has been upgraded several times as is still in use as part of the T1 train line.

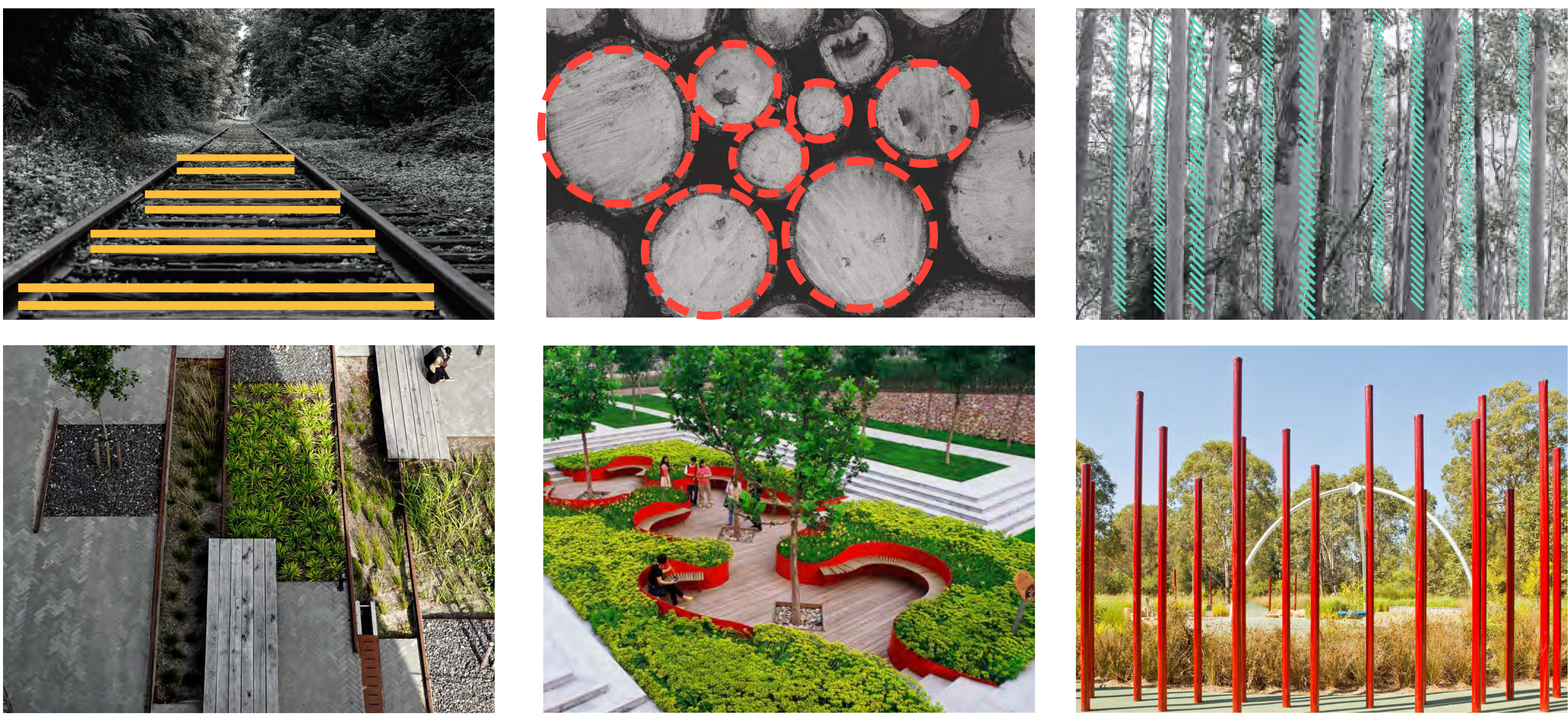
LANDSCAPE VISION | DESIGN CONCEPT

VISION:

Shaping the future development by the forms and uses of the past to create a unique landscape that responds to the location and its past.



FORM + MATERIALITY



The resulting landscapes will have a mix of forms, verticality and materiality to provide exciting spaces for the users and community.

RAILWAY

Using the railway tracks to inform the arrangement of the floor plain. The materiality of the tracks with a mix of timber and metal to create patterns on the ground to define the access and movement through.

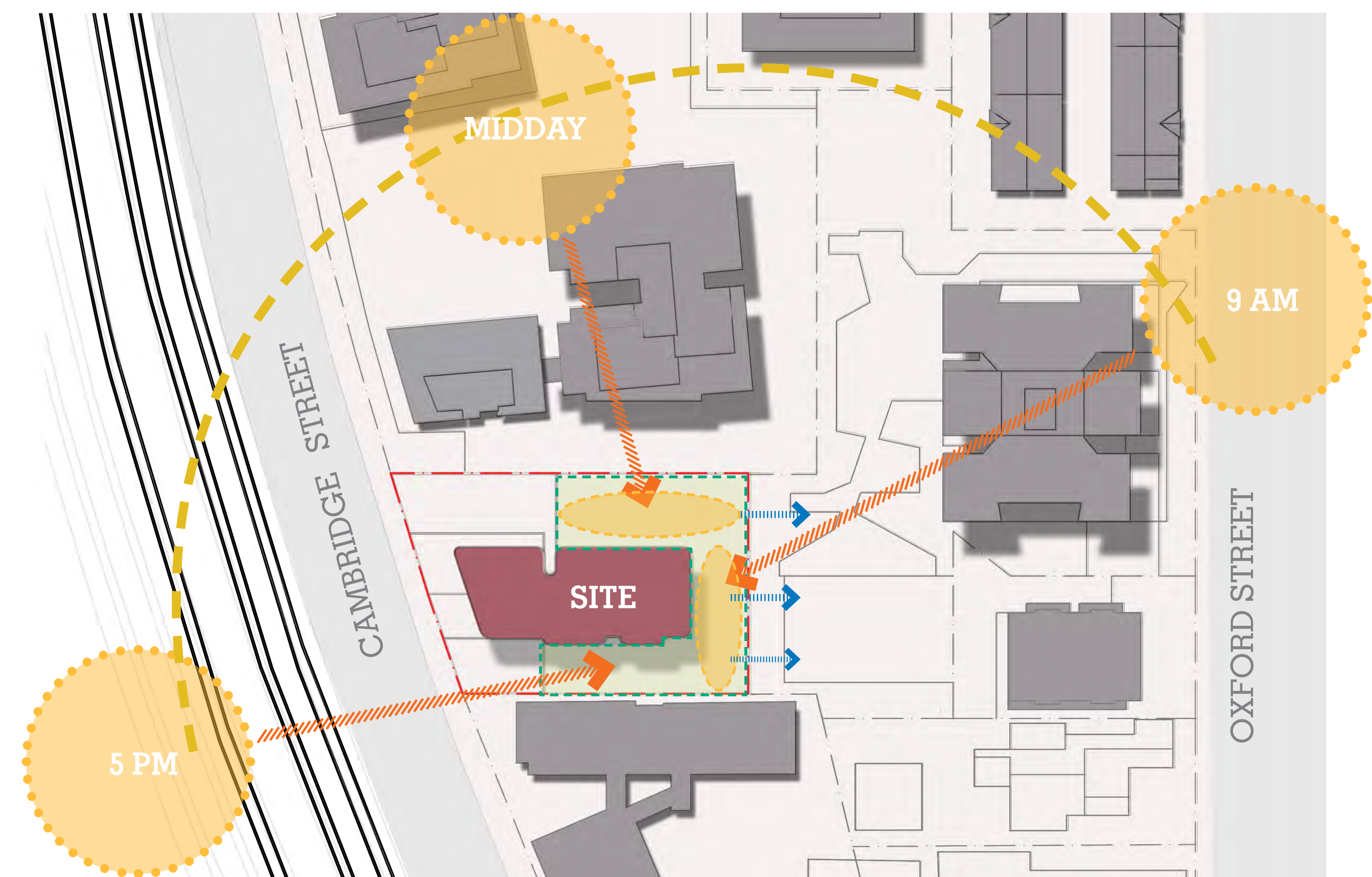
TIMBER

Taking the circular forms from the cut and stacked tree poles of the timber industrial past of Epping. Using these forms to create the horizontal arrangement of the landscape. The circular and natural forms with a combination of grasses planting will mimick the feel of the natural heritage forest of the area.

FOREST + ORCHARD

The upright forms from the forest and orchard past will provide the inspiration for the structural elements of the landscape. Creating verticality through; planting, shade structures, furniture, lighting and sculptural forms.

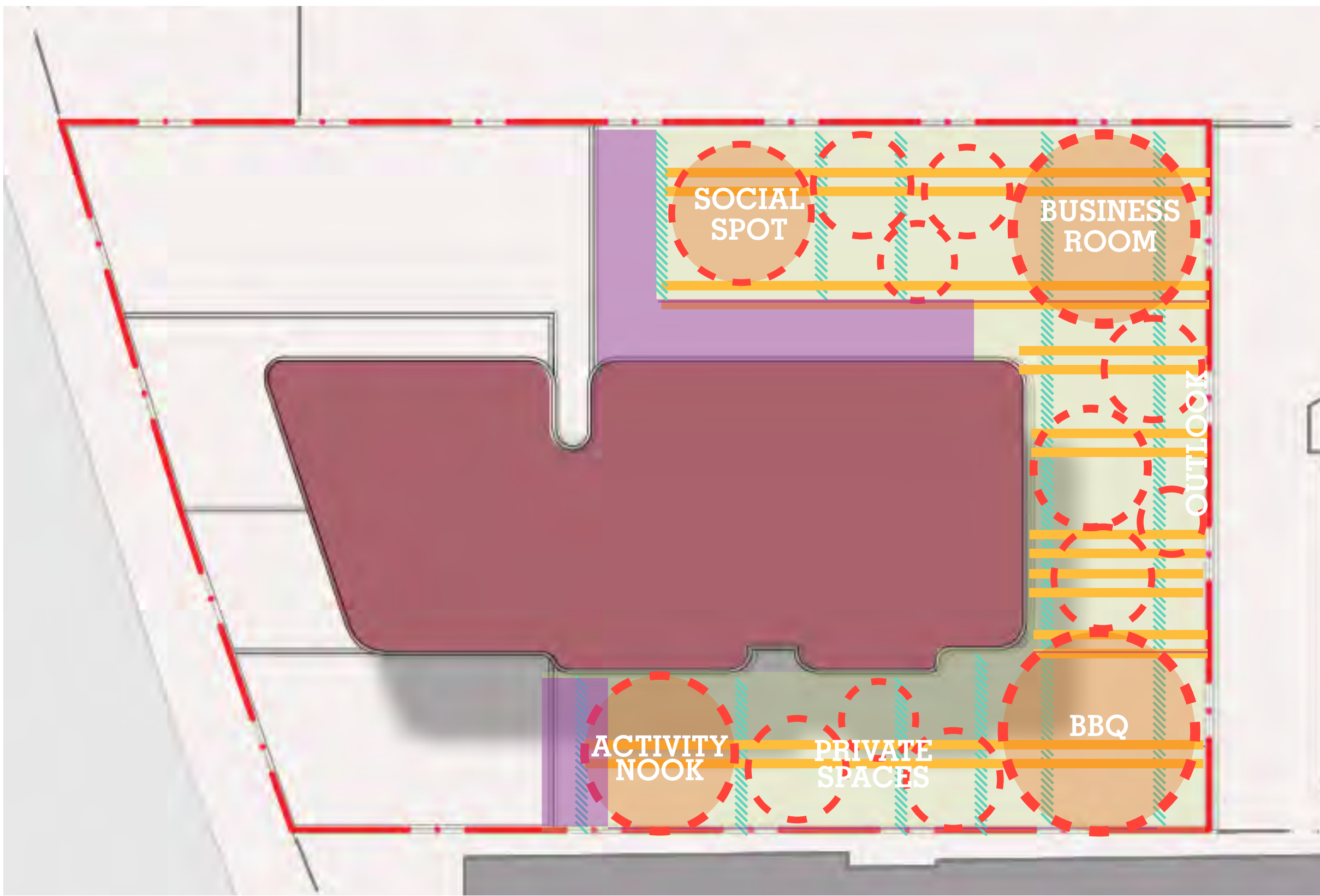
COMMERCIAL OPEN SPACE LEVEL 2



SOLAR ACCESS + VIEWS

LEGEND

- Maximum Solar Potential
- Solar Access
- Views Out



OPEN SPACE ARRANGEMENT

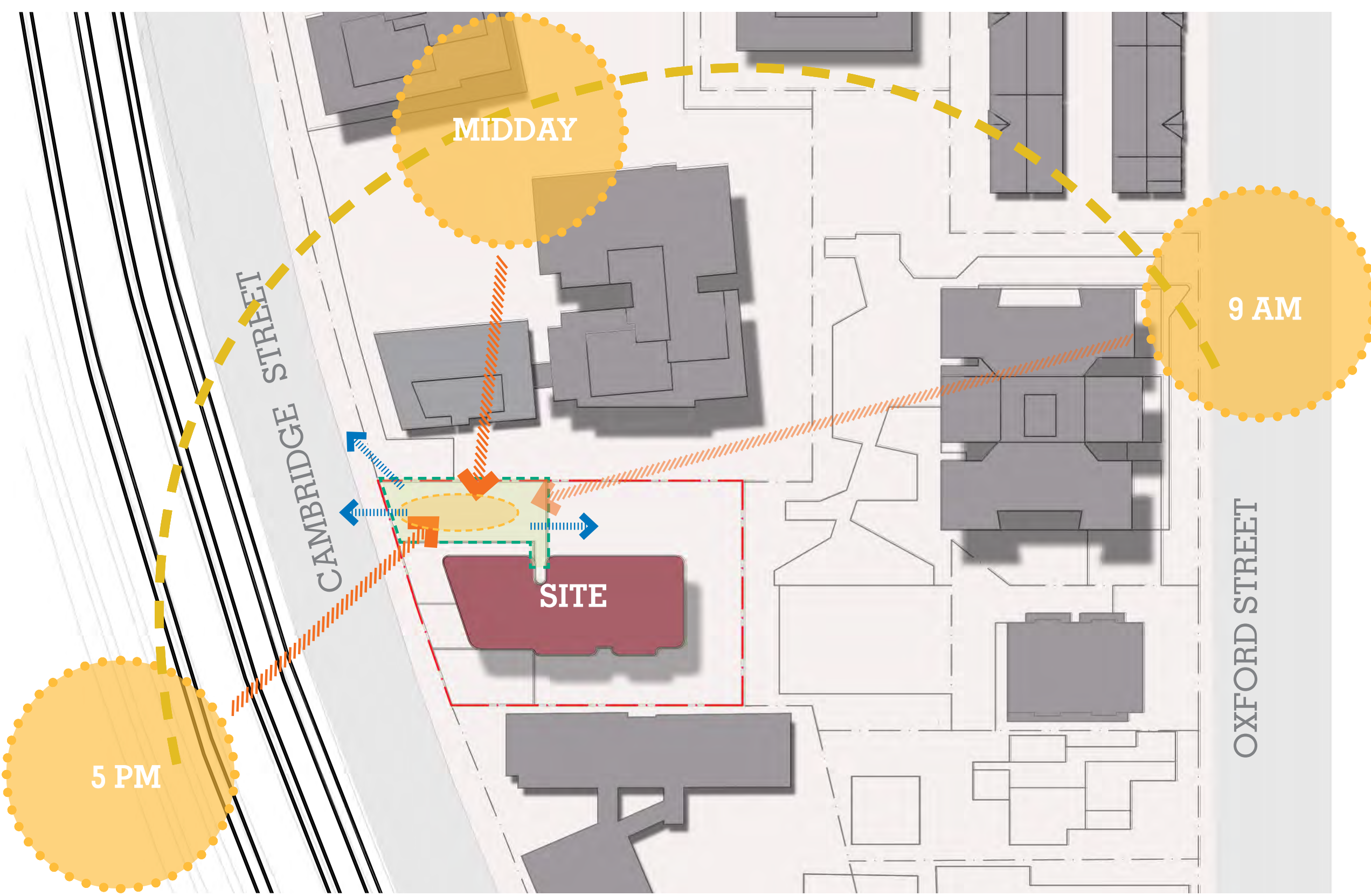
LEGEND

- Horizontal Arrangements
- Private Space
- Ground Materiality
- Vertical Arrangements

The overlaid forms start to create spaces and a layout for the landscape elements including; materials, structures, seating, planting. By analysing the solar access and views the space can be separated into different uses, creating outdoor rooms and varying opportunities.



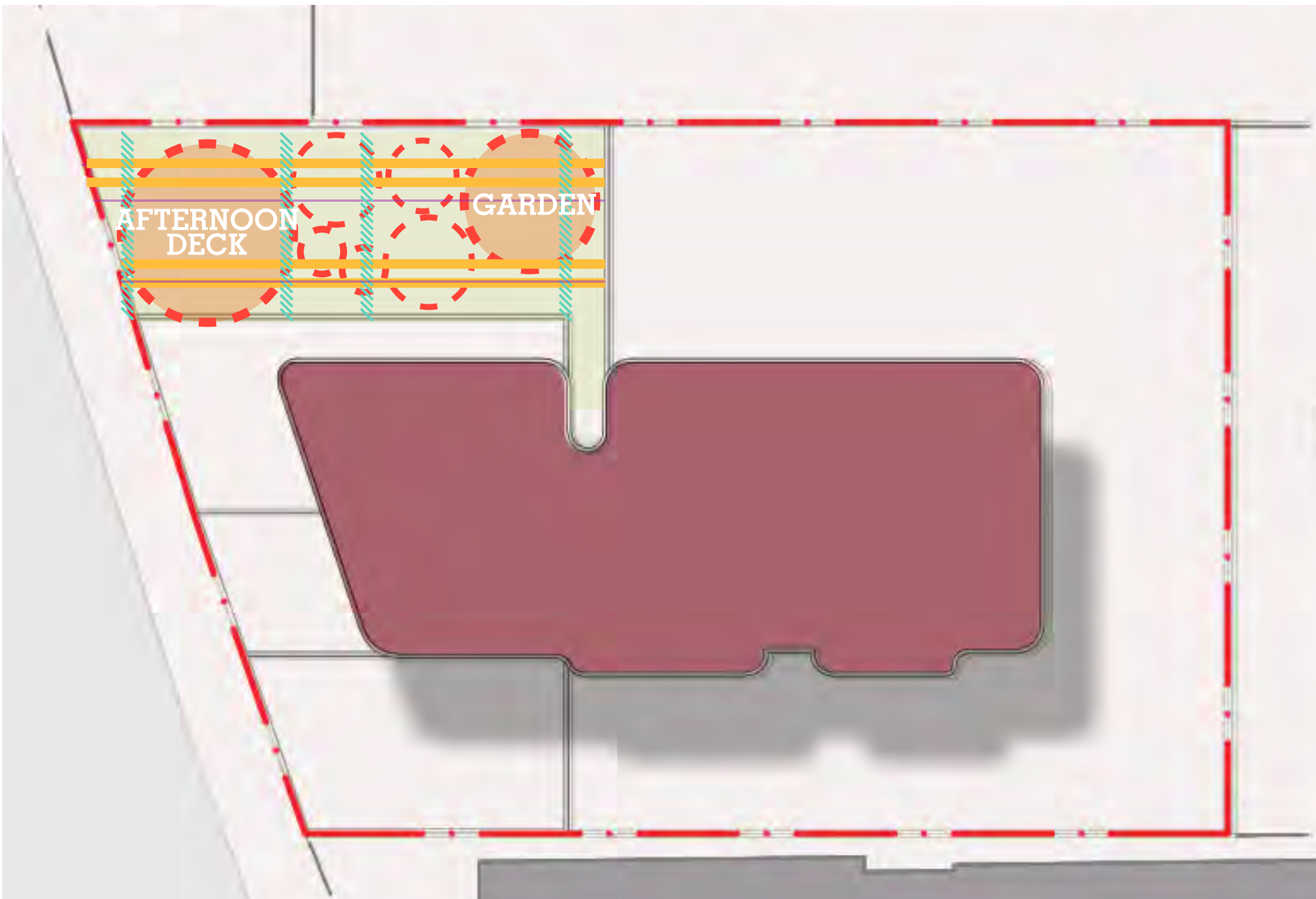
COMMUNAL OPEN SPACE LEVEL 3



SOLAR ACCESS + VIEWS

LEGEND

- Maximum Solar Potential
- Solar Access
- Views Out



OPEN SPACE ARRANGEMENT

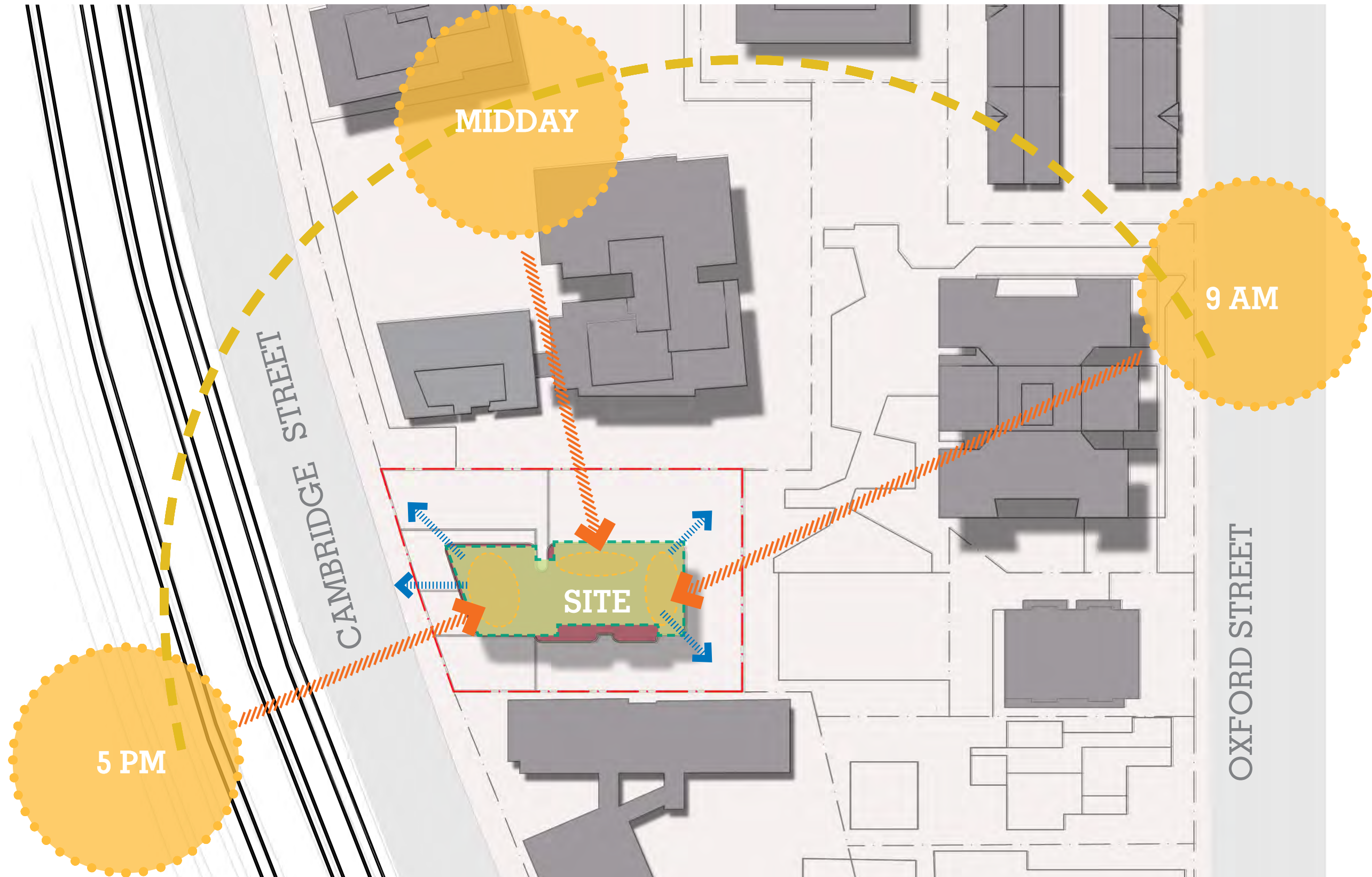
LEGEND

- Horizontal Arrangements
- Materiality
- Vertical Arrangements

Taking advantage of the solar access and views we can start to define the uses for different areas. Creating a small garden spot that catches the mid morning sun and an afternoon viewing deck.



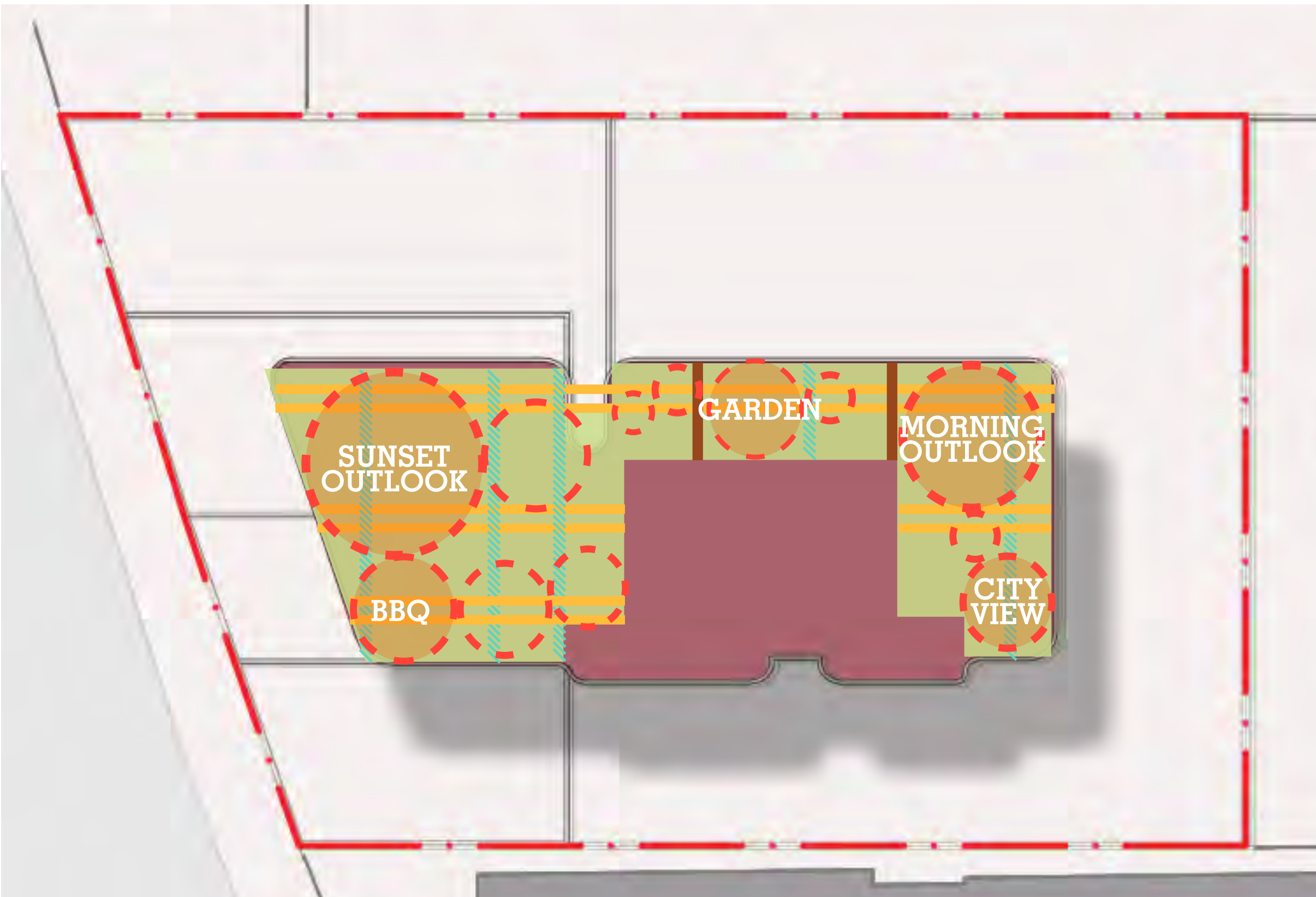
SKY GARDEN L11



SOLAR ACCESS + VIEWS

LEGEND

- Maximum Solar Potential
- Solar Access
- Views Out



OPEN SPACE ARRANGEMENT

LEGEND

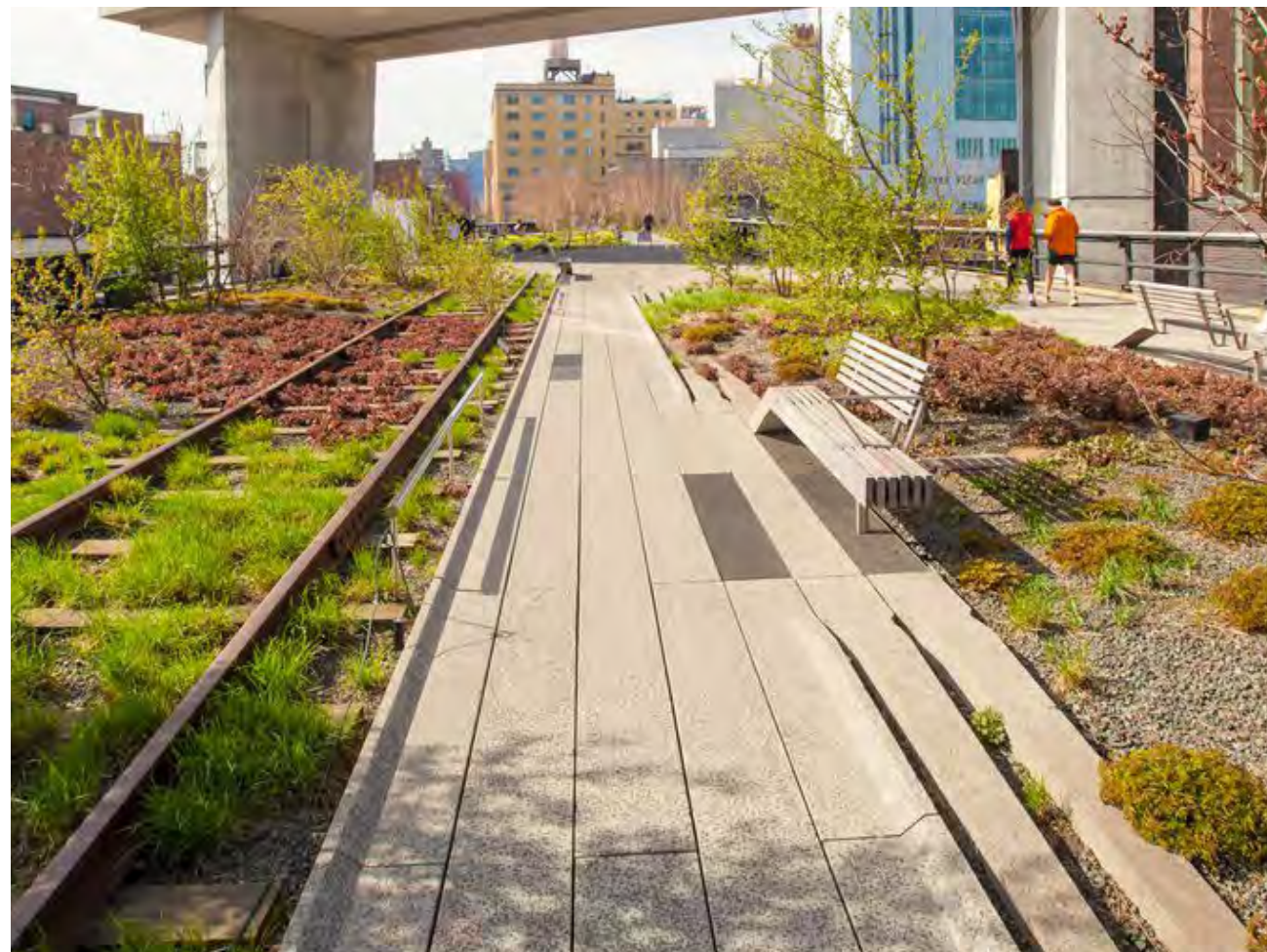
- Horizontal Arrangements
- Materiality
- Vertical Arrangements



LANDSCAPE VISION | DESIGN CONCEPT

LANDSCAPE FORMS

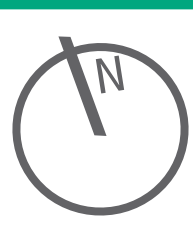
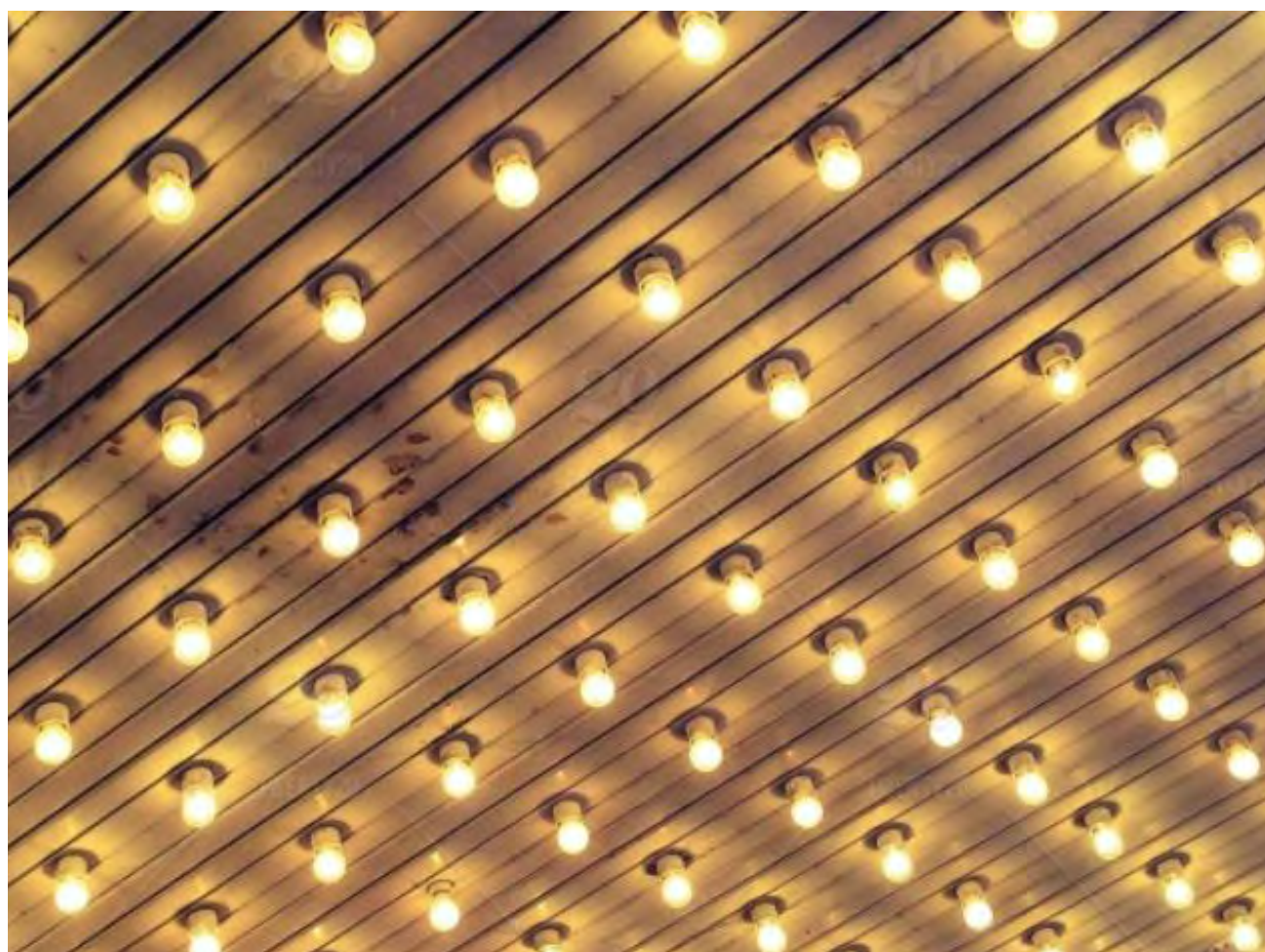
GROUND MATERIALITY



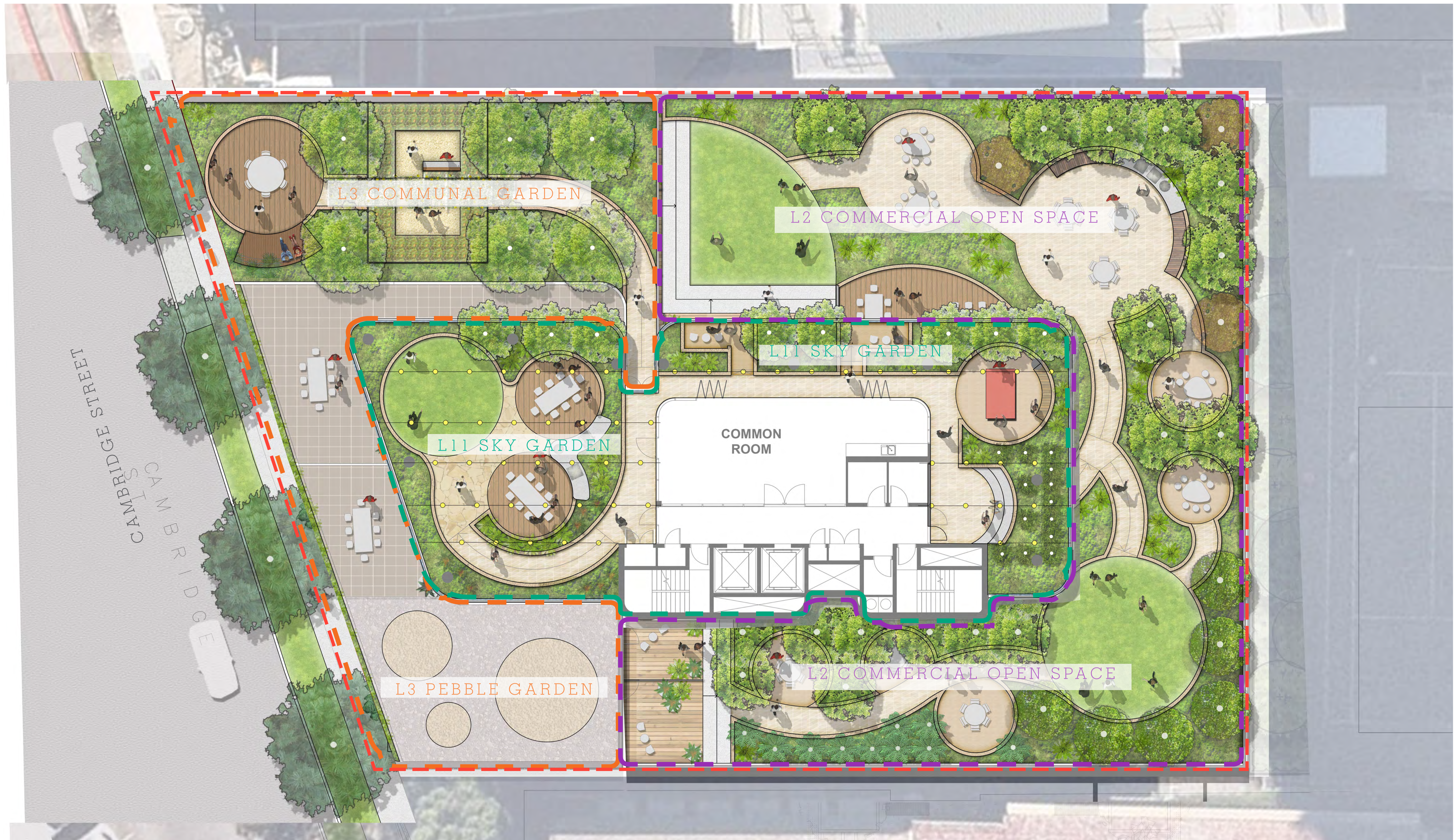
HORIZONTAL ARRANGEMENT



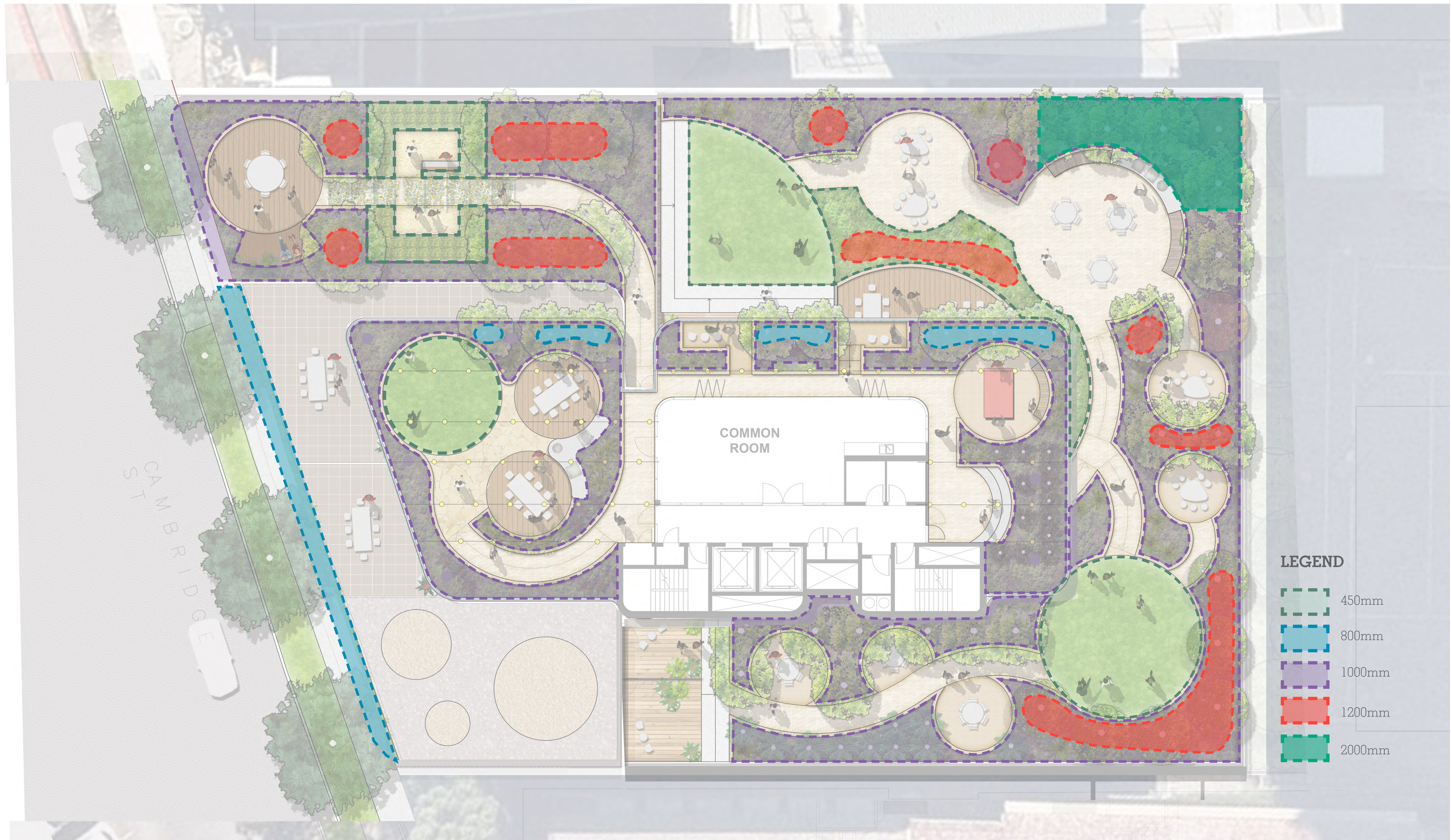
VERTICAL ARRANGEMENT



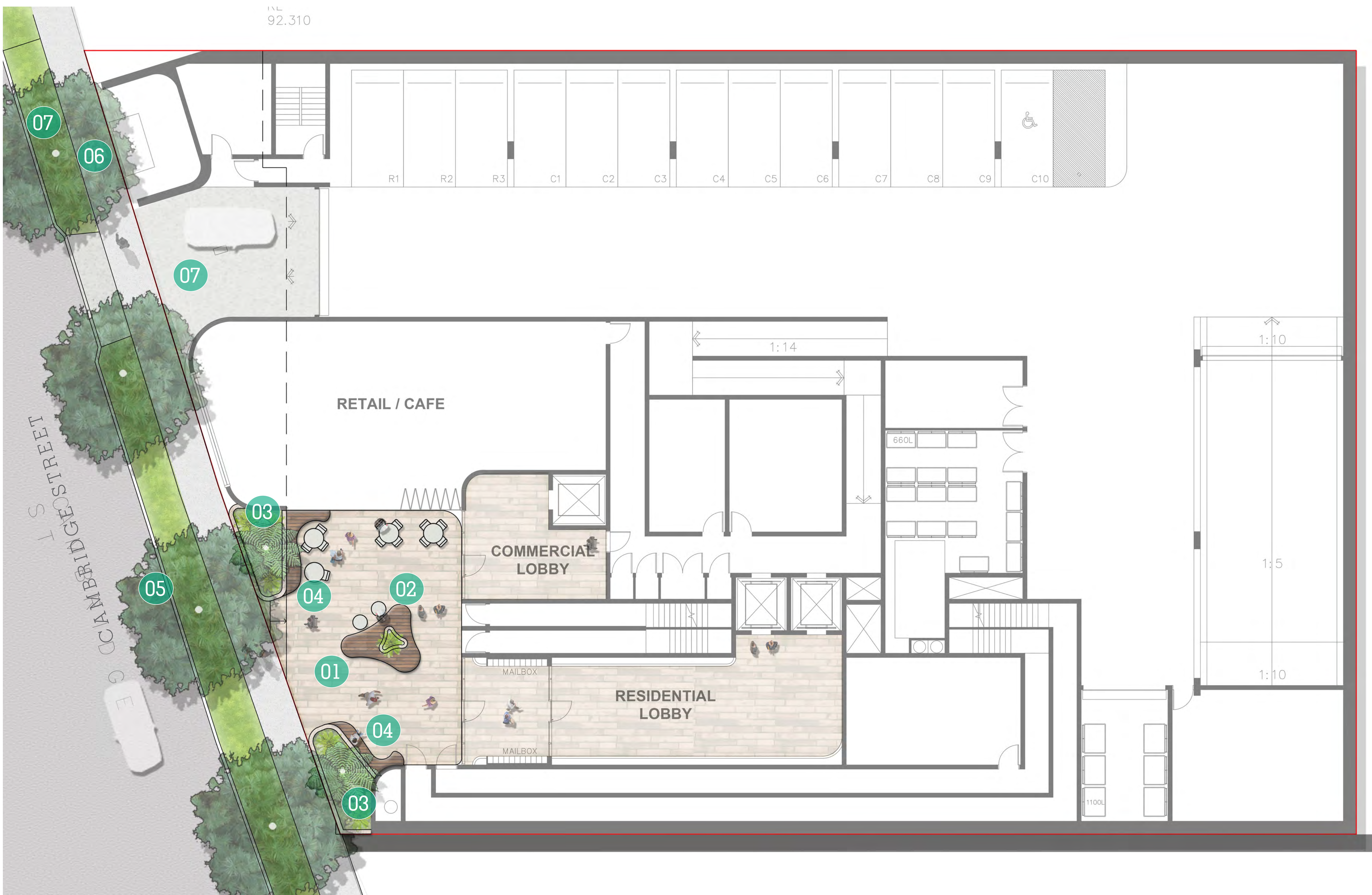
LANDSCAPE CONCEPT | MASTERPLAN



LANDSCAPE CONCEPT | SOIL DEPTHS



LANDSCAPE CONCEPT | GROUND FLOOR

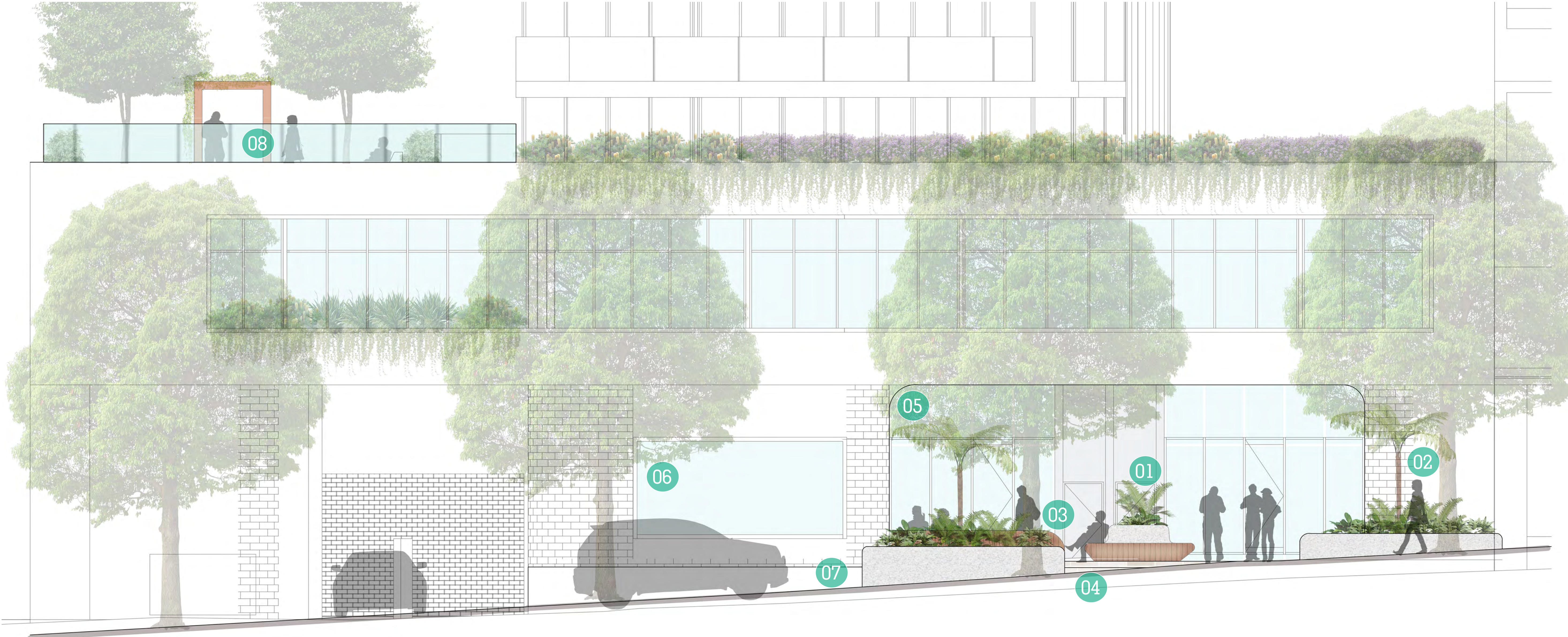


- LEGEND**
- 01 Paving to match Lobby floor finish
 - 02 Feature planter bench
 - 03 Mature Tree Fern
 - 04 Feature Seating Bench
 - 05 Lophostemom confertus Street Tree as per Public Domain Guidelines (PDG)
 - 06 1.8m Insitu Concrete path as per PDG
 - 07 Grass verge as per PDG

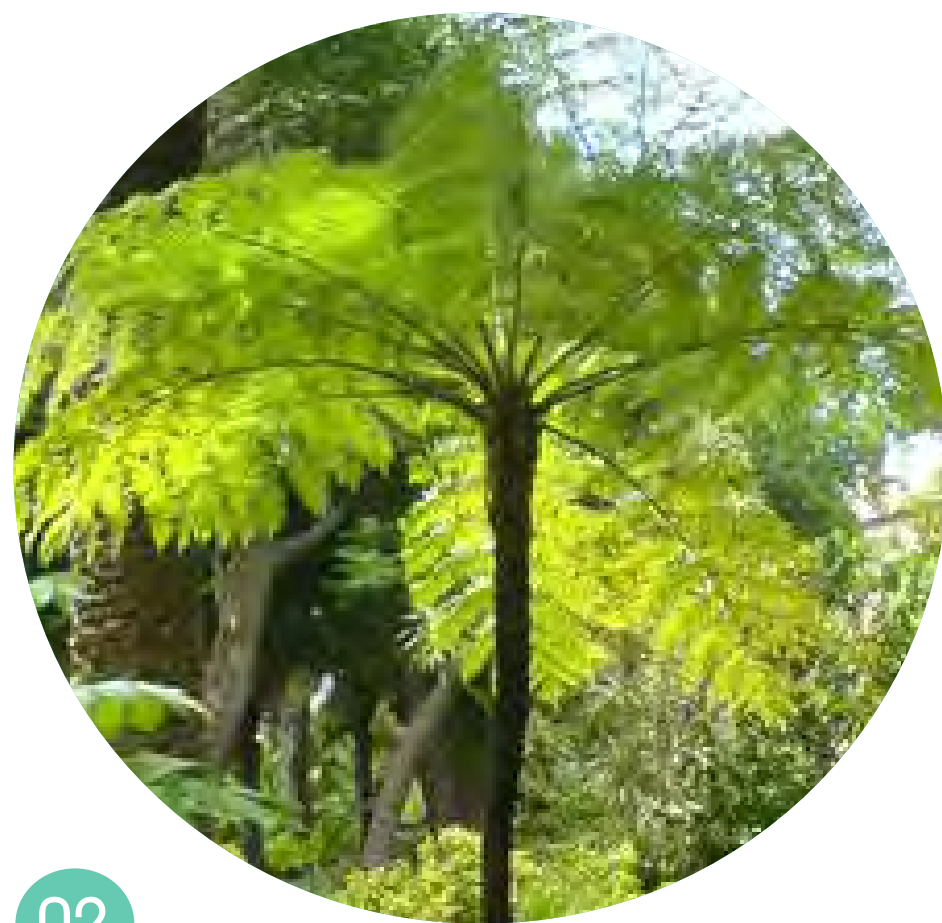
0 2 4 6 8 10M
SCALE 1:100 @ A1



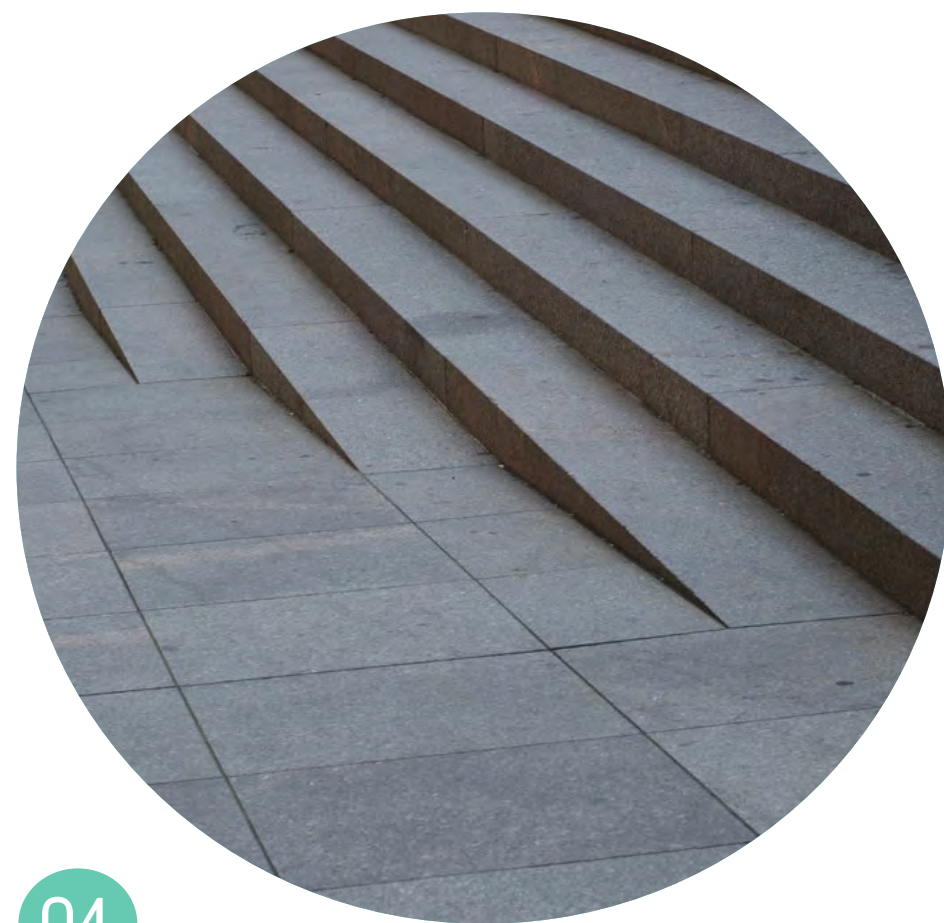
SECTION I GROUND FLOOR



01



02



04



05

LEGEND

- 01 Feature planter bench
- 02 Mature Tree Fern
- 03 Feature Seating Bench
- 04 Vanishing Steps for level change
- 05 Feature Ceiling
- 06 *Lophostemom confertus* Street Tree as per Public Domain Guidelines
- 07 In-situ Concrete path as per PDG
- 08 Level 3 Communal Garden

0 1 2 3 4 5M
SCALE 1:50 @ A1



LANDSCAPE CONCEPT | LEVEL 2



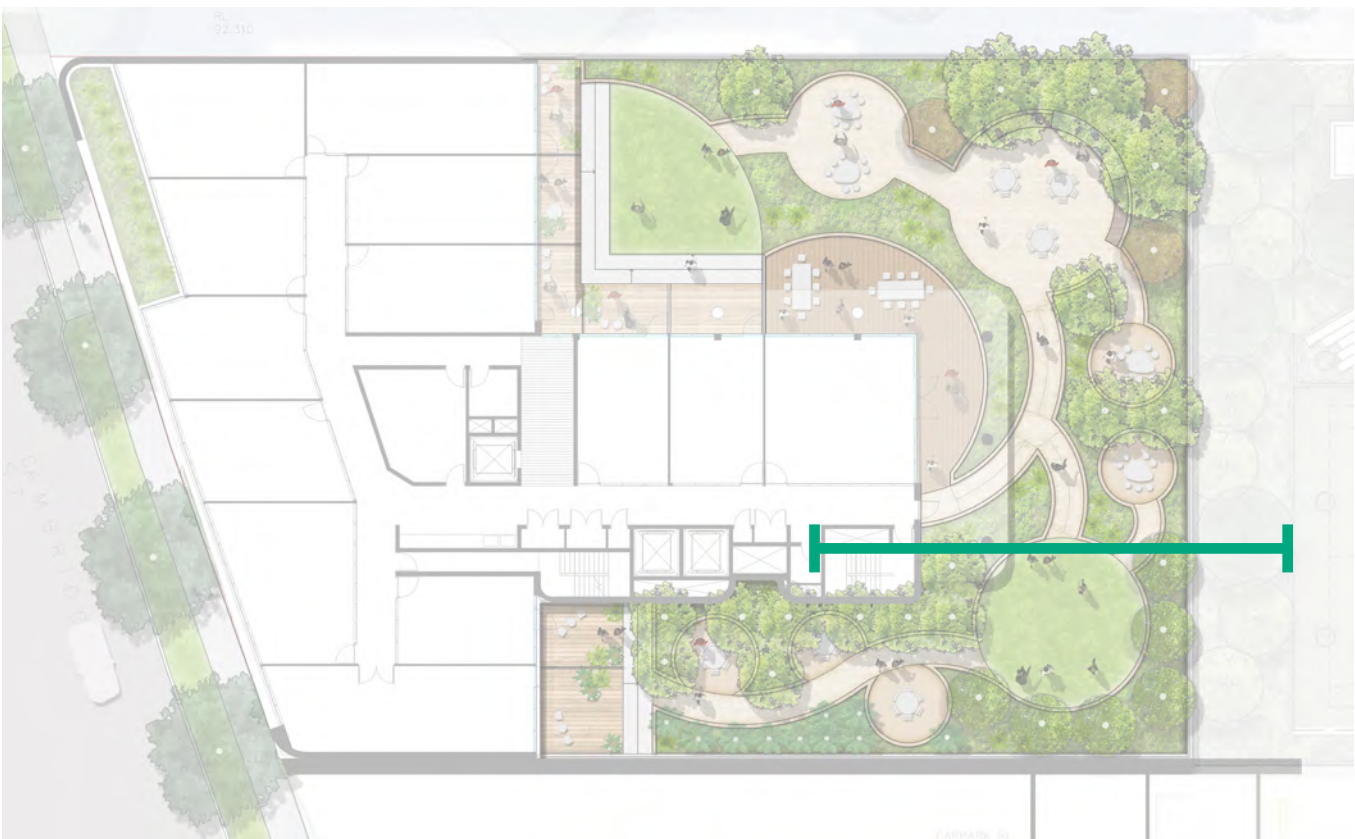
LEGEND

- 01 Outdoor meeting room
- 02 Communal BBQ
- 03 Flowering Plum Trees
- 04 Passive seating areas
- 05 Open lawn
- 06 Ramping walkway
- 07 Private decks
- 08 Wind break tree planting

0 2 4 6 8 10M
SCALE 1:100 @ A1



SECTION I LEVEL 2



01



02



04



05

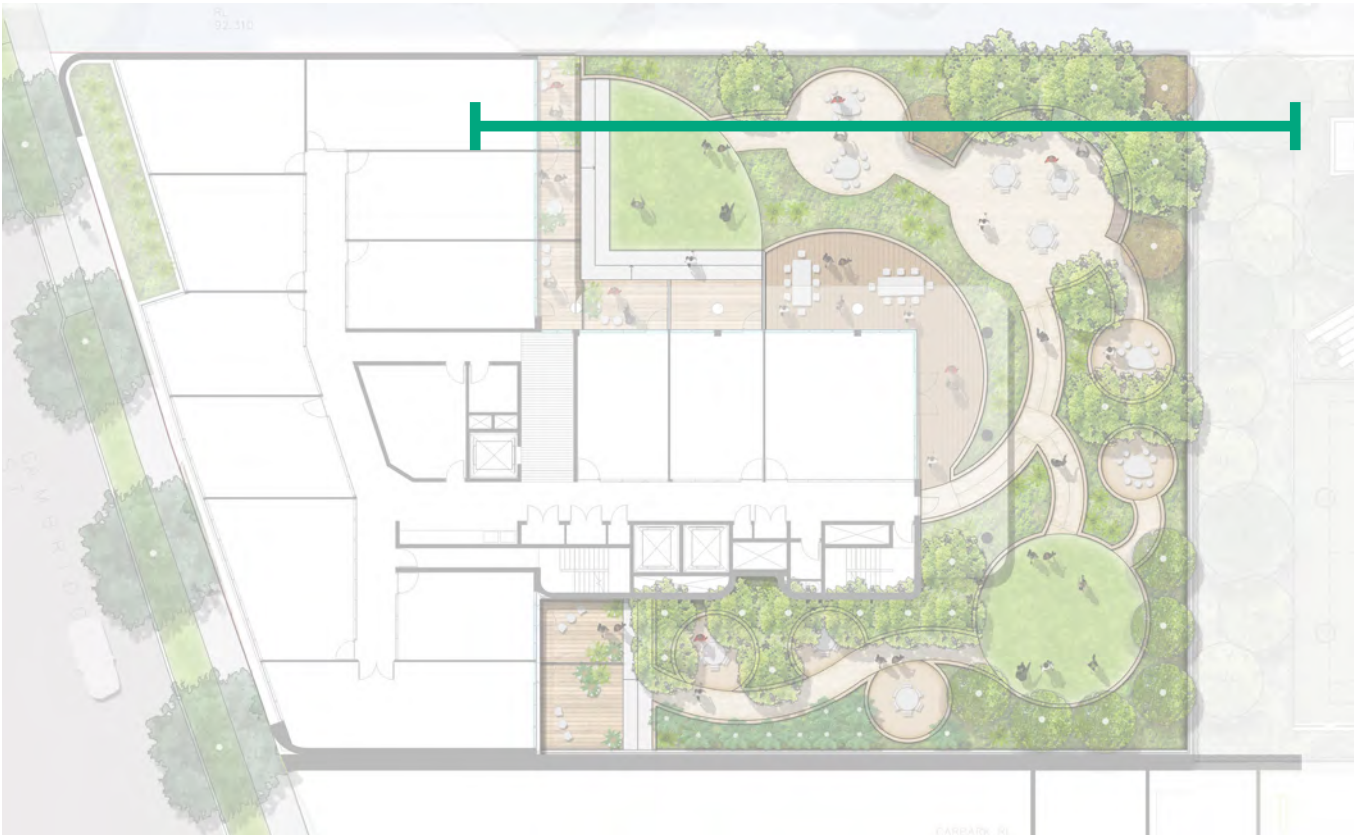
LEGEND

- 01 Outdoor Meeting Room
- 02 Climbing plants on Columns
- 03 Ramping Walkway
- 04 Raised Planter wall
- 05 Undercroft planting
- 06 Matrix planting
- 07 Retaining planter wall and fence
- 08 Adjacent plot sloping boundary treatment

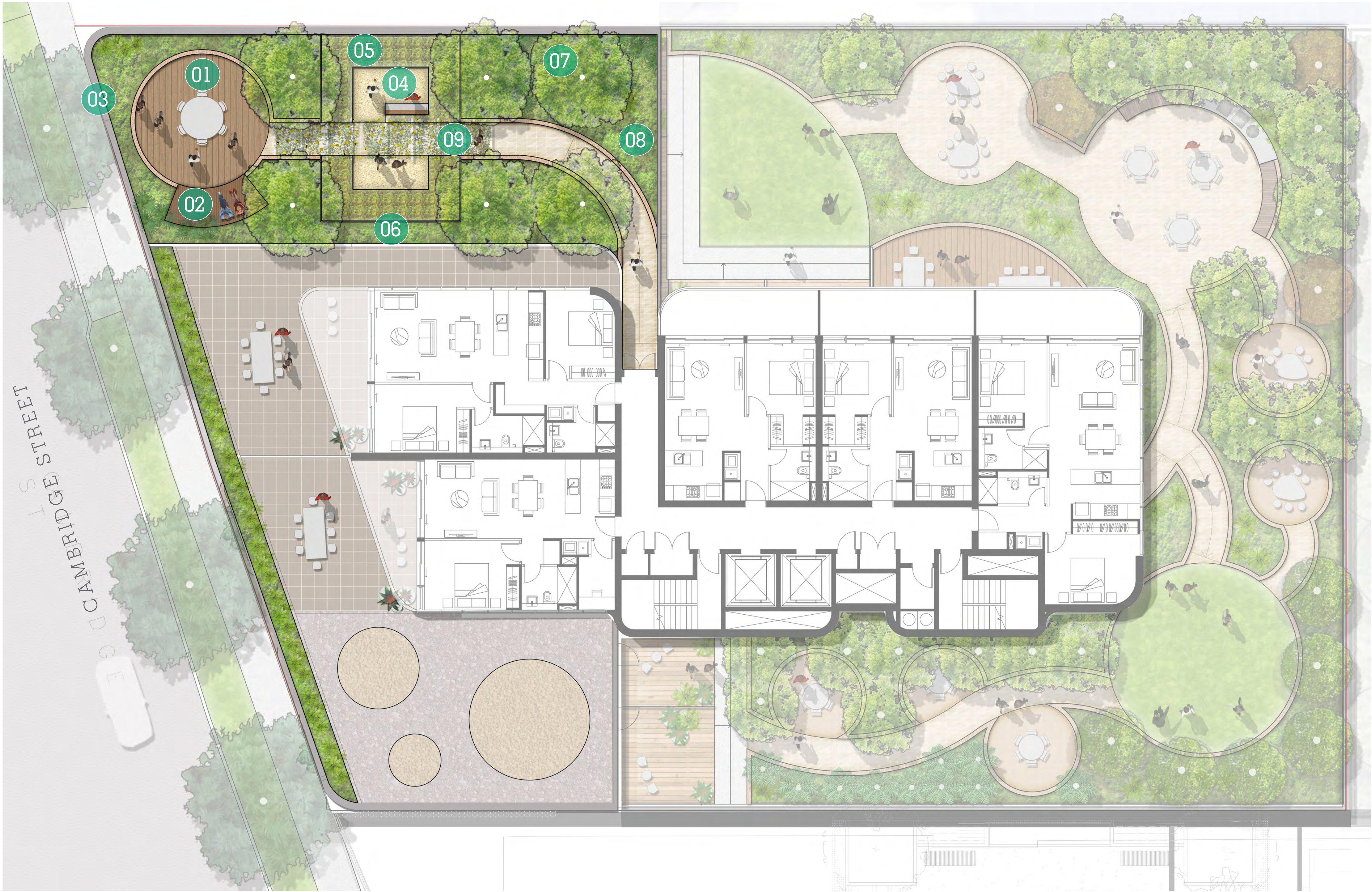
0 1 2 3 4 5m
SCALE 1:50 @ A1



SECTION I LEVEL 2



LANDSCAPE CONCEPT | LEVEL 3

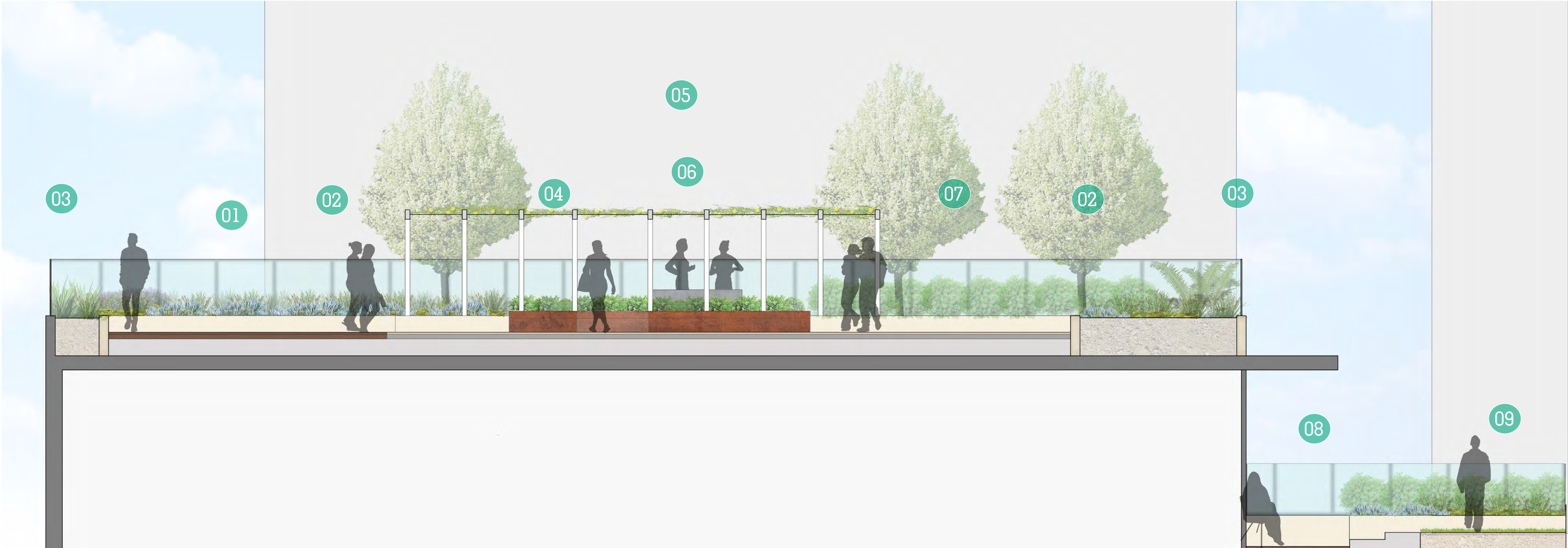


- LEGEND**
- 01 Sunset Viewing Deck
 - 02 Day Bed
 - 03 Glass Balustrade
 - 04 Vegetable + Herb garden
 - 05 Raised Vegetable Garden Beds
 - 06 Screen planting
 - 07 Fruit Tree Planting
 - 08 Matrix planting
 - 09/ Pergola with fruiting climbing plants

0 2 4 6 8 10m
SCALE 1:100 @ A1



SECTION I LEVEL 3



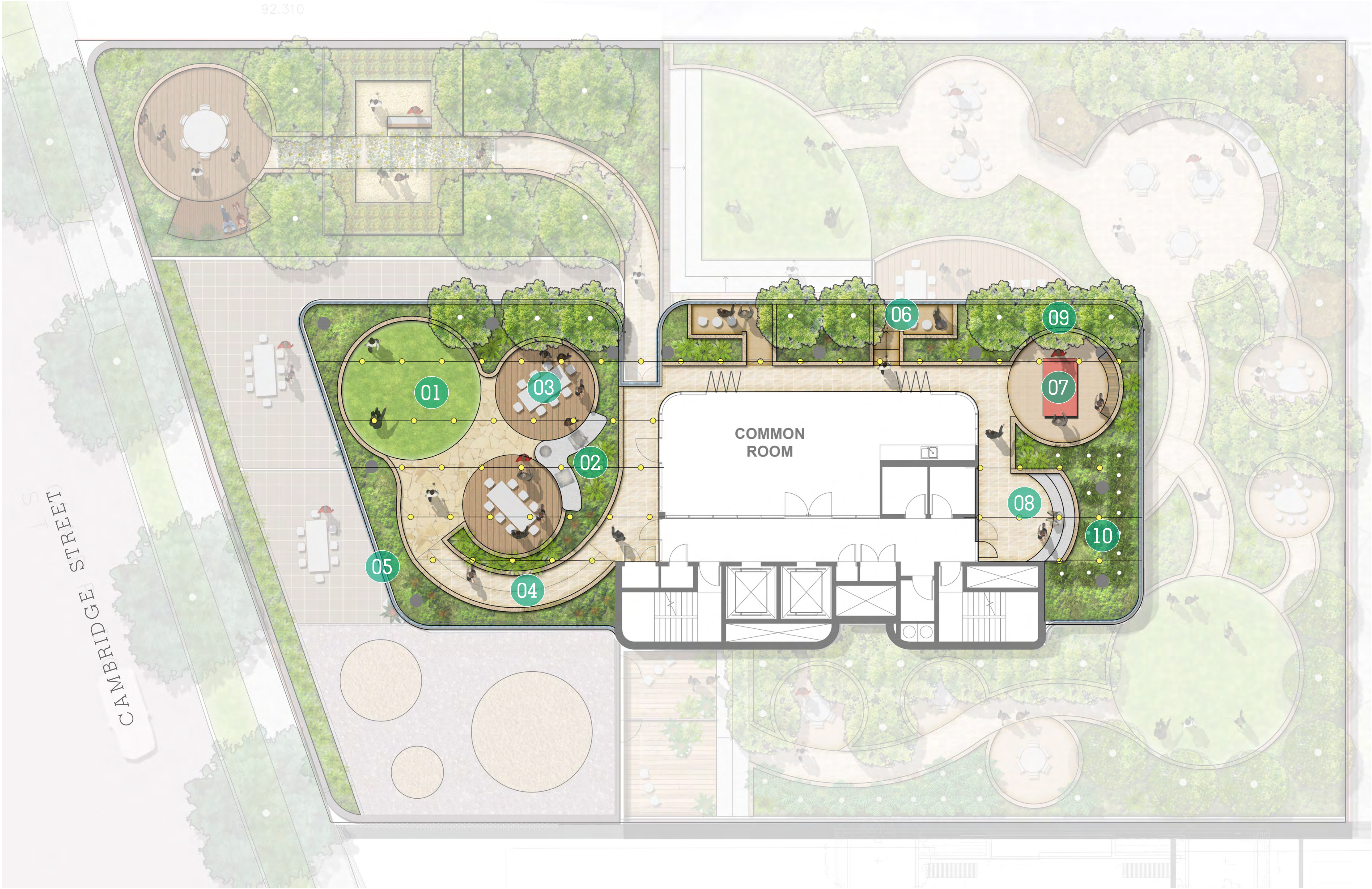
LEGEND

- 01 Sunset Viewing Deck
- 02 Retaining Planter wall
- 03 Wall mounted Glass Balustrade
- 04 Raised Vegetable Garden Beds
- 05 Pergola with fruiting climbing plants
- 06 Potting bench
- 07 Fruit Tree Planting
- 08/ Level 2 private deck
- 09/ Turf

0 1 2 3 4 5M
SCALE 1:50 @ A1



LANDSCAPE CONCEPT | LEVEL 11



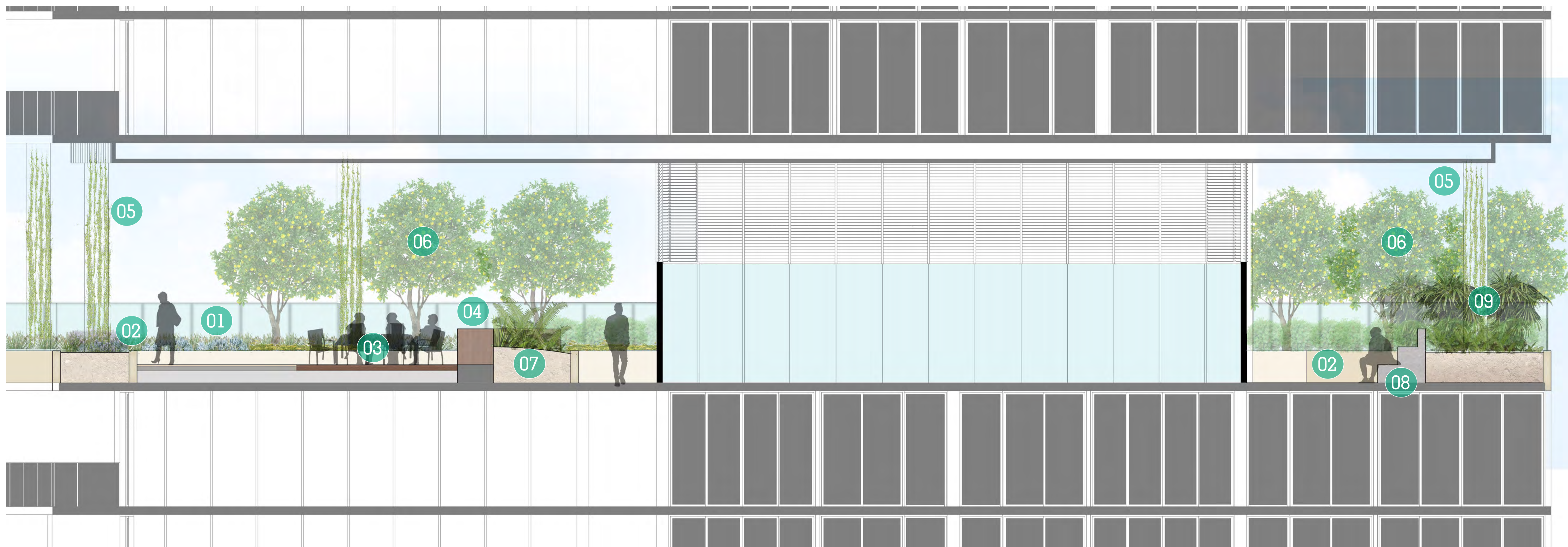
LEGEND

- 01 Raised Open Lawn
- 02 Communal BBQ
- 03 Large Dining Area
- 04 Ramping walkway
- 05 Catenary Lighting Feature
- 06 Secluded Alcoves
- 07 'Play' Area with table tennis etc.
- 08 Semi Amphitheatre for Outdoor Cinema
- 09/ Lemon Trees
- 10/ Bamboo screen planting

0 2 4 6 8 10M
SCALE 1:100 @ A1



SECTION I LEVEL 3



01



02



05



08

LEGEND

- 01 Glass Balustrade
- 02 Raised planter walls
- 03 Large Dining Area
- 04 BBQ
- 05 Climbers on columns
- 06 Lemon Trees
- 07 Shae tolerant planting
- 08 Seating for Outdoor Cinema
- 09 Bamboo wind break planting

0 1 2 3 4 5m
SCALE 1:50 @ A1



MATERIAL PALETTE



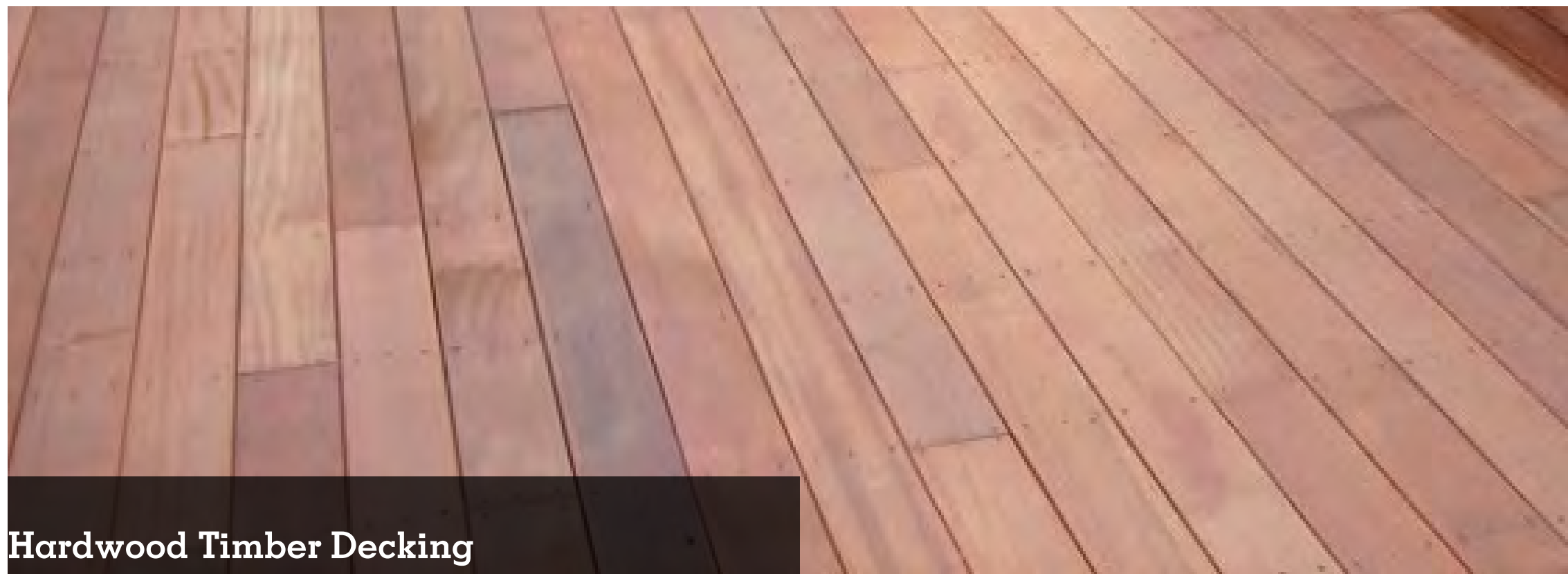
Sandstone Crazy Pave



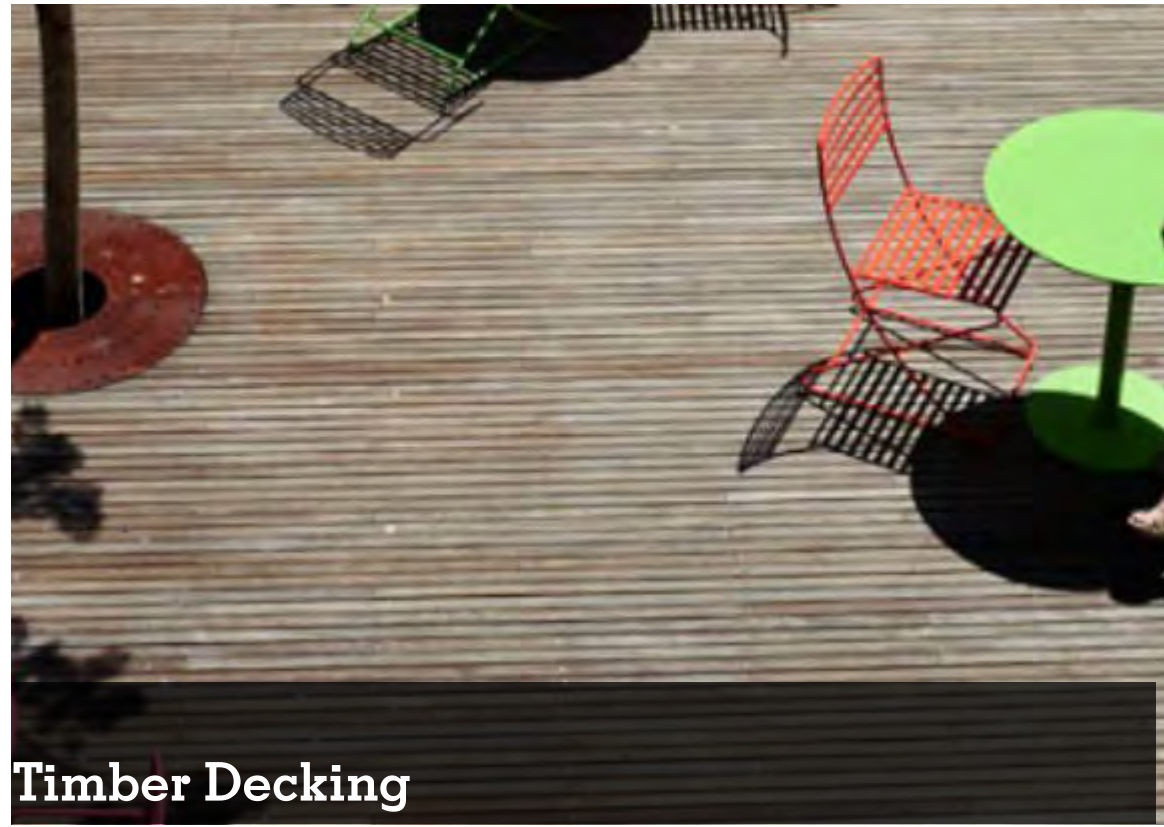
Sandstone Pavers



Block Render Walls & Timber Seating



Hardwood Timber Decking



Timber Decking



Decomposed granite



Timber Arbour



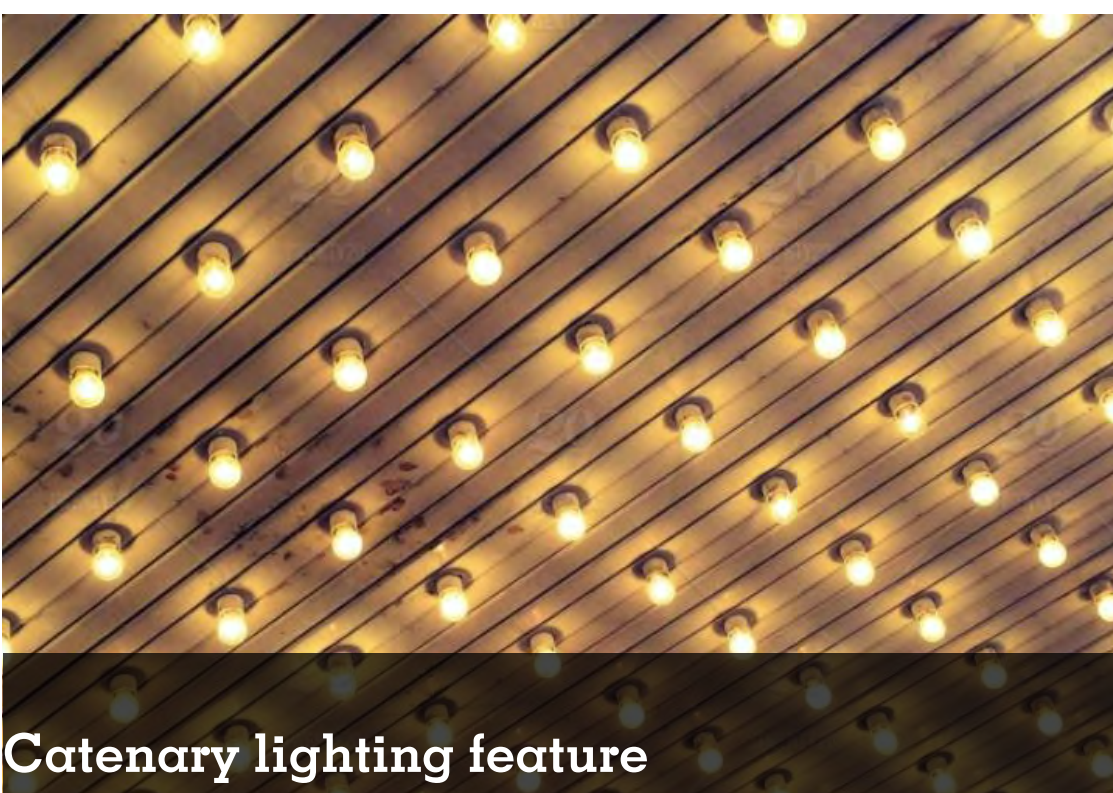
Sculptural Timber Bench



Precast Concrete BBQ Table



Corten Steel Planters



Catenary lighting feature



Glass Balustrade

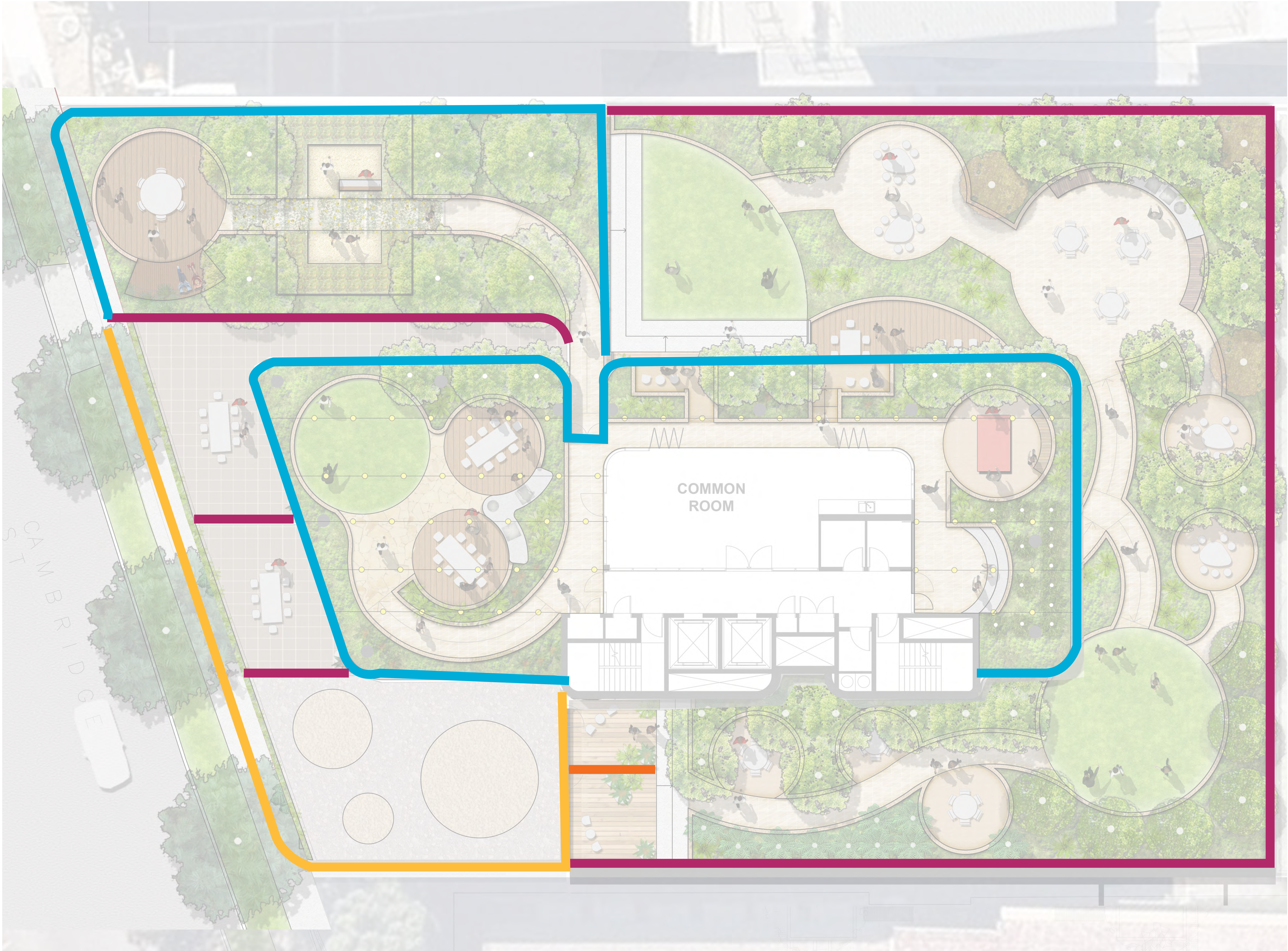
The landscape material palette looks to merge a rustic feel with modern simplicity and clean lines. The curving nature of the landscape design lends itself to more natural materials and materials. The loose overlaid grid pattern lends itself to more clean lines achieved with linear elements.

The floor treatments are mainly linear in appearance with the addition of crazy paving and decomposed granite to soften certain areas. The dark tones of the timber bring warmth to main areas of gathering.

Elements that merge rustic with modern include the corten steel planter boxes and timber arbour that both have rigid forms but are softened by the textures of the materials.



LANDSCAPE BOUNDARIES + FENCES



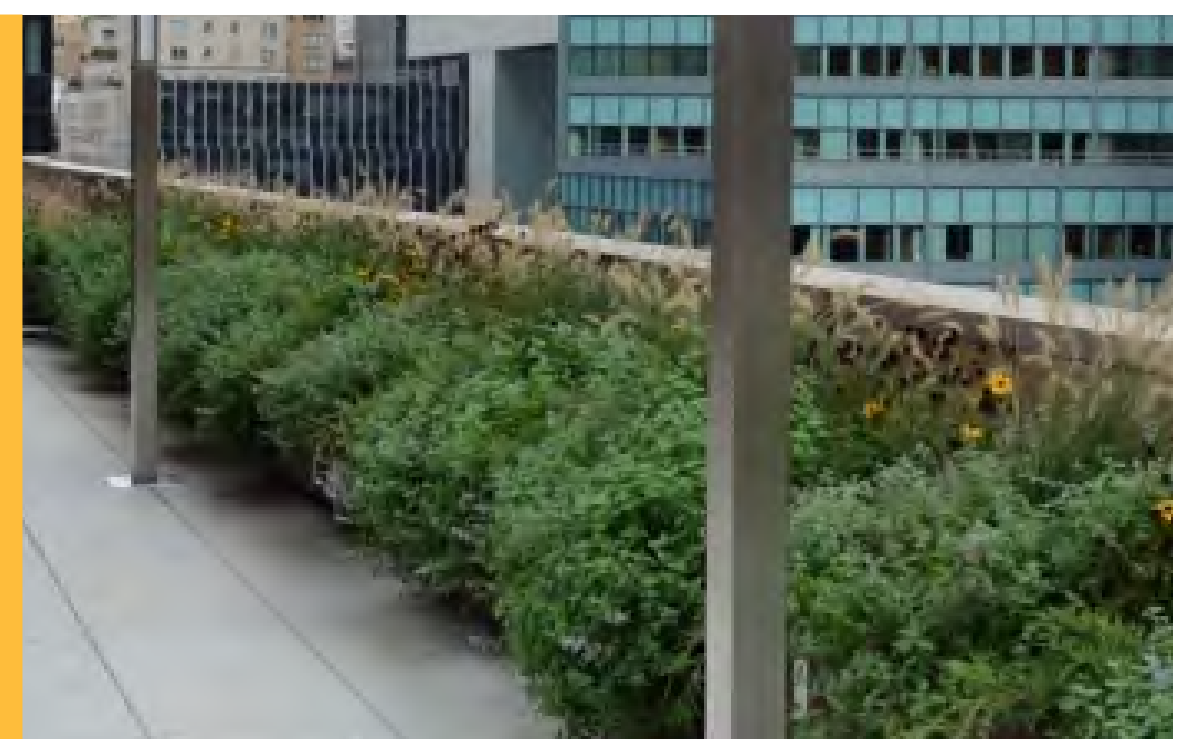
Glass Balustrade



Retaining Wall with Palisade fence



Screen Fence



Parapet Wall



PLANTING PALETTE

TREES



Eleocarpus reticulatus



Lophostemon confertus



Ceratopetalum gummiiferum



Pyrus ussuriensis



Prunus x blireana

FERNS



Cyathea cooperi



Blechnum cartilagineum



Adiantum aethiopicum



Aspidistra elatior



Cycas revoluta

SHRUBS



Bambusa multiplex var *'Alphonse Karr'*



Acacia linifolia



Bauera rubioides



Liriope muscari



Anigozanthos 'Gold Velvet'



Gardenia 'Radicans'



Dillwynia retorta

GRASSES



Lomandra 'Tanika'



Pennisetum 'Nafray'



Microlaena stipoides

GROUNDCOVERS



Dichondra 'Silver Falls'



Hibbertia dentata



Trachelospermum jasminoides



Viola hederacea



Cissus hypoglauca

ARCADIA

LANDSCAPE ARCHITECTURE

16-18 CAMBRIDGE STREET, EPPING

LANDSCAPE DEVELOPMENT APPLICATION



PREPARED BY

CLIENT

PROJECT NO.

Arcadia Landscape Architecture

Just Properties Group Pty Ltd

18-524

DATE

SCALE

ISSUE

Jan 2019

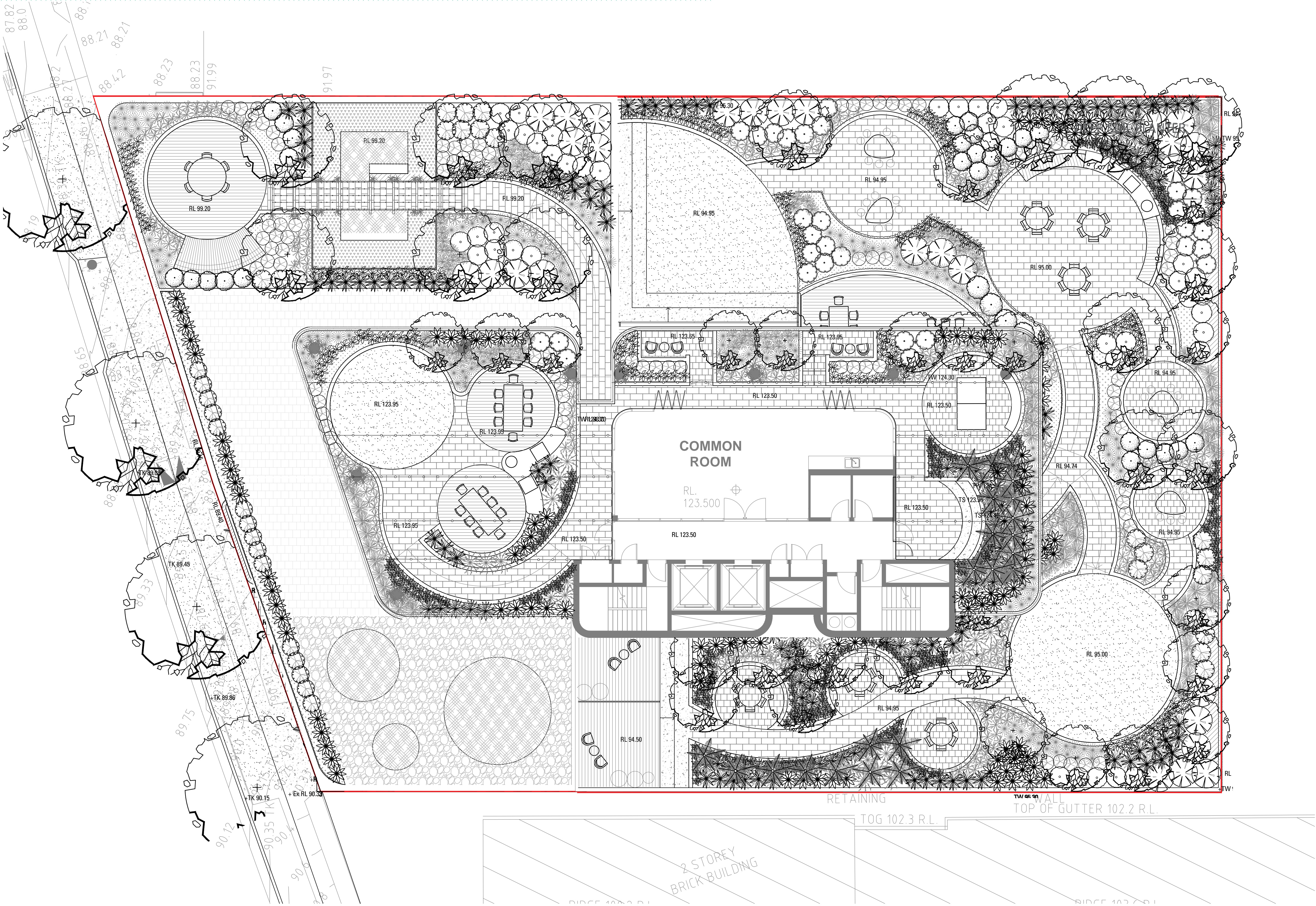
D

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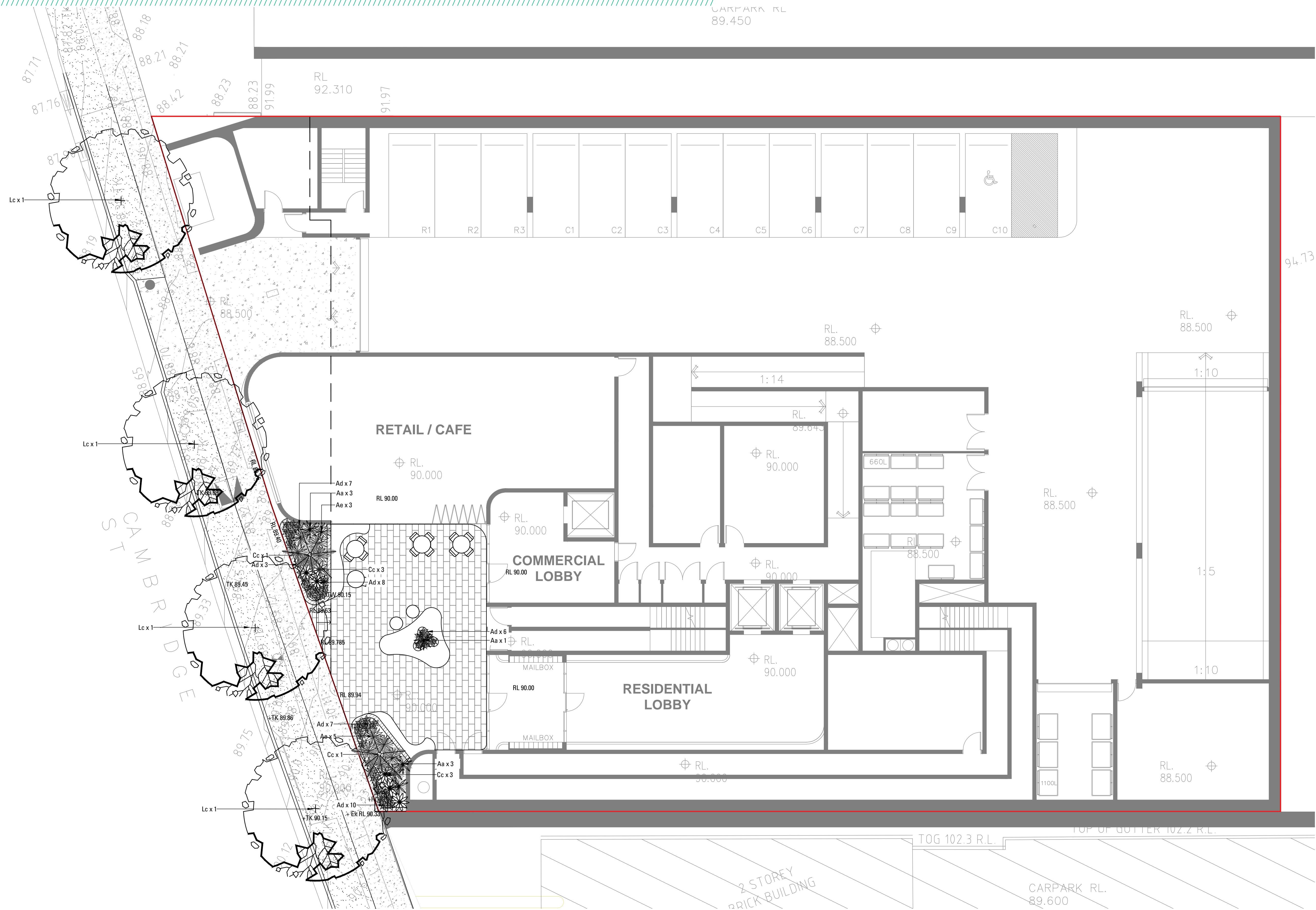
ARCADIA
LANDSCAPE ARCHITECTURE

ADDENDUM



- LEGEND
- EXISTING TREES TO BE REMOVED
 - PROPOSED TREE PLANTING
 - TURF
 - GROUNDCOVERS
 - PROPOSED SHRUB AND ACCENT PLANTING
 - PROPERTY BOUNDARY
 - BASEMENT EXTENT
 - CONCRETE PAVING
 - UNIT PAVING
 - DECOMPOSED GRANITE
 - TIMBER DECKING
 - RETAINING WALL







16-18 CAMBRIDGE STREET, EPPING

DEVELOPMENT APPLICATION















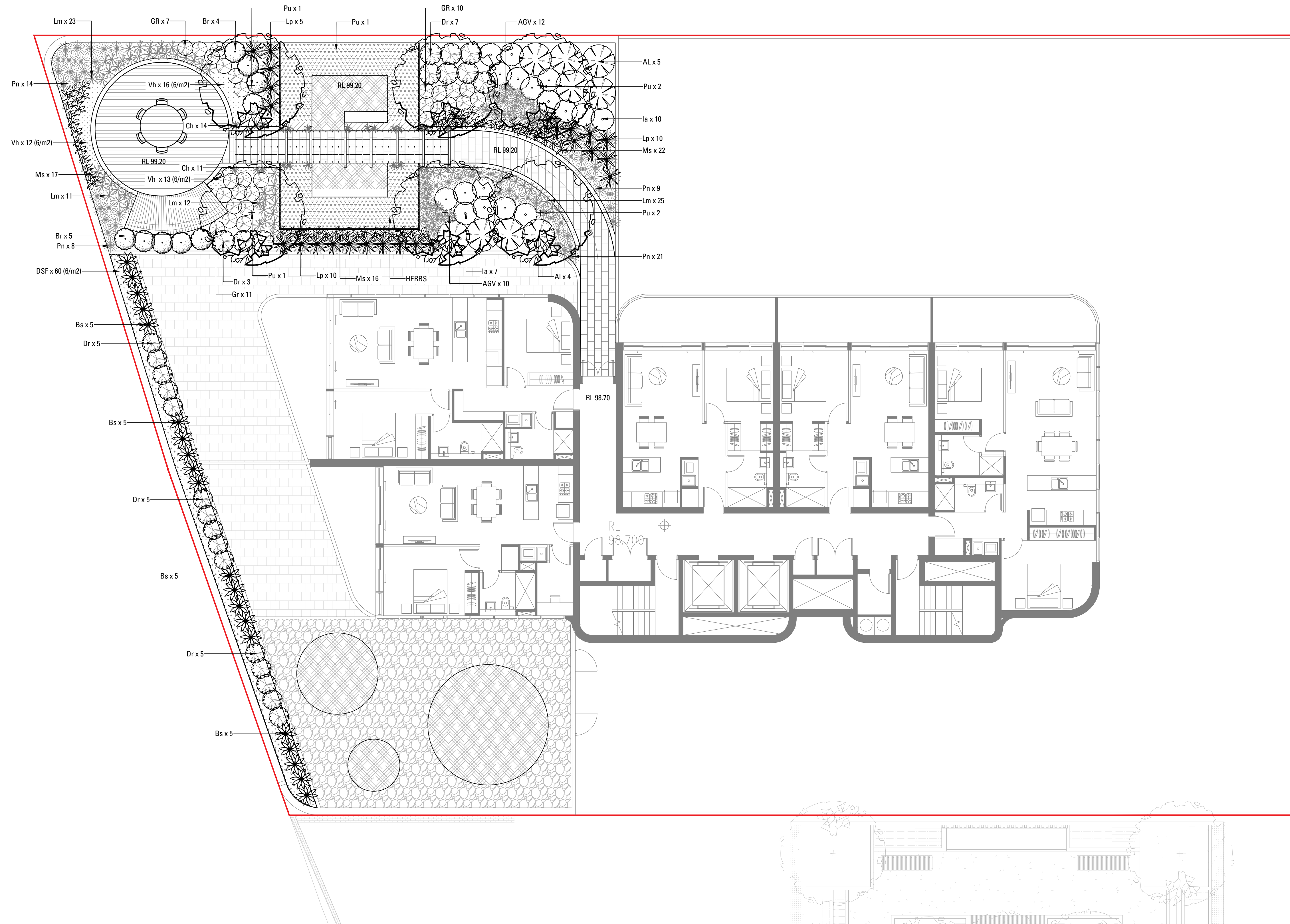
PREPARED BY Arcadia Landscape Architecture
CLIENT Just Properties Group Pty Ltd
ARCHITECT Nettleton Tribe

DATE Jan 2019
SCALE 1:100 @ A1
ISSUE D













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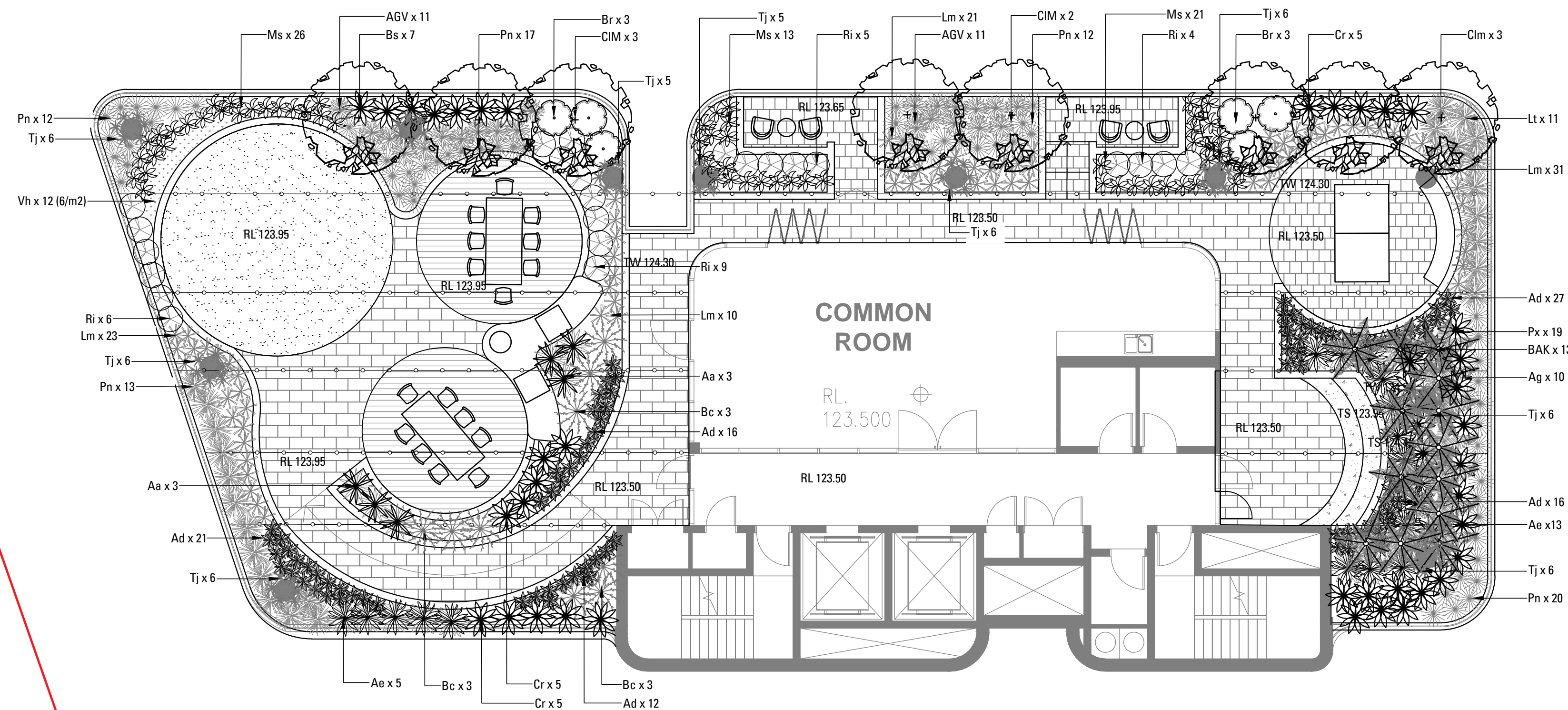
LEGEND

- | | |
|---|---------------------------------------|
|  | EXISTING TREES TO BE REMOVED |
|  | PROPOSED TREE PLANTING |
|  | TURF |
|  | GROUNDCOVERS |
|  | PROPOSED SHRUB AND
ACCENT PLANTING |
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|  | BASEMENT EXTENT |
|  | CONCRETE PAVING |
|  | UNIT PAVING |
|  | DECOMPOSED GRANITE |
|  | TIMBER DECKING |
|  | RETAINING WALL |



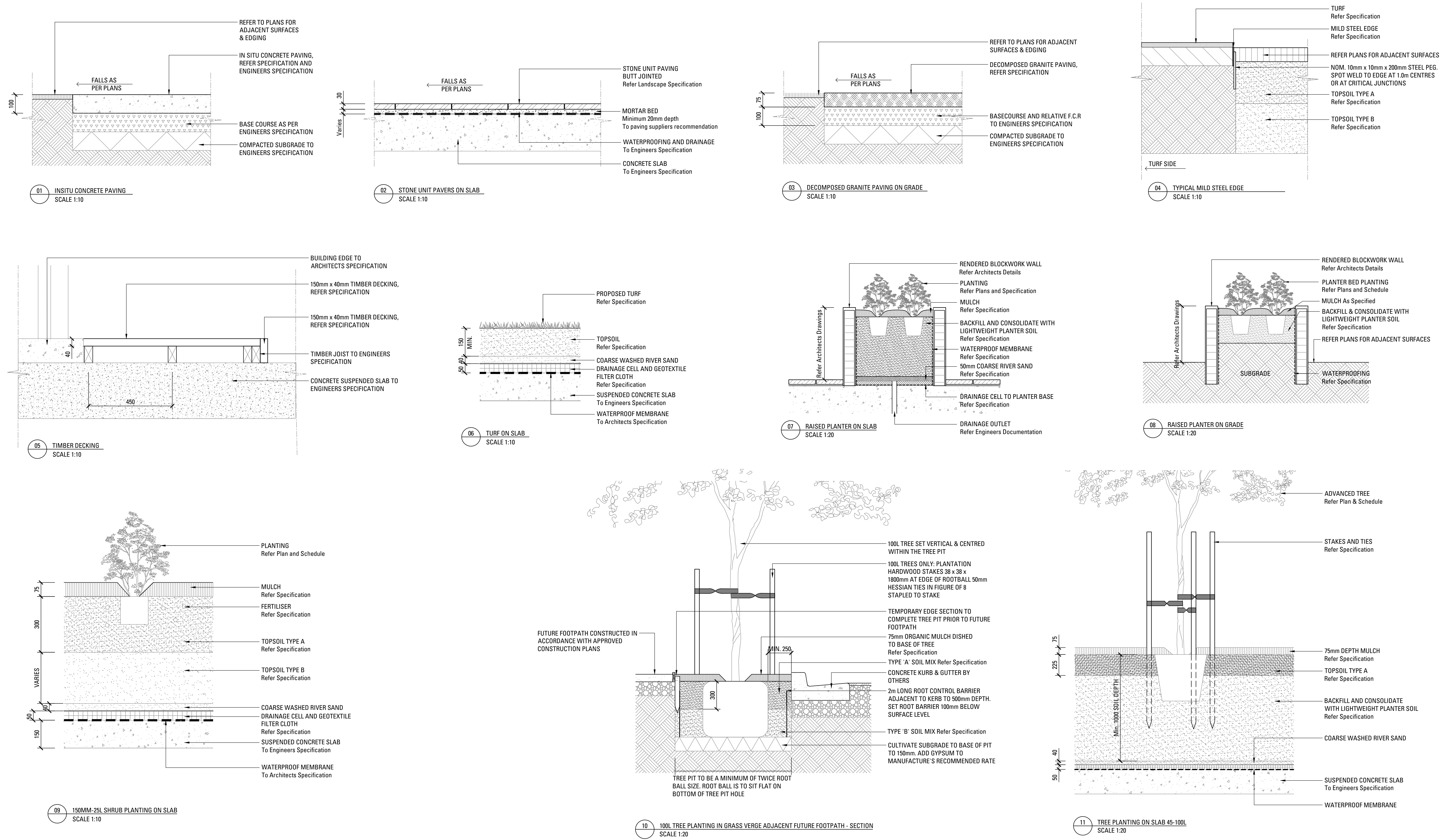
LEGEND

- | | |
|---|---------------------------------------|
|  | EXISTING TREES TO BE REMOVED |
|  | PROPOSED TREE PLANTING |
|  | TURF |
|  | GROUNDCOVERS |
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|  | UNIT PAVING |
|  | DECOMPOSED GRANITE |
|  | TIMBER DECKING |
|  | RETAINING WALL |



18-524 16-18 CAMBRIDGE ST EPPING PLANING SCHEDULE					
CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w) (m)	PROPOSED POT SIZE	QUANTITY
TREES & PALMS					
As	<i>Acmena smithii</i>	Lilly Pilly	10 x 5	200mm	8
Cg	<i>Ceratopetalum gummiferum</i>	Christmas Bush	6 x 5	75L	3
CIM	<i>Citrus lemon 'Meyer'</i>	Meyer Lemon	3 x 2	75L	8
Er	<i>Eleocarpus reticulatus</i>	Blueberry Ash	10 x 5	200L	6
Lc	<i>Lophostemon confertus</i>	Brush Box	15 x 10	200L	3
Pu	<i>Pyrus ussuriensis</i>	Ornamental Pear	9 x 7	100L	7
Pb	<i>Prunus x blireana</i>	Flowering Plum	4 x 4	100L	3
TI	<i>Tristaniopsis laurina</i>	Water Gum	10 x 5	200L	11
SHRUBS & ACCENTS					
Al	<i>Acacia linifolia</i>	Golden Wattle	2 x 2	25L	33
AGV	<i>Anigozanthos 'Gold Velvet'</i>	Gold Kangaroo Paw	0.6 x 0.4	25L	76
BAK	<i>Bambusa multiplex var 'Alphonse Karr'</i>	Red Cloud Bamboo	2-4 x 1	25L	13
Bs	<i>Banksia spinulosa 'Bush Candles'</i>	Hairpin Banksia	1.5 x 1	25L	39
Br	<i>Bauera rubioides</i>	Dog Rose	1 x 2	25L	31
Dr	<i>Dillwynia retorta</i>	Heathy Parrot Pea	1 x 1	25L	48
GR	<i>Gardenia 'Radicans'</i>	Dwarf Gardenia	0.5 x 1	10L	60
HERBS	<i>Kitchen Garden Herbs (Various)</i>	N/A	N/A		
Ia	<i>Indigofera australis</i>	Needlebush Indigofera	1.5 x 2	25L	39
Lp	<i>Leptospermum polygalifolium</i>	Lemon-scented Tea Tree	1.5 x 2	200mm	32
Lm	<i>Liriope muscari</i>	Lilyturf	0.5 x 0.5	200mm	345
Ri	<i>Raphiolepis indica</i>	Indian hawthorn	1.5 x 0.8	200mm	30
GRASSES & RUSHES					
LT	<i>Lomandra 'Tanika'</i>	Tanika Mat Rush	1 x 1	200mm	94
Ms	<i>Microleana stipoides</i>	Weeping Grass	0.5 x 0.5	150mm	235
Pn	<i>Pennisetum 'Nafray'</i>	Swamp Foxtail	1 x 1	150mm	176
FERNS & CYCADS					
Aa	<i>Asplenium australasicum</i>	Birds Nest Fern	1.5 x 1.5	10L	33
Ad	<i>Adiantum aethiopicum</i>	Maidenhair Fern	0.5 x 0.5	10L	322
Ae	<i>Aspidistra elatior</i>	Cast Iron Plant	0.5 x 1	150mm	113
Bc	<i>Blechnum cartilagineum</i>	Gristle Fern	1.5 x 1.5	150mm	25
Cc	<i>Cyathea cooperi</i>	Tree Fern	5 x 2	300mm	17
Cr	<i>Cycas revoluta</i>	Cycad	1.5 x 1	150mm	71
Px	<i>Philodendron 'Xanadu'</i>	Xanadu	1 x 1	150mm	19
GROUNDCOVERS & CLIMBERS					
Ch	<i>Cissus hypoglauca</i>	Native Grape	5 x spreading	150mm	25
DSF	<i>Dichondra 'Silver Falls'</i>	Silver Falls	0.15 x spreading	150mm	143
Hd	<i>Hibbertia dentata</i>	Trailing Guinea Flower	0.3 x 2	150mm	49
Tj	<i>Trachelospermum jasminoides</i>	Star Jasmine	0.25 x 1	150mm	68
Vh	<i>Viola hederacea</i>	Native Violet	0.2 x 0.5	150mm	99





LANDSCAPE SPECIFICATION NOTES

SERVICES
BEFORE LANDSCAPE WORK IS COMMENCED THE LANDSCAPE CONTRACTOR IS TO ESTABLISH THE POSITION OF ALL SERVICE LINES AND ENSURE TREE PLANTING IS CARRIED OUT AT LEAST 3 METRES AWAY FROM THESE SERVICES. SERVICE LIDS, VENTS AND HYDRANTS SHALL BE LEFT EXPOSED AND NOT COVERED BY ANY LANDSCAPE FINISHES (TURFING, PAVING, GARDEN BEDS ETC.) FINISH ADJOINING SURFACES FLUSH WITH PIT LIDS.

ARBORIST MANAGEMENT OF TREE PROTECTION
A QUALIFIED AND APPROVED ARBORIST IS TO BE CONTRACTED TO UNDERTAKE OR MANAGE THE INSTALLATION OF PROTECTIVE FENCING, AND TO UNDERTAKE SUCH MEASURES AS HE DEEMS APPROPRIATE TO PRESERVE THE SUBJECT TREES TO BE RETAINED. THE ARBORIST IS TO BE RETAINED FOR THE ENTIRE CONTRACT PERIOD TO UNDERTAKE ONGOING MANAGEMENT AND REVIEW OF THE TREES.

DRAINAGE CELL AND FILTER FABRIC
FOR ON-SLAB AREAS INSTALL AN APPROVED 'DRAINAGE CELL' PRODUCT TO COMPREHENSIVELY COVER THE BOTTOM OF ALL PLANTERS. OVER DRAINAGE CELL TO ON-SLAB AREAS, A POLYFELT GEOTEXTILE LINING (AS SUPPLIED BY 'POLYFELT TS' OR APPROVED EQUIVALENT) IS TO BE INSTALLED TO COVER THE BOTTOM OF ALL PLANTERS, TURNED UP 300MM AND TAPED TO THE PLANTER SIDES TO ENSURE SOIL MIX DOES NOT ESCAPE INTO DRAINAGE OUTLETS/HOLES. INSTALL MIN. 50MM COARSE RIVER SAND OVER ALL GEOTEXTILE LINING PRIOR TO INSTALLATION OF SOIL MIX.

PLANTING MIXTURE
SHALL BE HOMOGENOUS BLEND OF SOIL AND ADDITIVES IN THE FOLLOWING PROPORTIONS:
EXISTING SITE SOIL IF SUITABLE OR
IMPORTED TOPSOIL 50%
COMPOST 30%
D/W SAND 20%
SOIL TESTING OF EXISTING SITE SOIL IS TO BE UNDERTAKEN TO ASSESS SUITABILITY OF USE AS PLANTING TOPSOIL AND COMPLIANCE WITH AUSTRALIAN STANDARDS.

MULCH APPLICATION
PLACE MULCH TO THE REQUIRED DEPTH, (REFER TO DRAWINGS) CLEAR OF PLANT STEMS, AND RAKE TO AN EVEN SURFACE FINISHING 25MM BELOW ADJOINING LEVELS. ENSURE MULCH IS WATERED IN AND TAMPED DOWN DURING INSTALLATION.

MULCH TYPE
PINE BARK: FROM MATURE TREES, GRADED IN SIZE FROM 15MM TO 30MM, FREE FROM WOOD SLIVERS. DARK BROWN IN COLOUR AND TEXTURE.

COMPOST
SHALL BE WELL ROTTED VEGETATIVE MATERIAL OR ANIMAL MANURE, OR OTHER APPROVED MATERIAL, FREE FROM HARMFUL CHEMICALS, GRASS AND WEED GROWTH AND WITH NEUTRAL PH. PROVIDE A CERTIFICATE OF PROOF OF PH UPON REQUEST.

PLANT MATERIAL
ALL PLANTS SUPPLIED ARE TO CONFORM WITH THOSE SPECIES LISTED IN THE PLANT SCHEDULE ON THE DRAWINGS. GENERALLY PLANTS SHALL BE VIGOROUS, WELL ESTABLISHED, HARDENED OFF, OF GOOD FORM CONSISTENT WITH SPECIES OR VARIETY, NOT SOFT OR FORCED, FREE FROM DISEASE OR INSECT PESTS WITH LARGE HEALTHY ROOT SYSTEMS AND NO EVIDENCE OF HAVING BEEN RESTRICTED OR DAMAGED. TREES SHALL HAVE A LEADING SHOOT. IMMEDIATELY REJECT DRIED OUT, DAMAGED OR UNHEALTHY PLANT MATERIAL BEFORE PLANTING. ALL STOCK IS TO BE CONTAINER GROWN FOR A MINIMUM OF SIX (6) MONTHS PRIOR TO DELIVERY TO SITE

FERTILISER MASS PLANTING AREAS:
FERTILISER SHALL BE 'NUTRICOTE' OR APPROVED EQUIVALENT IN GRANULE FORM INTENDED FOR SLOW RELEASE OF PLANT NUTRIENTS OVER A PERIOD OF APPROXIMATELY NINE MONTHS. THOROUGHLY MIX FERTILISER WITH PLANTING MIXTURE AT THE RECOMMENDED RATE, PRIOR TO INSTALLING PLANTS.

TURF
SHALL BE SIR WALTER BUFFALO. SHIRLEYS NO. 17 OR APPROVED EQUAL LAWN FOOD SHALL BE THOROUGHLY MIXED INTO THE TOPSOIL PRIOR TO PLACING TURF.

TREES IN GRASS AND SUPER ADVANCED TREES:
PELLETS SHALL BE IN THE FORM INTENDED TO UNIFORMLY RELEASE PLANT FOOD ELEMENTS FOR A PERIOD OF APPROXIMATELY NINE MONTHS EQUAL TO SHIRLEYS KOKEI PELLETS, ANALYSIS 6.3:1.8:2.9. KOKEI PELLETS SHALL BE PLACED AT THE TIME OF PLANTING TO THE BASE OF THE PLANT, 50MM MINIMUM FROM THE ROOT BALL AT A RATE OF TWO PELLETS PER 300MM OF TOP GROWTH TO A MAXIMUM OF 8 PELLETS PER TREE.

STAKING AND TYING
STAKES SHALL BE STRAIGHT HARDWOOD, FREE FROM KNOTS AND TWISTS, POINTED AT ONE END AND

SIZED ACCORDING TO SIZE

OF PLANTS TO BE STAKED.
A. 5-15 LITRE SIZE PLANT 1X(1200X25X25MM)
B. 35-75 LITRE SIZE PLANT 2X(1500X38X38MM)
C. 100-GREATER THAN 200LITRE 3X(1800X50X50MM)
TIES SHALL BE 50MM WIDE HESSIAN WEBBING OR APPROVED EQUIVALENT NAILED OR STAPLED TO STAKE. DRIVE STAKES A MINIMUM ONE THIRD OF THEIR LENGTH, AVOIDING DAMAGE TO THE ROOT SYSTEM, ON THE WINDWARD SIDE OF THE PLANT.

IRRIGATION SYSTEM
SUPPLY AN AUTOMATIC WATERING SYSTEM USING 'TORO IRRIGATION SYSTEM' OR SIMILAR APPROVED, WITH MICRO-JET SPRINKLER HEADS AND LOW DENSITY, RUBBER MODIFIED POLYPROPYLENE RETICULATION, TO INCLUDE FILTERS, BENDS JUNCTIONS, ENDS AND OTHER ANCILLARY EQUIPMENT. THE LANDSCAPER SHALL NOMINATE HIS SOURCE OF SUPPLY FOR THE WATERING SYSTEM AND OBTAIN APPROVAL FROM THE SUPERINTENDENT BEFORE PLACING ORDERS FOR EQUIPMENT OR SUPPLY.

A SCHEMATIC PLAN OF THE PROPOSED IRRIGATION SYSTEM IS TO BE PREPARED BY THE CONTRACTOR, SHOWING SOLENOIDS, PIPE DIAMETERS, AND ALL NOZZLE AND TRICKLE ATTACHMENT TYPES (INCLUDING SPRAY/HEAD ANGLE), FOR REVIEW BY THE SUPERINTENDENT PRIOR TO INSTALLATION

THE CONTRACTOR IS TO LIASE WITH THE HYDRAULIC ENGINEER AND COUNCIL AS NECESSARY, TO ENSURE THE THE IRRIGATION SYSTEM CONFORMS WITH ALL THE COUNCIL AND WATER BOARD CODES AND REQUIREMENTS.

PROVIDE AN AUTOMATIC CONTROLLER THAT PROVIDES FOR TWO WEEK SCHEDULING AND HOURLY MULTI-CYCLE OPERATION. THE CONTROLLER SHALL MANUAL OVERRIDE. PROGRAMMING SHALL BE UNDERTAKEN BY THE CONTRACTOR WHO SHALL ADVISE ON THE OPERATION OF THE SYSTEM.

PROVISION OF SECURE HOUSING FOR THE AUTOMATIC IRRIGATION CONTROLLER TO BE LOCATED IN ASSOCIATION WITH THE LANDSCAPE CONTRACTOR AND LOCATION CONFIRMED BY THE SUPERINTENDENT. WIRING TO CONNECT REMOTE SOLENOID LOCATIONS IS TO BE PROVIDED. THE CONTROLLER SHALL BE LOCATED IN A DRY PLACE, PROTECTED FROM THE WEATHER, AND ALL CABLE CONNECTIONS SHALL BE MADE WITH WATERPROOF CONNECTORS.

WATER SUPPLY POINTS TO BE SUPPLIED BY BUILDER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE AND GUARANTEE SATISFACTORY OPERATION OF THE IRRIGATION SYSTEM.

AFTER THE SYSTEM HAS BEEN INSTALLED TO THE SATISFACTION OF THE SUPERINTENDENT, THE INSTALLATION SHALL BE TESTED UNDER KNOWN WORKING CONDITIONS. ACCEPTANCE OF THE INSTALLED PLANT AND EQUIPMENT SHALL BE SUBJECT TO THESE BEING SATISFACTORY.

TREATED PINE TIMBER EDGING
TIMBER EDGE: 100 X 25MM CCA TREATED RADIATA PINE TIMBER STAKES: 50 X 50 X 500MM CCA TREATED RADIATA PINE-SHARPENED AT ONE END. INSTALL IN LOCATIONS SHOWN ON THE DRAWINGS FLUSH TO FINISHED SURFACE LEVELS.

TURF
TURF ALL LANDSCAPE AREAS AS SHOWN ON THE LANDSCAPE DRAWINGS. TURF IS TO HAVE AN EVEN THICKNESS OF NOT LESS THAN 25MM. OBTAIN TURF FROM AN APPROVED GROWER. FURNISH A WARRANTY FROM THE GROWER THAT THE TURF IS FREE FROM WEEDS AND OTHER FOREIGN MATTER. DELIVER TURF TO THE SITE WITHIN 24 HOURS OF BEING CUT, AND LAY IT WITHIN 24 HOURS OF BEING DELIVERED.

TO PREPARE GRADED AREAS TO RECEIVE TURF, EXCAVATE THE AREA AND CULTIVATE SO AS TO ALLOW FOR IMPORTING OF 100MM OF TURF UNDERLAY SOIL. REMOVE ALL STONES OVER 50MM Ø AND REMOVE ALL WEEDS AND FOREIGN MATTER. SPREAD SOIL MIX A.B.S TO A DEPTH OF 100MM AND GRADE TO APPROPRIATE LEVELS TO ACHIEVE GENERAL EVEN GRADES TO DRAINAGE OUTLETS INSTALLED BY OTHERS.

LAY THE TURF ALONG THE LAND CONTOURS WITH STAGGERED, CLOSE BUTTED JOINTS, SO THAT THE FINISHED TURF SURFACE IS FLUSH WITH ADJACENT FINISHED SURFACES OF PAVING AND THE LIKE. AS SOON AS PRACTICABLE AFTER LAYING, ROLL THE TURF WITH A ROLLER WEIGHING NOT MORE THAN 90KG PER METRE OF WIDTH FOR SANDY OR LIGHT SOILS.

WATER AS NECESSARY TO KEEP THE SOIL MOIST TO A DEPTH OF 100MM. PROTECT NEWLY TURFED AREAS AGAINST TRAFFIC UNTIL GRASS IS ESTABLISHED. FERTILISE TWO WEEKS AFTER LAYING FERTILISE A.B.S

'TOP DRESS' THE TURF WHEN IT IS ESTABLISHED TO A DEPTH OF 10MM WITH COARSE WASHED RIVER SAND. RUB THE DRESSING WELL INTO THE JOINTS AND CORRECT ANY UNEVENNESS IN THE TURF SURFACES.

LANDSCAPE MAINTENANCE PROGRAM

MAINTENANCE SHALL MEAN THE CARE AND MAINTENANCE OF THE LANDSCAPE WORKS BY ACCEPTED HORTICULTURAL PRACTICE AS RECTIFYING ANY DEFECTS THAT BECOME APPARENT IN THE LANDSCAPE WORKS UNDER NORMAL USE. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, WATERING, MOWING, FERTILISING, RESEEDING, RETURFING, WEEDING, PEST AND DISEASE CONTROL, STAKING AND TYING, REPLANTING, CULTIVATION, PRUNING, AERATING, RENOVATING, TOP DRESSING, MAINTAINING THE SITE IN A NEAT AND TIDY CONDITION AS FOLLOWS:-

GENERAL
THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE WORKS FOR THE TERM OF THE MAINTENANCE (OR PLANT ESTABLISHMENT) PERIOD TO THE SATISFACTION OF THE COUNCIL. THE LANDSCAPE CONTRACTOR SHALL ATTEND TO THE SITE ON A WEEKLY BASIS. THE MAINTENANCE PERIOD SHALL COMMENCE AT PRACTICAL COMPLETION AND CONTINUE FOR A PERIOD OF TWENTY SIX (26) WEEKS.

WATERING
GRASS, TREES AND GARDEN AREAS SHALL BE WATERED REGULARLY SO AS TO ENSURE CONTINUOUS HEALTHY GROWTH.

RUBBISH REMOVAL
DURING THE TERM OF THE MAINTENANCE PERIOD THE LANDSCAPE CONTRACTOR SHALL REMOVE RUBBISH THAT MAY OCCUR AND REOCCUR THROUGHOUT THE MAINTENANCE PERIOD. THIS WORK SHALL BE CARRIED OUT REGULARLY SO THAT AT WEEKLY INTERVALS THE AREA MAY BE OBSERVED IN A COMPLETELY CLEAN AND TIDY CONDITION.

REPLACEMENTS
THE LANDSCAPE CONTRACTOR SHALL REPLACE ALL PLANTS THAT ARE MISSING, UNHEALTHY OR DEAD AT THE LANDSCAPE CONTRACTOR'S COST. REPLACEMENTS SHALL BE OF THE SAME SIZE, QUALITY AND SPECIES AS THE PLANT THAT HAS FAILED UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACEMENTS SHALL BE MADE ON A CONTINUING BASIS NOT EXCEEDING TWO (2) WEEKS AFTER THE PLANT HAS DIED OR IS SEEN TO BE MISSING.

STAKES AND TIES
THE LANDSCAPE CONTRACTOR SHALL REPLACE OR ADJUST PLANT STAKES, AND TREE GUARDS AS NECESSARY OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. REMOVE STAKES AND TIES AT THE END OF THE MAINTENANCE PERIOD IF SO DIRECTED.

PRUNING
TREES AND SHRUBS SHALL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT. PRUNING WILL BE DIRECTED AT THE MAINTENANCE OF THE DENSE FOLIAGE OR MISCELLANEOUS PRUNING AND BENEFICIAL TO THE CONDITION OF THE PLANTS. ANY DAMAGED GROWTH SHALL BE PRUNED. ALL PRUNED MATERIAL SHALL BE REMOVED FROM THE SITE.

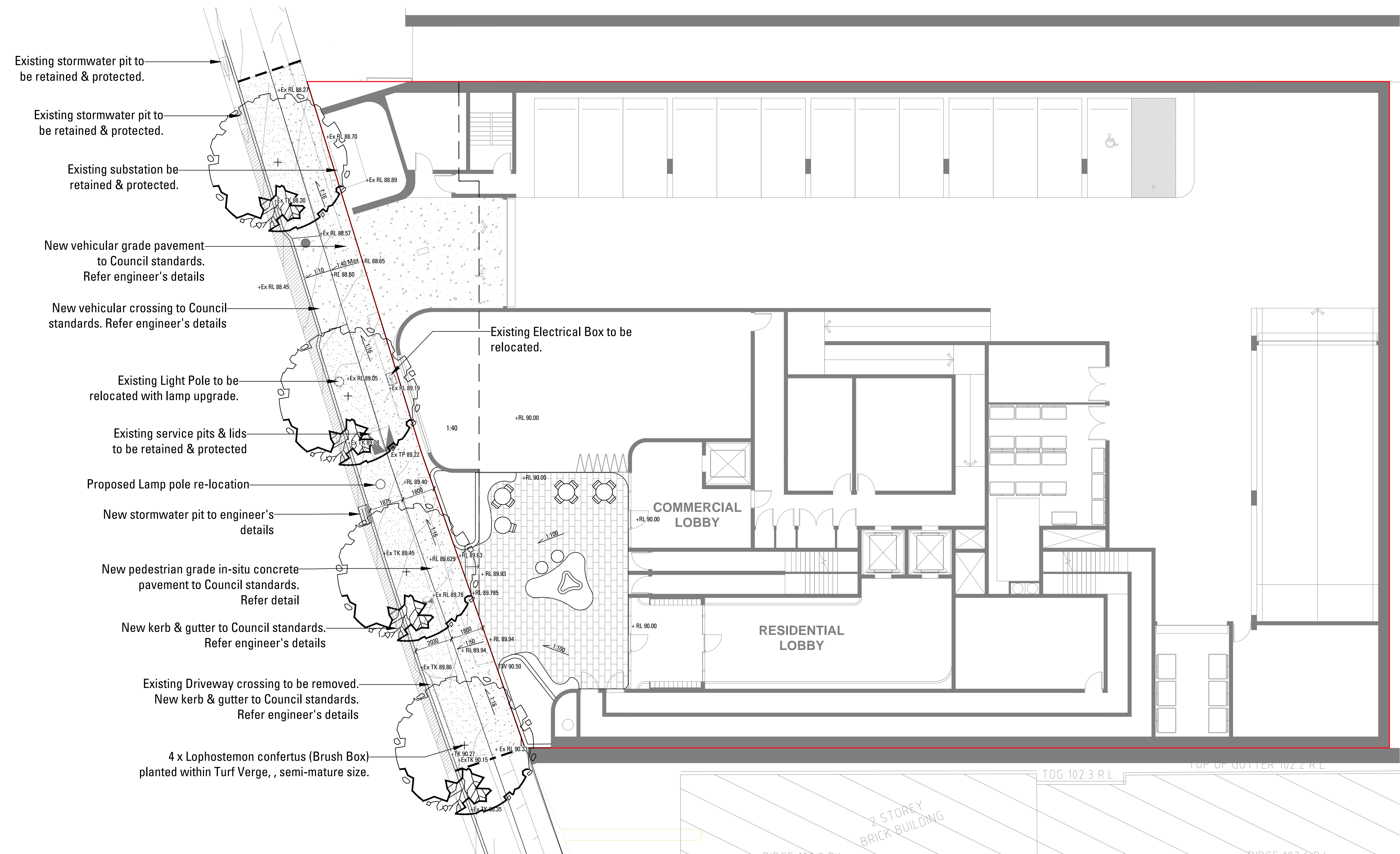
MULCHED SURFACES
ALL MULCHED SURFACES SHALL BE MAINTAINED IN A CLEAN AND TIDY CONDITION AND BE REINSTATED IF NECESSARY TO ENSURE THAT A DEPTH OF 75MM IS MAINTAINED. ENSURE MULCH IS KEPT CLEAR OF PLANT STEMS AT ALL TIMES.

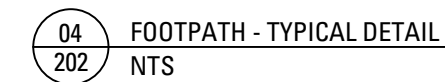
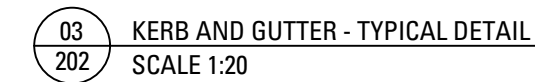
PEST AND DISEASED CONTROL
THE LANDSCAPE CONTRACTOR SHALL SPRAY AGAINST INSECT AND FUNGUS INFESTATION WITH ALL SPRAYING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. REPORT ALL INSTANCES OF PESTS AND DISEASES (IMMEDIATELY THAT THEY ARE DETECTED) TO THE LANDSCAPE ARCHITECT.

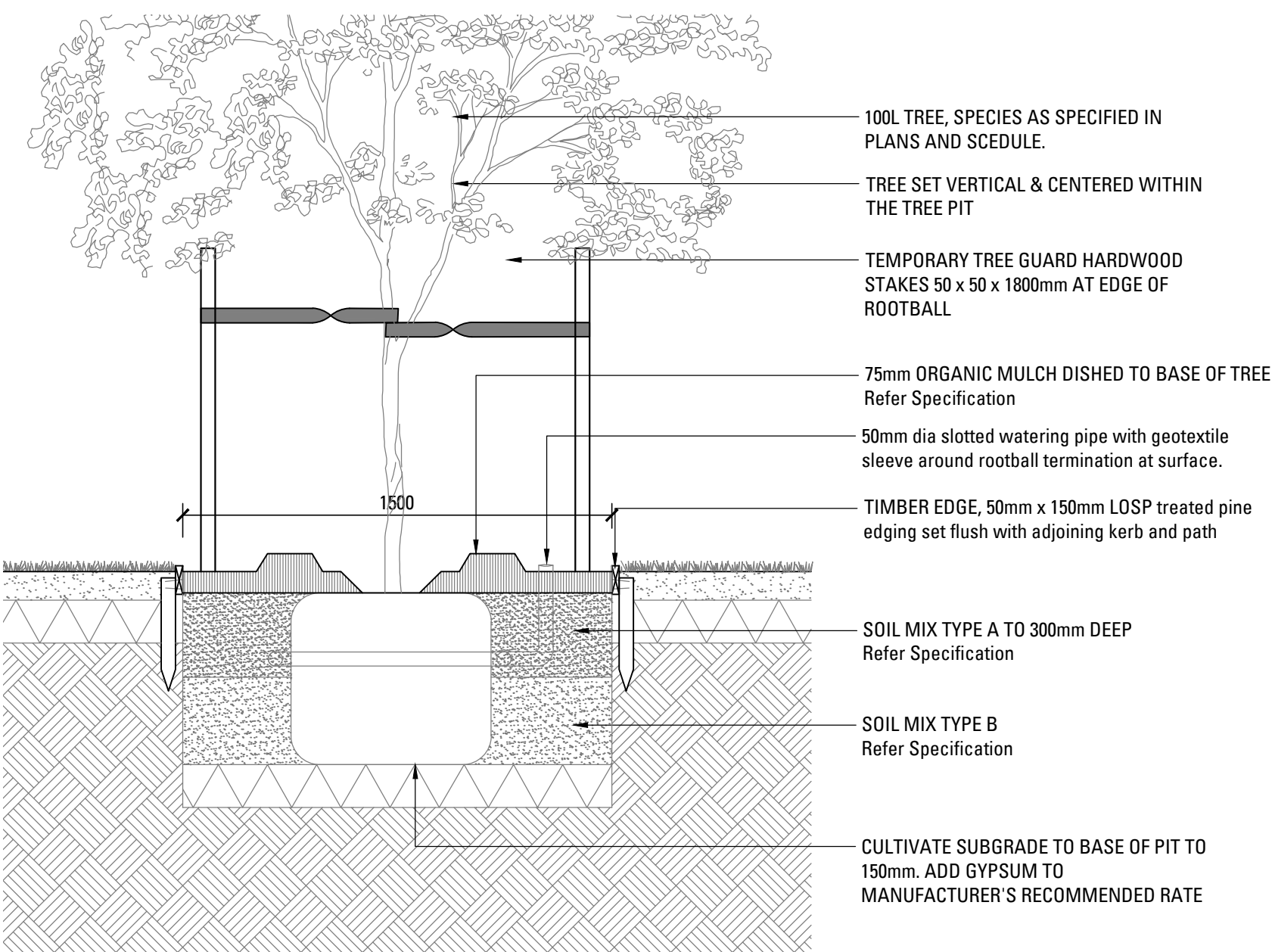
GRASS AND TURF AREAS
THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL GRASS AND TURF AREAS BY WATERING, WEEDING, DRESSING, ROLLING, MOWING, TRIMMING OR OTHER OPERATIONS AS NECESSARY. SEED AND TURF SPECIES SHALL BE THE SAME AS THE ORIGINAL SPECIFIED MIXTURE. GRASS AND TURF AREAS SHALL BE SPRAYED WITH APPROVED SELECTIVE HERBICIDE AGAINST BROAD LEAFED WEEDS AS REQUIRED BY THE LANDSCAPE ARCHITECT AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. GRASS AND TURF AREAS SHALL BE FERTILISED ONCE A YEAR IN AUTUMN WITH 'DYNAMIC LIFTER' FOR LAWNS AT A RATE OF 20KG PER 100M2. FERTILISER SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. IRREGULARITIES IN THE GRASS AND TURF SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. GRASS AND TURF AREAS SHALL BE KEPT MOWN TO MAINTAIN A HEALTHY AND VIGOROUS SWARD. MOWING HEIGHT: 30-50MM.

WEED ERADICATION
ERADICATE WEEDS BY ENVIRONMENTALLY ACCEPTABLE METHODS USING A NON-RESIDUAL GLYPHOSATE HERBICIDE (EG. 'ROUNDUP') IN ANY OF ITS REGISTERED FORMULAE, AT THE RECOMMENDED MAXIMUM RATE. REGULARLY REMOVE BY HAND, WEED GROWTH THAT MAY OCCUR OR RECUR THROUGHOUT GRASSED, PLANTED AND MULCHED AREAS. REMOVE WEED GROWTH FROM AN AREA 750MM DIAMETER AROUND THE BASE OF TREES IN GRASSED AREAS. CONTINUE ERADICATION THROUGHOUT THE COURSE OF THE WORKS AND DURING THE MAINTENANCE PERIOD.

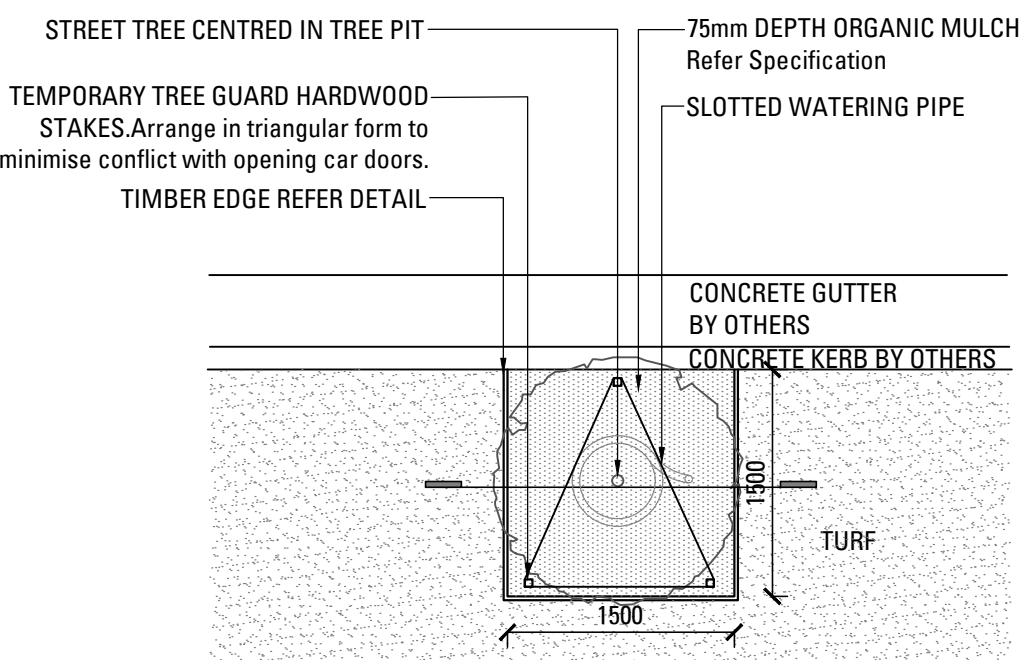
SOIL SUBSIDENCE
ANY SOIL SUBSIDENCE OR EROSION WHICH MAY OCCUR AFTER THE SOIL FILLING AND PREPARATION OPERATIONS SHALL BE MADE GOOD BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE CLIENT.



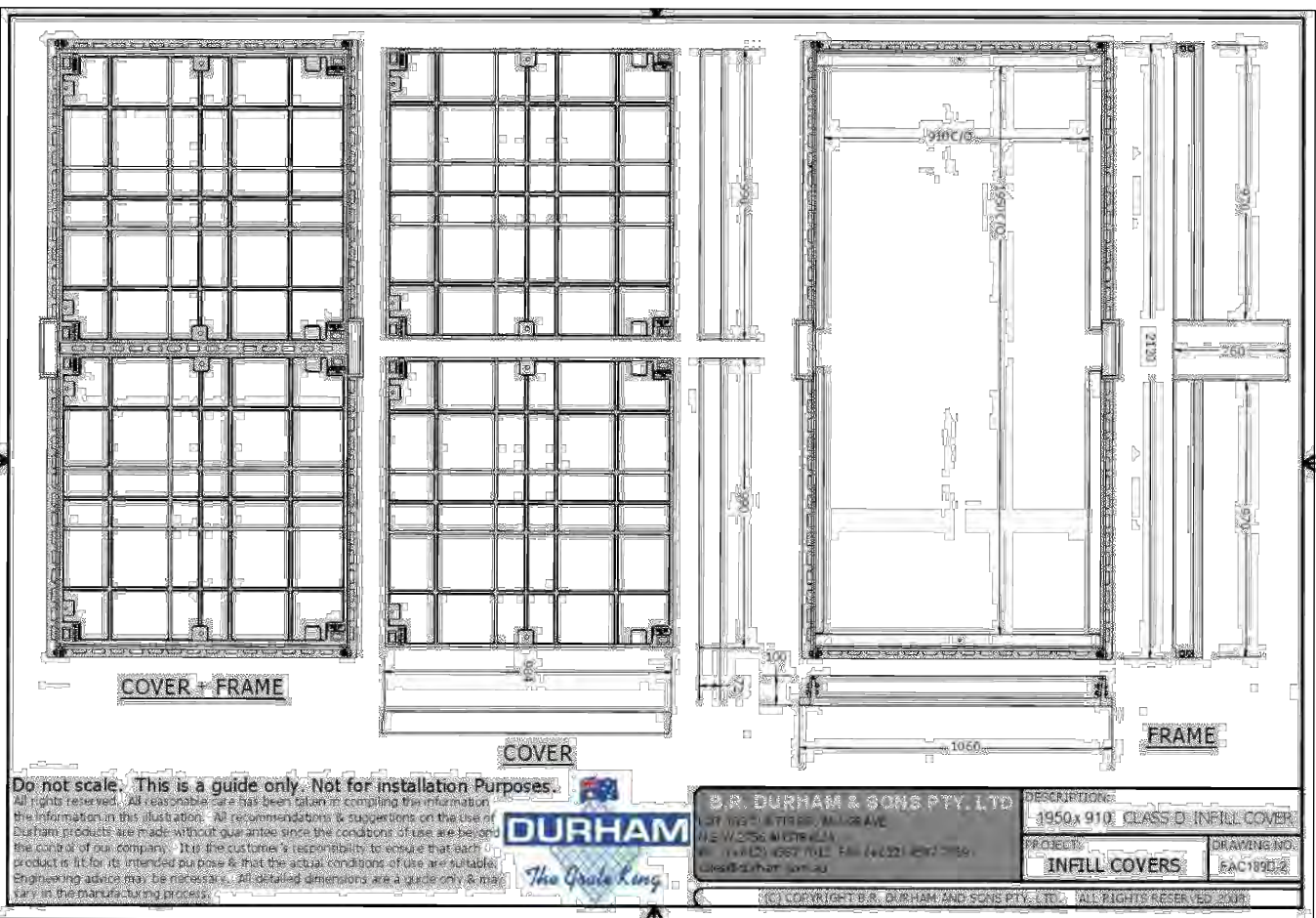




01
203
TREE PLANTING IN GRASS VERGE WITH TIMBER EDGE - SECTION
SCALE 1:20



02
203
TREE PLANTING IN GRASS VERGE - PLAN
SCALE 1:50



02
202
SERVICE PIT LID INFILL - TYPICAL DETAIL
NTS

