One Central Park
Sydney

# PLANTING REPORT

Revision 0

This Planting Report builds upon the AJN & JPW Landscape Concept Report March 2010.

Further to their work it considers the findings from the Arup Lighting Analysis and Heggies Wind Report as well as the proposed AJN/PTW work and Patrick Blanc Green Walls.

Our team has compiled an indicative plant palette and a suitable soil medium to support plant growth.

Prepared by Turf Design Studio
For Frasers Property

November 2010

Source: AJN, June 2010

# Contents

# AJN Design Statement

Certain urban sites are almost abstracted, because they are detached from their context. Where there is a slab, patio, or facade, the search for a territorial anchore is sometimes vain and absurd. The introduction of a medium that is “alive”, rich, coherent, spectacular, is able to give sense to such isolation.

Here, the form of the urban landscape becomes blurred entirely with the project due to the richness of its matter and texture. The use of plants as a medium addresses the introverted site by extending its visual limits.

By miming what can exist in **Australian nature**, by organizing the stratums, the densities, the textures, we transpose certain volumes, and certain spaces allowing the possibility to blur the limits between the components.

# AJN Concepts

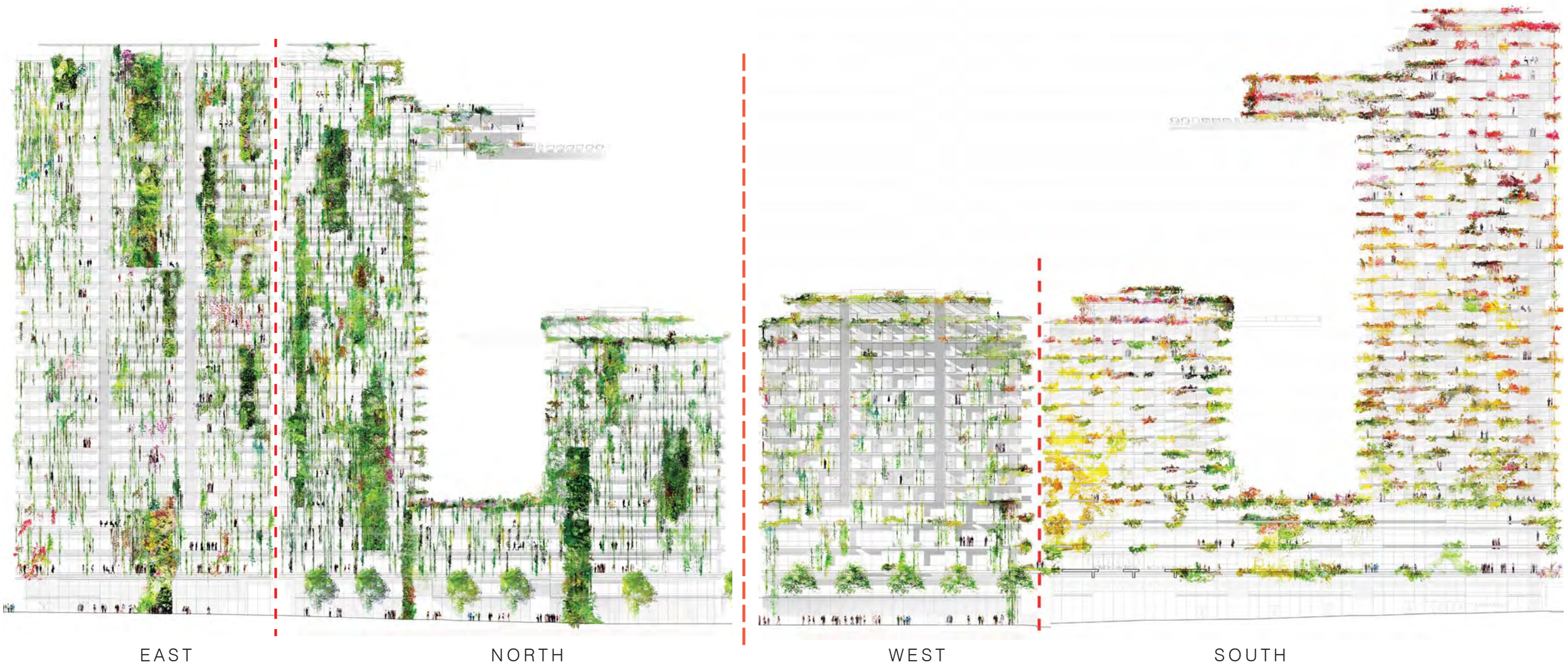
## East and North facades

A strong drapery of vines and vertical green walls wrap an urban skin around One Central Park.

*Green Walls (By Patrick Blanc)*
There are 25 green walls in varying dimensions from the smallest 2.25m wide x 3.01m high to the largest 3.95m wide x 27.1m high.

## West and South facades

Brightly coloured horizontal gardens dominate the southern skin of One Central Park; slim horizontal planters and vines drape over the Western facade

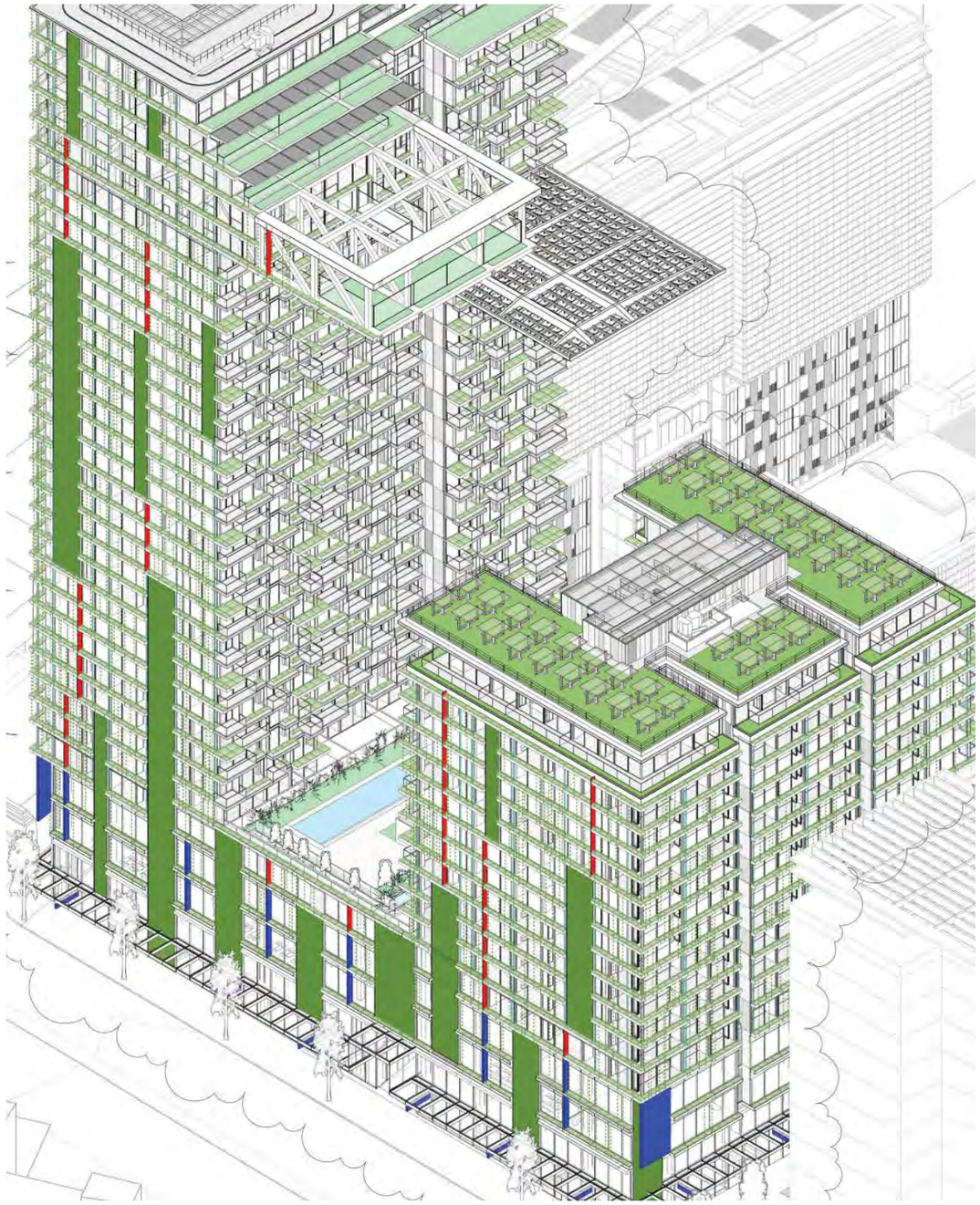



Source: AJN, March 2010

# AJN Design Evolution

On the North, horizontal slithers of planting dominate over the vines however;
The Patrick Blanc green walls emphasise the strong vertical urban skin.
Slim horizontal planters also dominate the Western facade with a curtain of vines draped over the outer edge.

Source: Image of model by ModelCraft, September 2010



Source: PTW+AJN, September 2010

# AJN Indicative Plant Palette

Vines for North, East and West facades - selected by Patrick Blanc


1


2


3

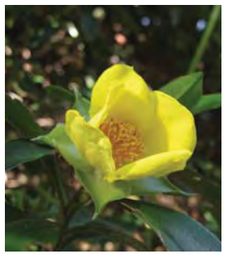

4


5


6


7


8

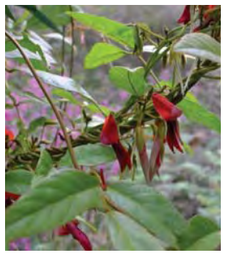

9


10


11


12


13


14


15


16


17


18


19


20


21

1 Cissus antarctica
2 Cissus hypoglauca
3 Clematis aristata
4 Clematis microphylla
5 Clematis pubescens
6 Hardenbergia comptoniana
7 Hardenbergia violacea
8 Hibbertia dentata
9 Hibbertia scandens
10 Jasminum suavissimum
11 Kennedia coccinea
12 Kennedia macrophylla
13 Kennedia nigricans
14 Kennedia rubicunda
15 Milletia megasperma
16 Pandorea jasminoides
17 Pandorea pandorana
18 Passiflora cinnabarina
19 Smilax australis
20 Tecomanthe hillii
21 Tecomanthe hillii

Source: AJN, March 2010

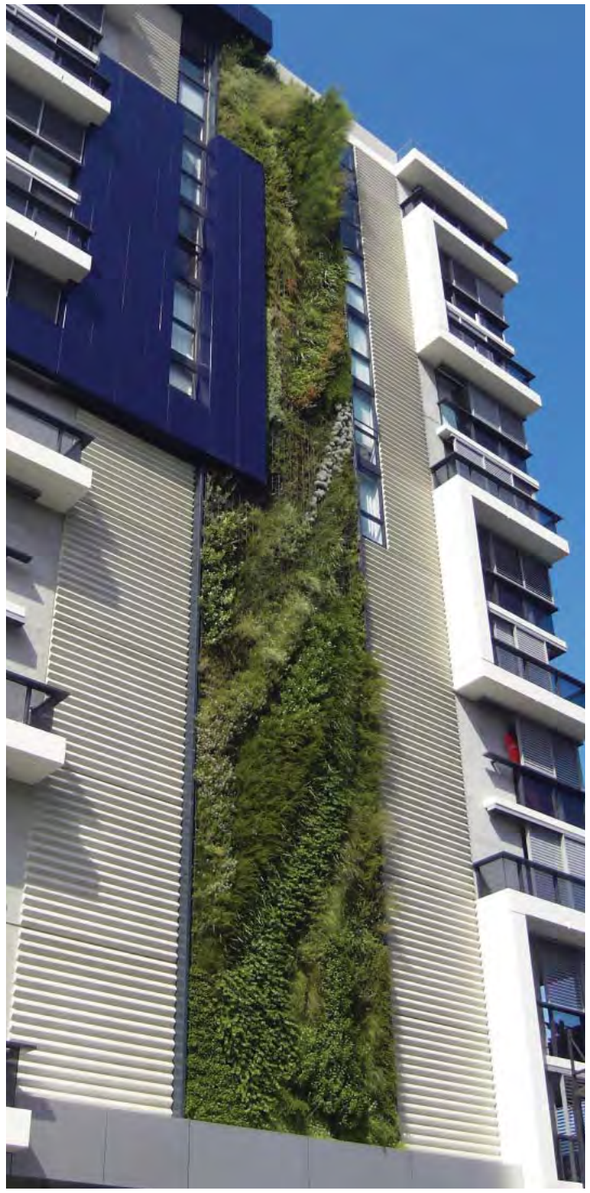
# Patrick Blanc - Trio Green Wall Plant Palette

Vertical green wall prototypes for One Central Park - our horizontal planting will compliment the green wall character on the north and east facades.

TOP HALF
Acacia acinacea
Grevillea alpina
Hibbertia truncata
Rhagodia spinescens
Carpobrotus glaucescens
Olearia glandulosa
Myoporum parvifolium
Dodonea viscosa
Indigofera australis
Poa morrissii
Olearia affinis lanuginosa
Stylidium gramnifolium
Atriplex semibaccata
Themeda triandra
Chrysocephalum apiculatum
Viminaria juncea
Hardenbergia violacea
Calytrix tetragona
Brachyscome multifida
Allocasuarina paradoxa
Enchylaena tomentosa
Lomandra 'D'Arcy'
Pultanaea scabra
Dianella tasmanica
Patersonia fragilis

BOTTOM HALF
Calocephalus lacteus
Diffysma crassifolia
Pelargonium australe
Dianella revoluta
Leucophyta brownii
Kennedia prostrata
Lomandra filliformis
Bauera rubioides
Thelionema caespitosa

Viola hederacea
Mazus pumilio
Acaena novae-zelandiae
Carex tasmanica
Goodenia ovata Prostrate
Isotoma fluviatilis
Dichondra repens
Arthropodium minus
Baloskion tetraphyllum
Poa labillardieri
Ajuga australis
Grevillea diminuta
Dianella longifolia
Dianella caerulea
Scaevola albida
Baeckea linifolia
Kunzea ericoides
Correa glabra
Lomandra 'Lime Tuff'
Selleria radicans
Brunonia australis
Epacris impressa
Dianella amoena
Patersonia occidentalis
Banksia integrifolia
Goodenia humilis
Myoporum insulare
Lomandra confertifolia
Acacia suaveolens
Grevillea juniperina 'Lutea'
Helichrysum rudolepis
Goodenia elongata
Lasiopetalum baueri
Dianella revoluta
Leucophyta brownii



Trio facade

# Prototype - Marketing Suite

Testing the parameters in relation to texture, colour
and positioning

**Design Drivers for Plant Selection**

(While these are the drivers for One Central Park they are not all as relevant at the Marketing Suite)

Environmental fit - sun, wind, water, temperature

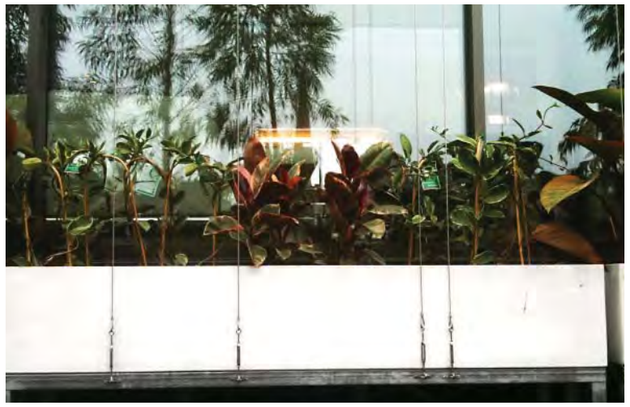
Foliage and flowers - colour, texture, form

Green walls - extend character but maintain unique identity

Visual effects - exterior and interior (Garden as part of the apartment)

Maintenance requirements - low maintenance and method by which it will be undertaken

Installation - consideration is being given as to how the planters will be installed on all the levels of the high rise



Images of onsite marketing suite, October 2010

# Building Landscape Structure

## Private Domain

### 1. Facade - external planter boxes and green walls

North
East
South
West
Internal facades

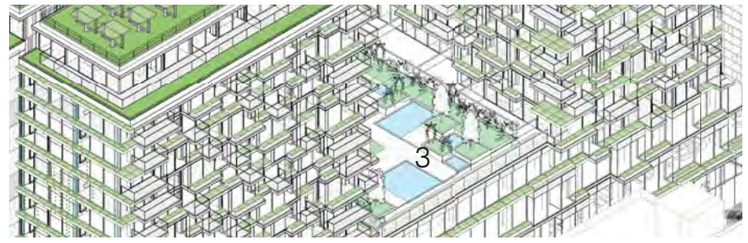
### 2. Roof tops

West Tower & East Tower

### 3. Podiums

Level 4 and 5





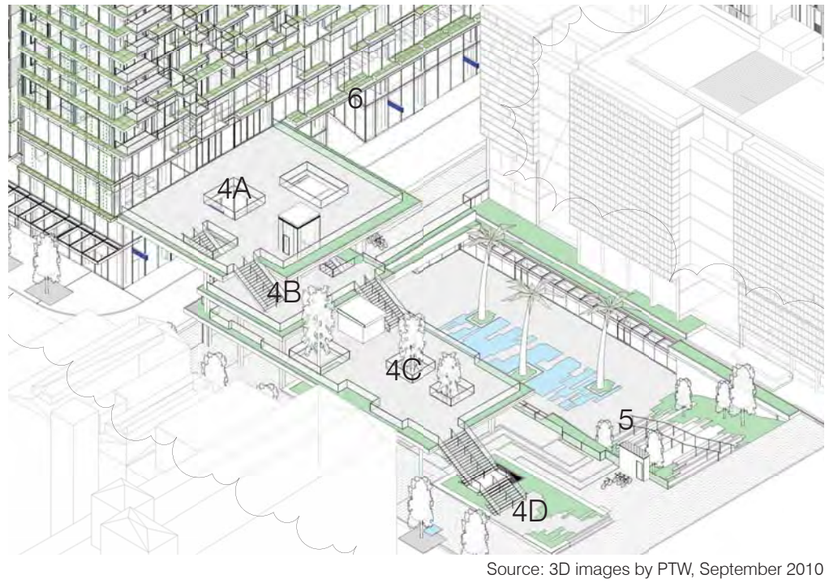

## Public Domain

### 4. Terraces

A. Level - 24.90 (Adjoins level 2 of One Central Park)
B. Level - 21.40
C. Level - 17.90
D. Level - 14.25 (Adjoins ground level adjacent the Main Park)

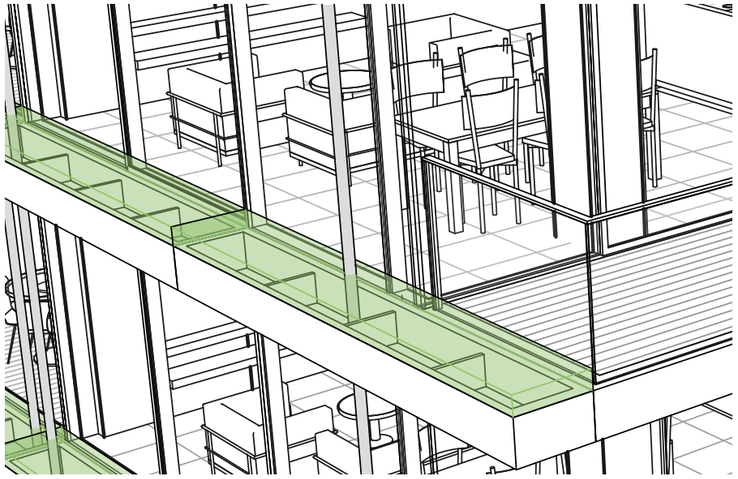
### 5. Lower Plaza and French Steps

### 6. Atrium - retail/patio

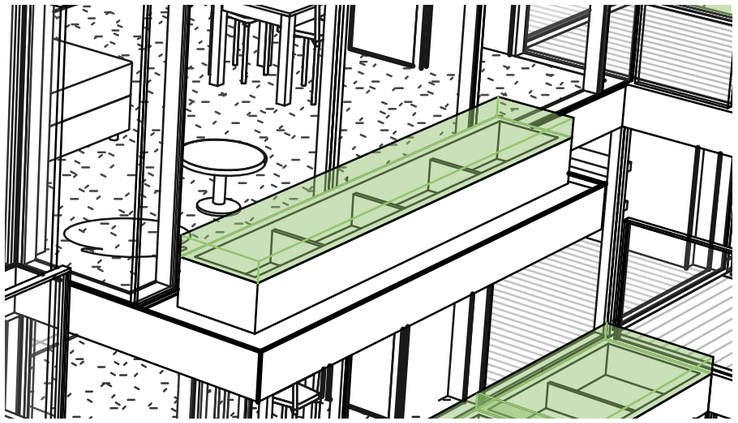



Source: 3D images by PTW, September 2010

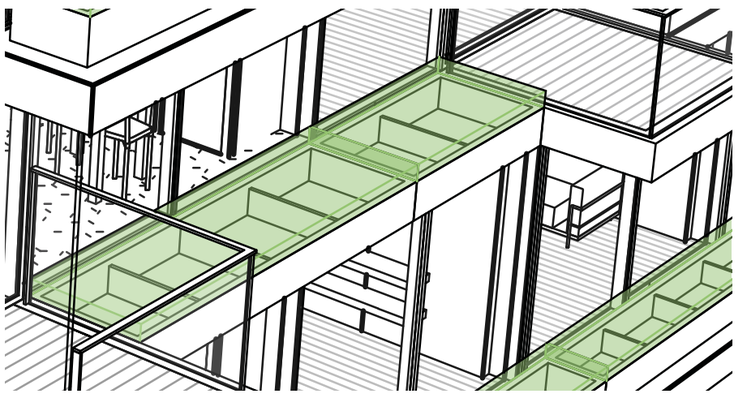
# Detailed Planter Box Structures



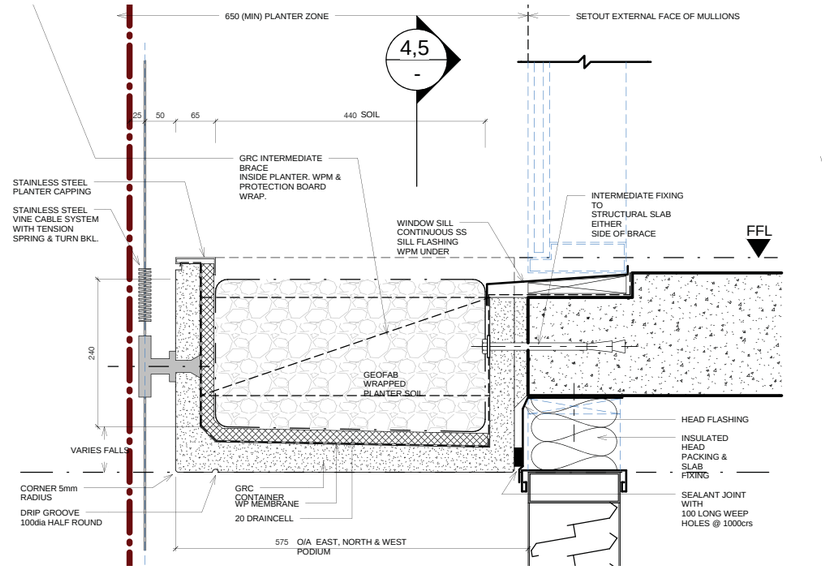
3D View - Planter Type 1



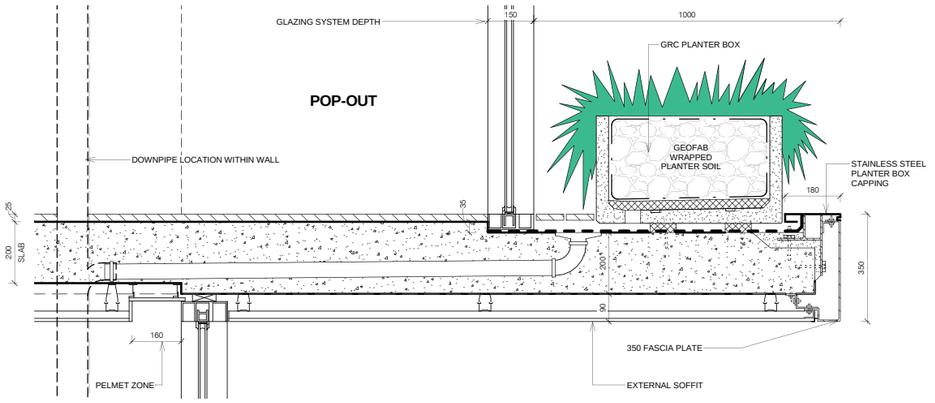
3D View - Planter Type 2



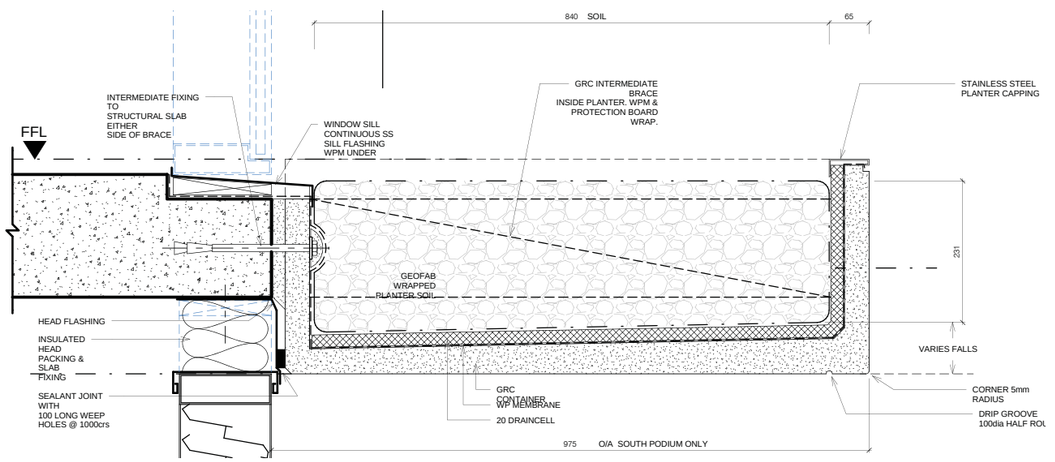
3D View - Planter Type 2




Planter Box - north, east and west facades Scale 1:20

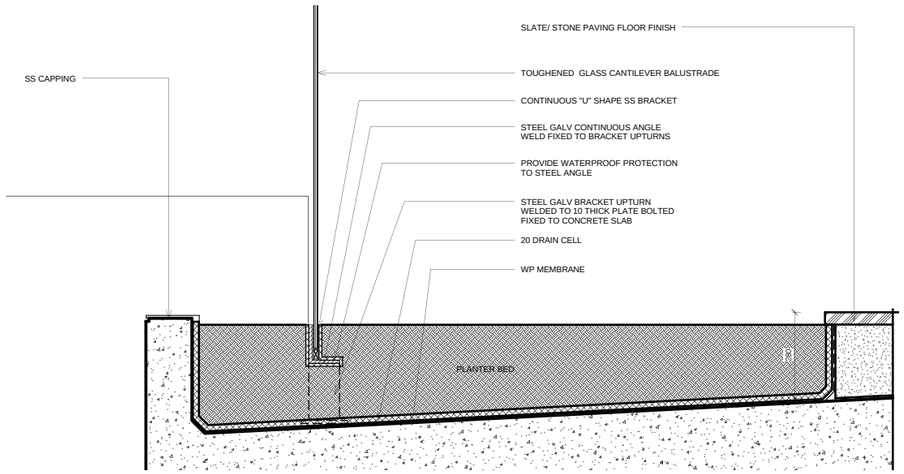



Planter Podium - inner east and west facades Scale 1:20

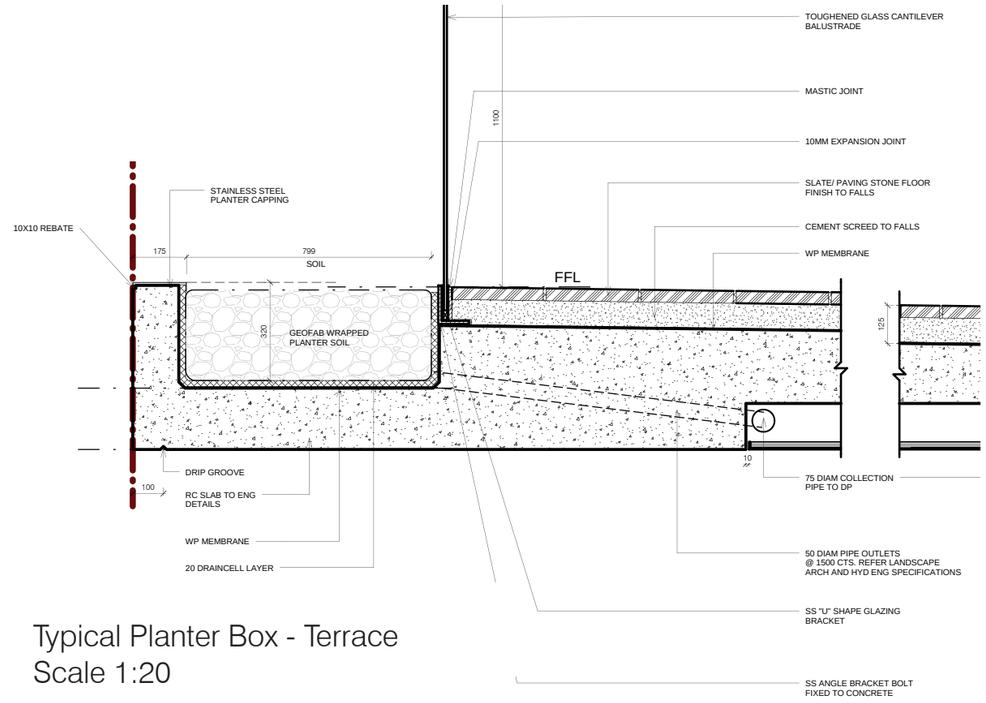



Planter box - south facades Scale 1:10

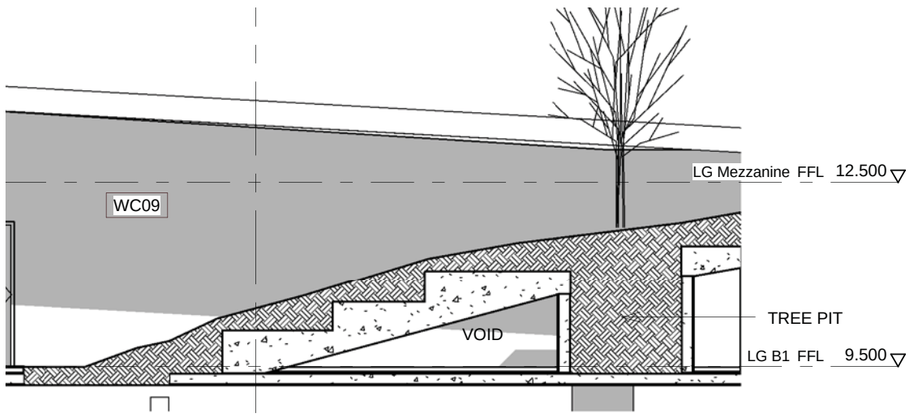
Source: PTW Drawings, October 2010



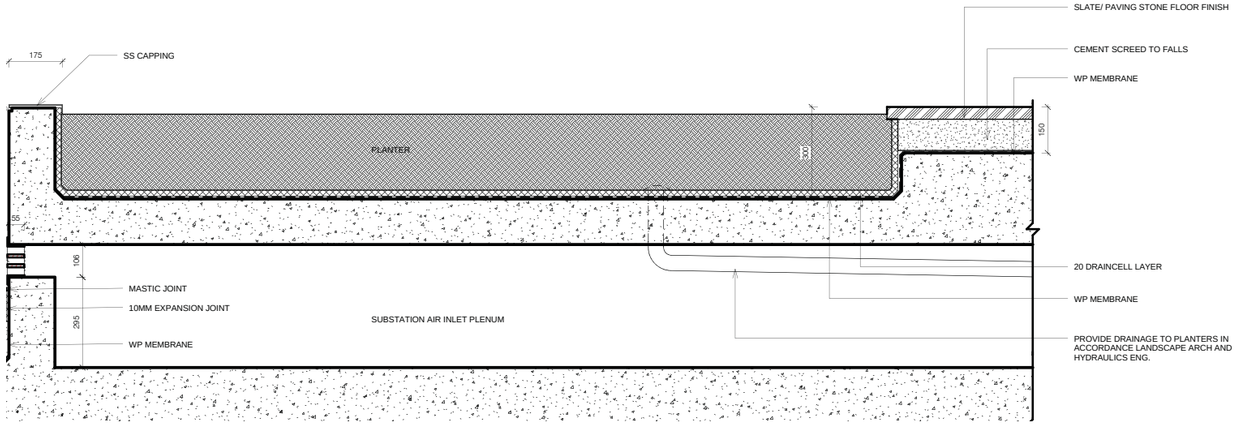

Typical Planter  Edge Detail -Terraces
Scale 1:20




Typical Planter Box - Terrace
Scale 1:20



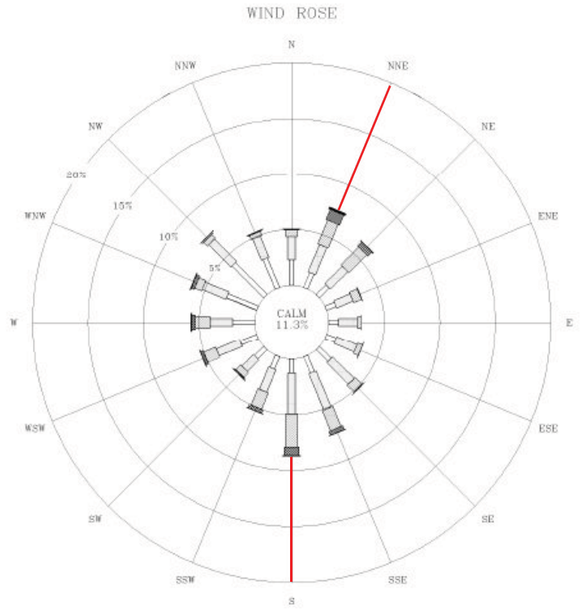

Garden bed - French steps, lead down to lower plaza
Scale 1:100




Typical Planter - Terrace
Scale 1:20

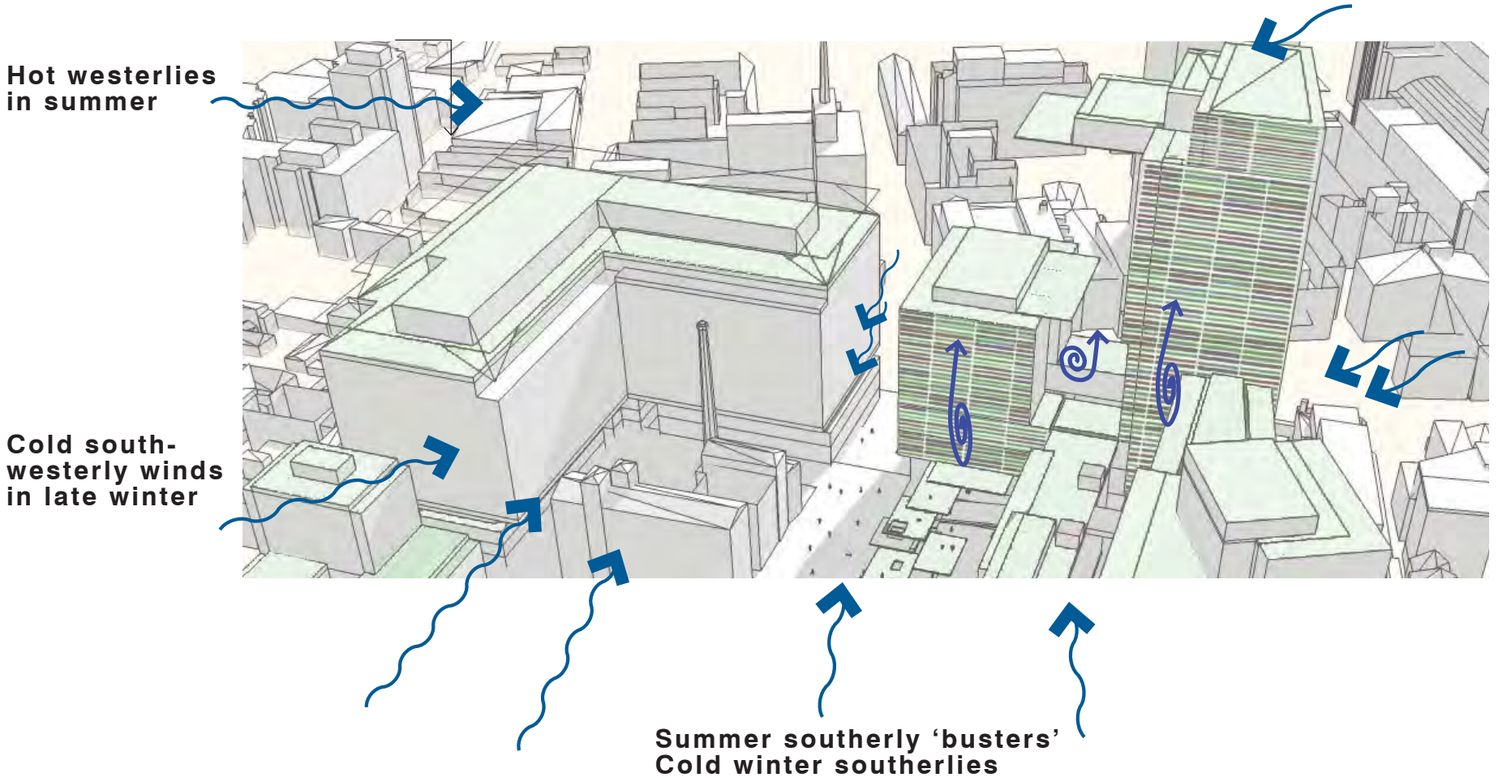
# Wind Analysis Summary

The Heggies wind analysis demonstrates the Sydney southerly and northeasterly as the stronger winds.




Source: Heggies Report, June 2010

The diagrams shows the wind effects hitting the facade and creating turbulent conditions for plants.

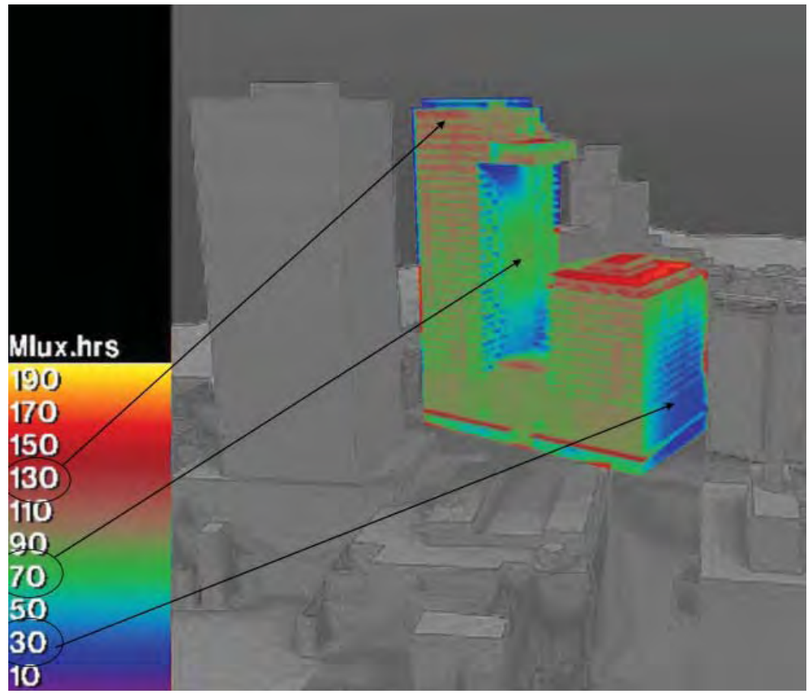


# Light Analysis Summary

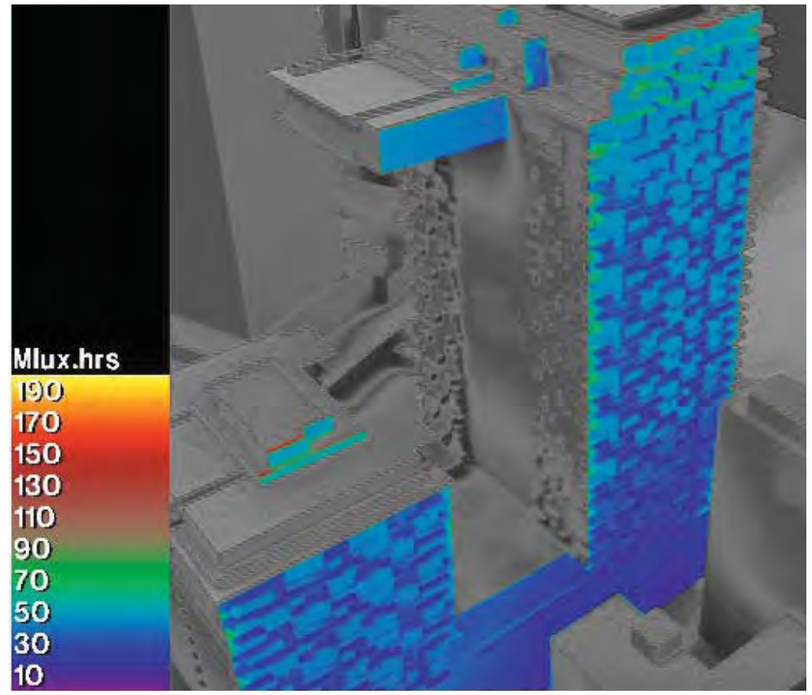
The Arup lighting analysis measures external daylight levels in Mlux hours.

The diagrams show average light levels on each elevation over one year.

NORTH




SOUTH




Source: ARUP, August 2010

# Design Analysis

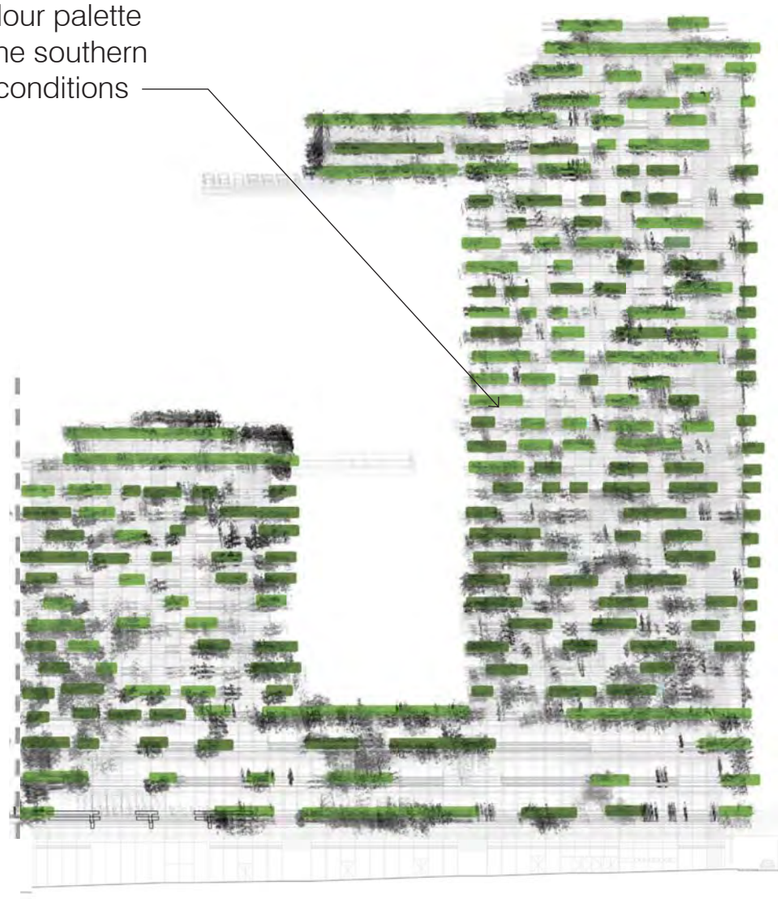
South elevation

The indicative brightly coloured plant palette will not suit the southern facade due to low light conditions

AJN Design Concept

Source: AJN, March 2010

A more appropriate  colour palette has been selected for the southern facade to suit low light conditions



TDS Design Concept

# Light and Plant Code

Light analysis translated to lighting conditions for plant selections and plant colour palettes

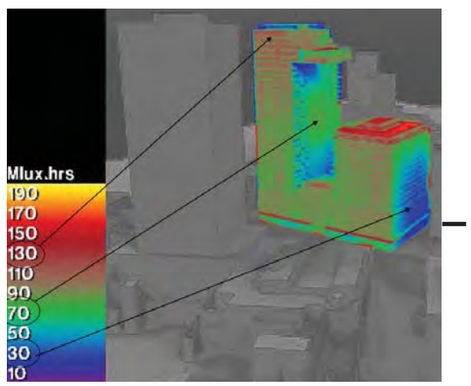
Light conditions - measures hours of light per year on each elevation

Zone - directly relates to the light tolerance and in turn the plant species selection

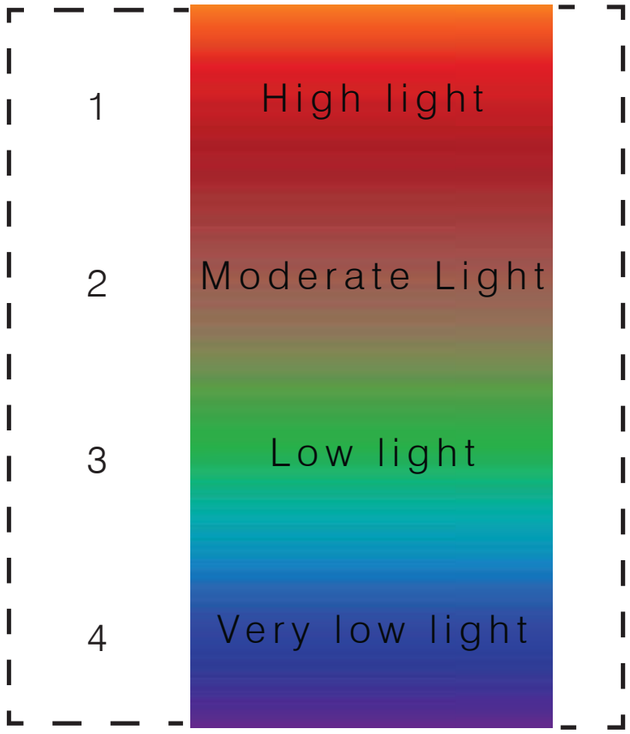
Light tolerance - light tolerance of plants

Plant colour range - colour palettes of plants, based on foliage or flowers

**Light Conditions** **Zone** **Light Tolerance** **Plant Colour Range**




Source: ARUP, August 2010




Colour Range - flower & foliage

## A. Primary Planting

1 2 3 4

*1. Anigozanthos 'Bush Fury '*
*2. Callistemon 'Great Balls of Fire'*
*3. Allocasuarina nana*
*4. Russellia equisetiformis*

1 2 3 4

*1Banksia integrifolia*
*2. Xanthostemon chrysanthus 'Expo Gold'*
*3. Carex appressa*
*4. Lomandra hystrix*

1 2 3 4 5

*1. Anigozanthos 'Bush Diamond'*
*2. Dendrobium speciosum*
*3. Coprosma x kirkii 'Variegata'*
*4. Correa alba*
*5. Ozothamnus diosmifolius 'Radiance'*

1 2 3 4 5

*1. Acmena smithii*
*2. Plectranthus parviflorus*
*3. Raphiolepis indica*
*4. Aeonium atropurpurea*
*5. Syzygium 'Tiny Trev'*

1 2 3 4

*1. Ficus coronata*
*2. Dianella 'Australiana'*
*3. Lomandra 'Tanika'*
*4. Lomandra contertifolia 'Little Con'*

## B. Groundcover

1 2 3 4 5

*1. Conostylis candicans*
*2. Stachys lanata*
*3. Ophiopogon japonicas*
*4. Vinca major 'Variegata'*
*5. Vinca minor*

## C. Cascade

1 2 3 4

*1. Pandorea jasminoides 'Southern Belle'*
*2. Scaevola 'Super Clusters'*
*3. Scaevola albida 'White Carpet'*
*4. Acacia baileyana prostrate form*

## D. Climber

1 2 3

*1. Cissus rhombifolia*
*2. Canavalia maritima*
*3. Pyrostegia venusta*

Colour Range - flower & foliage

## A. Primary Planting

1. *Callistemon 'Great Balls of Fire'*
2. *Melaleuca 'Claret Tops'*
3. *Tristaniopsis 'Winter Red'*
4. *Syzygium 'Tiny Trev'*

1. *Hymenosporum 'Gold Nugget'*
2. *Lomandra 'Tanika'*
3. *Lomandra hystrix*
4. *Xanthostemon chrysanthus 'Expo Gold'*

1. *Callistemon 'White Anzac'*
2. *Dietes iriodes / grandiflora*
3. *Helmholtzia glaberrima*
4. *Westringia 'Snow Flurry'*

1. *Acmena smithii*
2. *Leptospermum 'Mesmer Eyes'*
3. *Melaleuca 'Little Red'*

1. *Banksia integrifolia*
2. *Dianella 'Australiana'*
3. *Lomandra 'Lime Tuff'*
4. *Lomandra contertifolia 'Little Con'*
5. *Scaevola nitida 'Aussie Spirit'*

## B. Groundcover

1. *Casuarina glauca 'Cousin It'*
2. *Goodenia ovata 'Edna Walling Coverup'*
3. *Goodenia ovata 'Gold Cover'*
4. *Plectranthus verticillata*

## C. Cascade

1. *Scaevola albida 'White Carpet'*
2. *Scaevola 'Super Clusters'*
3. *Acacia baileyana prostrate form*

## D. Climber

1. *Canavalia maritima*
2. *Hibbertia scandens*
3. *Muehllenbeckia complexa*
4. *Stephania japonica*

Colour Range - flower & foliage

## A. Primary Planting

1 2 3 4

*1. Phillodendron 'Xanadu'*
*2. Lomandra 'Lime Tuff'*
*3. Hymenosporum 'Gold Nugget'*
*4. Lomandra contertifolia 'Little Con'*

1 2 3 4 5

*1. Aspidistra elatior*
*2. Asplenium nidus*
*3. Calochlaena dubia*
*4. Davallia pixidata*
*5. Nephrolepis cordifolia*

## B. Groundcover

1 2 3 4

*1. Commelina cyanea*
*2. Liriope spicata 'Lilly Turf'*
*3. Ophiopogon japonicas*
*4. Vinca major 'Variegata'*

## C. Cascade

1

*1. Pandorea jasminoides 'Southern Belle'*

## D. Climber

1 2

*1. Cissus rhombifolia*
*2. Monstera oblique 'Dwarf'*

# 4 Very low light

Colour Range - flower & foliage

## A. Primary Planting

*1. Blechnum cartilagineum*
*2. Cordyline stricta*
*3. Phillodendron 'Xanadu'*
*4. Chlorophytum comosum*

*1. Aspidistra elatior*
*2. Asplenium nidus*
*3. Calochlaena dubia*
*4. Clivia miniata*
*5. Microsorum scandens*

## B. Groundcover

*1*

*1. Commelina cyanea*
*2. Ophiopogon japonicas*
*3. Plectranthus verticillata*

*2*

*3*

## C. Cascade

*1*

*1. Commelina cyanea*

## D. Climber

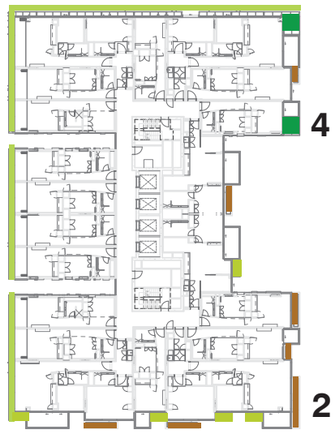
*1*

*1. Monstera oblique 'Dwarf'*

# 1. Facade Planter Box Structure

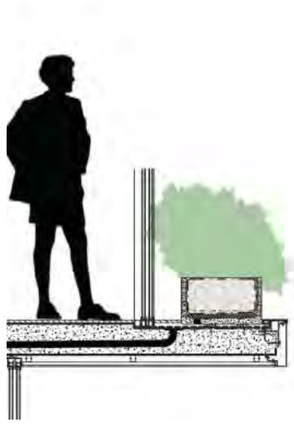
(Excluding Patrick Blanc green walls)

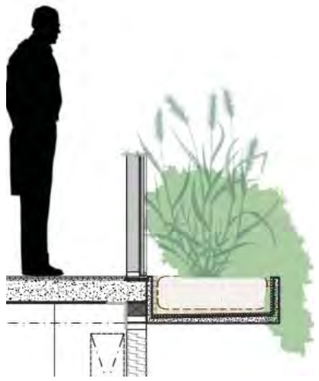
Planter Type - Plan

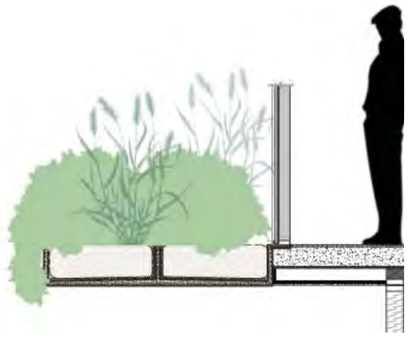




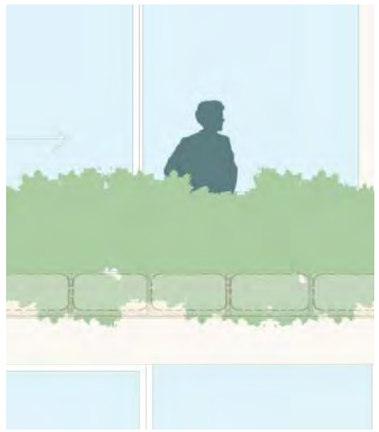
Planter Type - Section

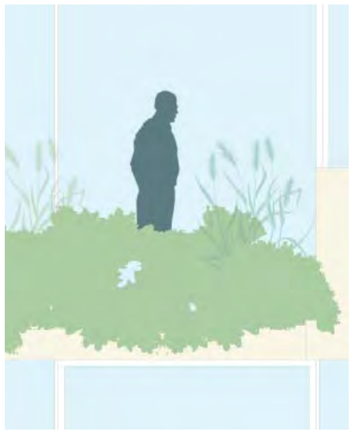






Planter Type - Elevation





**Planter Type 1**

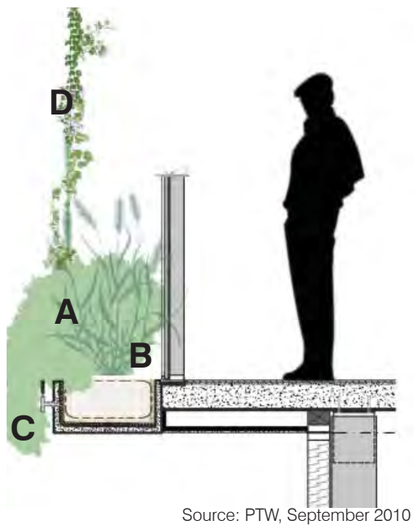
**Planter Type 2**

**Planter Type 3**

**Planter Type 4**

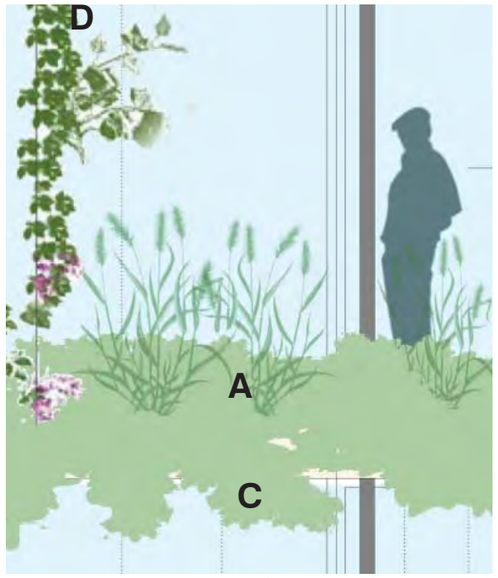
Source: Landscape overlaid on PTW drawings, September 2010

# Facade Plant Selection Category - Typical Planter




Source: PTW, September 2010

**Section**



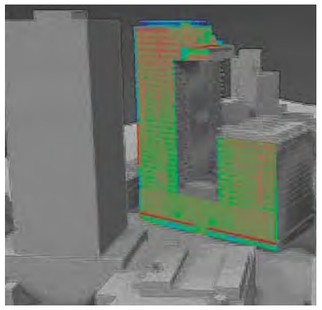

Source: PTW, September 2010

**Elevation**

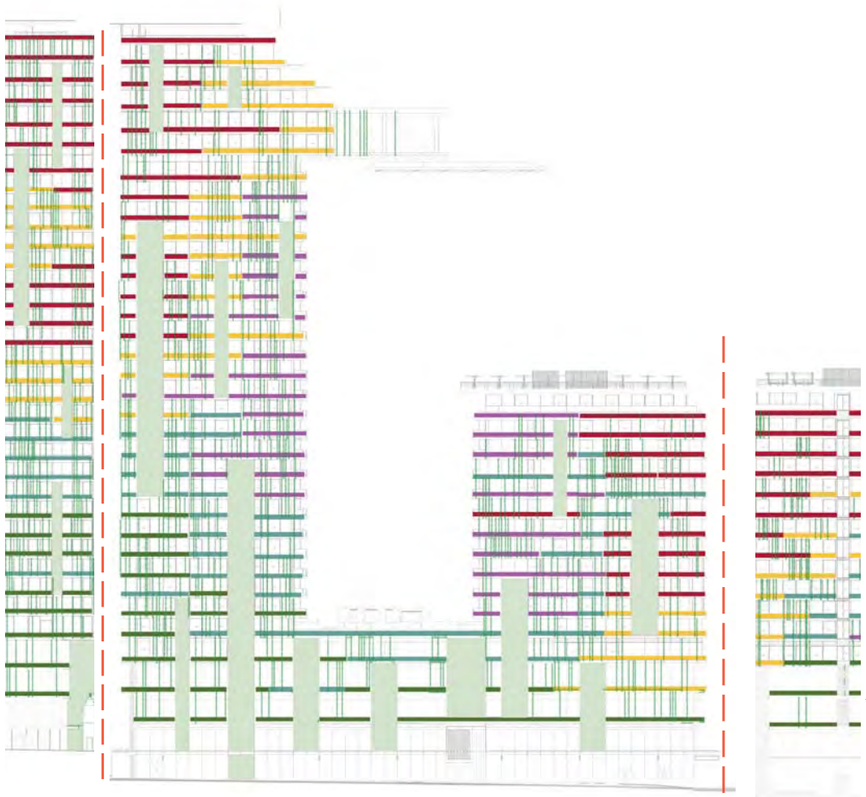
| Code | Plant Category |
|---|---|
| A | **Primary Planting**<br>The most visually dominant plant from inside the apartment and exterior views. |
| B | **Ground Cover**<br>To fill in any visual void behind the primary plating - visible from the apartment only. |
| C | **Cascade Plant**<br>Used to extend the vertical character of the north, east and west facades. |
| D | **Climber**<br>Used to create the vertical landscape and complement Patrick Blanc's green walls. |

# Plant Design Concept-North Facade

| Code | Light Tolerance |
|---|---|
| 1 | High light |
| 2 | Moderate Light |



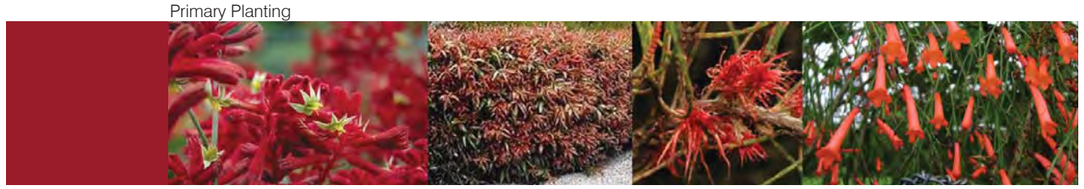
External daylight assessment source: ARUP, August 2010



EAST NORTH WEST

Colour range Adaptable species

Primary Planting



1. *Anigozanthos 'Bush Fury '*
2. *Callistemon 'Great Balls of Fire'*
3. *Allocasuarina nana*
4. *Russellia equisetiformis*

Climber

1. *Cissus rhombifolia*
2. *Canavalia maritima*
3. *Pyrostegia venusta*

1. *Anigozanthos 'Bush Diamond'*
2. *Dendrobium speciosum*
3. *Coprosma x kirkii 'Variegata'*
4. *Correa alba*
5. *Ozothamnus diosmifolius 'Radiance'*

Groundcover Cascade

1. *Vinca minor*
2. *Pandorea jasminoides 'Southern Belle'*
3. *Scaevola 'Super Clusters'*

Primary Planting

1. *Ficus coronata*
2. *Dianella 'Australiana'*
3. *Lomandra 'Tanika'*
4. *Lomandra contertifolia 'Little Con'*

Indicative plant selection

Concept design based on plant colour range

Plant colour based on foliage colour & texture & flowers

Sydney Environmental and Soil Laboratory
Specialists in Soil Chemistry, Agronomy and Contamination Assessments

# Soil Chemistry Profile

## Mehlich 3 - Multi-nutrient Extractant

**Sydney Environmental & Soil Laboratory Pty Ltd** ABN 70 106 810 708

**Sample Drop Off:**
16 Chilvers Road
Thornleigh NSW 2120
Australia

**Mailing Address:**
PO Box 357
Pennant Hills NSW 1715

**Tel:** 02 9980 6554
**Fax:** 02 9484 2427
**Em:** info@sesl.com.au
**Web:** www.sesl.com.au

Certified System Quality ISO 9001

Batch N°: 16064 Sample N°: 1 **Report Status:** ○ Draft ◉ Final

Client Name: **Frasers Broadway Pty Ltd**
Client Contact: **Michael Goldrick**
Client Job N°:
Client Order N°:
Address: **Level 11, 488 Kent St**
**Sydney NSW 2000**

Project Name: **Block 2 Mix-Grange**
Location:
SESL Quote N°: Date Received: **11/10/10**
Sample Name: **Fraser Broadway Grange Mix**
Description: **Media/Compost**
Test Type: **AFP & WHC-3743, FSC (M3), Density (by calculation- refer Simon)**

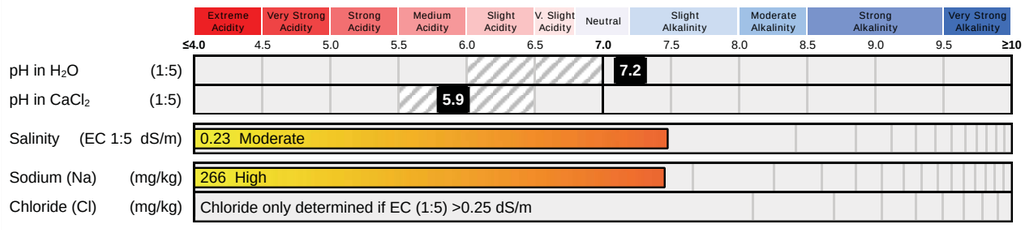
## RECOMMENDATIONS

Dry Density: 0.35 kg/l
Fully Saturated Density: 1.05 kg/l
Air filled porosity (AS 3743): 24.9%
Water Holdoing Capacity (AS 3743): 45.3%

The water holding capacity and air filled porosity are as good as any potting mix and density is even lower than potting mix but the mix is over 70% non-organic components. Chemically the mix needs a fertiliser program and the sodic nature of the diatomite needs correcting with gypsum. Trace elements levels also need correcting. The high phosphorus is potentially an issue for P sensitive plants. It is coming from the green waste compost component and is not necessarily all available. The trial should include some P sensitive plants such as Grevilleas. See Report.

SOIL SAMPLE DEPTH (mm): ○ 100 ○ 150 ◉ 200 FERTILITY RATING: ○ Low ○ Moderate ◉ High

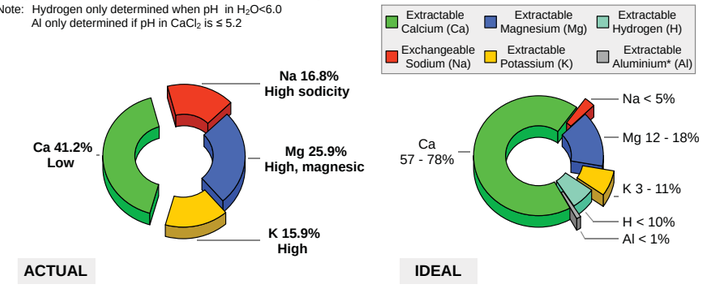
## pH and ELECTRICAL CONDUCTIVITY




## CATION BALANCE

### EXCHANGEABLE CATION PERCENTAGE

Note: Hydrogen only determined when pH in $H_2O$<6.0
Al only determined if pH in $CaCl_2$ is ≤ 5.2




### EFFECTIVE CATION EXCHANGE CAPACITY (eCEC)


### CATION RATIOS

| Ratio | Result | Target Range |
|---|---|---|
| **Ca:Mg** | **1.6** | 4.1 – 6.0 |
| Comment: Calcium low | | |
| **Mg:K** | **1.6** | 2.6 – 5.0 |
| Comment: Magnesium low | | |
| **K/(Ca+Mg)** | **0.24** | < 0.07 |
| Comment: High | | |
| **K:Na** | **0.9** | N/A |

**Sodium Absorption Ratio:** D.N.T.

**Electrochemical Stability Index (ESI):**
0.01 High potential for dispersion and soil structure collapse

### SOLUBLE CATIONS (meq/100g)

Na: K: Ca: Mg:





Sydney Environmental and Soil Laboratory
Specialists in Soil Chemistry, Agronomy and Contamination Assessments

Soil Chemistry Profile
Mehlich 3 - Multi-nutrient Extractant

**Sydney Environmental & Soil Laboratory Pty Ltd** ABN 70 106 810 708

**Sample Drop Off:**
16 Chilvers Road
Thornleigh NSW 2120
Australia

**Mailing Address:**
PO Box 357
Pennant Hills NSW 1715

**Tel:** 02 9980 6554
**Fax:** 02 9484 2427
**Em:** info@sesl.com.au
**Web:** www.sesl.com.au

Certified System Quality ISO 9001

Batch N°: 16064 Sample N°: 1 **Report Status:** ○ Draft ◉ Final

## PLANT AVAILABLE NUTRIENTS

| Major Nutrients | Result (mg/kg) | Very Low / Low / Marginal / Adequate / High | Result (g/sqm) | Desirable (g/sqm) | Adjustment (g/sqm) |
|---|---|---|---|---|---|
| Nitrate-N ($NO_3$) | <0.05 | | <0.2 | 13.3 | 13.1 |
| Phosphate-P ($PO_4$) | 104.9 | | 27.9 | 16.8 | Drawdown |
| Potassium (K) | 431 | | 114.6 | 58.5 | Drawdown |
| Sulphate-S ($SO_4$) | 33 | | 8.8 | 18.1 | 9.3 |
| Calcium (Ca) | 568 | | 151.1 | 416.6 | 265.5 |
| Magnesium (Mg) | 217 | | 57.7 | 43.4 | Drawdown |
| Iron (Fe) | 301 | | 80.1 | 146.8 | 66.7 |
| Manganese (Mn) | 10 | | 2.7 | 11.7 | 9 |
| Zinc (Zn) | 4.8 | | 1.3 | 1.3 | 0 |
| Copper (Cu) | 1.1 | | 0.3 | 1.7 | 1.4 |
| Boron (B) | 1.9 | | 0.5 | 0.7 | .2 |

**Explanation of graph ranges:**

**Very Low**
Growth is likely to be severely depressed and deficiency symptoms present. Large applications for soil building purposes are usually recommended. Potential response to nutrient addition is >90%.

**Low**
Potential "hidden hunger", or sub-clinical deficiency. Potential response to nutrient addition is 60 to 90%.

**Marginal**
Supply of this nutrient is barely adequate for the plant, and build-up is still recommended. Potential response to nutrient addition is 30 to 60%.

**Adequate**
Supply of this nutrient is adequate for the plant, and and only maintenance application rates are recommended. Potential response to nutrient addition is 5 to 30%.

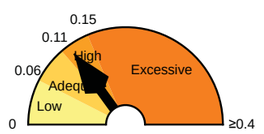
**High**
The level is excessive and may be detrimental to plant growth (i.e. phytotoxic) and may contribute to pollution of ground and surface waters. Drawdown is recommended. Potential response to nutrient addition is <2%.

**NOTES:** Adjustment recommendation calculates the elemental application to shift the soil test level to within the **Adequate** band, which maximises growth/yield, and economic efficiency, and minimises impact on the environment.

**Drawdown:** The objective nutrient management is to utilise residual soil nutrients. There is no agronomic reason to apply fertiliser when soil test levels exceed **Adequate**.

• g/sqm measurements are based on soil bulk density of 1.33 tonne/m³ and selected soil depth.

### Phosphorus Saturation Index




**High.** Soil P will not limit plant growth. No P recommended this season.

### Exchangeable Acidity

| | |
|---|---|
| Adams-Evans Buffer pH (BpH): | **-** |
| Sum of Base Cations (meq/100g$^{-1}$): | **6.9** |
| Eff. Cation Exch. Capacity (eCEC): | **6.9** |
| Base Saturation (%): | **100** |
| Exchangeable Acidity (meq/100g$^{-1}$): | **-** |
| Exchangeable Acidity (%): | **-** |

**Lime Application Rate**
– to achieve pH 6.0 (g/sqm): **0**
– to neutralise Al (g/sqm): **-**

**Gypsum Application Rate**
– to achieve 67.5% exch. Ca (g/sqm): **416**
The CGAR is corrected for a soil depth of 200mm and any Lime addition to achieve pH 6.0.

### Physical Description

| | |
|---|---|
| Texture: | **Did not test** |
| Typical clay content: | **Did not test** |
| Aggregate strength: | **Did not test** |
| Structural unit: | **Did not test** |
| Potential infiltration rate: | **Did not test** |
| Permeability (mm/hr): | **Did not test** |
| Calculated $EC_{SE}$ (dS/m): | **-** |

**Requires EC and Soil Texture result.**

| | |
|---|---|
| Organic Carbon (OC%): | **Did not test** |
| Organic Matter (OM%): | **-** |

Consultant: Simon Leake
Authorised Signatory: Simon Leake
Date of Report: 19 Oct 2010



METHOD REFERENCES:
pH (1:5 $H_2O$) - Rayment & Higginson (1992) 4A1,
pH (1:5 $CaCl_2$) - Rayment & Higginson (1992) 4B1,
EC (1:5) - Rayment & Higginson (1992) 3A1,
Chloride - Rayment & Higginson (1992) 5A2,
Nitrate - Rayment & Higginson (1992) 7B1
Aluminium - SESL in-house,
$PO_4$, K, $SO_4$, Ca, Mg, Na, Fe, Mn, Zn, Cu, B - Mehlich 3 (1984),
Buffer pH and Hydrogen - Adams-Evans (1972)

**Tests are performed under a quality system certified as complying with ISO 9001: 2000. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.**

Independent consulting, laboratory, research and training services to:
■ Agriculture ■ Environment
■ Horticulture ■ Mining
■ Sport & Leisure Turf ■ Waste Industries

Sydney Environmental and Soil Laboratory

*Our Ref:* *C6260.FrasersTrial MixFB.doc*

19 October 2010

Mr Mike Horne
Frasers Broadway
Level 11, 488 Kent St
Sydney NSW
2000

Dear Sir

The mix produced by Grange is fairly much in line with other mixes I have made using diatomaceous earth. The chemical properties show a slightly acidic pH and some calcium deficiency. This is easily corrected with lime.

The cation exchange capacity (CEC) is small but will increase somewhat with liming. It is difficult to provide for any greater CEC using mineral materials. We could add some bentonite clay to improve this but with regular monitoring of the installation we can correct drifts in pH and basic exchangeable cations that can occur with low CEC.

Nutrient levels are moderate but need to be increased using a reliable long-term slow release fertilizer. There is a specific need to adjust the low manganese and copper upward.

The suggested additions to correct the immediate nutrient deficiencies are-

| | |
|---|---|
| Magrilime | 200 g/m$^3$ |
| Gypsum | 300g/m$^3$ |
| Micromax Trace elements | 500 g/m$^3$ |
| Manganese sulphate | 50 g/m$^3$ |

The fertilizer program will have to be tailored to P sensitive and non-P sensitive plants. The *Banksia ericifolia* would be a good one to trial as it is highly P sensitive.

**Sydney Environmental & Soil Laboratory Pty Ltd** ABN 70 106 810 708
PO Box 357 Pennant Hills NSW 1715
16 Chilvers Road Thornleigh NSW 2120 Australia
T: 02 9980 6554 F: 02 9484 2427
E: info@sesl.com.au W: www.sesl.com.au
ISO 9001 Lic QEC21650 SAI Global



**Non P sensitive plantings:**

| | |
|---|---|
| Nutricote Standard Black 270 Day - 16 : 5.3 : 8.3 | 5 kg/m$^3$ |

**P sensitive plantings:**

| | |
|---|---|
| Nutricote Purple 100 Day - 19.1 : 0 : 11.9 | 5 kg/m$^3$ |
| Sulphate of iron | 250g/ m$^3$ |

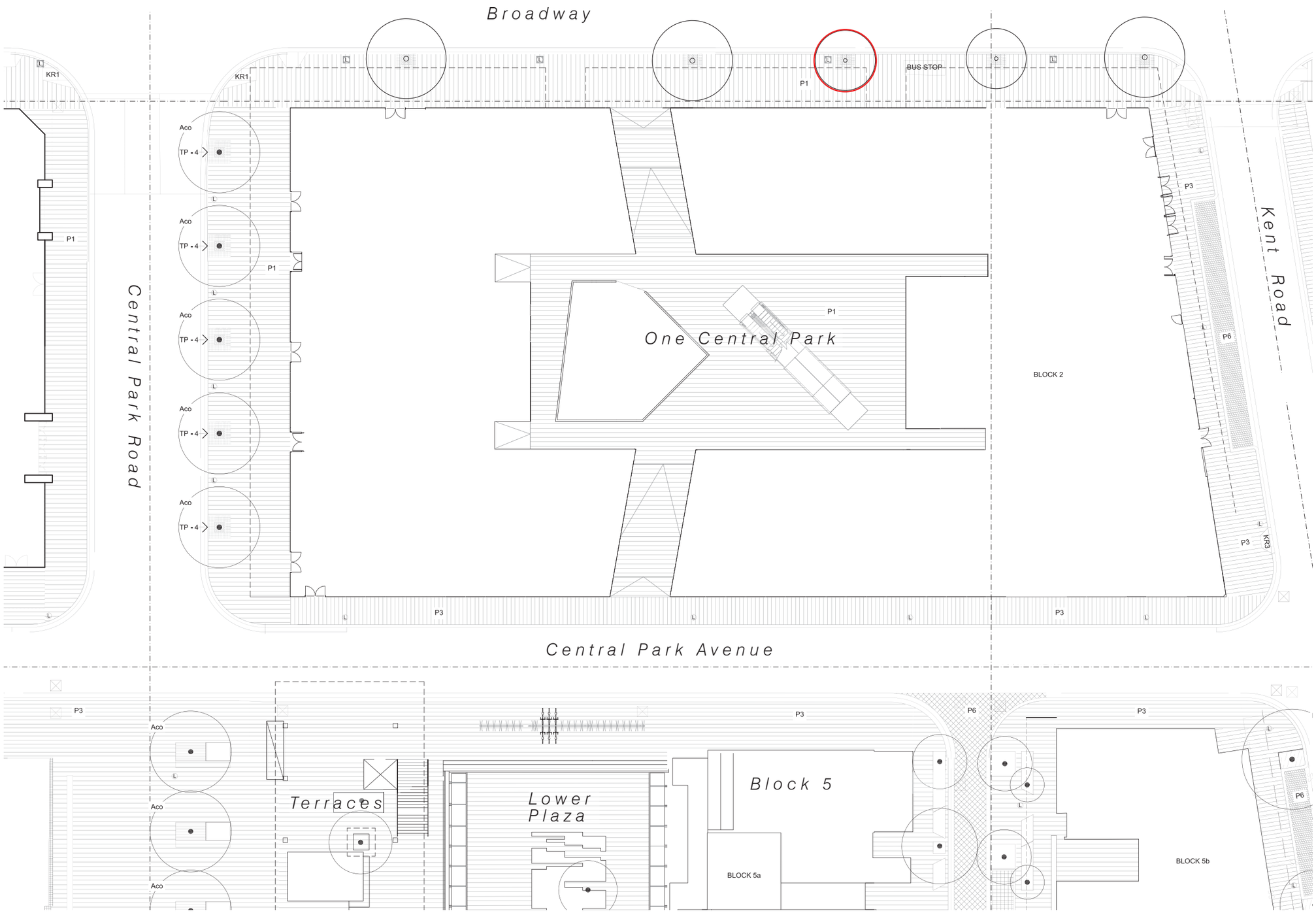
For best results a weekly liquid feed should be used on top of this fertiliser program. There is nothing wrong with the current liquid feed they are using for most of the plantings but for the very P sensitive plantings get them to use urea and sulphate of potash only at 0.5g/l each.

I will communicate this advice to Brad Howell at Grange as well.

SYDNEY ENVIRONMENTAL & SOIL LABORATORY PTY LTD

Simon Leake
Principal Soil Consultant

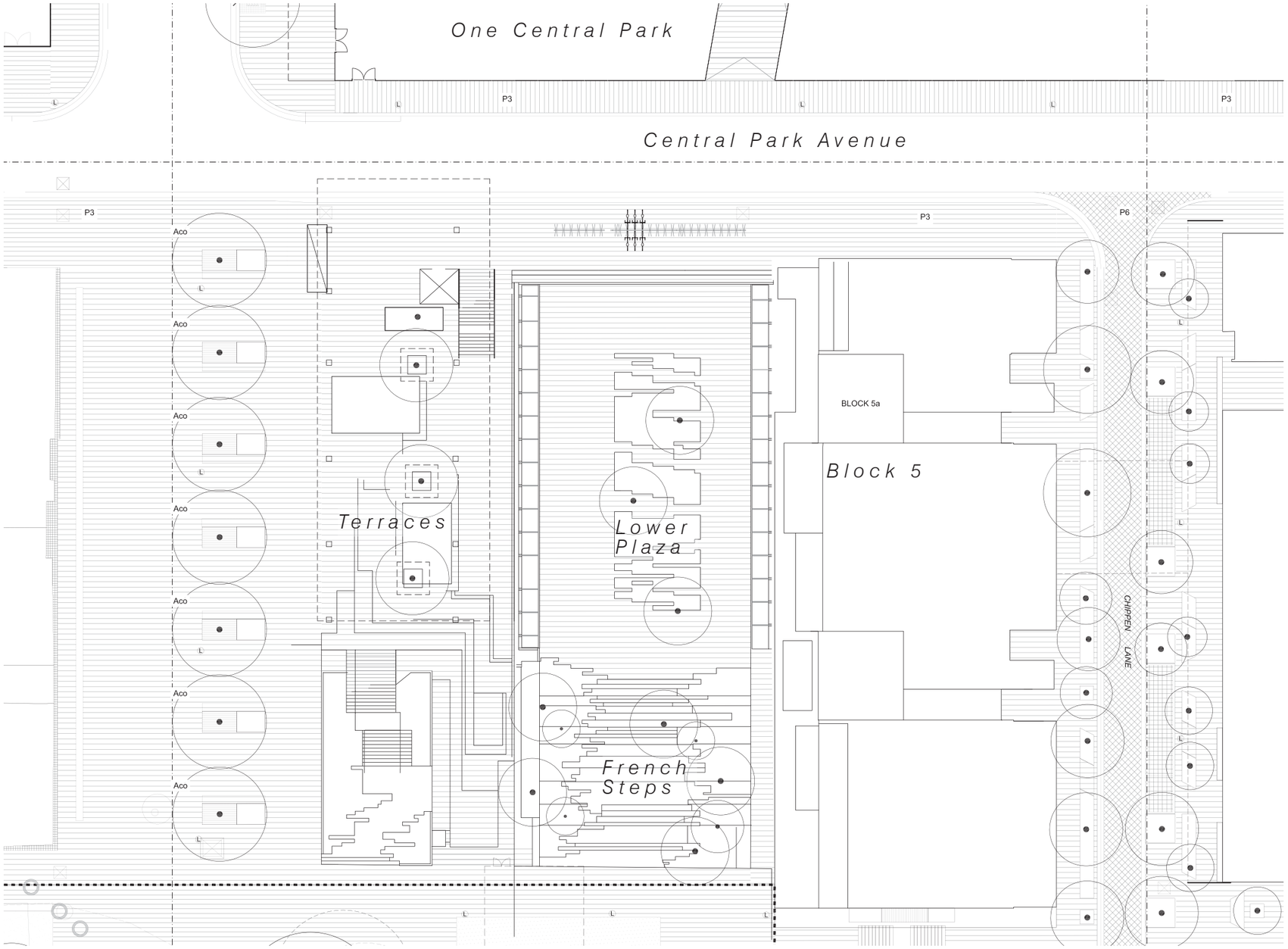
# Public Domain Streetscape and Plaza




## Legend

- Existing Fraxinus to be replaced (due to poor condition) with cos approved species
- Existing Fraxinus trees to be retained
- Aco — Proposed Angophora costata
- TP - 4 — Tree pit 2.44m x 1.8m steel grate, supplier TBC - design to be approved by COS & Frasers
- New lighting
- Existing smartpoles to be retained

Scale 1:400 @ A3

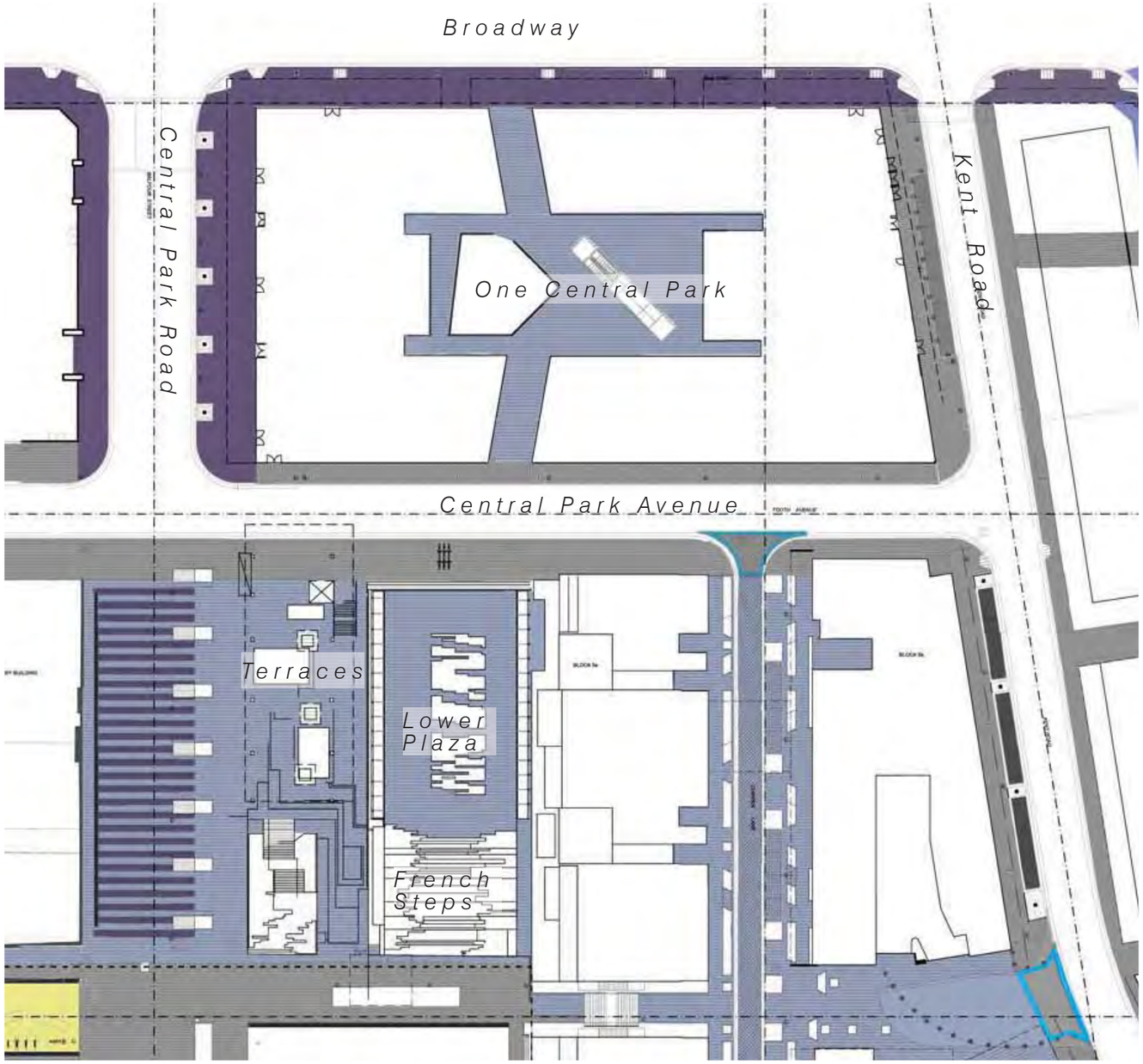



Scale 1:400 @ A3

## Legend

| | |
|---|---|
| Aco | Proposed Angophora costata |
| TP - 4 | Tree pit 2.44m x 1.8m steel grate, supplier TBC - design to be approved by COS & Frasers |
| © | New lighting |
| | Existing smartpoles to be retained |
| | Water element adjacent tree pit with seating - design to be approved by COS & Frasers |

# Paving Plan




NTS

## Legend

Area: 320.5 m²

Supplier: TBC

Detail:

Type: Chinese Granite Paver (Coulour to be finalised following sample reception)

Unit size: 50mm thick 450x700-1200mm

Area: 7774.m²

Supplier: TBC

Detail:

Type: Austral Black Granite

Unit size: 300-900 x 450 x 50mm

Area: 1826.9 m²

Supplier: Molocco Stone

Detail: Refer Sydney Streets Design Code detail 1.1.1

Type: Dark Granite Cobble

Unit size: 90 X 90 X 90 mm

Area: 798.0 m²

Supplier: Molloco Stone or equivalent

Type: London Angus Black Brick Paver

Unit size: 230 x 110 x 65 mm

Area: 1020.5 m²

Supplier: Austral Bricks

Type: Concrete Unit Paver

Unit size: 600 x 400 x 60

Area: 9288.4 m²

Park Area: 1536.4 m²

Supplier: Pebble Crete PTY LTD

Detail: CoS Streets Design Code Detail 1.2.1

Type: Concrete Unit Paver

Unit size: 97 x 97 x 60

Area: 304.4 m²

Supplier: Pebble Crete PTY LTD

Detail: CoS Streets Design Code Detail 1.2.1