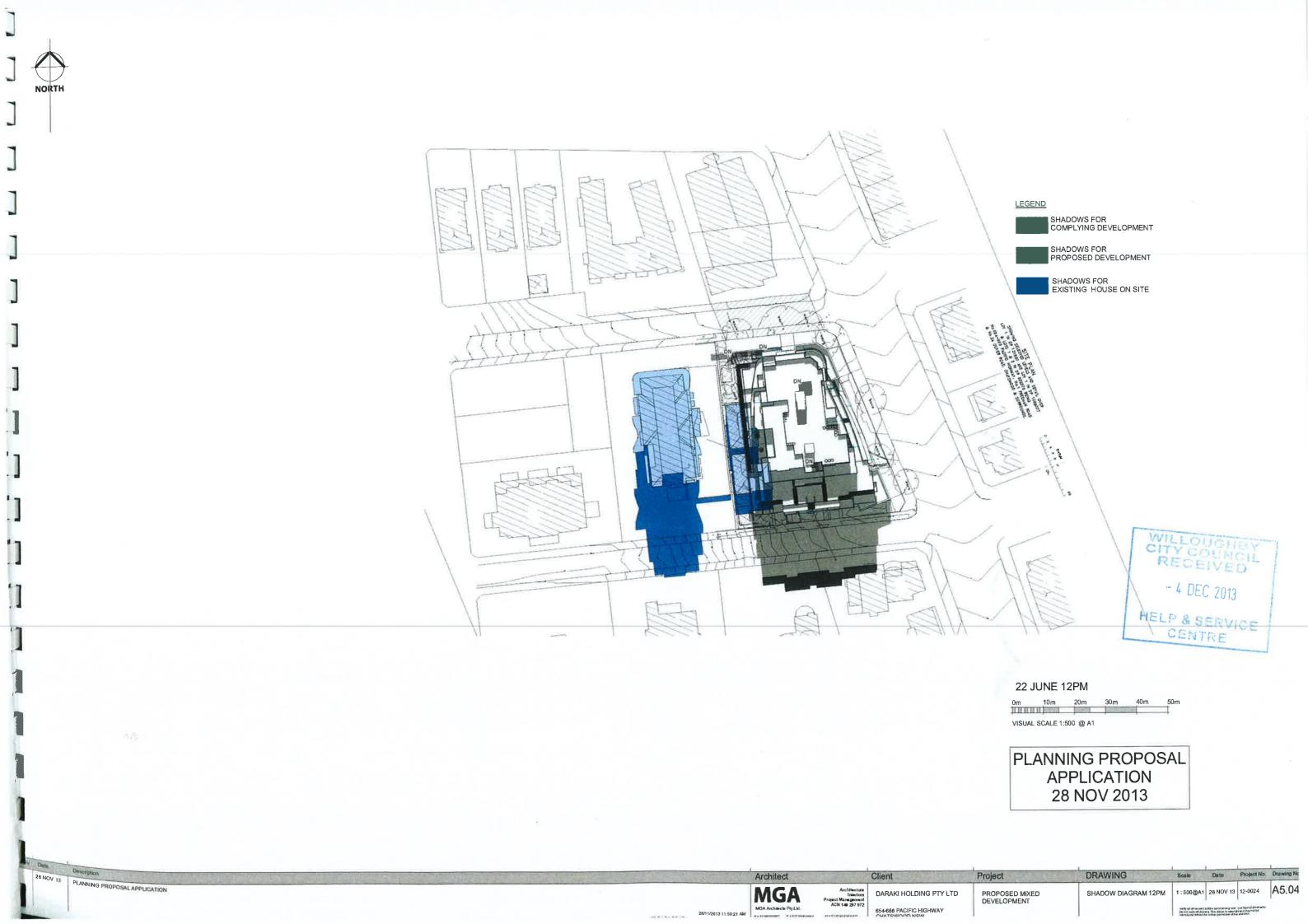


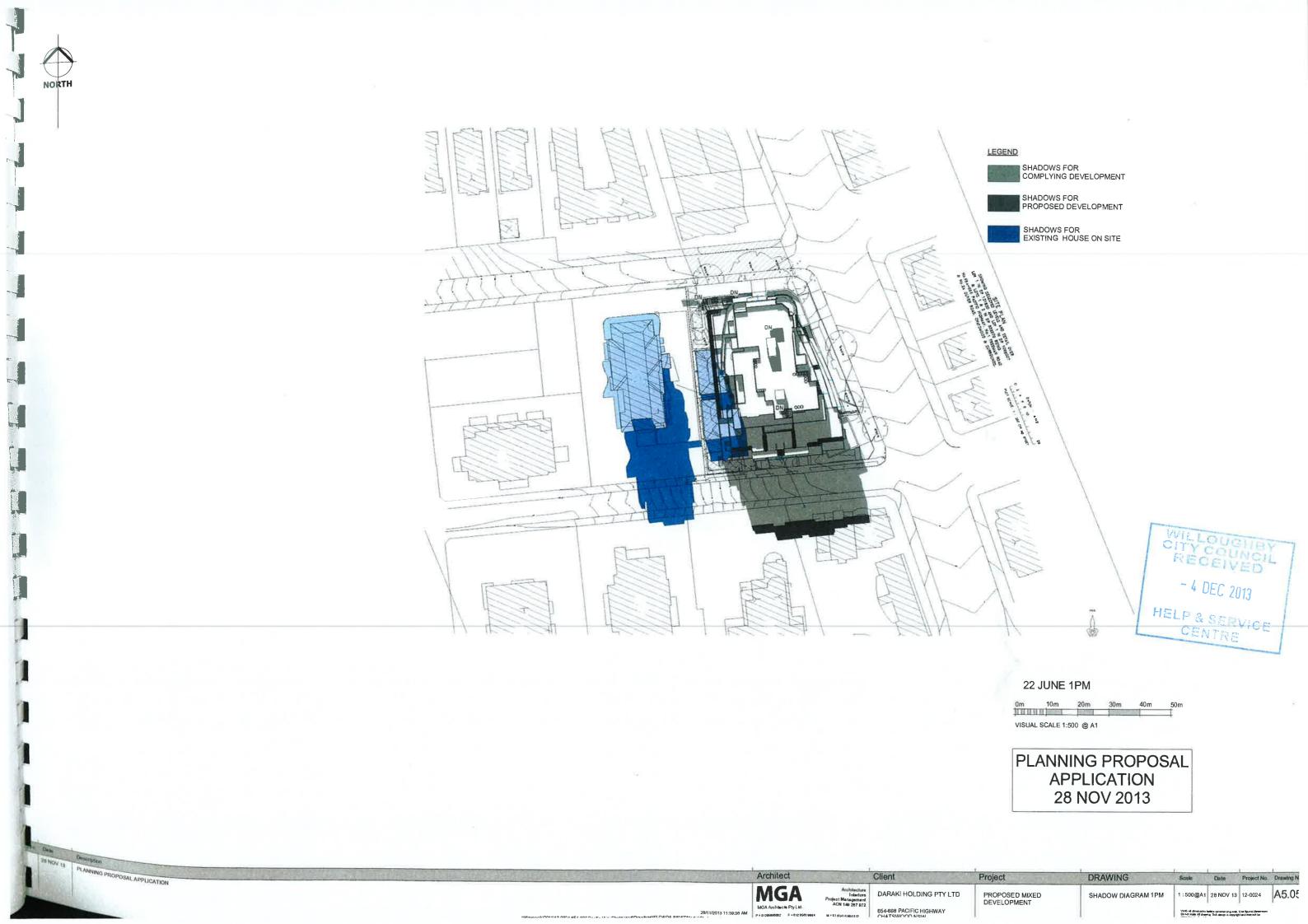
MGA MGA Architecte Ply Ltd. Architecture Interiors Project Management ACN 149 287 972

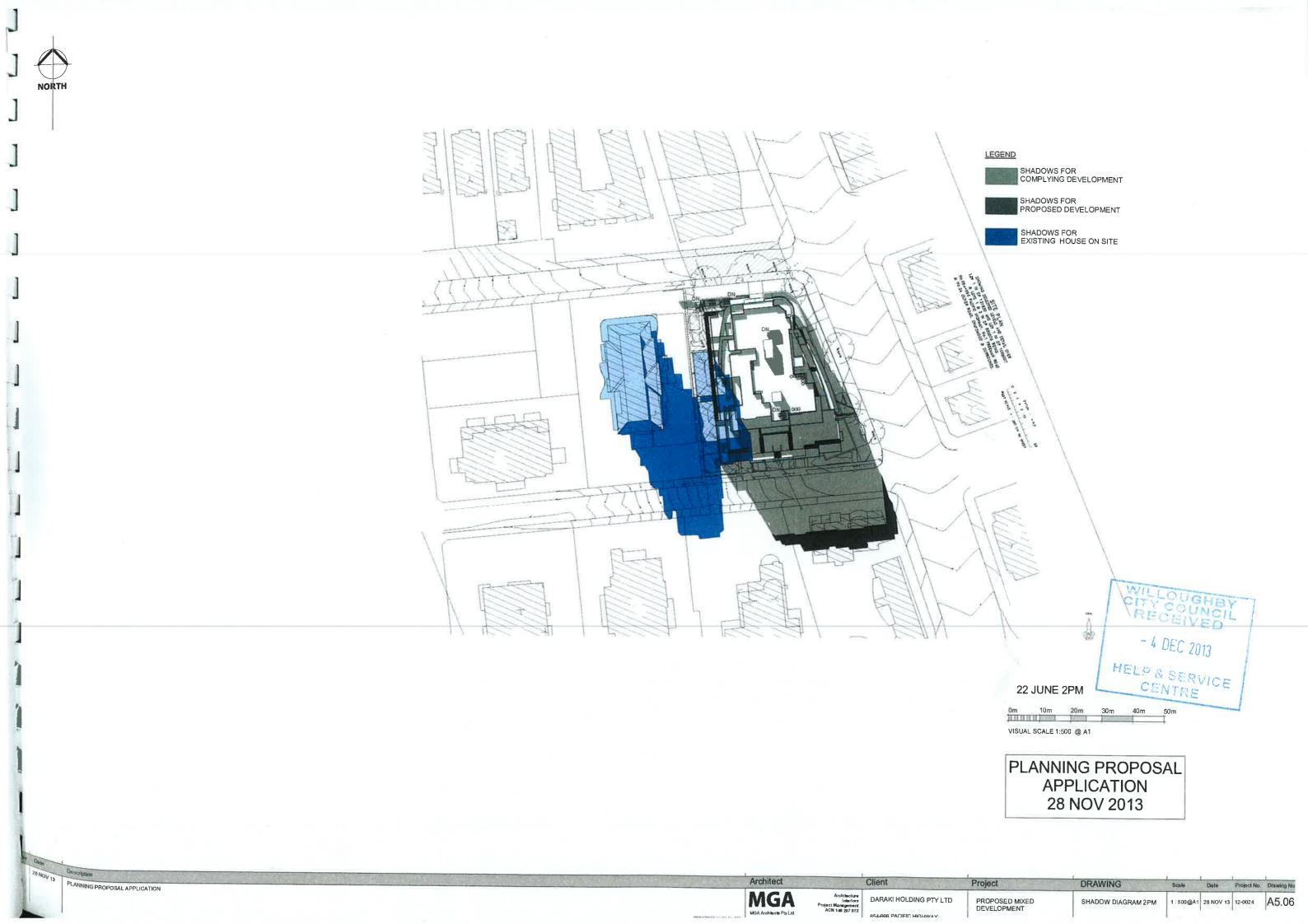
DARAKI HOLDING PTY LTD 654-666 PACIFIC HIGHWAY PROPOSED MIXED DEVELOPMENT

SHADOW DIAGRAM 11AM

1:500@A1 28 NOV 13 12-0024 A5.03









PLANNING PROPOSAL FOR MIXED USE DEVELOPMENT 666 PACIFIC HIGHWAY, CHATSWOOD

Assessment of Traffic and Parking Implications

> December 2013 (Rev D)

Reference 13057

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Transportation, Traffic and Design Consultants
Suite 502, Level 5
282 Victoria Avenue
CHATSWOOD 2067
Telephone (02) 9411 5660
Facsimile (02) 9904 6622
Email: ttpa@ttpa.com.au

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	PLANNING PROPOSAL	2
	2.1 Site, Context and Existing Use	
3.	ROAD NETWORK AND TRAFFIC CONDITIONS	
	3.1 Road Network	5
4.	FUTURE ROAD AND TRAFFIC CIRCUMSTANCES1	1
5.	TRAFFIC	2
6.	ACCESS, INTERNAL CIRCULATION AND SERVICING1	5
7.	PARKING1	6
8.	CONCLUSION	8

LIST OF ILLUSTRATIONS

FIGURE 1	LOCATION
FIGURE 2	SITE
FIGURE 3	ROAD NETWORK
FIGURE 4	TRAFFIC CONTROLS
FIGURE 5	APPROACH AND DEPARTURE ROUTES

1. INTRODUCTION

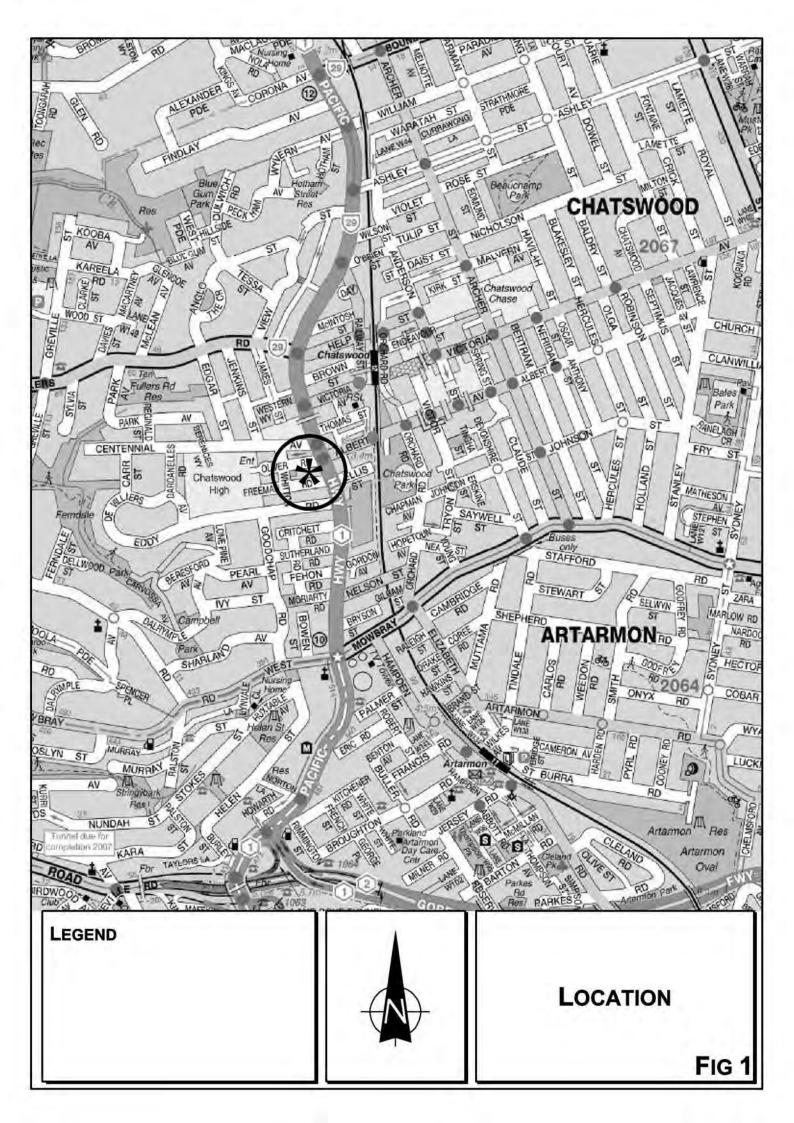
This report has been prepared to accompany a Planning Proposal Application to Willoughby City Council for an amendment to Willoughby Local Environment Plan 2012 (WLEP2012) to permit an increased FSR for a mixed use development at 666 Pacific Highway, Chatswood (Figure 1).

Significant ongoing development is occurring in the Chatswood Centre reflecting the urban consolidation process and the excellent public transport, shopping, entertainment and employment facilities available. The provisions of WLEP enable development on the site with an FSR of 2:1 while the Planning Proposal seeks an FSR of 3.2:1 and the comparative development outcomes achievable under these circumstances are as follows:

	FSR 2:1	FSR 3.2:1
Apartments	44	69
Commercial	1,181 m ²	703.5 m ²
Retail	535 m ²	1,641.5 m ²

The purpose of this report is to:

- * describe the Planning Proposal and the envisaged development scheme
- describe the existing road network and traffic conditions as well as the future circumstances in the vicinity of the site
- assess the potential traffic implications of the increased floorspace under the proposal compared to that under the existing WLEP provisions
- * assess the adequacy of the envisaged parking provisions to serve the development
- assess the envisaged vehicle access, internal circulation and servicing arrangements.



2. PLANNING PROPOSAL

2.1 SITE, CONTEXT AND EXISTING USE

The site (Figure 2) is a consolidation of 4 lots occupying a total area of 2,856 m² with frontages to Pacific Highway, Oliver Road and Freeman Road. The site is located on the western side of the highway on the edge of the CBD where there is significant ongoing development for residential apartment buildings with ground level retail/commercial uses.

The central and eastern part of the site is currently occupied by commercial buildings comprising:

- a single level building on the comer of Freeman Road which is used for the sale of fireplaces
- a two level building on the corner of Oliver Road which is used for the display and sale of tiles

There are two residential dwellings on the western part of the site and there are existing access driveways on the three frontages. The site is adjoined by a home unit building to the west while there is a new mixed use building on the southern side of Freeman Road and there is a car dealership located on the northern side of Oliver Road.

2.2 ENVISAGED DEVELOPMENT

A comparison of the potential development outcomes under the existing and proposed FSR provisions is provided in the following:



LEGEND



SITE

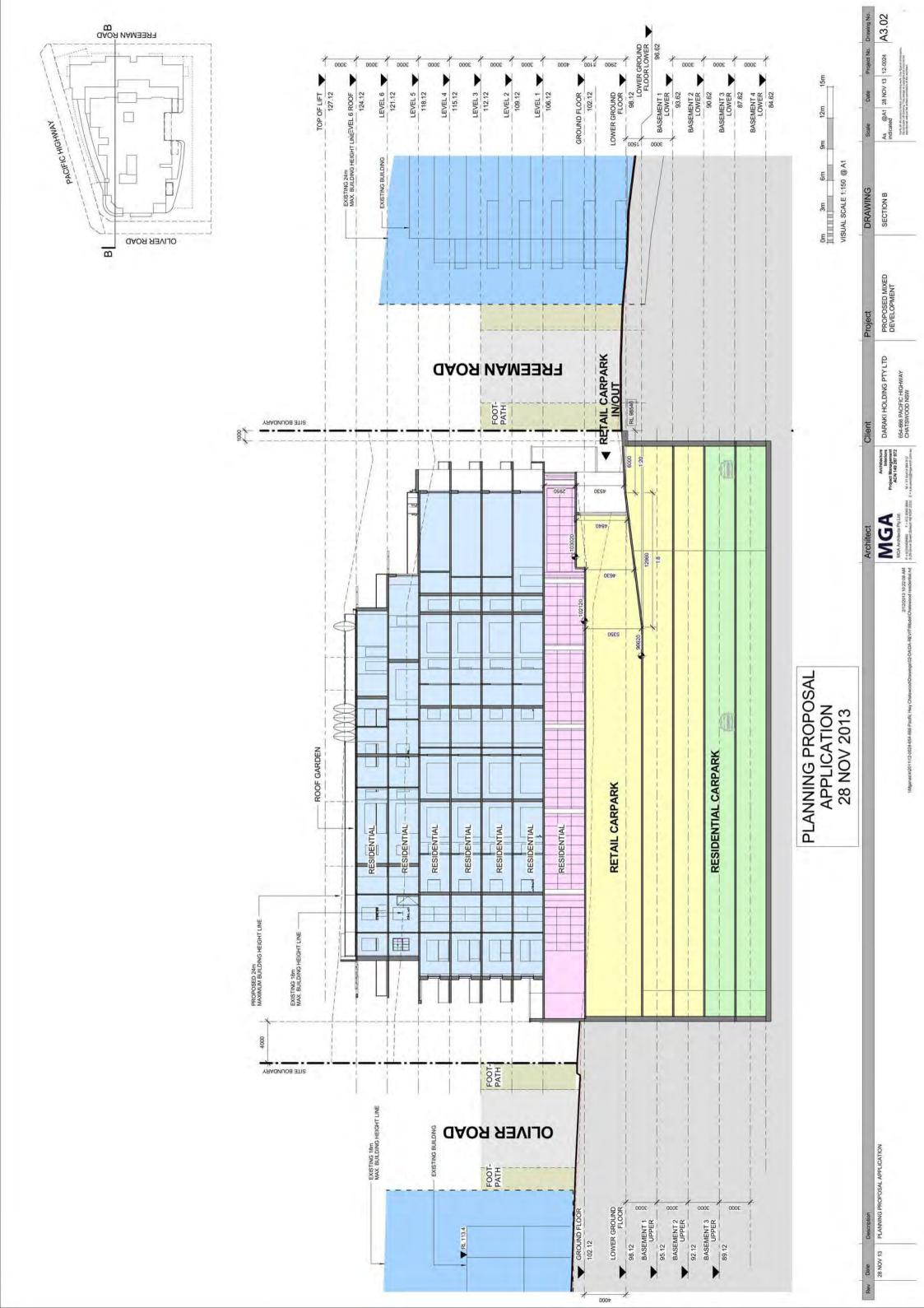
Fig 2

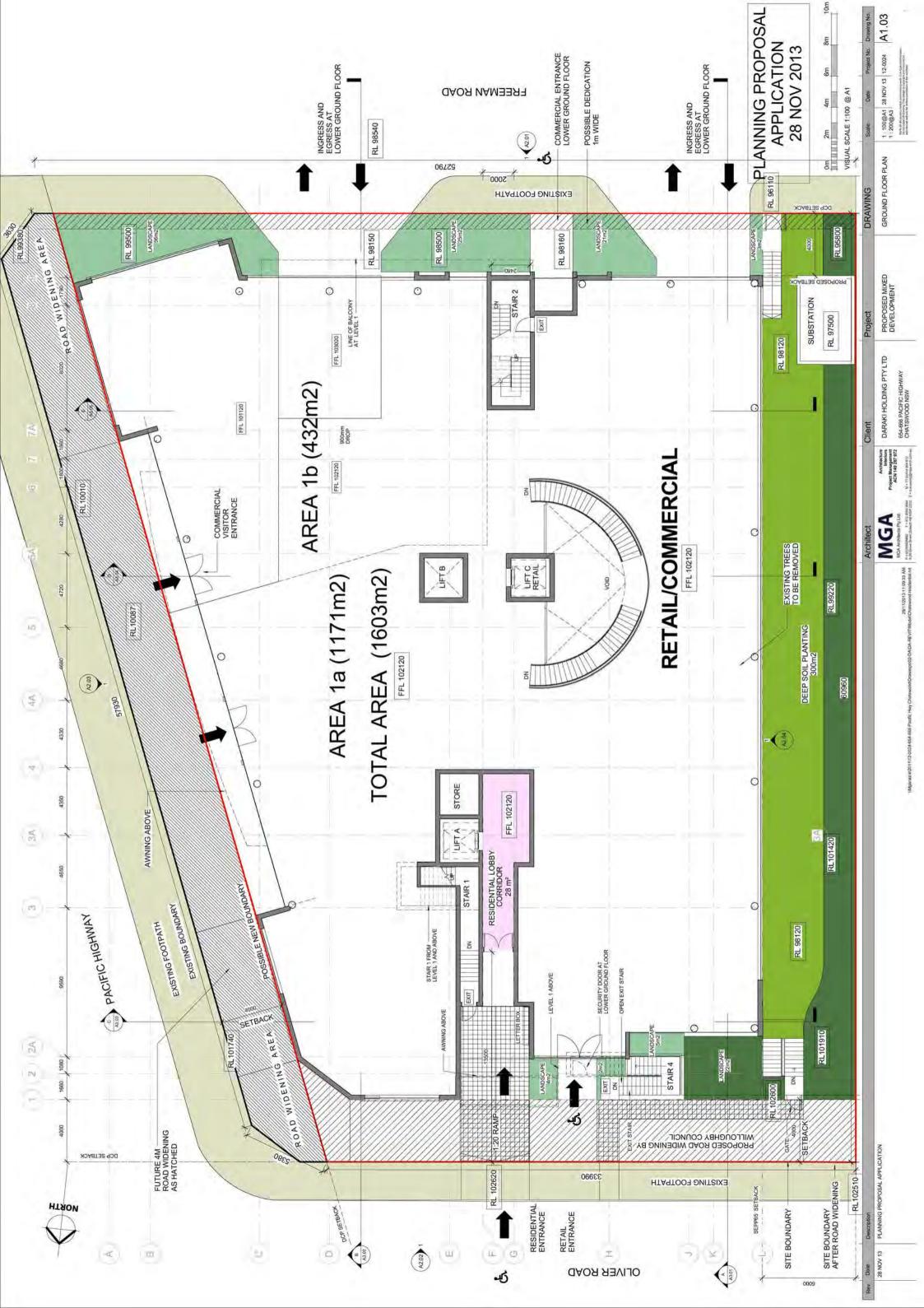
	FSR 2:1	FSR 3.2:1
Residential apartments		
Studio	6	10
1 Bed	6	9
2 Bed	29	45
3 Bed	3	5
Total:	44	69
Commercial	1,181 m ²	703.5 m^2
Retail	535 m ²	1,641.5 m ²

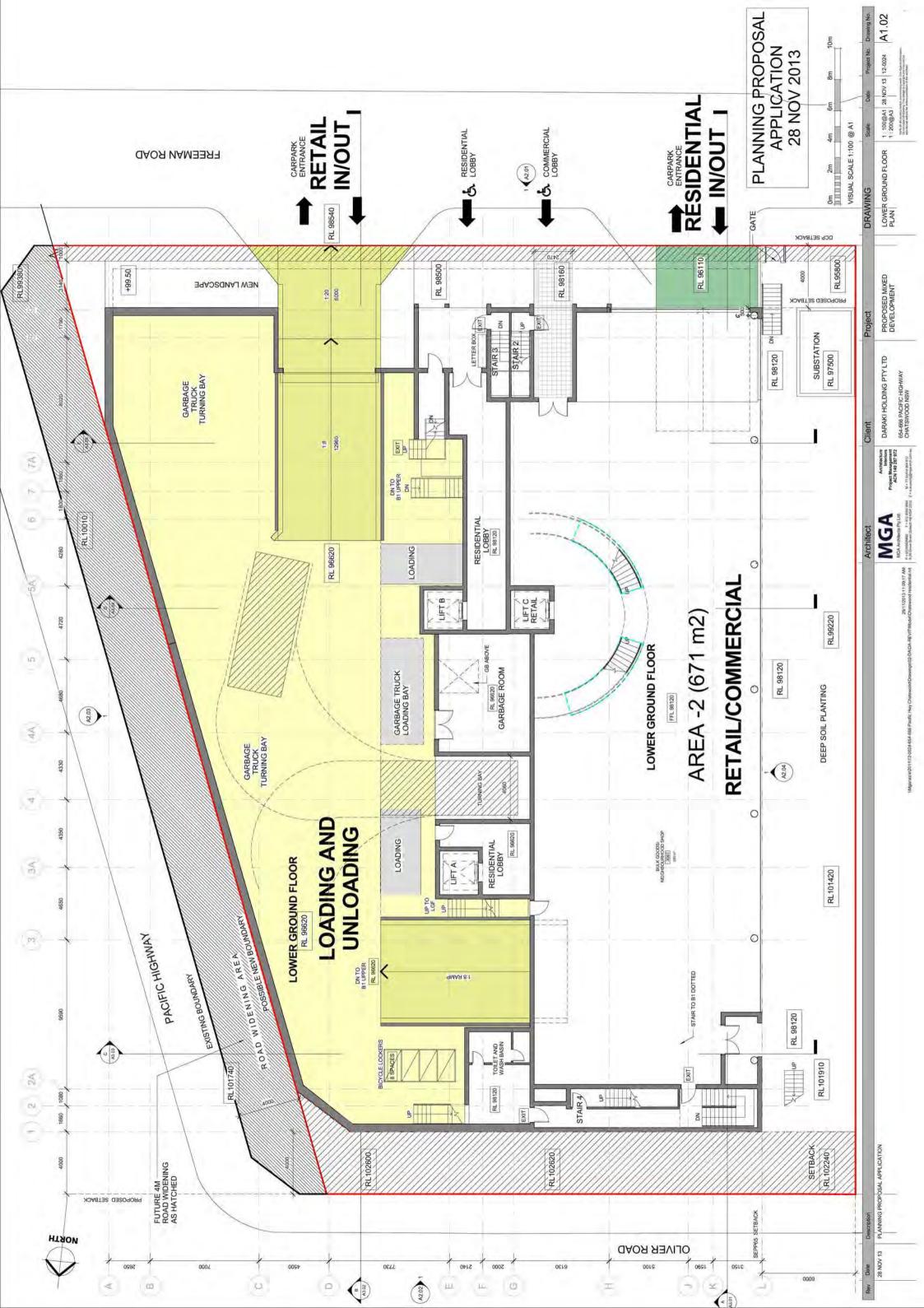
In respect of other aspects of the envisaged development (apart from height and carparking) the development outcomes would be similar with:

- vehicle access on the Freeman Road frontage
- service vehicle provision on the lower ground floor level
- retail units on the highway frontage and commercial units along the western frontage
- provision for road widening along the highway and Oliver Road frontages

Details of the envisaged FSR 3.2:1 scheme are shown on the plans prepared by MGA Architects which accompany the Planning Proposal and are reproduced in part overleaf.







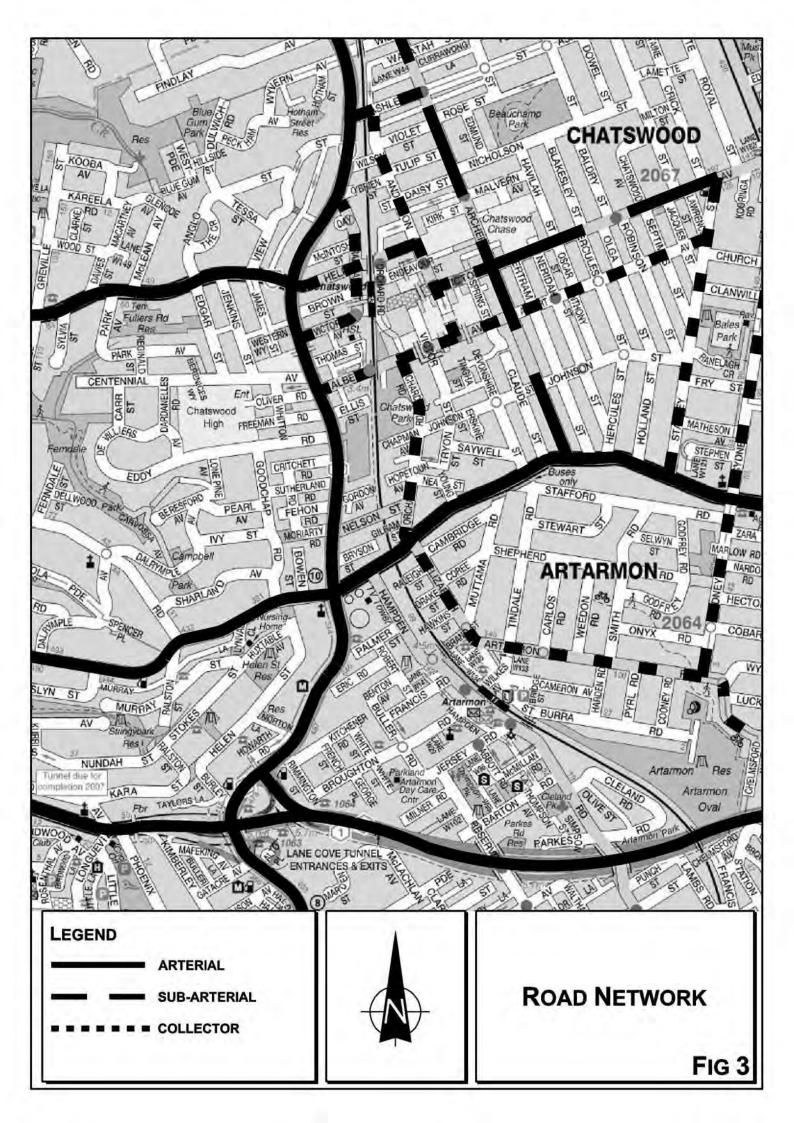
3. ROAD NETWORK AND TRAFFIC CONDITIONS

3.1 ROAD NETWORK

The road network serving the development site (Figure 3) is dominated by:

- Pacific Highway a State Road and arterial route being the principal link between the City and Hornsby
- Delhi Road, Mowbray Road and Boundary Street State Roads and sub-arterial routes connecting and/or crossing the Highway
- Archer Street Regional Road and major collector road route connecting between Mowbray Road and Boundary Road
- Help Street Victoria Avenue a major collector road route through the town centre
- Albert Avenue a collector road connecting to the Highway and running parallel to Victoria Avenue
- Orchard Street and Anderson Street collector roads connecting to Albert Avenue.

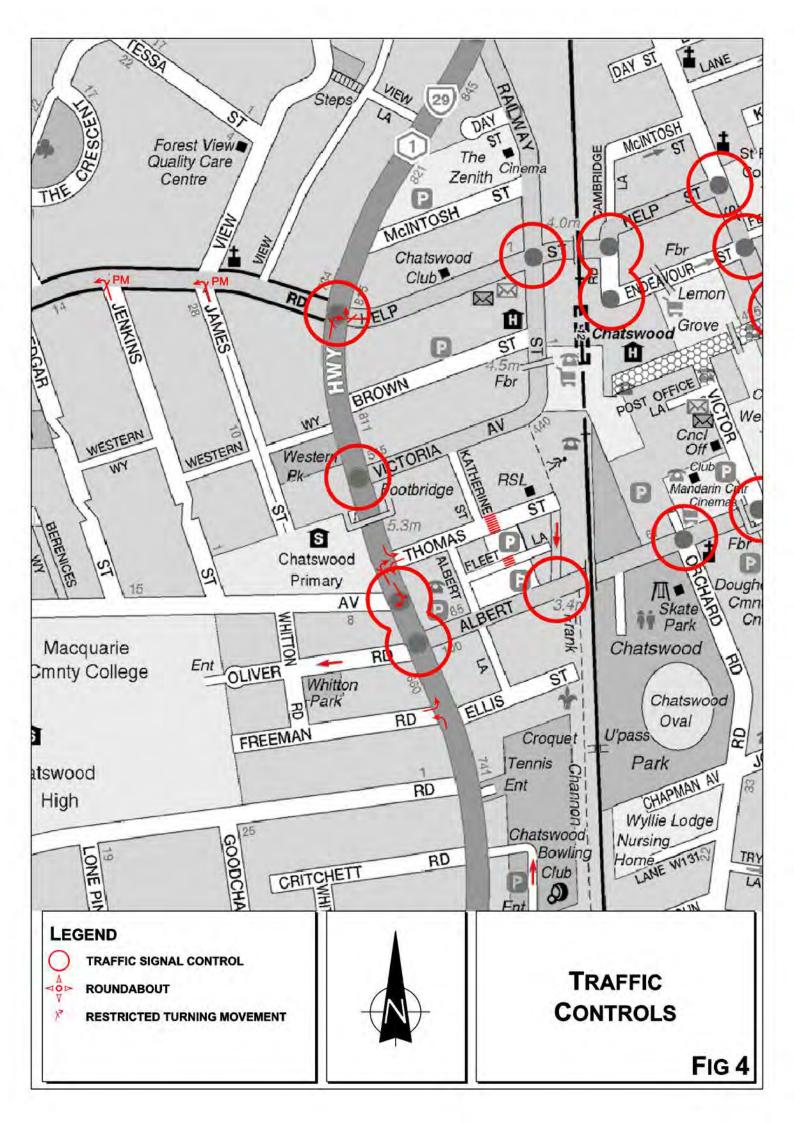
Oliver Road and Freeman Road are local access roads which connect to Whitton Road but "dead end" at the boundary of the Chatswood High School site to the west.

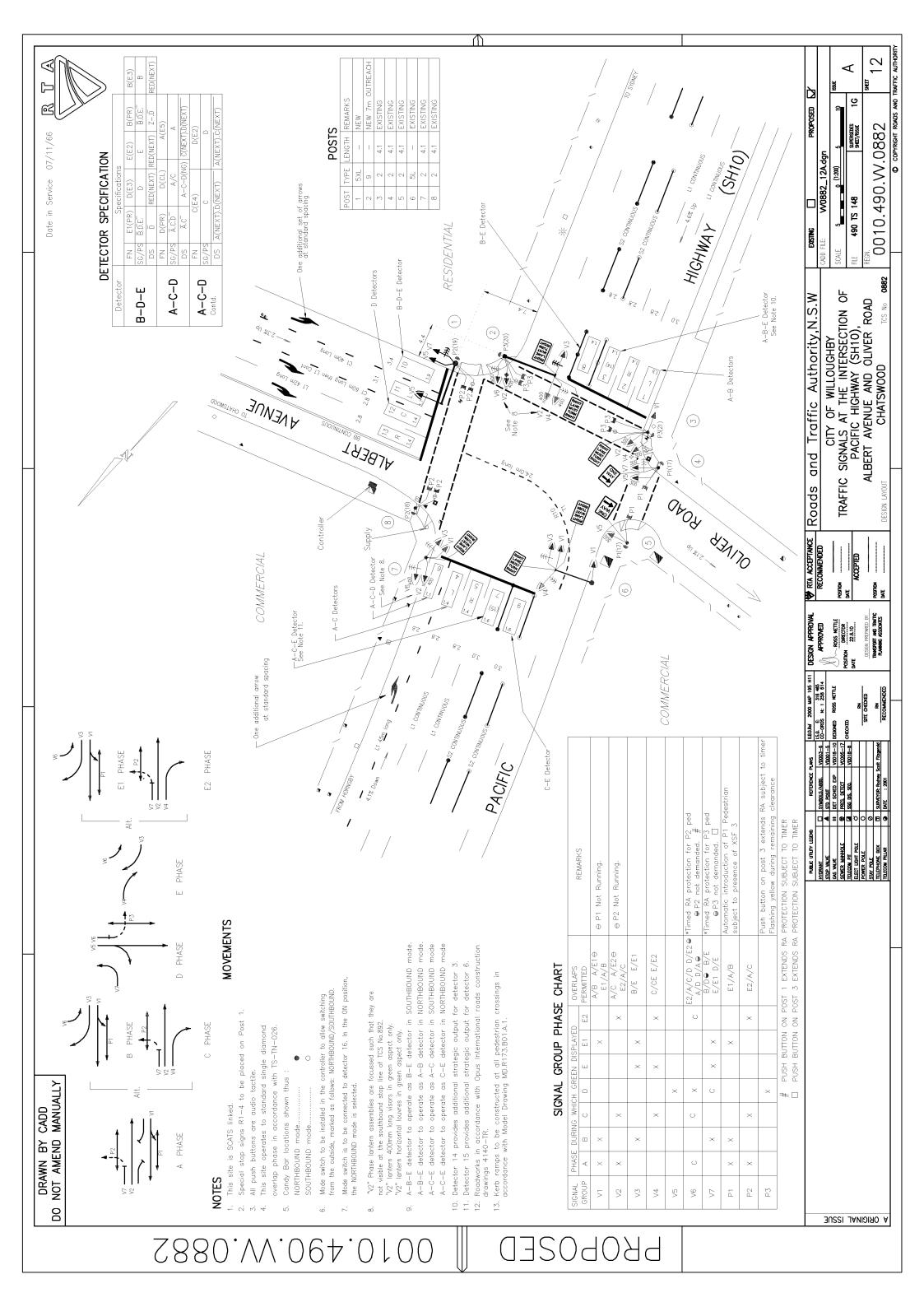


3.2 TRAFFIC CONTROLS

The traffic controls which have been applied to the road system in the vicinity of the site (Figure 4) comprise:

- * the traffic signals at the Albert Avenue/Pacific Highway intersection. Details are provided on the design plan reproduced overleaf and include:
 - tidal flow lane arrangement in the Highway
 - 3 lanes westbound and 1 lane eastbound in Albert Avenue
 - green arrow for the right turn into Oliver Street
 - signal controlled pedestrian crossings
- * the traffic signals at the Pacific Highway/Centennial Avenue intersection which include the provision to turn right into Centennial Avenue
- * the traffic signals at the Pacific Highway, Fullers Road and Help Street intersection including prohibited right turn movements into Fullers Road and out of Help Street
- * the traffic control signals at the Pacific Highway/Victoria Avenue intersection which provides for right-turn movements into Victoria Road
- * the ONE WAY westerly restriction on Oliver Road between the Pacific Highway and Whitton Road
- * the 50 kmph speed restrictions except for the 40 kmph restriction in the CBD core area and 60 kmph on the Highway
- * the NO STOPPING restrictions along the Pacific Highway and Albert Avenue (western part)
- * the central median island in Pacific Highway across the Freeman Road intersection.





3.3 TRAFFIC CONDITIONS

An indication of the prevailing traffic conditions on the road system serving the site is provided by traffic surveys undertaken during the morning and afternoon peak periods which are summarised in the following:

		AM	PM
Pacific Highway	Northbound	1607	1826
	Right-turn	200	191
	Left-turn	11	12
	Southbound	2625	1670
	Right-turn	18	56
	Left-turn	195	189
Albert Avenue	Westbound	33	63
	Right-turn	135	392
	Left-turn	38	158

The operational performance of the Albert Avenue intersection has been analysed using SIDRA and the results for the morning and afternoon peak periods are summarised in the following while the criteria for interpreting the results are reproduced overleaf:

	AM	PM
LOS	Α	В
DS	0.896	0.855
AVD	13.4	14.9

It is apparent that the operational performance of the intersection is relatively satisfactory although traffic flows in reality are at times disrupted by the congestion along the Highway (in peak traffic periods).

Criteria for Interpreting Results of SIDRA Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good	Good
'B'	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
,C,	Satisfactory	Satisfactory but accident study required
'D'	Operating near capacity	Near capacity and accident study required
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode
'F'	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
Α	less than 14	Good operation	Good operation
В	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
С	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays Roundabouts require other control mode	At capacity and requires other control mode

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by **traffic signals**¹ both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a **roundabout or GIVE WAY or STOP signs**, satisfactory intersection operation is indicated by a DS of 0.8 or less.

the values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

The results of other surveys undertaken at intersections in the vicinity are provided in the following:

		AM	PM
Pacific Highway	Northbound	1,496	2,126
	Right-turn	208	156
	Southbound	2,043	1,697
	Left-turn	26	37
Victoria Avenue	Right-turn	93	107
	Left-turn	87	143
Albert Avenue	Eastbound	236	327
	Right-turn	180	94
	Westbound	206	670
	Left-turn	158	128
Orchard Road	Right-turn	44	41
	Left-turn	177	71
Railway Street	Northbound	83	146
	Right-turn	82	116
	Left-turn	59	108
	Southbound	213	93
	Right-turn	31	68
	Left-turn	89	171
Help Street	Eastbound	359	412
	Right-turn	89	61
	Left-turn	2	6
	Westbound	267	335
	Right-turn	98	198
	Left-turn	295	89

The operational performance of these intersections as modeled with SIDRA is summarised in the following:

	AM		PM	
	LOS	AVD	LOS	AVD
Pacific Highway/Victoria Avenue	Α	7.9	Α	8.8
Albert Avenue/Orchard Road	В	18.3	В	15.9
Railway Street/Help Street	В	17.9	В	19.3

These results indicate relatively satisfactory operational performances. Traffic delays and congestion are experienced on the road system in Chatswood at times, however these circumstances are related to:

- major intersections on the Pacific Highway (eg Boundary Street, Fullers Road/ Help Street and Mowbray Road etc)
- Victoria Avenue through the heart of the CBD
- Archer Street/Victoria Avenue intersection
- retail centre carpark accesses.

3.4 PUBLIC TRANSPORT SERVICES

Chatswood CBD has excellent access for public transport services including:

Railway Services

The North Shore and Western Lines operate through Chatswood Railway Station which is located just to the north of the site. These lines provide 13 trains per hour in the morning and afternoon peak periods and there are currently some 32,000 passengers passing through the station each day.

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

Bus Services

There are services provided by 3 operators accessing Chatswood as well as 2 interstate operators with some 460 scheduled services operating each day out of the rail interchange and 220 per day operating out of Railway Street.

There is also excellent provisions for pedestrian access and circulation within the CBD (eg Victoria Mall) as well as provisions for bicycle access.

4. FUTURE ROAD AND TRAFFIC CIRCUMSTANCES

Landuse

Chatswood is a developing Regional Centre with excellent public transport services and there are numerous recent, current, approved and proposed landuse developments in the centre. These developments include:

- * Chatswood Civic Place
- * Chatswood Interchange Complex
- Proposed Student Accommodation on Albert Avenue (adjoining the site)
- * Albert Avenue/Archer Street site
- Archer Street Carpark site
- Albert Avenue Carpark site

Road Network and Traffic

Council engaged the consultant GHD to prepare a traffic model reflecting the future traffic circumstances consequential to the identified landuse development and a range of road and traffic management works.

Details of the options for road and traffic management works which were assessed in Council's study are provided in Appendix C. The resolved proposals include:

- widening of Albert Avenue between the Pacific Highway east of Albert Lane (1 additional westbound lane)
- introduction of a one-way northbound flow in Thomas Lane between Fleet Lane and Thomas Street
- prohibition of the right turn movements into and out of Albert Lane at Albert Street

5. TRAFFIC

The existing development on the site is assessed to have a traffic generation during the morning and afternoon peak periods as follows:

2 dwellings @ 0.85 vtph 1.7 vtph
Southern Commercial 2 vtph
Northern Commercial 6 vtph

Total: 10 vtph (say)

The RMS Development Guideline Supplement (TDT 2013-04) specifies a peak traffic generation for high density residential apartments of 0.19vtph in the morning peak and 0.15vtph in the afternoon peak.

Similarly because the parking provision for commercial floorspace is "constrained" in the Railway precinct the traffic generation is lower than that indicated by the RMS Guidelines for this use. Extensive surveys undertaken by TTPA of existing parking for commercial uses in the precinct indicate a generation rate of 0.25 vtph/space in the morning and 0.32 vtph/space in the afternoon.

Isolated small retail units of the type proposed do not generate high parking turn over characterists like other retail uses and these uses will be somewhat ancillary (ie. café, convenience store etc). The assessed generation of the retail use is 0.2 vtph/space in the morning and 0.5 vtph/space in the afternoon.

Application of these factors to the FSR 2:1 and envisaged FSR 3.2:1 development scenarios indicates the following traffic generation outcomes:

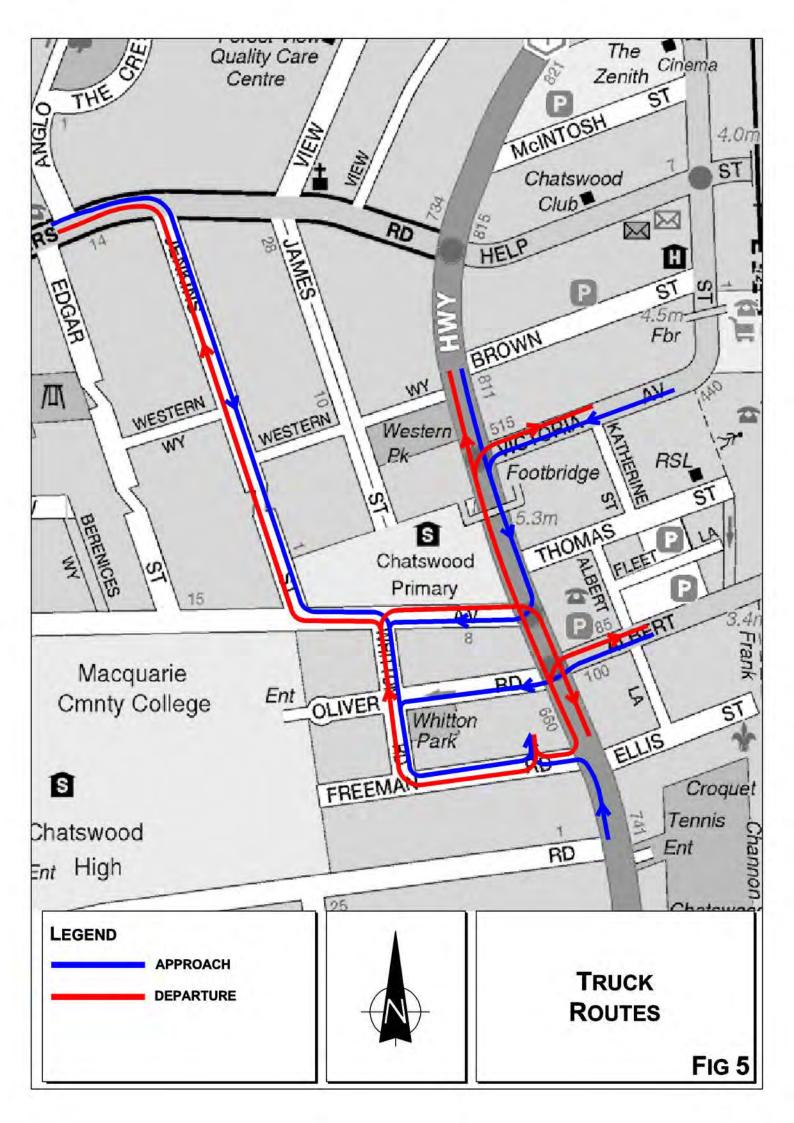
	FSR 2:1				FSI	₹ 3.2:1		
			AM	РМ			AM	PM
Apartments		44	9	7		69	13	11
Commercial	1,181 m ²	11 spaces	3	4	703.5 m ²	7 spaces	2	3
Retail	535 m ²	20 spaces	8	16	1,641.5 m ²	66 spaces	13	33
	455 m ² @8	35%			1,395 m ² @8	35%		
Total:			20	27			28	47
Less Existing			10	10			10	10
Additional to Ex	isting		10	17			18	37

Thus it is apparent that the development outcome under the FSR 3.2:1 as compared to the FSR 2:1 will only result in some 8 vtph additional (ie to 2:1) in the morning peak and 20 vtph in the afternoon peak.

The envisaged vehicle access for the development will be located on the Freeman Road frontage and there will be very flexible approach and departure routes (despite the central median island in the highway across Freeman Road) as indicated in Figure 6. These available routes will enable access to/from the north, south, east and west resulting in a relatively even distribution of generated traffic movements.

The flexibility will be such that the projected "additional" (ie to the existing) movements for the FSR 3.2:1 outcome, will spread as follows:

	AM		1	M	
Do Prof	IN	OUT	IN	OUT	
TOTAL:	8	10	27	10	
North 25%	2	2.5	6.75	2.5	
South 40%	3.2	4	10.8	4	
East 20%	1.6	2	5.4	2	
West 20%	1.6	2	5.4	2	



TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

Vehicle movements of such a small magnitude will have no perceptible impact on the access road system and would not have any "measurable" impact on the operation of the intersections on the highway (which have an existing peak period throughput of some 4,500 to 5,000 vph). Accordingly there will be no requirement for upgrade roadworks particularly when the scheme provides the dedication of land for future road widening on the Highway and Oliver Road.

6. Access, Internal Circulation and Servicing

Access

Vehicle accesses for the envisaged development would be located on the Freeman Road frontage with an appropriate separation from the highway intersection. The proposed accesses will comply with the requirements of AS2890.1 and there will be suitable sight distances available.

Internal Circulation

The internal circulation arrangements will adopt a flexible two-way system with the residents carparking segregated on the lower basement levels. The layout of the basement areas will comply with the design requirements of AS 2890.1 particularly in relation to ramps, aisles, bays and manoeuvring areas.

Servicing

Provision will be made on the lower ground floor for 3 service vehicles and this will be adequate for the residential, commercial and retail needs particularly given the nature of the small units for each use. The manoeuvring of service vehicles will be assisted by a turntable which will ensure that these vehicles can enter and depart in a forward direction.

7. PARKING

Willoughby City Council's DCP specifies a parking provision relevant to the proposed development scheme as follows:

Residential Apartments (Railway Precinct)

Studio - 0.5 space
One-bedroom - 1 space
Two-bedroom - 1 space

Visitors - 1 space per 4 apartments

<u>Commercial</u> - 1 space per 110m²

Retail Shop - 1 space per 25m² of 85% of NFA

Application of this criteria to the envisaged FSR 3.2:1 development scheme would indicate the following requirements:

Residential Apartments

10 x studio - 5 spaces
9 x one-bedroom - 9 space
45 x two-bedroom - 45 spaces
5 x three-bedroom - 3 spaces

Visitors - 17.25 spaces

Commercial

703.5 m² - 6.3 spaces

Retail

1,641.5 m² - 65.6 spaces

Total - 153 spaces

^{*} If not whole number rounded down.

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

Accordingly it is proposed to provide a total of 153 parking spaces including suitable "disabled" and "accessible" spaces. The DCP specifies bicycle parking provisions as follows:

	Lockers	Racks
Residential	1 per 10 apts	1 per 12 apts
Commercial	1 per 600 m ²	1 per 2,500 m ²
Retail	1 per 450 m ²	1 per 150 m ²
	The Day of Day of	the state of the s

Application of this criteria to the FSR 3.2:1 outcome would indicate 24 rack spaces and 12 locker spaces.

The DCP also specifies the provision of motor cycle parking at the rate of 1 space per 25 car spaces indicating a requirement for 6 motor cycle spaces.

8. CONCLUSION

The Planning Proposal involves a consolidated site and an amendment to WLEP2012 to permit development with an FSR of 3.2:1.

Assessment of the envisaged development scheme, which comprises commercial, retail and residential apartment elements, has concluded that:

- there will be no adverse traffic implications
- * the parking can be provided to comply with Council's DCP criteria
- * the proposed vehicle access, circulation and servicing arrangements will be suitable and appropriate.

Residential Flat Design Code - SEPP 65 Compliance Table for 654-666 Pacific Highway. Chatswood

Prepared by Ingham Planning Pty Ltd

Provision	Requirements	Proposal	Compliance
Building Envelope	Building envelope should be at least 20-25% greater than their achievable floor area to allow for building articulation. Total floor area includes assessable GFA and non-assessable GFA (for the purposes of calculating FSR). In denser urban areas 80% of the total maximum building envelope is acceptable.	The maximum permissible building envelop to a maximum height of 24m, based on compliant DCP setbacks (but with SEPP 65 RFD Code setbacks to rear boundary) is 42,205m3. The proposal has a total volume) excluding the volume of balconies) of 30,933m3 which equates to 73.2% of maximum envelope. The building envelope standard is designed to encourage articulation of apartment buildings. The proposed balconies form an important part of the building's articulation. If balconies are included in the proposed building envelope, it increases to 33,067m3, equating to 78.3% of the maximum achievable building envelope volume. This complies with the maximum 80% permitted in a dense urban area that is the case within and adjoining the Chatswood CBD.	YES
Building Height	Compliance with building height controls or permissible number of storey.	A maximum building height of 18m above ground level applies to the site. The Planning Proposal seeks to increase maximum building height to 24m, a height commensurate with adjoining land. The proposal, apart from lift overrun, has a maximum height of not more than 24m and therefore complies with the requested 24m height control. The top of the lift overrun extends to a height of 26m, as measured from the ground level below the lifts.	YES (Subject to the Planning Proposal proceeding with an increase in maximum building height to 24m and a minor 2m height concession for the lift overrun)

Provision	Requirements	Proposal	Compliance
		There is no maximum number of storeys specified. A proposed building height of 8 storeys is consistent with a maximum building height of 24m and building height controls that apply in the locality and as envisaged under the proposed FSR of 3.2:1.	
Building Depth	Resolve building depth controls in plan, section and elevation. In general, an apartment building depth of 10-18 meters is appropriate. Developments that propose wider than 18m must demonstrate how satisfactory day lighting and natural ventilation are to be achieved. The objectives of the building depth control are: • To ensure that the bulk of the development is in scale with the existing or desired future context. • To provide adequate amenity for building occupants in terms of sun access and natural ventilation. • To provide for dual aspect apartments.	Council's DCP allows a maximum building depth of 20m. The proposal substantially complies with Council's DCP standard for building depth, apart from a limited area of the central rear portion of the building on Levels 1-4, (see drawings showing 18m & 20m building depth lines). Adequate articulation is provided in this location to "break" the length of the rear elevation and reduce perceived bulk of the western elevation. The great majority of the building also complies with the RFD Code standard of 18m as measured from the facades facing public roads. The site has 3 road frontages and for the most part has a building depth that does not exceed 18m to these road frontages. There is a minor encroachment of the 20m DCP maximum building depth, in the central rear portion of the building. Some flexibility in building depth is envisaged where "the bulk of development is in scale with the existing and future context" and provided "satisfactory daylighting and natural ventilation are achieved."	SUBSTANTIAL COMPLIANCE

Provision	Requirements	Proposal	3 Compliance
		The proposal is in context with existing and future context and readily achieves compliance with respect to daylighting and natural ventilation. Building separation is well in excess of RFD Code requirements, as demonstrated below.	•
Building Separation	Design and test buildings separation controls in plan and section. Test building separation controls for daylight access to buildings and open spaces. Building separation required as follows: Up to 4 storeys/12m 12m between habitable rooms/balconies; 9m between habitable rooms/balconies & non-habitable; 6m between non-habitable rooms/ balconies; 13m between habitable rooms/balconies & non-habitable; 9m between habitable rooms/balconies & non-habitable; 9m between non-habitable rooms; 9 storeys & above/over 25m 24m between habitable rooms/balconies; 18m between habitable rooms/balconies; 18m between habitable rooms/balconies; 12m between non-habitable rooms/balconies & non-habitable; 12m between non-habitable rooms; Building separation control may be varied in respond to site and context constrains, subject to the objectives of the building separation standard being met. These objectives are:	Residential floor levels up to a height of 12m (4 storeys) above ground level provide in excess of 12m building separation between habitable rooms/balconies of the proposed building and neighbouring residential buildings. Minimum building separation of 13.91m is provided up to a building height of 12m. Building separation (up to a building height of 12m) to the closest residential building (3-5 Freeman Road) ranges from 13.91m up to 18.5m Residential floor levels above 12m up to a height of 25m (8 storeys) above ground level provide in excess of 18m building separation between habitable rooms/balconies and neighbouring residential buildings. Minimum building separation of between 19.56m and 20.63m is provided above a building height of 12m, up to a building height of 25m. Building separation (building height 12m to 25m) to the closest residential building (3-5 Freeman Road) ranges from 19.56m to 22.86m	YES

Provision	Requirements	Proposal	Compliance
	 To ensure that new development is scaled to support the desired character with appropriate massing and spaces between buildings. To provide visual and acoustic privacy for existing and new residents. To control overshadowing of adjacent properties and private or shared open space. To allow the provision of open space with appropriate size and proportion for recreational activities for building occupants. To provide deep soil zones for stormwater management and tree planting, where contextual and site conditions allow. 	No part of the proposed building (other than the lift overrun) extends above a height of 24m (8 storeys). The objectives of the building separation standards are achieved.	
Street Setbacks	Identify streetscape character, common setback in street, planting and height of buildings and daylight access controls. Relate to area's hierarchy. Identify garden and landscape areas and street sections. And test control for impact on the scale, proportion and shape of building façade.	The building podium provides a zero setback to the Pacific Highway & the eastern end of Oliver Road (with road widening in place), a 4m setback to Freeman Road and a 4m setback to Oliver Road (with road widening in place). The residential tower component of the building provides a minimum building setback of 2m to the Pacific Highway (with road widening in place) & average setback of ??? Building setback to the Highway is compatible with the residential tower to the south (No. 640-650 Pacific Highway). Front setbacks to the Pacific Highway are appropriate for a mixed use building. Freeman Road and Oliver Road are secondary street frontages.	SUBSTANTIAL COMPLIANCE FOR STREET SETBACKS (Having regard to provision for future road widening).

Provision	Requirements	Proposal	5 Compliance
		The residential tower provides a minimum setback of 4m to Freeman Road and a 4m setback to Oliver Road (with road widening in place). Typically reduced setback is reasonable to secondary street frontages	
Side and Rear Setbacks	Relate side setbacks to existing streetscape patterns. Test side and rear setbacks with controls for building separation, open space and deep soil zones and overshadowing controls (see building separation	As noted above, the site has 3 road frontages, which means there are no side boundaries. The primary frontage of the proposed building is the Pacific Highway. Therefore the western boundary of the site is effectively a rear boundary. Rear setback to 3-5 Freeman	SIDE SETBACKS NOT APPLICABLE
	standards in this Compliance Table).	Road significantly exceeds the 3m minimum required for the lower ground and ground floor levels. The proposal substantially complies with the minimum rear setback for all levels of the building (apart from some minor encroachment by parts of balconies). Setbacks are considered in detail in the DCP Compliance Table.	BOUNDARY SETBACK COMPLIES
		Deep soil zone to the rear boundary is more than double the minimum width required.	
Floor Space Ratio	Determine FSR by calculating at 80% of the building envelope in denser urban areas and at 75% in suburban areas.	The current FSR controls provide for a maximum FSR of 2:1. The Planning Proposal seeks to increase this to a maximum of 3.2:1. The proposed building envelope	YES
	Test desired built form outcome against proposed FSR to ensure consistency with building height, building footprint, the	accommodates an FSR of 3.2:1, which complies with the maximum FSR sought under the Planning Proposal.	
	three dimensional building envelope and open space requirement. Test typical lot sizes and shapes in the area.	The proposed total floor space is accommodated in a building which equates to not more than 77% of the maximum total floor space achievable in the	

Provision	Requirements	Proposal	6 Compliance
		maximum permissible building envelope for the site. The site is located within a denser urban area (being adjacent to the Chatswood Town Centre), therefore 77% is compliant with the 80% building envelope in dense urban areas.	
Deep Soil Zones	Minimum of 25% of open space area should be a deep soil zone.	The proposal provides for a deep soil zone of 300m2 approximating 25% of the total area of communal open space of some 1,230m2. The deep soil zone at the rear of the site is capable of accommodating large trees.	YES
Communal Open Space	Area of communal open space required should generally be at least between 25% and 30% of the site area. Where developments are unable to achieve the recommended communal open space, such as those in dense urban areas, they must demonstrate that residential amenity is provided in the form of increased private open space and/or a contribution to public open space.	The rear deep soil panting area of some 300m2 is available for use as communal open space for residents. Additional communal open space is located along the Freeman Road and Oliver Road frontages of the site. At podium & roof level, communal open space area of 570m2 including a substantial area of landscaping is provided. Total communal open space of 1,230m2 equates to 47% of site area (within the B5 zone) and exceeds the 25% to 30% of site area requirement.	YES
Safety	Carry out a formal crime risk assessment for all residential developments of more than 20 dwellings. The safety objectives are: To ensure residential flat developments are safe and secure for residents and visitors. To contribute to the safety of the public domain.	There is a clear definition of the public and private domain and suitable fencing and access controls provided. Residential and commercial entrance lobbies are separated. The design provides for passive surveillance of the public domain. The development Application will be accompanied by a "Safety by Design" assessment.	YES

_

Provision	Requirements	Proposal	Compliance
Visual Privacy	Locate and orientate new development to maximize visual privacy between buildings on site and adjacent buildings. Design building layouts to minimize direct overlooking of rooms and private open space adjacent to apartments. Use detailed site and building design elements to increase privacy without compromising access to light and air. In relation to visual privacy the Code adopts the building separation minimum standards as the primary 'rule of thumb" for maintaining adequate	High levels of visual privacy are provided for apartments within the proposed development. Measures include privacy walls to balconies, off-setting of external windows and use of translucent glass in windows, where necessary. Substantial building separation distance to neighbouring buildings, in excess of the minimum requirements of the Code ensures adequate visual privacy to neighbouring residential units. Privacy to the units to the west is further enhanced by proposed planting of large trees and shrubs along the western boundary of the site.	YES
Parking and Vehicular and Pedestrian Access	neighbor privacy. Determine appropriate parking requirements depending on building type and proximity of public transport. Provide vehicular access in accordance with Australian Standards. Limit driveways to a maximum width of 6m and locate vehicle entries away from pedestrian entries.	Off-street parking is provided in accordance with the Council's DCP requirements. Vehicular access is designed in accordance with Australian Standards. Driveway access does not exceed 6m in width. Vehicular access is located in Freeman Road, separated from pedestrian access off Oliver Road & Pacific Highway.	YES
Private Open Space	The minimum recommended area of private open space for each apartment at Ground Floor is 25sqm with 4m in one dimension. Provide primary balconies for all apartments with a minimum depth of 2m.	There are no ground floor apartments and there are no 3 bedroom apartments. All apartments are provided with balconies with a minimum depth of at least 2m and minimum area of at least 10m2.	YES

Provision	Requirements	Proposal	Compliance
Apartment Sizes	Minimum 38.5m2 for studio units, 50 m2 for 1 bedroom units; 70m2 for 2 bedroom apartments and 95m2 for 3 bedroom apartments.	The floor areas of all units are equal to, or exceed the minimum recommended apartment sizes (38.5m2 for studio units, 50 m2 for one bedroom units, 70m2 for 2 bedroom units and 95m2 for 3 bedroom units).	YES
Residential flat building Floor to Ceiling height	2.7m minimum for all habitable rooms on all floors, 2.4m is the preferred for nonhabitable rooms although 2.25m is permitted.	A floor to ceiling height of at least 2.7m is achieved for all habitable rooms. In the case of non-habitable rooms a minimum height of 2.4m is achieved.	YES
Ground floor Apartments	Optimize number of ground floor apartments with separate entries. Provide ground floor apartments with access to private open space, preferably as a terrace or garden.	There are no ground level apartments.	N/A
Internal Circulation	Where units are arranged off a double loaded corridor, the number of units accessible from a single core corridor should be limited to 8.	The proposal provides for corridors extending north and south from the residential lifts. The maximum number of units accessed from the northern corridor is 6 and in the case of the southern corridor the maximum is 8.	YES
Storages	Minimum 6m3 for 1 bedroom apartments, 8m3 for 3 bedroom apartments and 10m3 for 3 bedroom apartments (excluding kitchen cupboards or wardrobes) is to be provided.	The basement car park includes an average storage capacity of 7.5m3 of residential storage for the proposed apartments. Minimum capacity complies with the requirements of SEPP 65 (6m3 for 1 bedroom units, 8m3 for 2 bedroom units and 10m3 for 3 bedroom units).	YES
		Additional storage is provided within apartments, equivalent to at least 40% of the basement storage for each apartment. Total storage capacity per unit exceeds the minimum required.	

Provision	Requirements	Proposal	9 Compliance
Daylight Access	Living room and private open spaces for at least 70% of apartment should receive minimum of 3	The site is located within a dense urban area, hence a minimum mid-winter solar access of 2 hours applies.	YES
	hours direct sunlight between 9am- 3pm in mid-winter. In dense urban areas a minimum of 2 hours may be acceptable. Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10%	The proposal provides that 52 units out of a total of 69 units receive in excess of 2 hours sunlight on the winter solstice. This equates to 75% of units (3 units more than the minimum number required) that achieve at least 2 hours mid-winter solar access. This is an acceptable outcome in a dense urban environment on a site that is orientated north to south.	
		The proposal provides 2 single-aspect south facing apartments. This equates to 3% of the total number of apartments.	
Natural Ventilation	Building depths which support natural ventilation typically range in depth from 10-18m.	Proposed units do not exceed a depth of 18m and have good access to natural ventilation. No apartments have a depth of more than 18m.	YES
	(ie. Building depths should generally not exceed 18m in order to optimize access to natural ventilation).	The RFD Code guideline with respect to apartment depth is intended to discourage apartments of significant depth, where the rear portions of those apartments may be difficult to naturally ventilate from windows. Single aspect units have a modest depth of 6.31m to 10.83m, ensuring good access to natural ventilation.	
	60% of residential units should be naturally cross ventilated.	86.9% of apartments (60 units (out of a total of 69 units) are naturally cross ventilated, well in excess of the 60% standard.	
	25% of kitchens should have access to natural ventilation.	40.5% of apartment kitchens (28 out of a total of 69) have direct access to natural ventilation.	

Compliance Table for 654-666 Pacific Highway Chatswood

Prepared by Ingham Planning Pty Ltd

Provision	Controls	Proposal	Compliance
E1.1 Frontages Ensure sufficient frontages to achieve a good relationship to adjoining development &	Where development exceeds 11m in height or vehicular access is only obtainable from the primary street frontage, a minimum width of the site at the front alignment is 27m.	The site frontages to the Pacific Highway, Freeman Road and Oliver Road all exceed 27m.	Yes.
provide adequate landscaping & be compatible with the general pattern of	Vehicular access is to be from the secondary street frontage.	Vehicular access is to the secondary street frontage (Freeman Road).	Yes.
spacing of buildings. Avoid "isolating" allotments by development. Minimize impact of traffic & vehicular access, including	Entry portal for driveway not to exceed 5m in width, with max 3.6m head clearance, if car park entry is also an entry to a loading dock.	6m width provided to ensure adequate clearance for two way truck movements.	Substantial compliance.
adequate separation between driveways and provide adequate separation	Car parking must be provided at and/or below ground level.	All car parking is located below ground level.	Yes.
between the different uses within the site.	Vehicular movements for loading/unloading and customer car parking should be separated where possible.	Loading and unloading facilities are separately located from customer/visitor parking.	Yes.
	Residential apartments entries to be separated from commercial entries. Ground level frontages shall be "transparent".	The residential entries/lobbies are separate from the commercial entries/lobbies.	Yes.
	Any security shutters, mesh, gates or similar must be located a minimum of 1m behind the façade.	No security shutters, mesh gates or the like are proposed within 1m of the front facades.	Yes.

Provision	Controls	Proposal	Compliance
Density, Use and Height Maintenance & improvement of existing or planned scale and character of the street & maintenance of solar access to public places & footpaths. Buildings are appropriate to their setting & provide a well integrated backdrop to the streetscape and maintain the amenity of any adjoining residential land in terms of building bulk and solar access.	Compliance with building height and floor space controls in Willoughby LEP 2012. A maximum building height of 18m and maximum floor space ratio (FSR) of 2:1 applies. The Planning Proposal envisages an increase in maximum building height to 24m (excluding lift overrun) and an increase in maximum FSR to 3.2:1. The height of a building must ensure that: - • Solar access to adjoining properties and key areas of the public domain is maintained. • Views from neighbouring dwellings are not unduly compromised. • The building height does not overwhelm the public street & is compatible with the existing or planned scale of the surrounding environment. Development should incorporate retail, business or office use on the ground floor to provide a continuous commercial character of business zones & maintain activity & passive surveillance at street level.	The proposal complies with the maximum building height of 24m (apart from lift overrun, which extends to a height of 26m) and the maximum FSR of 3.2:1 proposed in the Planning Proposal. The proposal maintains at least 2 hours solar access & in most cases at least 3 hours solar access to adjoining properties. No key areas of the public domain are overshadowed. Views from neighbouring dwellings are not materially compromised, having regard to the high density context and the existing allowable building height of up to 18m. The 2 storeys of additional building height proposed does not obstruct any significant views. The proposal does not "overwhelm" the Pacific Highway frontage. This Highway is a major road of significant width. The residential tower provides setbacks to the Highway consistent with the 7 storey apartment building to the south. Upper levels of the building are stepped back from Freeman Road and building form is relatively narrow and modest in scale, fronting Oliver Road. The ground and lower ground floors comprise non-residential uses permitted in the B4 Zone and would be subject to separate DA.	Compliance subject to increased height and FSR proposed in the Planning Proposal being supported.

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
		Non-residential uses that could be considered include neighbourhood shops, bulky goods retail, offices& showrooms. The ground and lower ground floors include glazing to street frontages for passive surveillance.	
E1.3 Design and Streetscape Design Qualities	Façade Treatment:	Colours, vertical and horizontal elements, balconies and blade walls provide for an attractive façade with visual interest.	Yes.
Achieve attractive streetscapes that add visual interest & amenity to pedestrian areas, reflect the function of the street, create high quality urban forms & enhance the character of the	Building Form:	Contemporary building form proposed that is consistent with new development in the locality. Clearly defined commercial podium. Vertical elements in residential tower moderate the horizontal line of the building on the longer eastern and western elevations.	Yes.
existing retail/commercial areas.	Street Frontage Heights:	Existing street frontage heights in the locality are highly variable. Overall building height is consistent with nearby buildings to the south and west.	Yes.
	Prominent Corner Sites:	The design includes a strong vertical element in the northeast corner of the building to define the intersection of Oliver Road and Pacific Highway, an intersection of some visual prominence as viewed from the Chatswood CBD.	Yes.
	Ground Level Activities & Interest:	The ground floor frontage to the Pacific Highway includes display windows and avoids large areas of blank wall and provide for active uses such as neighbourhood shops and bulky goods retailing	Yes.

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
	Building to Street Alignment:	The commercial podium (single storey to Highway) is built to the future street alignment of the Pacific Highway and the eastern end of the Oliver Road frontage. Some setback is provided to the commercial podium along the balance of the Oliver Road frontage and the Freeman Road frontage, as these streets are primarily residential in character with buildings setback from the street.	Yes.
	Façade Modulation;	Building form is modulated with openings and changes to façade treatment to provide a suitable balance of horizontal and vertical lines and achieve suitable proportions, adding some "verticality" to what would otherwise appear as a relatively long building.	Yes.
	Solid to Void Ratio:	There are no above awning shop frontages proposed. The first floor level is a residential floor level and includes an acceptable proportion of windows and solid wall.	Yes.
	Window Proportion:	The proportion of windows and openings to wall areas above awning level are consistent with other residential buildings in the locality.	Yes.
	Colour & Finishes:	A suitable range of coordinated colours is proposed, with strong colours avoided. Driveway entry walls are to be painted the same colour as the adjoining external facade.	Yes.

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
	Materials:	Design is contemporary in style, with a painted smooth rendered masonry finish. Large unbroken expanses of masonry wall surface area avoided and the facades are suitably modulated.	Yes.
	Rear Façade: Building massing & bulk:	No access to apartments is proposed at the rear, above podium level. Stairs are integrated into the design of the building. Lifts and stairs to apartments are within the building rather than at the rear elevation. Garbage and storage rooms are located within the basement. Clothes drying areas are screened from view.	Yes.
	Buildings over 11m should have a defined podium & tower element & the podium element defined as a transition element to reflect the height and form of neighbouring buildings.	The building presents a clearly defined commercial podium, with the residential tower above defined as a separate element of residential character by way of façade treatment, balconies and setback.	Yes.
	Signage	No signage, other than directional signage is required for the residential component. Signage for the commercial floor levels will be limited shop front and under awning signs as detailed on the future development application.	Yes.
	Public Art	There is potential for provision of an item of public art in the northeast corner of the site. However the site is not a gateway or highly visible location and would therefore not require provision of public art.	Yes.

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
Set backs Positioning of buildings to provide adequate separation between buildings for the amenity of the development and adjoining properties & to provide adequate space for landscaping, equitable access to sunlight& minimize overshadowing of adjoining properties. Provide setbacks that spatially define the street, ensure adequate visibility for pedestrians and cars, complement the streetscape & allow for landscaping & open space. Ensure the positioning of new buildings contribute to the existing and proposed streetscape character.	Consistent front setback with adjoining development, though not necessarily identical. Vehicular entrances or open parking areas must not diminish the attractiveness of the streetscape or visually dominate. To achieve visual interest in front facades, buildings can be designed with variations in the facade alignment at upper levels. Where appropriate, parapet structures should be used above the ground or first floor level to emphasise the commercial streetscape character consistent with adjoining buildings. Where existing streetscape is characterized by ribbon development immediately on the boundary to the street frontage, the ground floor (and where existing 2 storey building facades prevail, the first floor) of the development should maintain the existing streetscape character by incorporating a zero front setback. First & second floor levels should be setback a minimum of an additional 2m from the street frontage 9from that of the ground level below). Balconies, other than the	Residential floor levels up to a height of 12m (4 storeys) above ground level provide in excess of 12m building separation between habitable rooms/balconies of the proposed building and neighbouring residential buildings. Minimum building separation of 13.91m is provided up to a building height of 12m. Building separation (up to a building height of 12m) to the closest residential building (3-5 Freeman Road) ranges from 13.91m up to 18.5m Residential floor levels above 12m up to a height of 25m (8 storeys) above ground level provide in excess of 18m building separation between habitable rooms/balconies and neighbouring residential buildings. Minimum building separation between 19.56m and 20.63m is provided above a building height of 12m, up to a building height of 25m. Building separation (building height 12m to 25m) to the closest residential building (3-5 Freeman Road) ranges from 19.56m to 22.86m Apart from the lift overrun, no part of the proposed building extends above a height of 25m (8 storeys).	Variation to minimum street setbacks sought due to site circumstances (3 street frontages and road widening).

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
	use of the podium level, shall not encroach into this setback.	The residential tower at and below 3 storeys achieves a minimum 2m front setback to all street frontages.	
	Third floor and above: 5m for the 3 rd floor, with an increase of 1.2m for each storey of the building above the 3 rd floor (e.g. a 6 storey building would have the top 3 floors setback 7.4m from the front boundary. Balconies are not to encroach into the required setback of the level below.	Due to the site having 3 street frontages a variation of front setback controls for the residential tower component above 3 storeys is considered reasonable, particularly as nearby contemporary development over 3 storeys does not provide for a significant increase in front setback above 3 storeys.	
	Development with a frontage to the Pacific Highway is to provide a minimum 4 metres landscaped setback at ground level and a 4m setback below ground	Above the commercial podium a variable setback is provided to the Pacific Highway. For Levels 1 & 2 this setback is 2m. levels 3 to 6 the setback ranges from 2m to 4m.	
	Splay corners are to be provide to all street corners at street level.	As the ground floor is proposed for commercial use a zero front setback is considered more appropriate and consistent with Council's expectations as illustrated in the street front setback diagrams on Page	Side setback N/A. Side
	Side Setbacks Minimum setback from side boundaries:	The "side" boundaries of the site are to the street frontages of Freeman Road and Oliver	boundaries are to secondary street frontages.
	Ground floor: Zero setback; First & Second Floor; Zero setback for maximum of 50% of the length of the side boundary located within the front half of the site, subject to further stepping back in the rear half of the site.	Road. Accordingly there are effectively no side boundaries. On this basis the proposal's building setback to Freeman Road and Oliver Road have been assessed against the controls for street front setbacks. As these are secondary street frontages, some flexibility in setback to these streets is warranted.	

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Complianc
	Third floor and above: 3m for the 3 rd floor with an increase of 1.2m for each storey above the 3 rd floor (applied to all floors from the 3 rd floor). Rear Setbacks	The commercial podium is located close to the Freeman Road frontage. Above the commercial podium a minimum setback of 4m is provided to Freeman Road. This increases to 11.5m for Level 5 and 16.67m for level 6.	
	Ground floor adjoining a residential boundary: Minimum of 3m. Upper floors (all floors above ground level); a minimum of 3m from the line of the ground floor rear wall below the first floor, with an increase of 1.2m for each storey of the building above first floor level. Balconies & Verandahs Balconies and verandahs, other than rear balconies, may encroach upon the	The lower ground floor and ground floor levels are setback 6m from the rear boundary, double the minimum required, to provide for a wide deep soil landscaped area along the boundary. The west facing wall of Levels 1 to 4 are setback a minimum of 9m from the rear boundary. The minimum rear setback required for these levels is 9m). The west facing wall of Levels 5 and 6 are stepped further back, providing a minimum rear setback of between 10.6m and 12.6m	YES
	prescribed side and rear setbacks provided that the encroachment produces no adverse effect on the amenity of the adjoining properties, is not enclosed (except by balustrades or a dividing wall) and does not encroach upon the required side setback so as to be closer than 2m to the side boundary. Rear balconies or planter boxes may not project beyond the line of the required setback of the level below.	Sufficient setback is provided to the rear boundary to achieve full compliance with the building separation requirements of the SEPP 65 Residential Flat Design Code. Balconies encroach marginally into the southern side setback to Freeman Road, but have no amenity impact in this location. Balconies on Levels 1 to 4 encroach into the rear setback on Level 1 but are provided with planter boxes to maintain neighbor	Substantial compliance.

Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
	Variations to side & rear setback	Above Level 1 balcony encroachments into the rear setback are very minor and result in no material impact on neighbor amenity. Rear balconies and planter boxes do not project beyond the setback of the floor below.	
	Variations to side and rear setback may be permitted where Council is satisfied the encroachment produces no adverse effect on the amenity (privacy, solar access etc.) of the adjoining properties and the area between the building wall and the boundary is to be landscaped to Council's satisfaction.	The proposal seeks some minor variations to the side and rear setback controls on the grounds that the side boundaries are to public roads and landscaping to the rear boundary is twice the width of the minimum landscaping required under the DCP. Accordingly there is no adverse amenity impact to neighbouring residential properties.	Variations sought on the basis that the site has 3 street frontages.
E1.5 Building Depth Ensure that the bulk of the development is in scale with the desired future context and provide adequate amenity for building occupants in terms of sun access and natural ventilation.	Development should have a maximum depth of 20m. Developments that propose buildings with a depth of greater than 20m must demonstrate how satisfactory natural lighting and ventilation are to be achieved.	Building depth for the most part does not exceed 20m as measured from any street frontage. A modest variation is sought for a portion of the residential building above podium, on Levels 2 – 4 of the central, western side. Notwithstanding a limited portion of the building extending to a depth of more than 20m, the proposal achieves solar access and natural ventilation to a greater number of units than is required under the SEPP 65 Residential Flat Design Code.	Substantial compliance (variation sought for central western portion of building at levels 2 to 4).

Provision	Controls	Proposal	Compliance
		A "break" in the length western elevation is achieved od sufficient width and depth to mitigate the appearance of building length as viewed from the west. Increasing the depth of this "break" in the western elevation to achieve compliance with the recommend 20m maximum building depth would offer no material visual bulk, aesthetic or amenity benefit.	
E1.6			
Landscaping Requirements Provide a high quality & attractive landscaping which enhances the setting of the buildings in the streetscape and enhances the amenity of a	Landscaping to rear A 3m wide landscaped setback area is to be provided along a rear boundary adjoining residentially zoned land. Landscaping to podium & roof	A 6m wide landscaped area is provided along the rear boundary and provides a total of 321m2 of landscaped open space at the rear.	Yes
development by allowing for adequate open space, sunlight & shade. Provide landscaping as a means of maintaining the amenity of surrounding	A minimum of 20% of podium and a minimum of 20% of rooftop open space is to be provided as vegetated area (turf, gardens & planters).	The podium is utilized for private terraces for Level 1 apartments and some common open space (140m2). Some 115m2 (20.8%) of the podium level open space (553.5m2) (terraces and common area open space) is provided with landscaping.	Yes
development and provide absorptive areas for on-site infiltration of stormwater.	Location of site landscaping	Some 183m2 (74%) of the rooftop common open space area (247m2) will comprise landscaping.	
	Landscaping should be provided within rear and side boundary setbacks, where a driveway is	Landscaping is provided along the rear boundary as outlined above. The site's "side" boundaries are	Yes.

provided along a side

effectively secondary street

a	×	۰
1		
1		L

Provision	Controls	Proposal	Compliance
	boundary & in the area between recreational structures & the site boundary.	frontages to Freeman Road and Oliver Road. Landscaping is provided along these frontages.	
E1.7			
Open Space Requirements for Shop Top Housing Developments Provide a range of usable, attractive and accessible landscaped outdoor spaces and recreational areas for the use of occupants of shop-top housing. For sites providing open space at the ground level, to assist with stormwater	Recreational Area For buildings comprising 6 storeys of residential, provide an area of recreational open space equivalent in area to at least 58% of site area. Private Open Space Balconies/terraces with a	The site has an area of 2,608.2m2 (after road widening). 60% of this area equates to 1,513m2. 1,230m2 of communal recreation space (660m2 at ground level and 570m2 at roof or podium level). In addition private recreation space of 1,689m2 (balconies and terraces) is provided for each unit. Total recreational/open space area (2,919m2) equates to more than 100% of site area (after road widening).	Yes.
management and on- site drainage control.	minimum dimension of 2m shall be provided for each unit, as follows: Studio & 1 bedroom unit	All balconies have a minimum depth of at least 2.4m for a length of at least 4m.	Yes
	- Minimum 10m2 2 bedroom unit - Minimum 10m2 3 + bedroom unit Minimum 15m2	All units have balconies areas at or larger than the minimum required.	Yes
	Communal areas 10m2 of communal area per dwelling, subject to such area having a dimension of not less than 5m and a minimum area of not less than 30m2.	Communal open space totaling 1,230m2 (660m2 at ground level and 570m2 at roof top or podium level) is provided. This equates to 17.8m2 of communal open space per dwelling. Communal open space of at least 10m2 per dwelling is provided where such space has a minimum dimension of 5m and area of 30m2.	Yes.

Provision	Controls	Proposal	Compliance
E1.8	Acoustic Privacy	6.4.11	V
Privacy	Include effective sound	Suitable noise attenuation measures, such as double	Yes.
Acoustic privacy	insulation against road & traffic noise.	glazing of windows will be incorporated in units fronting the Pacific Highway.	
Ensure the provision of maximum acoustic	Use noise resistant construction	Mechanical equipment does	
privacy, both within	techniques/materials (e.g.	not adjoin noise sensitive areas. If required, an acoustic	
the development itself & between the development &	mass of materials, thicker or double glazing to windows, insulation of	report can be submitted with the development application.	
adjoining properties.	cracks and gaps).	The proposal will not have any unacceptable acoustic	Yes
	Mechanical equipment	impacts on neighbouring	
	should be designed and located to minimize noise	properties, due to separation distance. Potential uses of	
	nuisance.	the commercial floor space would not be significant	
	Council may require a noise assessment report to	noise generators.	
Visual Privacy	be submitted by a qualified acoustic	There are no proposed windows or balconies that	Yes.
Minimise	consultant.	are located within 12m of windows or balconies	
overlooking of living spaces in dwellings	Visual Privacy	located on adjoining land.	
and private open	Limit windows &	Where windows or balconies of units within the site are	Yes
space. Balance the need for shop-top	balconies that face	located within 12m of	
housing development with	directly onto windows, balconies or private open	windows or balconies of other units on the site,	
the achievement of a reasonable level of	spaces of adjoining dwellings.	suitable privacy measures such as screen walls, offsets,	
privacy between dwellings.	Avoid windows being	raised sills or translucent glass are provided.	
	opposite and in close proximity to each other		
	and splay location of windows to minimize		
	direct views.		
	Use level changes, planter boxes and other		
	techniques to minimize direct views.		
	Use screening such as		

landscape treatment,

1	3		
n	10	e	

Provision	Controls	Proposal	Compliance
	screening devices or translucent glass, where direct viewing is unavoidable. Where windows or balconies are within 12m of windows or balconies of dwellings, some form of screen planting, offset of window locations, higher window sills or other appropriate measures must be used.		
Views and Vistas Siting and form of development must have regard to the creation, retention and enhancement of significant views and vistas from public places, into, out of and within the public domain and adjacent properties. View sharing is encouraged, whilst not restricting reasonable development potential of a site.	Existing views & vistas from & to commercial/residential precincts should be maintained. The sense of entry into a commercial precinct should be heightened by development which maintains and enhances the views and vistas from vehicular and pedestrian approaches. Where possible, dwelling units should be designed with living areas facing views. However, windows should be positioned to avoid overlooking of adjoining property to gain views. Care should be taken to protect the views of existing buildings and potential views from adjoining future buildings.	There is a clear definition of the public and private domain and suitable fencing and access controls provided. Residential and commercial entrance lobbies are separated. The design provides for passive surveillance of the public domain. The Development Application will be accompanied by a "safety by Design" assessment. Development surrounding the site currently enjoys views over the existing low rise one and two storey buildings on the site. Given that the existing development controls provide for a 6 storey building on the site, current views over the site do not recognize the reasonable development potential of the site. The additional 6 metres of building height sought under the Planning Proposal does	Yes.

_14	
ance	

Provision	Controls	Proposal	Compliance
E1 10	maintain significant views where possible or achieve a degree of view sharing between properties. Where it is not possible for existing view levels to be maintained, any potential disruption to the primary view lines of adjoining developments should be minimized. The Site and Context Analysis prior to the preparation of a proposal must identify any significant views from the site and adjoining properties, including the public domain.	views compared to a building constructed at the current maximum building height of 24m. This arises from the fact that neighbouring buildings do not extend above a height of 18m and hence would have no views over a building of 18m height on the site. The only exception is the upper 2 floor levels of the apartment building at the southeast corner of Albert St. and the Highway. There will be a minor reduction in the arc of view for the west facing upper level apartments in this building.	
Solar Access and Overshadowing Development should be designed for adequate solar access in winter and summer and avoid potential for significant overshadowing of neighbouring dwellings, private open spaces, recreation areas and public areas, used by pedestrians such as malls, parks and the footpaths of commercial areas.	Minimise overshadowing of adjacent buildings or open space by using measures such as variation to wall setbacks, roof form and building height and significant public areas. Control the desired amount of solar access to habitable rooms and recreational open space by considering building siting and orientation, height, placement of windows including the height of window sills, use of sun shading devices and location and species of planting. Shadow diagrams must be submitted to illustrate compliance with the controls. The north facing	75% of proposed units will achieve solar access of at least 2 hours in mid-winter between 9am and 3pm. Solar access is acceptable and complies with the requirements of SEPP 65. Shadow diagrams have been provided which demonstrate that there is no unacceptable overshadowing of neighbouring residential development. All neighbouring residential properties will continue to receive at least 2 hours solar access in mid-winter between the hours 9am and 3pm. This is the applicable solar access control in dense urban environments. The additional FSR and building height has been accommodated in a manner	Yes.

Provision	Controls	Proposal	Compliance
	windows of living areas and the principal portion of the recreational open space of adjoining residential buildings should have at least 3 hours of sunlight between 9am and 3pm on June 22. Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%.	that results in a minimal increase in overshadowing compared to a complying building constructed in accordance with the current 18m maximum building height control. Existing residential properties receiving less than 3 hours mid-winter solar access will not have their solar access reduced by more than 20%.	
E1.11 Service Facilities and	Electrical requirements	Off-street parking is provided in accordance with the Council's DCP requirements.	
Amenities Adequate provision is to be made for service facilities and such facilities should be integrated with the design of the development and suitably sited for the convenience of occupants of the development.	Substations to Energy Australia requirements and screened if able to be viewed from the street. Substations should preferably be located below ground level. Existing and new power and telecommunications are to be placed underground. Plant & Equipment All plant & equipment shall be acoustically	Vehicular access is designed in accordance with Australian Standards. Driveway access does not exceed 6m in width. Vehicular access is located in Freeman Road, separated from pedestrian access in Oliver Road & Pacific Highway. A substation location is provided at ground level in the southwest corner of the site screened by landscaping.	Yes.
	treated to ensure that noise generation does not exceed 5dBA above the background noise level at the boundary of the site, at all times.	All plant and equipment will be located and designed to meet the prescribed noise emission standard.	Yes
	Site services and facilities (such as letterboxes & drying yards) should be designed to enable safe and convenient access by residents, be aesthetically designed and have regard to the amenity of	Site services facilities have been designed in accordance with the requirements of the DCP.	Yes.

Provision	Controls	Proposal	Compliance
	adjoining developments and streetscape, require minimal maintenance and be visually integrated with the development. Facilities such as laundries and storage areas should meet the needs of the users, be convenient and secure in terms of access and have adequate lighting. Utility Services Utility Services Utility services should be provided to meet the needs of the users, be considered at the design stage, be visually harmonious with the development and the streetscape and be separated from entry lobby and foyer areas (where applicable). The design, location and construction of utility services must meet the requirements of both the relevant servicing authority and Council.	The basement and plant rooms and service ducts provide utility services to the residential and commercial components of the development. Detailed design of utility services will be in accordance with the requirements of the service authorities.	Yes.
	Letterboxes Letter boxes must be provided in accordance with Australia Post's Requirements for the Positioning and Dimensions of Mail Boxes in new Commercial and Residential Developments. There should be a separately identifiable residential address and entry in shoptop housing development.	Letter boxes are to be provided adjacent to the residential and commercial foyer entries.	Yes.

and
17
ompliance
,
i.
e

Provision	Controls	Proposal	Compliance
	Laundry facilities & drying yards		
	Laundry facilities should be incorporated into each dwelling unit. Drying yards and balconies are not to be located forward of the building line or within the setback to any street frontage and should not be visible from any public areas by the use of screens or landscaping.	Residential apartments are provided with internal laundry facilities, including space for a dryer. A suitably located and screened outdoor drying facilities are provided on the podium level and on the rooftop level.	Yes,
	Storage areas		-
	Allow a space of 3m2 per dwelling exclusively for storage. This excludes wardrobe and cupboard areas incorporated into dwelling units. Storage space may form part of a garage.	Storage areas in excess of 3m2 are provided for all units.	Yes.
	Public/common toilet		
	A building containing more than 10 dwelling units shall provide a toilet and washbasin in a convenient and accessible location at or near ground level for use by all who visit or reside on the premises.	A separate toilet and wash basin is provided in the lower ground floor car park.	Yes.
	TV antennae & satellite dishes		
	A master TV antenna or satellite dish is to be provided for each building. Individual antennae or dishes may not be placed on balconies or verandahs.	A master TV antenna will be provided on the roof of the building.	Yes.

Willoughby DCP - Part E and 16 Specific Controls for Commercial and Shop Top Housing Development Compliance Table for 654-666 Pacific Highway Chatswood

Provision	Controls	Proposal	Compliance
	Satellite dishes should not exceed 600mm diameter. Plumbing All plumbing pipes and installations must be concealed in internal ducts and not exposed on the external walls of the building and must be adequately soundproofed.	All plumbing pipes and installations are concealed.	Yes.
E1.12			
Reflectivity & Wind Development is to be designed and sited to avoid hazardous or undesirable glare to pedestrians, motorists, people using commercial areas and those in	Building materials and finishes which minimize adverse reflectivity are to be used. The use of glass of more than 20% reflectivity or other highly reflective external materials and finish are not permitted. Mirrored	The reflectivity requirements of the DCP will be achieved. Glass in the display glazing provided to the commercial podium will not have a mirrored finish. A narrow depth awning is provided to more than 60%	Yes.
other buildings. Ensure that development is designed to avoid uncomfortable winds at pedestrian level in public areas.	glass is not to be used on building exteriors. Shade, angle or treat glass areas with horizontal, vertical or diagonal shading devices to reduce reflected solar radiation.	of the glazed area facing east towards the Highway. Future street trees will provide shade to the north facing podium glazing. Landscaping will shade west facing glazing to the podium. Most apartment glazing (other than south facing) includes shading (awnings, pergolas, roof of units above etc)	
Awnings, Tree Planting and Paving Provision of awnings over the commercial/retail component of development to aid climate control and	Provision of protection from rain and sun is to be provided in locations of high pedestrian activity, by way of awnings and colonnades. Entrances to large frontage development can incorporate raised or	An awning is provided along approximately 50% of the Highway frontage. Other street frontages have low pedestrian traffic. Weather protection is provided at the Oliver Road and Freeman Road pedestrian entries to the building.	Yes.

Provision	Controls	Proposal	Compliance
shelter from rain and sun.	arched canopy elements to highlight entrances and break up the length of awnings. These should be appropriately scaled and be compatible with prevailing street awning character. Awnings are to be designed to permit street planting, provided at regular intervals. New awnings should maintain the continuity of the alignment of existing awnings. Awnings should be of opaque materials with glass inserts to allow light penetration and be continuous for the whole length of the building and setback 600mm from the footpath edge and include recesses for street trees. Awnings should have a height of between 3m and 4.2m above footpath level and where the footpath is sloping, maintain the horizontal alignment by stepping down at regular intervals to follow the topography.	The western side of the Pacific Highway fronting the site and to the north and south, does not contain any existing awnings. Accordingly there is no prevailing awning character or form. The awning to the Highway is of relatively narrow depth, so that there is ample light penetration to the commercial tenancies, fronting the Highway and allows ample space for future street trees. The face of the awning is well setback from the kerb and gutter line and has a height above footpath of between 3m and 4.2m.	Yes
	Footpath paving shall be provided in accordance with the Paving Policy.	Footpath paving will be provided in accordance with Council's Paving Policy.	Yes
E1,14			
Sustainable Development	Commercial/Retail Component		
The commercial component must	The commercial component must be	The building will be designed to achieve the	Yes.

comply with the

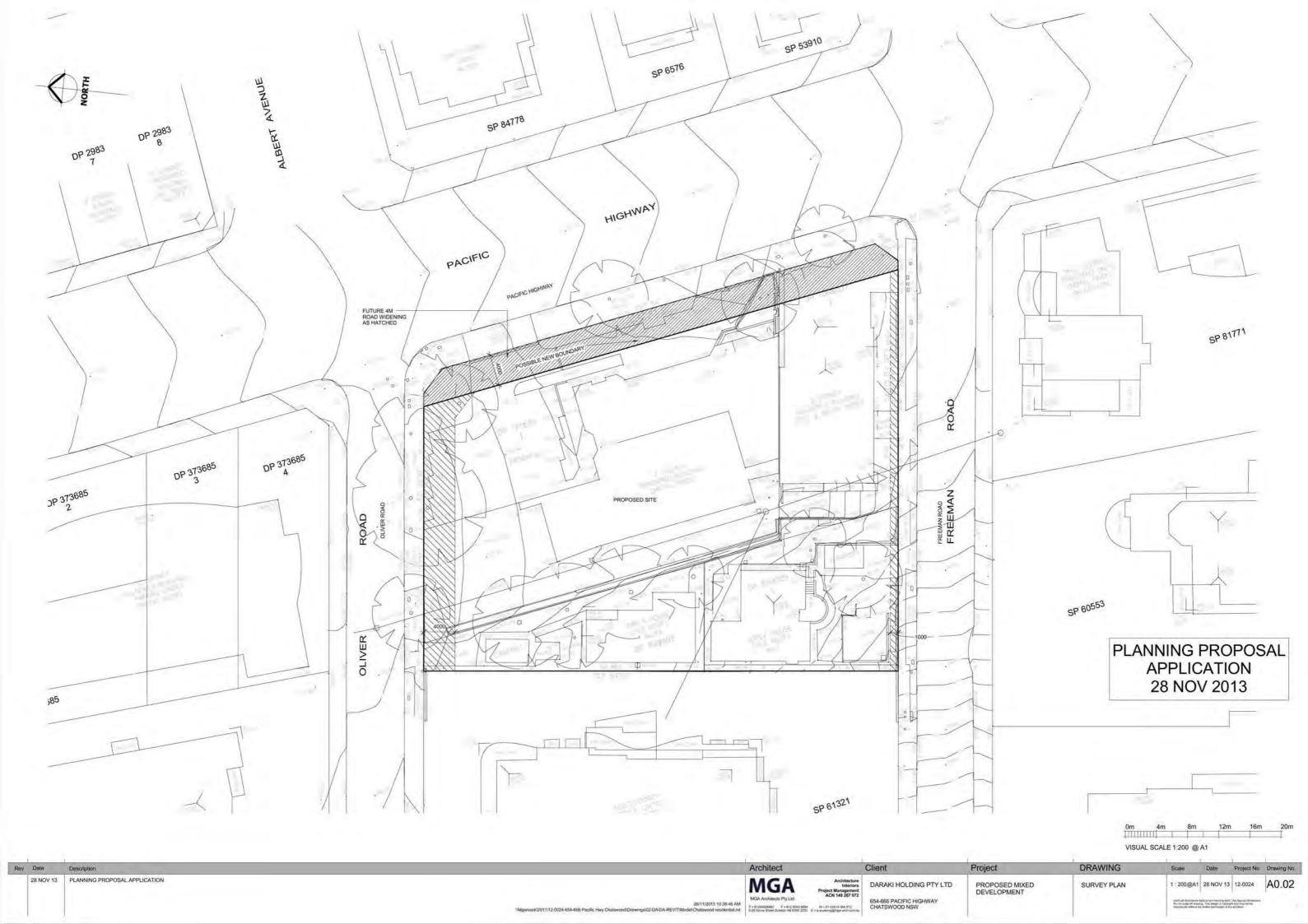
designed to achieve an

required NABERS rating

Provision	Controls	Proposal	Compliance
provisions of Part E1.14 of the DCP. The residential component of shop top development must comply with the provisions of Part D2.14 of the DCP.	overall score of at least 24, while the retail component must achieve an overall score of at least 14 under the National Australian Built Environment Rating Scheme (NABERS). Proponents shall sign a NABERS Energy Commitment Agreement to achieve a minimum 4 star rating for the commercial/retail component.	when a development application is submitted.	
	A BASIX certificate pursuant to SEPP (BASIX) 2004 is to be submitted for the residential component. In addition a Sustainability Scorecard (Attachment 1 to DCP – Sustainability Scorecard C2 – Multi Unit Residential) must be submitted demonstrating an overall score of 12 for high density residential.	A BASIX Certificate and Sustainability Scorecard achieving the required standards will be submitted with the development application.	Yes
E2 & E3 Characteristics of Business Areas Chatswood CBD & Chatswood City Centre	The site adjoins the western boundary of Chatswood CBD/City Centre, which extends east from the Pacific Highway. The Chatswood CBD between the Pacific Highway and the North Shore Rail Line is the commercial office precinct of Chatswood, characterized by multistorey office buildings intermingled with some older low scale office development and service	Development of the site for a mixed-use building in the form proposed will contribute positively to the Chatswood CBD/City Centre and maintain a mixed-use edge to the western precinct of the Chatswood CBD/City Centre.	Yes.

Provision	Controls	Proposal	Compliance
	retailing. Around the edges of the office precinct is some multistorey mixed use development.		
1.6			
Locality 'J' West Chatswood Part I of the Willoughby DCP sets out controls for specific sites/areas. The subject land is located within Locality 'J' West Chatswood. Controls relevant to the subject land are identified in Column 2.	Dwelling Types Multi-unit residential developments should provide for a mix of dwellings sizes, generally comprising 15% 1 bedroom units, 35% 2 bedroom units and 50% 3 bedroom units. Minimum floor areas are 75m2, 100m2 and 120m2 respectively.	The proposal is for a mixed use development in a CBD location and the controls in relation to apartment mix and sizes should therefore be applied more flexibly. The location of the site, fronting the Pacific Highway and adjoining the Chatswood CBD is more suitably developed for more affordable housing comprising 1 and 2 bedroom units of more modest floor area. Unit mix proposed is as follows:	Variation to unit mix sought due to CBD location. (reduced provision of 3 bedroom units and increased provision of 2 bedroom units).
	Allotment Size & lot Consolidation Objectives	10x Studio units (15%) 9x1 bedroom units (13%) 45x2 bedroom units (65%) 5 x3 bedroom units (7%) The proposal complies with the minimum floor areas prescribed in the SEPP 65 Residential Flat Design Code.	
	Development in the area is to generally conform with the Lot Consolidation Plan and as a guide, should provide a minimum site area of 2,000m2 should be available as a consequence of a lot consolidation.	The site boundaries and lot area accord with the lot Consolidation Plan. The site has an area in excess of 2,000m2 and does not result in any residual allotments of less than 2,000m2.	Yes.

Provision	Controls	Proposal	Compliance	
TIOVISION	For buildings of 6 or more storeys, a maximum site coverage of 24% of site area applies. Variations to the maximum site coverage requirements can be considered as long as the recreational open space and the natural landscape requirements, privacy, solar access and overshadowing considerations are complied with. Landscaping Significant trees indicated on the "retention of Significant Trees" map are to be retained with any development of the sites or to be replaced with advanced indigenous trees able to achieve similar height and maturity.	The proposal is for a mixed- use building rather than a residential tower only. The podium of mixed-use buildings is intended to extend substantially across the site, apart from a minimum 3m rear setback, hence a 24% maximum site coverage is not appropriate. It should be noted that the proposal achieves adequate recreational and natural landscape area in the context of a mixed-use development and does not result in adverse privacy, solar access and overshadowing impacts on neighbouring properties. There are no trees on the site that are identified as significant trees for retention on the Retention of Significant Trees map. There is a significant tree identified on this Map as being located adjoining the site, in the northeast corner of No. 4 Freeman Road, fronting Oliver Road. The proposed development, including any basement car parking and excavation, is located more than 12m from this tree. A number of existing trees on the site are to be removed and replaced with new tree planting along the rear boundary. A landscaping plan is enclosed separately.	Variation is sought as proposal is for a mixed use building in a mixed use zone. Yes.	
	Additional street tree planting is required for new development, as nominated by Council.	Street trees will be provided to the site frontages as required by Council.	Yes.	



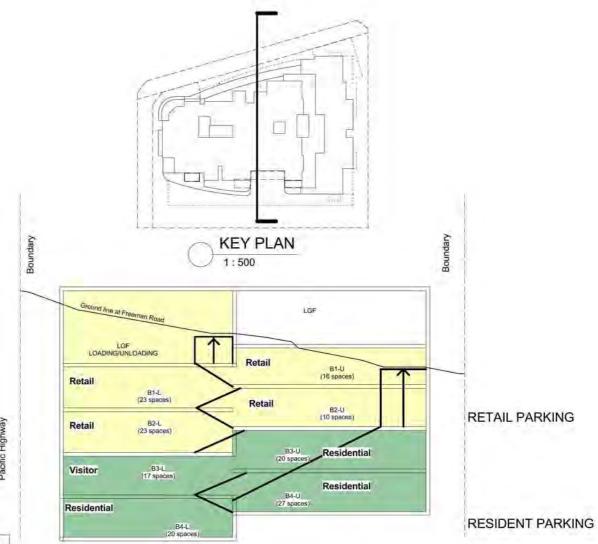
CAR PARKING REQUIREMENT

	DCP Requirement	Proposed Units/ Area	Required Spaces	Total
Residential Apartmen	ts			
(Railway Precinct)	_			
Studio -	0.5 space	10	5	
One-bedroom -	1 space	9	9	
Two-bedroom -	1 space	45	45	
Three-bedroom -	1 space	5	5	64
Visitors -	1 space per			
and a	4 apartments	69		17.25
Commercial/Office -	1 space per 110m2	703.5 (30% of 2345.1m2)	6.3	
Retail Shop -	1 space per 25m2	1641.5(70%of 2345.1m2)	65.6	72
	Total F	Retail/Commercial 2345.1m2		
				153 spaces
Motorcycle Parking	1 space per			
	25 carspaces			
	Residential		2.5	
	Visitors		1	
	Commercial/Office		2.8	7 spaces
Bicycle Rail/Rack				
Residential	1 per 12 units		5.3	
Retail	1 per 150m2		11	
Commercial/Office	1 per 2500m2		7	23.3 racks
Bicycle Lockers				
Residential	1 per 10 units		7	
Retail	1 per 450m2		3.6	
Commercial/Office	1 per 600m2		1.1	11.7 lockers

	PROPOSED CAR PARKING SCHEDULE											
LEVEL	RESIDENT	RETAIL/COMM ERCIAL	VISITOR	TOTAL CAR SPACES	ACCESSIBLE (INCLUDED)	LOADING BAY	MOTORCYCLE	BICYCLE LOCKERS/RACE				
BASEMENT 4 LOWER	20	0	0	20	6	0	3					
BASEMENT 4 UPPER	27	0	0	27	0	0		6				
BASEMENT 3 LOWER	0	0	17	17	2	0	3					
BASEMENT 3 UPPER	20	0	0	20	2	0		6				
BASEMENT 2 LOWER	0	23	0	23	0	0	5					
BASEMENT 2 UPPER	0	10	0	10	2	0		20				
BASEMENT 1 LOWER	0	23	0	23	0	0						
BASEMENT 1 UPPER	0	16	0	16	2	0						
LOWER GROUND FLOOR LOWER	0	8	0	8	0	3		8				
Grand total TOTAL	67	72	17	156 SPACES	14	3	11	40				

CAR PARKING SUMMARY

DCP C	CONTROL	PROPOSED	COMPLIANCE
Residential	64	67	YES
Retial/Commercial	72	72	YES
Visitors	17	17	YES
Accessible		Residential 8 Retail 4 Visitor 2 Total 12	YES
Motor Cycle Parking	7	11	YES
Bicycle Rail/Rack			
Residential	6	12	YES
Retail/Commercial	18	20	YES
Bicycle Lockers			
Residential	7	7 (in units st	orage) YES
Retail/Commercial	5	8	YES



PLANNING PROPOSAL APPLICATION 28 NOV 2013

SCHEMATIC SECTION
NOT TO SCALE

Rev Date	Description		Architect	-	Client	Project	DRAWING	Scale	Date	Project No.	Drawing No.
28 NOV 13	PLANNING PROPOSAL APPLICATION	28/11/2013 2:50.09 PM Mganuaik 2011/12-0024-654-665 Pacific Hwy Clhoismond Eirawings/02-12/CDA-REVITMedel Chattwood insidented in V	MGA MGA Architects Pty Ltd. P+612/drose Energy State 18 N2N 2010	Architecture Interiors Project Management ACN 149 287 972 M - 61 (0418 054 812 E 1 a even g/200g et 2 con a)	DARAKI HOLDING PTY LTD 654-666 PACIFIC HIGHWAY CHATSWOOD NSW	PROPOSED MIXED DEVELOPMENT	CAR PARKING SCHEDULE	As @A indicated	A1 28 NOV 13	12-0024	A0.05

FLOOR SPACE RATIO

SITE AREA =

2,856 sqm (EXISTING)

SITE AREA =

2,608.2 sqm (AFTER ROAD WIDENING)

TOTAL FLOOR SPACE RATIO AREA = 8,335.00 sqm

TOTAL FLOOR SPACE RATIO AREA = 8,335.00 sqm

FLOOR SPACE RATIO =

2.92 : 1.0

FLOORS

FLOOR SPACE RATIO =

3.20 : 1.0

					UNIT MIX	SCHEDULE				
LEVEL	STUDIO (NO.)	1 BED (NO.)	2 BED (NO.)	3 BED(NO.)	TOTAL UNITS (NO.)	Naturally cross ventilated units	Kitchens with Natrual ventilation	Single Aspect South Facing units	Dual Aspect Units	2Hr Mid-Winter sunlight to Living and POS
LEVEL 1	5	1	7	1	14	9	7	1	9	11
LEVEL 2	3	2	8	1	14	11	6	1	11	9
LEVEL 3	0	3	9	1	13	13	3	0	12	9
LEVEL 4	0	2	9	1	12	12	3	0	12	9
LEVEL 5	1	1	7	0	9	8	5	1	8	7
LEVEL 6	1	0	5	1	7	7	4	0	7	7
LEVEL 6 ROOF										
Grand total	10	9	45	5	69	60	28	3	59	52
						86.9% of Total Units	40.5% of Total Units	4% of Total Units	85.5% of Total Units	75% of Total Units

			LANDSCAPE SCHEDULE			
Level	GROUND FLOOR OPEN SPACE	DEEP SOIL ZONE	LANDSCAPE AREA	BALCONY AREA	COMMUNAL OPEN SPACE	RECREATION AREA
LEVEL 1 (PODIUM)			65.5m2 (private)	349 m²	(50m2 LS+90m2 COS)=140m2	
LEVEL 2	74		Court (English)	217 m²	(Constant Sense Sensy Constant	
LEVEL 3				220 m²		
LEVEL 4	41			236 m²		
LEVEL 5				442 m²		
LEVEL 6	- LV-18			225 m ²		
GROUND FLOOR	660 (A)	300	135		(A)	
LOWER GROUND FLOOR	179.3		From a company of the			
LEVEL 6 ROOF (ROOF)			183 (42% of roof open space)		(183m2 LS+247m2 COS)=430m2	
	TOTAL		383.5m2	1,689m2 (D)	1,230m2 (C)	(C)+(D)=2,919m2
	TOTAL	45.0% of GF OPEN SPACE			17.8m2 per unit	100+% of SITE AREA

ROOF TOP OPEN SPACE:

430m2 553.5m2

PODIUM OPEN SPACE:

SEPP65/DCP COMPLIANCE SUMMARY

	SEPP/DCP CONTROL	PROPOSED	COMPLIANCE
Naturally cross ventilated units	60% (min) of total units	86.9%	YES
Kitchens with natural ventilation	25% (min) of total units	40.5%	YES
Single aspect south facing units	10% (max) of total units	4.0%	YES
2Hr mid-winter sunlight to Living and POS	70% (min) of total units	75%	YES
Deep soil zone	25%(min) of ground floor open space	45%	YES
Podium landscape area	20%(min) of podium open space	20.8%	YES
Roof landscape area	20%(min) of rooflop open space	42%	YES
Recreational area	58%(min) of site area	100%	YES
Communal open space	10m2(min) per unit	17.8m2	YES

NOTE: For others controls and compliance, refer to SEPP65 compliance table and DCP Control compliance table in Planning report.

PLANNING PROPOSAL APPLICATION 28 NOV 2013

Architect Client Project DRAWING Soile Date Project No. Drawing No.

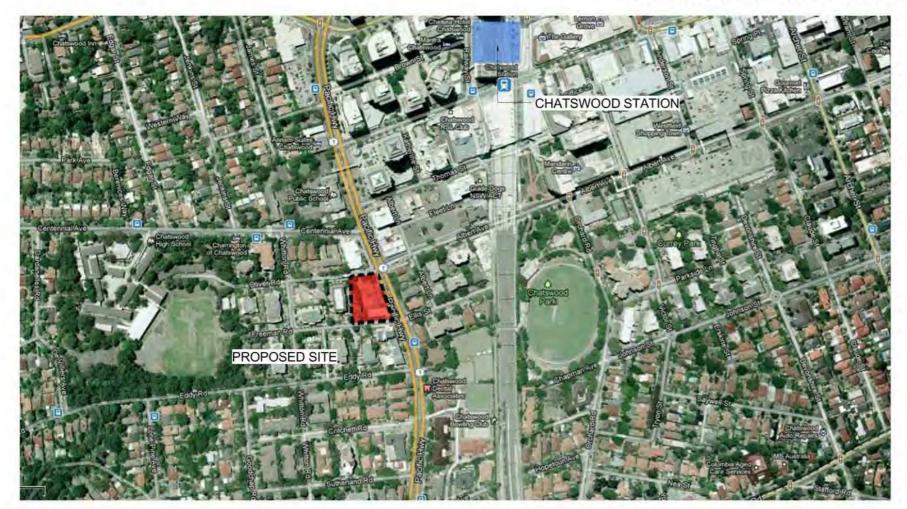
28 NOV 13 PLANNING PROPOSAL APPLICATION

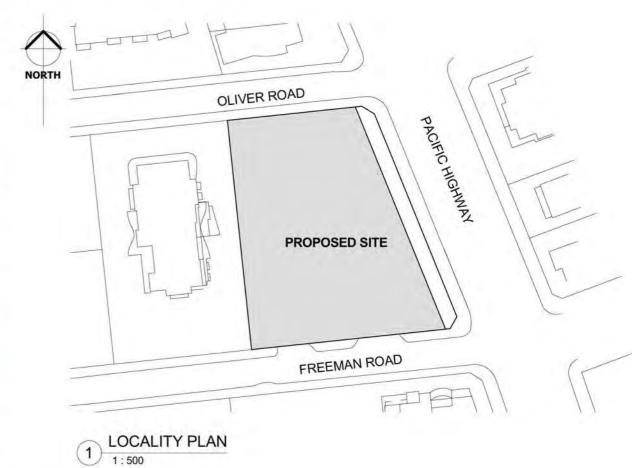
***Chiefceth Company of the Com



MIXED USED COMMERCIAL/RESIDENTIAL DEVELOPMENT

654-666 PACIFIC HIGHWAY, CHATSWOOD



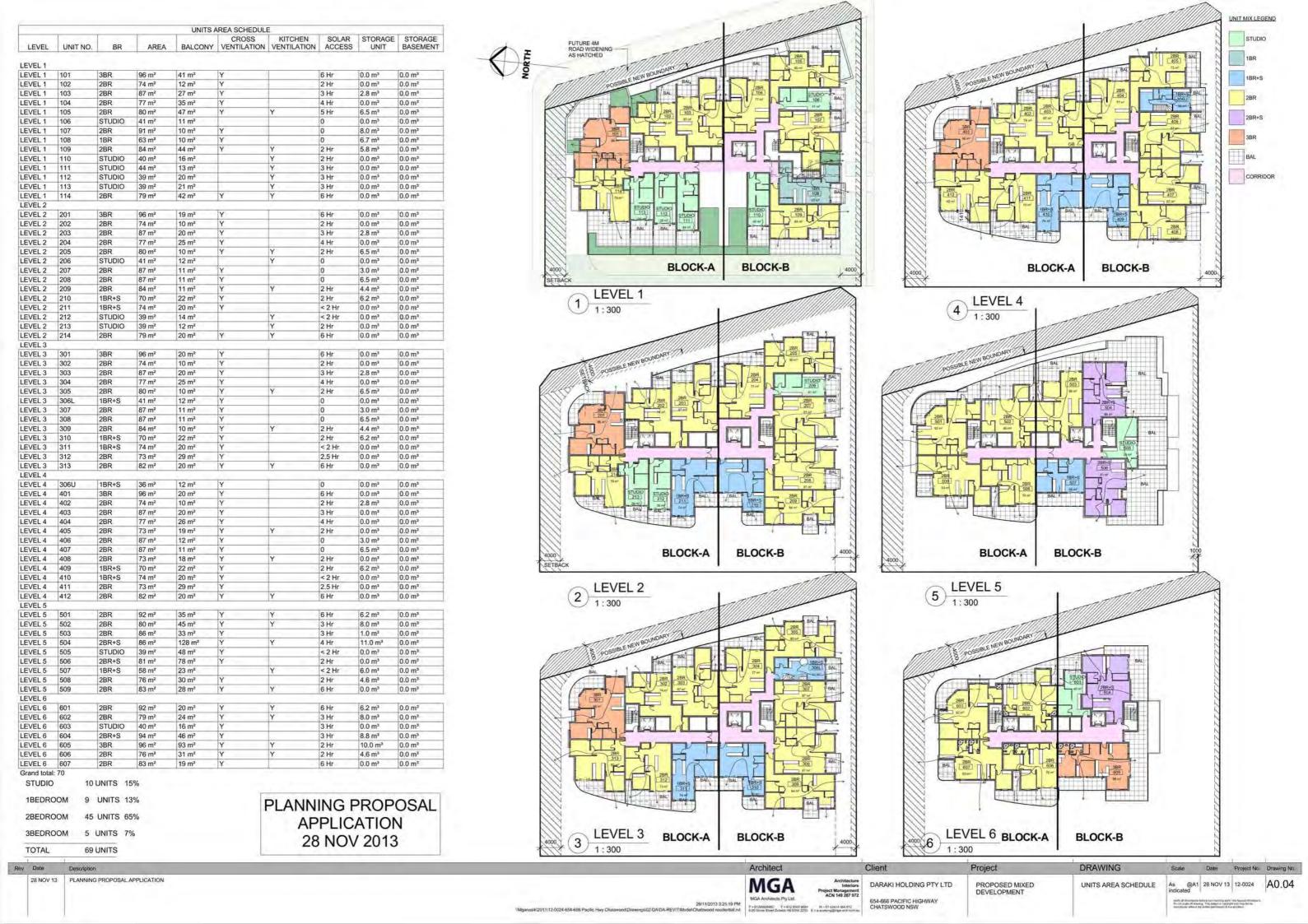


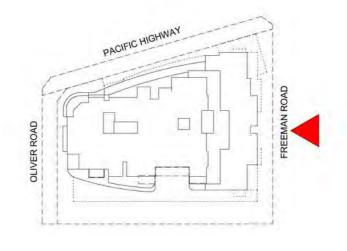
	DRA	WING LIST		
SHEET NUMBER	DESCRIPTION	SCALE IN A1	ISSUE DATE	REVISION
A0.00	LOCALITY PLAN	NTS	28 NOV 13	
A0.01	COMPLIANCE CALCULATION	NTS	28 NOV 13	
A0.02	SURVEY PLAN	1:400	28 NOV 13	
A0.03	FSR CALCULATION	1:300	28 NOV 13	
A0.04	UNITS AREA SCHEDULE	1:300	28 NOV 13	
A0.05	CAR PARKING SCHEDULE	NTS	28 NOV 13	
A1.01	SITE ANALYSIS PLAN	1:250	28 NOV 13	
A1.02	LOWER GROUND FLOOR PLAN	1:100	28 NOV 13	
A1.03	GROUND FLOOR PLAN	1:100	28 NOV 13	
A1.04	LEVEL 1 FLOOR PLAN	1:100	28 NOV 13	
A1.05	LEVEL 2 FLOOR PLAN	1:100	28 NOV 13	
A1.06	LEVEL 3 FLOOR PLAN	1:100	28 NOV 13	
A1.07	LEVEL 4 FLOOR PLAN	1:100	28 NOV 13	
A1.08	LEVEL 5 FLOOR PLAN	1:100	28 NOV 13	
A1.09	LEVEL 6 FLOOR PLAN	1:100	28 NOV 13	
A1.10	ROOF PLAN	1:100	28 NOV 13	
A1.11	BASEMENT 1 PLAN	1:100	28 NOV 13	
A1.12	BASEMENT 2 PLAN	1:100	28 NOV 13	
A1.13	BASEMENT 3 PLAN	1:100	28 NOV 13	
A1.14	BASEMENT 4 PLAN	1:100	28 NOV 13	
A2.01	ELEVATION 1	1:150	28 NOV 13	
A2.02	ELEVATION 2	1:150	28 NOV 13	
A2.03	ELEVATION 3	1:150	28 NOV 13	
A2.04	ELEVATION 4	1:150	28 NOV 13	
A3.01	SECTION A	1:150	28 NOV 13	
A3.02	SECTION B	1:150	28 NOV 13	
A3.03	SECTION C	1:150	28 NOV 13	
A3.04	SECTION D	1:150	28 NOV 13	

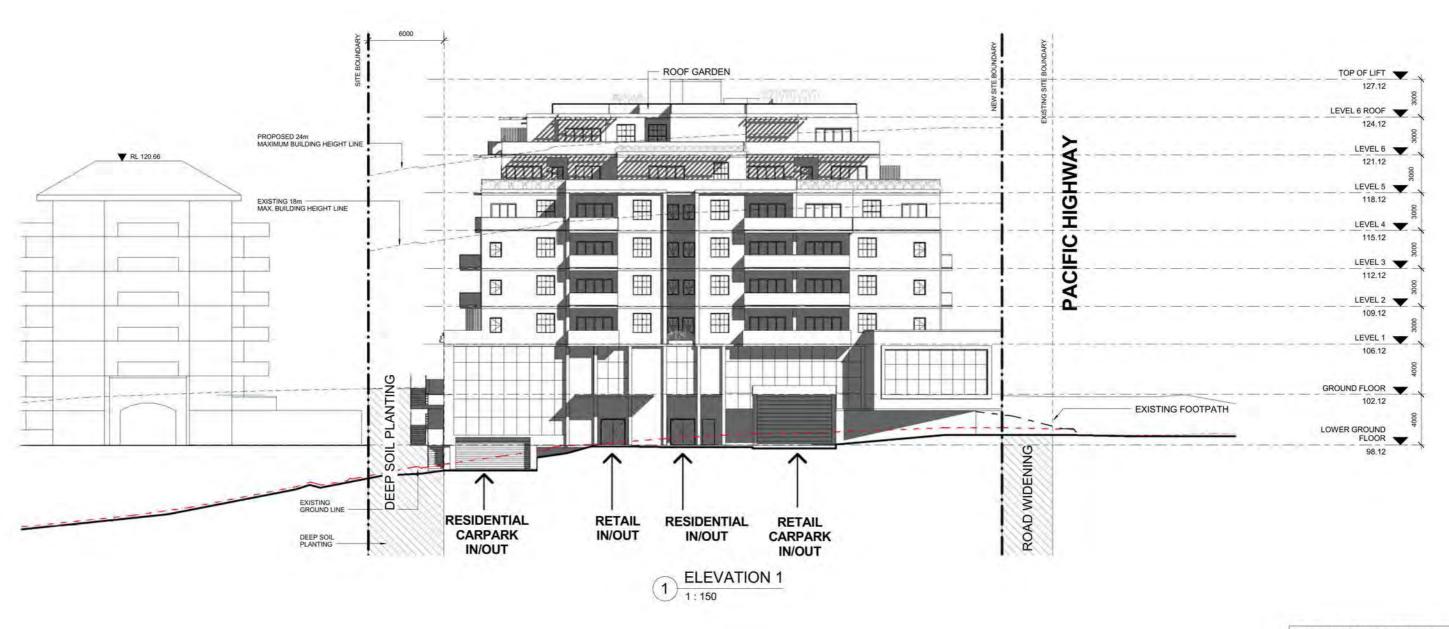
DRAWING LIST								
SHEET NUMBER	DESCRIPTION	SCALE IN A1	ISSUE DATE	REVISION				
A3.05	SECTION E	1:150	28 NOV 13	T				
A3.13	BUILDING ENVELOPE	1:200	28 NOV 13					
A3.14	BUILDING SEPARATION	1:200	28 NOV 13					
A3.15	BUILDING DEPTH PLAN	1:200	28 NOV 13					
A4.01	PHOTOMONTAGE VIEW 1	NTS	28 NOV 13					
A4.02	PHOTOMONTAGE VIEW 2	NTS	28 NOV 13					
A5.01	SHADOW DIAGRAM 9AM	1:500	28 NOV 13					
A5.02	SHADOW DIAGRAM 10AM	1:500	28 NOV 13					
A5.03	SHADOW DIAGRAM 11AM	1:500	28 NOV 13					
A5.04	SHADOW DIAGRAM 12PM	1:500	28 NOV 13					
A5.05	SHADOW DIAGRAM 1PM	1:500	28 NOV 13					
A5.06	SHADOW DIAGRAM 2PM	1:500	28 NOV 13					
A5.07	SHADOW DIAGRAM 3PM	1:500	28 NOV 13					
A6.01	WINTER SUNLIGHT ACCESS LEVEL 1	1:100	28 NOV 13					
A6.02	WINTER SUNLIGHT ACCESS LEVEL 2	1:100	28 NOV 13					
A6.03	WINTER SUNLIGHT ACCESS LEVEL 3	1:100	28 NOV 13					
A6.04	WINTER SUNLIGHT ACCESS LEVEL 4	1:100	28 NOV 13					
A6.05	WINTER SUNLIGHT ACCESS LEVEL 5	1:100	28 NOV 13					
A6.06	WINTER SUNLIGHT ACCESS LEVEL 6	1:100	28 NOV 13					
13710-01	LANDSCAPE CONCEPT PLAN-GROUND FLOOR	1:100	29 NOV 13					
13710-02	LANDSCAPE CONCEPT PLAN-FIRST FLOOR	1:100	29 NOV 13					
13710-03	LANDSCAPE CONCEPT PLAN-ROOFTOP LEVEL	1:100	29 NOV 13					
13710-04	LANDSCAPE CONCEPT PLAN-ELEVATION	1:100	29 NOV 13					
13710-05	LANDSCAPE CONCEPT PLAN-ELEVATION	1:100	29 NOV 13					
13710-06	LANDSCAPE TYPICAL DETAILS	1:100	29 NOV 13					

PLANNING PROPOSAL APPLICATION 28 NOV 2013

Rev	Date	Description		Architect	-	Client	Project	DRAWING	Scale	Date	Project No.	Drawing No.
	28 NOV 13	PLANNING PROPOSAL APPLICATION 4/12/2013 12:14:59 PM IMaganasik/2011/12-0024-854-666 Pacific Hwy Chatswood/Drawings/02-DA/DA-REVIT/Model/Chatswood residential not		MGA MGA Archivects Piv Ltd.	Architecture Interiors Project Management ACN 149 287 972	DARAKI HOLDING PTY LTD	PROPOSED MIXED DEVELOPMENT	LOCALITY PLAN	As indicat	@A1 28 NOV	13 12-0024	A0.00
			P + 61295606882 F + 612 9500 9884 5-25 Grove Street Dutwich His NOW 2000	M = 51 (0)414 964 812 E = auyeung@mge-eron.com.eu	654-666 PACIFIC HIGHWAY CHATSWOOD NSW			District an	Verify all dimensions before connecting work. Use Righted dimensions. On the scale off minering. This exercit is countried and time not be microdicate without the widths permission of the artificial.			



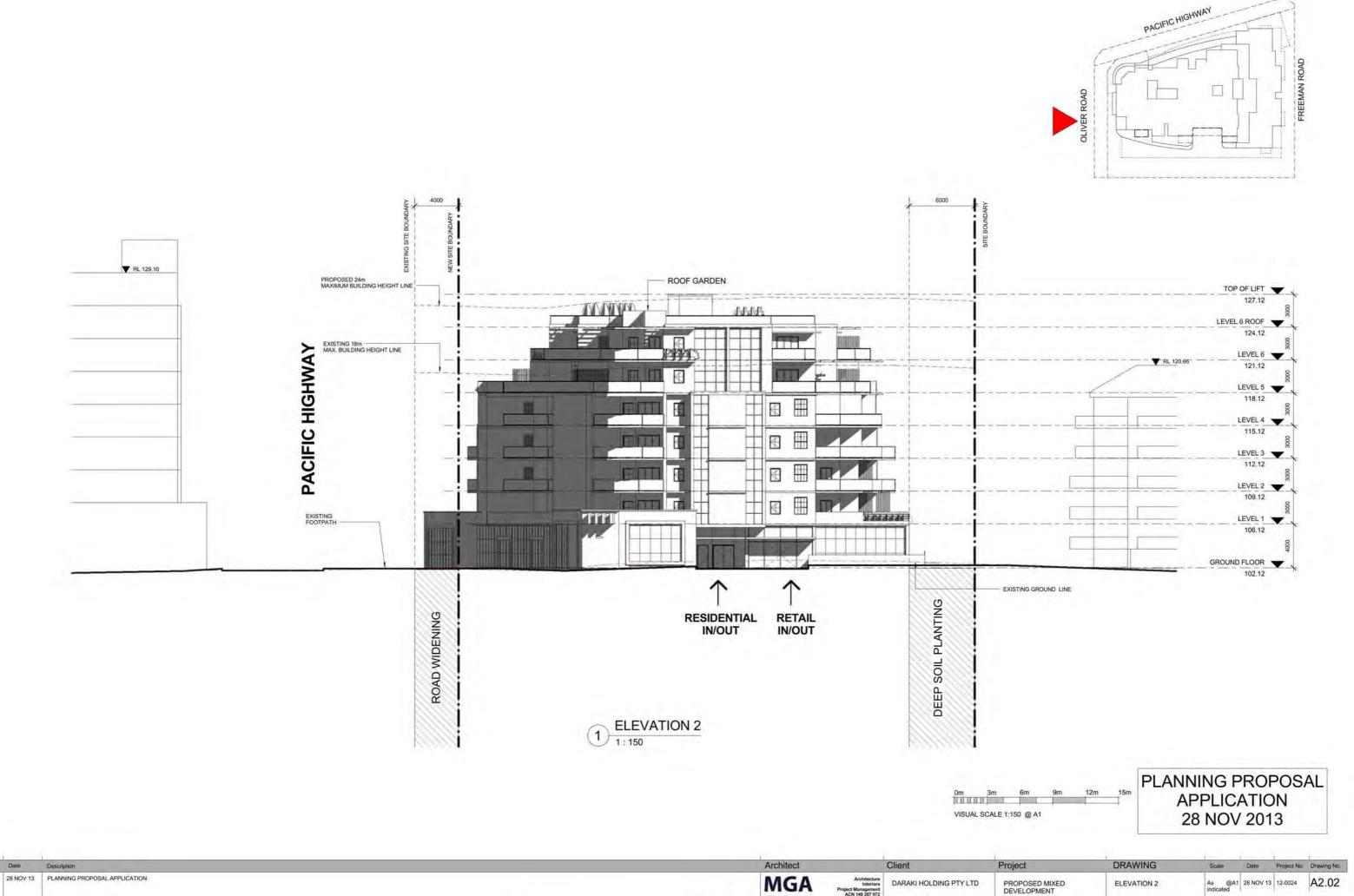




0m 3m 6m 9m 12m 15m

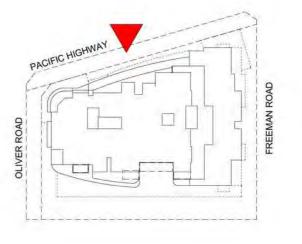
PLANNING PROPOSAL APPLICATION 28 NOV 2013

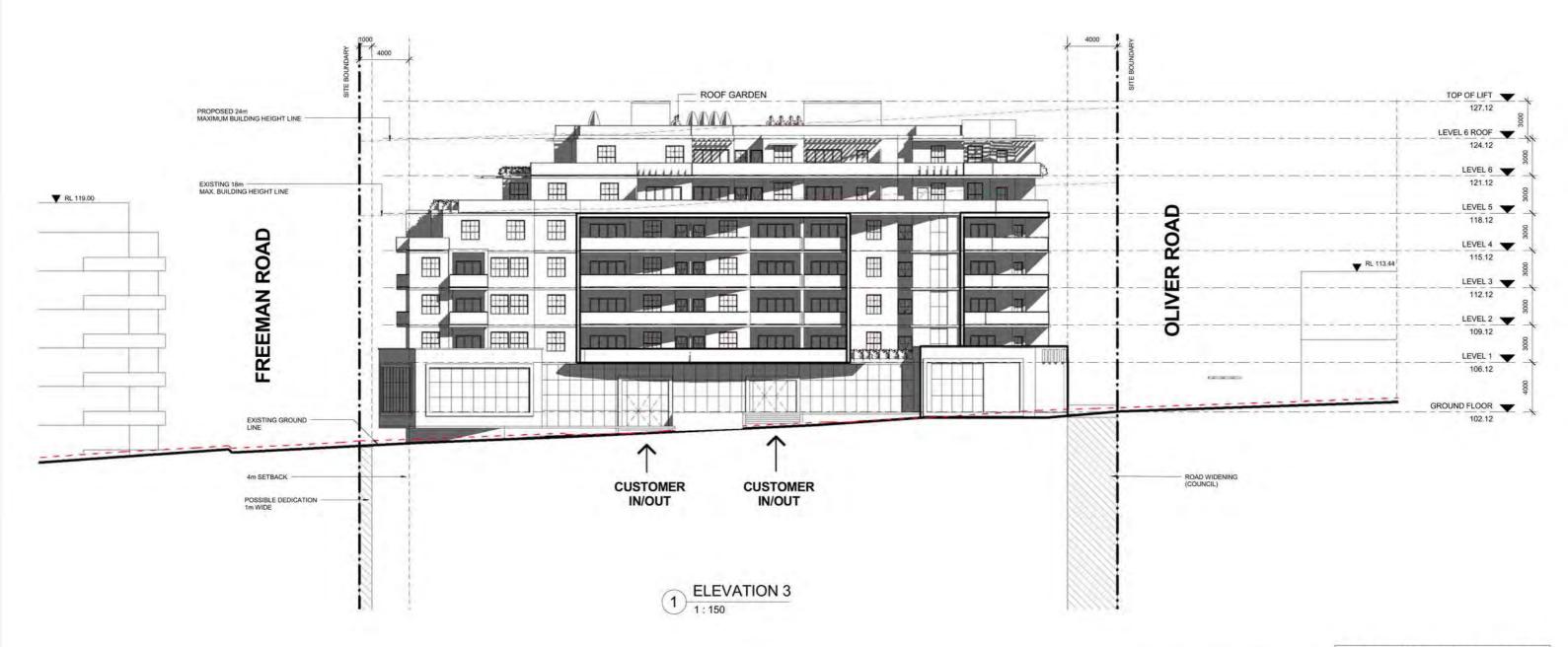
Rey Date	Description		Architect		Client	Project	DRAWING	Scale	Date	Project No.	Drawing No.
28 NOV 13	PLANNING PROPOSAL APPLICATION	2/12/2013 4:18:57 PM IMganxssk/2011/12-0024-654-666 Pacific Hwy Chatswood/Drawlings/02-DA/DA-REVIT/Model/Chatswood residential Avi	MGA MGA Architects Phy.Ltd. P = 81299508882 F + 8129902 9894 GRE Crowe Sheet Dulect: His NOW 2000	Architecture Interiors Project Management ACN 149 287 972 M - 51 (0414 964 812 * a even-polinge-arch communications	DARAKI HOLDING PTY LTD 654-666 PACIFIC HIGHWAY CHATSWOOD NSW	PROPOSED MIXED DEVELOPMENT	ELEVATION 1	As @indicated	A1 28 NOV 13	12-0024	A2.01



DARAKI HOLDING PTY LTD

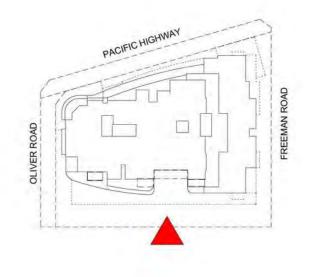
ELEVATION 2

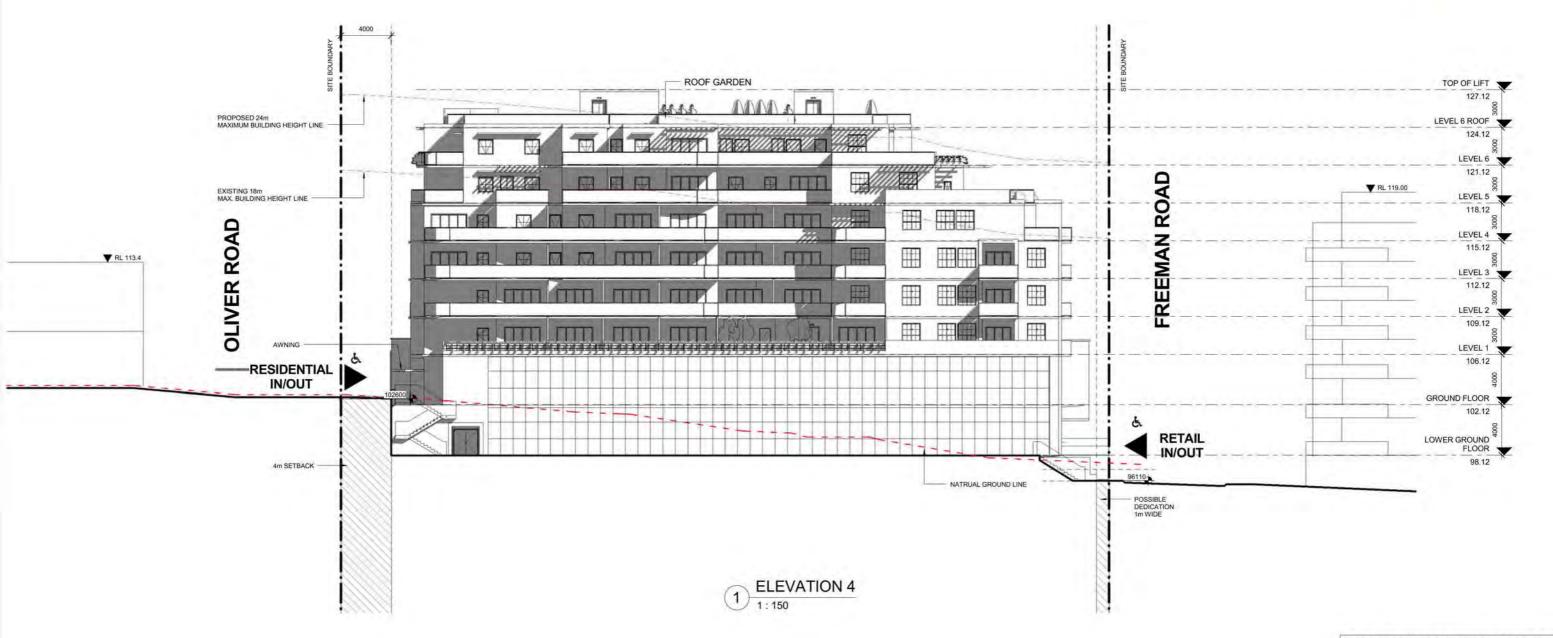




0m 3m 6m 9m 12m 15m VISUAL SCALE 1:150 @ A1 PLANNING PROPOSAL APPLICATION 28 NOV 2013

Rev	Date	Description		Architect		Client	Project	DRAWING	Scale	Date	Project No.	Drawing No.
	28 NOV 13	PLANNING PROPOSAL APPLICATION	27/11/2013 12:19:00 PM WMganusik/2011/12-0024-854-668 Pacific Hwy Chatswood/Drawings/02-DA/DA/REVIT/Model/Chatswood residential ret	MGA Architects Pty Ltd. P+612/9509682 F+612/9509884 576 Orone Street Duhedt HB NOW 2700	Architecture Interiors Project Management ACN 149 267 972 M 55 10M14 364 812 9 8 2 a siven of fire accuracy	DARAKI HOLDING PTY LTD 654-666 PACIFIC HIGHWAY CHATSWOOD NSW	PROPOSED MIXED DEVELOPMENT	ELEVATION 3	As @ indicated verify all dissers of the control along of the control along of the control along of the control along t	A1 28 NOV 13	12-0024 Usa figured dimensions of anyl may not be serviced.	A2.03

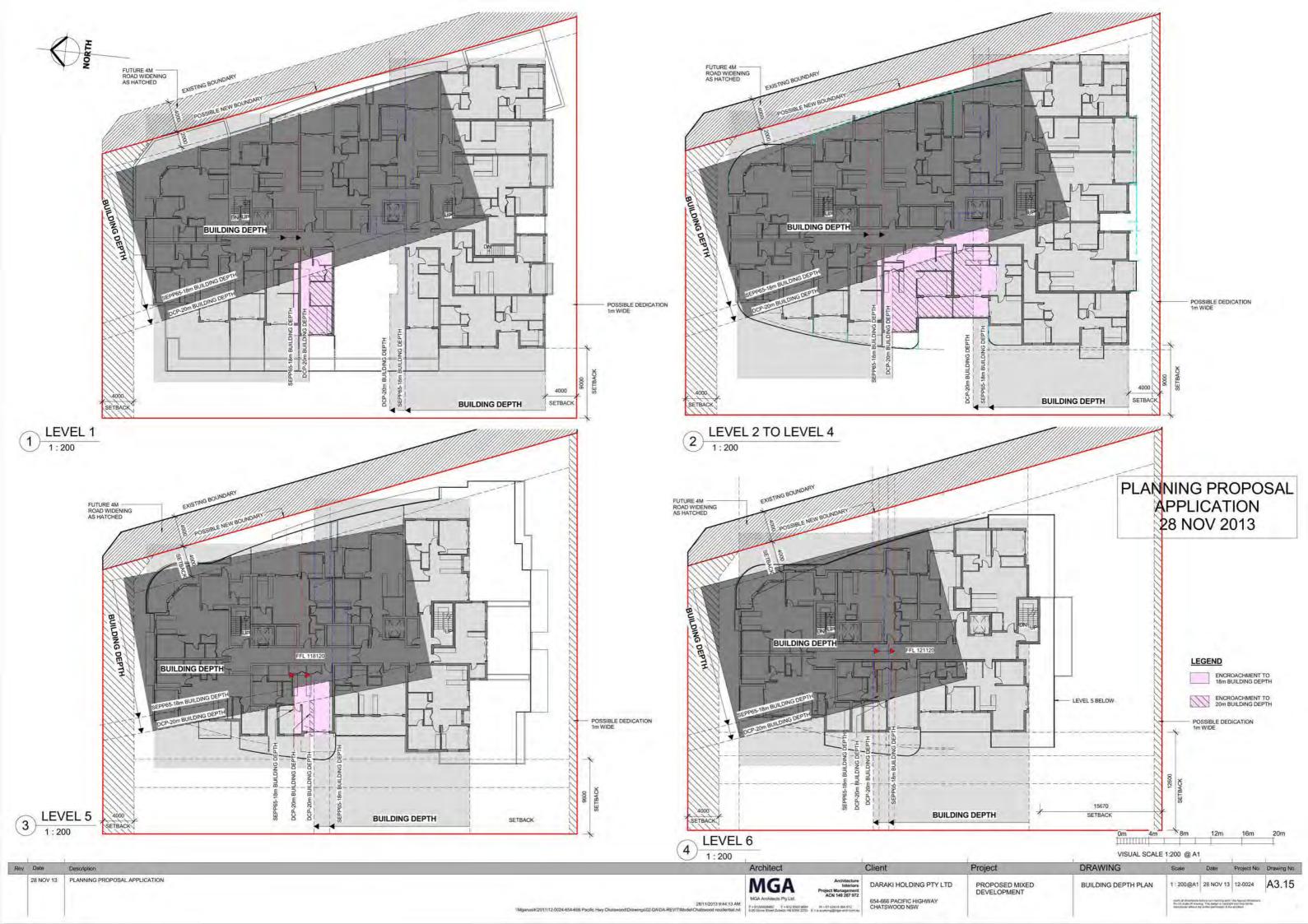


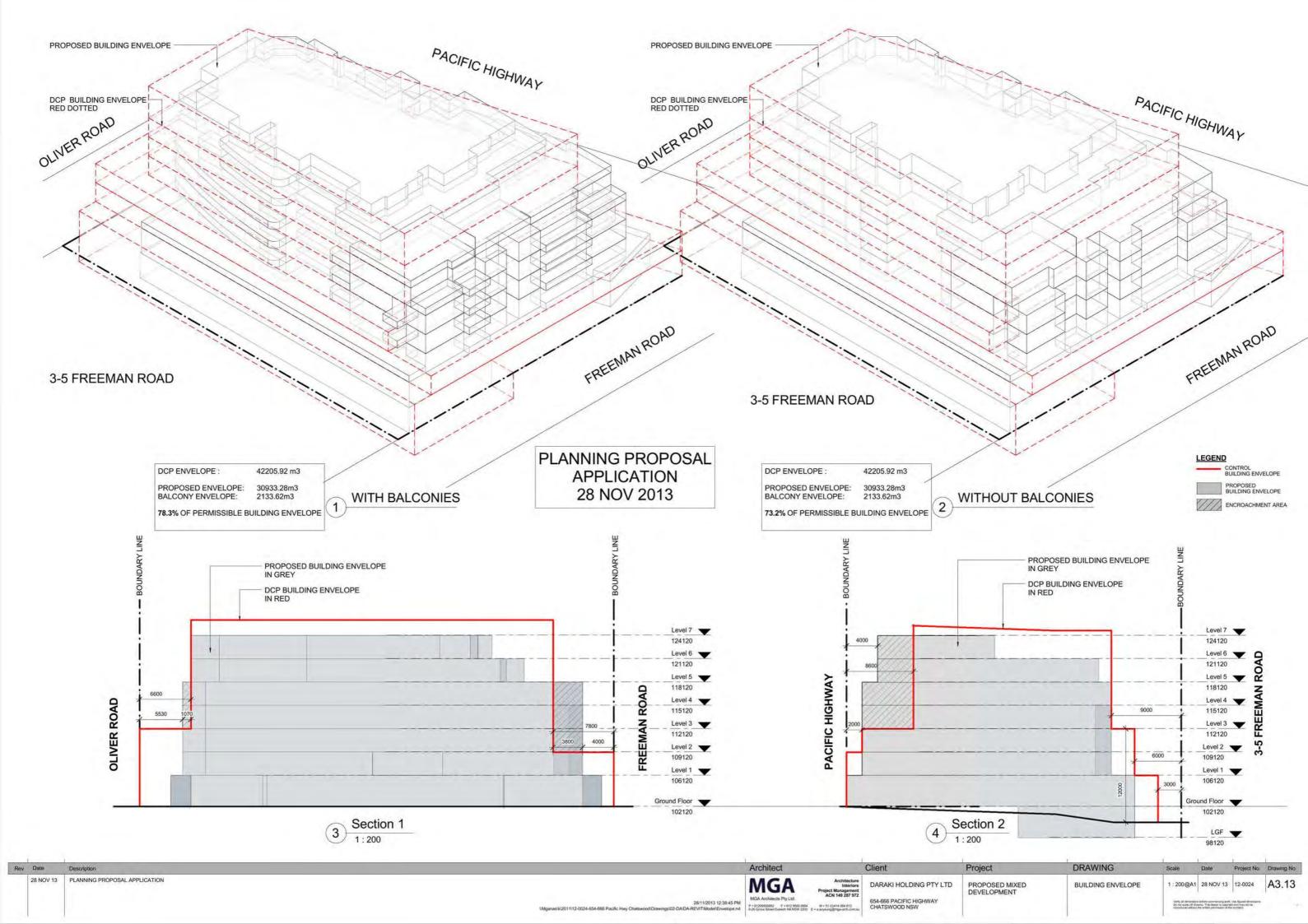


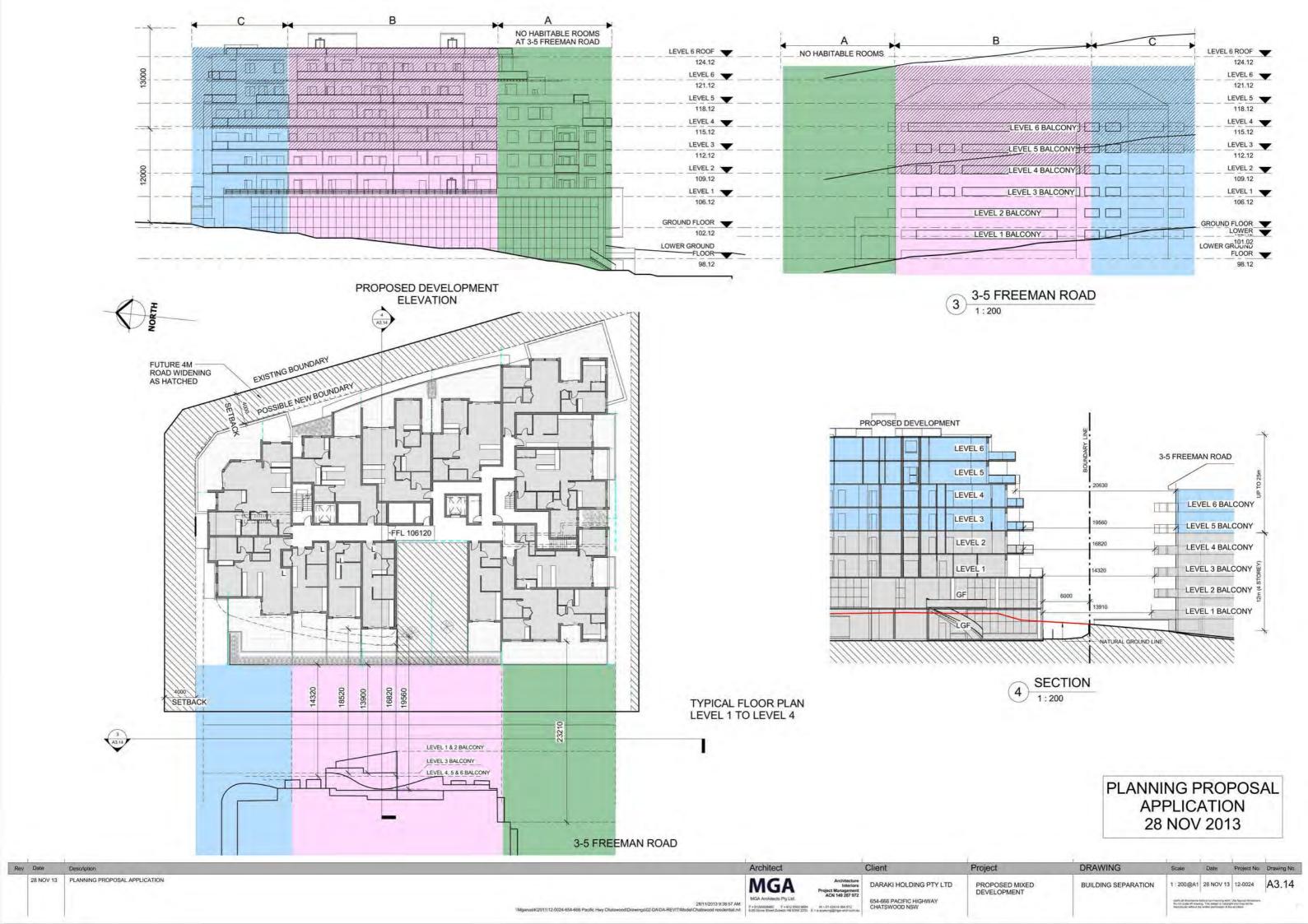
0m 3m 6m 9m 12m 15m
VISUAL SCALE 1:150 @ A1

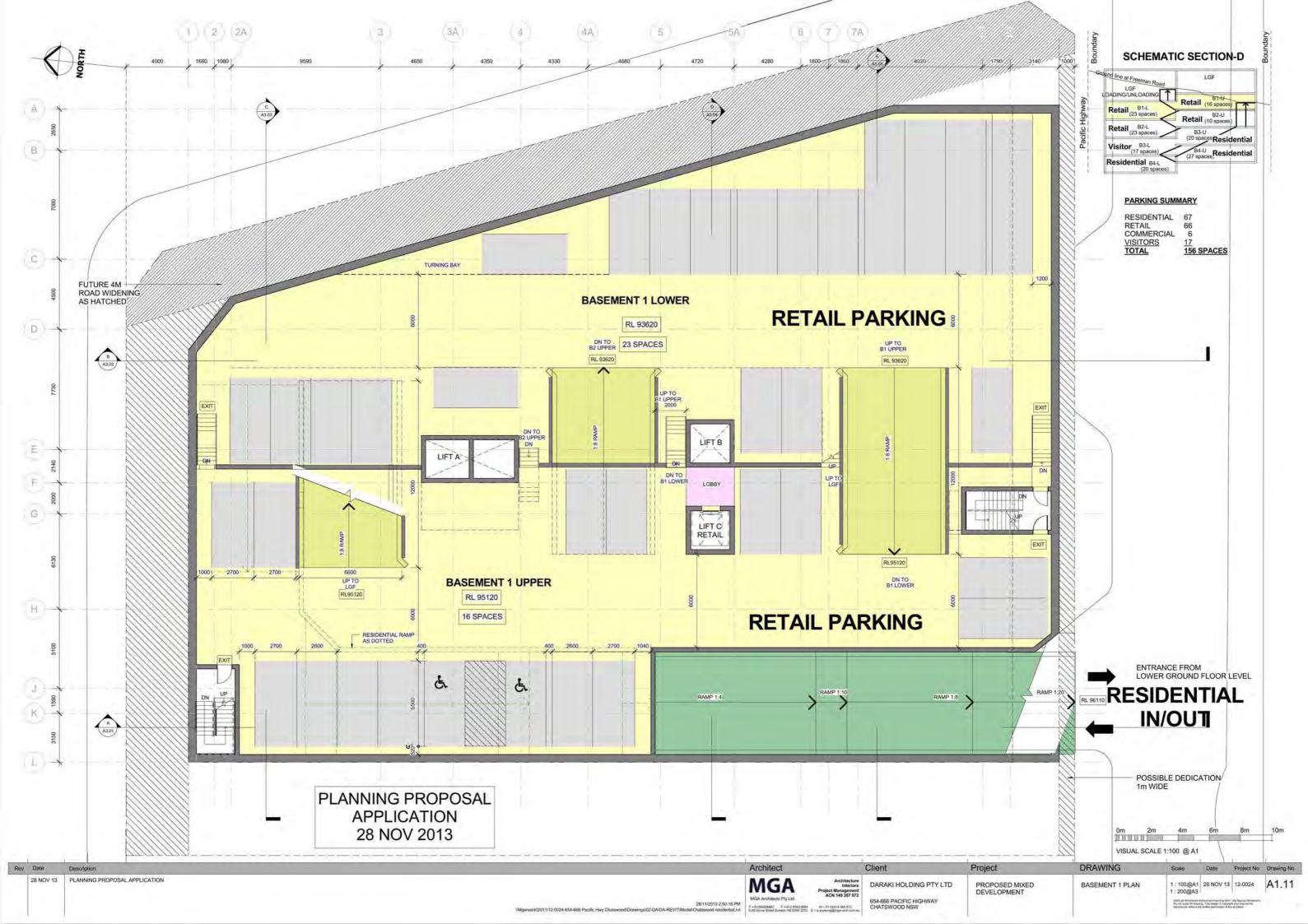
PLANNING PROPOSAL APPLICATION 28 NOV 2013

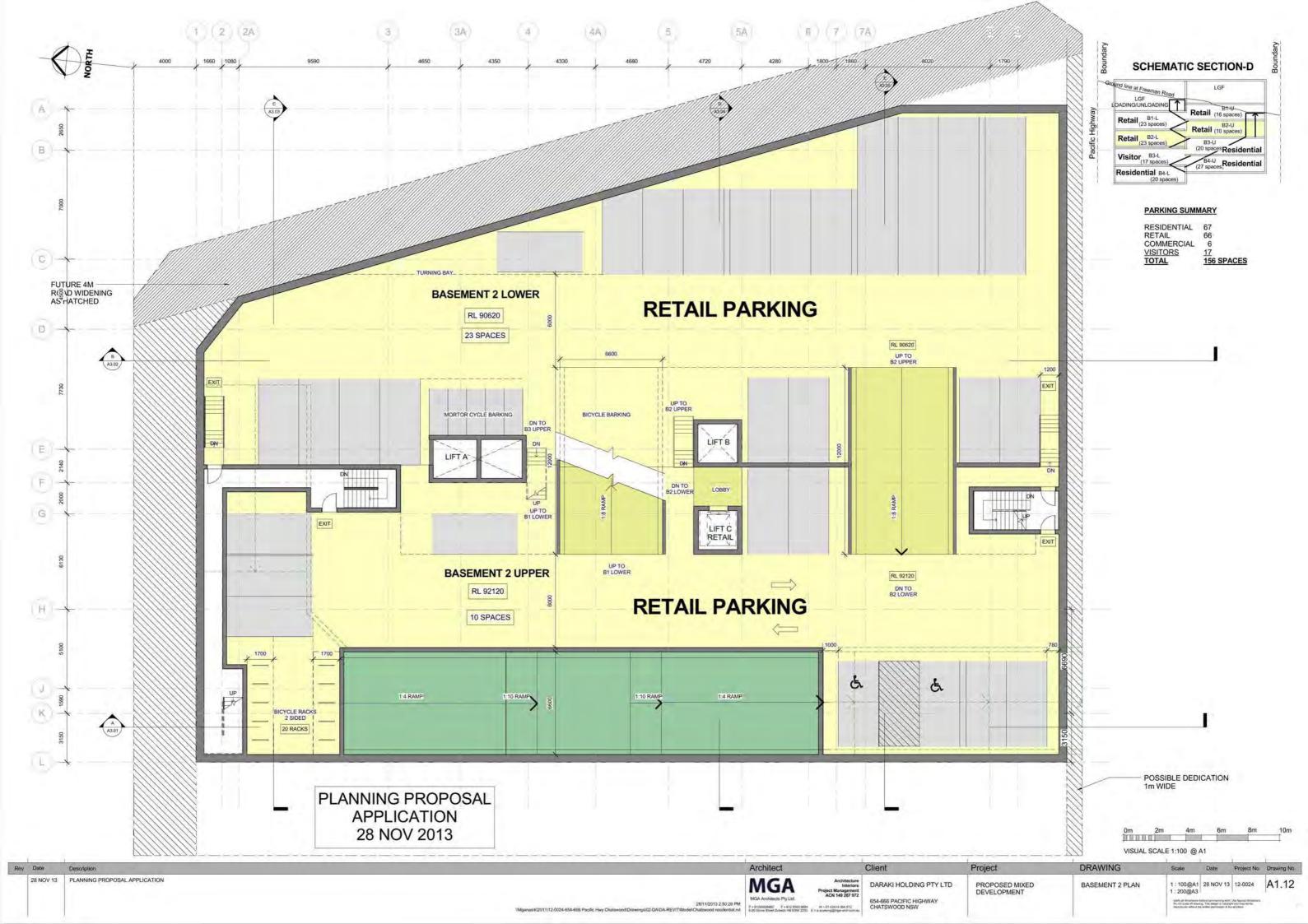
Rev	Date	Description		Architect		Client	Project	DRAWING	Scale	Date	Project No. Drawing No.
	28 NOV 13	PLANNING PROPOSAL APPLICATION	27/11/2013 12:21:59 PM IMganasik12011112-0024-654-666 Pacific Hwy Chatswood/Drawingsi02-DAIDA-REVIT/Model/Chatswood residential rut	MGA MGA Architects Pty Ltd. P+61205006882 F+612 9900 8884 626 Oroug Street Dutwich Hel NZW 2203	Architecture Interiors Project Management ACN 149 287 972 M - 51 (UN 54 964 812 E 1 a experiencial com Ac	DARAKI HOLDING PTY LTD 654-666 PACIFIC HIGHWAY CHATSWOOD NSW	PROPOSED MIXED DEVELOPMENT	ELEVATION 4	As @ indicated Verify all discuss of manufolisated with	28 NOV 13	12-0024 A2.04

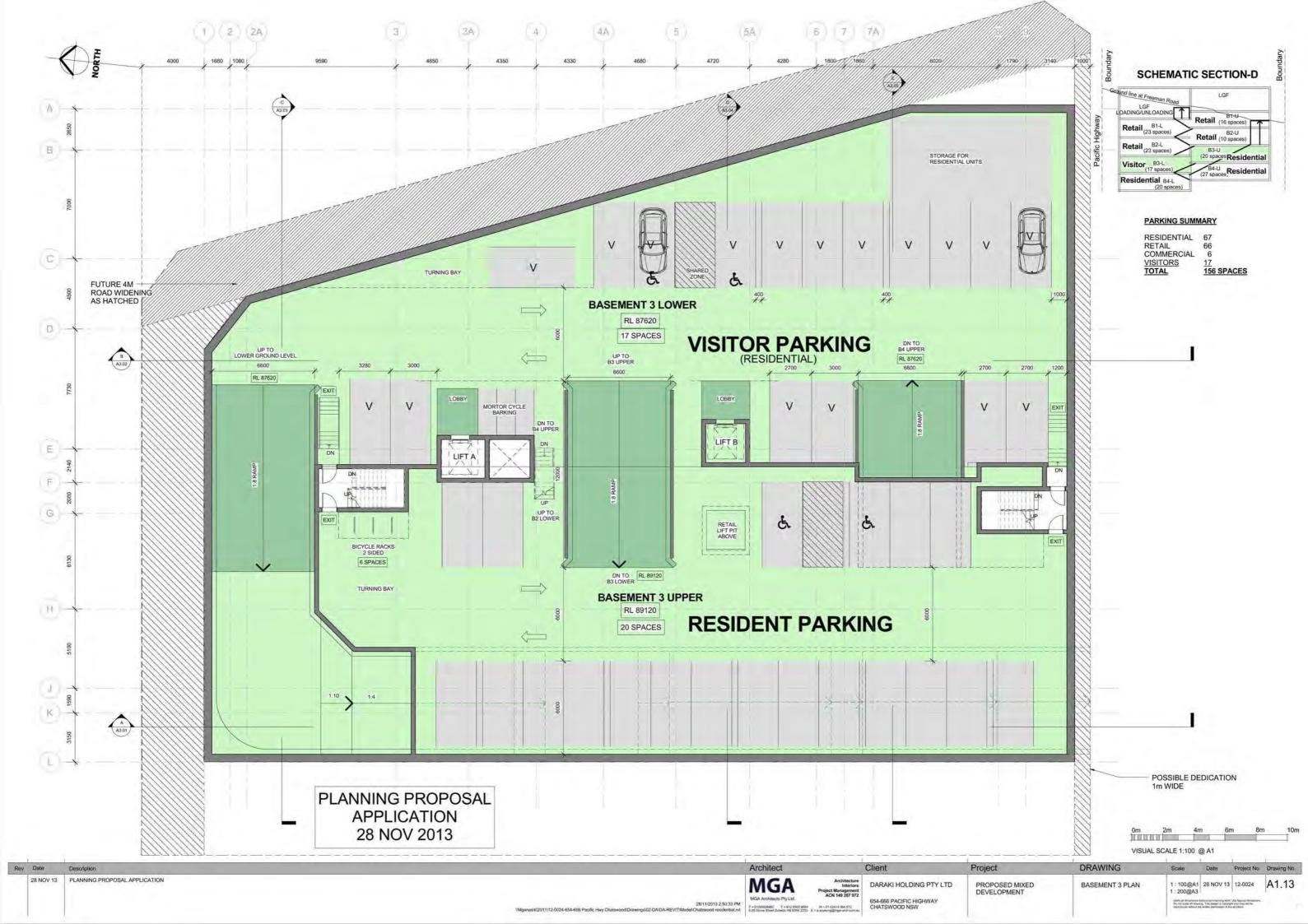


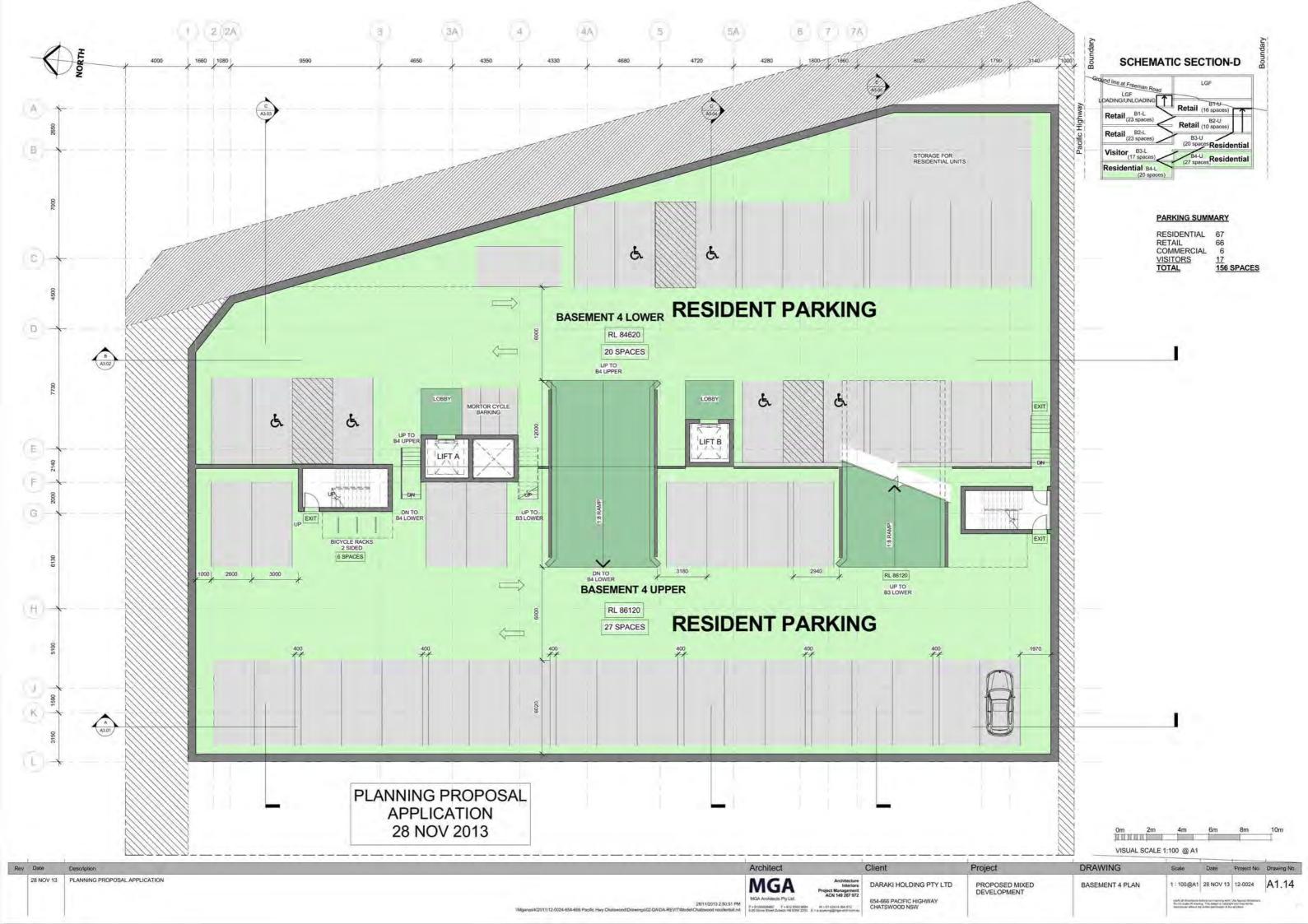


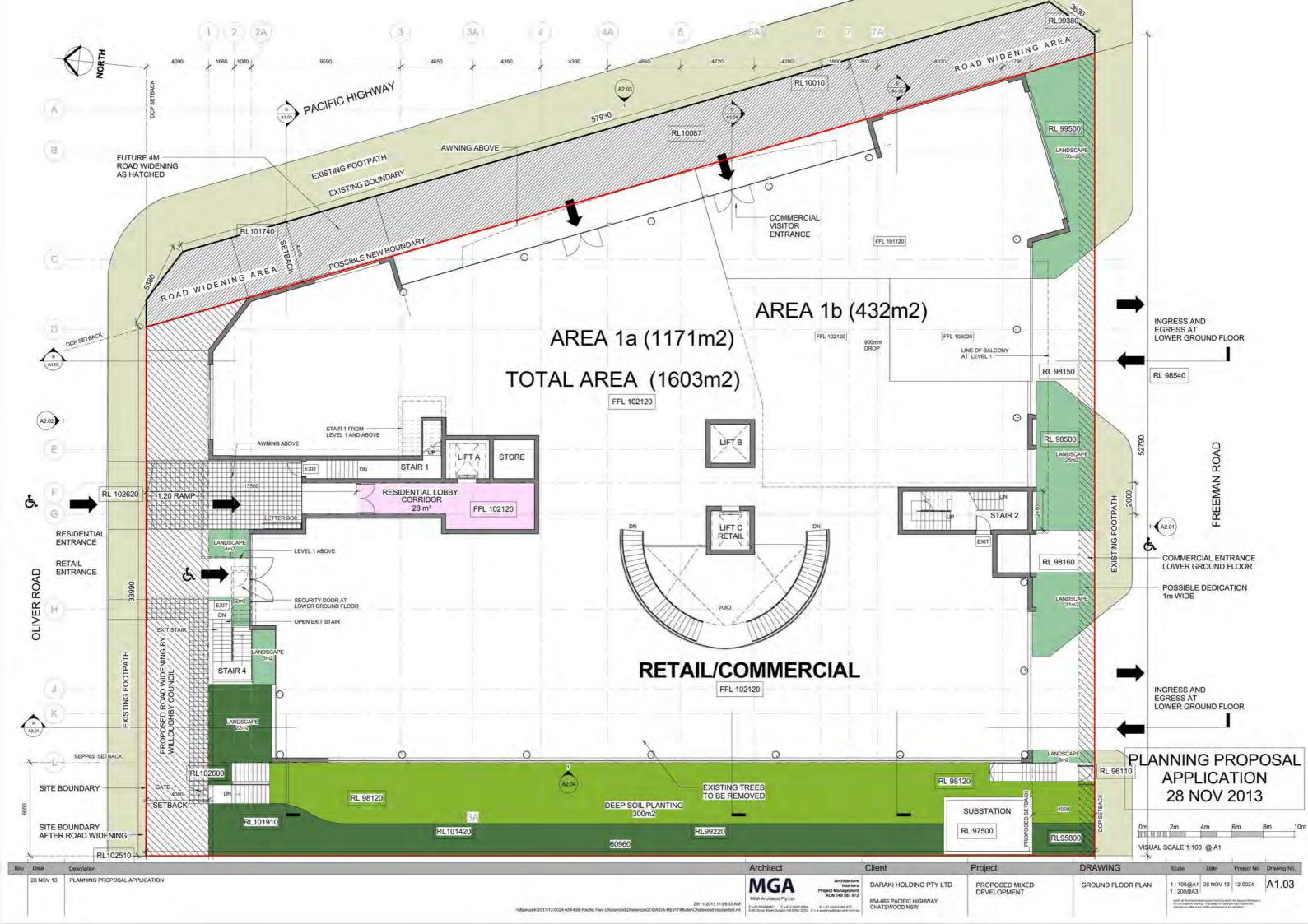














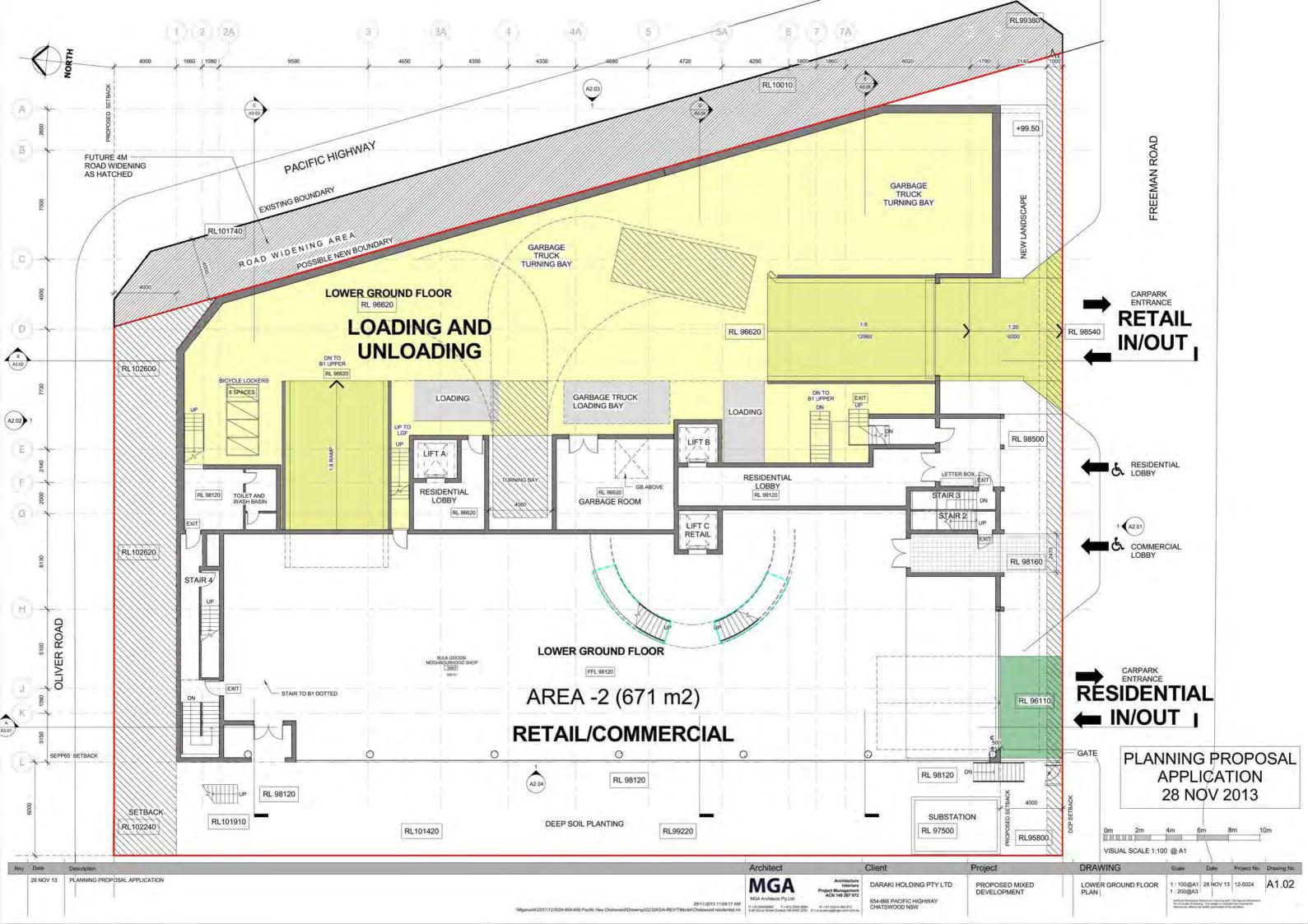




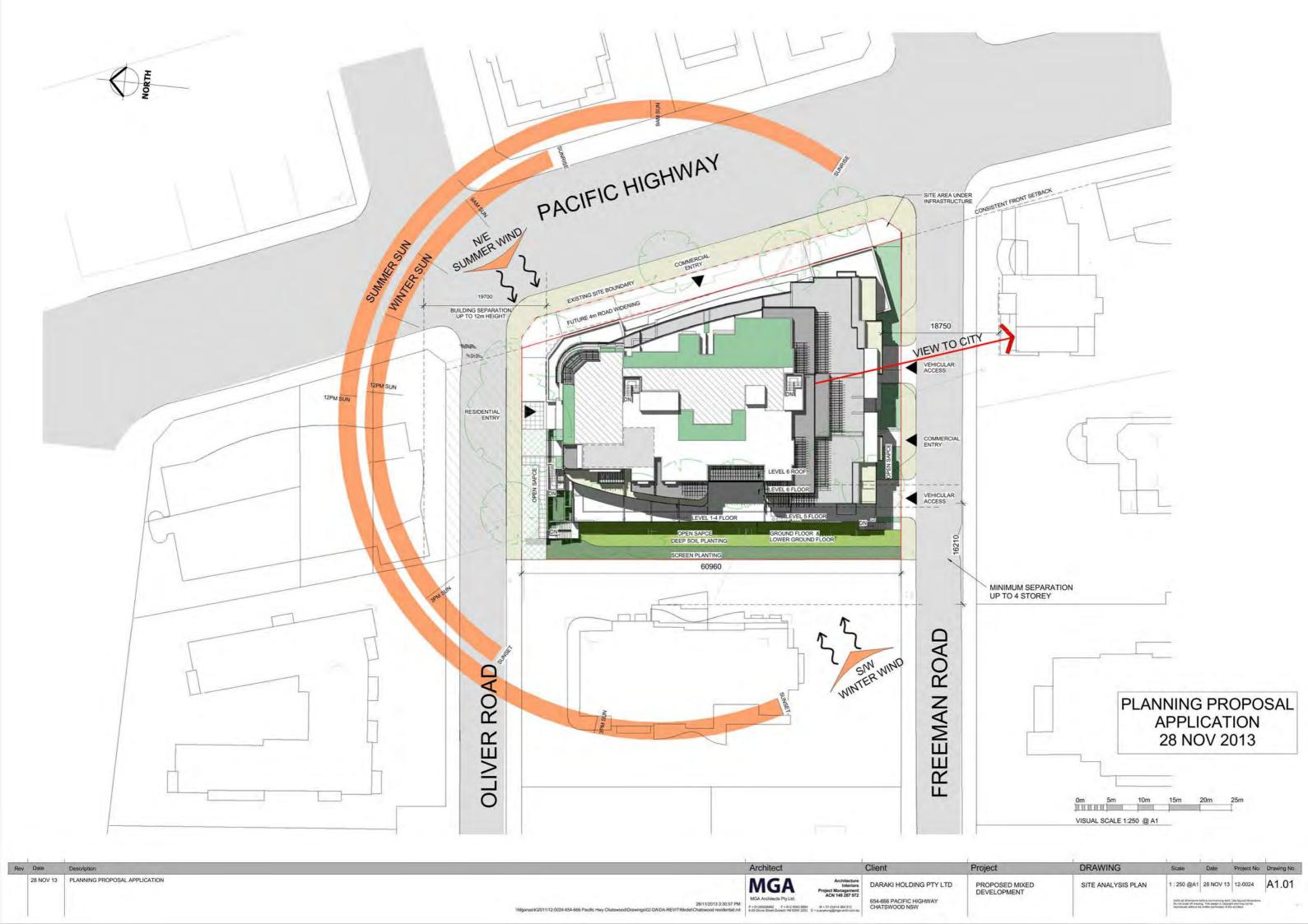


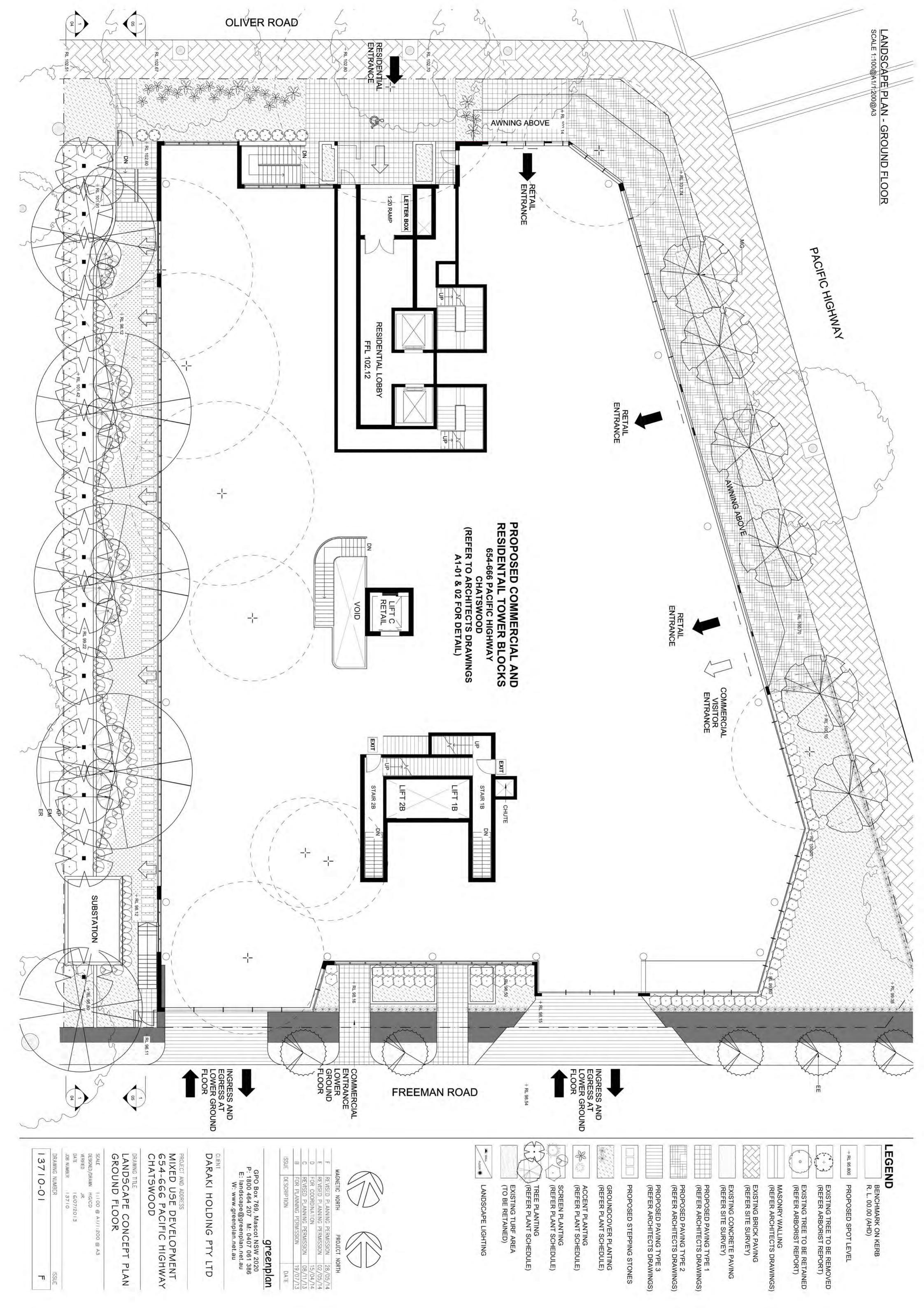


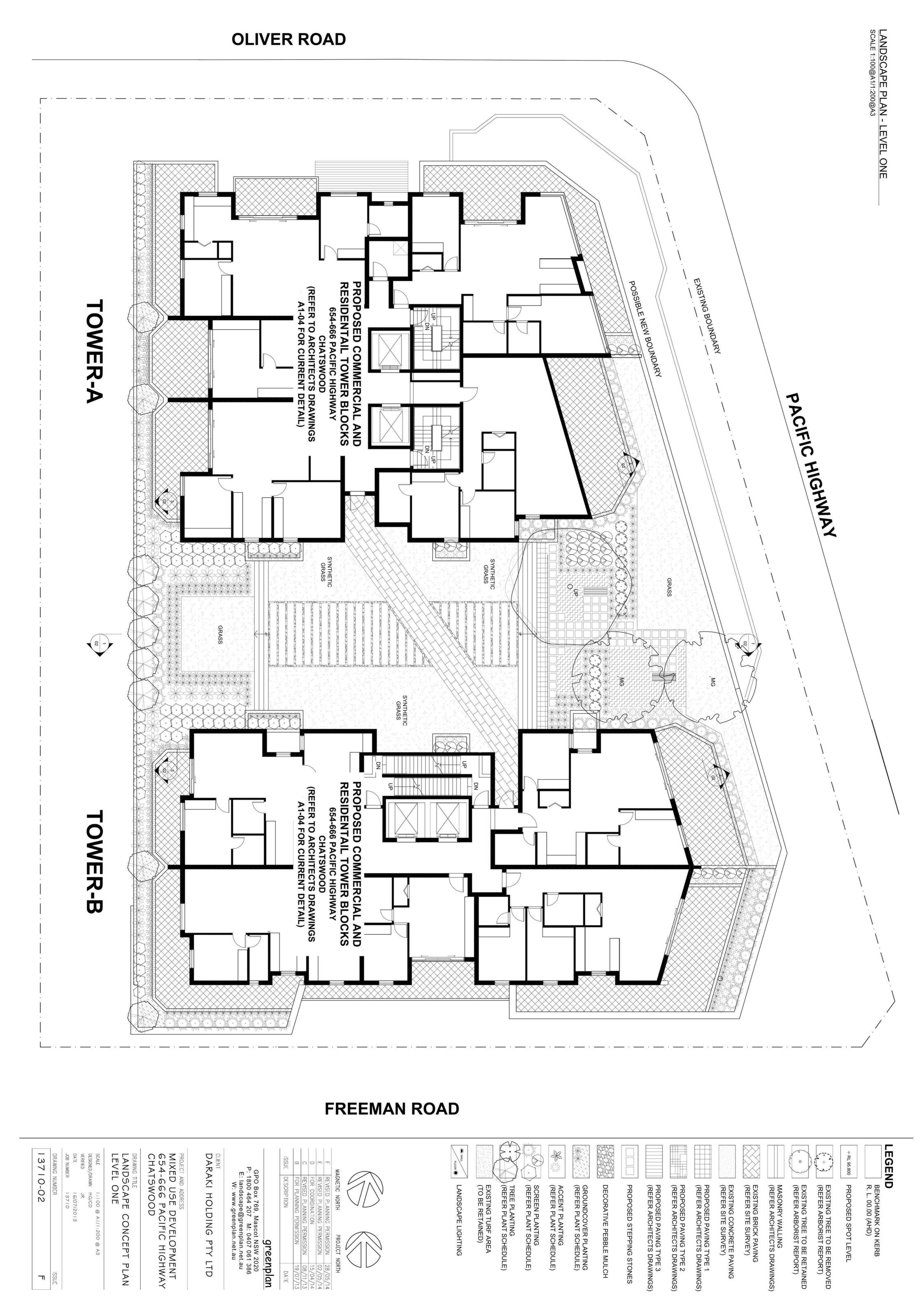












PLAN

















a 1781 of December 1990 (1990)

DARAKI HOLDING PTY LTD

ARAKI HOLDING PTY LTD

MIXED USE DEVELOPMENT 654-666 PACIFIC HIGHWAY CHATSWOOD

LANDSCAPE CONCEPT PLAN FIRST FLOOR

STATE OF THE PROPERTY OF THE P

13710-01

C



LEGEND

BENCHMARK ON KERBI R. L. 00.00 (AHD)

+ H HAN PROPOSED SPOT LEVEL

EXISTING TREE TO BE REMOVED (REFER ARBORIST REPORT)

EXISTING TREE TO BE RETAINED (REFER ARBORIST REPORT) MASONRY WALLING IREFER ARCHITECTS ORAWINGS

EXISTING BRICK PAVING. (REFER SITE SURVEY)

> EXISTING CONCRETE PAVING (REFER SITE SURVEY)

PROPOSED PAVING TYPE 1

(REFER ARCHITECTS DRAWNGS) PROPOSED PAVING TYPE 2 (REFER ARCHITECTS DRAWINGS)

PROPOSED PAVING TYPE 3 [REFER ARCHITECTS DRAWINGS]

PROPOSED STEPPING STONES

GROUNDCOVER PLANTING (REFER PLANT SCHEDULE)

ACCENT PLANTING (REFER PLANT SCHEDULE)

SCREEN PLANTING (REFER PLANT SCHEDULE) TREE PLANTING (REFER PLANT SCHEOULE)

EXISTING TURE AREA (TO BE RETAINED)

LANDSCAPE LIGHTING





2 NEWSCO PENNSON PERMISSION 09/11/7/2 8 FDP PLANSING PERMISSION 9/07/11 A FOR WEIRSANDS 9/07/11

greenplan GPO Box 769, Mascot NSW 2020 P: 1800 464 207 M: 0407 DE1 386 E: landscape@greenplan.net.au W: www.greenplan.net.au

DARAKI HOLDING PTY LTD

MIXED USE DEVELOPMENT 654-666 PACIFIC HIGHWAY CHATSWOOD

LANDSCAPE CONCEPT PLAN ROOFTOP LEVEL

STREET, STREET, STORING 20 March 19716

DILENCY LINES.

TOM 13710-03 C



DATE

B





greenplan

GPO Box 769, Mascot NSW 2020 P: 1800 464 207 M: 0407 081 386 E: landscape@groenplan.nst.au W: www.greenplan.nst.au

DARAKI HOLDING PTY LTD

MIXED USE DEVELOPMENT 654-666 PACIFIC HIGHWAY CHATSWOOD

DAMES THE LANDSCAPE CONCEPT PLAN ELEVATION

DAT.	11/00g All
(book), broke	
CHARD	A
ME.	16/67/9013

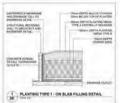
28 HARDE 13710 DEXMED NUMBER 13710-05

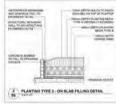
SSS.

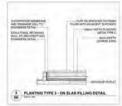
SYME.	BOTANICAL NAME	COMMON HAME	CENTRES	POT-SZE	HEIGHTSIWH*	70744	RATIVE	WATERLISE
GROUP	ADCOVER AND ADDENT PLANTS				-			
*	AGAMMITHUS PRIABODY.	LILY OF THE NEE	400mm	200mm	400 x 440****	14	36	1
*	DORYANTHES EXCELSA.	CHMEALLY	MANDOM	200mm	1200 à 1200min.	200	TW.	- 6
	LANTANA MONTEVIDENSIS	DWIRE STERLE LANCANA	6842	450	400 x 600mm	Me.	14-	16
99	TWOOS EVEROREEN DWIT	LEGOPE	450mm	190000	450 x 450mm	918	19	4-
無	HACHOZNIKA COMMUNIS	BURRAWANG	HANCON	201	MARKABLE	41	4	I.
*	PHONINGS TENAX PURPOREJAY	INTELAKOLITIVANI	600sm	291	600 V 800mm	110		- 4
200	TRACHEL OSPERNION TRECOLOR	VANSEGATED STAR JASSING	5992	150000	400 x 500mm	Yerk!	14-	1
	WOLAHEDERACEAR	NATIVE VICLE?	5642	100-	100 x 500mm	810	W.	- 4
SCHE	THE BY ANTING							
	CAMELIA SASANONA SOMETHING SPECIAL	BASANGLIK CAMELLIA	1000mm	239	3000 e 1200-mi	65	- 11	12.66
	MORROWA PANICULATA	DÁWIGE JESSAMME	10001111	250	2000 x 1000mms	100	- 10	- 1
-	SYZYGUM YATHFINDER	LELYPELY CULTWAN	1000ms	250	1500 x 1000mm	126	7.	1
	STREATZIA AUNCEA	BIFD-CY-PARADISE	1100mm	456	2000 a 1200mm	én.	14.	4.
THRES								
Nº	ACER PALMATINE	WANTED WATER	SHOWN	756	6×45n	17	14	646
200	BLAROCA/BRUS AS TICULATUS	DUST DERBY ART	1800mm	45k	6 x 3.5m	10	Y-	- 6
EM.	EUCALVPRIS MAGULATA	SPOTTED GLAS	SHOWN	1000	20 x 10m	10	P.	6.
U.	LIVISTONA AUSTRALIS	CASBAGE PALM	BHOWN	300e	8 X Smi	Jia.	4	1
ML	MACAGLIA GRANDIFLORA LITTLE DENF	MAGNOLIA	SHOWN	1000	5430	30	N.	6-
RS	HOMBIA PRELODAÇAÇIA TRIBIA	SOLDEN ROBINA	BHOWN	1500	Seleton.	h.	- 16	4
Ur	LEASIN PAIN/INDIA	CHINESE ELM	SHOWN	1007	BAZYB NO:	2	in.	5.86

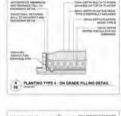
HEIGHT AND SPAN MOICATIVE, SUBJECT TO CINSTE LOCAL SINVECEMENTAL FACTORS, USE ONLY AS A GUIDE.

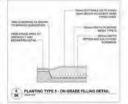
MOTE WATER USE IS MEASURED ONCE THE 13 MONTH PLANTING HISTABUSH PERIOD HAS BEEN REACHED.

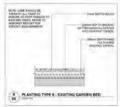


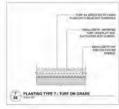


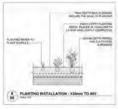


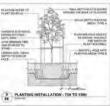


















EXISTING TURF AREA
(TO BE RETAINED)

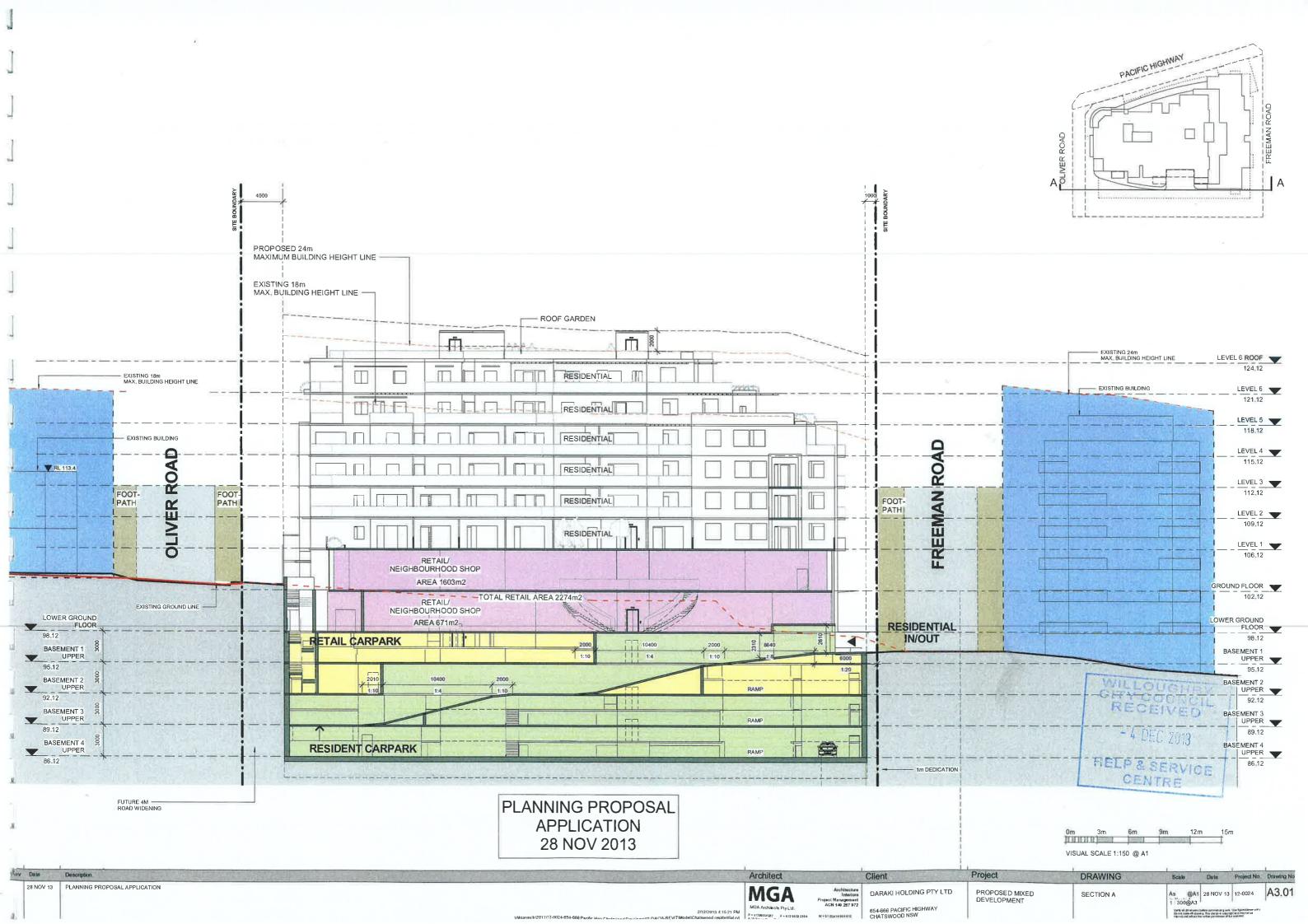
LANDSCAPE LIGHTING

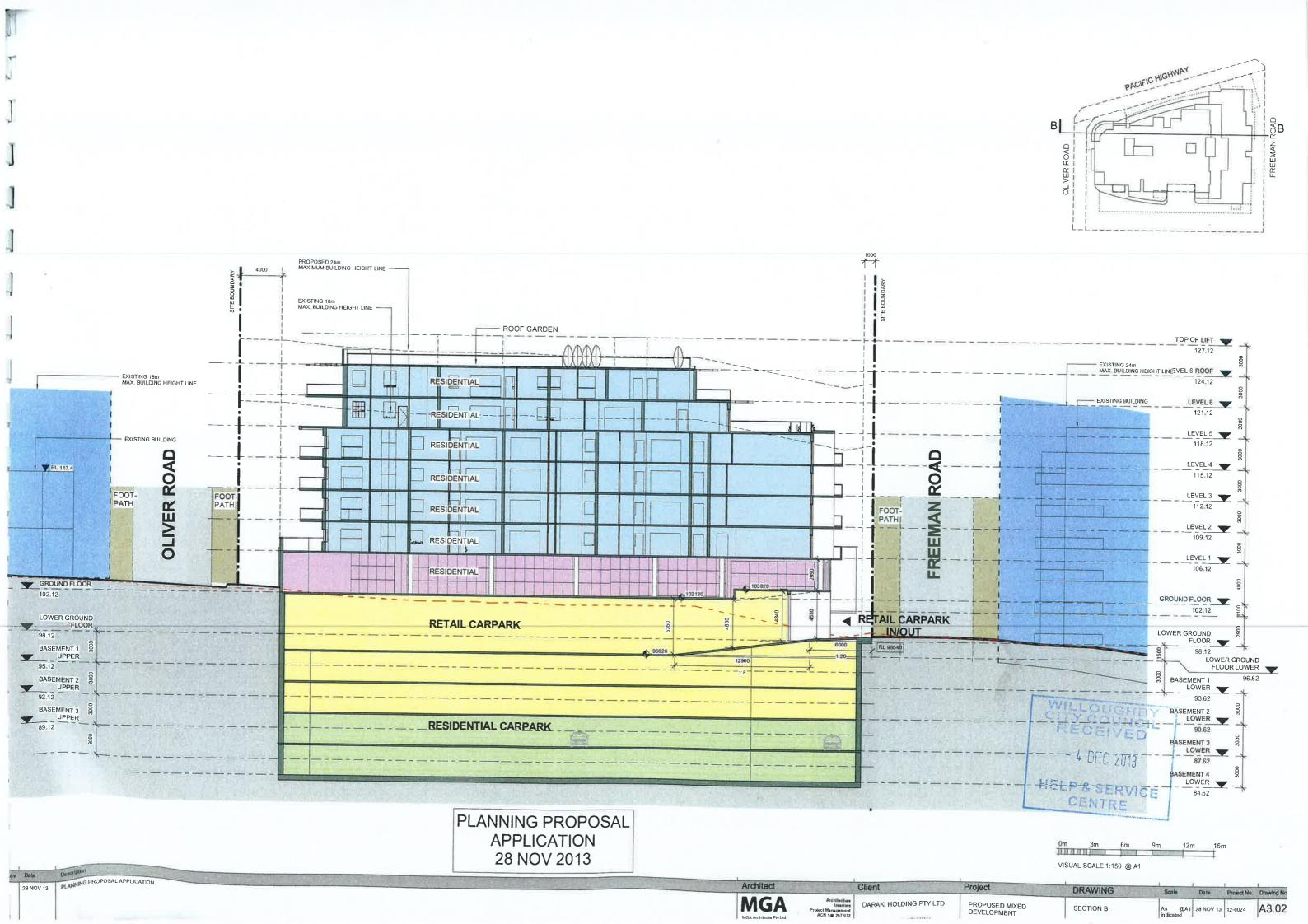
MIXED USE DEVELOPMENT 654-666 PACIFIC HIGHWAY CHATSWOOD

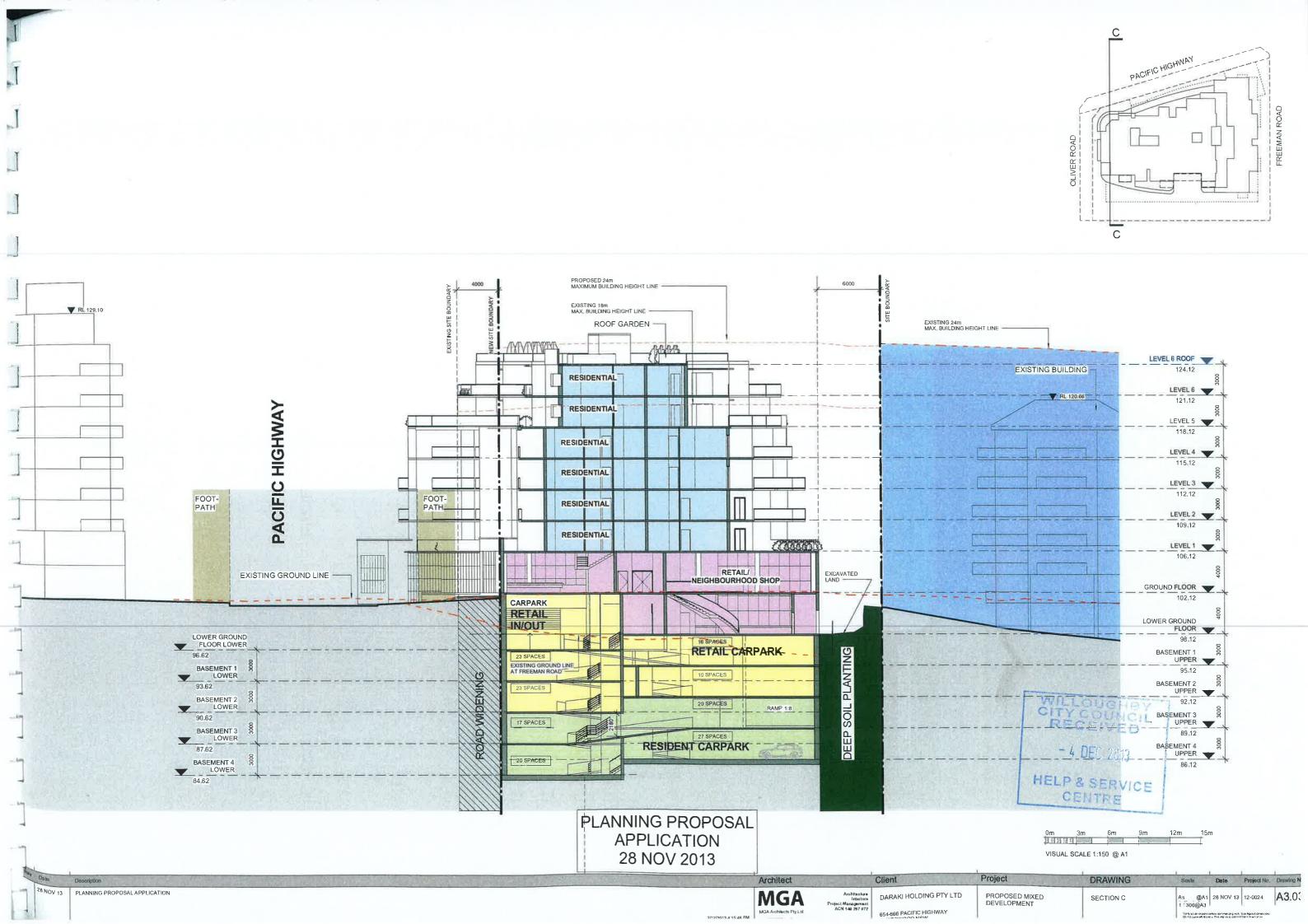
31

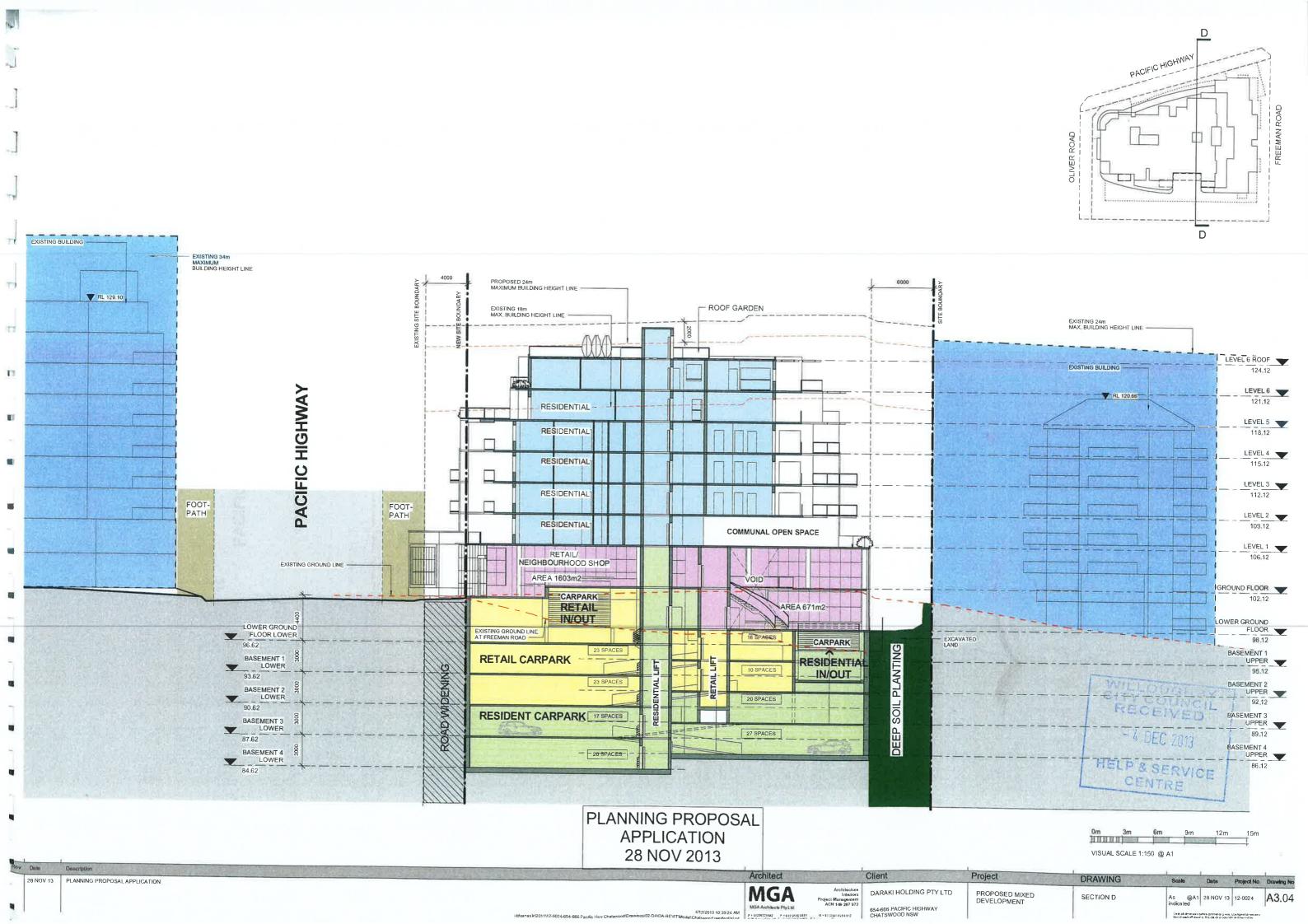
0

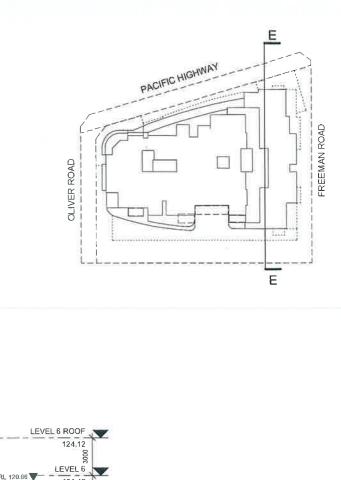
13710-06

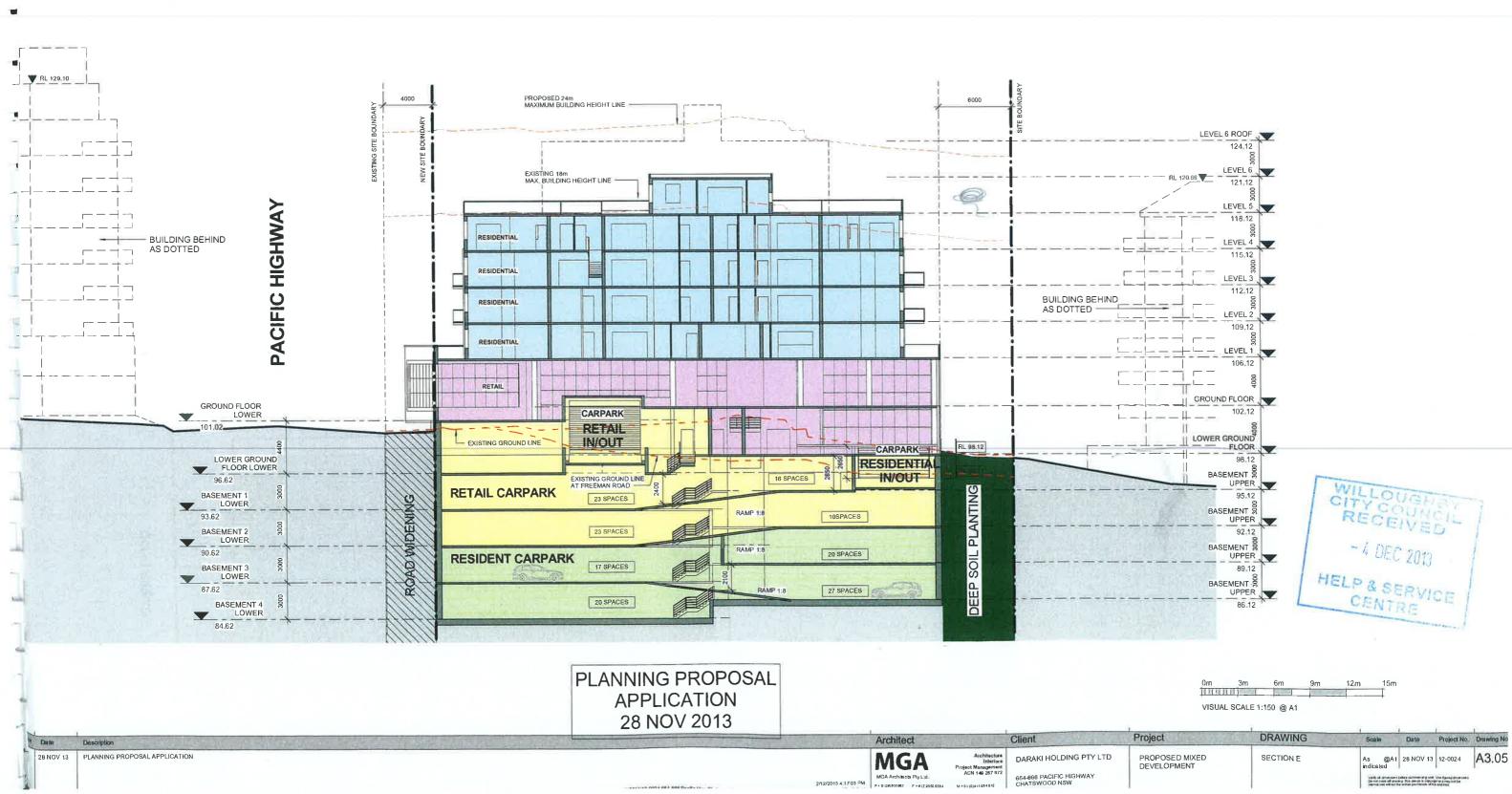


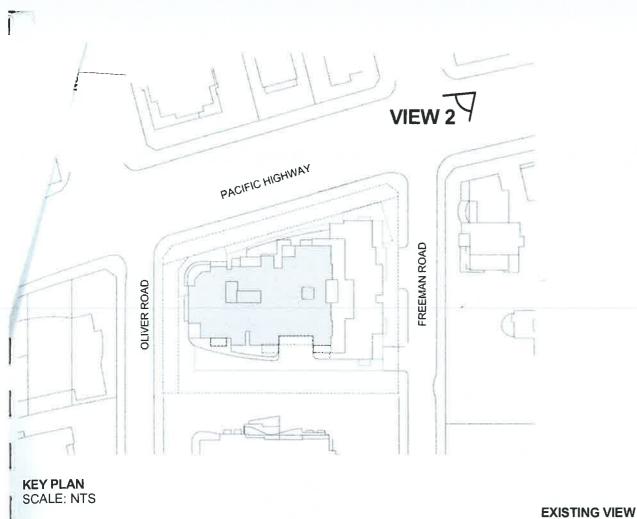














PACIFIC HIGHWAY

PLANNING PROPOSAL APPLICATION 28 NOV 2013

PROPOSED VIEW

Archifect Client Project DRAWING Scale Date Project No. Drawing No.

28 NOV 13 PLANNING PROPOSAL APPLICATION

Archifect Client Project DRAWING Scale Date Project No. Drawing No.

MGA Archibectus Interiors Project Management ACH 12 28 NOV 13 PLANNING PROPOSAL APPLICATION

Archifect DRAWING PROPOSAL APPLICATION

PROPOSED MIXED DEVELOPMENT

Project Management ACH 12 28 NOV 13 12-0024 PAG-06 PACIFIC HIGHWAY CHATSWOOD NSW

Archibectus Project No. Drawing No.

28/11/2013 10:54 52 AM

Archibectus Project No. Drawing No.

Character Scale Date Project No. Drawing No.

Character Scale Date Project No. Drawing No.

Project No. Drawing No.

Photomontage View 2 Nrs. @A1 28 NOV 13 12-0024 PAG-06 PACIFIC HIGHWAY CHATSWOOD NSW

Character Scale Date Project No. Drawing No.

Character Scale Date Project No. Drawing No.

Character Scale Date Project No. Drawing No.

Photomontage View 2 Nrs. @A1 28 NOV 13 12-0024 PAG-06 PACIFIC HIGHWAY CHATSWOOD NSW

Character Scale Date Project No. Drawing No.

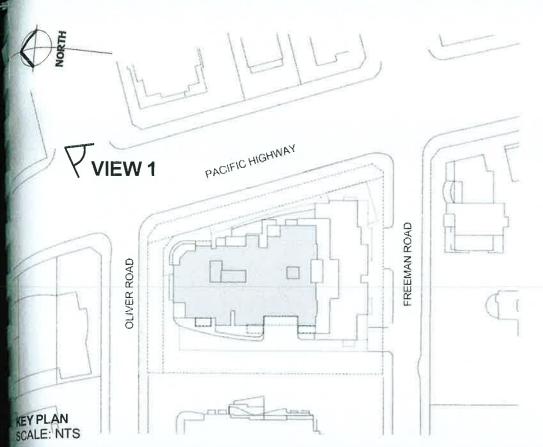
Character Scale Date Page 12 No.

Character Scale Date Page 12 Nr. Scale Date Project No. Drawing No.

Character Scale Date Page 12 Nr. Scale Date Project No.

Character Scale Date Page 12 Nr. Scale Date Project No.

Character Scale Date Page 12 Nr. Scale Date Page 12 Nr.



LANNING PROPOSAL APPLICATION

PLANNING PROPOSAL APPLICATION 28 NOV 2013



EXISTING VIEW

