

Environmental Design Principles

The indicative design prepared as part of this planning proposal has been developed with environmentally sustainable design principles in mind. These principles are to be considered in more detail at further design stages.

ENERGY USE

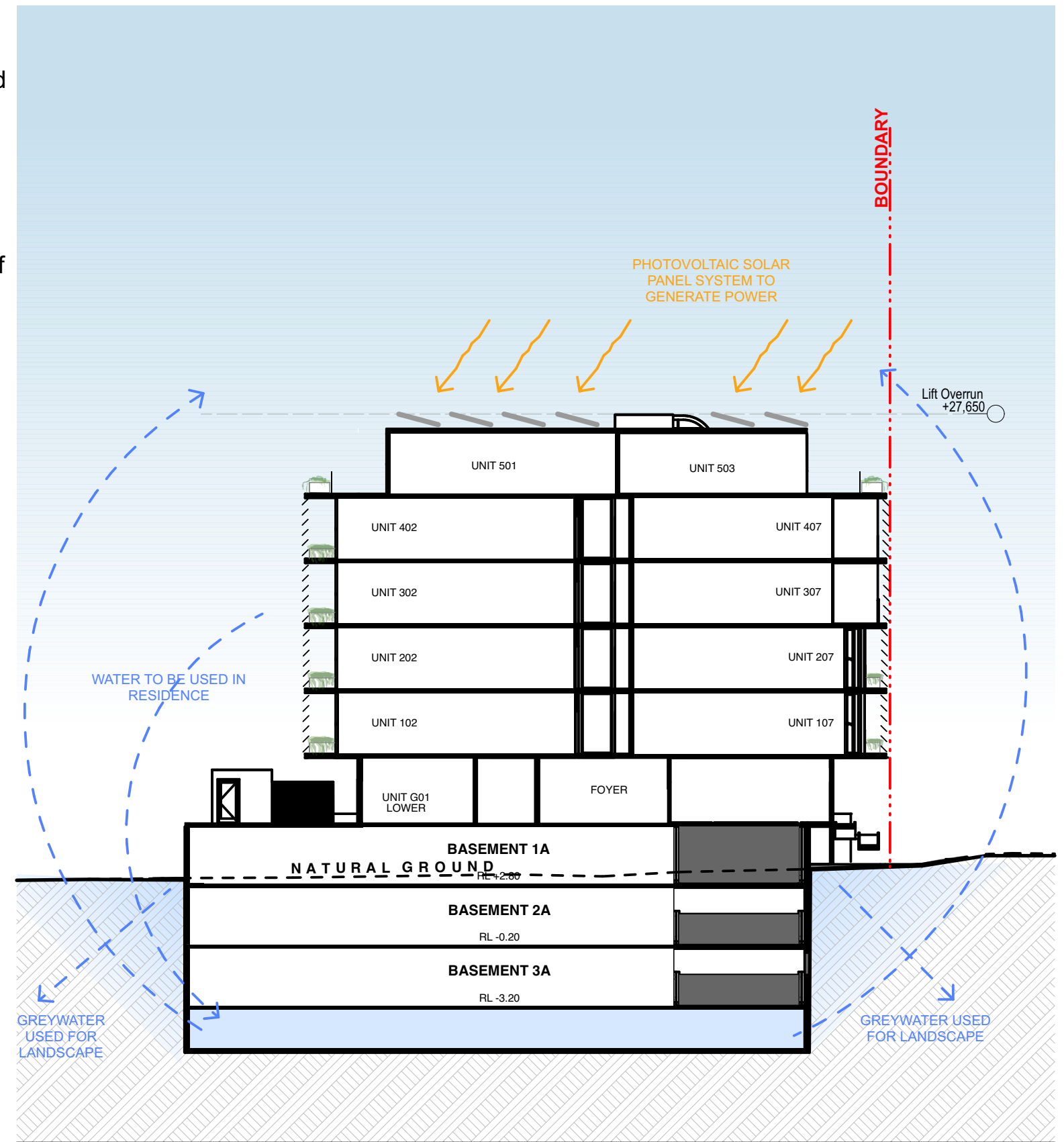
- Thermal efficiency – building envelope to be appropriately insulated, and make use of passive thermal, ventilation and lighting solutions (via orientation, solar-gain and shading, natural cross-ventilation, daylighting, etc)
- Energy-efficient appliances, fixtures, lighting, and supplementary heating/cooling systems
- Encourage and enable use of active and public transport options over private vehicle use (by supplying bicycle storage, easy access to cycleways and bus stops, etc)
- Provide electric vehicle charging stations to reduce reliance on non-renewable fuels
- Materials - low-embodied energy, local or recycled where possible
- Solar energy / water-heating to reduce reliance on non-renewable energy sources

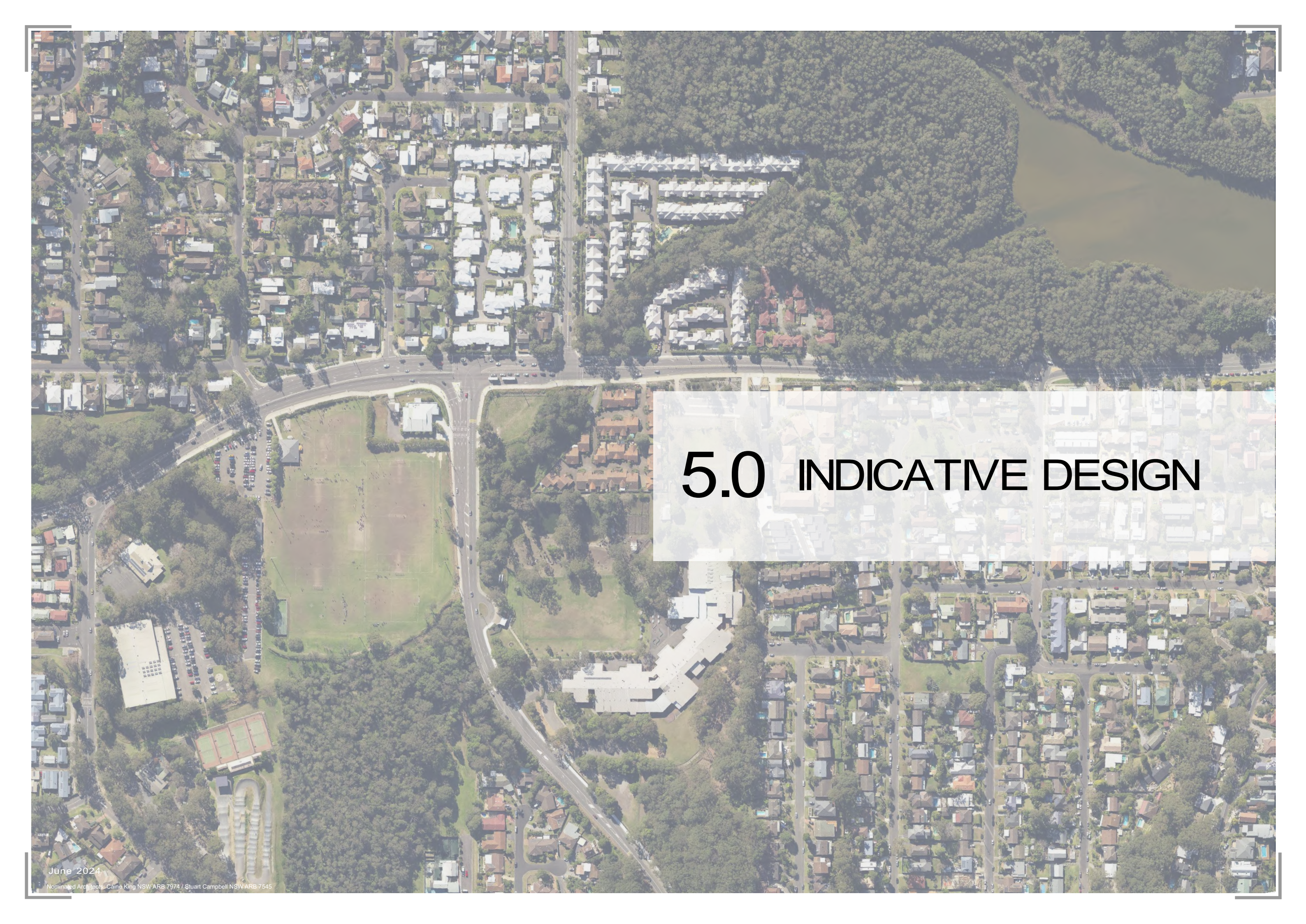
WATER MANAGEMENT

- Rainwater to be collected and used on-site
- Grey water to be reused on-site for landscape irrigation

SUPPORT BIODIVERSITY

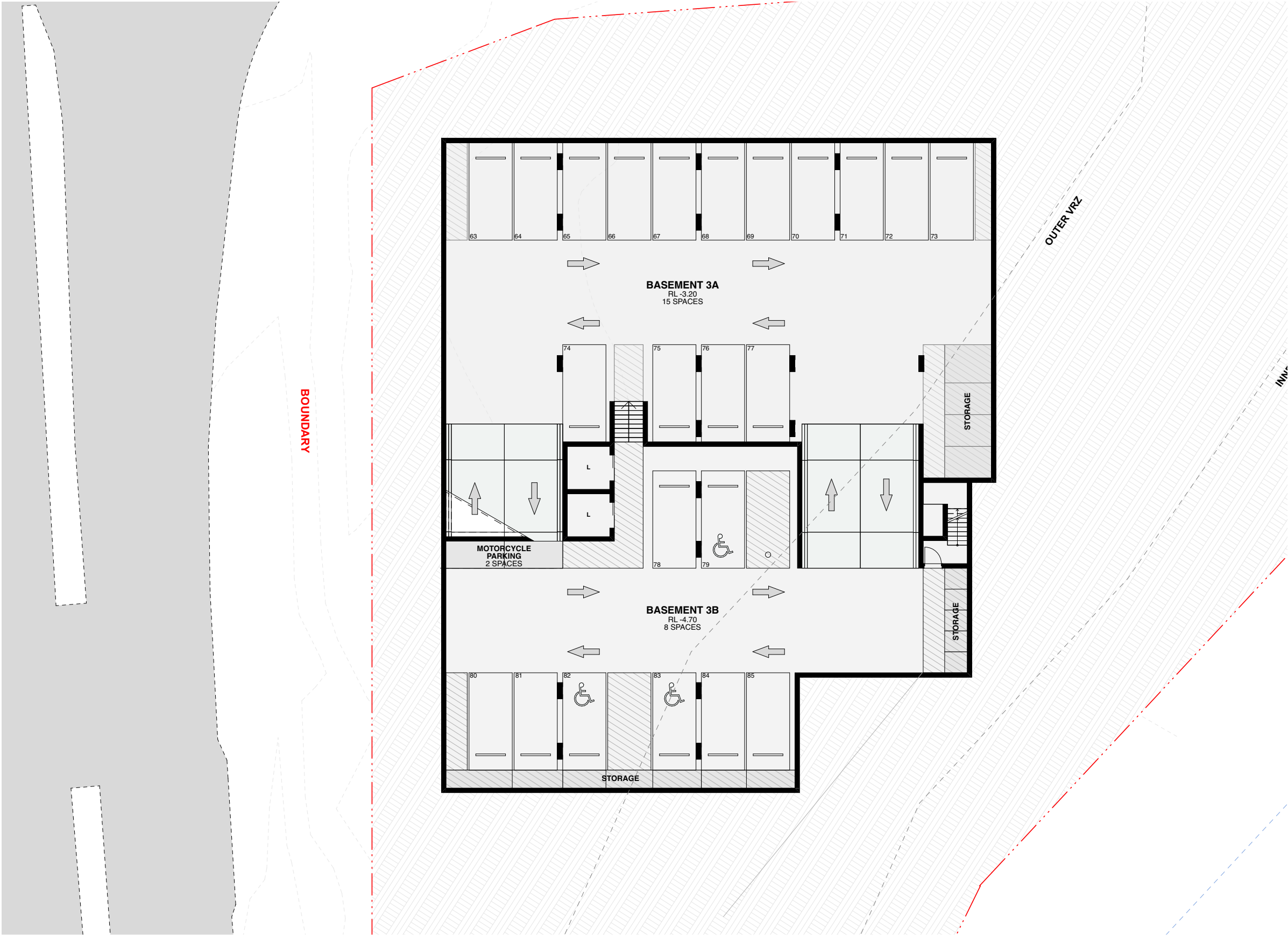
- Remediation and ongoing protection of adjacent waterway
- Use of indigenous plant species in-keeping with local ecosystem



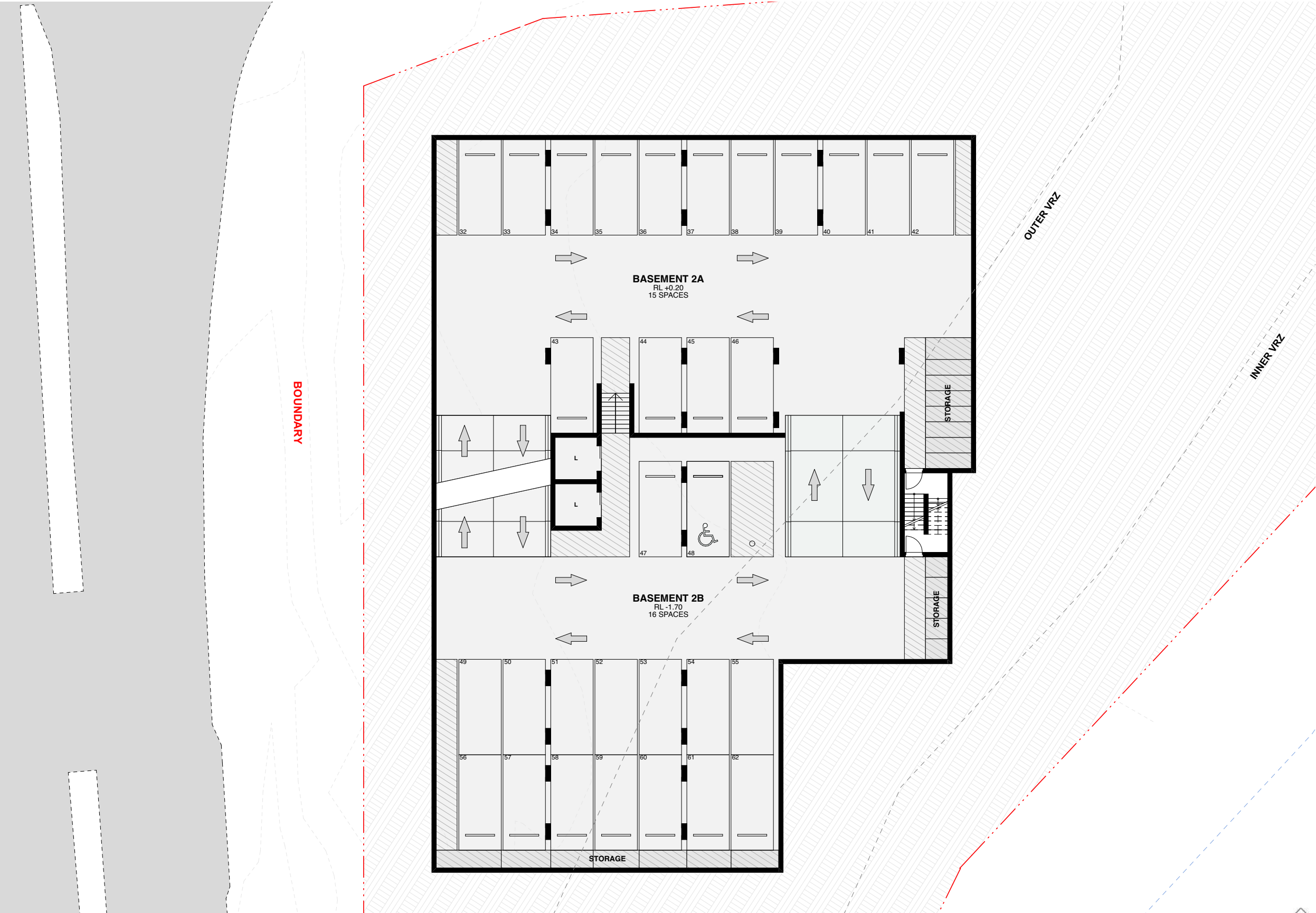
An aerial photograph of a suburban neighborhood. The image shows a mix of residential housing, including single-family homes and some larger, multi-unit buildings. There are numerous trees and green spaces throughout the area. A road with a roundabout is visible in the center-left. A river or large pond is on the right side of the image. A semi-transparent white box is overlaid on the right side, containing the text '5.0 INDICATIVE DESIGN'.

5.0 INDICATIVE DESIGN

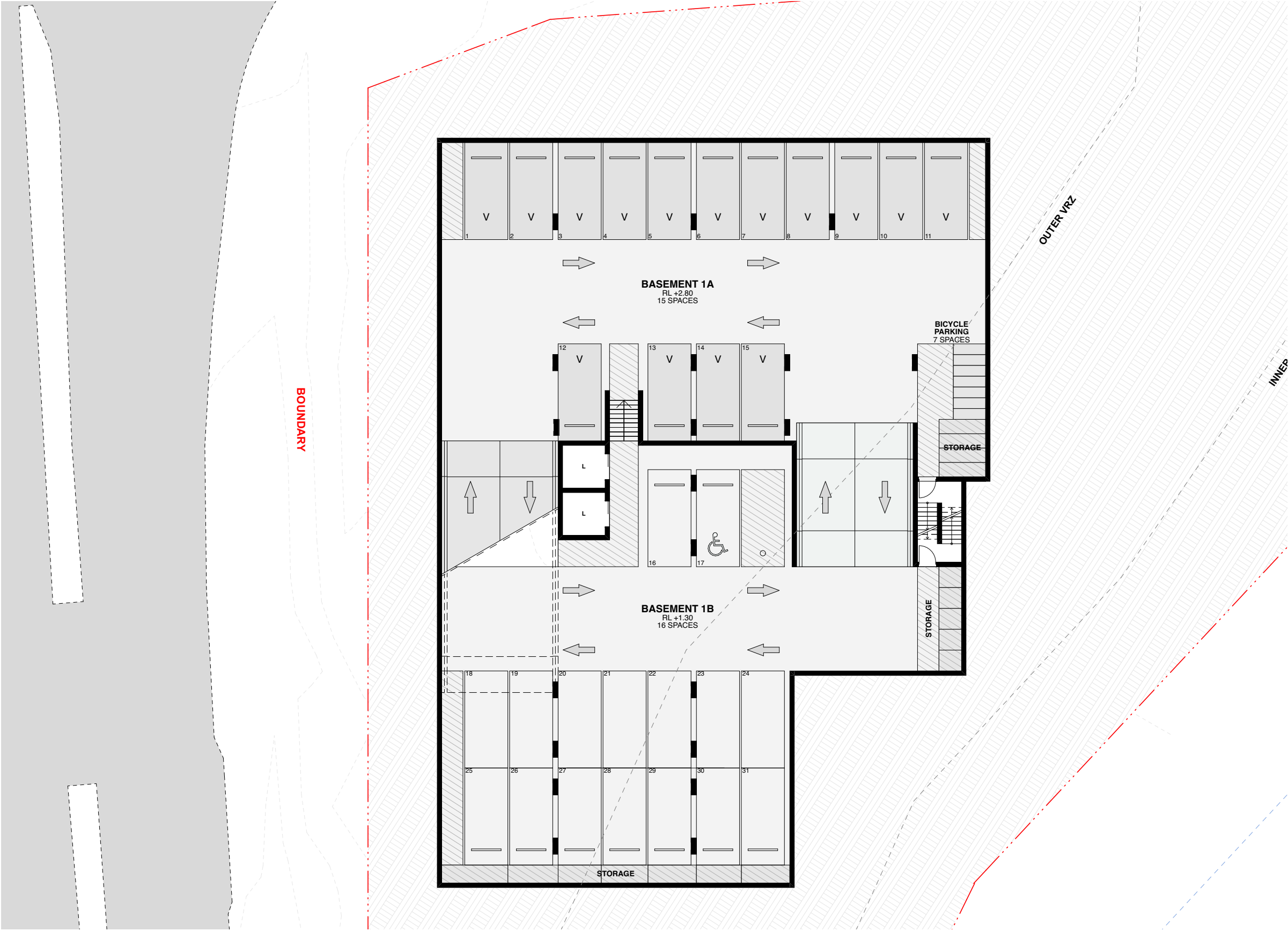
Architecturals: Basement 03



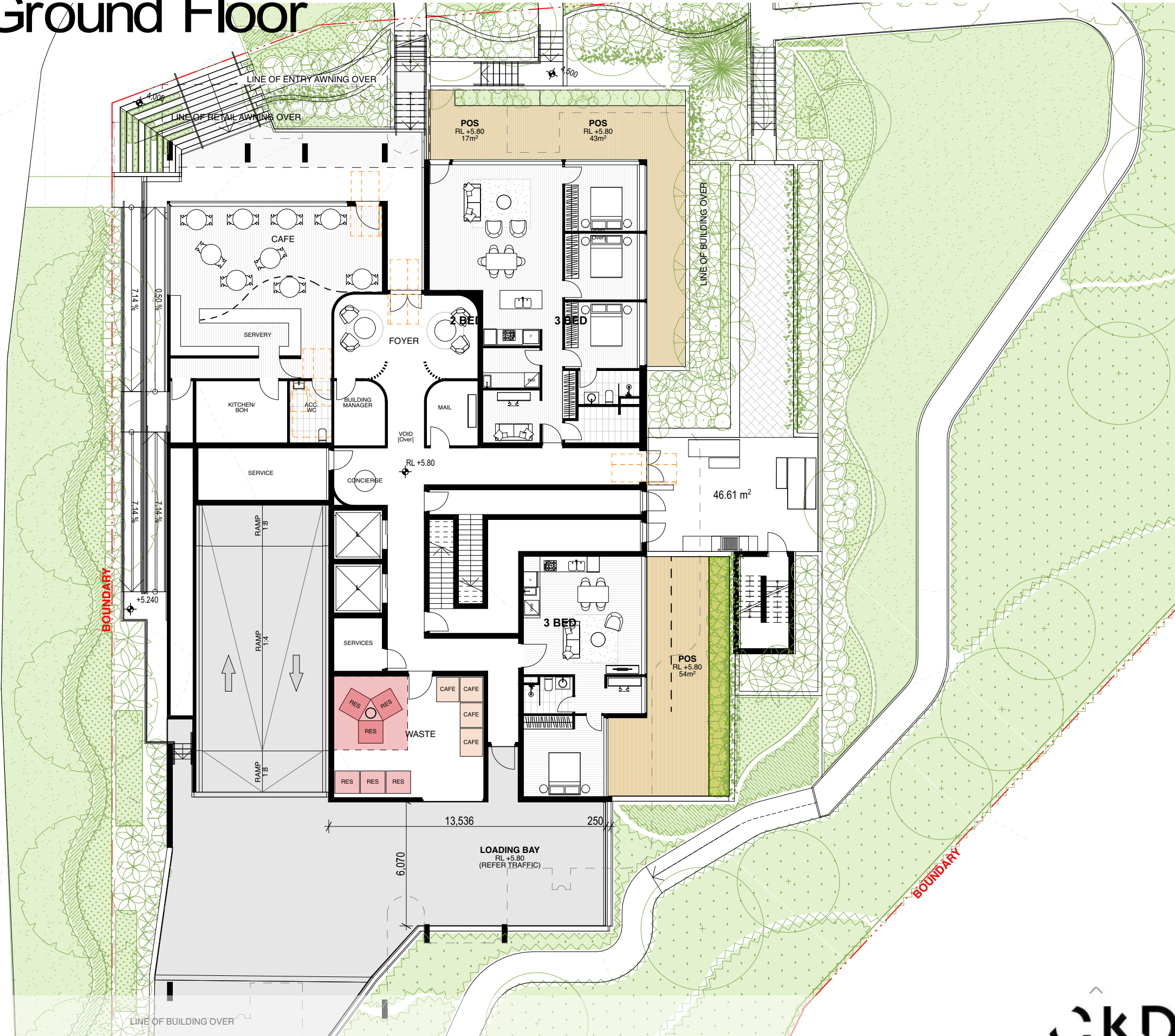
Architecturals: Basement 02



Architecturals: Basement 01



Architecturals: Ground Floor

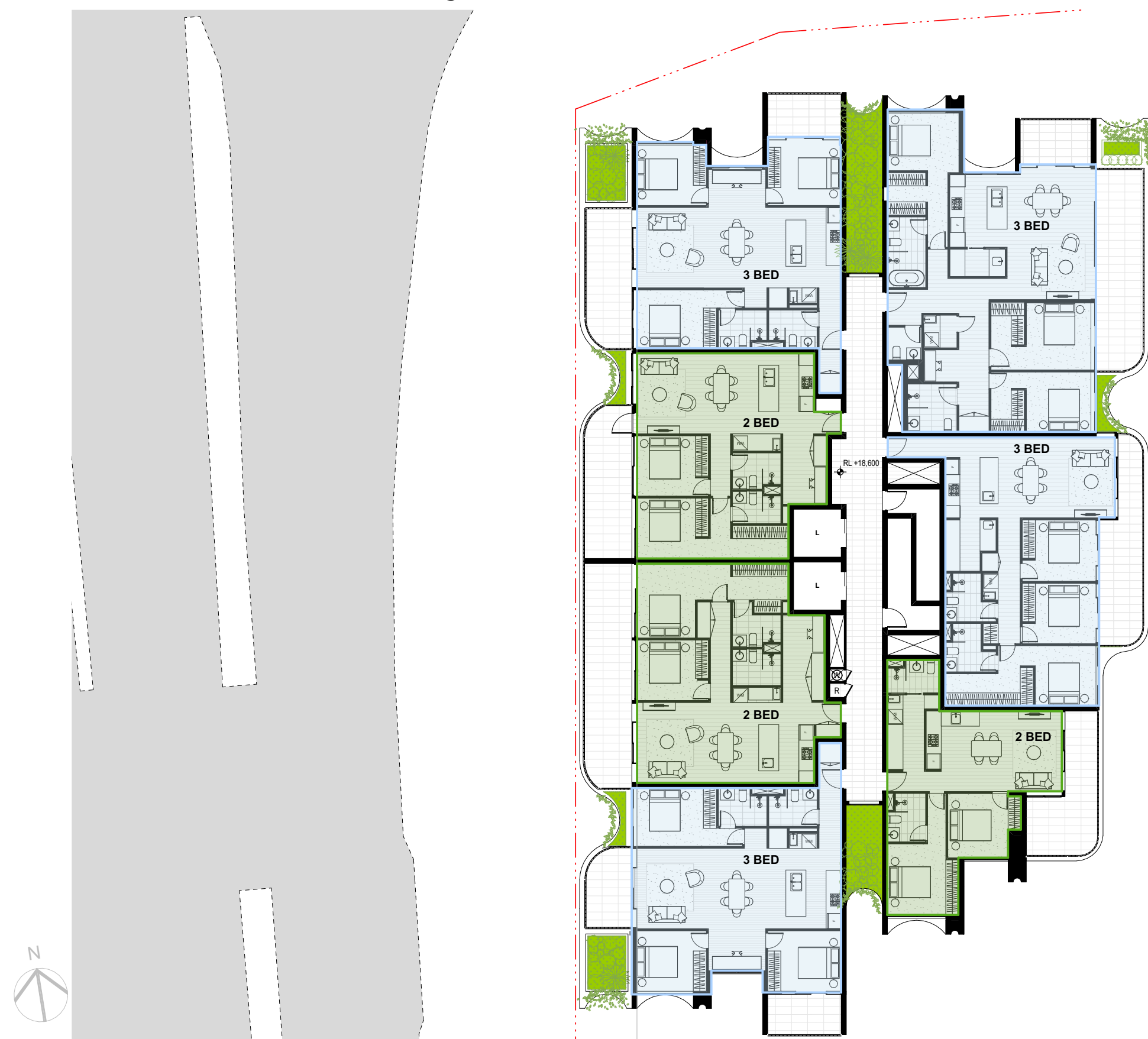


4 ground floor
SCALE 1:1 @ A3

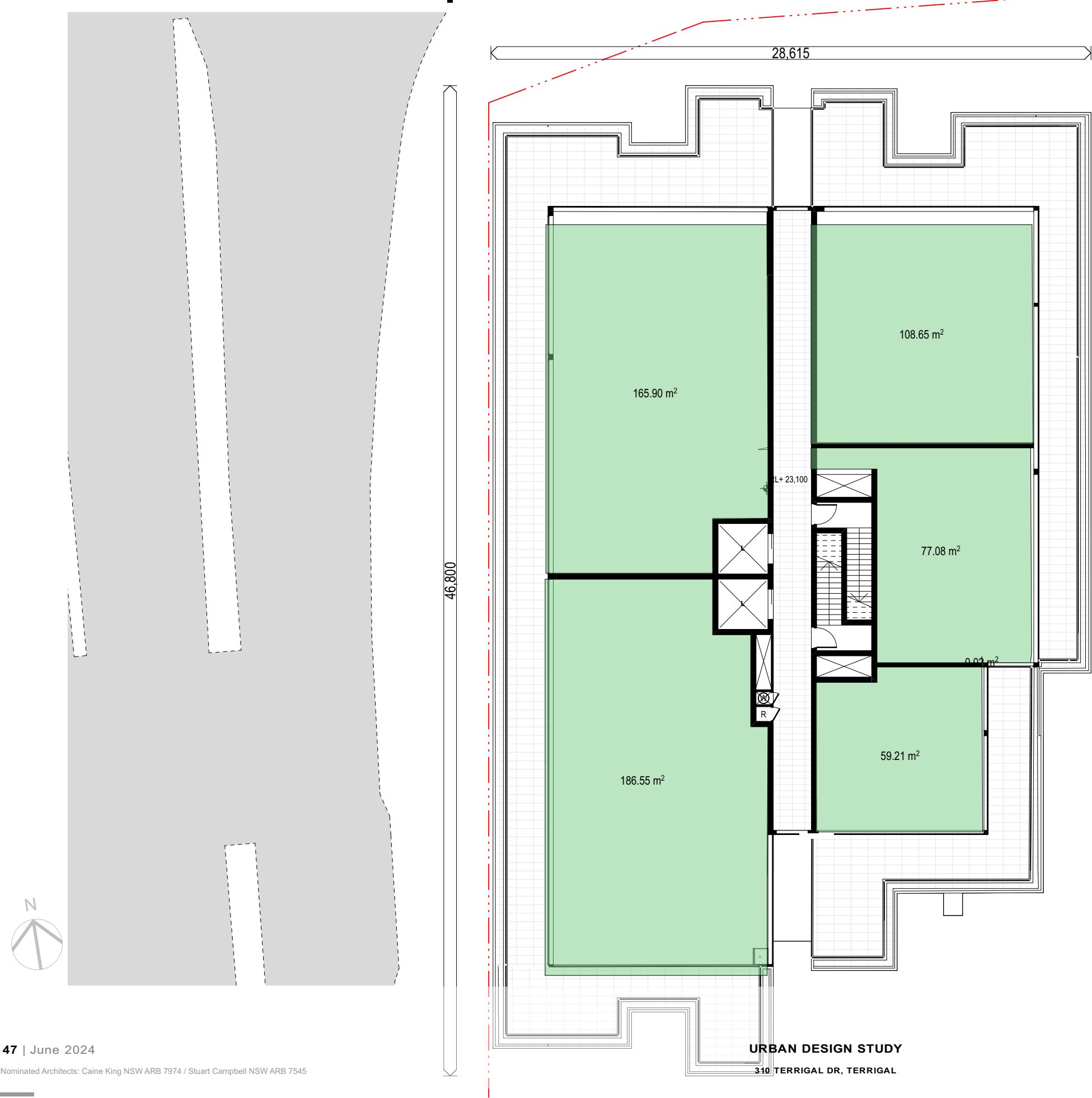
Architecturals: Typical Levels 1-2



Architecturals: Typical Levels 3-4



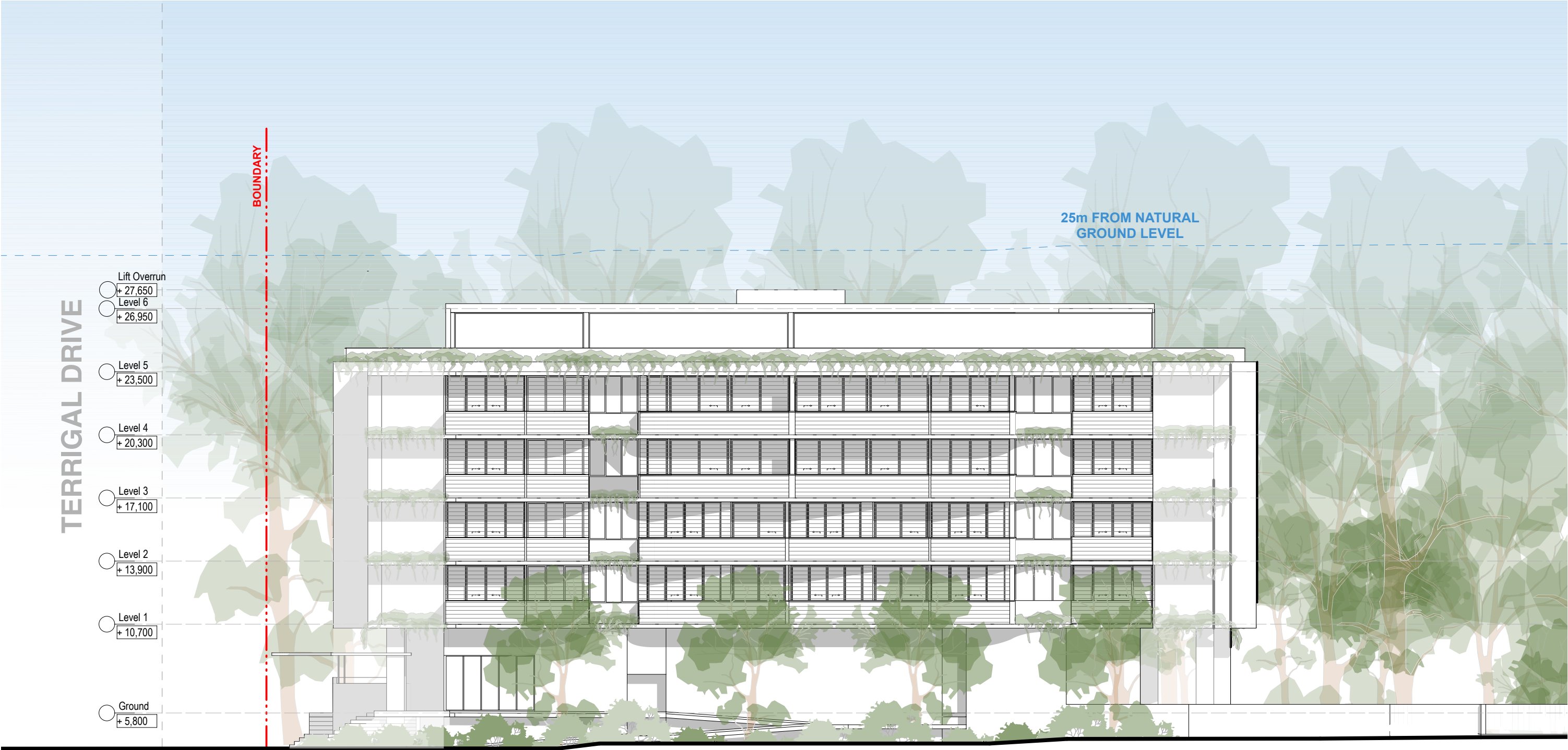
Architecturals: Top Floor



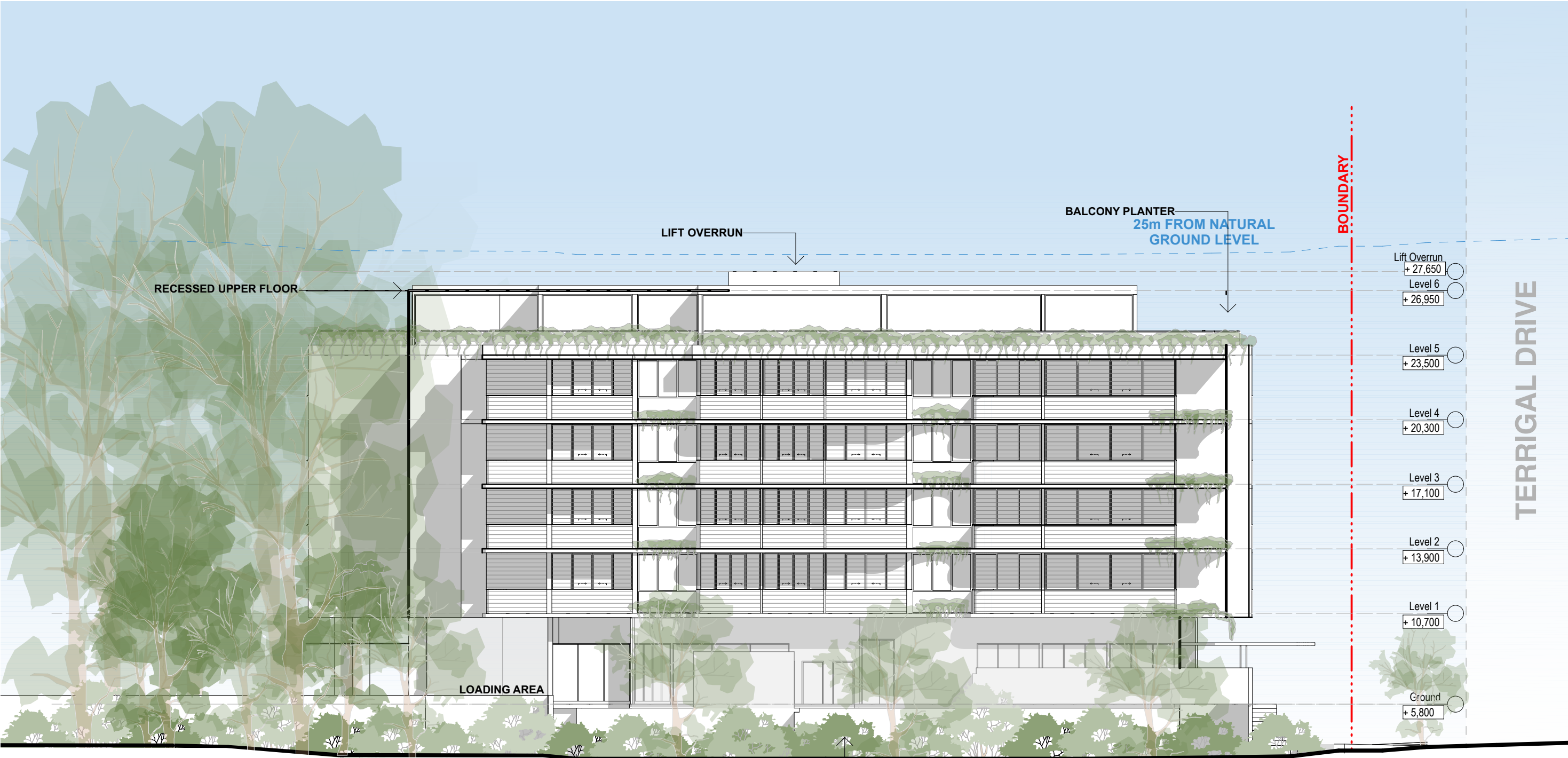
Architecturals: Elevation - North



Architecturals: Elevation - West



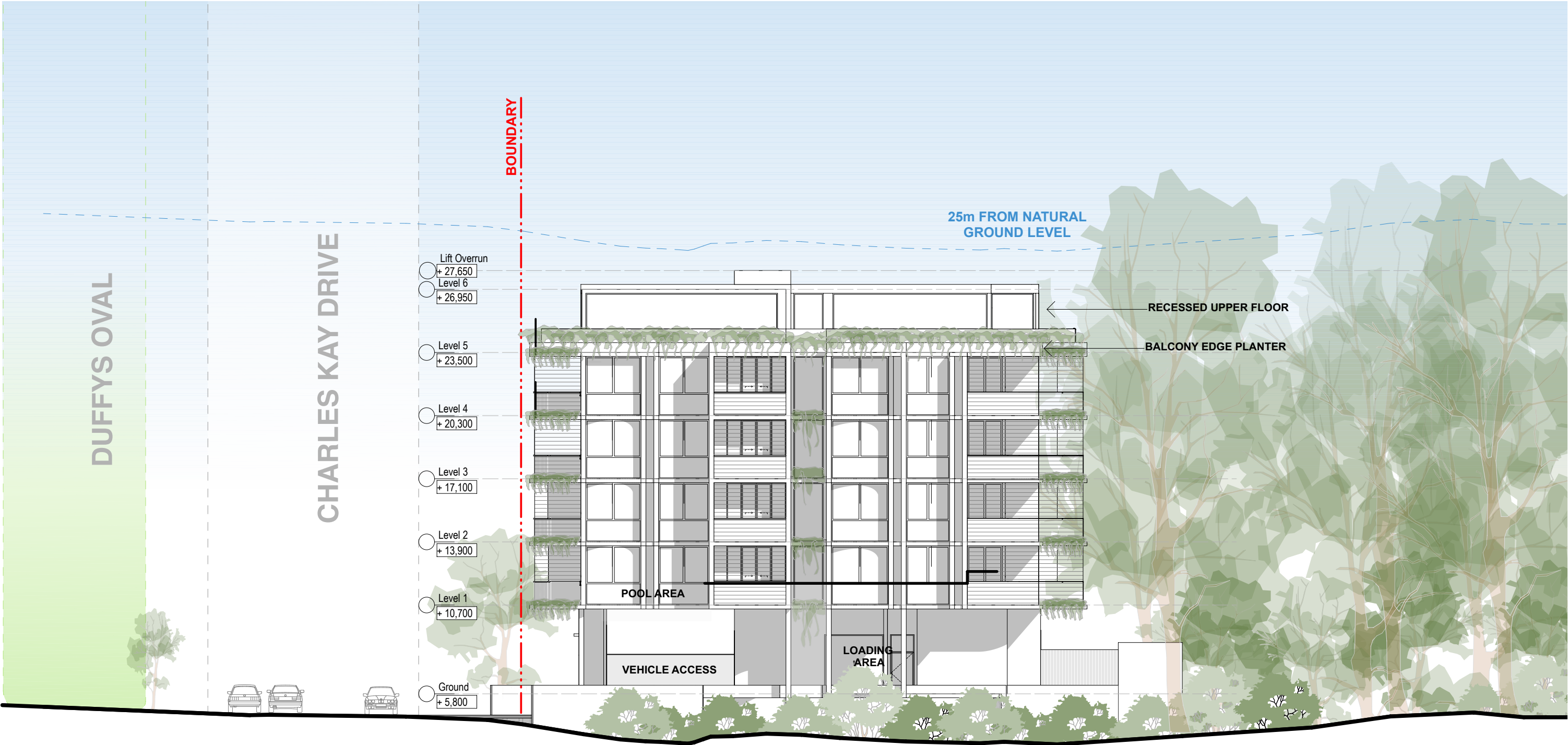
Architecturals: Elevation - East



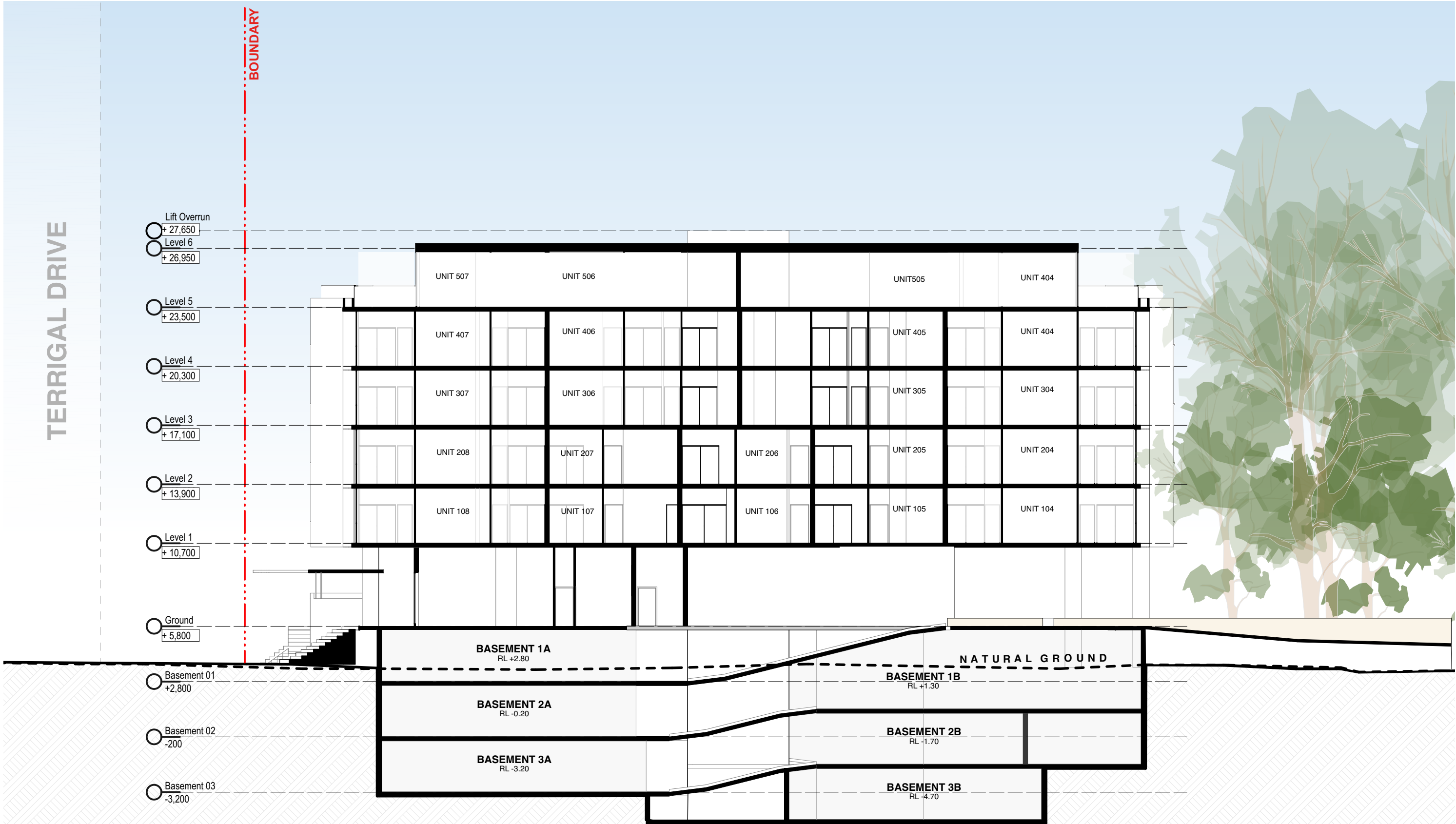
11 SK-210-002 East Elevation _ Layout
SCALE 1:1 @ A3

FIRE ESCAPES

Architecturals: Elevation - South



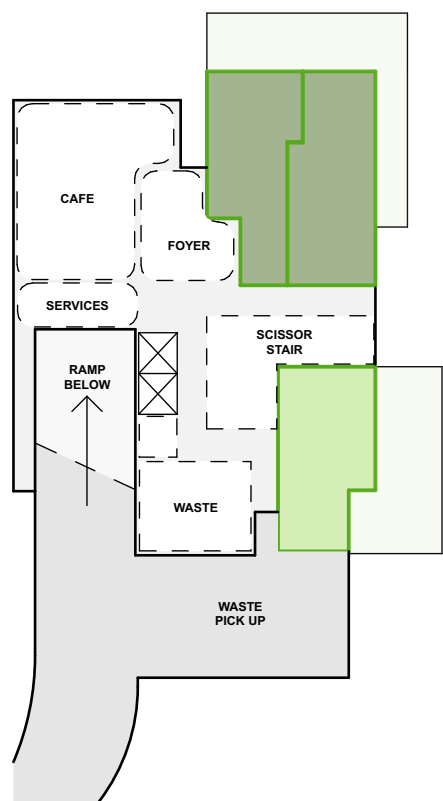
Architecturals: Section



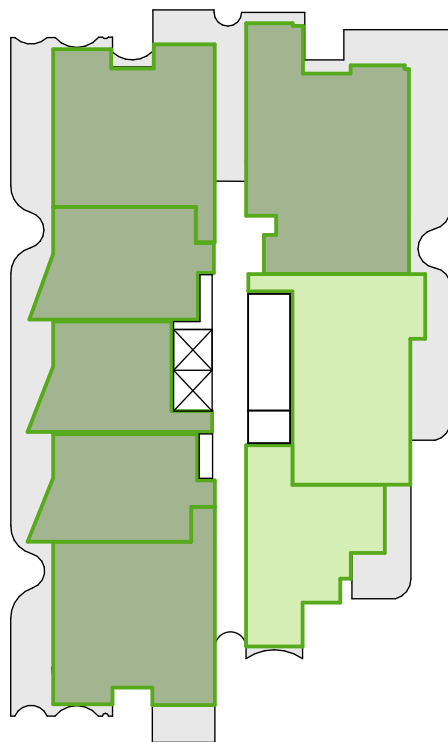
17 section
SCALE 1:1 @ A3

SEPP 65 Indicative Compliance

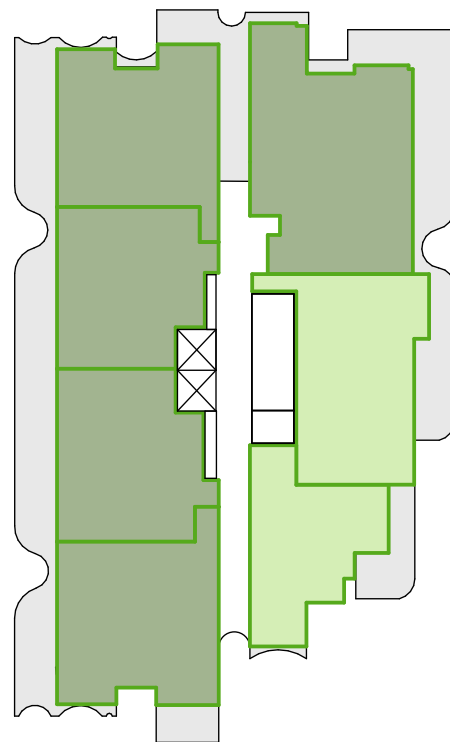
SOLAR ACCESS



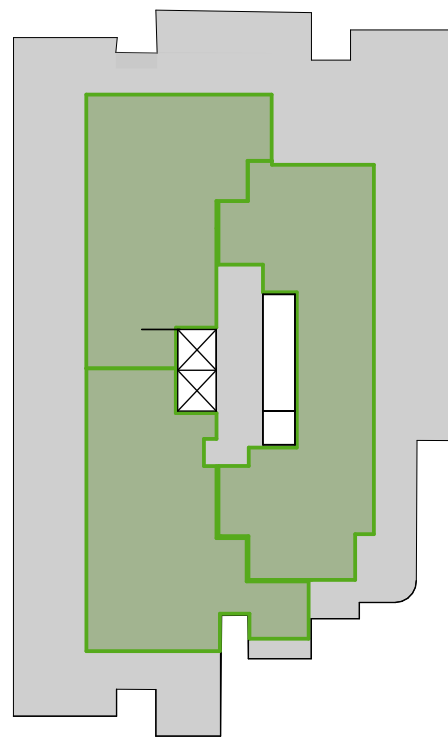
GROUND FLOOR



LEVELS 1-2



LEVELS 3-4



PENTHOUSES

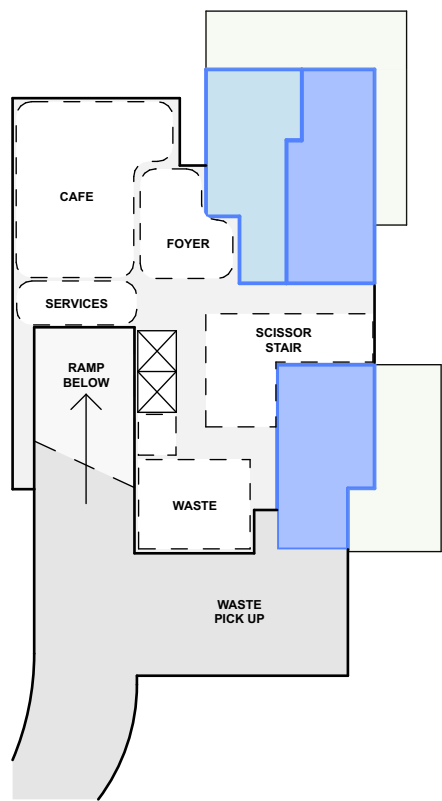


	3+ hours sunlight	27 units	71.2%
	under 3 hours sunlight	11 units	28.8%
	no sunlight	0 units	0%
		38 units	

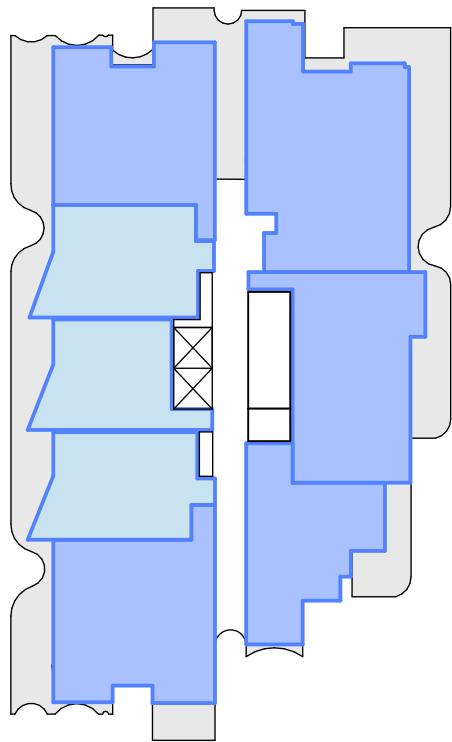
The concept design meets the ADG requirement for at least 70% of apartments to receive a minimum of 3 hours direct sunlight between 9am and 3pm during midwinter, and no more than 15% of apartments to receive no direct sunlight.

SEPP 65 Indicative Compliance

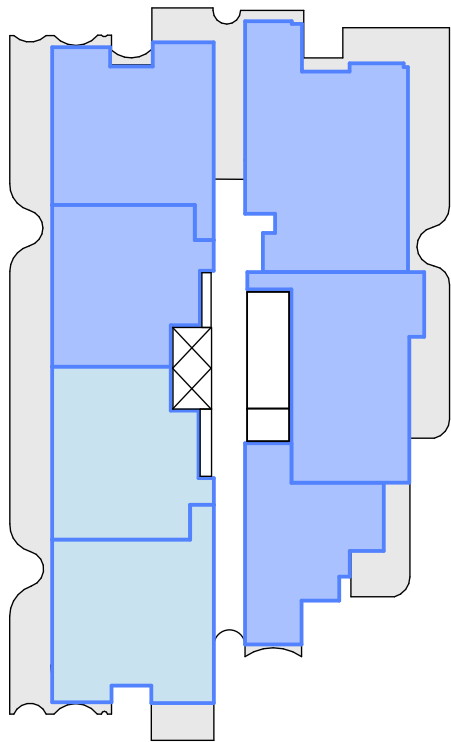
CROSS VENTILATION



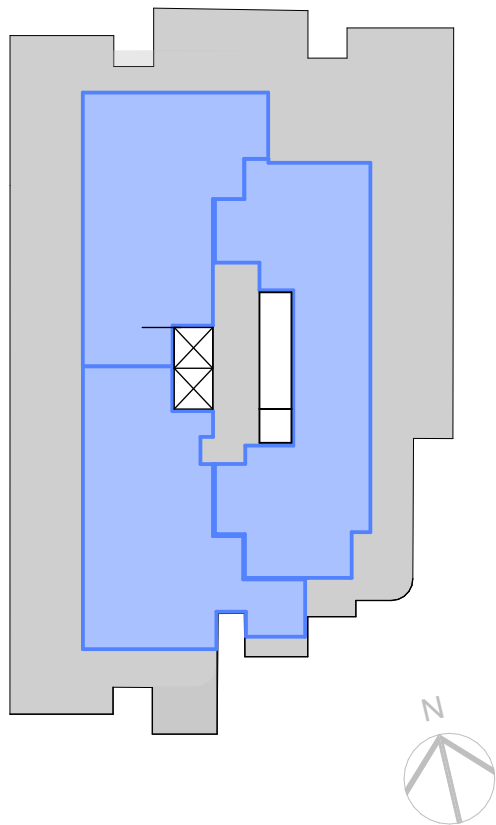
GROUND FLOOR



LEVELS 1-2



LEVELS 3-4



PENTHOUSES

	achieves cross ventilation	26 units	68%
	does not achieve cross ventilation	12 units	32%
		38 units	

The concept design meets the ADG requirement for at least 60% of apartments to be naturally cross ventilated.

Indicative Shadow Diagrams



21 JUNE 09:00



21 JUNE 12:00



21 JUNE 15:00

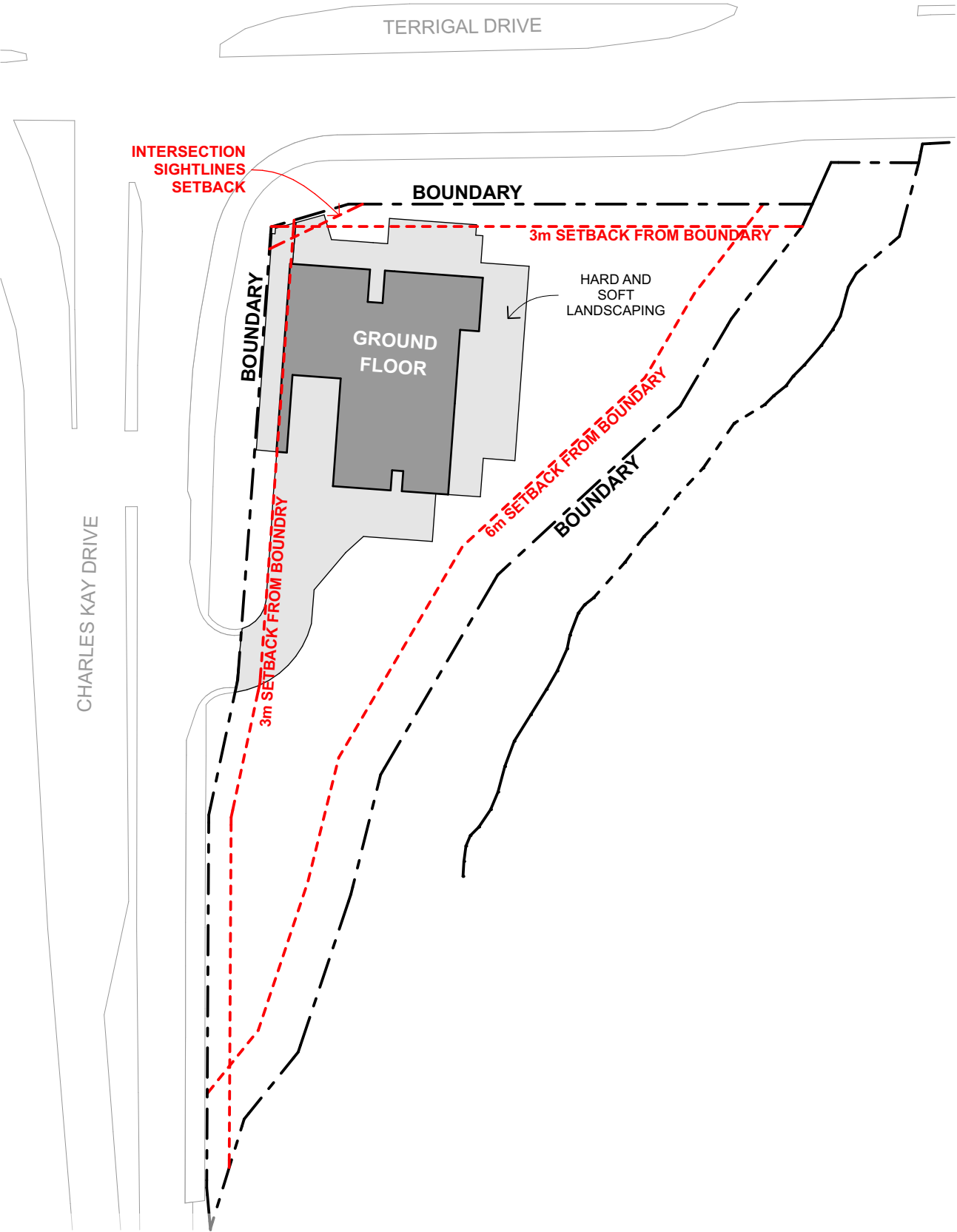


-  existing shadows (approximate)
-  proposed shadows

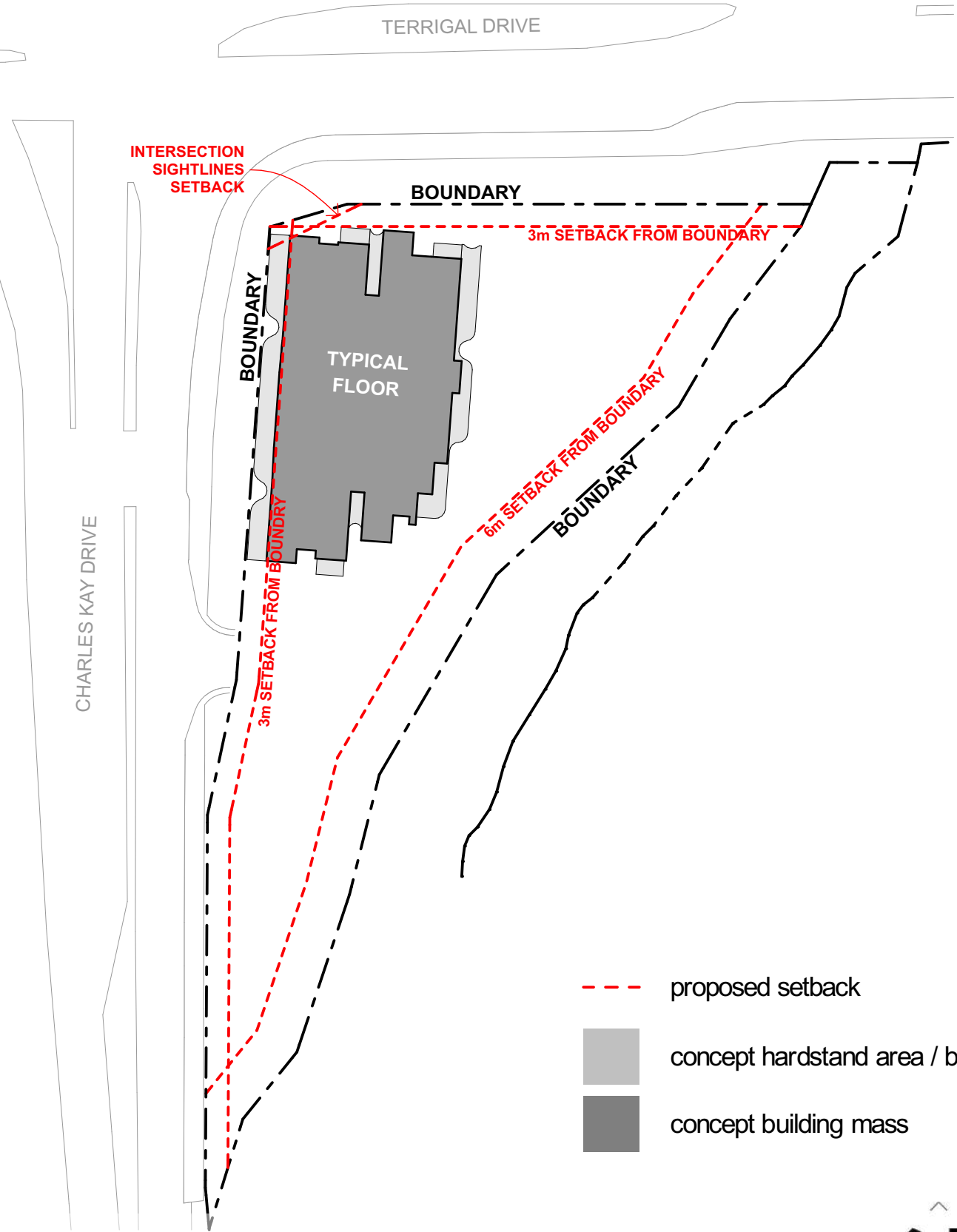
Despite the additional height, the concept design has minimal impact on the solar access of adjacent public and private space.

Setbacks

LOWER FLOORS



UPPER FLOORS



- proposed setback
- concept hardstand area / balconies
- concept building mass

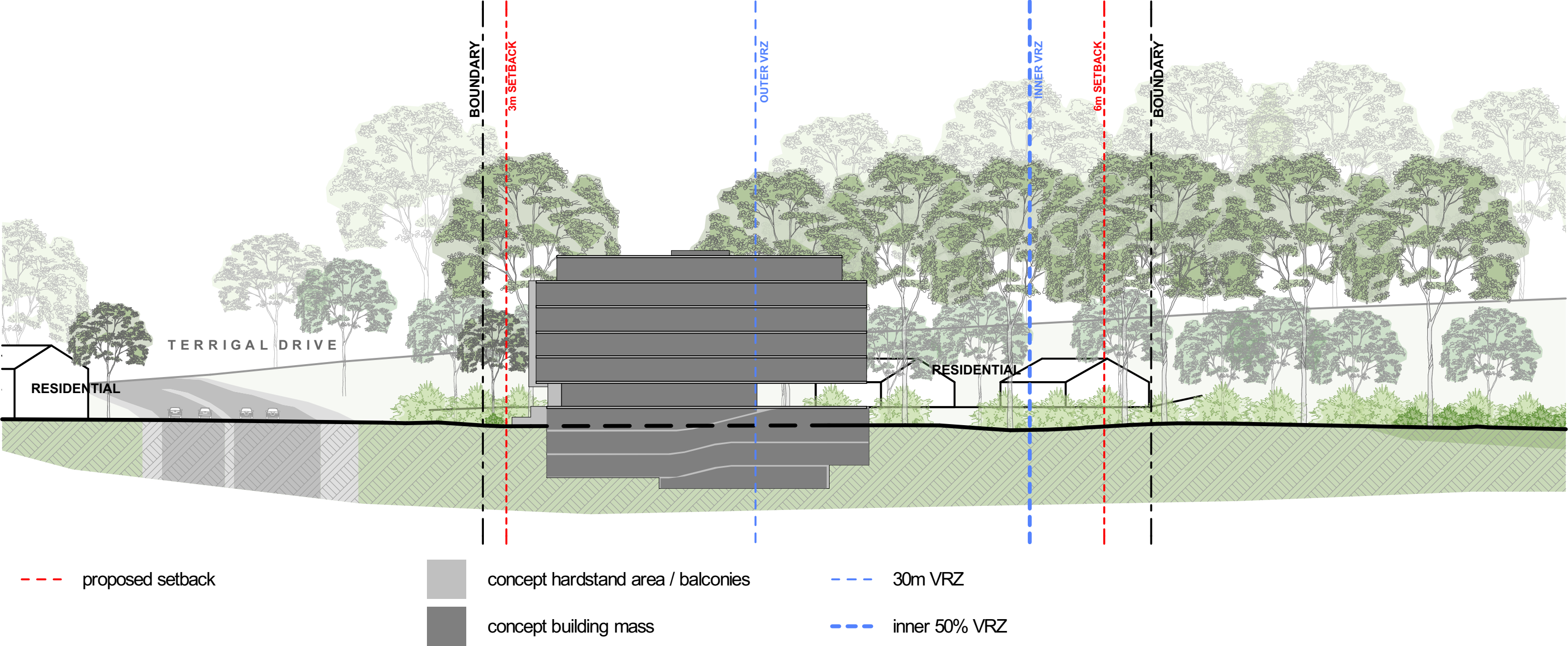
Setbacks

SITE SECTION - EAST-WEST



Setbacks

SITE SECTION - NORTH-SOUTH

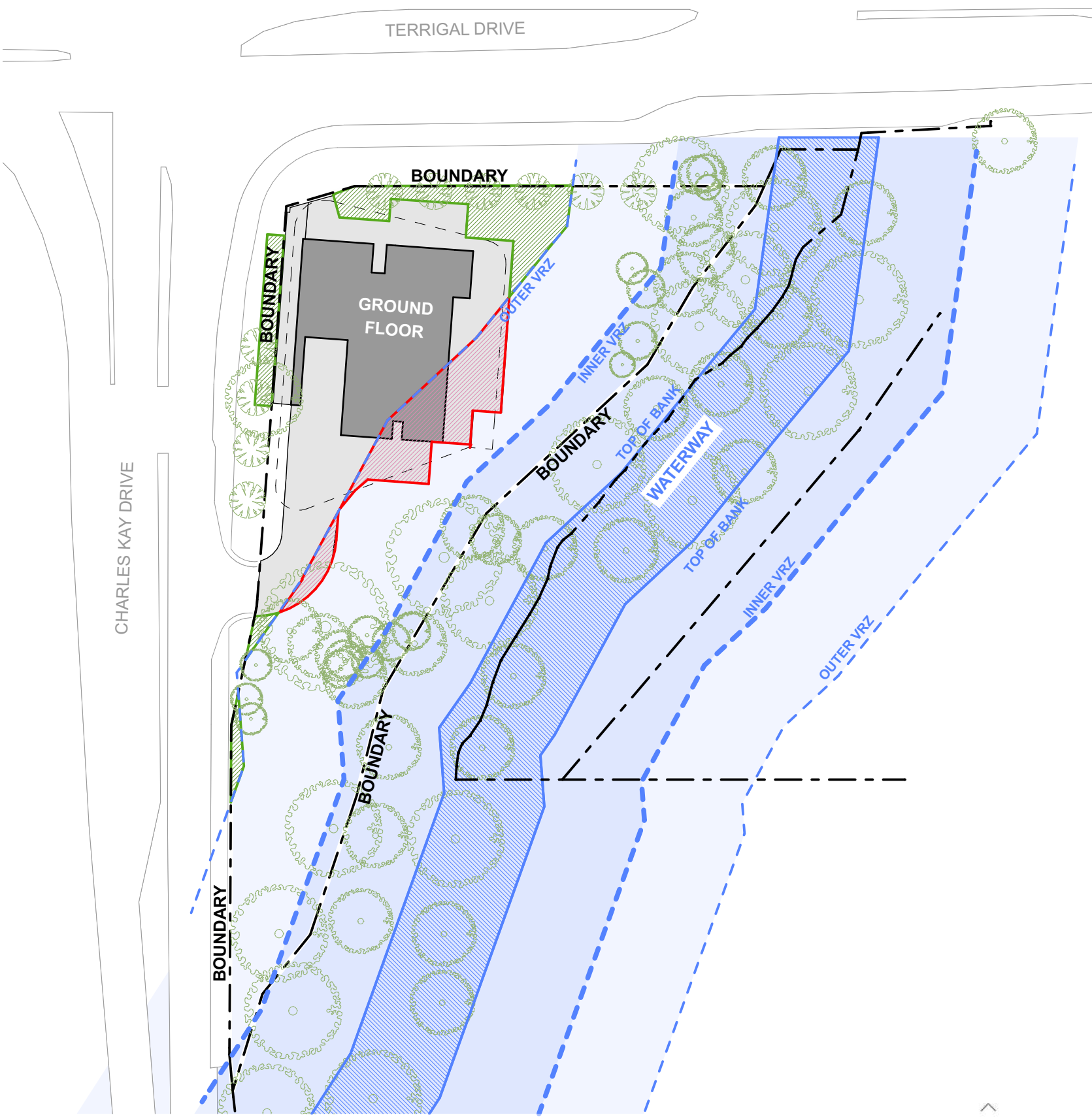
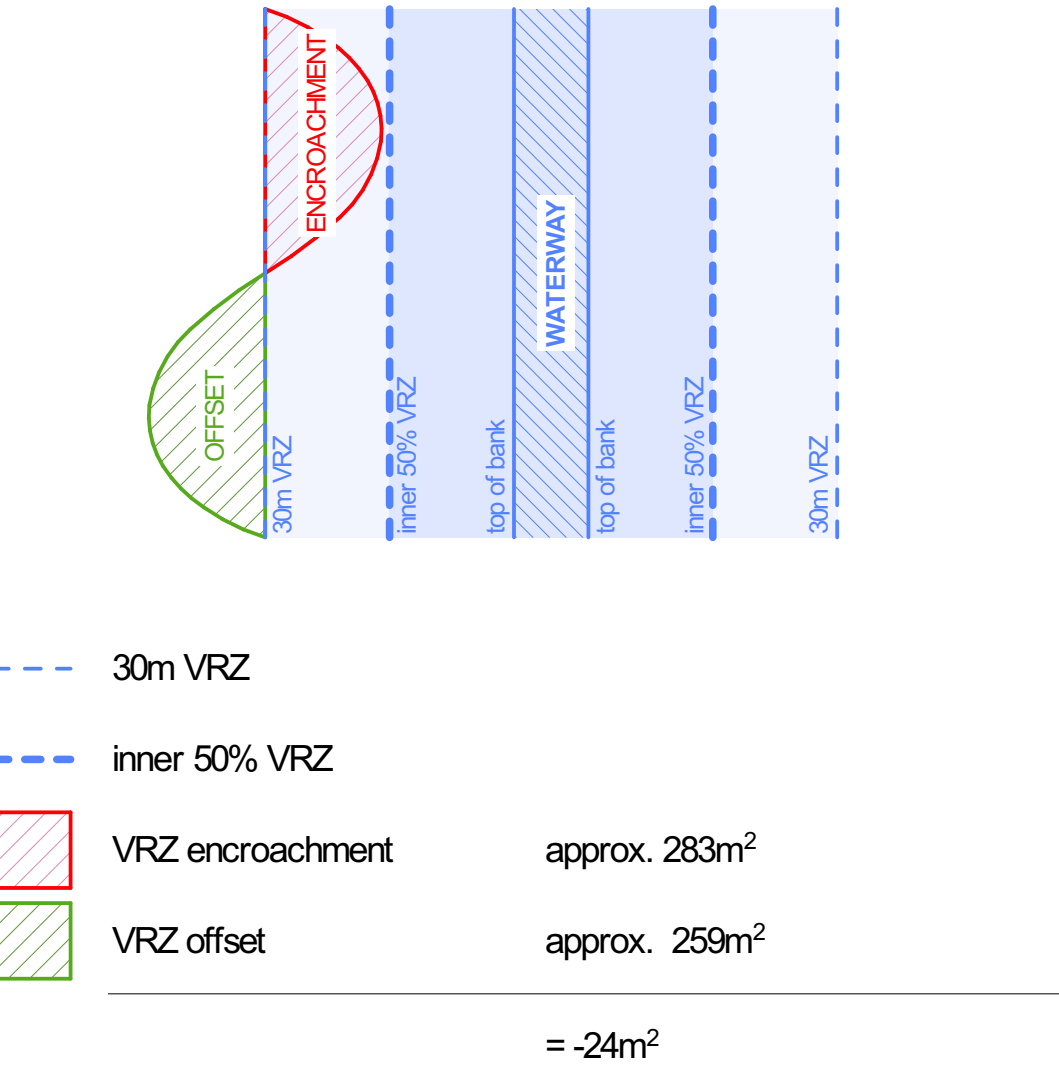


Indicative VRZ Offsets

Being adjacent a 3rd order stream, much of the site is affected by a 30m wide vegetated riparian zone (VRZ) extending from the top of the creek bank.

The unaffected area is an irregular shape, making it difficult to develop efficiently. *Guidelines for Riparian Corridors on Waterfront Land* outlines an 'averaging rule', allowing non-riparian uses within the outer 50% of the VRZ so long as that area is offset outside the VRZ.

The indicative design makes use of this rule to achieve a more useable building footprint, offsetting areas of encroachment with additional site landscaping.





Architecture | Planning | Interiors

June 2023

Nominated Architects: Caine King NSW ARB 7974 / Stuart Campbell NSW ARB 7545