



**PINNACLE MANN STREET
RESIDENTIAL DEVELOPMENT**
21-23 Mann Street
Gosford NSW 2250

Development Application

Drawing Schedule @ A3

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A-002 Project Outline	NTS @ A3
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A-004 Site Analysis	NTS @ A3
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Consultant Team

Architect	CKDS Architecture
Planning	Doug Sneddon Planning
Survey	BMA
Civil/Stormwater Engineering	TTW Engineers
Traffic Consultant	Varga Traffic Planning
BASIX Assessment	Basixcertificates.com.au
Landscape	Site Image
Waste Management	Barker Ryan Stewart
Crime and Safety	Barker Ryan Stewart
Accessibility/DDA	Independent Living Centre NSW
Wind Analysis	Windtech Consultants

General Notes

1. All building work to be carried out in accordance with the Environmental Planning Act and regulations, the Building Code of Australia and relevant standards.
2. Compliance required for all council sedimentation and erosion control measures including stormwater runoff quality requirements. Refer to the civil engineering drawings and report for details.
3. Refer to the survey undertaken by BMA for relevant site information including services locations, existing layout and extent of required demolition. All survey information shown on architects drawings is indicative only.
4. Refer to the relevant consultant drawings and reports for detailed information on services and civil engineering components.
5. Refer to the Statement of Environmental Effects for all relevant submission documentation.

Planning Calculations

FSR		
Site Area	3,428m ²	
GFA		
Level 1	965.5m ²	
Level 2-6	5,687.5m ²	
Level 7	762m ²	
Level 8-13	4,578m ²	
Level 14	761.5m ²	
Level 15	674m ²	
Less voids/plant	158m ²	
Total GFA	13,270.5m ²	
Max. allowable FSR	13,369m ²	

Refer to A-401 for details of GFA per floor.

Apartment Schedule			
LEVEL 1	Per Floor	Total	
1 Bed (Studio)	1		
2 Bed	8		
3 Bed	1		
	10	10	
LEVEL 2-6			
1 Bed	2	10	
2 Bed	9	45	
3 Bed	1	5	
	12	60	
LEVEL 7			
1 Bed	1		
2 Bed	6		
3 Bed	1		
	8	8	
LEVEL 8-13			
1 Bed	1	6	
2 Bed	6	36	
3 Bed	1	6	
	8	48	
LEVEL 14			
1 Bed	1		
2 Bed	6		
3 Bed	1		
	8	8	
LEVEL 15			
1 Bed	0		
2 Bed	5		
3 Bed	1		
	6	6	
1 Bed	19	13.6%	
2 Bed	106	75.7%	
3 Bed	15	10.7%	
Total	140		

Adaptable Apartments 14 (10%) Refer to A-111 for details.

Refer to A-111 for Apartment Type Schedule.

Planning Calculations

CAR PARKING

Total Apartments		Car Parking DCP	@ 1 per apartment
1 Bed	19	19	19
2 Bed	106	128	106
3 Bed	15	23	15
Visitor	0.2/apartment	29	29
Disabled	10% of total	(20)	(17)
Total Required		199	170
	Car		
	M'cycle	10	
	Bicycle	59	
Basement Level 1	19		
Basement Level 2	83		
Basement Level 3	91		

Total Spaces Provided 193 (inc. 20 accessible)

LANDSCAPING AND DEEP SOIL

Site Area	3,428m ²	
Maximum site coverage	2,056.8m ²	(75%)
Proposed site coverage	2,180.5m ²	(63.61%)
Minimum deep soil area	514.2m ²	(15%)
Proposed deep soil area	515.5m ²	(15.04%)
Communal Open Space	464m ² (provided on level 7 terrace)	

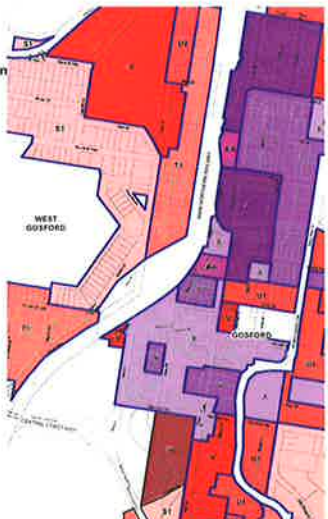
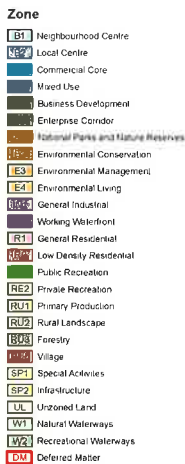
The Site

The site for the proposed multi-residential development is located in Gosford; a major district centre on the Central Coast of NSW. The site sits between two major thoroughfare roads that service the CBD and surrounding suburbs and is highly visible from approaches to the city from the south and west - notably Brian McGowan Bridge and Gosford Waterfront. The site is benefited by extensive water and ridge line views to the west and south and simple, convenient pedestrian access to the Gosford CBD retail strip and public transport nodes.

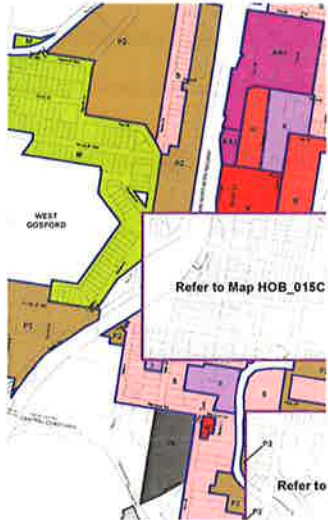
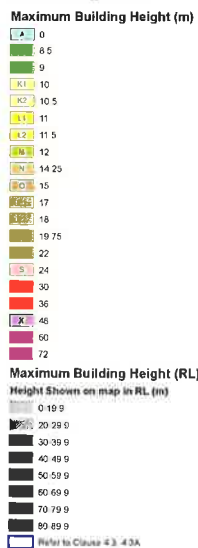
There is an approximate fall of 15m east to west across the site from Henry Parry Drive to the driveway access at Mann Street. Within the site boundary itself, the site falls approximately 8-10m with a steep fall from Henry Parry Drive accounting for much of the variation in levels. There is currently good solar access for the majority of the year with a medium amount of overshadowing from the neighbouring building immediately to the north impacting on the site during the winter months.



Land Zoning Map Sheet LZN_015CA



Height of Buildings Map Sheet HOB_015CA



The proposed site is bounded by Henry Parry Drive to the east, an 8 storey apartment building to the north and an existing Telstra exchange to the west. Directly to the south is an undeveloped site that currently has an approved DA for a 9 storey apartment building. The immediate context is characterised by a mix of low to medium scale single dwellings and apartment buildings and low scale retail and commercial buildings. The existing urban form is predominately horizontal in articulation and presents long low walls to the urban streetscape. It should be noted that the intended future character of the area is for high density residential and mixed use of a high quality design. The site is currently used as an overflow car park and storage space for the adjacent Telstra exchange building. It is generally terraced and paved and has little to no vegetation within the site boundaries.

There are potentially excellent views from the site to Brisbane Water and Lion Island in the south and Kariong plateau to the west. Existing neighbouring buildings also make use of similar aspects. The major views to the site are from the approach from the west via the Pacific Hwy and from the public foreshore parklands to the south and west.

VIEWS

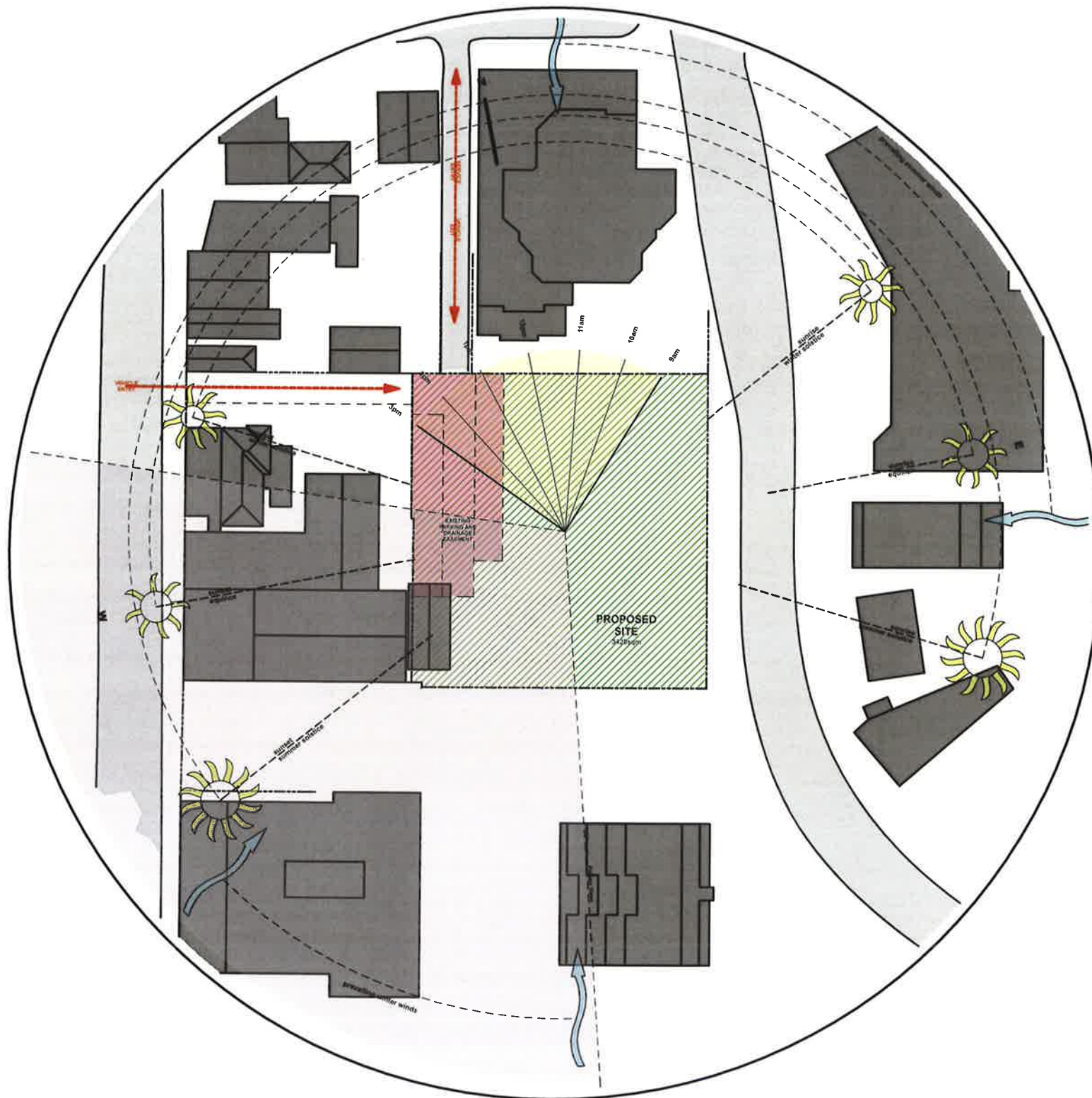


E AERIAL VIEW OF SITE
FROM HENRY PARRY DRIVE

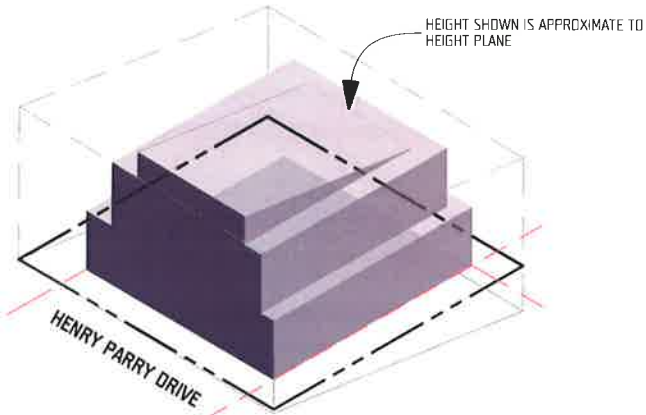
EAST PORTION OF SITE
LOOKING WEST



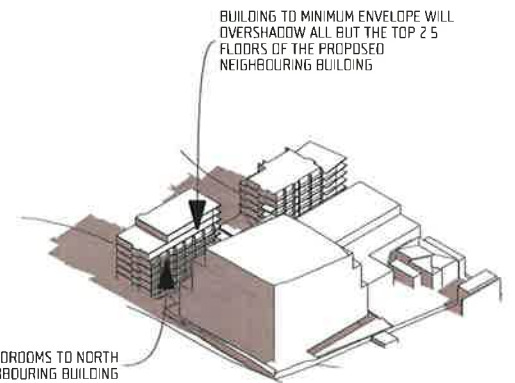
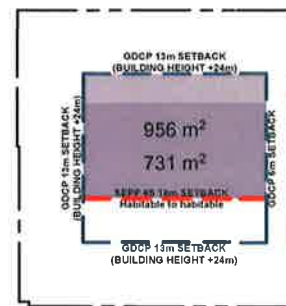
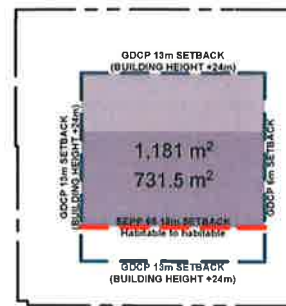
ENTRY TO SITE AT PARLOUR LANE



MASSING ENVELOPE CONTROLS



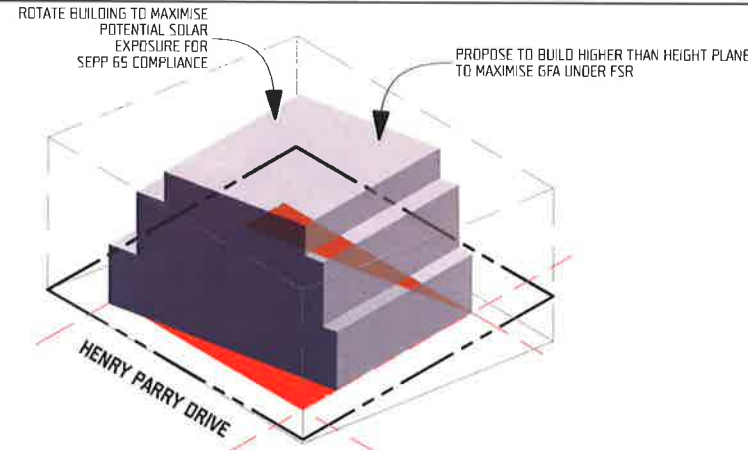
MASSING: DCP AND SEPP SETBACK ENVELOPE
TOTAL POTENTIAL GFA
14,365sqm 13,369sqm max



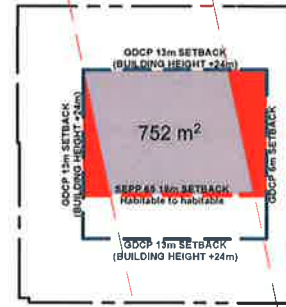
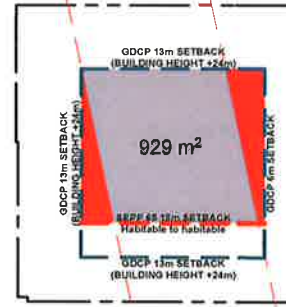
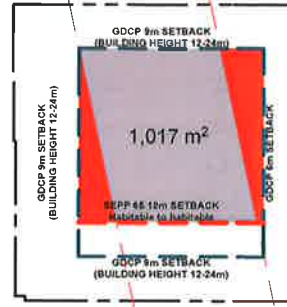
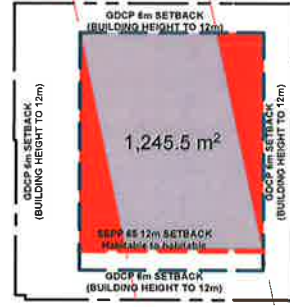
OVERSHADOWING TO POTENTIAL NEIGHBOUR

1

ORIENTATION FOR SEPP 65 COMPLIANCE

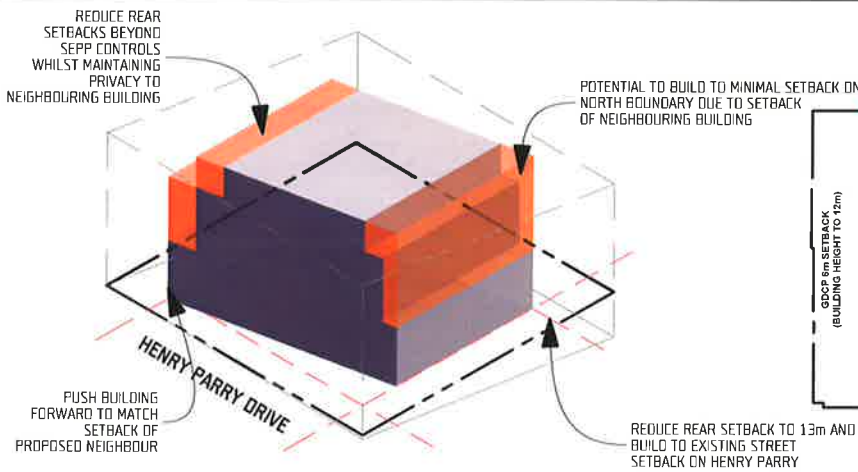


MASSING: SEPP SOLAR COMPLIANCE
3hrs+ DIRECT SUN
TOTAL POTENTIAL GFA 10,235sqm 13,369sqm max

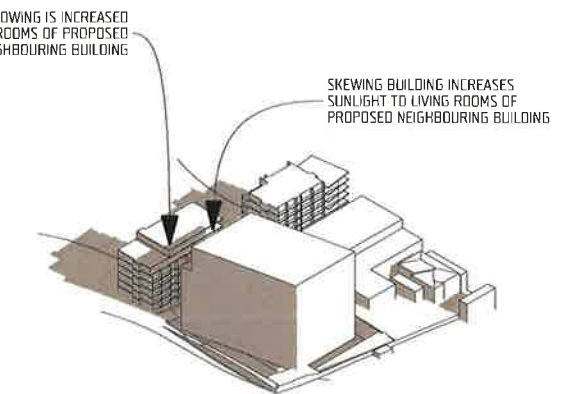
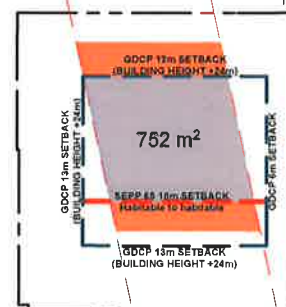
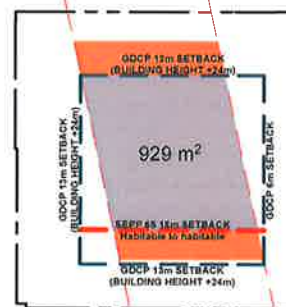
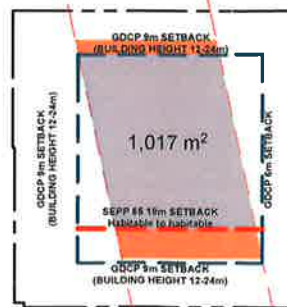
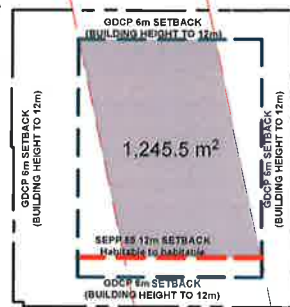


2

ELEVATION, VIEW AND ARTICULATION STUDIES



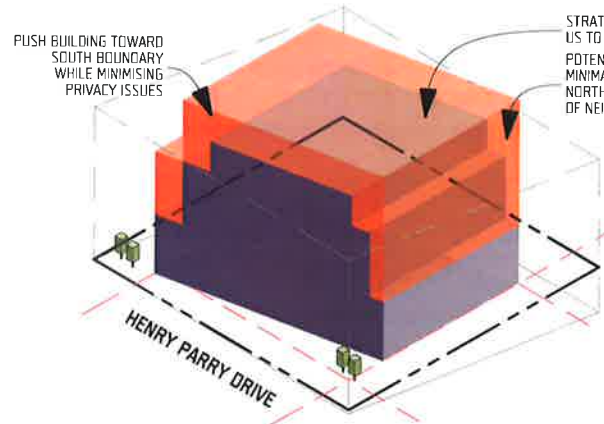
MASSING: PROPOSED ENCROACHMENTS
TO GAIN POTENTIAL GFA
TOTAL POTENTIAL GFA 12,400sqm 13,369sqm max



OVERSHADOWING TO POTENTIAL NEIGHBOUR

3

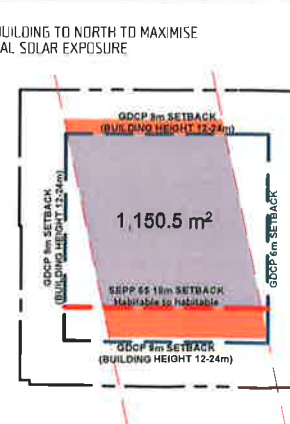
MASSING OPTION 01



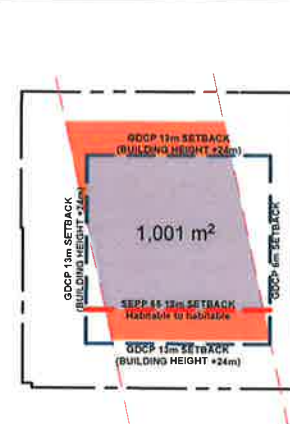
OPTION 01: MAXIMISING GFA + MINIMISING HEIGHT AND OVERSHADOWING
TOTAL POTENTIAL GFA 14,140sqm **13,369sqm max**



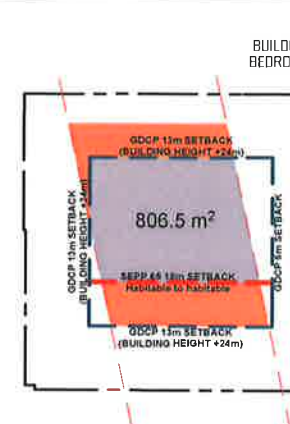
LEVEL -1.4 UP TO 12m HEIGHT
TOTAL POTENTIAL GFA 7,200sqm



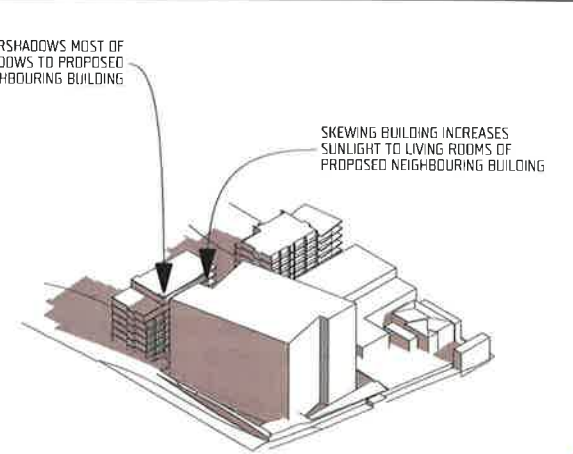
LEVEL 5
TOTAL POTENTIAL GFA 1,450sqm



LEVEL 6-7 GREATER THAN MAX
750sqm FLOOR PLATE PROPOSED
MAX POTENTIAL GFA 2,890sqm



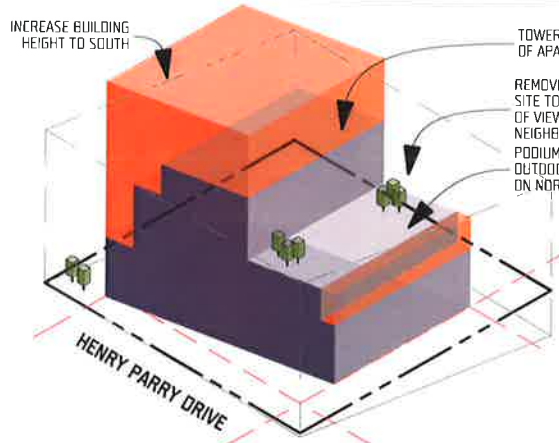
LEVEL 8-9 GREATER THAN MAX
750sqm FLOOR PLATE PROPOSED
MAX POTENTIAL GFA 2,690sqm



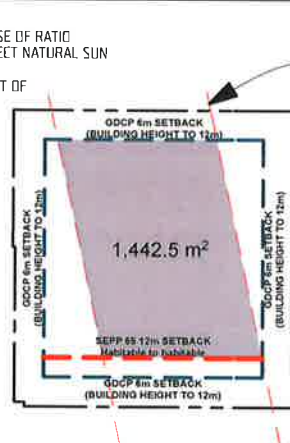
OVERSHADOWING TO POTENTIAL NEIGHBOUR

4

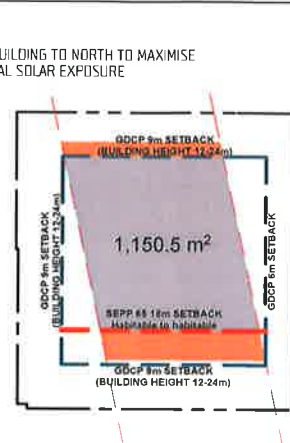
MASSING OPTION 02



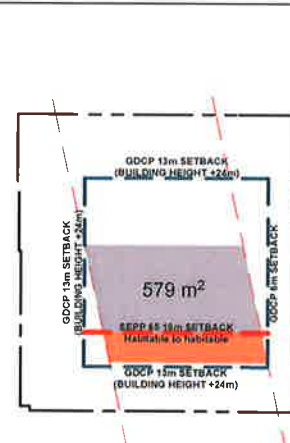
OPTION 02: MAXIMISING GFA + MAXIMISING NEIGHBOURS VIEWS + REDUCING BUILDING FOOTPRINT AND BULK
TOTAL POTENTIAL GFA 14,110sqm **13,369sqm max**



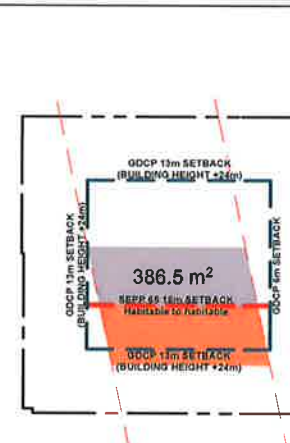
LEVEL -1.4 UP TO 12m HEIGHT
TOTAL POTENTIAL GFA 7,200sqm



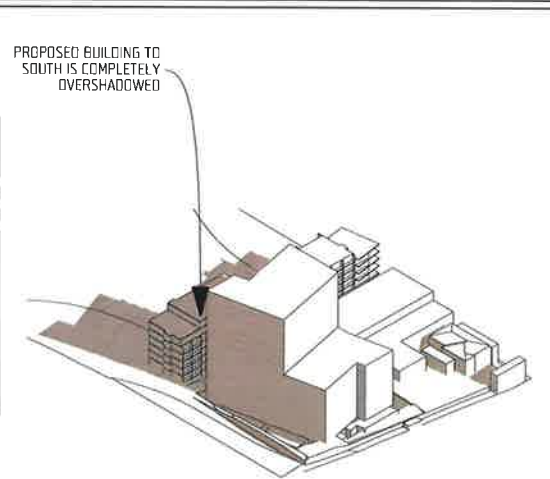
LEVEL 5
TOTAL POTENTIAL GFA 1,450sqm



LEVEL 6-7 GREATER THAN MAX
750sqm FLOOR PLATE PROPOSED
MAX POTENTIAL GFA 1,560sqm



LEVEL 8-12 GREATER THAN MAX
750sqm FLOOR PLATE PROPOSED
MAX POTENTIAL GFA 3,900sqm



OVERSHADOWING TO POTENTIAL NEIGHBOUR

5

ELEVATION, VIEW AND ARTICULATION STUDIES

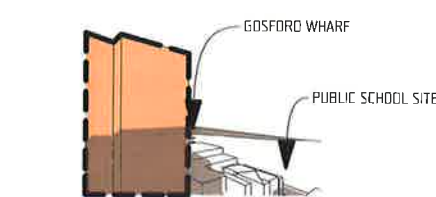


OPTION 01

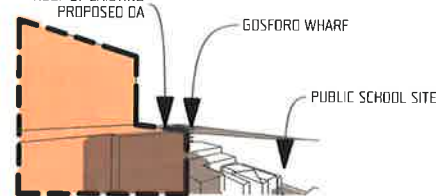


OPTION 02

VIEW FROM 107-115 HENRY PARRY DRIVE

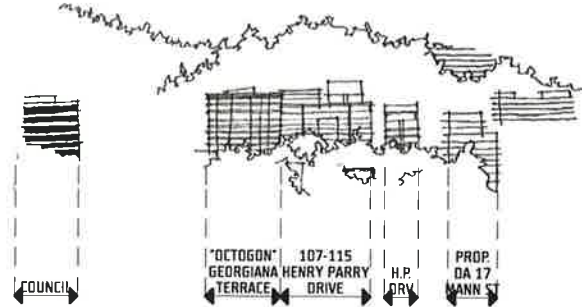


OPTION 01

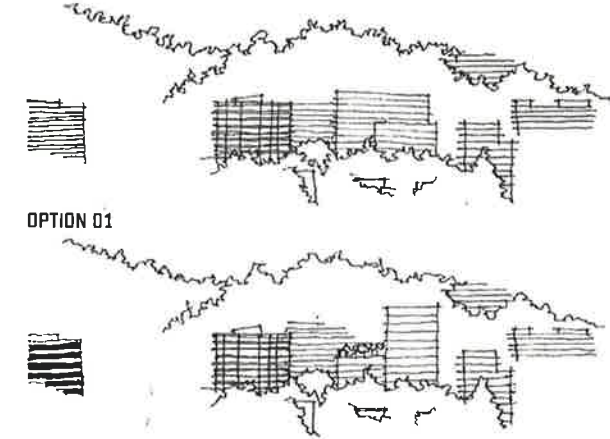


OPTION 02

VIEW FROM 127 GEORGIANA TERRACE LEVEL 6 (APPROX)



EXISTING VIEW FROM BRIAN MCGOWAN BRIDGE



POTENTIAL VIEWS FROM BRIAN MCGOWAN BRIDGE

6

[illegible]

doi:10.1017/S0007122616000040 Printed in the United Kingdom © 2016 Cambridge University Press

Year	Population (millions)	Population growth rate (%)	Population growth rate (1990-2000)	Population growth rate (2000-2010)	Population growth rate (2010-2020)	Population growth rate (2020-2030)
1990	5.1	1.4	1.4	1.4	1.4	1.4
2000	5.9	1.4	1.4	1.4	1.4	1.4
2010	6.7	1.4	1.4	1.4	1.4	1.4
2020	7.5	1.4	1.4	1.4	1.4	1.4
2030	8.3	1.4	1.4	1.4	1.4	1.4

Ref. ID	Author(s)	Year	Journal	Volume	Issue	Page(s)
1	Smith, J. & Jones, A.	2010	Journal of Environmental Science	42	1	1-10
2	Johnson, B.	2011	Environmental Science and Technology	45	3	123-130
3	Williams, C. & Davis, E.	2012	Water Research	46	5	156-165
4	Thompson, F.	2013	Journal of Hazardous Materials	258	1-3	45-52
5	Roberts, G. & Lee, H.	2014	Chemosphere	105	1	10-18
6	White, I. & Black, K.	2015	Environmental Pollution	198	1	20-28
7	Green, L. & Brown, M.	2016	Journal of Cleaner Production	112	1	1-12
8	Miller, N. & Wilson, P.	2017	Science of the Total Environment	585	1	1-10
9	Moore, Q. & Taylor, R.	2018	Journal of Environmental Management	215	1	1-10
10	Anderson, S. & Clark, T.	2019	Environmental Science and Technology	53	1	1-10

EF12	Phosphatidylcholine	1-oleoyl-2-acyl-sn-glycero-3-phosphocholine	Source: B12, 00000000, C02.3	End date: 12/0000	Web page: 00000000	Ref: 0000
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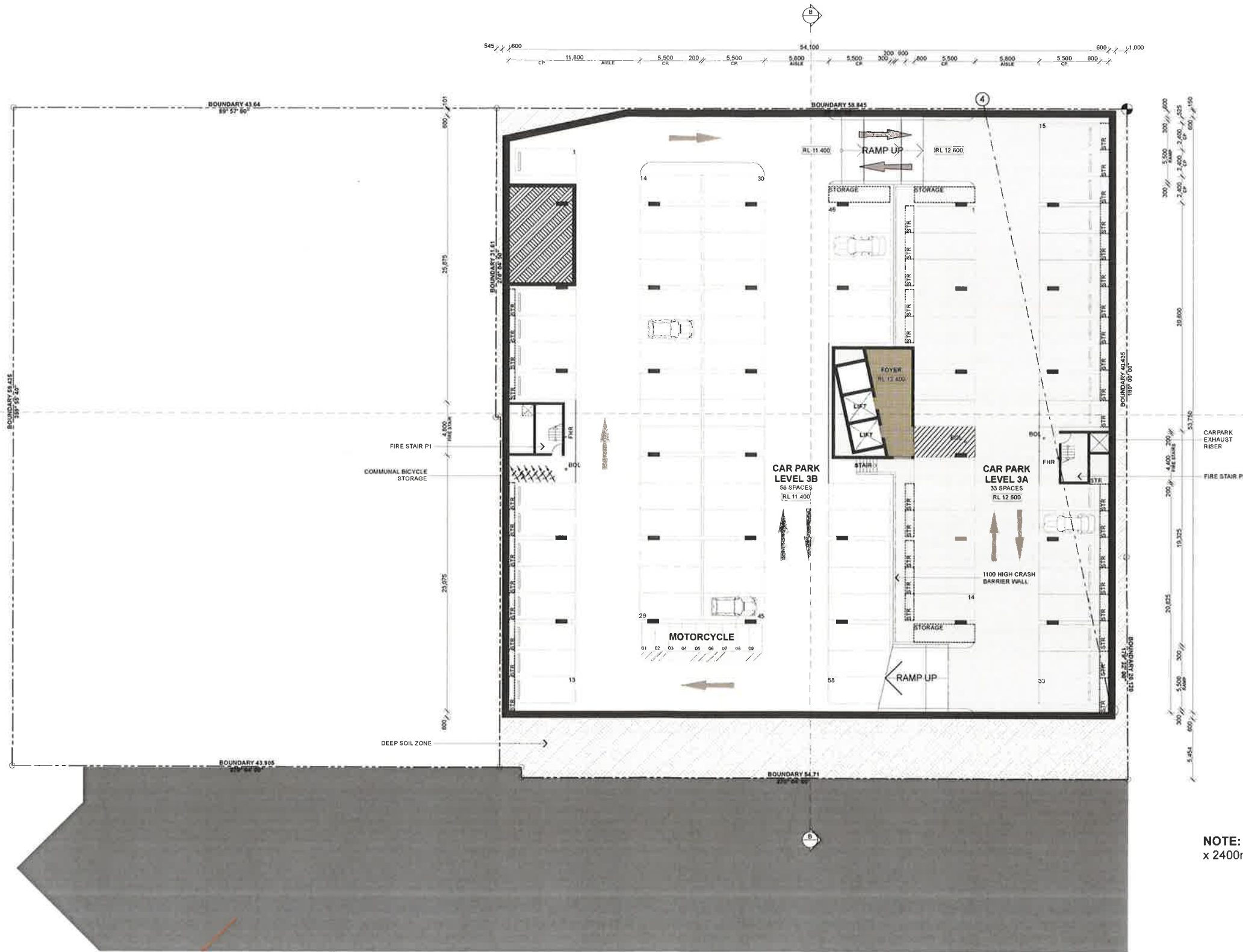
Year	Number of cases	Number of deaths	Number of cases per 100,000	Number of deaths per 100,000	Number of cases per 100,000 (95% CI)	Number of deaths per 100,000 (95% CI)
2000	100	10	100	10	100 (95% CI 80-120)	10 (95% CI 8-12)
2001	110	11	110	11	110 (95% CI 90-130)	11 (95% CI 9-13)
2002	120	12	120	12	120 (95% CI 100-140)	12 (95% CI 10-14)
2003	130	13	130	13	130 (95% CI 110-150)	13 (95% CI 11-15)
2004	140	14	140	14	140 (95% CI 120-160)	14 (95% CI 12-16)
2005	150	15	150	15	150 (95% CI 130-170)	15 (95% CI 13-17)
2006	160	16	160	16	160 (95% CI 140-180)	16 (95% CI 14-18)
2007	170	17	170	17	170 (95% CI 150-190)	17 (95% CI 15-19)
2008	180	18	180	18	180 (95% CI 160-200)	18 (95% CI 16-20)
2009	190	19	190	19	190 (95% CI 170-210)	19 (95% CI 17-21)
2010	200	20	200	20	200 (95% CI 180-220)	20 (95% CI 18-22)
2011	210	21	210	21	210 (95% CI 190-230)	21 (95% CI 19-23)
2012	220	22	220	22	220 (95% CI 200-240)	22 (95% CI 20-24)
2013	230	23	230	23	230 (95% CI 210-250)	23 (95% CI 21-25)
2014	240	24	240	24	240 (95% CI 220-260)	24 (95% CI 22-26)
2015	250	25	250	25	250 (95% CI 230-270)	25 (95% CI 23-27)
2016	260	26	260	26	260 (95% CI 240-280)	26 (95% CI 24-28)
2017	270	27	270	27	270 (95% CI 250-290)	27 (95% CI 25-29)
2018	280	28	280	28	280 (95% CI 260-300)	28 (95% CI 26-30)
2019	290	29	290	29	290 (95% CI 270-310)	29 (95% CI 27-31)
2020	300	30	300	30	300 (95% CI 280-320)	30 (95% CI 28-32)

[illegible][illegible]

Ref.	Form, kg/m^3	max. density, kg/m^3	Ref. 131, 132, 133, 2, 26, 2	Ref. 134, 135, 136	Ref. 137, 138, 139, 140
131	1.000	1.000	1.000	1.000	1.000
132	1.000	1.000	1.000	1.000	1.000
133	1.000	1.000	1.000	1.000	1.000
134	1.000	1.000	1.000	1.000	1.000
135	1.000	1.000	1.000	1.000	1.000
136	1.000	1.000	1.000	1.000	1.000
137	1.000	1.000	1.000	1.000	1.000
138	1.000	1.000	1.000	1.000	1.000
139	1.000	1.000	1.000	1.000	1.000
140	1.000	1.000	1.000	1.000	1.000

Site	Sampling time	Water temperature	Water pH	Dissolved oxygen	Salinity	Depth
1	10/10/2010	22.5	7.5	8.5	35	0.5
2	10/10/2010	22.5	7.5	8.5	35	0.5
3	10/10/2010	22.5	7.5	8.5	35	0.5
4	10/10/2010	22.5	7.5	8.5	35	0.5
5	10/10/2010	22.5	7.5	8.5	35	0.5
6	10/10/2010	22.5	7.5	8.5	35	0.5
7	10/10/2010	22.5	7.5	8.5	35	0.5
8	10/10/2010	22.5	7.5	8.5	35	0.5
9	10/10/2010	22.5	7.5	8.5	35	0.5
10	10/10/2010	22.5	7.5	8.5	35	0.5
11	10/10/2010	22.5	7.5	8.5	35	0.5
12	10/10/2010	22.5	7.5	8.5	35	0.5
13	10/10/2010	22.5	7.5	8.5	35	0.5
14	10/10/2010	22.5	7.5	8.5	35	0.5
15	10/10/2010	22.5	7.5	8.5	35	0.5
16	10/10/2010	22.5	7.5	8.5	35	0.5
17	10/10/2010	22.5	7.5	8.5	35	0.5
18	10/10/2010	22.5	7.5	8.5	35	0.5
19	10/10/2010	22.5	7.5	8.5	35	0.5
20	10/10/2010	22.5	7.5	8.5	35	0.5
21	10/10/2010	22.5	7.5	8.5	35	0.5
22	10/10/2010	22.5	7.5	8.5	35	0.5
23	10/10/2010	22.5	7.5	8.5	35	0.5
24	10/10/2010	22.5	7.5	8.5	35	0.5
25	10/10/2010	22.5	7.5	8.5	35	0.5
26	10/10/2010	22.5	7.5	8.5	35	0.5
27	10/10/2010	22.5	7.5	8.5	35	0.5
28	10/10/2010	22.5	7.5	8.5	35	0.5
29	10/10/2010	22.5	7.5	8.5	35	0.5
30	10/10/2010	22.5	7.5	8.5	35	0.5
31	10/10/2010	22.5	7.5	8.5	35	0.5
32	10/10/2010	22.5	7.5	8.5	35	0.5
33	10/10/2010	22.5	7.5	8.5	35	0.5
34	10/10/2010	22.5	7.5	8.5	35	0.5
35	10/10/2010	22.5	7.5	8.5	35	0.5
36	10/10/2010	22.5	7.5	8.5	35	0.5
37	10/10/2010	22.5	7.5	8.5	35	0.5
38	10/10/2010	22.5	7.5	8.5	35	0.5
39	10/10/2010	22.5	7.5	8.5	35	0.5
40	10/10/2010	22.5	7.5	8.5	35	0.5
41	10/10/2010	22.5	7.5	8.5	35	0.5
42	10/10/2010	22.5	7.5	8.5	35	0.5
43	10/10/2010	22.5	7.5	8.5	35	0.5
44	10/10/2010	22.5	7.5	8.5	35	0.5
45	10/10/2010	22.5	7.5	8.5	35	0.5
46	10/10/2010	22.5	7.5	8.5	35	0.5
47	10/10/2010	22.5	7.5	8.5	35	0.5
48	10/10/2010	22.5	7.5	8.5	35	0.5
49	10/10/2010	22.5	7.5	8.5	35	0.5
50	10/10/2010	22.5	7.5	8.5	35	0.5
51	10/10/2010	22.5	7.5	8.5	35	0.5
52	10/10/2010	22.5	7.5	8.5	35	0.5
53	10/10/2010	22.5	7.5	8.5	35	0.5

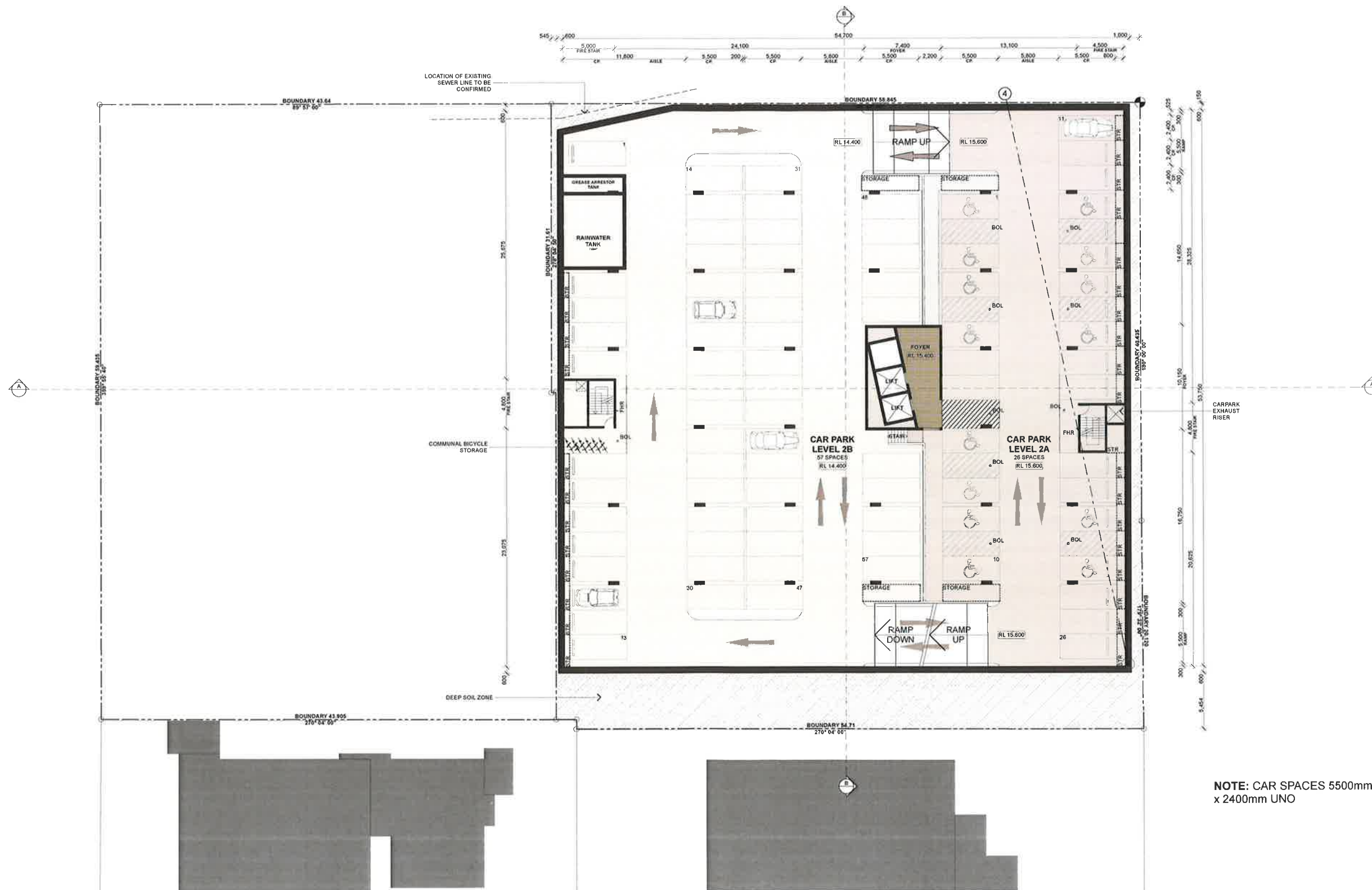
Year	Country	Population (millions)	Urban population (millions)	Urban population (%)	Population growth rate (%)	Urban population growth rate (%)
1980	France	54.0	34.0	62.9	0.2	0.2
1985	France	55.0	35.0	63.6	0.2	0.2
1990	France	56.0	36.0	64.3	0.2	0.2
1995	France	57.0	37.0	64.9	0.2	0.2
2000	France	58.0	38.0	65.5	0.2	0.2
2005	France	59.0	39.0	66.1	0.2	0.2
2010	France	60.0	40.0	66.7	0.2	0.2
2015	France	61.0	41.0	67.2	0.2	0.2
2020	France	62.0	42.0	67.7	0.2	0.2
2025	France	63.0	43.0	68.3	0.2	0.2
2030	France	64.0	44.0	68.8	0.2	0.2
2035	France	65.0	45.0	69.2	0.2	0.2
2040	France	66.0	46.0	69.7	0.2	0.2
2045	France	67.0	47.0	70.1	0.2	0.2
2050	France	68.0	48.0	70.6	0.2	0.2
2055	France	69.0	49.0	71.0	0.2	0.2
2060	France	70.0	50.0	71.4	0.2	0.2
2065	France	71.0	51.0	71.8	0.2	0.2
2070	France	72.0	52.0	72.2	0.2	0.2
2075	France	73.0	53.0	72.6	0.2	0.2
2080	France	74.0	54.0	73.0	0.2	0.2
2085	France	75.0	55.0	73.3	0.2	0.2
2090	France	76.0	56.0	73.7	0.2	0.2
2095	France	77.0	57.0	74.0	0.2	0.2
2100	France	78.0	58.0	74.4	0.2	0.2
1980	Germany	61.0	41.0	67.2	0.2	0.2
1985	Germany	62.0	42.0	67.7	0.2	0.2
1990	Germany	63.0	43.0	68.3	0.2	0.2
1995	Germany	64.0	44.0	68.8	0.2	0.2
2000	Germany	65.0	45.0	69.2	0.2	0.2
2005	Germany	66.0	46.0	69.7	0.2	0.2
2010	Germany	67.0	47.0	70.1	0.2	0.2
2015	Germany	68.0	48.0	70.6	0.2	0.2
2020	Germany	69.0	49.0	71.0	0.2	0.2
2025	Germany	70.0	50.0	71.4	0.2	0.2
2030	Germany	71.0	51.0	71.8	0.2	0.2
2035	Germany	72.0	52.0	72.2	0.2	0.2
2040	Germany	73.0	53.0	72.6	0.2	0.2
2045	Germany	74.0	54.0	73.0	0.2	0.2
2050	Germany	75.0	55.0	73.3	0.2	0.2
2055	Germany	76.0	56.0	73.7	0.2	0.2
2060	Germany	77.0	57.0	74.0	0.2	0.2
2065	Germany	78.0	58.0	74.4	0.2	0.2
2070	Germany	79.0	59.0	74.7	0.2	0.2
2075	Germany	80.0	60.0	75.0	0.2	0.2
2080	Germany	81.0	61.0	75.3	0.2	0.2
2085	Germany	82.0	62.0	75.6	0.2	0.2
2090	Germany	83.0	63.0	75.9	0.2	0.2
2095	Germany	84.0	64.0	76.2	0.2	0.2
2100	Germany	85.0	65.0	76.5	0.2	0.2



NOTE: CAR SPACES 5500mm x 2400mm UNO



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**NOTE: CAR SPACES 5500mm
x 2400mm UNO**

[illegible]

Key Plan



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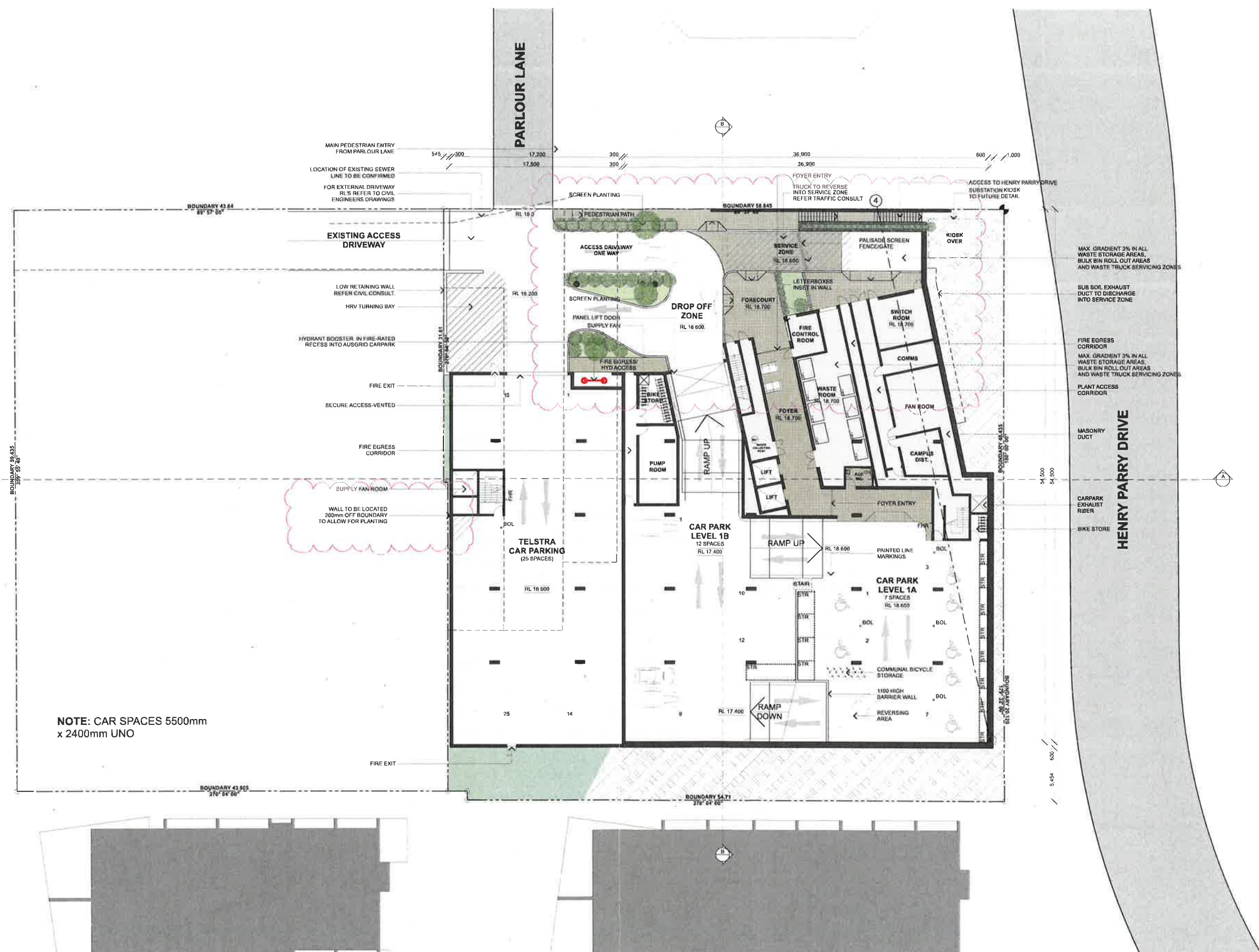
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Gladsville, NSW 2111

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PO Box 4400
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Project
1460 Pinnacle Residential
Development
Proposed Lot 102 within Lots A and B DP 88695
21-23 Mann Street
Gosford 2250

Layout
Basement Plans
Basement Level 2

[illegible]



**NOTE: CAR SPACES 5500mm
x 2400mm UNO**

[illegible]



Deep Soil and Site Coverage Plan
SCALE 1:500 @ A1

APARTMENT SCHEDULE

LEVEL 1		LEVEL 2-6	
UNIT NO.	TYPE	UNIT NO.	TYPE
101	3A (ADAPT)	201 (201,401 etc)	3A (ADAPT LEVEL 2 ONLY)
102	1A	202	1B (ADAPT)
103	2F	203	2F
104	2A	204	2A
105	2A	205	2A
106	2D (ADAPT)	206	2D (ADAPT)
107	2A	207	2A
108	2A	208	2A
109	2G	209	2G
110	2B	210	1B
111	2G	211	2A
		212	2C

TOTAL AP. 10
TOTAL ADAPTABLE LEVEL 1-6

LEVEL 7		LEVEL 8-13	
UNIT NO.	TYPE	UNIT NO.	TYPE
701	3A	801 (801, 1001 etc)	3A
702	1B	802	1B
703	2F	803	2F
704	2A	804	2A
705	2A	805	2A
706	2D (ADAPT)	806	2D
707	2B	807	2B
708	2B(W)	808	2B(W)

TOTAL AP. 8
TOTAL ADAPTABLE LEVEL 7-13

LEVEL 14		LEVEL 15	
UNIT NO.	TYPE	UNIT NO.	TYPE
14-01	3A	15-01	3A
14-02	1B		
14-03	2E		
14-04	2A	15-04	2A
14-05	2A	15-05	2A
14-06	2D	15-06	2D
14-07	2B	15-07	2B
14-08	2B(W)	15-08	2B(W)

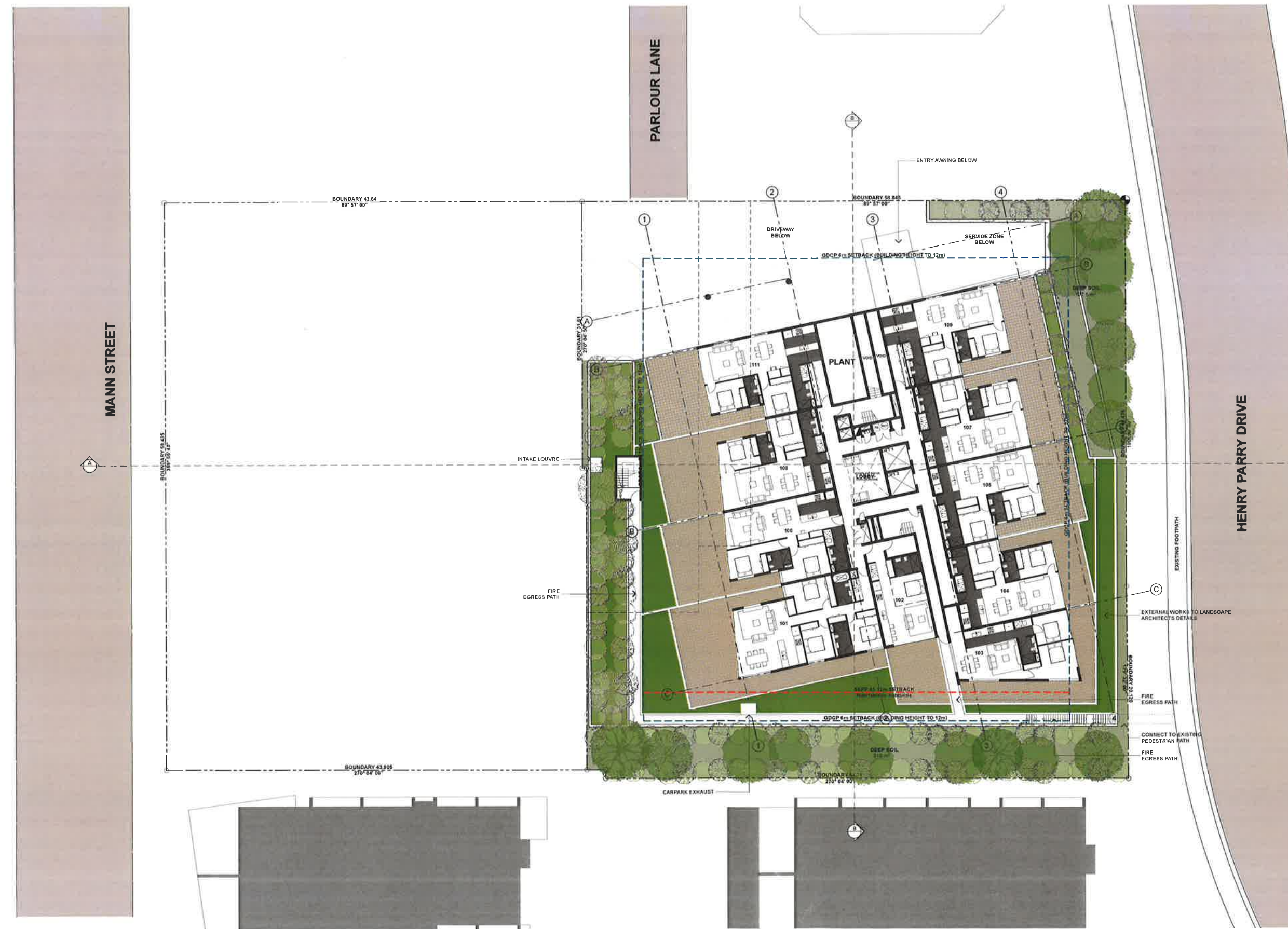
TOTAL AP. 8
TOTAL ADAPTABLE LEVEL 14-15

- BASIX NOTES**
- GLASS SLIDING DOORS TO BE LOW E MEDIUM TINT GLAZING TO THE FOLLOWING APARTMENTS:
101, 201, 301, 401, 501, 601, 701, 801, 901, 1001, 1201, 1301, 1401, 1501
 - ALL GLAZING TO BE MEDIUM TINT LOW E TO THE FOLLOWING APARTMENTS:
103, 203
 - GLAZING GENERALLY ALUMINIUM FRAMED WITH MEDIUM TINT.
 - EXTERNAL LOUVRES TO BE FITTED TO THE SLIDING DOORS OF APARTMENT 101.
 - R1.0 FLOOR INSULATION TO THE FOLLOWING APARTMENTS:
101, 102, 103, 104, 105, 107, 108, 109, 111, 212
 - R1.0 CEILING INSULATION TO THE FOLLOWING APARTMENTS:
103, 202, 302, 402, 502, 602, 609, 610, 611, 612, 702, 802, 902, 1002, 1102, 1202, 1302, 1402, 1501, 1502, 1504, 1505, 1506
 - ALL EXTERNAL WALLS TO BE MINIMUM 150mm CONCRETE PANEL, BATTENED AND SHEETED WITH R2.0 INSULATION
 - CEILING FANS TO BE INSTALLED TO ALL BEDROOMS.

Drawing Scale 1:200, 1:100, 1:500 @ A1
Drawn CK
Verified CK
Date 27/08/2014

Project Number 1375
Drawing Number A-111
Issue C

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Rev	Revised	Description	Date	Verified
1		ISSUE FOR PERMIT	27/08/14	CK

Key Plan



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Project
1460 Pinnacle Residential
Development
Proposed Lot 102 within Lots A and B DP 88695
21-23 Mann Street
Gosford 2250

Floor Plans
Floor Plan: Level 1 -
Ground Floor

Layout



BASIX NOTES

- BASIC NOTES:**
1. ALL SLIDING DOORS TO BE LOW E MEDIUM TINT GLAZING TO THE FOLLOWING PARTMENTS:
101, 201, 301, 401, 501, 601, 701, 801, 901, 1001, 1201, 1301, 1401, 1501.
 2. ALL GLAZING TO BE MEDIUM TINT LOW E TO THE FOLLOWING PARTMENTS:
103, 203.
 3. GLAZING GENERALLY ALUMINUM FRAWED WITH MEDIUM TINT.
 4. EXTERIOR LOUVERES TO BE FITTED TO THE SLIDING DOORS OF APARTMENT 101.
 5. R1 O FLOOR INSULATION TO THE FOLLOWING APARTMENTS:
101, 102, 103, 104, 105, 107, 108, 110, 111, 112.
 6. R1 O CEILING INSULATION TO THE FOLLOWING APARTMENTS:
103, 202, 203, 204, 205, 207, 208, 209, 210, 211, 212, 702, 802, 1002, 1102, 1202, 1302, 1402, 1502.
 7. ALL EXTERIAL WALLS TO BE MINIMUM 150mm CONCRETE PANEL, BATTENED AND SHEFETD WITH R2 O INSULATION.
 8. CEILING PANELS TO BE FITTED TO ALL BEDROOMS.

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[illegible]

Key Plan



north p

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Project
**1460 Pinnacle Residential
Development**
Proposed Lot 102 within Lots A and B DP 88695
21-23 Mann Street
Gosford 2250

Layout
Floor Plans
Floor Plan: Typical Level
2-6

Drawing Scale 1:200 @ A1	Drawn in LF	Verified CK	Date 27/08/2014
Project Number 1375	Drawing Number A-112	Issue C	
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NO. 201, 202, 401, 501, 601, 701, 801, 901, 1001, 1201, 1301, 1401, 1501.

ALL GLAZING TO BE MEDIUM TINT LOW E TO THE FOLLOWING APARTMENTS:

NO. 203

GLAZING GENERALLY ALUMINUM FRAMED WITH MEDIUM TINT.

EXTERNAL LOUVERS TO BE FITTED TO THE SLIDING DOORS OF: APARTMENT NO. 101

R10 FLOOR LOUVERS TO THE FOLLOWING APARTMENTS:

NO. 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160.

R10 CEILING LININGS TO THE FOLLOWING APARTMENTS:

NO. 202, 302, 402, 502, 602, 609, 610, 611, 612, 702, 802, 902, 1002, 1102, 1202, 1302, 1402, 1502.

ALL EXTERNAL WALLS TO BE MINIMUM 150mm CONCRETE PANEL, BATTENED AND SHEETED WITH R20 MINIMUM.

CEILING FANS TO BE INSTALLED TO ALL BEDROOMS.

Drawing Scale	Drawn	Verified	Date
1:200 @ A1	LF		27/08/2014
Project Number	Drawing Number	Issue	
1375	A-113	C	

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[illegible]

north point

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Project
1460 Pinnacle Residential
Development
Proposed Lot 102 within Lots A and B DP 88696
21-23 Mann Street
Gosford 2250

Layout
Floor Plans
Floor Plan: Level 7 Podium Terrace

Drawing Scale 1:200 @ A1	Drawn LF	Verified CK	Date 27/08/2014
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Project Number	Drawing Number	Issue
1375	A-113	C



BASIX NOTES

- GLAZING SLIDING DOORS TO BE LOW E MEDIUM TINT GLAZING TO THE FOLLOWING APARTMENTS:
101, 201, 301, 401, 501, 601, 701, 801, 901, 1001, 1201, 1301, 1401, 1501
ALL GLAZING TO BE MEDIUM TINT LOW E TO THE FOLLOWING APARTMENTS:
103, 203
GLAZING GENERALLY ALUMINUM FRAMED WITH MEDIUM TINT
EXTERIOR LOUVRES TO BE FITTED TO THE SLIDING DOORS OF APARTMENT 101
1. R1 FLOOR INSULATION TO THE FOLLOWING APARTMENTS:
101, 102, 103, 104, 105, 107, 109, 110, 111, 212
2. R1 CEILING INSULATION TO THE FOLLOWING APARTMENTS:
101, 102, 202, 302, 402, 502, 602, 609, 610, 611, 612, 702, 802, 902, 1002, 1102, 1202, 1302, 1402, 1502
3. ALL EXTERIOR WALLS TO BE MINIMUM 150mm CONCRETE PANEL INSULATED AND SHEETED WITH R6.0 INSULATION
4. INSULATING FAND BE INSTALLED IN ALL BED ROOMS

1000

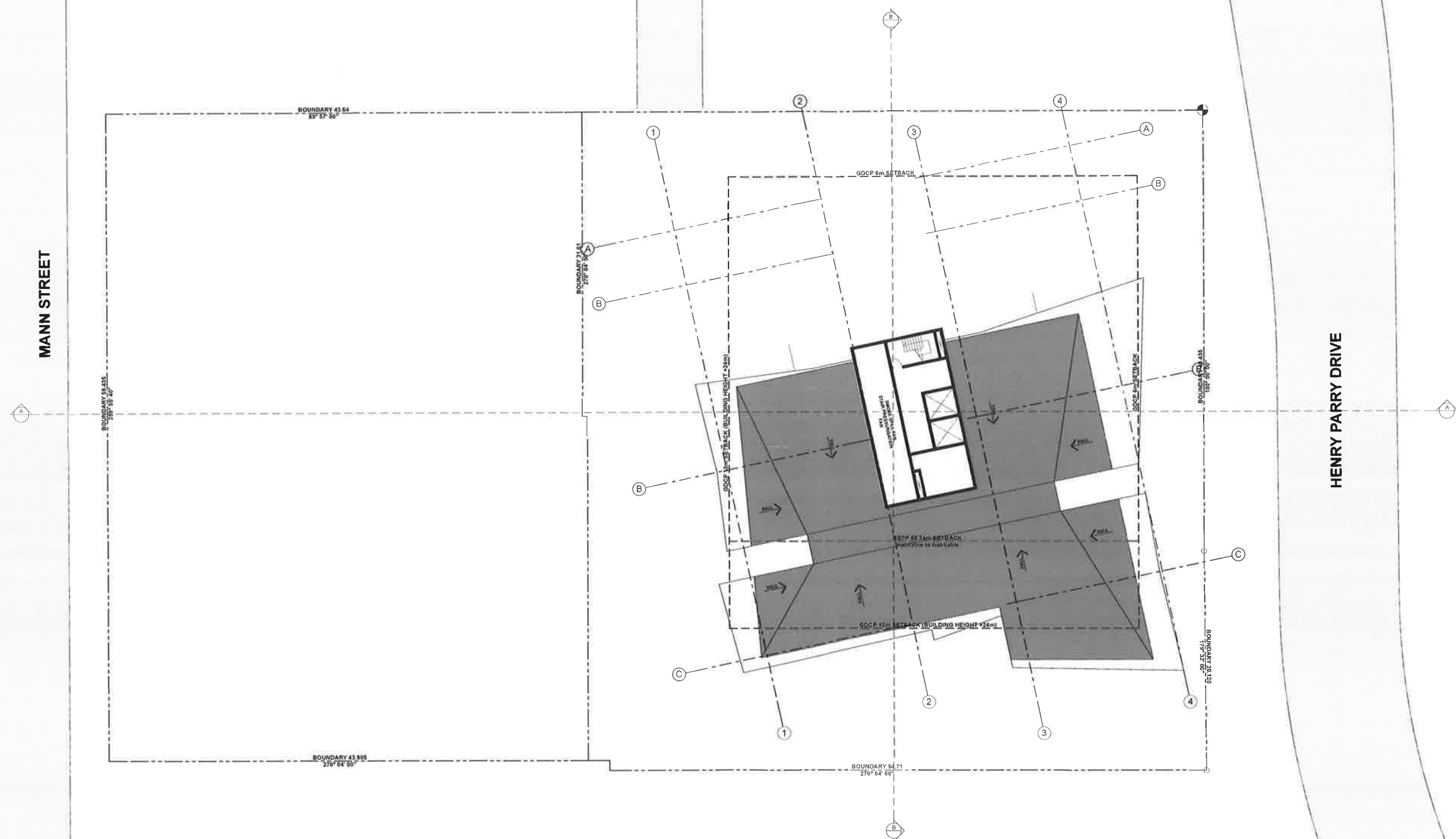
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Project Number	Drawing Number	Issue
1375	A-115	C

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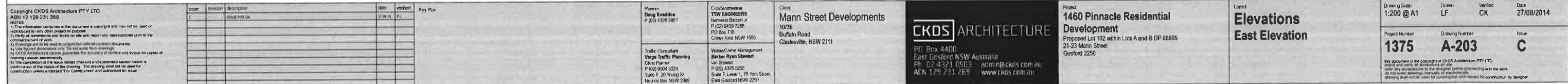


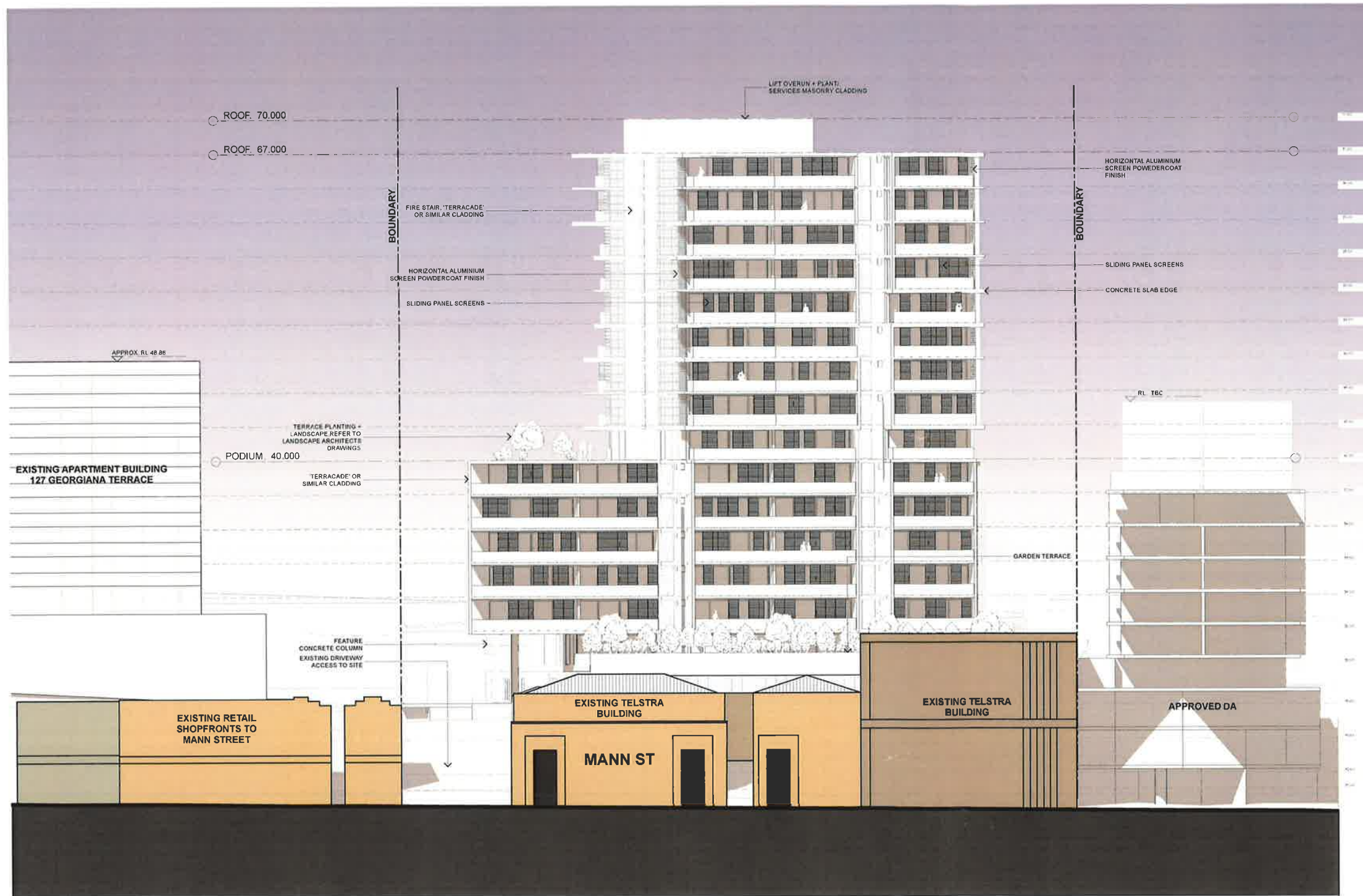
- ## BASIX NOTES
- GLASS SLIDING DOORS TO BE LOW E MEDIUM TINT GLAZING TO THE FOLLOWING PARTMENTS:
101, 201, 301, 401, 501, 601, 701, 801, 901, 1001, 1201, 1301, 1401, 1501
 - ALL GLAZING TO BE MEDIUM TINT LOW E TO THE FOLLOWING PARTMENTS:
103, 203
 - GLAZING GENERALLY ALUMINUM FRAMED WITH MEDIUM TINT ALUMINUM LOUVRES TO BE FITTED TO THE SLIDING DOORS OF ALL PARTMENTS
 - R 10 FLOOR INSULATION TO THE FOLLOWING PARTMENTS:
101, 102, 103, 104, 105, 107, 108, 109, 111, 212
 - R 10 CEILING INSULATION TO THE FOLLOWING PARTMENTS:
103, 203, 302, 303, 502, 503, 600, 610, 611, 612, 702, 802, 902, 1002, 1102, 1202, 1302, 1402, 1501, 1502, 1504, 1505, 1506
 - ALL EXTERNAL WALLS TO BE MINIMUM 150mm CONCRETE PANEL, BATTENED AND SHEETED WITH R 2 INSULATION
 - CEILING FANS TO BE INSTALLED TO ALL BEDROOMS

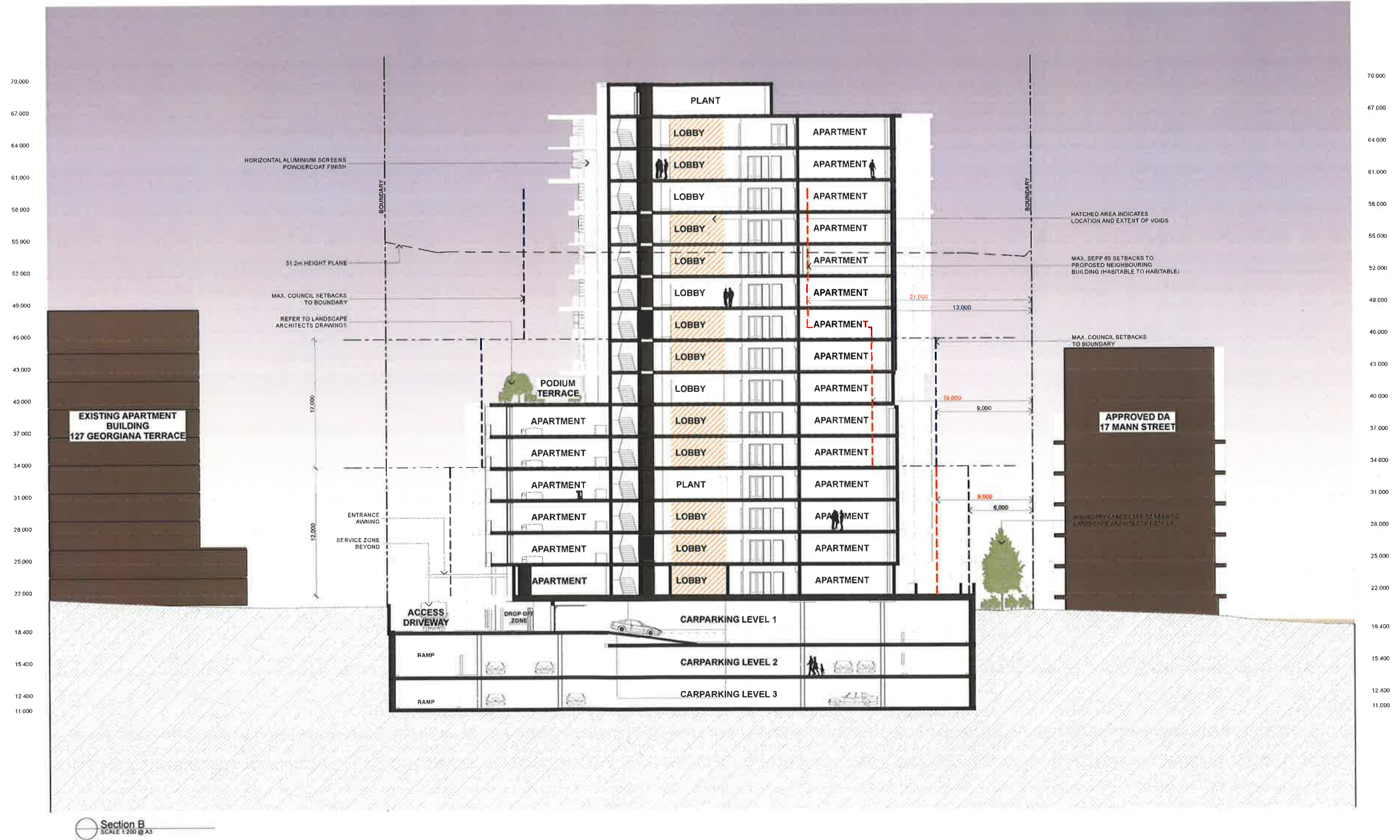


BASIX NOTES

- BASIS 11** GLASS SLIDING DOORS TO BE LOW E MEDIUM TINT GLAZING TO THE FOLLOWING APARTMENTS:
1. 101, 201, 301, 401, 501, 601, 701, 801, 901, 1001, 1201, 1301, 1401, 1501.
2. ALL GLAZING TO BE MEDIUM TINT LOW E TO THE FOLLOWING APARTMENTS:
- 103, 203
3. GLAZING GENERALLY ALUMINUM FRAMED WITH MEDIUM TINT.
4. EXTERNAL LOUVRES TO BE FITTED TO THE SLIDING DOORS OF APARTMENT
- 103.
5. **W/ O FLOOR INSULATION TO THE FOLLOWING APARTMENTS:**
- 101, 102, 103, 104, 105, 107, 108, 109, 111, 212
6. **W/ O EXTERIOR INSULATION TO THE FOLLOWING APARTMENTS:**
- 103, 202, 302, 402, 502, 602, 609, 610, 611, 612, 702, 802, 902, 1002, 1102, 1202, 1302, 1402, 1501, 1502, 1504, 1505, 1506
7. ALL EXTERNAL WALLS TO BE MINIMUM 150mm CONCRETE PANEL, BATTED AND SHEETED WITH R/ O INSULATION
8. CEILING FANS TO BE INSTALLED TO ALL BEDROOMS.







Copyright CKDS Architecture PTY LTD ABN 12 129 231 269				Project 1460 Pinnacle Residential Development Proposed Lot 102 within Lots A and B DP 88895 21-23 Mann Street Gosford 2250		Drawing Scale 1:200 @ A1		Drawn LF		Verified CK		Date 27/08/2014	
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Planner Doug Seaden P (02) 4328 3851				Civil/Structural TW ENGINEERS Hermes Barton J P (02) 9439 7288 PO Box 736 Crows Nest NSW 1585		CKDS ARCHITECTURE PO Box 4400 East Gosford NSW Australia Ph: 02 4321 9515 admin@ckds.com.au ATN 125 231 269 www.ckds.com.au		Traffic Consultant Vega Traffic Planning Chris Palmer P (02) 9504 3224 Suite 5-20 Young St Neutral Bay NSW 2095		Water/Civil Management Baker Ryan Stewart P (02) 4325 5295 Suite 15 Level 1, 78 York Street East Gosford NSW 2250			



Apartment Mix: Level 1
SCALE 1:307.69 @ A1

LEVEL 1

	No.
1 Bed	1
2 Bed	8
3 Bed	1

Total Apartments 10
Total GFA 965.5m²



Apartment Mix: Level 2-6
SCALE 1:307.69 @ A1

LEVEL 2-6

	No.	Total
1 Bed	2	10
2 Bed	9	45
3 Bed	1	5

Total Apartments 12
Total GFA 1,137.5m² 5,687.5m²



Apartment Mix: Level 7
SCALE 1:307.69 @ A1

LEVEL 7

	No.
1 Bed	1
2 Bed	6
3 Bed	1

Total Apartments 8
Total GFA 762m²



Apartment Mix: Level 8-13
SCALE 1:307.69 @ A1

LEVEL 8-13

	No.	Total
1 Bed per level	1	6
2 Bed per level	6	36
3 Bed per level	1	6

Total Apartments 8
Total GFA 763m² 4,578m²



Apartment Mix: Level 14
SCALE 1:307.69 @ A1

LEVEL 14

	No.
1 Bed per level	1
2 Bed per level	6
3 Bed per level	1

Total Apartments 8
Total GFA 761.5m²



Apartment Mix: Level 15
SCALE 1:307.69 @ A1

LEVEL 13,15

	No.
1 Bed per level	1
2 Bed per level	5
3 Bed per level	1

Total Apartments 6
Total GFA 674m²



Solar Diagram: Level 1		
SCALE 1:307.59 @ A1		
LEVEL 1		
No of apartments	10	%
Achieves 3hrs to balc, or living	4	40
Achieves 2 - 3hrs sunlight to balc, or living	8	80
Wholly south facing apartment	1	10



 Solar Diagram: Level 2-6 SCALE 1:500 SW @ A1		
LEVEL 2-6		
No of apartments	60	%
Achieves 3hrs to balc. or living	30	50%
Achieves 2 - 3hrs sunlight to balc. or living	50	83%
Wholly south facing apartment	5	8.3%



Scale Diagram: Level 7
SCALE 1:307.69 @ A1

LEVEL 7

		%
No of apartments	8	
Achieves 3hrs to balc. or living	4	50
Achieves 2 - 3hrs sunlight to balc. or living	6	75
Wholly south facing apartment	1	12.5



 **Solar Diagram: Level 8-13**
SCALE 1:307.68 @ A1

LEVEL 8-13

		%
No of apartments	48	
Achieves 3hrs to balc. or living	34	50
Achieves 2 - 3hrs sunlight to balc. or living	26	75
Wholly south facing apartment	6	12.5



 **Solar Diagram: Level 14**
SCALE 1:301.69 @ A1

LEVEL 14

		%
No of apartments	8	
Achieves 3hrs to balc. or living	4	50
Achieves 2 - 3hrs sunlight to balc. or living	6	75
Wholly south facing apartment	1	12.5



Solar Diagram: Level 15		
SCALE 1:30 / 50 @ A1		
LEVEL 15		
		%
No of apartments	6	
Achieves +3hrs to balc. or living	4	67
Achieves 2 - 3hrs sunlight to balc. or living	6	100
Wholly south facing apartment	0	0

LEGEND

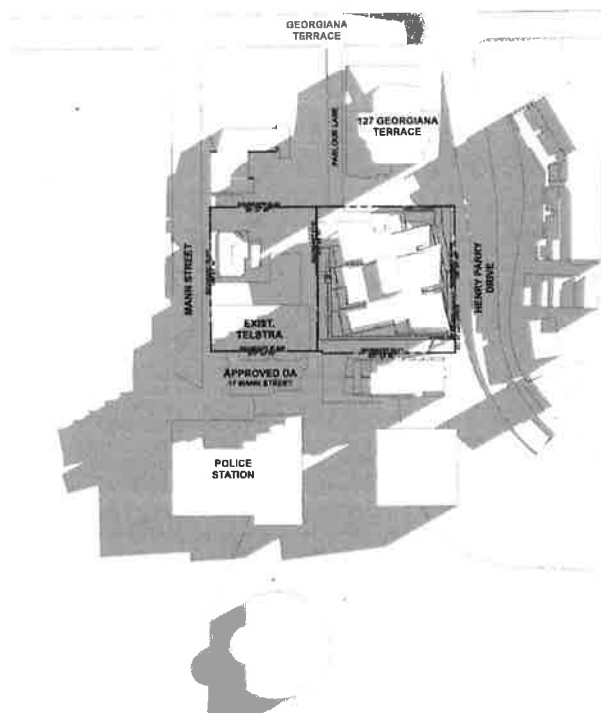
ACHIEVES 3HRS SUNLIGHT TO EITHER BALCONIES OR LIVING

**ACHIEVES 2HRS SUNLIGHT
TO BALCONIES ONLY**

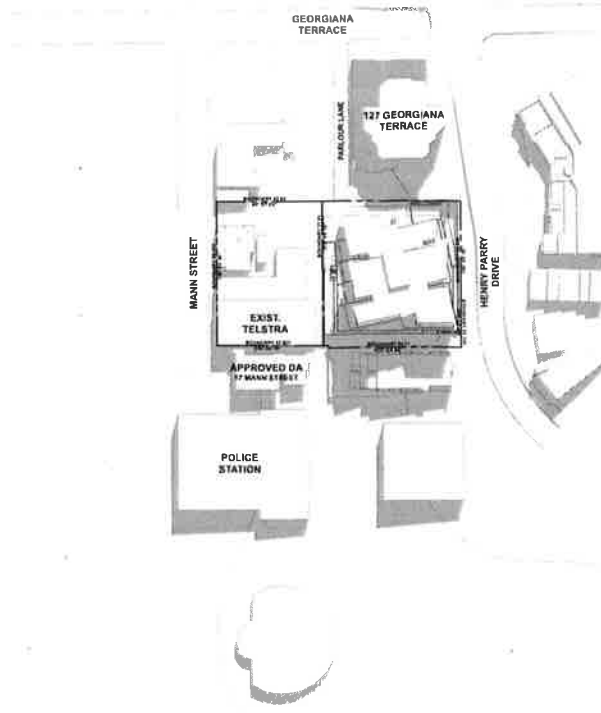
**WHOLLY SOUTH FACING
APARTMENT**

SUMMARY

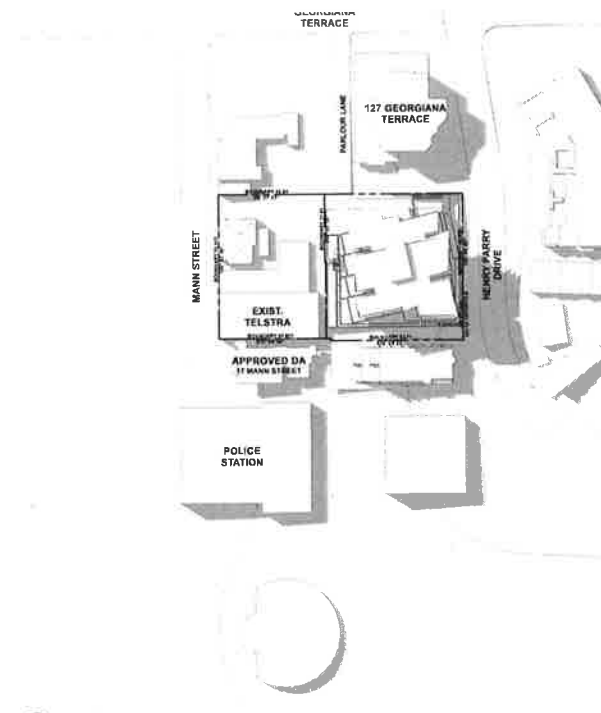
Total no of apartments	140	%
Achieves 3hrs to either balc. or living	70	50
Achieves 2 - 3hrs to either balc. or living	112	80
Wholly south facing apartment	14	10



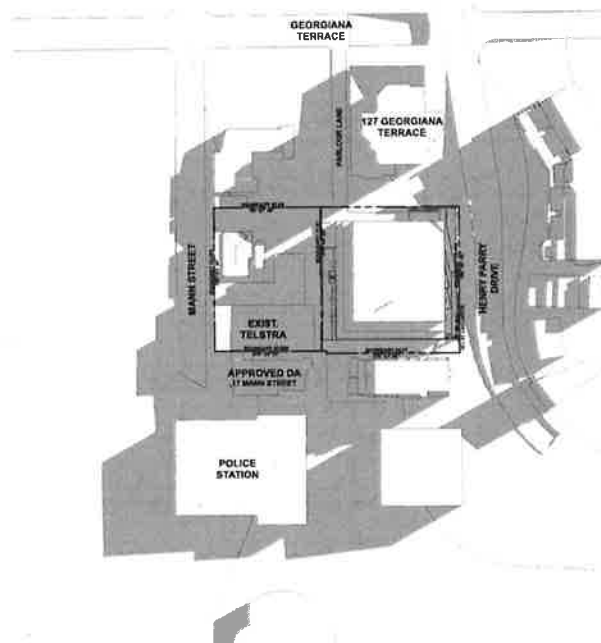
9am March 21
SCALE 1:1500 @ A3



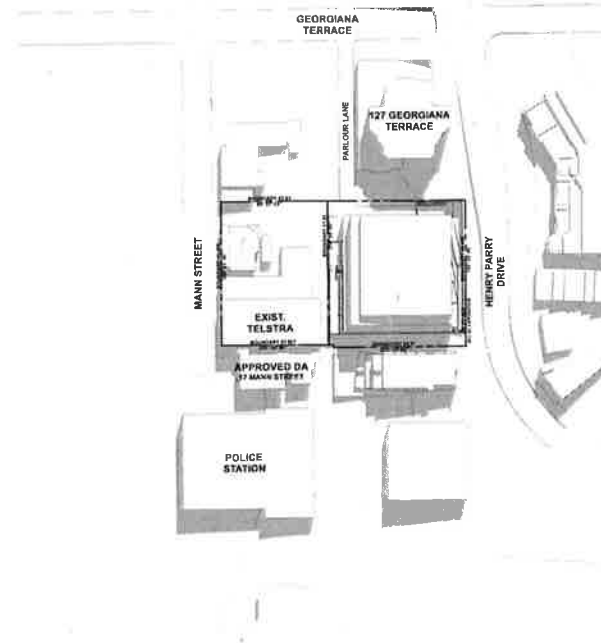
12pm March 21
SCALE 1:1500 @ A3



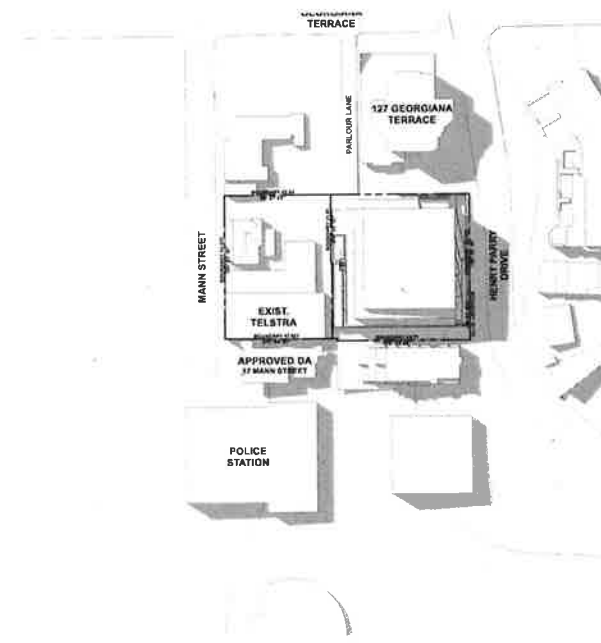
3pm March 21
SCALE 1:1500 @ A3



Shadow Diagram - Complying Envelope 9am March
SCALE 1:1500 @ A3

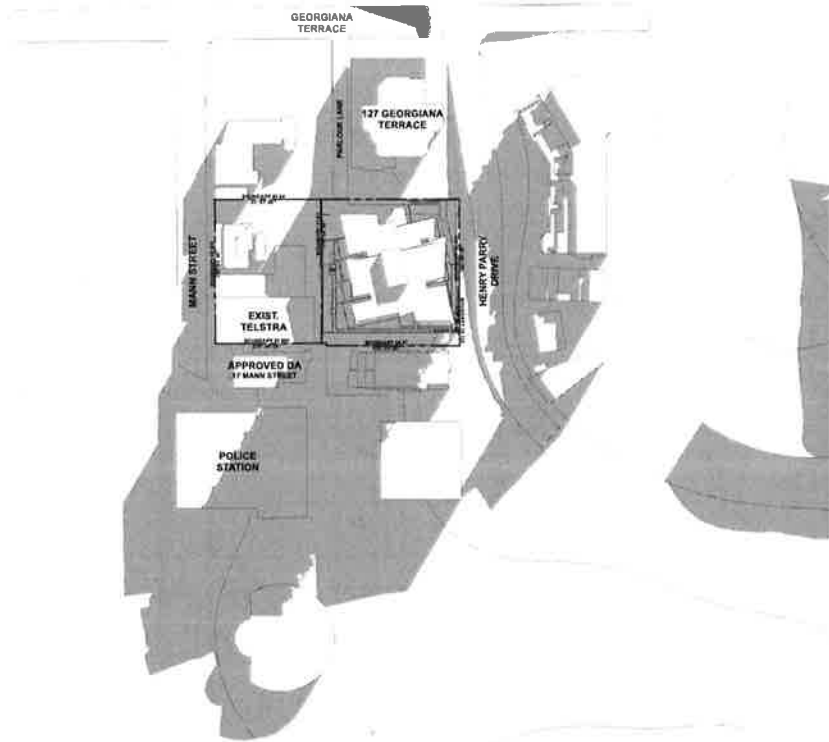


Shadow Diagram - Complying Envelope 12pm March
SCALE 1:1500 @ A3

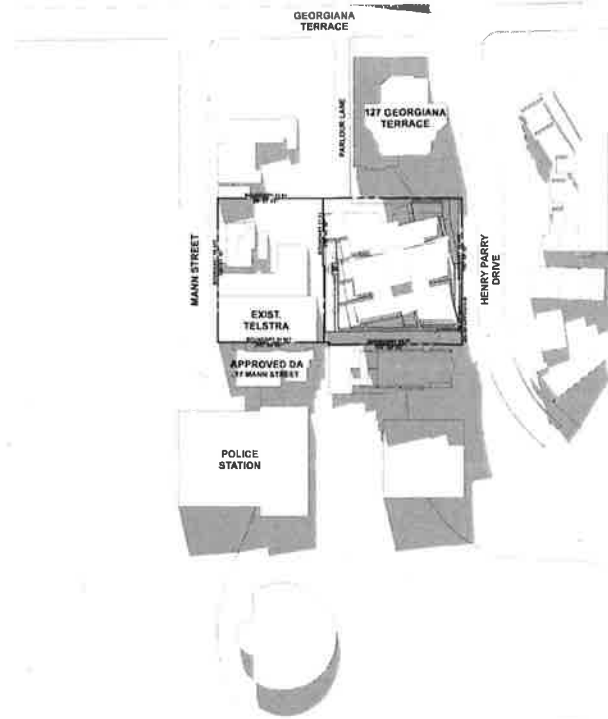


Shadow Diagram - Complying Envelope 3pm March
SCALE 1:1500 @ A3

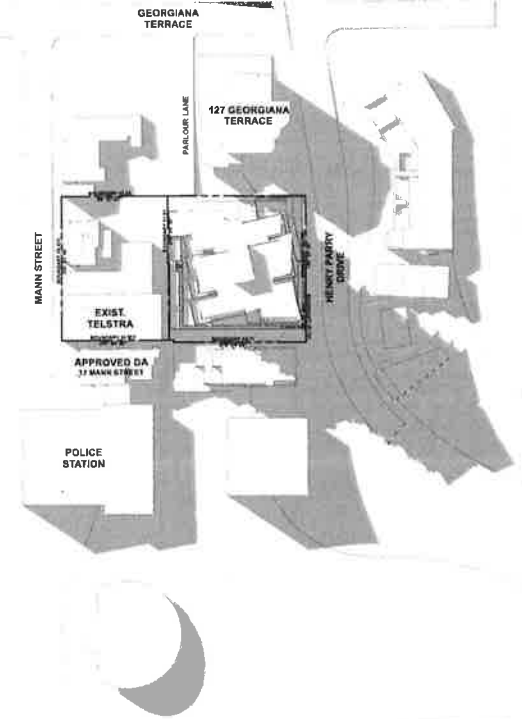
Copyright CKDS Architecture PTY LTD ABN 12 129 231 269										Issue										Revision										Description										Date										Verified										Key Plan										Planner Doug Swedden P (02) 4328 2851										CAD/Coordinator TWO ENGINEERS Narmada Salton Jr P (02) 5438 7268 PO Box 738 Crows Nest NSW 1585										Client Mann Street Developments 10/36 Buffalo Road Gladstone, NSW 2111										Project 1460 Mann Street Residential Development Proposed Lot 102 within Lots A and B DP 88695 21-23 Mann Street Gosford 2250										Layout Diagrams Shadow Diagrams - March (EDST)										Drawing Scale 1:1500 @ A1										Date 14/04/2015										Verified CK										Issue C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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9am June 21
SCALE 1:1500 @ A3



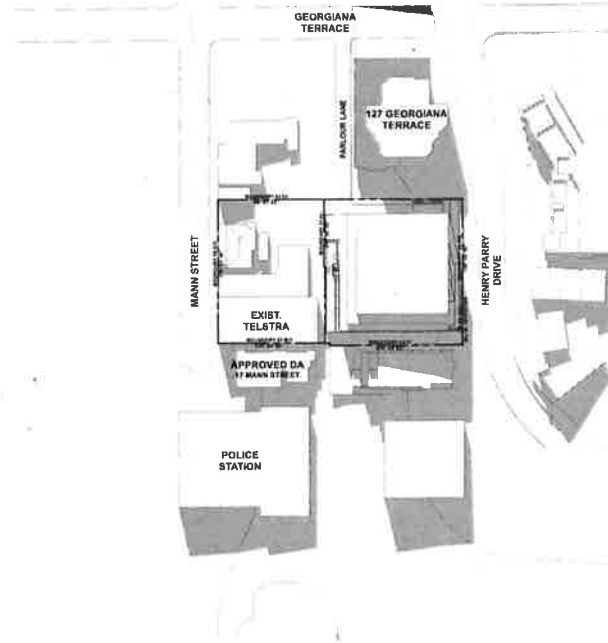
12pm June 21
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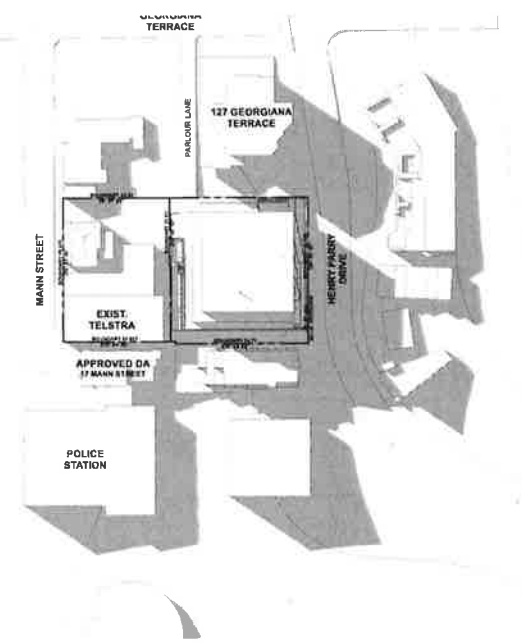
3pm June 21
SCALE 1:1500 @ A3



Shadow Diagram - Complying Envelope 9am June
SCALE 1:1500 @ A3



Shadow Diagram - Complying Envelope 12pm June
SCALE 1:1500 @ A3



Shadow Diagram - Complying Envelope 3pm June
SCALE 1:1500 @ A3

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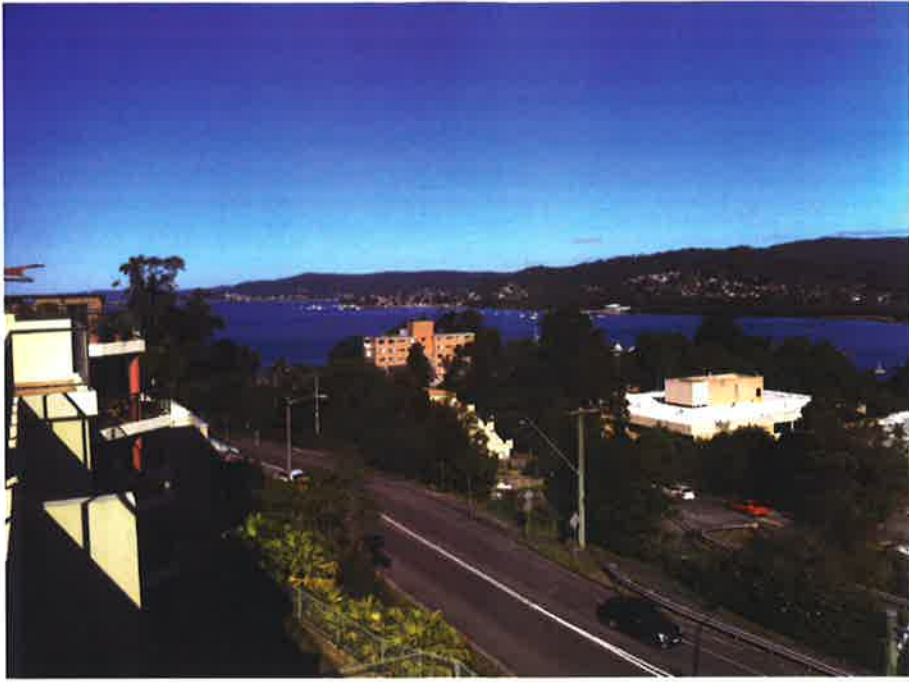
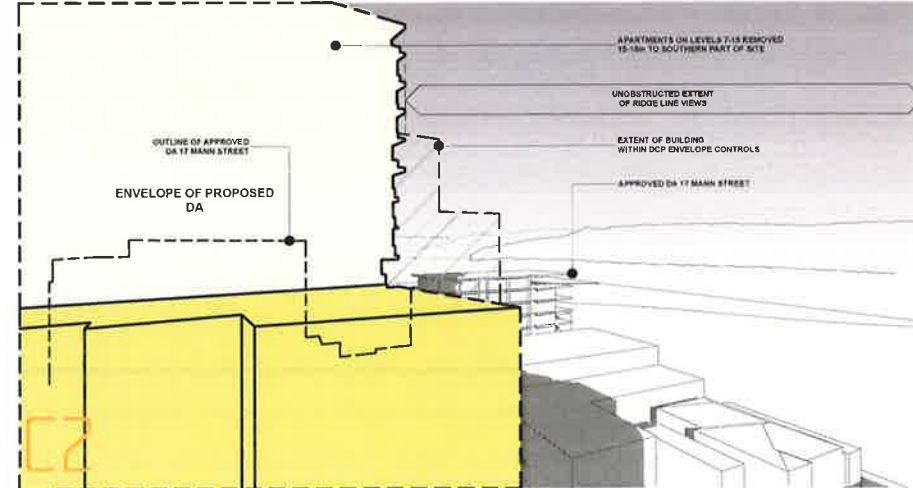
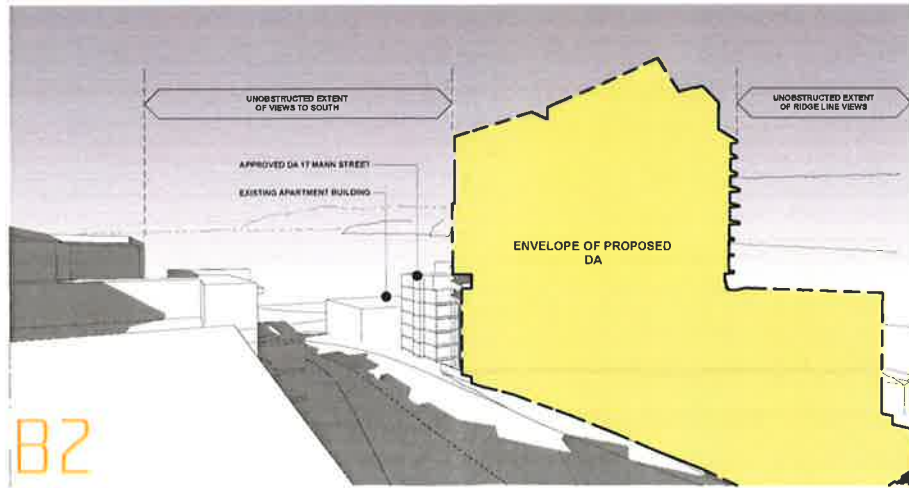
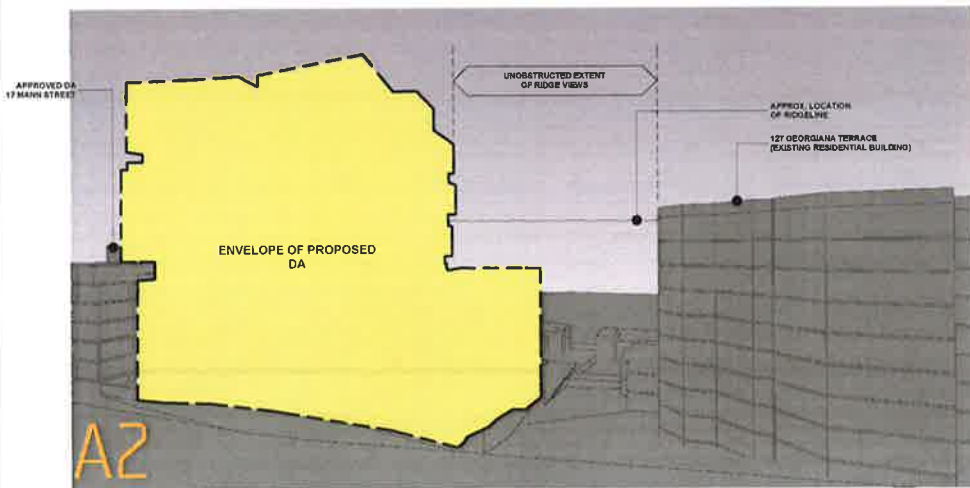
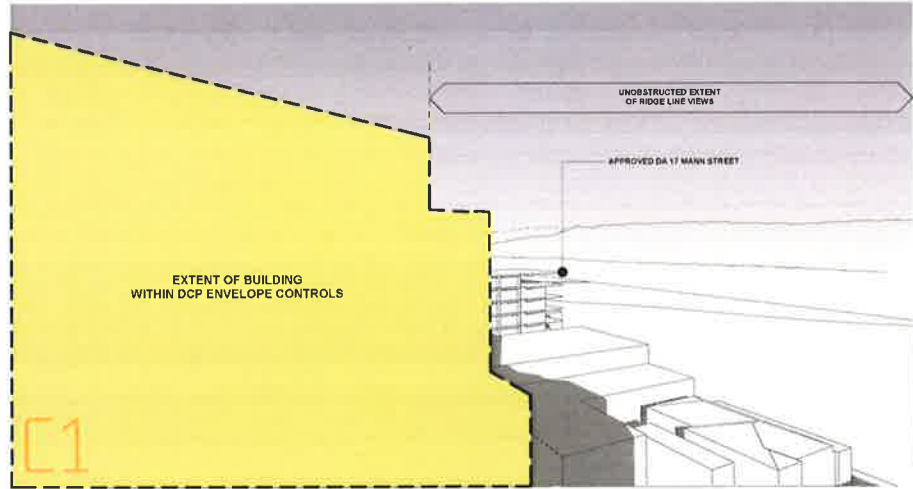
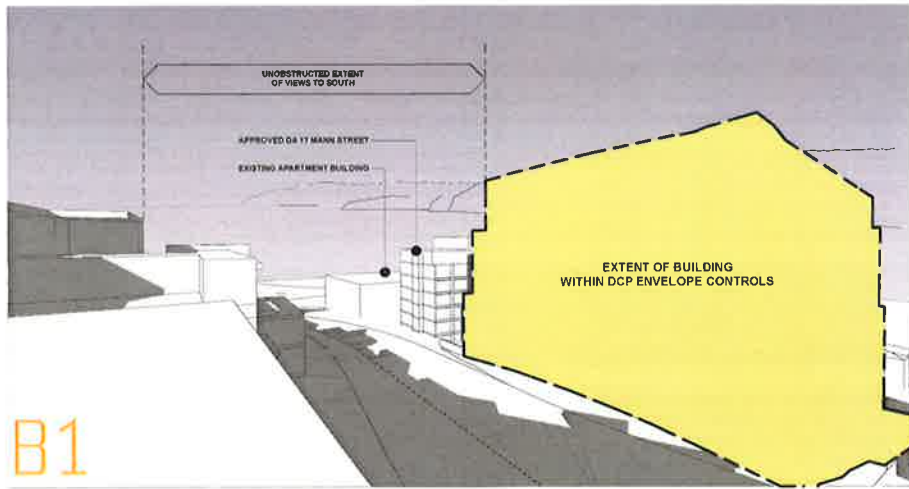
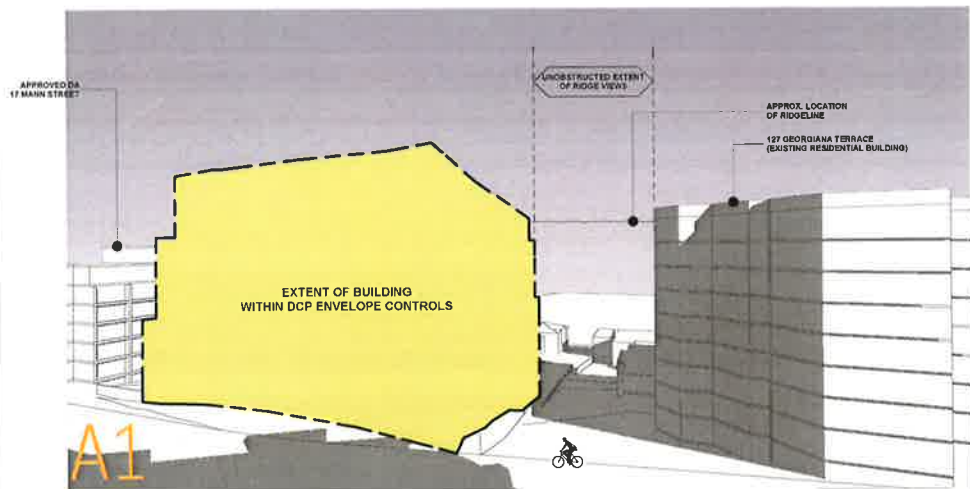


Image courtesy of Stair Partners, accessed via Google Images on 28.08.14 at 11:20am



DIAGRAMMATIC VIEW TOWARDS WEST FROM 107 HENRY PARRY DRIVE

A1: Image A1 shows the potential extent of a building that makes full use of the setback and height limitations outlined in the GCC DCP. Potential views of the ridge line and parts of Brisbane Water to west are blocked by this building form.

A2: Image A2 shows the extent of the proposed building. Extended views of the ridge line site created by the removal of mass from the northern part of the site. The added height in the proposed building affects only sky space.

DIAGRAMMATIC VIEW TOWARDS SOUTH FROM 107 HENRY PARRY DRIVE

B1: Image B1 shows the potential extent of a building that makes full use of the setback and height limitations outlined in the GCC DCP. Potential views of the ridge line and parts of Brisbane Water to the south west are blocked by this form.

B2: Image B2 shows the extent of the proposed building. The extent of obstructed views to the south and south-west is not further affected by the proposed form. The additional height of the building obstructs sky space only.

DIAGRAMMATIC VIEW TOWARDS SOUTH WEST FROM LEVEL 6, 127 GEORGIANA TERRACE

C1: Image C1 shows the potential extent of a building that makes full use of the setback and height limitations outlined in the GCC DCP.

A2: Image A2 shows the extent of the proposed building. A portion of the view to the south is reclaimed and the active facade of the building has been relocated a more amenable distance from the habitable balconies of 127 Georgiana Terrace to provide better privacy.

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ISSUE	REVISION	DESIGN/DATE	DATE	VERIFIED	KEY PLAN
C		28/08/14	27/08/14	PKA	



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Verge Traffic Planning
Cure Palmer
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Waste/Resource Management
Barker Ryan Stewart
Ian Stewart
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Suite 1, Level 1, 78 York Street
East Gosford NSW 2250

Client
Mann Street Developments
10/06
Buffalo Road
Gladesville, NSW 2111

CKOS ARCHITECTURE

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East Gosford NSW Australia
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ABN 129 231 269 www.ckos.com.au

Project
1460 Pinnacle Residential
Development
Proposed Lot 102 within Lots A and B DP 88695
21-23 Mann Street
Gosford 2250

Layout
Diagrams
View Diagrams

Drawing Scale
NTS @ A1

Drawn
LF

Verified
CK

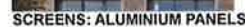
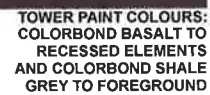
Date
28/08/2014

Project Number
1375

Drawing Number
A-404

Issue
C

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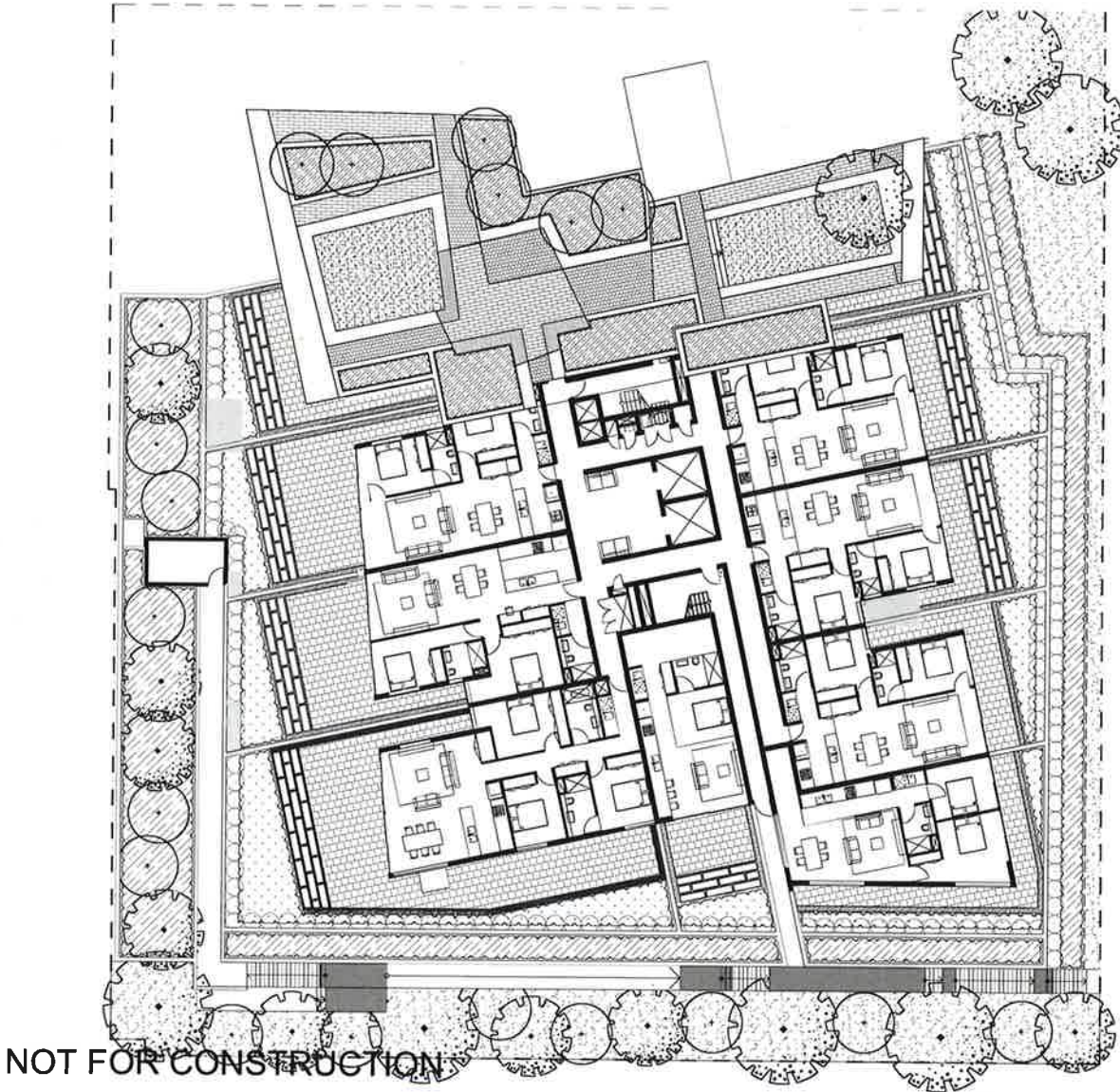
Pinnacle Residential Development

Proposed Lot 102 within lots A & B in D.P. 88695

21-23 Mann Street, Gosford NSW

DRAWING SCHEDULE

DWG NO.	DRAWING TITLE	SCALE
000	Landscape Coversheet	
C001	Colour Masterplan	1:150
101	Level 1 & 7 Landscape Plan	1:150
501	Landscape Details	As Shown
502	Landscape Details	As Shown



HENRY PARRY DRIVE

Indicative Plant Schedule

Symbol	Botanic Name	Common Name	Mature Height (m)	Mature Width (m)	Pot Size
Trees					
Li	Lagerstroomia indica 'Nachez'	Crepe Myrtle	6	3	75L
ML	Magnolia 'Little Gem'	Dwarf Magnolia	5	3	75L
Shrubs / Screening					
BT	Bambusa textilis Gracilis	Slender Weaver	6	1.5	300mm
Gf	Gardenia augusta 'Flord'	Gardenia Florida	1.5	1	300mm
Mp	Murraya paniculata	Coastal Rosemary	3	2	300mm
Ri	Raphiolepis indica	Indian Hawthorne	1.5	2	200mm
Vo	Viburnum odoratissimum	Sweet Viburnum	5	3.5	300mm
Groundcovers/ Grasses					
Cg	Carpobrotus glaucescens	Varigated Daniella	0.1	1	150mm
Dt	Dianella tasmanica	Flax Lily	0.5	0.5	150mm
Hs	Hibbertia scandens	Climbing Ginea Flower	0.1	2	150mm
LT	Lomandra 'Tanika'	Dwarf Mat Rush	0.5	0.6	150mm
Lm	Liriodendron 'Evergreen Giant'	Liriodendron	0.6	0.5	150mm
Tj	Trachelospermum jasminoides	Star Jasmine	0.1	7	150mm
Accents					
Aa	Agave attenuata	Century Plant	1.5	1.5	200mm
Az	Alpinia zerumbet	Shell Ginger	3	1	300mm
AzV	Alpinia zerumbet 'Variegata'	Variegated Shell Ginger	3	1	200mm
By	Beschermeria yuccoides	Mexican Lily	1	3	200mm
Cr	Cycas revoluta	Sago Palm	3	2	200mm
Pc	Phormium cookianum	Arching New Zealand Flax	1.5	1.5	200mm
PX	Philodendron Xanadu	Xanadu	0.8	1	150mm
StM	Sansevieria trifasciata 'Moonshine'	Moonsine	0.8	0.2	150mm

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A For Review
Issue Revision Description

JMA NM 27.08.2014
Drawn Check Date

Key Plan:

SITE IMAGE



Landscape Architects

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Client:

Pinnacle Developments Group

Drawing Name:

Cover Sheet

Project:

Pinnacle Residential Development
Lot 102 DP 88695 21-23 Mann Street
Gosford, NSW

Scale:

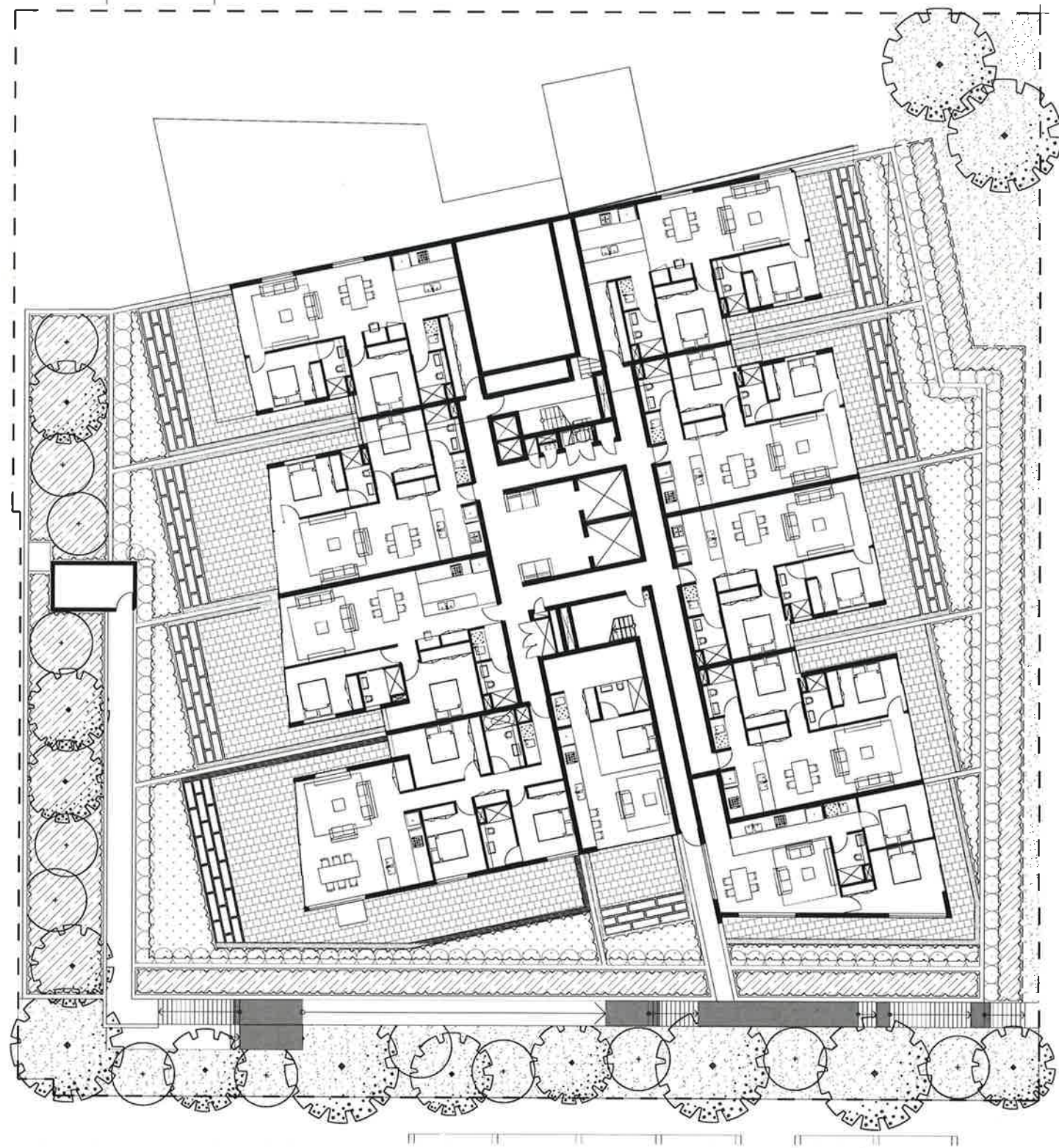
SS14-2879

PRELIMINARY

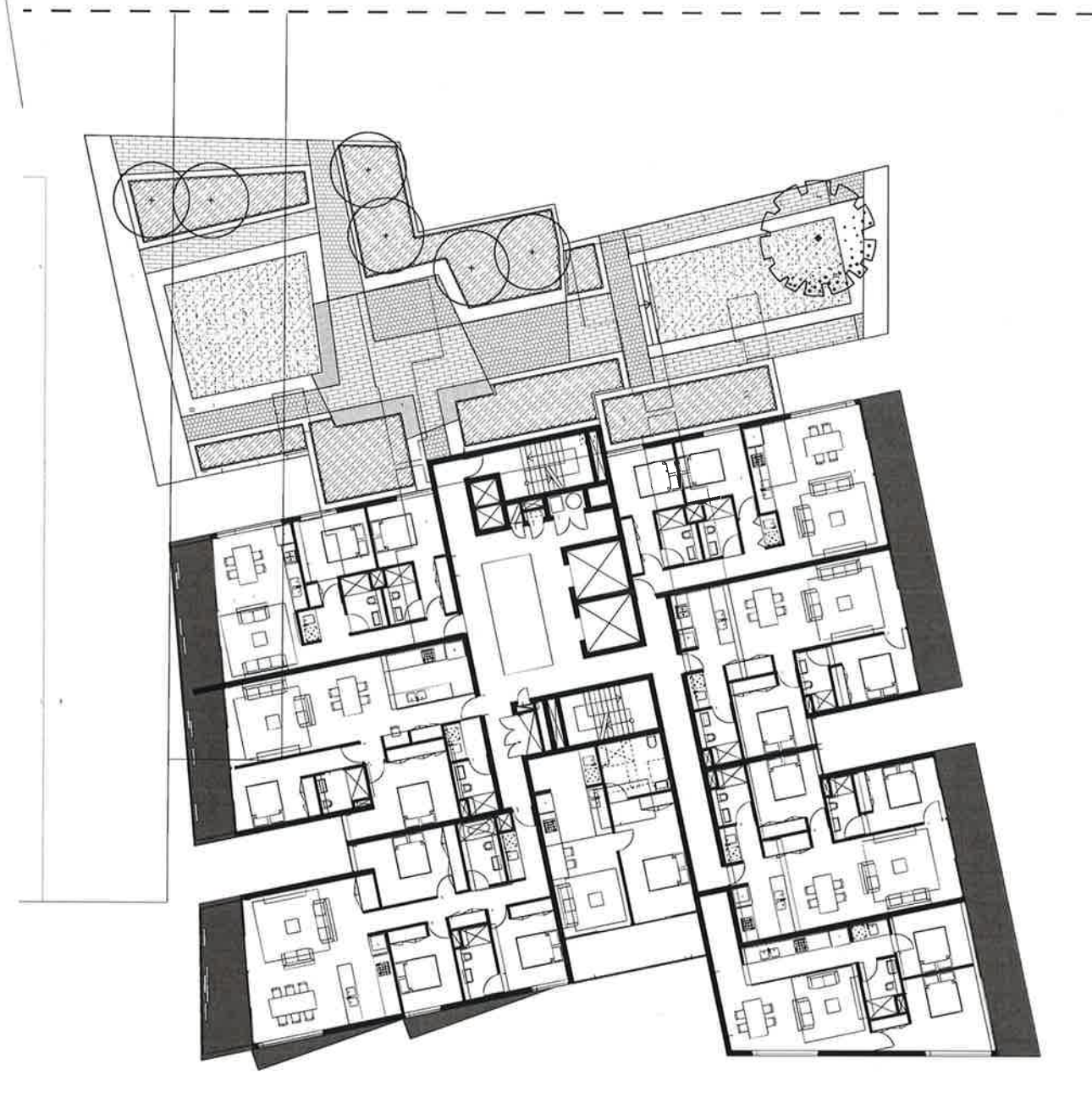
Drawing Number:

Issue:

000 A



Level 1 Landscape Plan



Level 7 Landscape Plan

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LEGEND

- Site Boundary
- Proposed Tree
(Refer to Plant Schedule)
- Shrubs & Accents
(Refer to Plant Schedule)

- Groundcover/ Grasses
(Refer to Plant Schedule)
- Turf
- Gravel

- P1 - Unit Paver
- P2 - Unit Paver
- P3 - Unit Paver in Gravel

Key Plans:

- Timber Seating
- Steel Edge



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Client:
Pinnacle Developments Group

Project:
Pinnacle Residential Development
Lot 102 DP 88695 21-23 Mann Street
Gosford, NSW

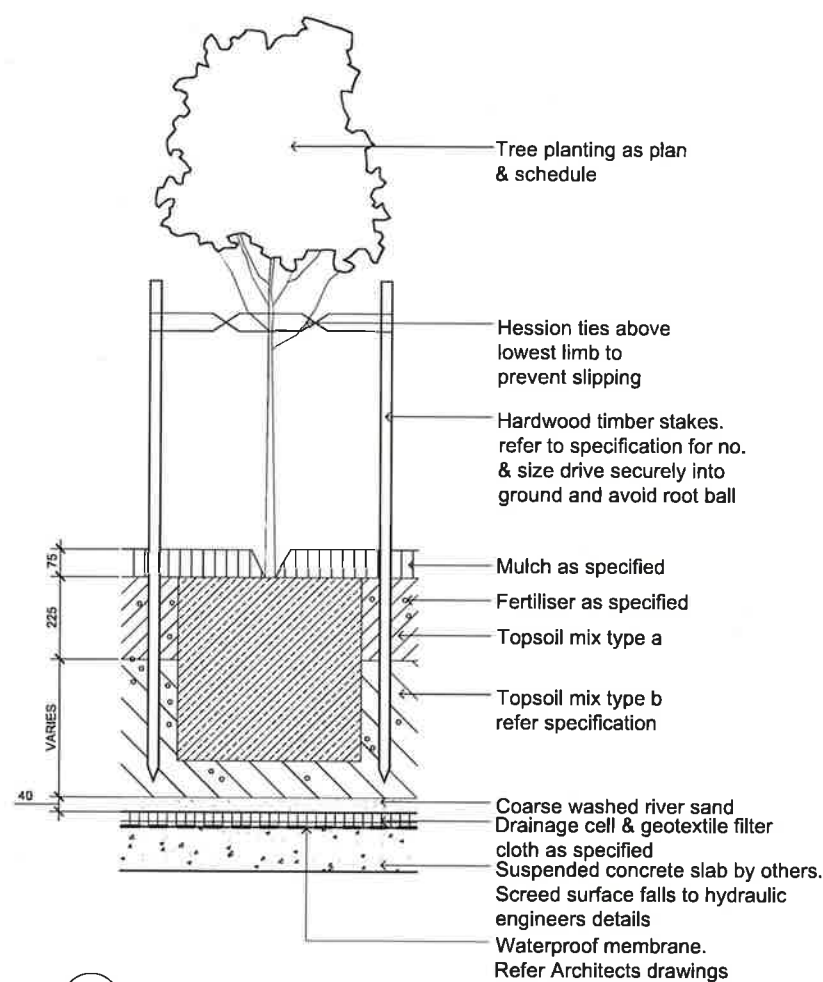
Drawing Name:

Level 1 & 7 Landscape Plan

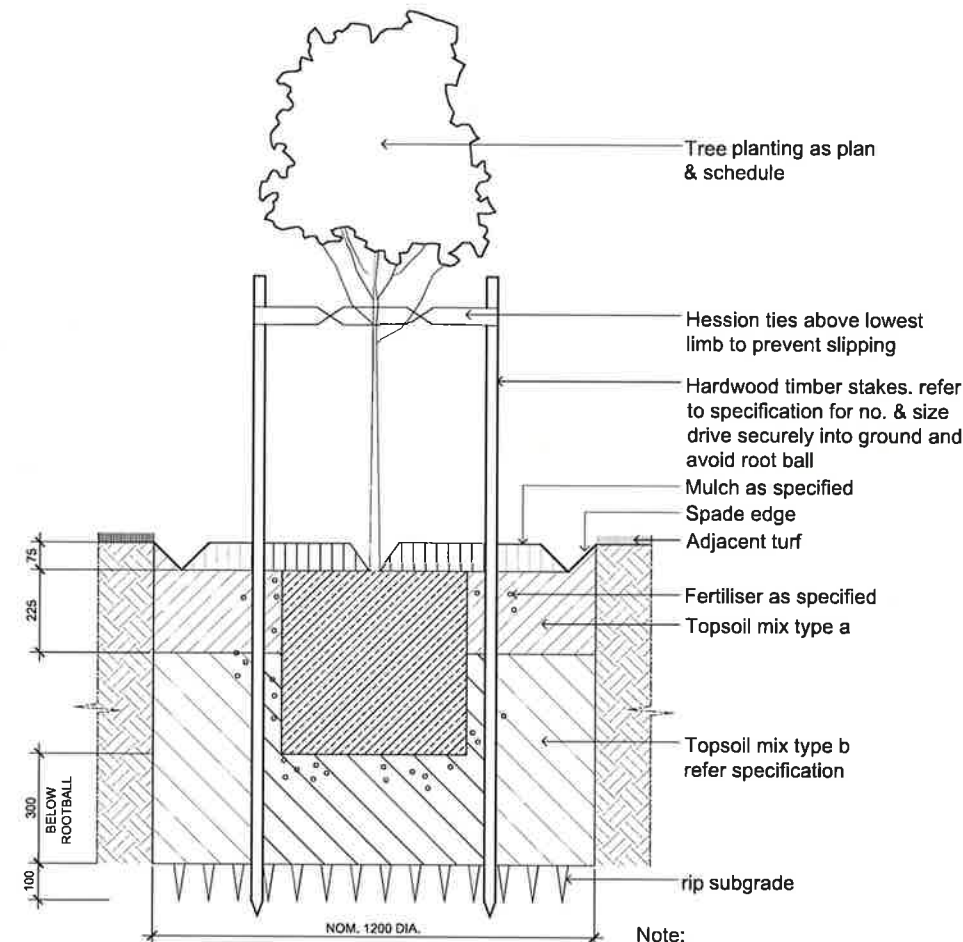
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Job Number:
SS14-2879

0 1 2 3 4 5m
Drawing Number:

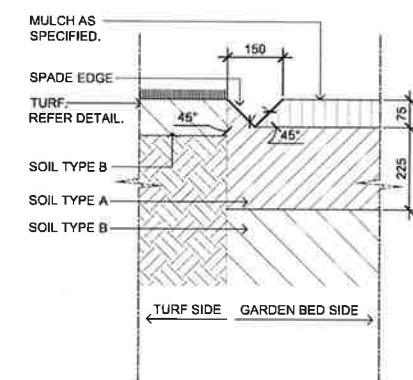
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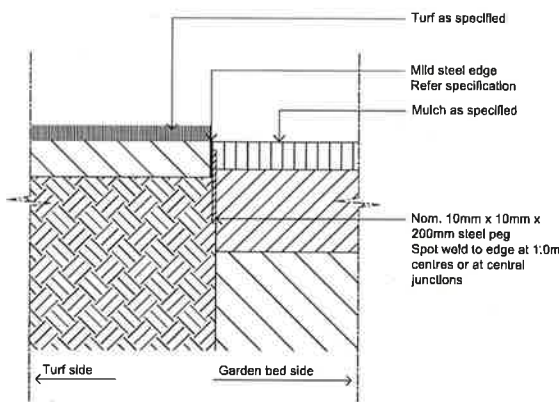
75-200L TREE PLANTING ON SLAB
SCALE 1:10



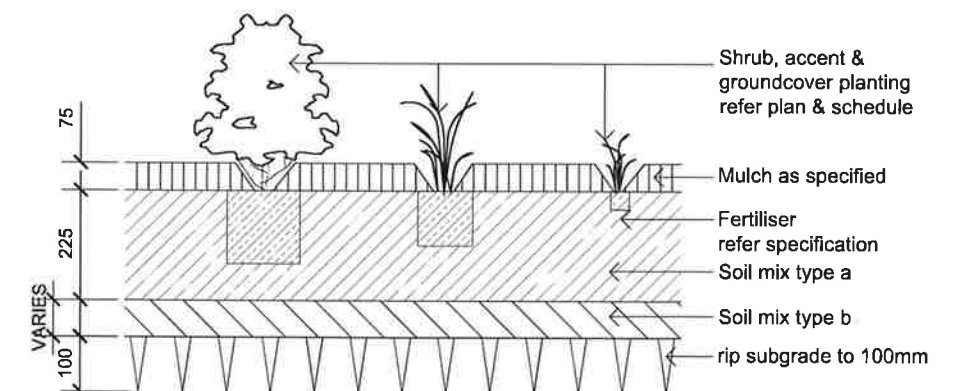
75-200L TREE PLANTING IN TURF
SCALE 1:10



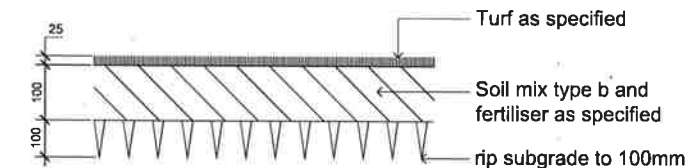
TYPICAL SPADE EDGE
SCALE 1:10



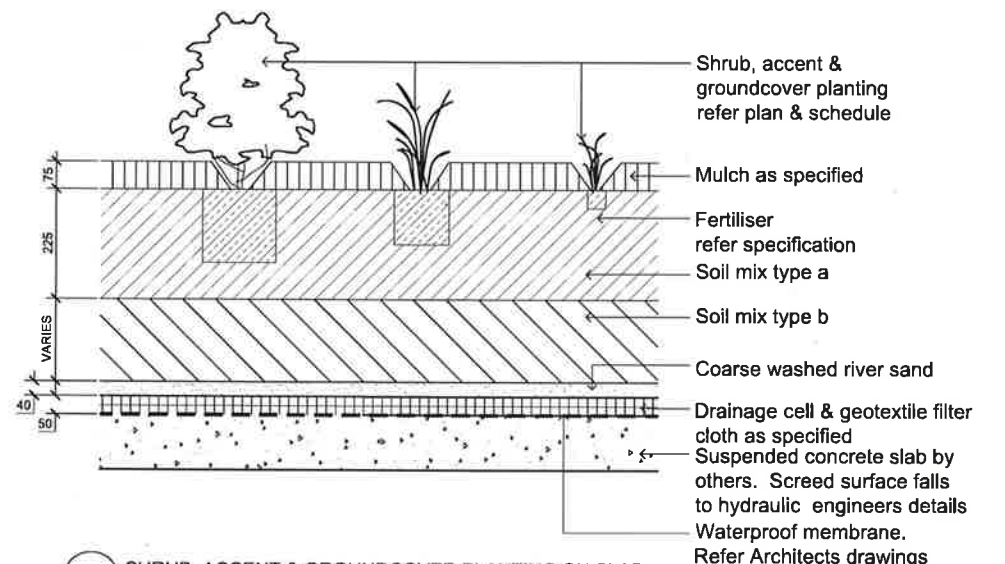
TYPICAL MILD STEEL EDGE
SCALE 1:10



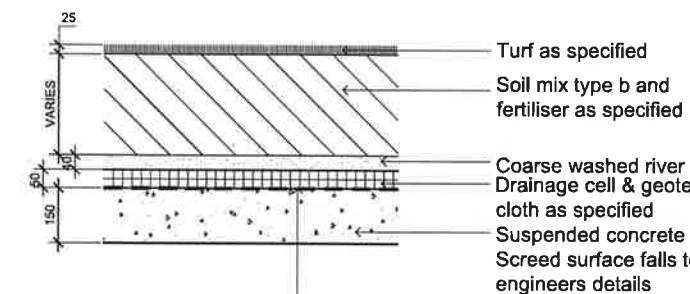
SHRUB, ACCENT & GROUNDCOVER PLANTING ON GRADE
SCALE 1:10



TURF ON EVEN GRADE
SCALE 1:10



SHRUB, ACCENT & GROUNDCOVER PLANTING ON SLAB
SCALE 1:10



TURF ON SUSPENDED SLAB
SCALE 1:10

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A For Review
Issue Revision Description

JM NM 27.08.2014
Drawn Check Date

LEGEND

Key Plan:

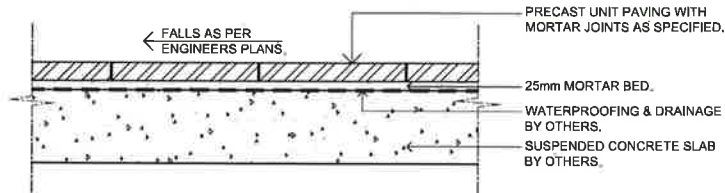


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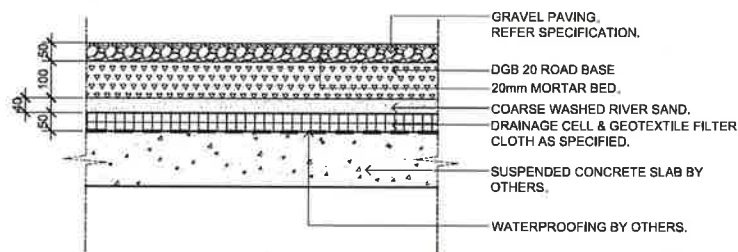
Client:
Pinnacle Developments Group
Project:
Pinnacle Residential Development
Lot 102 DP 88695 21-23 Mann Street
Gosford, NSW

Drawing Name:
Landscape Details
PRELIMINARY
Scale: AS SHOWN
Job Number:
SS14-2879
Drawing Number:
501 A

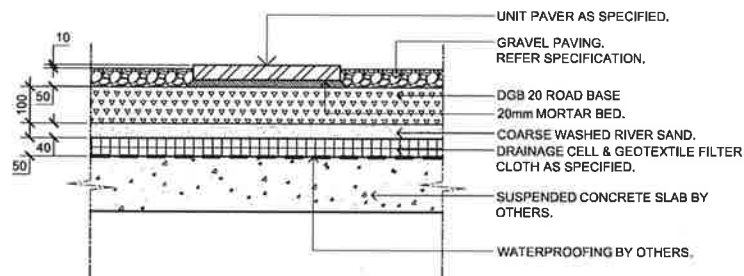
Issue:
501 A



PRECAST UNIT PAVERS ON SUSPENDED SLAB
SCALE 1:10



GRAVEL PAVING ON SUSPENDED SLAB
SCALE 1:10



UNIT PAVER IN GRAVEL ON SUSPENDED SLAB
SCALE 1:10

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LEGEND

Key Plan:

SITE IMAGE



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Client:

Pinnacle Developments Group

Project:

Pinnacle Residential Development

Lot 102 DP 88695 21-23 Mann Street

Gosford, NSW

Drawing Name:

Landscape Details

PRELIMINARY

Scale: AS SHOWN

Job Number:

SS14-2879

Drawing Number:

502

A

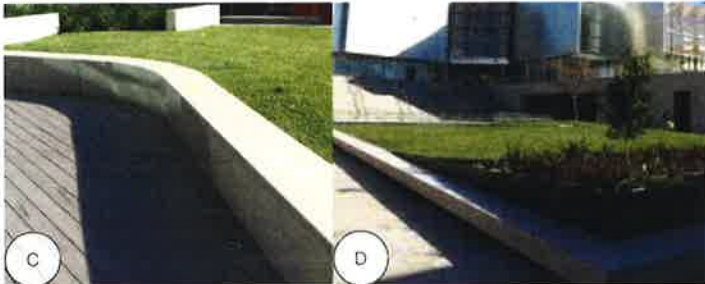
A For Review
Issue Revision Description

JM NM 27.08.2014
Drawn Check Date

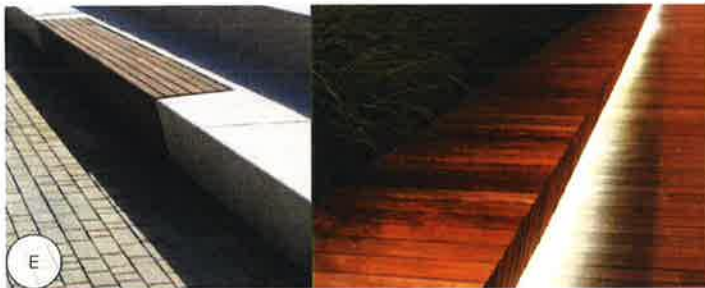


Overlapping complementary paving areas

Feature trees in raised planters



Formed concrete raised central turf areas



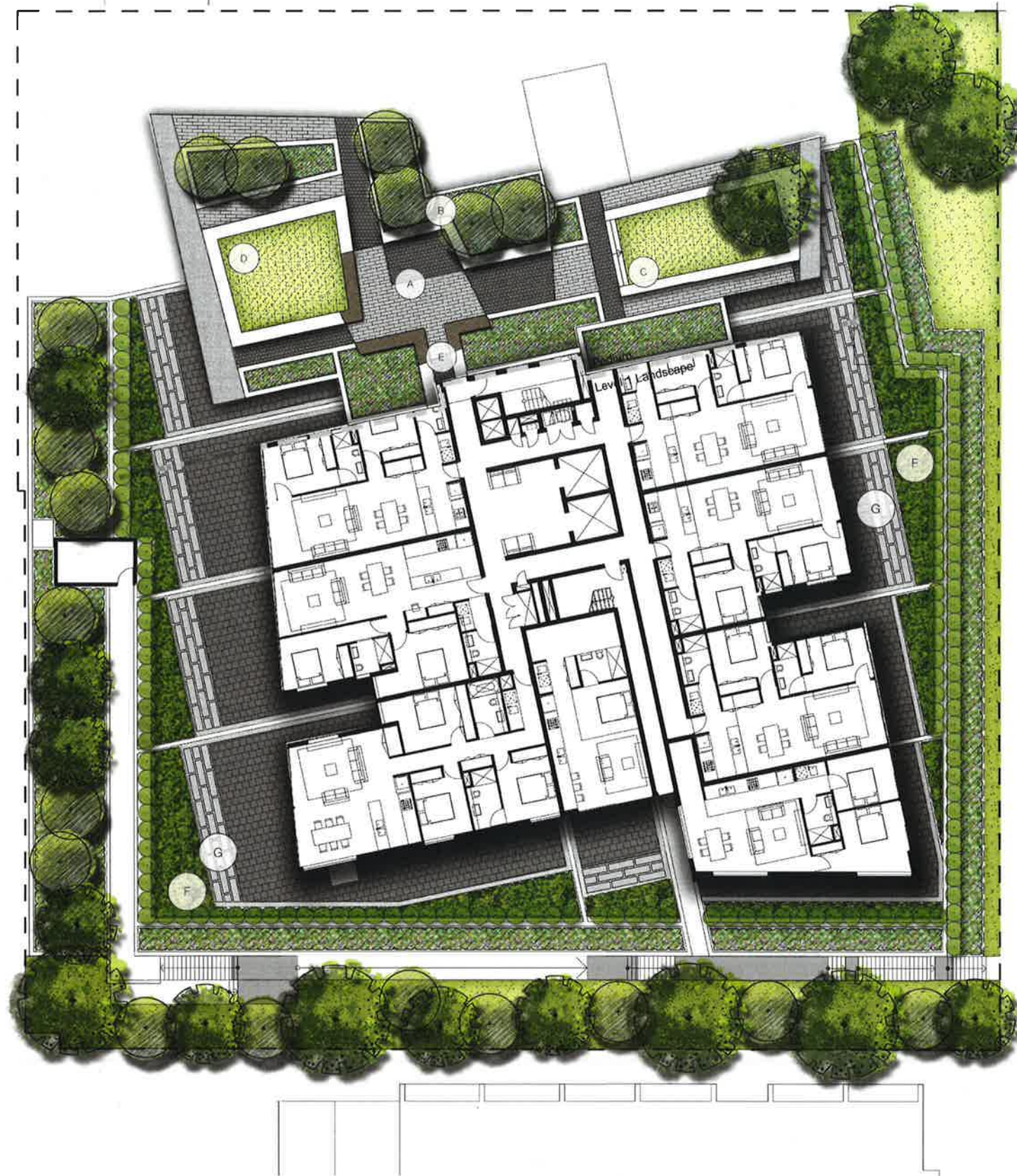
In situ timber seating



Raised planter beds in private courtyards



Level 1 Private Terraces Stepping stone paving and private gardens



HENRY PARRY DRIVE

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- LEGEND**
- Site Boundary
 - Proposed Tree (Refer to Plant Schedule)
 - Shrubs & Accents (Refer to Plant Schedule)

- Groundcover/Grasses (Refer to Plant Schedule)
- Turf
- Gravel

- P1 - Unit Paver
- P2 - Unit Paver
- P3 - Unit Paver in Gravel

- Key Plan:**
- Timber Seating
 - Steel Edge



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Client: Pinnacle Developments Group
Project: Pinnacle Residential Development
Lot 102 DP 88695 21-23 Mann Street
Gosford, NSW

Drawing Name: Colour Masterplan

Scale: 1:150 @ A1
Job Number: SS14-2879

PRELIMINARY
Drawing Number: C001

Issue: A

21-23 MANN STREET, GOSFORD

GENERAL NOTES

- Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the SUPERINTENDENT.
- Strip all topsoil from the construction area. All stripped topsoil shall be disposed of off-site unless directed otherwise.
- Make smooth connection with all existing works.
- Compact subgrade under buildings and pavements to minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1. Compaction under buildings to extend 2m minimum beyond building footprint.
- All work on public property, property which is to become public property, or any work which is to come under the control of the Statutory Authority is to be carried out in accordance with the requirements of the relevant Authority. The Contractor shall obtain these requirements from the Authority. Where the requirements of the Authority are different to the drawings and specifications, the requirements of the Authority shall be applicable.
- For all temporary matters refer to geotechnical recommendations.

REFERENCE DRAWINGS

- These drawings have been based from, and to be read in conjunction with the following Consultants drawings. Any conflict to the drawings must be notified immediately to the Engineer.

Consultant	Dwg Title	Dwg No	Rev	Date
CKDS-ARCHITECTURE	BASEMENT-LEVEL-1	A-101	A-4	19/08/14
CKDS-ARCHITECTURE	BASEMENT-LEVEL-2	A-102	A-6	19/08/14
CKDS-ARCHITECTURE	BASEMENT-LEVEL-3	A-103	A-7	19/08/14
BMA-SURVEYORS	SURVEY			01/08/14

STORMWATER DRAINAGE NOTES

- Stormwater Design Criteria :
 - Average recurrence interval -
 - 1:100 years for roof drainage to first external pit
 - 1:20 years for paved and landscaped areas
 - Rainfall intensities -
 - Time of concentration: 6 minutes
 - 1:100 years = 234 mm/hr
 - 1:20 years = 184 mm/hr
 - Runoff coefficients -
 - Roof areas: $C_{ra} = 1.0$
 - Roads and paved areas: $C_{ra} = 0.95$
 - Landscaped areas: $C_{ra} = 0.54$
- Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
- Pipes up to 300 dia shall be sewer grade uPVC with solvent welded joints.
- Equivalent strength VCP or FRP pipes may be used subject to approval.
- Precast pits may be used external to the building subject to approval by Superintendent.
- Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
- Where subsoil drains pass under floor slabs and vehicular pavements, unstuffed uPVC sewer grade pipe is to be used.
- Gates and covers shall conform with AS 3996-2006, and AS 1428.1 for access requirements.
- Pipes are to be installed in accordance with AS 3725. All bedding to be type H2 U.N.O.
- Core is to be taken with levels of stormwater lines. Grades shown are not to be reduced without approval.
- All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
- Subsoil drains to be slotted flexible uPVC U.N.O.
- Adopt invert levels for pipe installation (grades shown are only nominal).

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : SEE SURVEY PLANS
Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : PRICE MERRETT
Setout Points : CONTACT THE SURVEYOR

Taylor Thomson Whitting does not guarantee that the survey information shown on these drawings is accurate and will accept no liability for any inaccuracies in the survey information provided to us from any cause whatsoever.

UNDERGROUND SERVICES - WARNING

The locations of underground services shown on Taylor Thomson Whittings drawings have been plotted from diagrams provided by service authorities. This information has been prepared solely for the authorities own use and may not necessarily be updated or accurate.

The position of services as recorded by the authority at the time of installation may not reflect changes in the physical environment subsequent to installation.

Taylor Thomson Whitting does not guarantee that the services information shown on these drawings shows more than the presence or absence of services, and will accept no liability for inaccuracies in the services information shown from any cause whatsoever.

The Contractor must confirm the exact location and extent of services prior to construction and notify any conflict with the drawings immediately to the Engineer/Superintendent.

The contractor is to get approval from the relevant state survey department, to remove/adjust any survey mark. This includes but is not limited to: State Survey Marks (SSM), Permanent Marks (PM), cadastral reference marks or any other survey mark which is to be removed or adjusted in any way.
Taylor Thomson Whitting plans do not indicate the presence of any survey mark. The contractor is to undertake their own search.

SITEWORKS NOTES

- All basecourse material to comply with RTA specification No 3051 and compacted to minimum 98% modified standard dry density in accordance with AS 1289 5.2.1.
- All trench backfill material shall be compacted to the same density as the adjacent material.
- All service trenches under vehicular pavements shall be backfilled with an approved select material and compacted to a minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1

BOUNDARY AND EASEMENT NOTE

The property boundary and easement locations shown on Taylor Thomson Whitting drawings have been based from information received from : PRICE MERRETT

Taylor Thomson Whitting makes no guarantees that the boundary or easement information shown is correct.
Taylor Thomson Whitting will accept no liabilities for boundary inaccuracies. The contractor/builder is advised to check/confirm all boundaries in relation to all proposed work prior to the commencement of construction. Boundary inaccuracies found are to be reported to the superintendent prior to construction starting.

CONCRETE FINISHING NOTES

- All exposed concrete pavements are to be broomed finished.
- All edges of the concrete pavement including keyed and doweled joints are to be finished with an edging tool.
- Concrete pavements with grades greater than 10 % shall be heavily broomed finished.
- Carborundum to be added to all stair treads and ramped crossings U.N.O.

SAFETY IN DESIGN

Contractor to refer to Appendix B of the Civil Specification for the Civil Risk and Solutions Register.

EXISTING SERVICES

Contractor to be aware existing services are located within the site. Location of all services to be verified by the Contractor prior to commencing works. Contractor to confirm with relevant authority regarding measures to be taken to ensure services are protected or procedures are in place to demolish and/or relocate.

EXISTING STRUCTURES

Contractor to be aware existing structures may exist within the site. To prevent damage to existing structure(s) and/or personnel, site works to be carried out as far as practicable possible from existing structure(s).

EXISTING TREES

Contractor to be aware existing trees exist within the site which need to be protected. To prevent damage to trees and/or personnel, site works to be carried out as far as practicable possible from existing trees. Advice needs to be sought from Arborist and/or Landscape Architect on measures required to protect trees.

GROUNDWATER

Contractor to be aware ground water levels are close to existing surface level. Temporary de-watering may be required during construction works.

EXCAVATIONS

Deep excavations due to stormwater drainage works is required. Contractor to ensure safe working procedures are in place for works. All excavations to be fenced off and barriers adequately supported to approval of Geotechnical Engineer.

GROUND CONDITIONS

Contractor to be aware of the site geotechnical conditions. Refer to geotechnical report by (colley geotechnics GEOTALS101618AM-AD 03.07.2012) for details.

HAZARDOUS MATERIALS

Existing asbestos products & contaminated material may be present on site. Contractor to ensure all hazardous materials are identified prior to commencing works. Safe working practices as per relevant authority to be adopted and appropriate PPE to be used when handling all hazardous materials. Refer to geotechnical/environmental report by (colley geotechnics GEOTALS101618AM-AD 03.07.2012) for details.

CONFINED SPACES

Contractor to be aware of potential hazards due to working in confined spaces such as stormwater pits, trenches and/or tanks. Contractor to provide safe working methods and use appropriate PPE when entering confined spaces.

MANUAL HANDLING

Contractor to be aware manual handling may be required during construction. Contractor to take appropriate measures to ensure manual handling procedures and assessments are in place prior to commencing works.

WATER POLLUTION

Contractor to ensure appropriate measures are taken to prevent pollutants from construction works contaminating the surrounding environment.

SITE ACCESS/EGRESS

Contractor to be aware site works occur in close proximity to footpaths and roadways. Contractor to erect appropriate barriers and signage to protect site personnel and public.

VEHICLE MOVEMENT

Contractor to supply and comply with traffic management plan and provide adequate site traffic control including a certified traffic marshal to supervise vehicle movements where necessary.

SITEWORKS LEGEND

	Finished surface level
	Finished contour
	Kerb and gutter
	Kerb only
	Flush kerb
	Dish drain
	Mountable kerb
	Mountable integral kerb
	Mountable integral kerb with thickened edge
	Integral kerb with thickened edge
	Integral kerb
	Integral kerb with edge downturn
	Kerb and toe
	Stormwater pit, flow direction and line with invert level upstream
	Pipe size and class
	Pipe grade
	Flow (litres per second)
	Invert level downstream
	Gabled drain
	Intermediate riser with subsoil drainage line (100 dia)
	Flushing point with subsoil drainage line (100 dia)
	Down pipe
	Rodding point
	Concrete encased stormwater line
	Stormwater line with pipe taper and flow direction
	Taper kerb to zero height over 500 mm wheelstop
	Blockwork retaining wall
	Brickwork retaining wall
	Grass catch drain
	Overland flow path (swale)
	Guard Rail
	Existing stormwater

PIT SCHEDULE

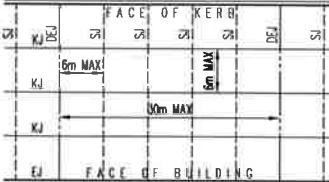
Note: Gote size does not necessarily reflect pit size, refer pit type details, shown on detail sheets - CD7
Final internal pit dimensions are to comply with AS3500

Type	Description	Cover (Clear Opening)	Number
A	Surface inlet pit	600 x 900 Class D galvanised mild steel grate hinged to frame	7,8,9,10,13,14,15,16,17,18,19,20
B	Junction pit	900 x 900 Class D cast iron cover with concrete in-fill	3,22
C	Rainwater access	600 x 900 Class B galvanised mild steel grate hinged to frame	4,5,6
D	Pump out pit		21
E	Existing pit to remain		23

JOINTING NOTES

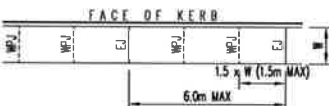
Vehicular Pavement Jointing

- All vehicular pavements to be jointed as shown on drawings.
- Keyed construction joints should generally be located at a maximum of 6m centres.
- Sawn joints should generally be located at a maximum of 6m centres or 1.5 x the spacing of keyed joints, where key joint spacing is less than 4m, with doweled expansion joints at maximum of 30m centres.
- Provide 10mm wide full depth expansion joints between buildings and all concrete or unit pavers.
- The timing of the saw cut is to be confirmed by the contractor on site. Site conditions will determine how many hours after the concrete pour before the saw cuts are commenced. Refer to the specification for weather conditions and temperatures required.
- Vehicular pavement jointing as follows.



Pedestrian Footpath Jointing

- Expansion joints are to be located where possible at longset points of curves and elsewhere at max 6.0m centres.
- Weakened plane joints are to be located at a max 1.5 x width of the pavement.
- Where possible joints should be located to match kerbing and / or adjacent pavement joints.
- All pedestrian footpath jointings as follows (una).



CONCRETE NOTES

EXPOSURE CLASSIFICATION : External :
Internal :

CONCRETE

Place concrete of the following characteristic compressive strength f_c as defined in AS 1379.

Location	AS 1379 f_c MPa at 28 days	Specified Slump	Nominal Agg. Size
X	S---	80	20
Warehouse pavements	SF---at 90 days	80	20

- Use Type "OP" cement, unless otherwise specified.
- All concrete shall be subject to project assessment and testing to AS 1379.
- Consolidate by mechanical vibration. Cure all concrete surfaces as directed in the Specification.
- For all falls in slab, drip grooves, re-lets, chamfers etc. refer to Architects drawings and specifications.
- Unless shown on the drawings, the location of all construction joints shall be submitted to Engineer for review.
- No holes or chases shall be made in the slab without the approval of the Engineer.
- Conduits and pipes are to be fixed to the underside of the top reinforcement layer.
- Slurry used to lubricate concrete pump lines is not to be used in any structural members.
- All slabs cast on ground require sand binding with a Concrete Underlay

10 ∇ 70 Indicates Slab or Band thickness variation.

FORMWORK

- The design, certification, construction and performance of the formwork, falsework and backpropping shall be the responsibility of the contractor. Proposed method of installation and removal of formwork is to be submitted to the superintendent for comment prior to work being carried out.

CIVIL DRAWING LIST

Drawing No Drawing Title

C01	NOTES AND LEGENDS SHEET
C02	SITEWORKS AND STORMWATER PLAN BASEMENT LEVEL 1
C03	STORMWATER PLAN BASEMENT LEVEL 2
C04	STORMWATER PLAN BASEMENT LEVEL 3
C05	SEDIMENT EROSION CONTROL PLAN
C06	DETAILS SHEET 1
C07	DETAILS SHEET 2

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P2	FOR APPROVAL	NB	JW	13.11.14					
P1	FOR APPROVAL	NB	TB	28.08.14					

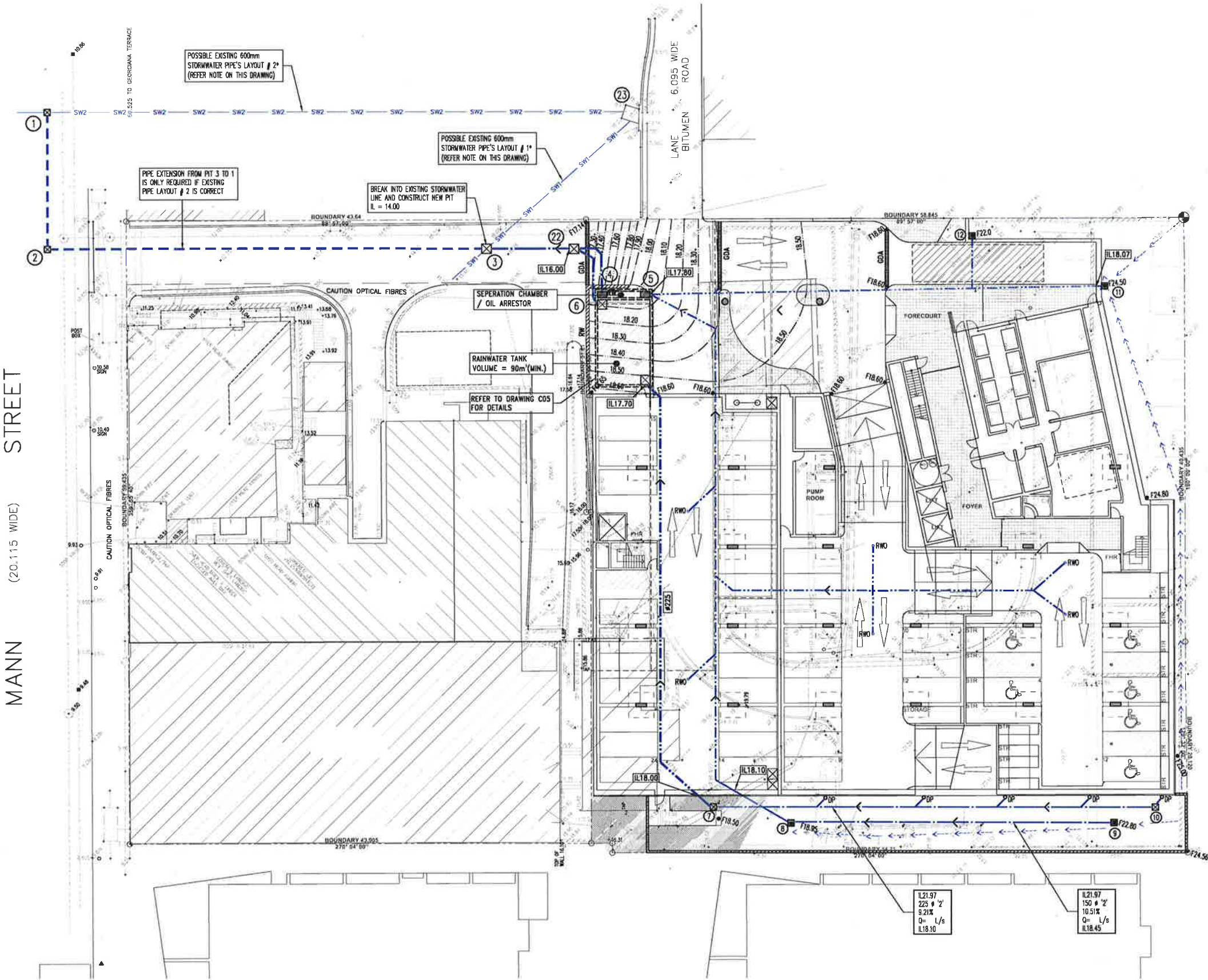
Architect
CKDS ARCHITECTURE

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Taylor Thomson Whitting (NSW) Pty Ltd ACN 113 578 377

Project
1460 PINNACLE RESIDENTIAL DEVELOPMENT
LOT 102 DP 88885
21-23 MANN STREET
GOSFORD 2250

Sheet Subject
NOTES AND LEGENDS SHEET

Job No	Drawing No	Revision
141509	C01	P2
Plot File Created: Nov 13, 2014 - 10:34am		



LEGEND

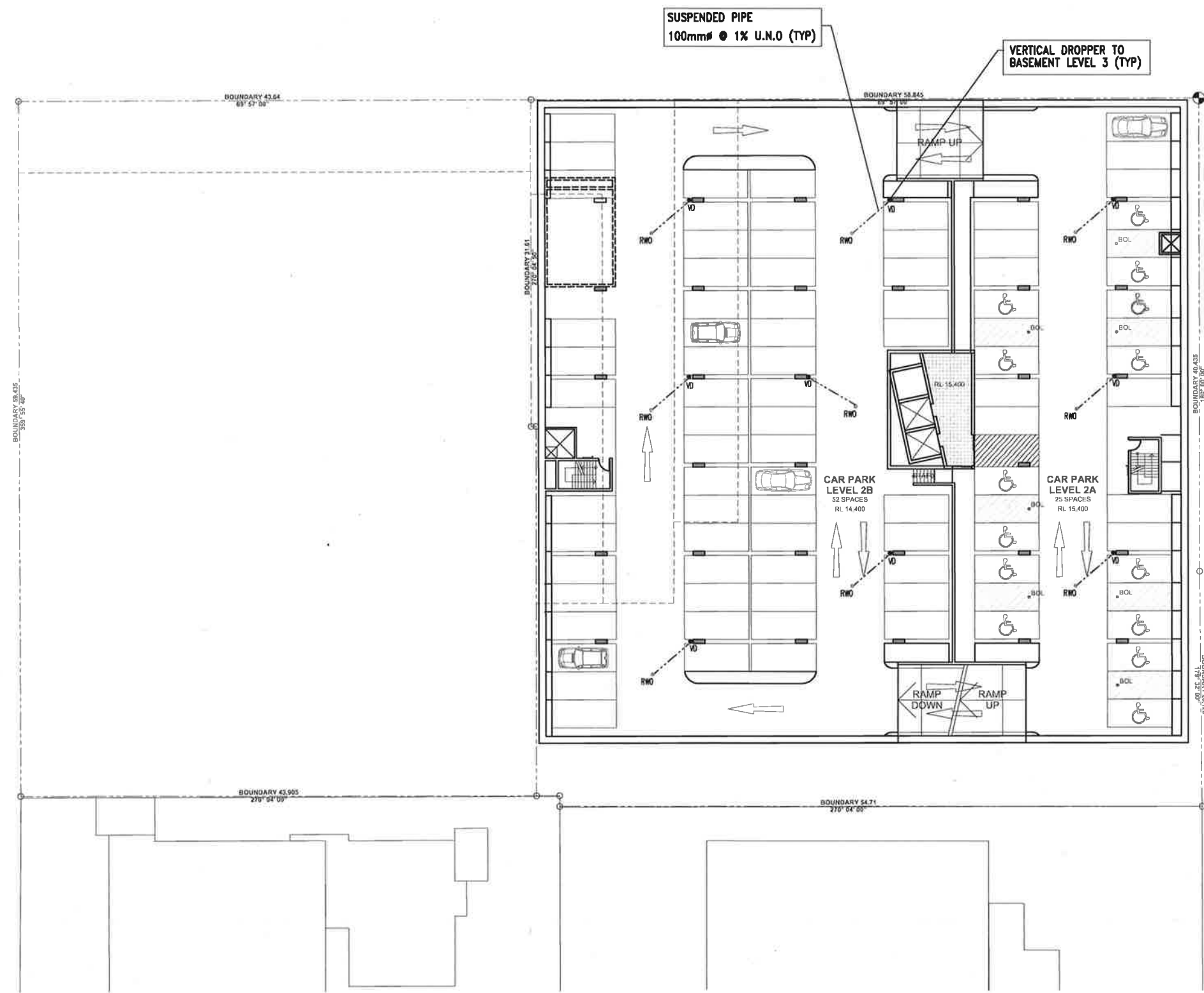
- RWO RAINWATER OUTLET - SPS 150mm ROUND PUSH-IN BUCKET TRAP (R150SR-BT) STAINLESS STEEL GRATE OR APPROVED EQUIVALENT
- SUSPENDED PIPE UNDER STRUCTURAL SLAB

NOTE:
ALL SUSPENDED PIPES ARE
150mm Ø AT 1.0% FALL U.N.O.

NOTE:
CONTRACTOR TO UNDERTAKE
INVESTIGATION (eg CCTV SURVEY) TO
ASCERTAIN THE EXISTING LAYOUT OF
THE 600mm PIPE PRIOR TO
CONSTRUCTION. LAYOUT SHOWN WERE
BASED ON GOSFORD COUNCIL'S ADVICE.

File Name: C02.dwg - User: jenny - Plot File Created: Nov 13, 2014 - 11:58am

A1				Architect				Project				Sheet Subject				Scale: A1				Drawn				Authorised			
				CKDS ARCHITECTURE				1460 PINNACLE RESIDENTIAL DEVELOPMENT				SITEWORKS AND STORMWATER PLAN BASEMENT LEVEL 1				1:200				WW							
P2 FOR APPROVAL				NB JW 13.11.14				LOT 102 DP 88655				Job No				141509				Drawing No				Revision			
P1 FOR APPROVAL				NB TB 28.08.14				21-23 MANN STREET				C02				P2											
Rev Description				Eng Draft Date				GOSFORD 2250				Plot File Created:				Nov 13, 2014 - 11:58am											



Filename: C03.dwg - User: jerry - Plot File Created: Nov 13, 2014 - 11:25am

A1 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P2	FOR APPROVAL	ND	JW	13.11.14					
P1	FOR APPROVAL	ND	TS	28.08.14					

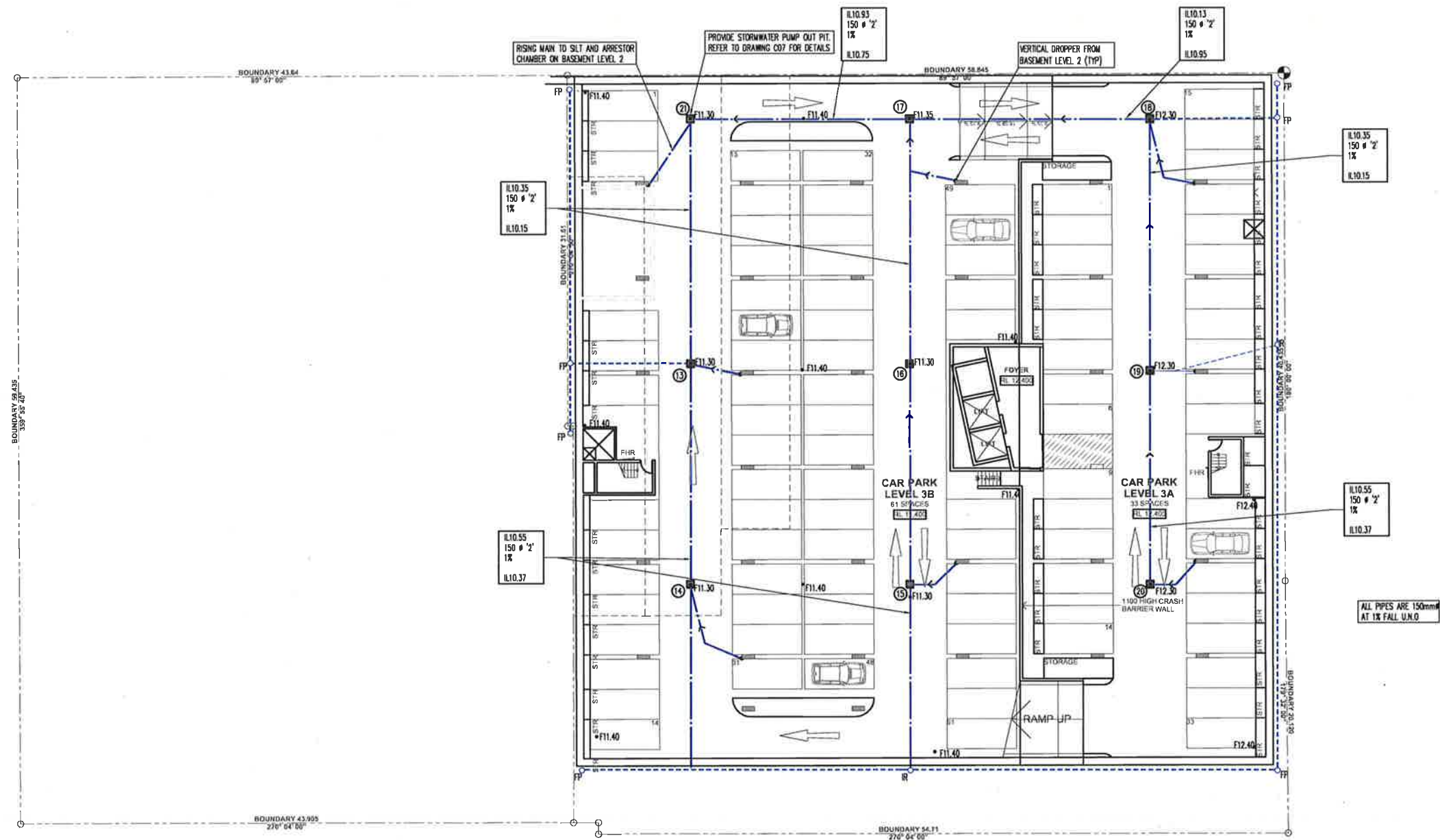
Architect
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Project
1460 PINNACLE RESIDENTIAL DEVELOPMENT
LOT 102 DP 88695
21-23 MANN STREET
GOSFORD 2250

Sheet Subject
**STORMWATER PLAN
BASEMENT LEVEL 2**

Scale : A1 1:200	Drawn WW	Authorised
Job No 141509	Drawing No C03	Revision P2
Plot File Created: Nov 13, 2014 - 11:25am		



File Name: C04.dwg - User: jenny - Plot File Created: Mon 13, 2014 - 11:01am

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P2	FOR APPROVAL	NB	JW	13.11.14										
P1	FOR APPROVAL	NB	TB	28.08.14										

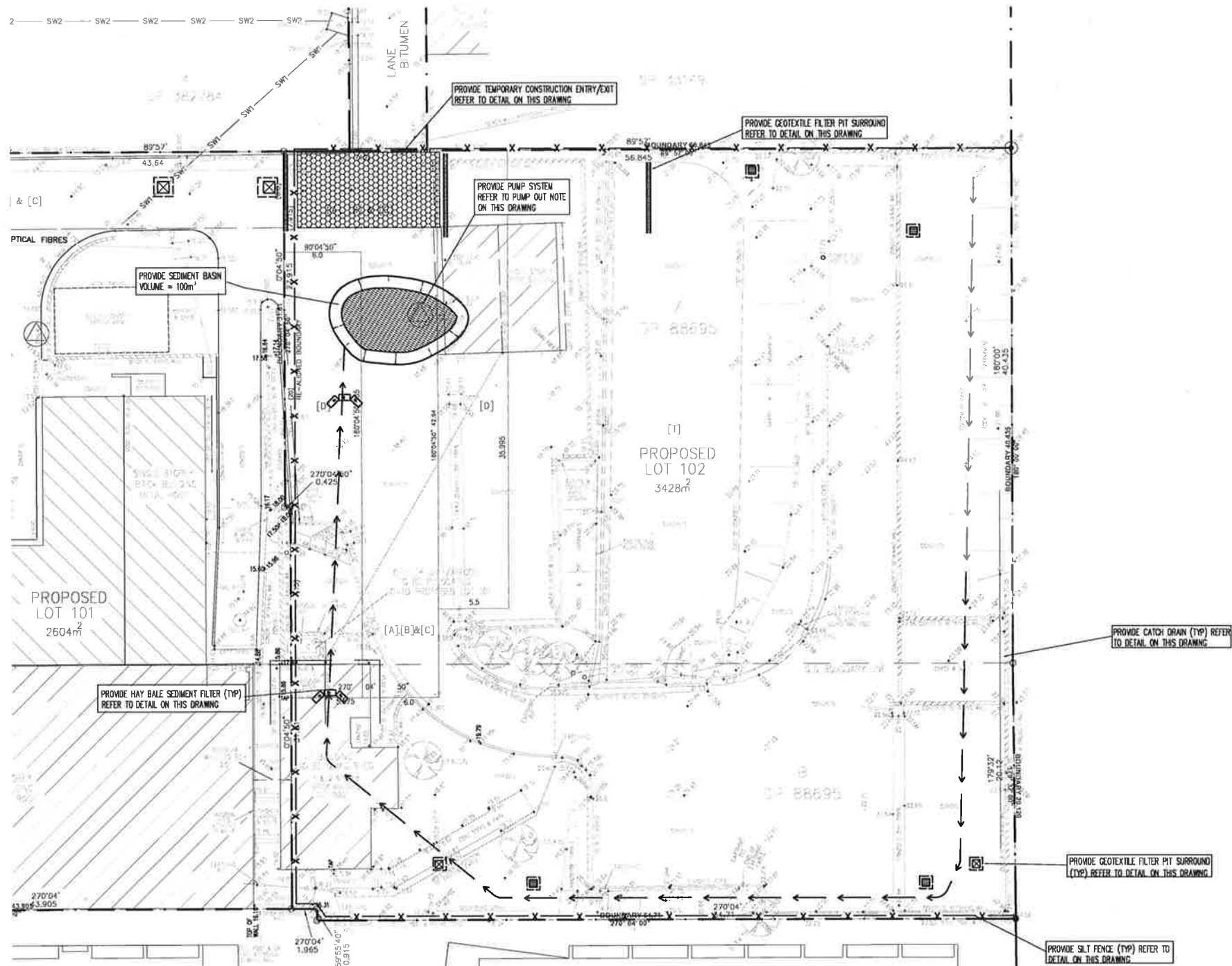
Architect
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Project
1460 PINNACLE RESIDENTIAL DEVELOPMENT
LOT 102 DP 88665
21-23 MANN STREET
GOSFORD 2250

Sheet Subject
**STORMWATER PLAN
BASEMENT LEVEL 3**

Scale: A1 1:200	Drawn WW	Authorised
Job No 141509	Drawing No C04	Revision P2
Plot File Created: Mon 13, 2014 - 11:01am		

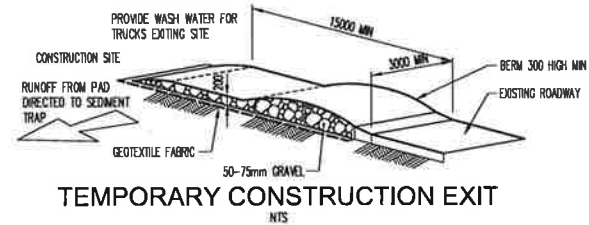


EROSION AND SEDIMENT CONTROL NOTES

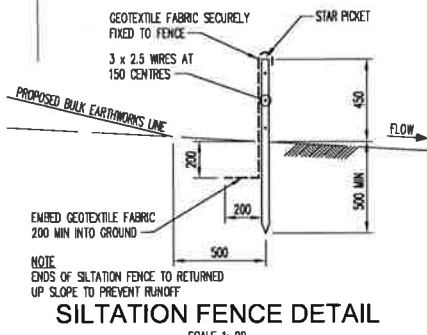
- All work shall be generally carried out in accordance with:
(A) Local authority requirements,
(B) EPA - Pollution control manual for urban stormwater,
(C) LANDCOM NSW - Managing Urban Stormwater: Soils and Construction ("Blue Book").
- Erosion and sediment control drawings and notes are provided for the whole of the works. Should the Contractor slope these works then the design may be required to be modified. Variation to these details may require approval by the relevant authorities. The erosion and sediment control plan shall be implemented and adapted to meet the varying situations as work on site progresses.
- Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
- When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
- Minimise the area of site being disturbed at any one time.
- Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
- All soil and water control measures are to be put back in place at the end of each working day, and modified to best suit site conditions.
- Control water from upstream of the site such that it does not enter the disturbed site.
- All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
- All vehicles leaving the site shall be cleaned and inspected before leaving.
- Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
- Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

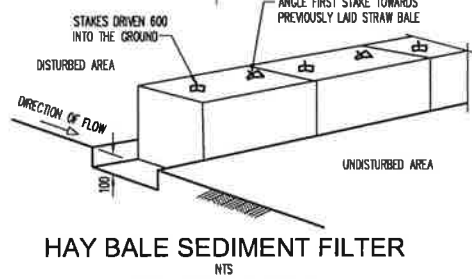
- Prior to commencement of excavation the following soil management devices must be installed.
 - Construct silt fences below the site and across all potential runoff sites.
 - Construct temporary construction entry/exit and divert runoff to suitable control systems.
 - Construct measures to divert upstream flows into existing stormwater system.
 - Construct sedimentation traps/basin including outlet control and overflow.
 - Construct turf lined swales.
 - Provide sandbag sediment traps upstream of existing pits.
- Construct geotextile filter pit surround around all proposed pits as they are constructed.
- On completion of pavement provide sand bag kerb inlet sediment traps around pits.
- Provide and maintain a strip of turf on both sides of all roads after the construction of kerbs.



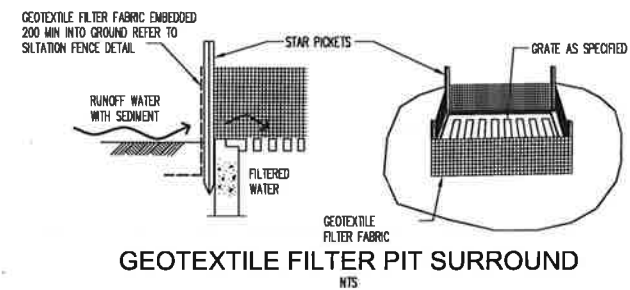
TEMPORARY CONSTRUCTION EXIT
NTS



SILTATION FENCE DETAIL
SCALE 1: 20



HAY BALE SEDIMENT FILTER
NTS



GEOTEXTILE FILTER PIT SURROUND
NTS

TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 20

Taylor Thomson Whitting (NSW) Pty Ltd
P2 FOR APPROVAL
P1 FOR APPROVAL
Rev Description
Eng Draft Date
Rev Description
Eng Draft Date
Rev Description
Eng Draft Date

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P2	FOR APPROVAL	NB	JW	13.11.14										
P1	FOR APPROVAL	NB	TB	28.08.14										

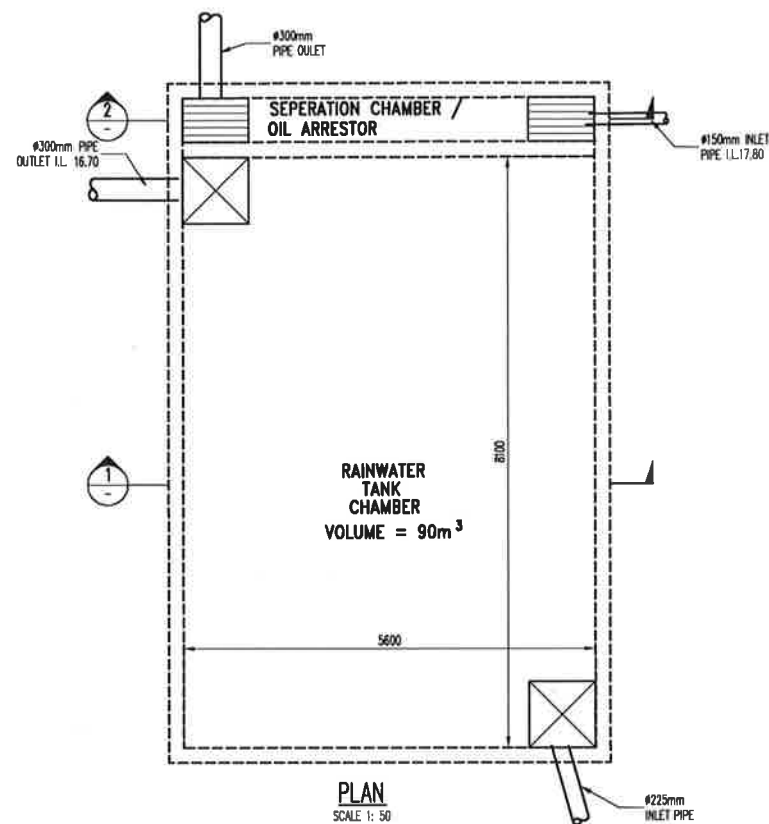
Architect
CKDS ARCHITECTURE

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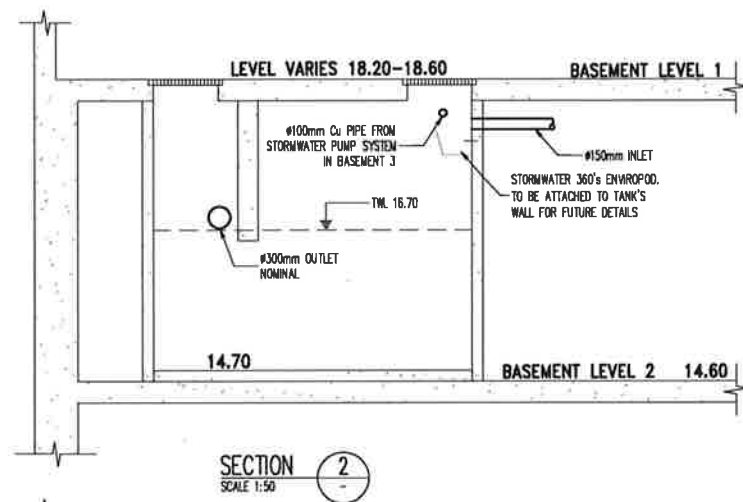
Project
1460 PINNACLE RESIDENTIAL DEVELOPMENT
LOT 102 DP 88895
21-23 MANN STREET
GOSFORD 2250

Sheet Subject
EROSION AND SEDIMENT CONTROL PLAN

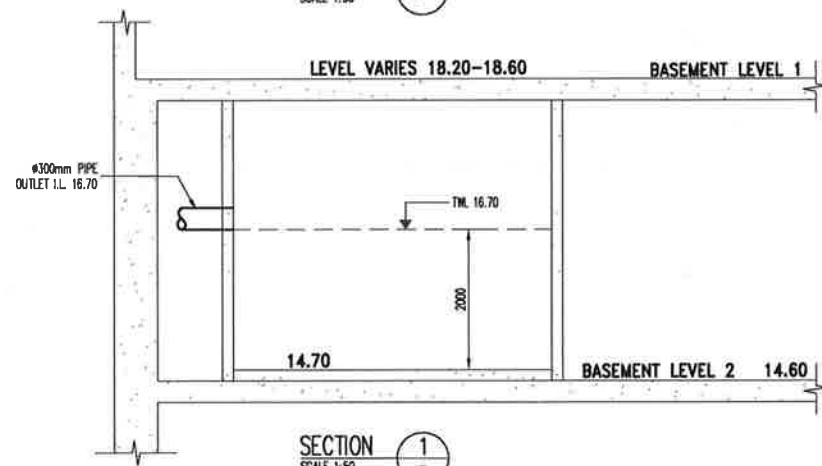
Scale: A1
1:200
Job No
141509
Drawing No
C05
Revision
P2
Plot File Created: Nov 13, 2014 - 11:04am



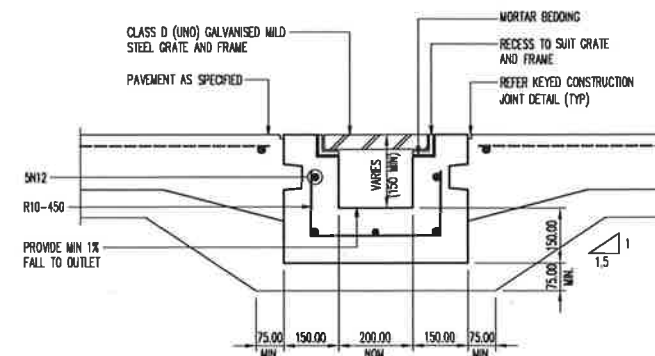
PLAN
SCALE 1: 50



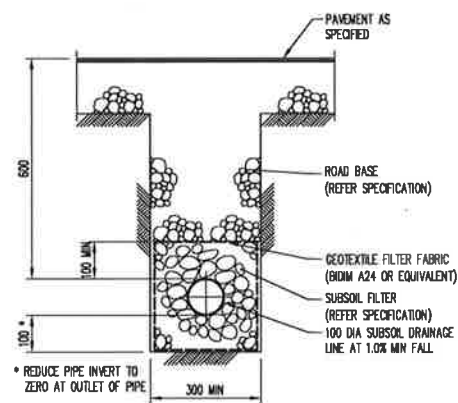
SECTION 2
SCALE 1: 50



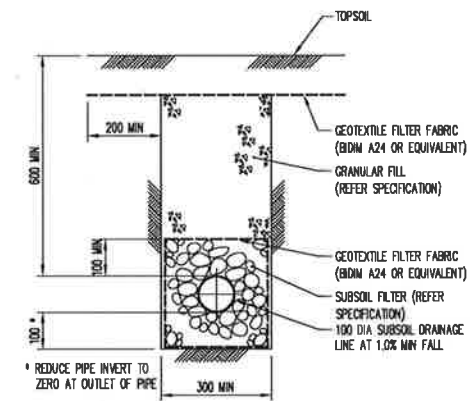
SECTION 1
SCALE 1: 50



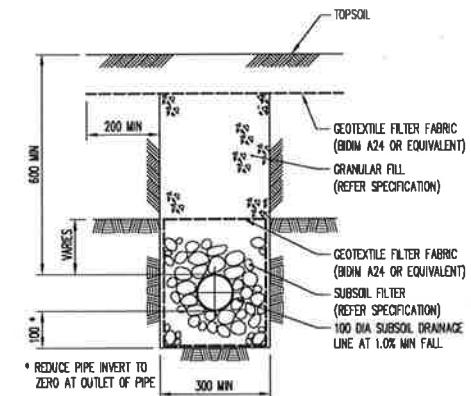
GRADED DRAIN TYPE B (GDB)
SCALE 1: 10



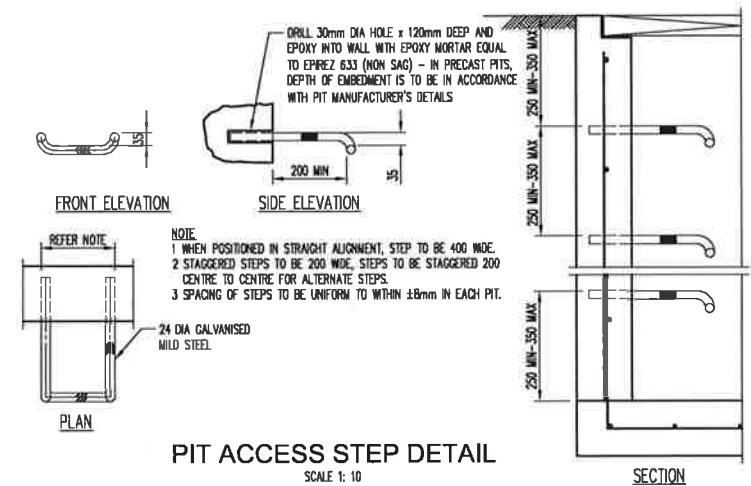
SUBSOIL IN PAVED AREAS
SCALE 1: 10



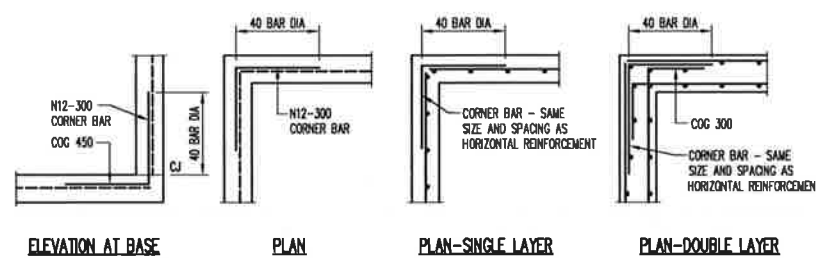
SUBSOIL IN LANDSCAPED AREAS
SCALE 1: 10



SUBSOIL IN ROCK
SCALE 1: 10



PIT ACCESS STEP DETAIL
SCALE 1: 10



PIT CORNER DETAILS
SCALE 1: 20

Reference: C08.dwg - US3D: Jmwp - Plot File Created: Nov 13, 2014 - 12:03pm

A1			Architect			Project			Sheet Subject			Scale: A1		
			CKDS ARCHITECTURE			1460 PINNACLE RESIDENTIAL DEVELOPMENT			DETAILS SHEET 1			Drawn		
P2 FOR APPROVAL						LOT 102 DP 88695			Job No			Drawing No		
P1 FOR APPROVAL						21-23 MANN STREET			141509			C06		
Rev Description			Eng Draft Date			GOSFORD 2250			Revision			P2		
						Taylor Thomson Whitting (NSW) Pty Ltd A/CN 113 378 317			Plot File Created: Nov 13, 2014 - 12:03pm					

