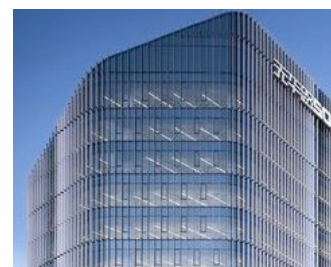
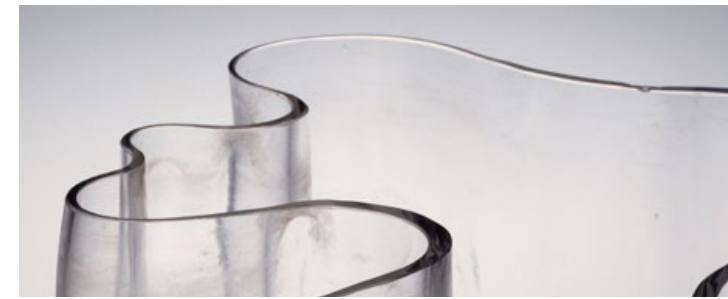
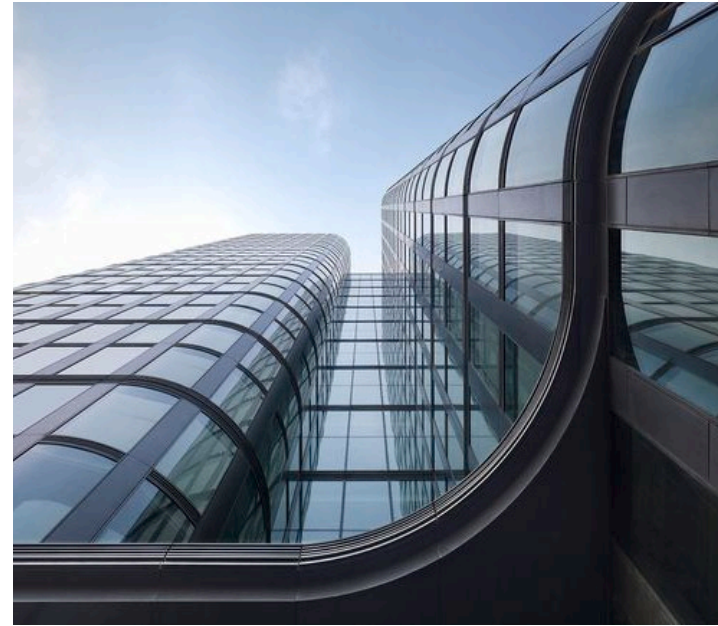
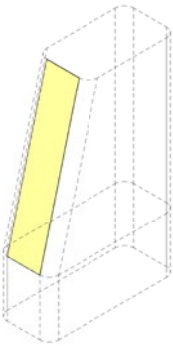
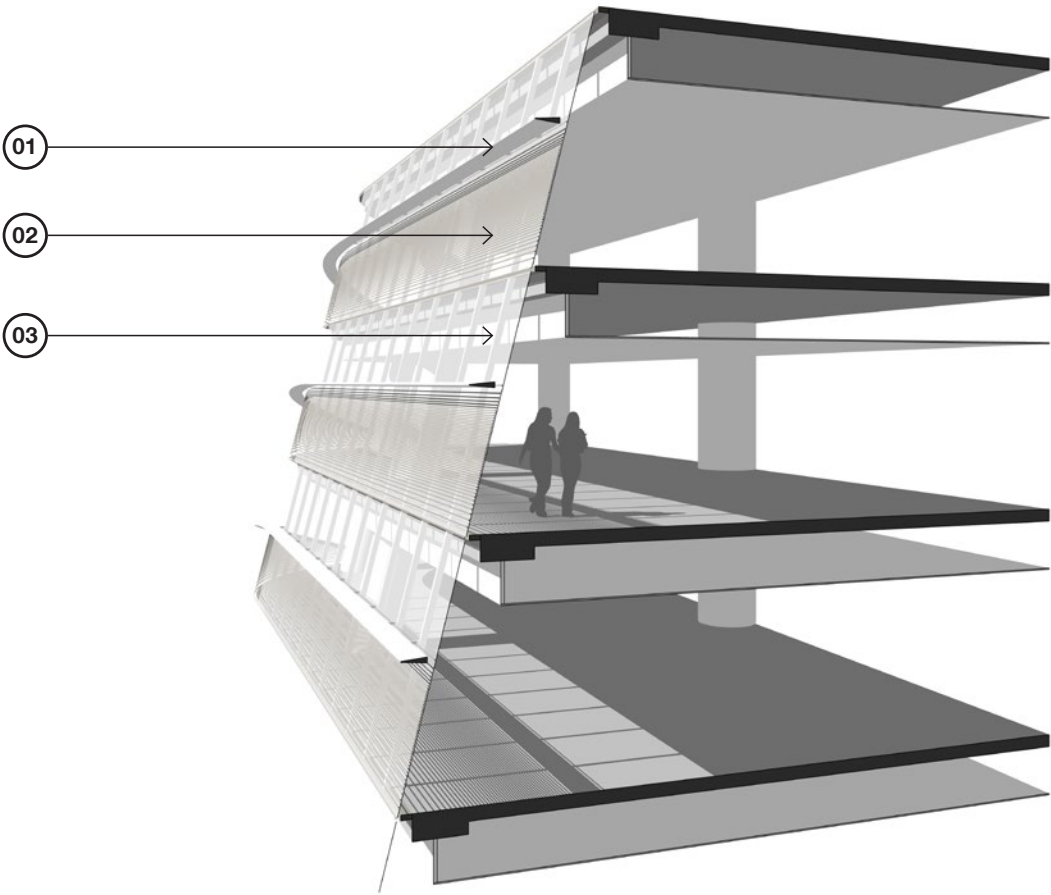
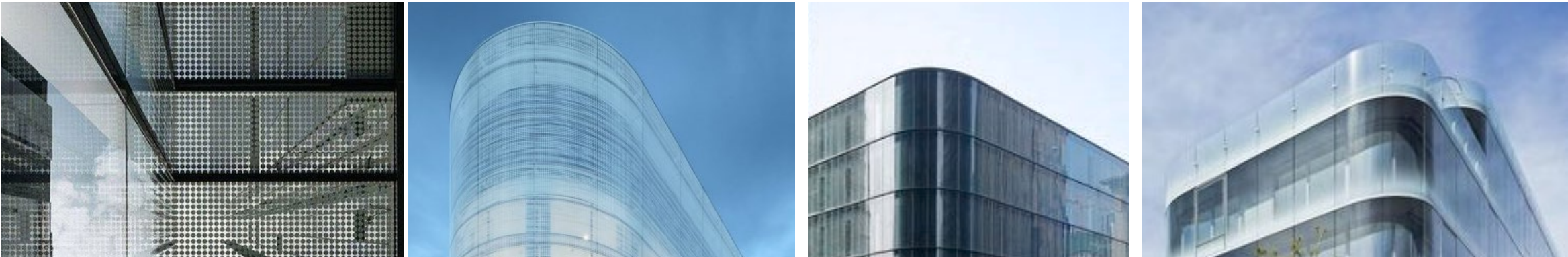


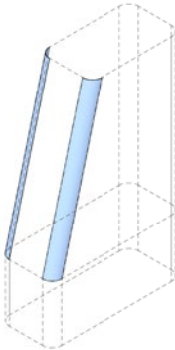
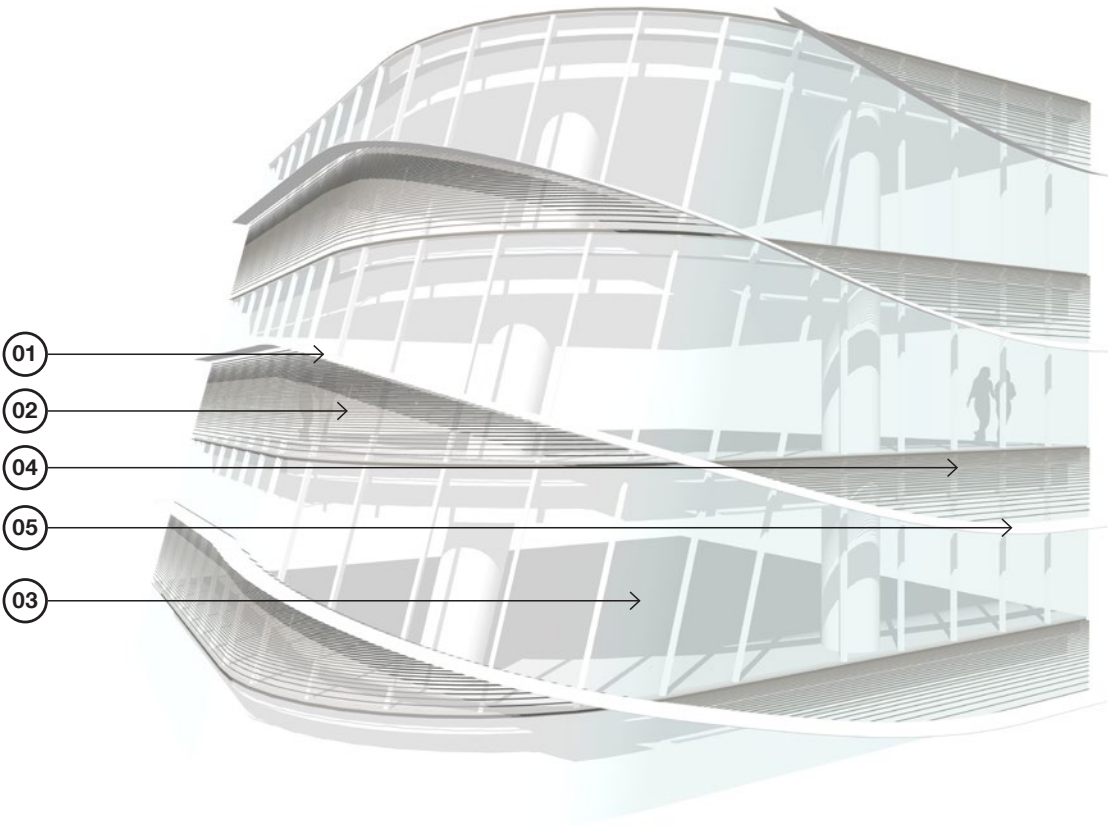
7.4 TOWER PRECEDENTS



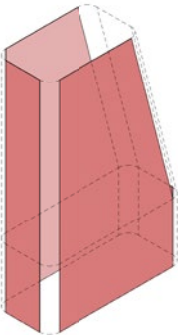
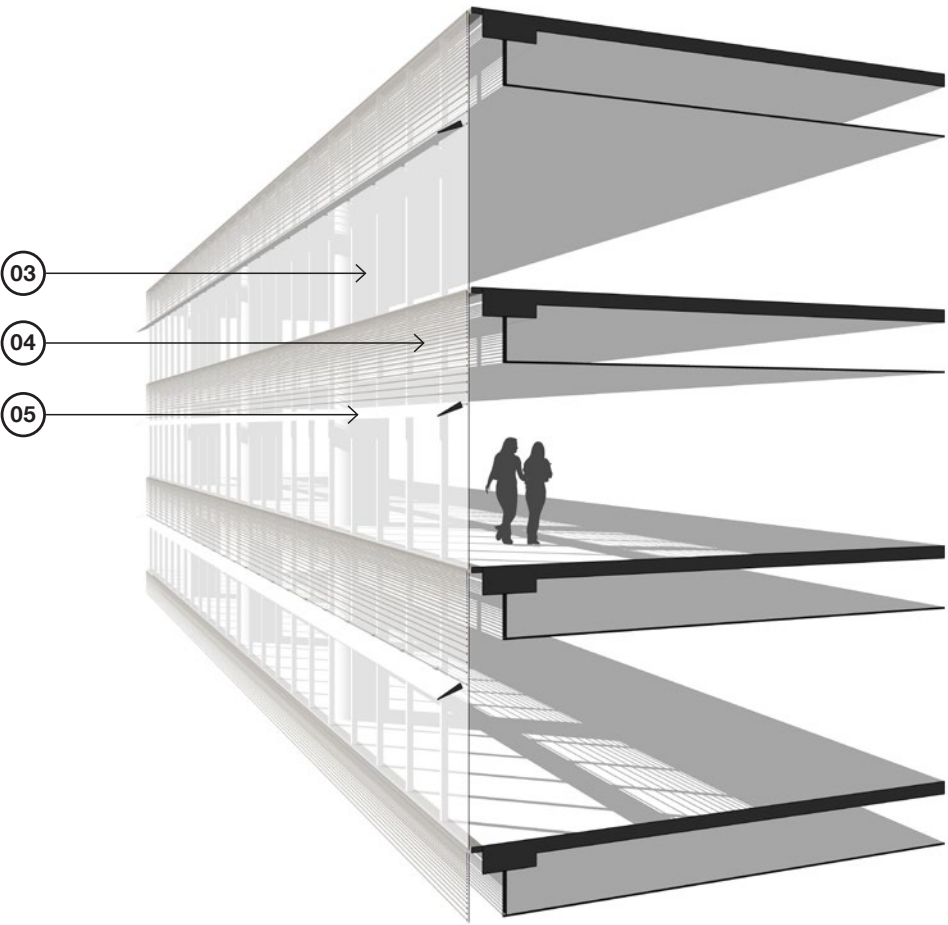
7.5 TOWER FACADE TYPES



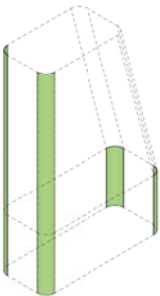
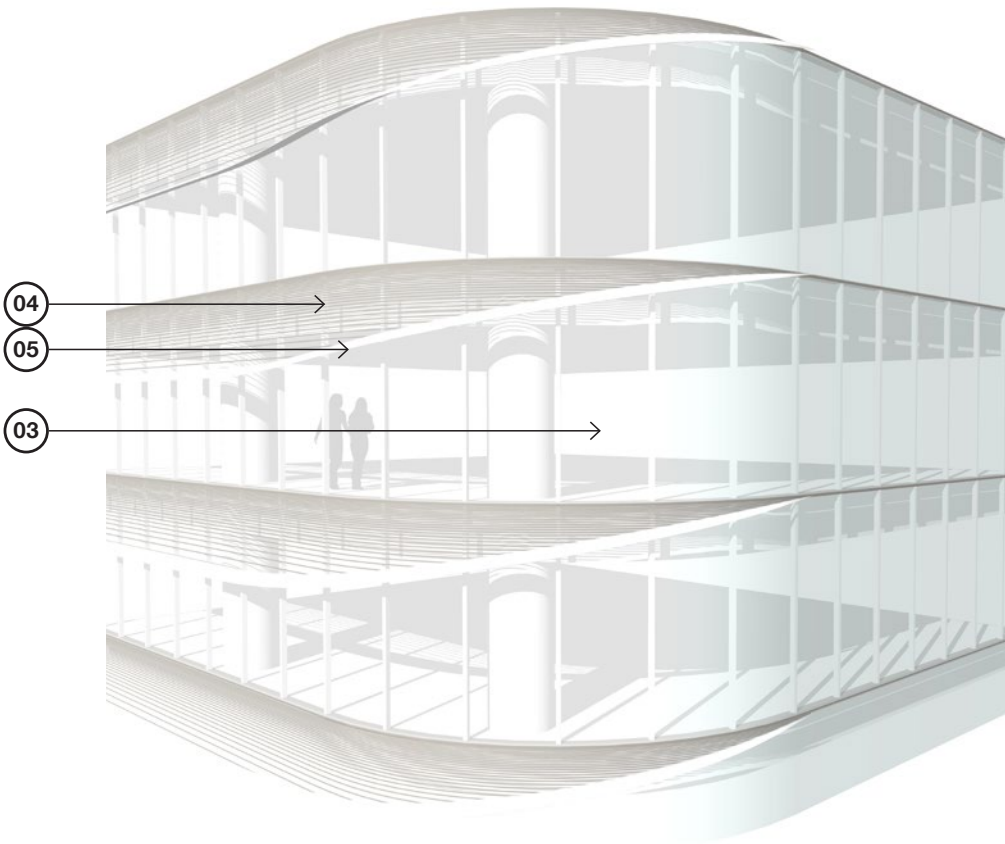
- 1. Anodised aluminium horizontal louvre parallel to floor at approx. 2200mm AFFL - Warm metallic grey
- 2. Linear frit to glazing increasing in density at sitting to standing eye level - Warm metallic grey
- 3. Performance glazing



- 1. Anodised aluminium horizontal louvre tilting towards 30 downward tilt at east and west - Warm metallic grey
- 2. Linear frit to glazing increasing in density at sitting to standing eye level - Warm metallic grey
- 3. Performance glazing
- 4. Linear frit to glazing increasing in density from 2200mm AFFL up to FFL above
- 5. Anodised aluminium louvre tilting down 30 degrees - Warm metallic grey



- 3. Performance glazing
- 4. Linear frit to glazing increasing in density from 2200mm AFFL up to FFL above
- 5. Anodised aluminium louvre tilting down 30 degrees - Warm metallic grey



- 3. Performance glazing
- 4. Linear frit to glazing increasing in density from 2200mm AFFL up to FFL above. Reducing depth as transitions onto southern facade
- 5. Anodised aluminium louvre tilting down 30 degrees reducing depth onto southern facade - Warm metallic grey

8.0 ENVIRONMENTAL

TOWER

One of our key challenges was to achieve an integrated environmental approach to achieving environmental efficiency, rather than simply adding expensive plant and equipment. This approach will ensure that a 5 Green Star Rating can be achieved in a cost effective manner. Key initiatives proposed for the design are:

- / A high performance façade with integral sunshading
- / A low energy air conditioning system with healthy indoor air quality
- / High levels of day lighting without glare
- / Water efficient fixtures
- / Rain Water storage.

FAÇADE

The façade incorporates a ceramic frit and aluminium sunshade to reduce heat gain and minimise glare. East and west facades have the sunshade at 2.2m above floor level, and frit above, reducing glare. The north façade has the sunshade at 2.4m above floor level, and the frit below for privacy control. The façade minimises energy use through reducing heat gain, while improving user comfort through glare control.

DAY LIGHTING

The extensive use of floor to ceiling glass maximises daylight on the floorplate. The sunshades below ceiling level also cat as light shelves reflecting daylight deep into the floorplate. Linear frit controls glare on east and west orientations, minimising reliance on roller blinds.

ARTIFICIAL LIGHTING

Low energy T5 fixtures are proposed in a single batten light fitting to provide the most energy efficient artificial lighting on the floorplate.

Mechanical Ventilation

A low temperature variable air volume (VAV) mechanical system is proposed, with high efficiency ‘swirl’ diffusers in the ceiling. This system is the lowest energy systems available as a ‘conventional’ VAV system.

NATURAL VENTILATION

We are investigating the incorporation of natural ventilation to the podium office space. This area has is protected from wind and thus more suitable to natural ventilation.

WATER

Water efficient fixtures will be used throughout the building, including waterless urinals to minimize water useage. In addition rain water will be stored on site and used to irrigate the landscaped terrace.



Design considers physical and psychological comfort as well as spatial organisation and planning



The site is located within close proximity to heavy transport infrastructure reducing dependance on vehicle usage.



Potential for natural ventilation



Building facade systems respond to solar orientation



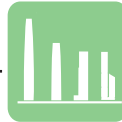
Facade design optimises natural lighting / energy efficiency



The curved tower form reduces wind shear enabling efficient structural use of materials



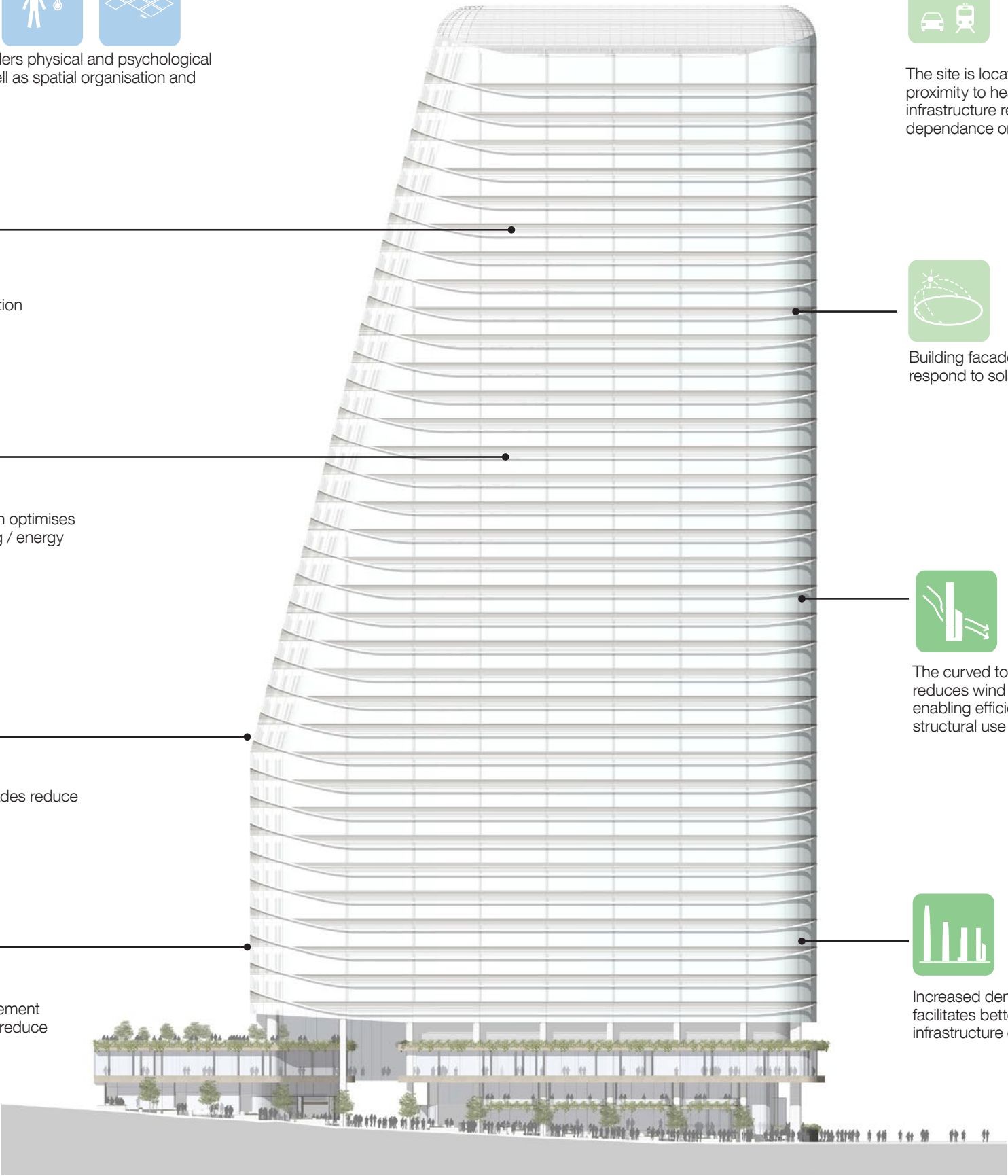
Frits + sunshades reduce heat gain



Increased density facilitates better urban and infrastructure outcomes



Water management strategies will reduce H2O impact



9.0 LANDSCAPE / PUBLIC DOMAIN

North Sydney’s Central Laneways Precinct provides much needed social heart. Pedestrians are prioritised and new active ground plane is created.

9.1 PUBLIC DOMAIN - A BUZZING DESTINATION

The public domain responds to aspirations set out in North Sydney Councils Central Laneways Masterplan (July 2016) creating a new pedestrian priority laneway network in the heart of the CBD. Changes to vehicular movement (see traffic report), a new metro entry and a mid-bloc pedestrian crossing allows significant areas to be reclaimed for pedestrians with generous paths stretching from Square to Square, metro to CBD.

Transitioning from Brett Whitely Square (currently being upgraded by Council), Denison Street includes a feature paving strip flanked by new street trees and outdoor dining. Identifying the major paths the feature paving continues past the proposed entry to the forthcoming Metro and continues up a widened pedestrian path (Upper Denison Street) towards Berry Square. East West movements are also accented with a new mid bloc pedestrian link.

Spring Street retains its voluminous canopies and existing trees with planter boxes reworked in a more contemporary fashion. The new entry and foyer invite people into the space.

Little Spring Streets western footpath is extended and enhanced with new street trees and paving. The road retains its loading function and opportunities to add a playful painted treatment to the road surface will be explored.

Berry Square is upgraded with new paving, planter boxes and planting. A water feature/natural pond to the north provides babbling sounds of water to counter the traffic noise of Berry Street and a feature tree is surrounded by public seating is a focal point for this green space.



ILLUSTRATIVE PLAN - PUBLIC DOMAIN not to scale

DENISON STREET

a bustling eat street great for people watching



ILLUSTRATIVE PLAN - DENISON STREET not to scale



Brett Whiteley Square



feature paving



al fresco dining



slow speed shared way



potential artwork /catenary lighting



potential artwork

NEW LINK

a major new pedestrian link and covered way



ILLUSTRATIVE SECTION AA' - NEW LINK
not to scale



al fresco dining



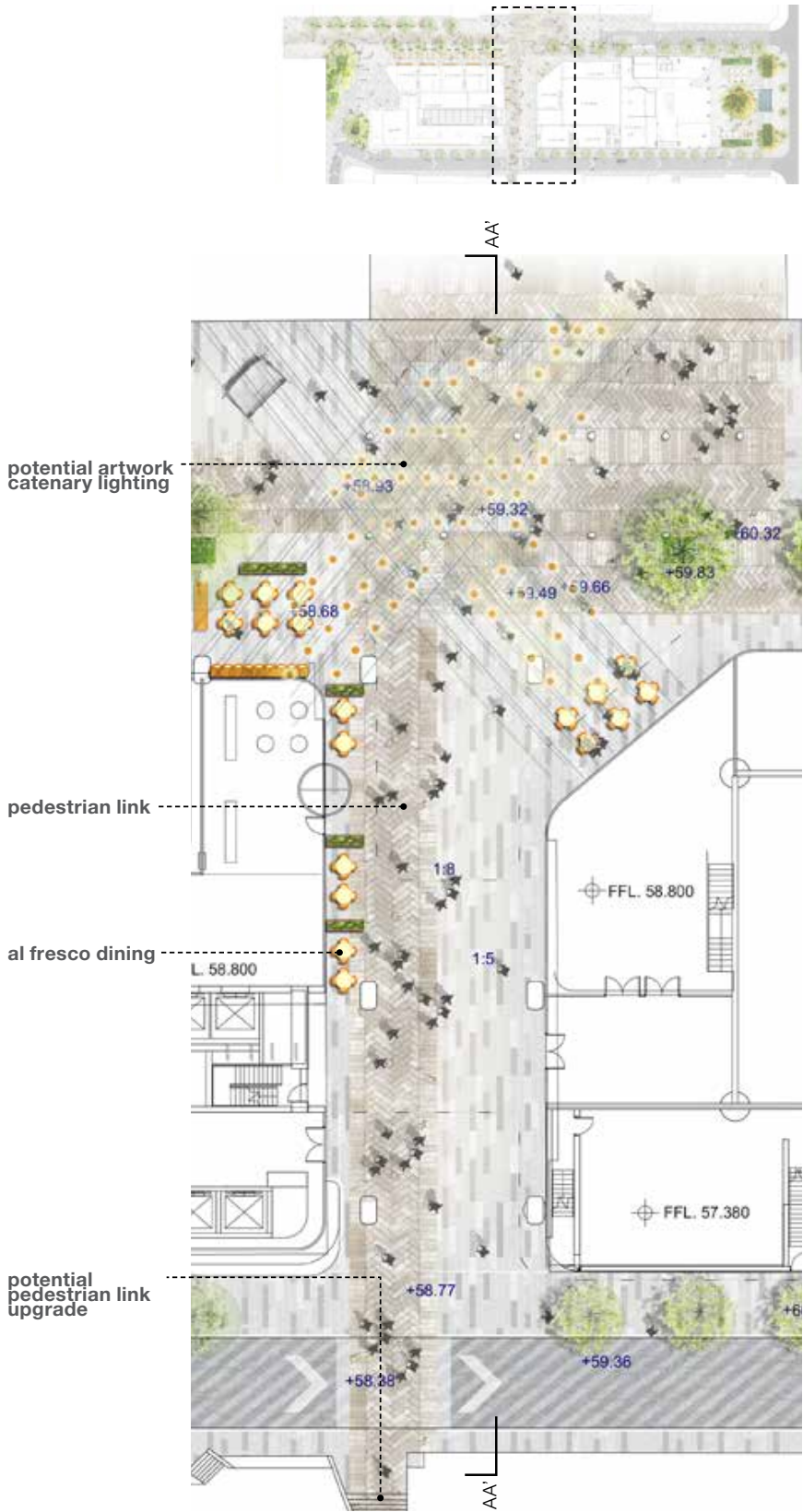
pedestrian link



pedestrian link

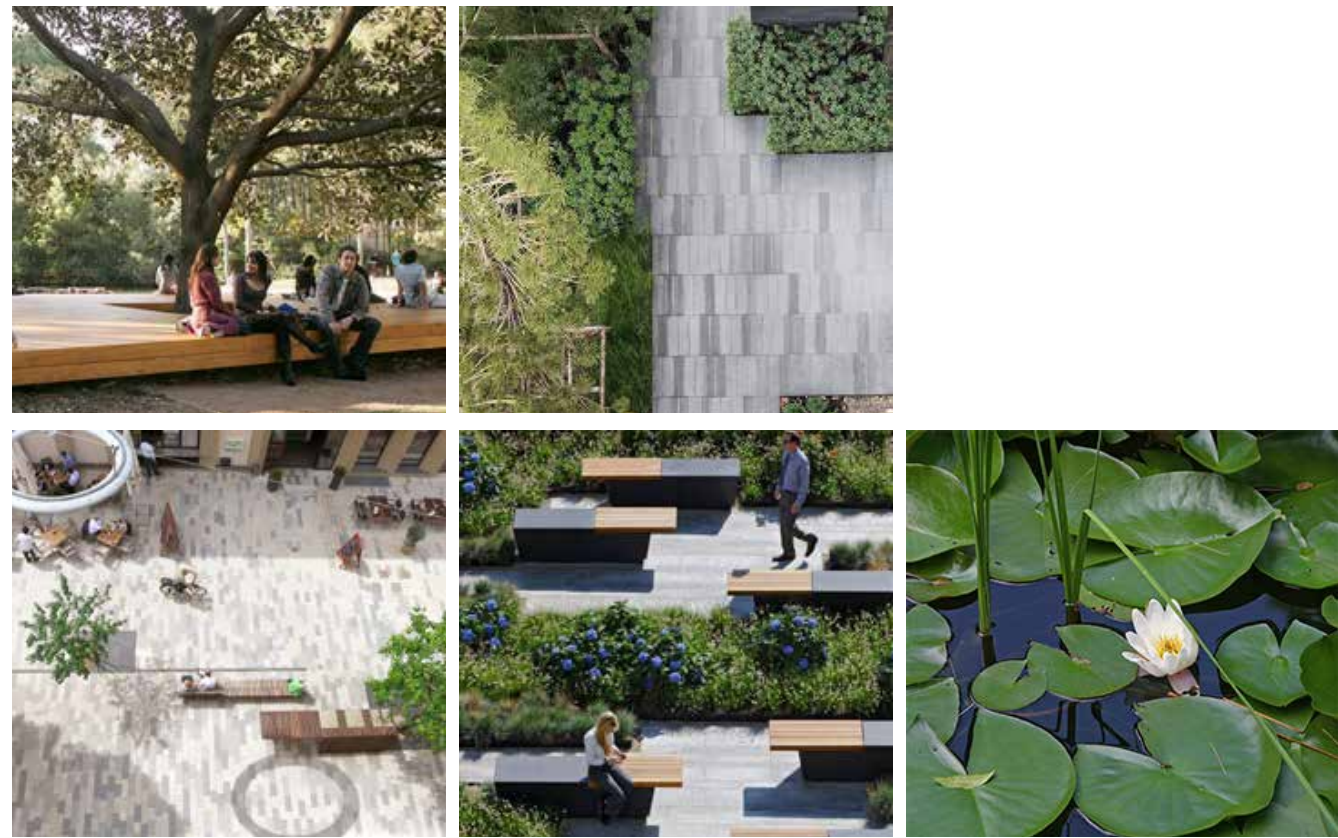


feature paving



ILLUSTRATIVE PLAN - NEW LINK
not to scale

BERRY SQUARE
a vibrant sunny square filled with delight



ILLUSTRATIVE PLAN - BERRY SQUARE



ILLUSTRATIVE SECTION BB' - BERRY SQUARE
not to scale



SPRING STREET

existing tree canopies create
a dense green ceiling



Existing Plane tree to be retained



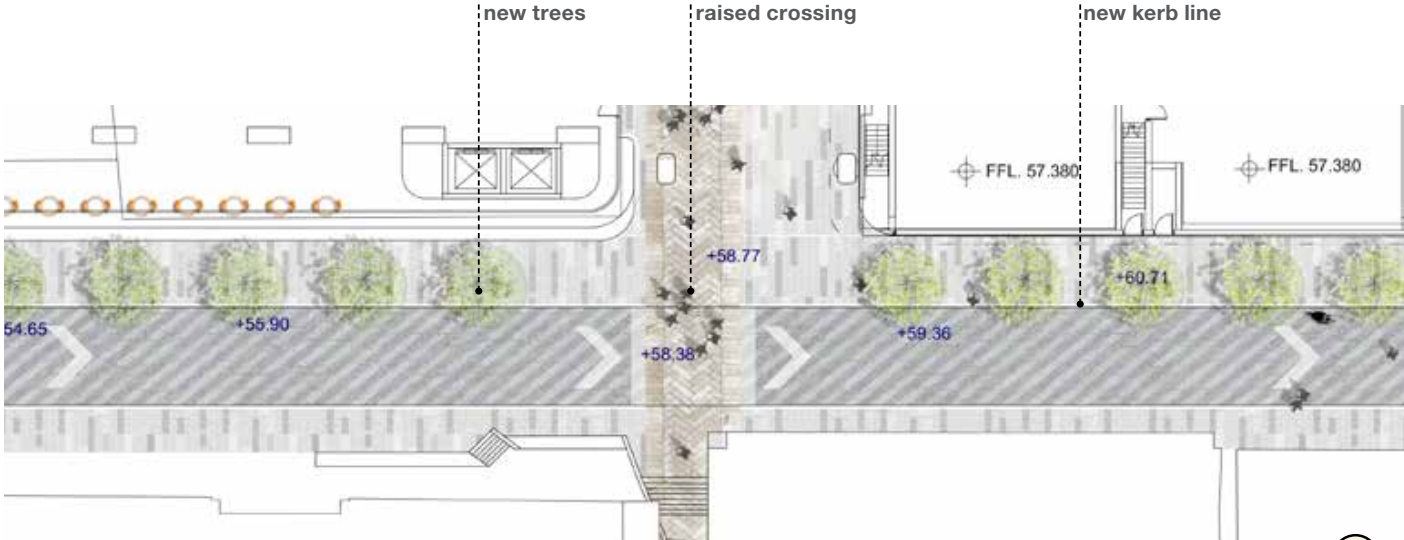
ramp blended into stairs



ILLUSTRATIVE PLAN - SPRING STREET not to scale

LITTLE SPRING STREET

an artful + playful service way



ILLUSTRATIVE PLAN - LITTLE SPRING STREET not to scale



ILLUSTRATIVE SECTION CC'
- BERRY SQUARE



combined feature patterns and colours on asphalt paving

PODIUM TERRACE
a green respite



PODIUM TERRACE
- INDICATIVE PLANTING SCHEDULE



Dianella caerulea 'Little Jess'



Lomandra longifolia



Juncus kraussii



Pennisetum alopecuroides



Poa labillardieri



Dietes robinsoniana



Euphorbia characias wulfenii



Hymenocallis speciosa



Dichondra repens

| Botanic Name | Common Name | Estimated Pot Size | Native/ Exotic |
|--|------------------------|--------------------|----------------|
| Grass and ground covers | | | |
| <i>Dianella caerulea 'Little Jess'</i> | Blue Flax Lily | 200mm | native |
| <i>Dicondra repens</i> | Kidney Weed | 200mm | native |
| <i>Dietes robinsoniana</i> | Lord Howe Wedding Lily | 200mm | native |
| <i>Euphorbia characias wulfenii</i> | Mediterranean Spurge | 200mm | exotic |
| <i>Hymenocallis speciosa</i> | Spider Lily | 200mm | exotic |
| <i>Juncus kraussii</i> | Salt Marsh Rush | 200mm | exotic |
| <i>Lomandra longifolia</i> | Spiny Headed Mat Rush | 200mm | native |
| <i>Poa labillardieri</i> | Tussock-gras | 200mm | native |
| <i>Pennisetum alopecuroides</i> | Fountain Grass | 200mm | native |
| <i>Philodendron 'Xanadu'</i> | Philodendron | 200mm | exotic |
| <i>Westringia fruticosa 'Zena'</i> | Coast Rosemary | 300mm | native |

INDICATIVE PLANTING SCHEDULE

DENISON STREET



Ulmus parvifolia



Sapium sebiferum



Pyrus ussuriensis



Philodendron 'Xanadu'



Lomandra hystrix



Neomarica gracilis



Raphiolepis indica

UPPER DENISON STREET



Flindersia australis



Elaeocarpus eumundii



Waterhousea floribunda



Thymus serpyllum



Pyrostegia venusta



Origanum vulgare



Pandorea pandorana

BERRY SQUARE



Ficus rubiginosa



Ulmus parvifolia



raphiolepis indica 'Snow White'



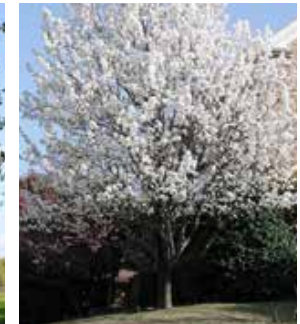
Alcantarea imperialis



Lomandra hystrix 'Tropicbelle'



Populus simonii



Pyrus calleryana 'Bradford'

LITTLE SPRING STREET/
SPRING STREET

| Botanic Name | Common Name | Pot Size | Native/ Exotic |
|---------------------------------|---------------------|----------|----------------|
| Trees | | | |
| Elaeocarpus eumundii | Eumundi Quan- | 400L | native |
| Eleaocarpus reticulatus | Blueberry Ash | 400L | native |
| Ficus rubiginosa | Port Jackson Fig | 400L | native |
| Populus simonii | Chinese Poplar | 400L | exotic |
| Pyrus calleryana 'Bradford' | Bradford Pear | 400L | exotic |
| Pyrus ussuriensis | Manchurian Pear | 400L | exotic |
| Sapium sebiferum | Chinese tallow tree | 200L | exotic |
| Ulmus parvifolia | Chinese elm | 400L | exotic |
| Waterhousea floribunda | Weeping Lilly Pilly | 400L | native |
| Shrubs + Ground cover | | | |
| Alcantarea imperialis | Imperial Bromeliad | 45L | exotic |
| Lomandra hystrix 'Tropic belle' | Lomandra hystrix | 200mm | native |
| Pyrostegia venusta | Flame vine | 200mm | exotic |
| Origanum vulgare | Oregano | 150mm | exotic |
| Philodendron 'Xanadu' | Xanadu | 200mm | native |
| Pandorea pandorana | Wonga Wonga Vine | 25L | exotic |
| Raphiolepis indica 'Snow | India hawthorn | 25L | exotic |
| Thymus serpyllum | Breckland Thymier | 150mm | exotic |
| Neomarica gracilis | Walking Iris | 200mm | exotic |