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DRAWING LIST

DRAWING NO.	DRAWING NAME	REVISION
DA 000	COVER SHEET	A
DA 001	SITE PLAN	A
DA 002	SITE ANALYSIS PLAN	A
DA 003	DEMOLITION PLAN	A
DA 004	COMPLIANCE TABLE	A
DA 100	BASEMENT 2 FLOOR PLAN	A
DA 101	BASEMENT 1 FLOOR PLAN	A
DA 102	GROUND FLOOR PLAN	A
DA 103	LEVEL 01 FLOOR PLAN	A
DA 104	LEVEL 02 FLOOR PLAN	A
DA 105	LEVEL 03 FLOOR PLAN	A
DA 106	LEVEL 04 FLOOR PLAN	A
DA 107	LEVEL 05 FLOOR PLAN	A
DA 108	ROOF TERRACE LEVEL PLAN	A
DA 200	NORTH AND SOUTH ELEVATION	A
DA 201	EAST AND WEST ELEVATION	A
DA 300	SECTION A	A
DA 301	SECTIONS 2	A
DA 600	SHADOW DIAGRAMS	A
DA 700	GFA CALCULATION	A
DA 701	SOLAR ACCESS PLAN	A
DA 702	VENTILATION DIAGRAMS	A
DA 710	PHOTOMONTAGE	A
DA 730	FINISHES SCHEDULE	A

3D OVERALL VIEW



[Insert 3D view here]

Rev.	Date	Description
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 Nominated Architect: Jacob Yammine 8395, ABN 79 097 830 754

Drawing Title
COVER SHEET

DA SUBMISSION		
Job no.	Drawing no.	Rev.
J16374D	DA 000	A
Drawn by	Checked by	Date
SS	JY	OCT 2016

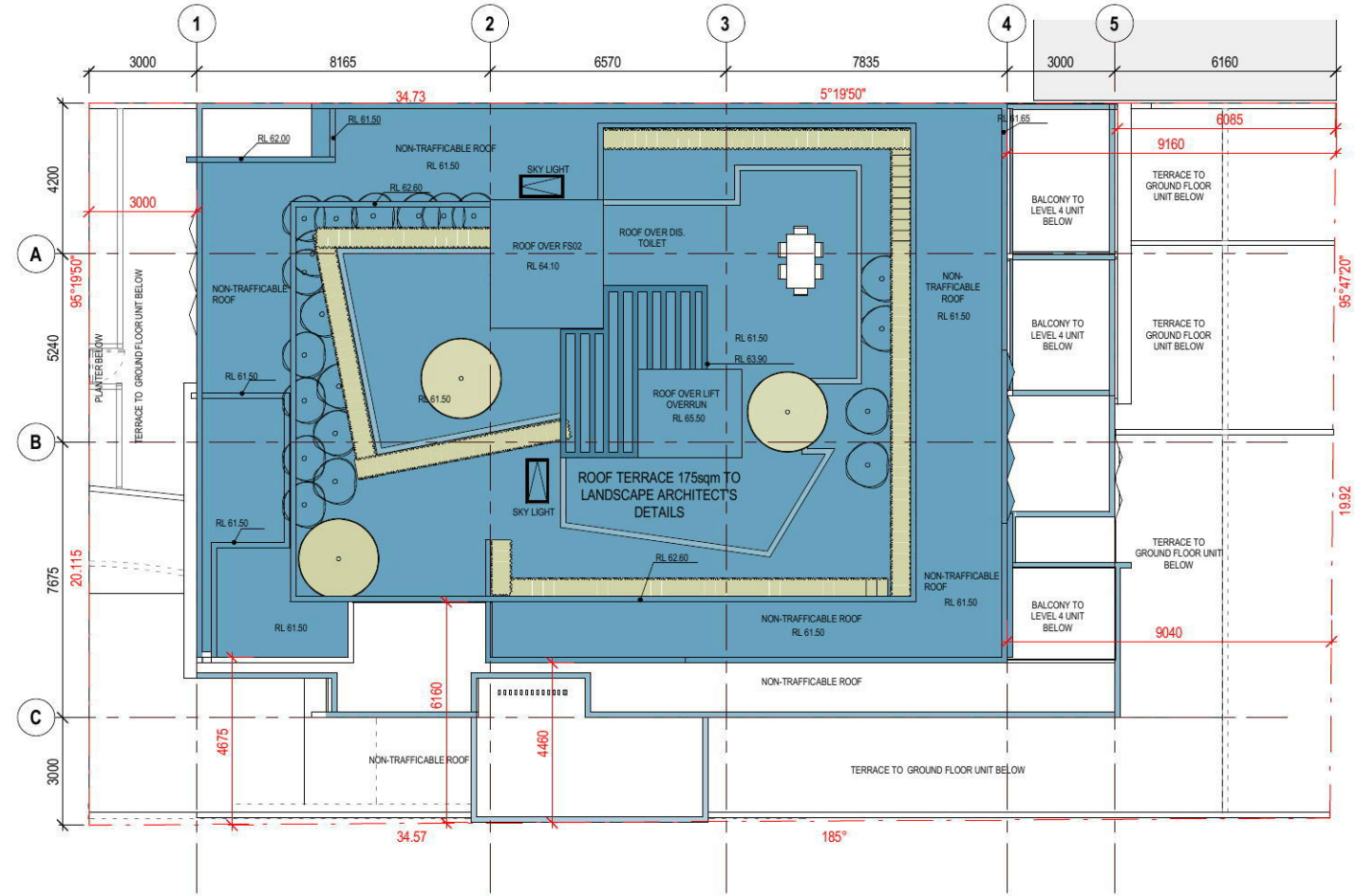
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT, KINGSWOOD

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Scale
 m 0 2 4 6 8
 1:200 at A3 1:100 at A1

1 SITE PLAN
 1:200

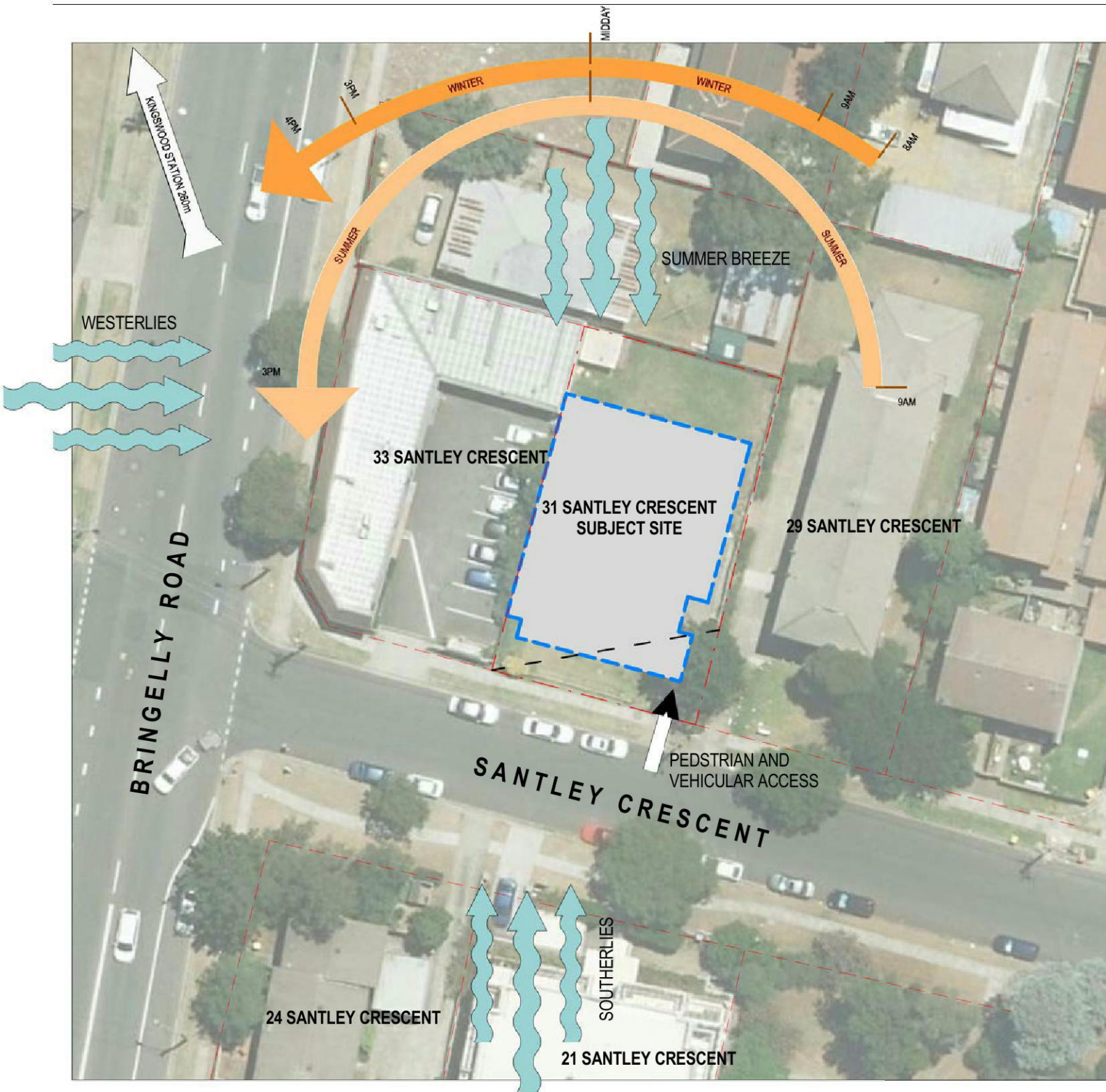
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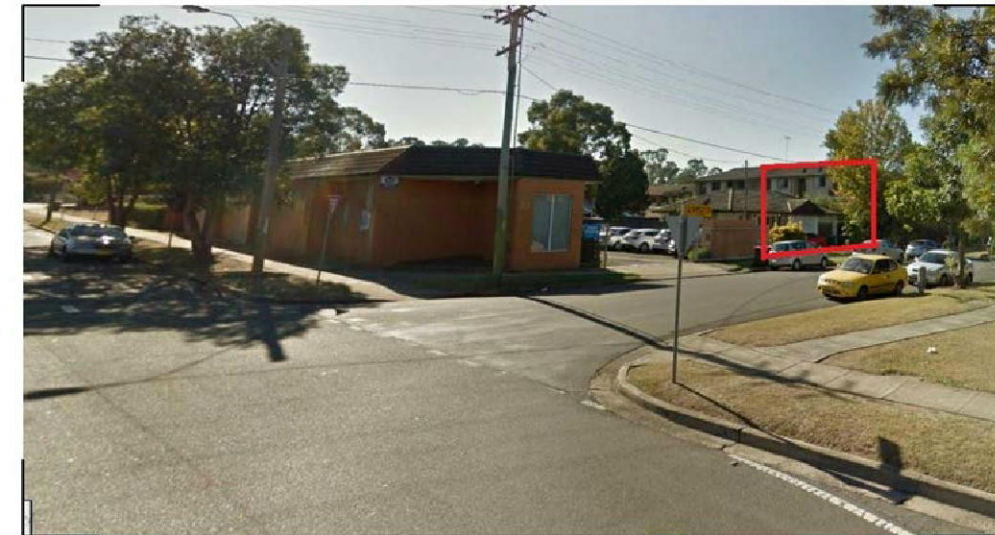
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PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
SITE PLAN

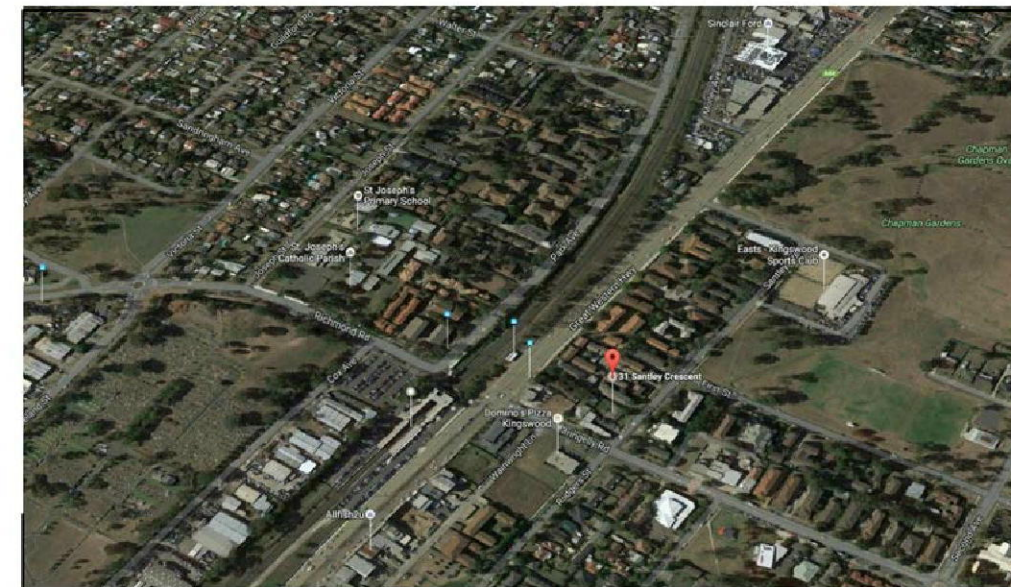
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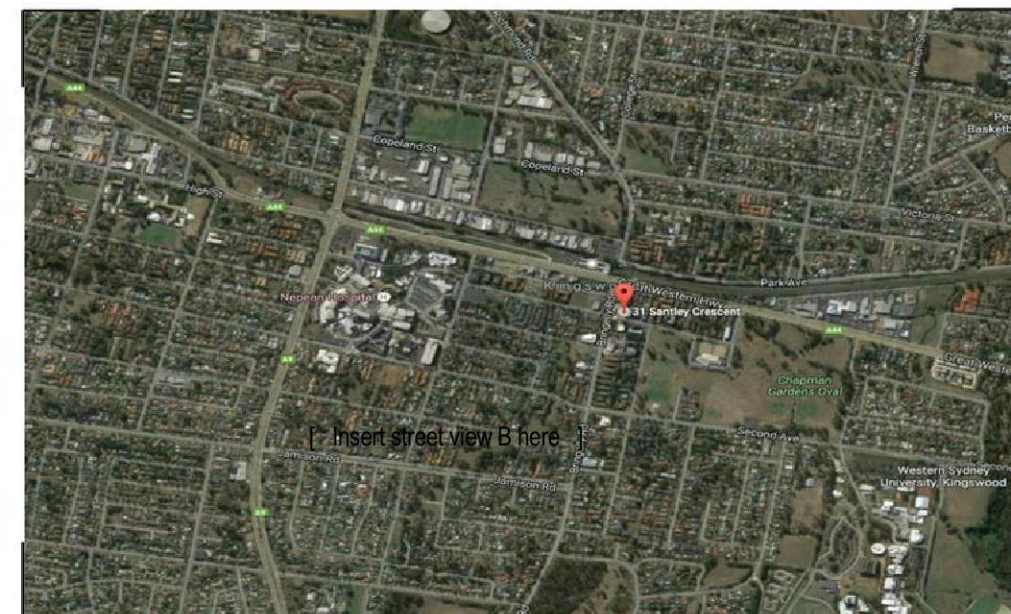
SITE ANALYSIS



2 STREET VIEW - AT THE INTERSECTION OF BRINGELLY RD AND SANTLEY CR



3 3D VIEW OF THE LOCALITY



4 ARIAL VIEW

REFERENCES

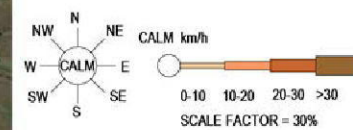
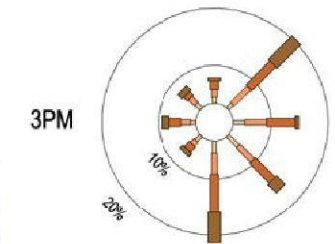
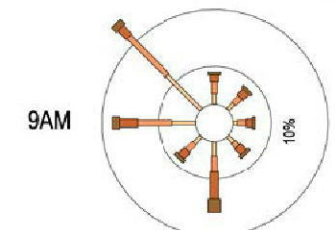
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WIND SPEED & WIND ROSE (ANNUAL)



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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
Drawing Title
SITE ANALYSIS PLAN

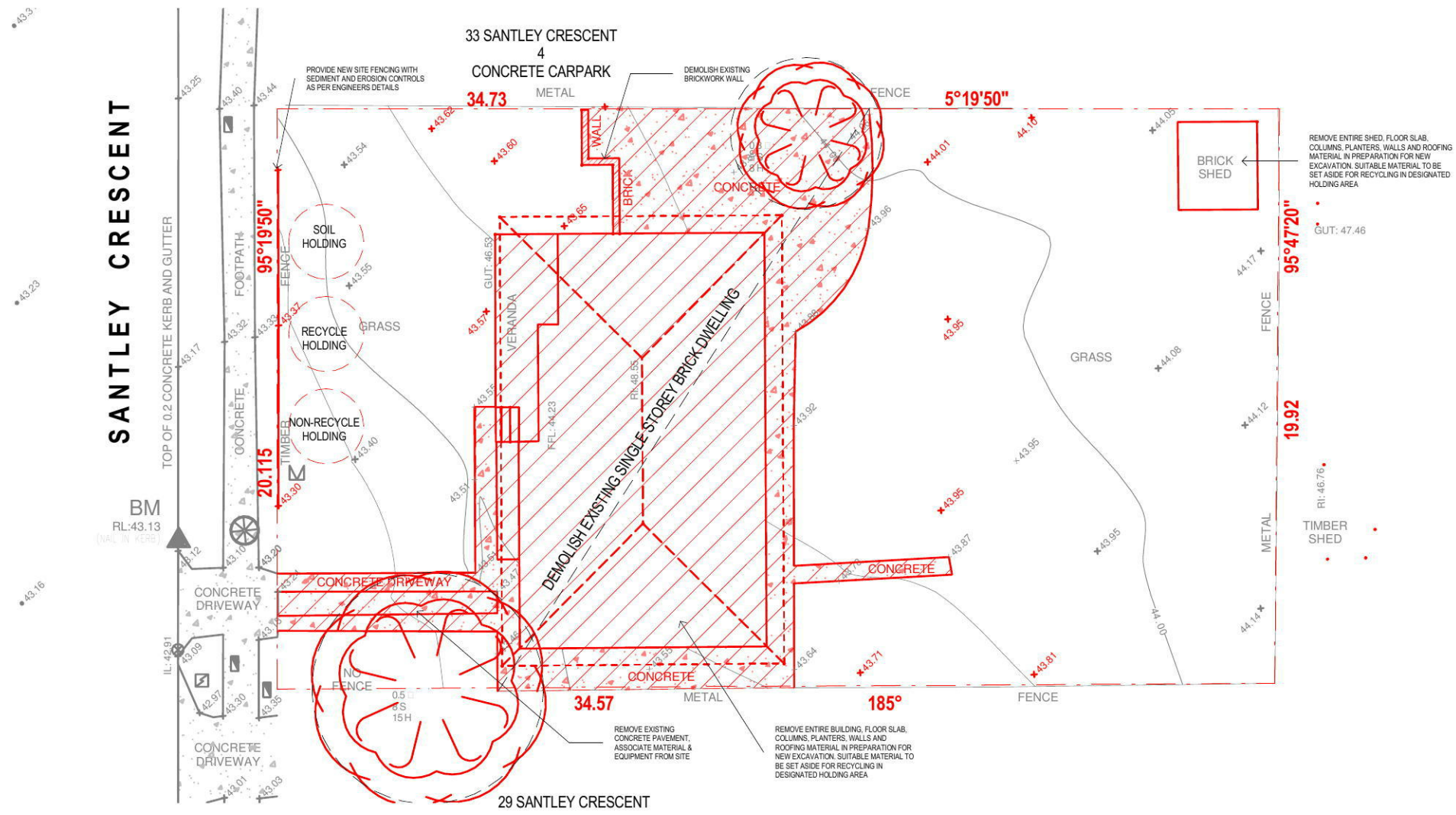
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J16374D	DA 002	A
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SANTLEY CRESCENT

BM
RL:43.13
(VAL IN KERB)

CONCRETE DRIVEWAY

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1 DEMOLITION PLAN
1:200

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Scale
m 0 2 4 6 8
1:200 at A3 1:100 at A1

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PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
DEMOLITION PLAN

DA SUBMISSION			
Job no.	Drawing no.	Rev.	
J16374D	DA 003	A	
Drawn by	Checked by	Approved by	Date
SM	JY	Approver	OCT 2016

UNIT DATA												
UNIT NUMBER	NET AREA	BALCONY (TOTAL)	TOTAL AREA	ROOM TYPE	SOLAR ACCESS	VENTILATION	SINGLE ASPECT	SOUTH ASPECT	UNIVERSAL DESIGN	UNIT STORAGE	ADDITIONAL STORAGE	TOTAL STORAGE
Ground Level												
UNIT G01	91 m ²	28m ²	125m ²	2 BED			Yes	Yes	No	3.6m ³	4.5m ³	8.1m ³
UNIT G02	52 m ²	20m ²	72m ²	STUDIO	2Hrs		Yes	No	No	3.4m ³	4.5m ³	7.9m ³
UNIT G03	56 m ²	21m ²	77m ²	1 BED	2Hrs		Yes	No	No	2.3m ³	6.1m ³	8.4m ³
UNIT G04	75 m ²	96m ²	173m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	1.62m ³	8.0m ³	9.6m ³
Level 1												
UNIT 101 (ADAPTABLE)	77 m ²	11m ²	88m ²	2 BED	NONE	VENTILATED UNIT	No	No	Yes	4.5m ³	4.5m ³	9.0m ³
UNIT 102 (LIVABLE)	96 m ²	12m ²	108m ²	3 BED	2Hrs	VENTILATED UNIT	No	No	Yes		10.0m ³	10.0m ³
UNIT 103	77 m ²	10m ²	87m ²	2 BED	2Hrs		Yes	No	No	1.06m ³	8.0m ³	9.0m ³
UNIT 104	76 m ²	10m ²	86m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	3.4m ³	4.6m ³	8.0m ³
Level 2												
UNIT 201 (ADAPTABLE)	77 m ²	11m ²	88m ²	2 BED	NONE	VENTILATED UNIT	No	No	Yes	4.5m ³	4.6m ³	9.0m ³
UNIT 202 (LIVABLE)	96 m ²	12m ²	108m ²	3 BED	2Hrs	VENTILATED UNIT	No	No	Yes		10.0m ³	10.0m ³
UNIT 203	77 m ²	10m ²	87m ²	2 BED	2Hrs		Yes	No	No	1.06m ³	8.0m ³	9.0m ³
UNIT 204	76 m ²	10m ²	86m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	3.4m ³	5.1m ³	8.2m ³
Level 3												
UNIT 301 (ADAPTABLE)	77 m ²	11m ²	88m ²	2 BED	NONE	VENTILATED UNIT	No	No	Yes	4.5m ³	4.5m ³	9.0m ³
UNIT 302 (LIVABLE)	96 m ²	12m ²	108m ²	3 BED	2Hrs	VENTILATED UNIT	No	No	Yes		10.0m ³	10.0m ³
UNIT 303	77 m ²	10m ²	87m ²	2 BED	2Hrs		Yes	No	No	1.06m ³	8.0m ³	9.0m ³
UNIT 304	76 m ²	10m ²	86m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	3.4m ³	5.0m ³	8.4m ³
Level 4												
UNIT 401	76 m ²	11m ²	87m ²	2 BED			No	No	No	3.1m ³	5.1m ³	8.2m ³
UNIT 402	84 m ²	14m ²	98m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	3.4m ³	6.0m ³	9.4m ³
UNIT 403	33 m ²	11m ²	75m ²	1 BED	2Hrs	VENTILATED UNIT	Yes	No	No	13.7m ³		13.7m ³
UNIT 404	77 m ²	17m ²	94m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No		8.0m ³	8.0m ³
Level 5												
UNIT 503	31 m ²		75m ²	1 BED	2Hrs	VENTILATED UNIT	Yes	No	No	13.7m ³		13.7m ³
UNIT 501	76 m ²	11m ²	87m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	3.1m ³	5.1m ³	8.2m ³
UNIT 502	77 m ²	10m ²	87m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No	3.4m ³	5.0m ³	8.4m ³
UNIT 503	77 m ²	10m ²	87m ²	2 BED	2Hrs	VENTILATED UNIT	No	No	No		8.0m ³	8.0m ³

AREA CALCULATIONS - FLOOR SPACE RATIO

(ZONE B4 MIXED USE)	B4
SITE AREA	693.0m ²
PERMISSIBLE FLOOR SPACE RATIO	3:1
PERMISSIBLE GFA	2070.0m ²
PROPOSED FLOOR SPACE RATIO	2.82:1
PROPOSED GFA	1958.0m ²

WASTE CALCULATION

WASTE GENERATION VOLUME	BINS REQUIRED	BINS PROVIDED
RESIDENTIAL (23 UNITS)		
WASTE 240L/2 DWELLINGS	11.5 BINS	12 BINS
RECYCLE 240L/2 DWELLINGS	11.5 BINS	12 BINS
PROPOSED TOTAL	24 BINS	

■ GENERAL WASTE BIN
 ■ RECYCLE BIN

CAR PARKING SCHEDULE

BASED ON RMS PARKING RATES (METROPOLITAN REGIONAL CENTRE)

UNITS	RATE	REQUIRED	PROPOSED
RESIDENTIAL (23 UNITS)			
1 BED (3)	0.4 SPACE / 1 UNIT	1.2	1
2 BED (16)	0.7 SPACE / 1 UNIT	11.2	12
3 BED (4)	1.2 SPACES / 1 UNIT	4.8	5
VISITORS	1 SPACE / 7 UNITS	3.2	4
TOTAL		20.4	22

BICYCLE SCHEDULE

UNITS	RATE	REQUIRED	PROPOSED
RESIDENTIAL (23 UNITS)	20-30% OF UNITS	4.6	4.6
VISITORS (23 UNITS)	5-10% OF UNITS	1.15	1.15
TOTAL		5.75	6

Area Schedule (Gross Building)	
Level	Area
Ground Level	336 m ²
Level 1	357 m ²
Level 2	347 m ²
Level 3	344 m ²
Level 4	295 m ²
Level 5	278 m ²
Grand total: 6	1958 m ²

SEPP 65 Apartment Design Guide (ADG) Compliance Table

ADG RULES OF THUMB	%	DESCRIPTION	TARGET	PROPOSED	COMPLY
Overall Sunlight Access to Living Rooms & Private Open Space	70%	70% min. 2 hours direct sunlight between 9 am and 3 pm at mid-winter Sydney Metropolitan Area and in the Newcastle and Wollongong LGA	16 apartments out of 23	17 out of 23 units (73%) receiving 2 hours of solar access	Yes ✓
Natural Cross Ventilation	60%	60% of units should be naturally cross ventilated Units at 10 storeys and above with balcony which allows adequate natural ventilation: Wollongong LGA Deemed to be cross ventilated LGA Cross-Over & Cross-Through units: Maximum 18m depth	14 apartments out of 23	16 out of 23 units (69.5%)	Yes ✓
South Aspect Units	15%	Maximum 15% no direct sunlight between 9 am and 3 pm at mid-winter	3 apartments out of 23	2 out of 23 units (8.6%)	Yes ✓
Accessibility	20%	Min. 20% of units require incorporating the Livable Housing Guideline's silver level universal design features	4.6 apartments out of 23	6 out of 23 units (26.0%)	Yes ✓
Minimum Apartment Sizes	100%	Studio 35m ² 1 Bed 50m ² 2 Bed 70m ² + 5m ² per extra bath 3 Bed 90m ² + 5m ² per extra bath	To Comply	Studio ≥ 35 m ² 1 Bed ≥ 50 m ² 2 Bed ≥ 70 m ² 3 Bed ≥ 95 m ²	Yes ✓
Habitable room depths	-	Maximum 2.5 x the ceiling height Open plan layouts: 6m from a window	Max. 8m	Max. 8m	Yes ✓
Living rooms internal width	100%	Studio and 1 Bed units 3.6m 2 Bed and 3 Bed units 4.0m Cross-Over/Through units 4.0m	To Comply	All living rooms internal width comply	Yes ✓
Bedroom Dimension/Area (excluding wardrobe)	100%	Min. Dimension 3.0m Master Bed Minimum Area 10m ² Other Bed(s) Minimum Area 9.0m ²	To Comply	All bedrooms dimension/ Area comply	Yes ✓
Minimum Ceiling Heights	100%	Habitable rooms: 2.7m Non-habitable rooms: 2.4m Mixed use Ground Floor: 3.3m	min. 2.7m min. 2.4m min. 3.3m	All Ceiling Heights comply	Yes ✓
Primary Balcony/Private Open Space Minimum Area & Dimension	100%	Studio 4.0m ² 1 Bed 8.0m ² (min. 2m Dimension) 2 Bed 10.0m ² (min. 2m Dimension) 3+ Bed 12.0m ² (min. 2.4m Dimension) Private Open Space on Ground Floor or on a podium 15.0m ² (min. 3.0m Dimension) Min. Balcony depth as contributing to the balcony area 1m	All balconies and P.O.S. to be provided with min requirements	All balconies and P.O.S. have been provided with min requirements	Yes ✓
Minimum Storage Requirements	-	Studio 4.0m ³ 1 Bed 6.0m ³ 2 Bed 8.0m ³ 3 Bed 10.0m ³	Min. 50% inside of Unit min. 4.0m ³ min. 6.0m ³ min. 8.0m ³ min. 10.0m ³	refer to the storage schedule on plan	Yes ✓
Common circulation	-	Max. units off a circulation core on a single level 8 Units /Core Proffered 12 Units/Core Max. Min. units sharing a single lift for building 10 storeys and over 40 Units per Lift	8 Units. 40 units	Max 4 Units. / Core N/A	Yes ✓
Building Depth	-	Max. 18m Building Depth Glass line to Glass Line 12m hab. and hab. (6m to side & rear boundary)	12-18m Pref.	All rooms, comply with ADG amenity	Partially ✓
Building Separation	-	Up to 4 storeys (approx. 12m): 9m hab. and non-hab. 6m non-hab rooms. (3m to side & rear boundary) 5 to 8 storeys (approx. 25m): 18m hab. and hab. (9m to side & rear boundary) 12m hab. and non-hab. 9m non-hab rooms. (4.5m to side & rear boundary) 9 storeys and above (over 25m): 24m hab. and hab. (12m to side & rear boundary) 18m hab. and non-hab. 12m non-hab rooms. (6m to side & rear boundary) Lower density at next door: Additional 3m setback from the next door boundary	To Comply	Adequate building separation has been provided	Yes ✓
Deep Soil Zone	7%	7% of site area on site Minimum dimensions: Site area 650m - 1500m ² : 3m Site area > 1500m ² : 6m	Recommended DSZ = 48.5m ²	60m ² (8%) has been proposed as deep soil zone	Yes ✓
Communal Open Space (C.O.S.)	25%	25% of site area (50% of C.O.S. should receive sunlight access for a 2 hours between 9 am and 3 pm on 21 June)	Recommended COS = 173.2m ²	175m ² (25.25% of site area) has been proposed as communal open space on the roof top	Yes ✓
RMS Car parking rates are applied for development on sites:	-	Within 800m of a railway station or light rail stop in the Sydney Metropolitan Area On land zoned, and within 400m of land zoned, B3, B4 or equivalent in a nominated Regional Centre	Within 800m radius of railway station	Refer to the traffic and parking assessment report	Yes ✓

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Rev. Date Description

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Project

PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD

Drawing Title

COMPLIANCE TABLE

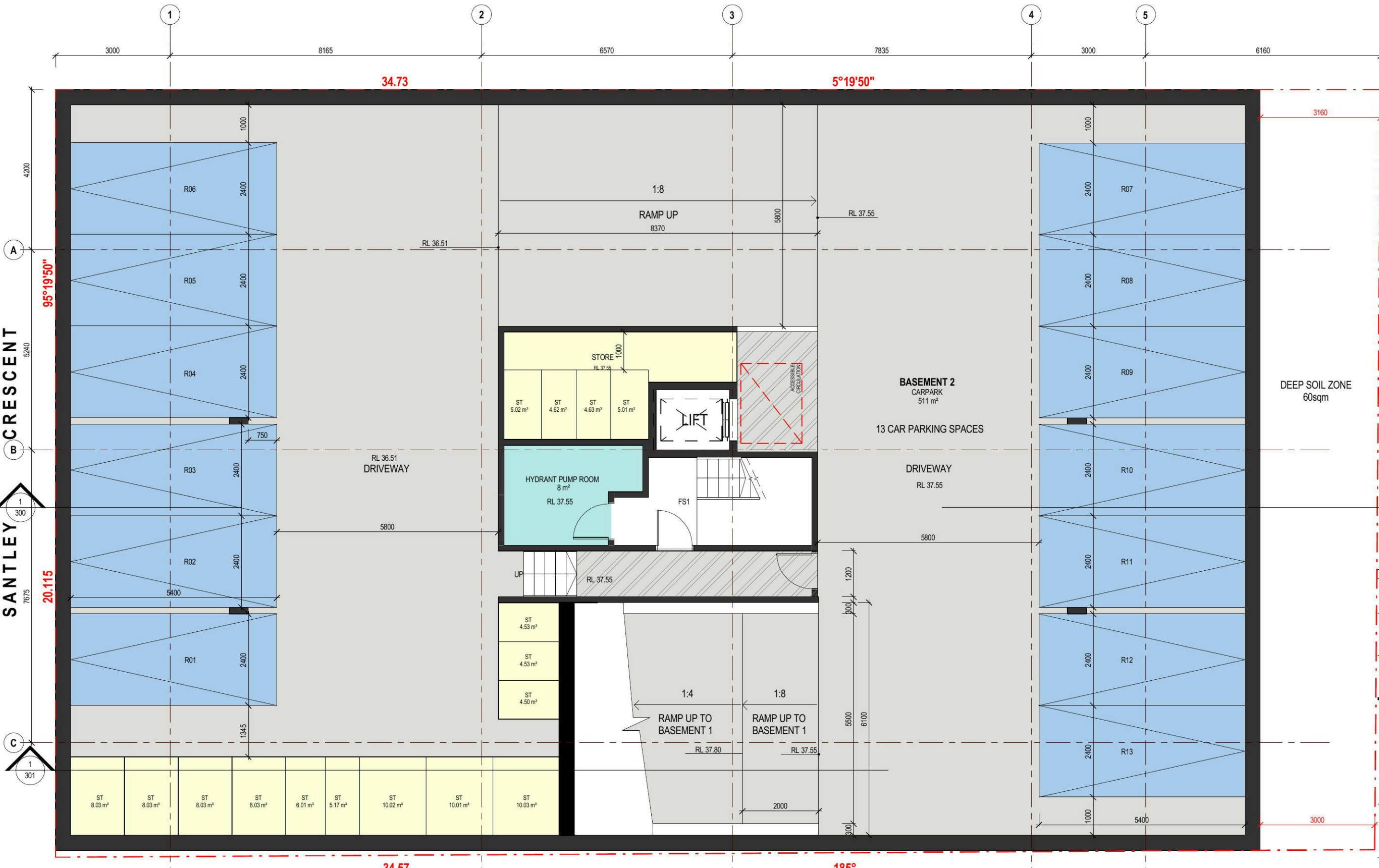
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Scale
 0 1 2 3 4
 1:100 at A3 1:50 at A1

Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
BASEMENT 2 FLOOR PLAN

DA SUBMISSION

Job no.	Drawing no.	Rev.
J16374D	DA 100	A

Drawn by	Checked by	Approved by	Date
SM	JY	Approver	OCT 2016

1 BASEMENT 2 FLOOR PLAN
 1 : 100

CAR PARKING SCHEDULE
 BASED ON RMS PARKING RATES (METROPOLITAN REGIONAL CENTRE)

UNITS	RATE	REQUIRED	PROPOSED
RESIDENTIAL (23 UNITS)			
1 BED (3)	0.4 SPACE / 1 UNIT	1.2	1
2 BED (16)	0.7 SPACE / 1 UNIT	11.2	12
3 BED (4)	1.2 SPACES / 1 UNIT	4.8	5
VISITORS	1 SPACE / 7 UNITS	3.2	4
TOTAL		20.4	22

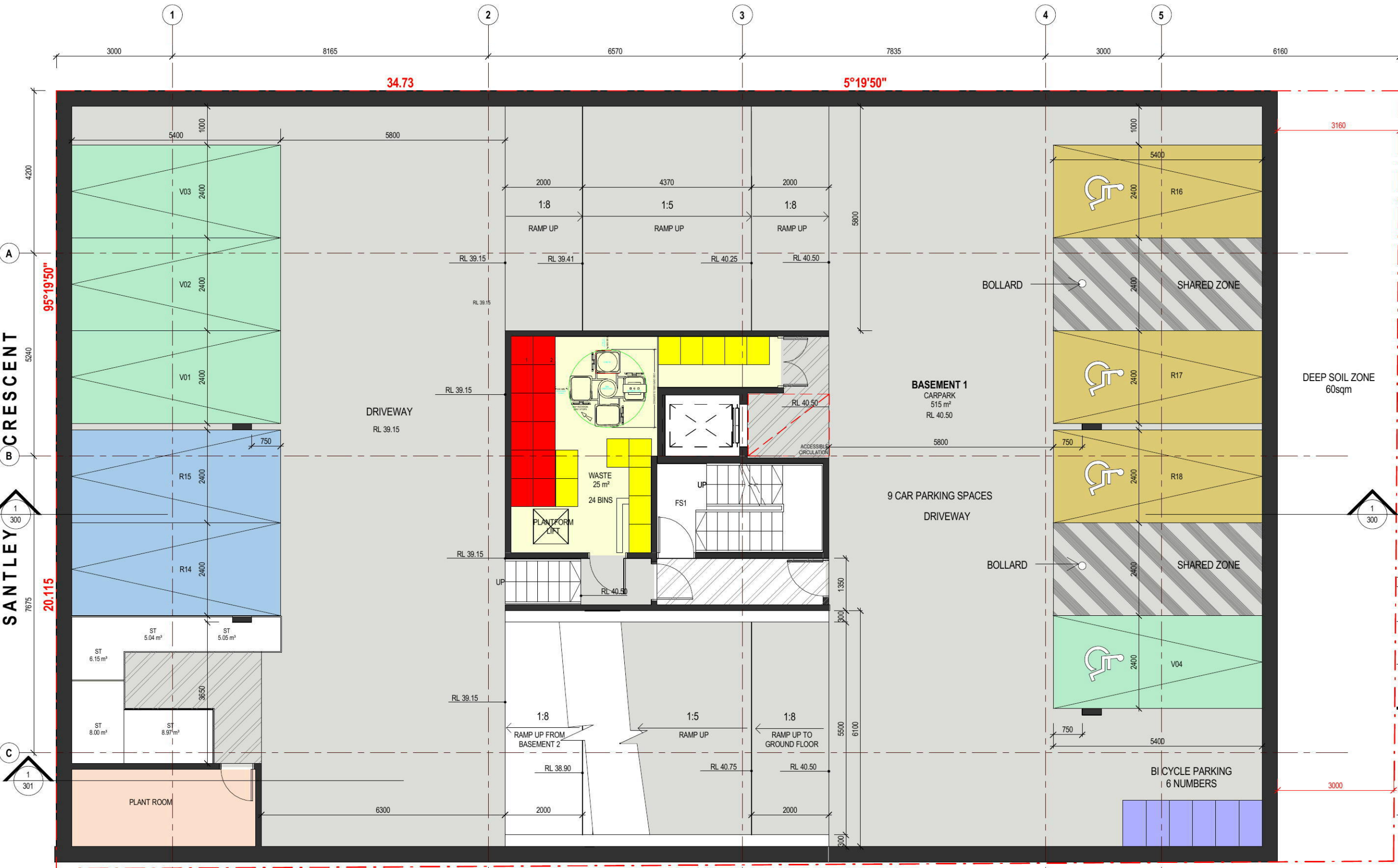
BICYCLE SCHEDULE
 For B4 Zone - Mixed Use

UNITS	RATE	REQUIRED	PROPOSED
RESIDENTIAL (23 UNITS)			
RESIDENTIAL (23 UNITS)	20-30% OF UNITS	4.6	4.6
VISITORS (23 UNITS)	5-10% OF UNITS	1.15	1.15
TOTAL		5.75	6

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1 BASEMENT 1 FLOOR PLAN

1 : 100 at A3

WASTE CALCULATION

WASTE GENERATION VOLUME	BINS REQUIRED	BINS PROVIDED
RESIDENTIAL (23 UNITS)		
WASTE 240L/2 DWELLINGS	11.5 BINS	12 BINS
RECYCLE 240L/2 DWELLINGS	11.5 BINS	12 BINS
PROPOSED TOTAL		24 BINS



CAR PARKING SCHEDULE
 BASED ON RMS PARKING RATES (METROPOLITAN REGIONAL CENTRE)

UNITS	RATE	REQUIRED	PROPOSED
RESIDENTIAL (23 UNITS)			
1 BED (3)	0.4 SPACE / 1 UNIT	1.2	1
2 BED (16)	0.7 SPACE / 1 UNIT	11.2	12
3 BED (4)	1.2 SPACES / 1 UNIT	4.8	5
VISITORS	1 SPACE / 7 UNITS	3.2	4
TOTAL		20.4	22

BICYCLE SCHEDULE
 For B4 Zone - Mixed Use

UNITS	RATE	REQUIRED	PROPOSED
RESIDENTIAL (23 UNITS)	20-30% OF UNITS	4.6	4.6
VISITORS (23 UNITS)	5-10% OF UNITS	1.15	1.15
TOTAL		5.75	6

Rev. Date Description

Rev.	Date	Description
A	24/11/16	DA SUBMISSION

Scale
 0 1 2 3 4
 1:100 at A3 1:50 at A1

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 SYDNEY NSW 2000
 P: 02 9267 2000
 W: www.cdarchitects.com.au

Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
BASEMENT 1 FLOOR PLAN

DA SUBMISSION

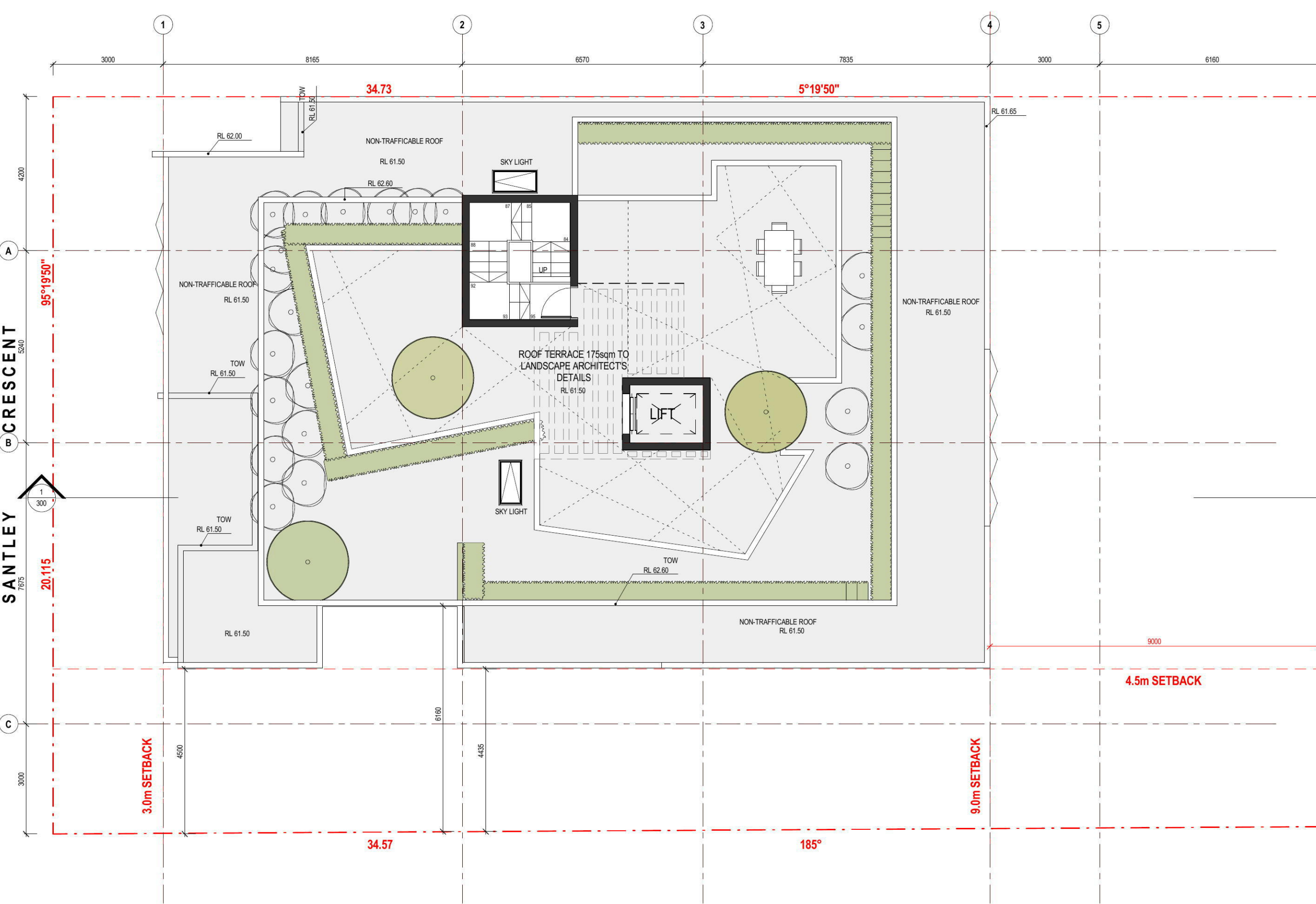
Job no.	Drawing no.	Rev.
J16374D	DA 101	A

Drawn by: SM
 Checked by: JY
 Approved by: Approver
 Date: OCT 2016

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NOTES
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Rev.	Date	Description
A	24/11/16	DA SUBMISSION

Scale
 m 1 2 3 4
 0 1:100 at A3 1:50 at A1

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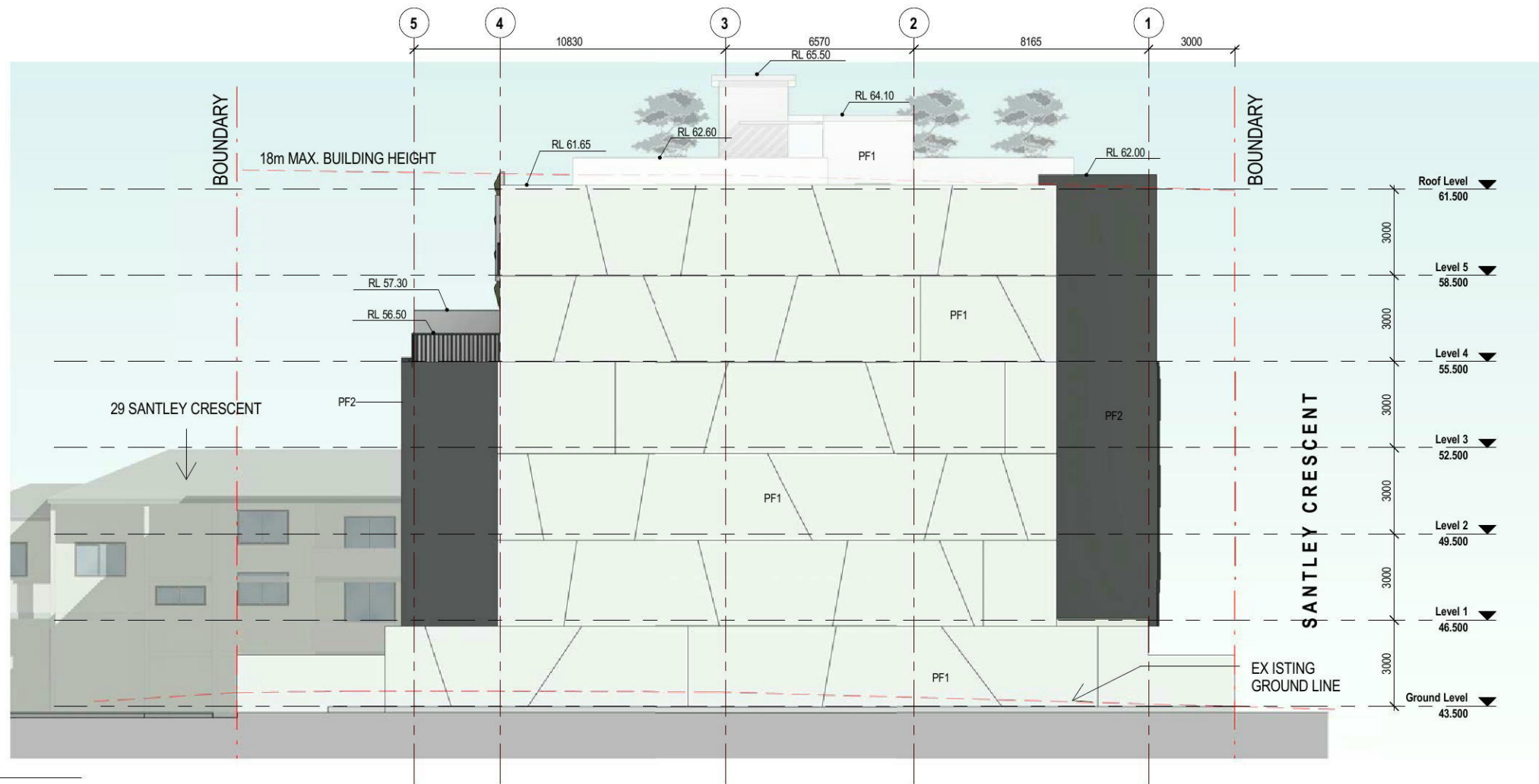
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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
ROOF TERRACE LEVEL PLAN

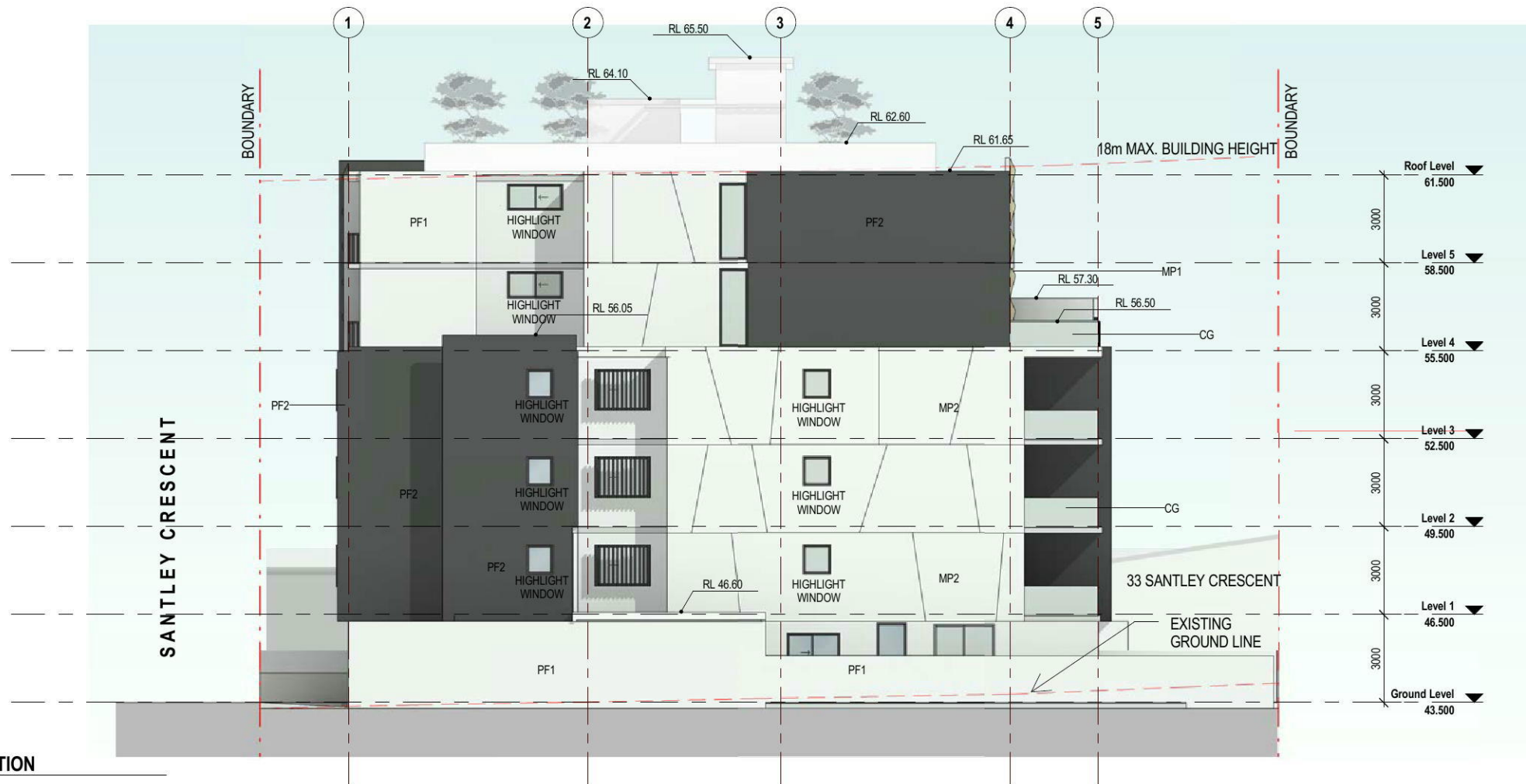
DA SUBMISSION		
Job no.	Drawing no.	Rev.
J16374D	DA 108	A
Drawn by	Checked by	Approved by
SM	JY	Approver
Date	OCT 2016	

1 ROOF LEVEL PLAN
 1 : 100



E1 WEST ELEVATION

1 : 200



E2 EAST ELEVATION

1 : 200

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MATERIAL LEGEND

AWD1	ALUMINIUM FRAME WINDOWS & DOORS - COLOUR 1
CG	CLEAR GLASS
MP1	METAL PANEL - VINTAGE BRUSH REYNOLUX
MP2	METAL PANEL - LIGHT GREY REYNOLUX
PF1	PAINT FINISH - DULUX OFF WHITE
PF1	XXXXXX
PF2	PAINT FINISH - DULUX CHARCOAL ESSENCE

A 24/11/16 DA SUBMISSION

Rev.	Date	Description

Scale
m 0 2 4 6 8
1:200 at A3 1:100 at A1

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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
Drawing Title
NORTH AND SOUTH ELEVATION

DA SUBMISSION

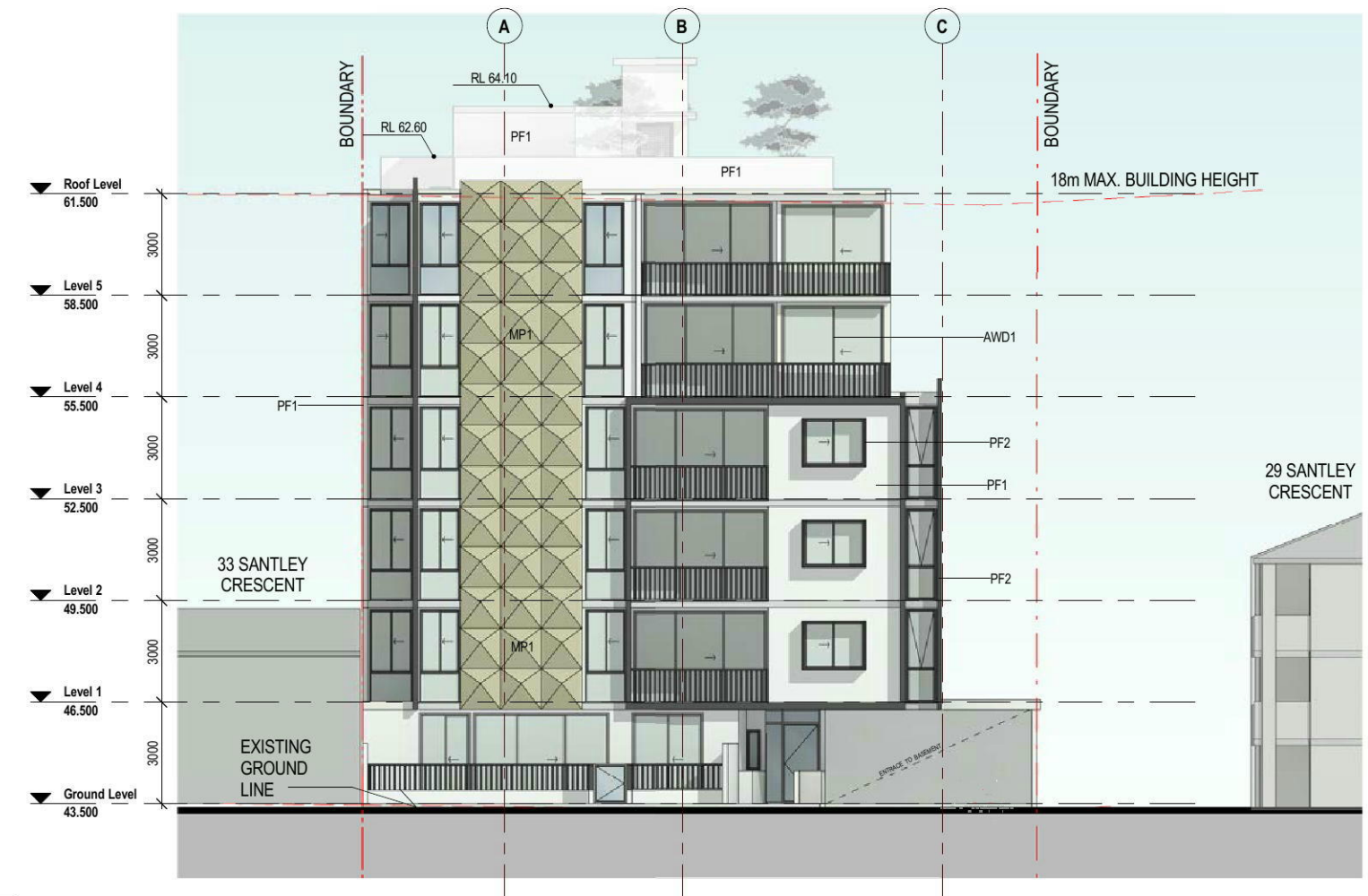
Job no.	Drawing no.	Rev.
J16374D	DA 200	A
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Date OCT 2016		

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E1 NORTH ELEVATION
 1:200



E2 SOUTH ELEVATION
 1:200

MATERIAL LEGEND

AWD1	ALUMINIUM FRAME WINDOWS & DOORS - COLOUR 1
CG	CLEAR GLASS
MP1	METAL PANEL - VINTAGE BRUSH REYNOLUX
MP2	METAL PANEL - LIGHT GREY REYNOLUX
PF1	PAINT FINISH - DULUX OFF WHITE
PF1	XXXXXX
PF2	PAINT FINISH - DULUX CHARCOAL ESSENCE

Rev.	Date	Description
A	24/11/16	DA SUBMISSION

Scale
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 1:200 at A3 1:100 at A1

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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
EAST AND WEST ELEVATION

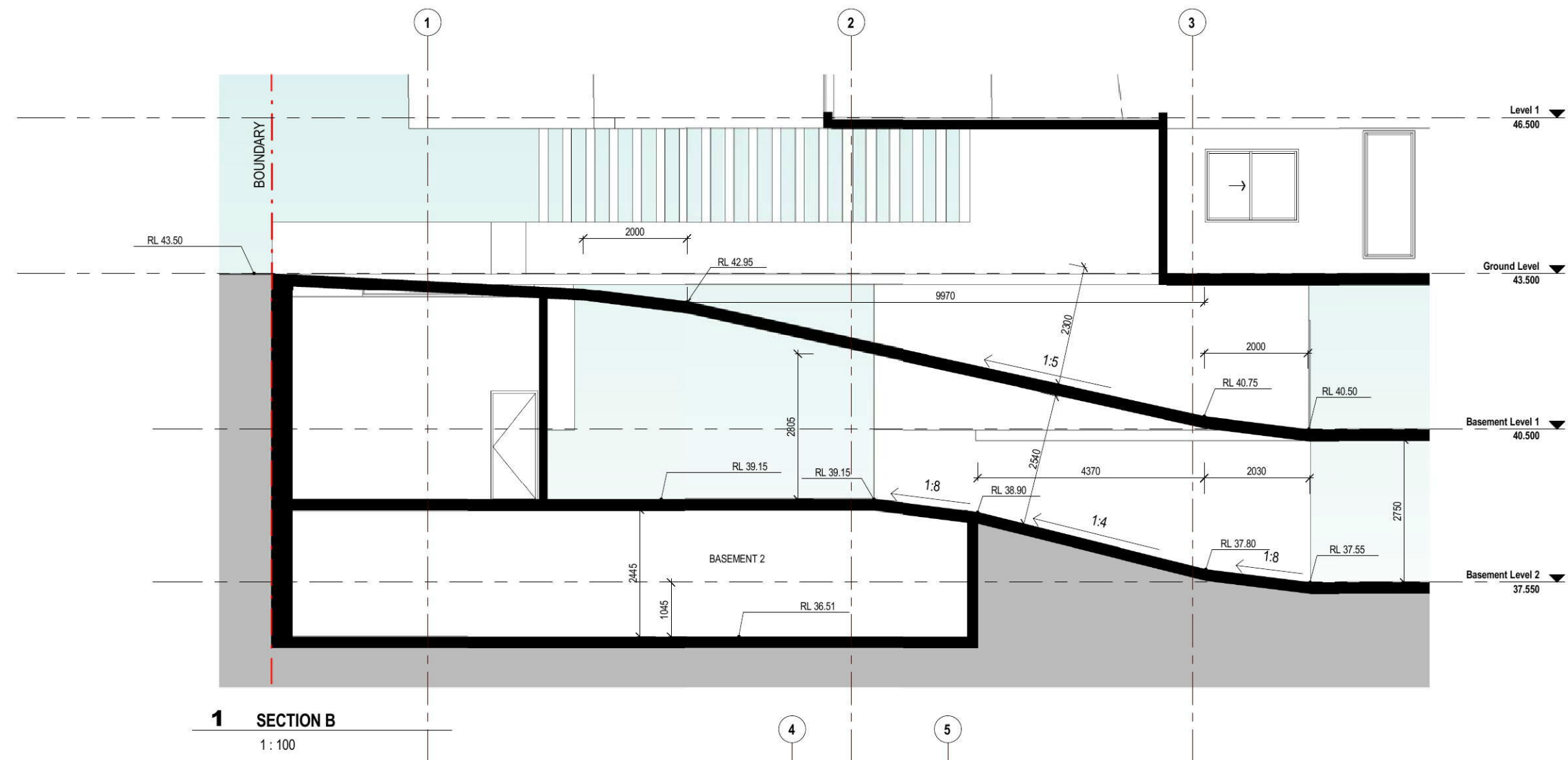
DA SUBMISSION

Job no.	Drawing no.	Rev.	
J16374D	DA 201	A	
Drawn by	Checked by	Approved by	Date
SM	JY	Approver	OCT 2016

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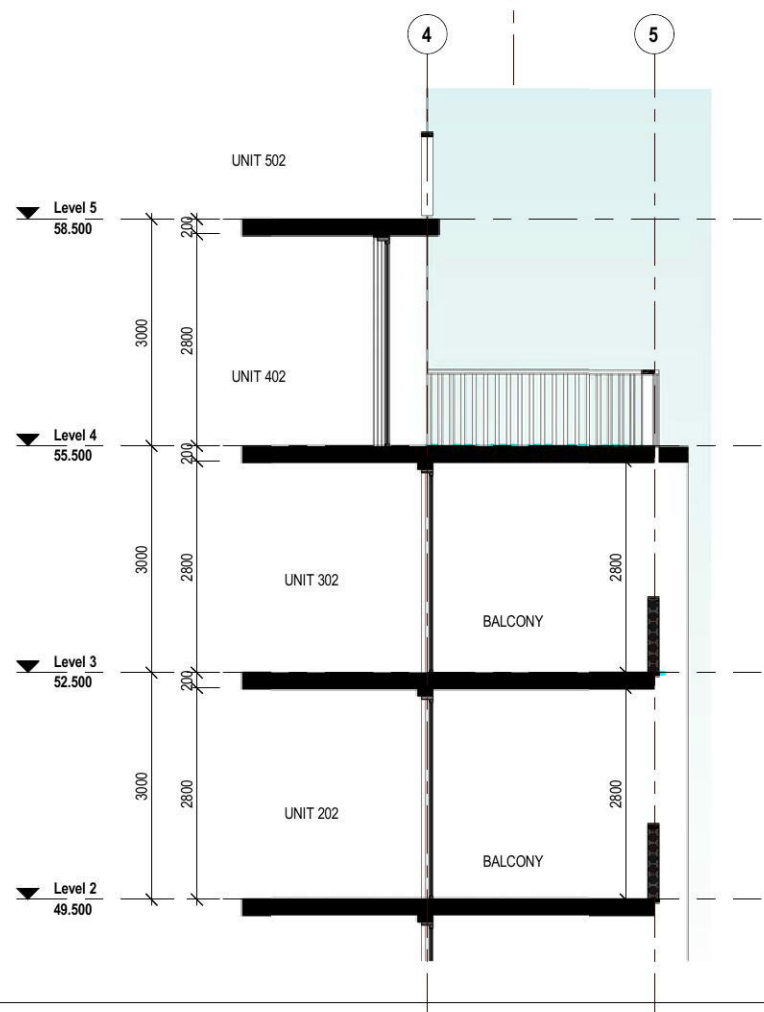
NOTES
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1 SECTION B
 1 : 100

Rev.	Date	Description
A	24/11/16	DA SUBMISSION

Scale
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 1:200 at A3 1:100 at A1



2 SECTION C
 1 : 100

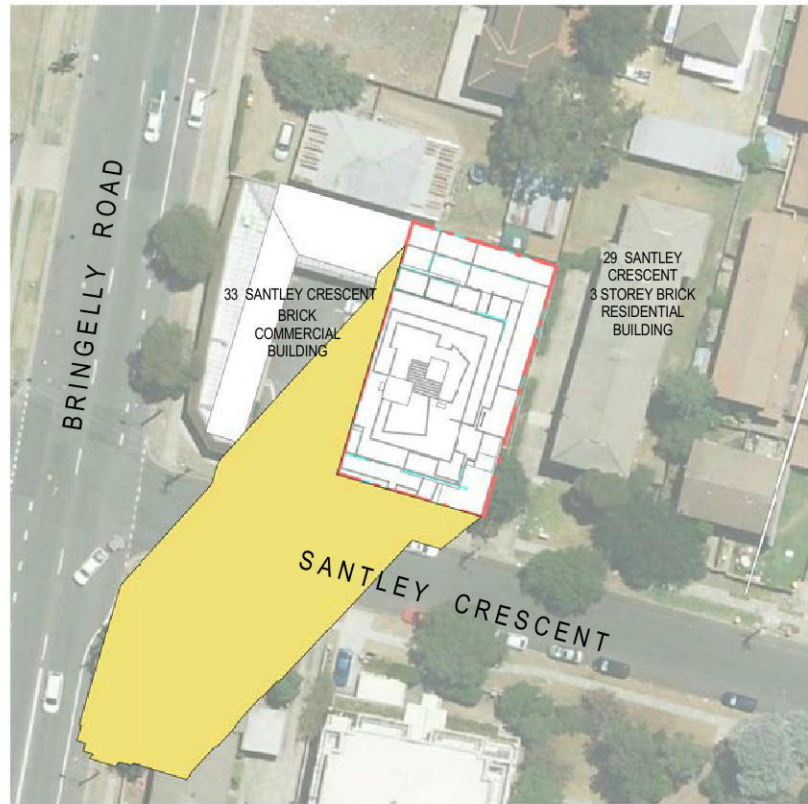
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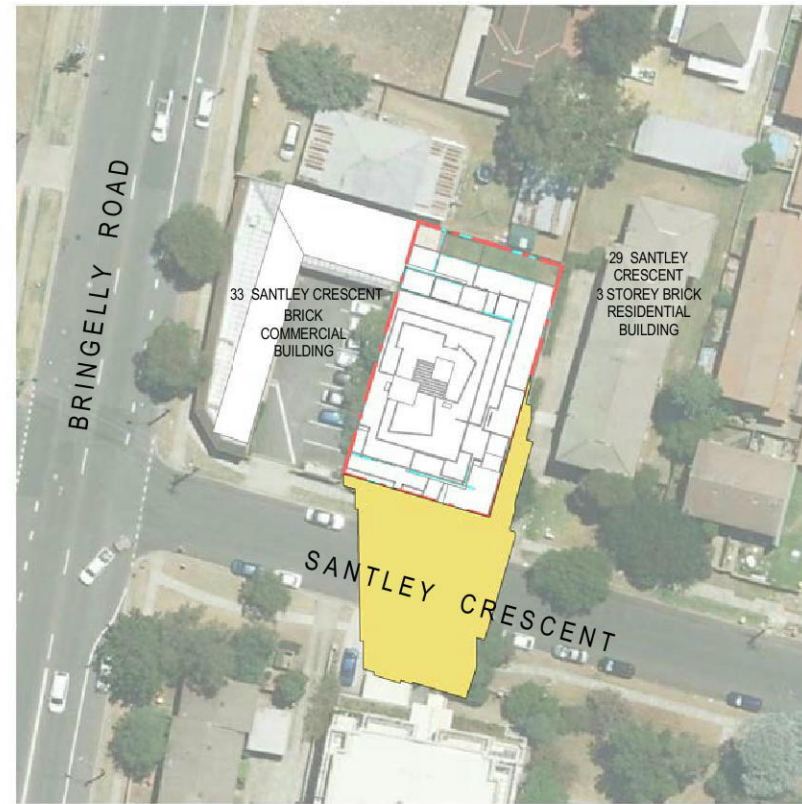
Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
SECTIONS 2

DA SUBMISSION		
Job no.	Drawing no.	Rev.
J16374D	DA 301	A
Drawn by	Checked by	Approved by
SS	JY	Approver
Date	OCT 2016	

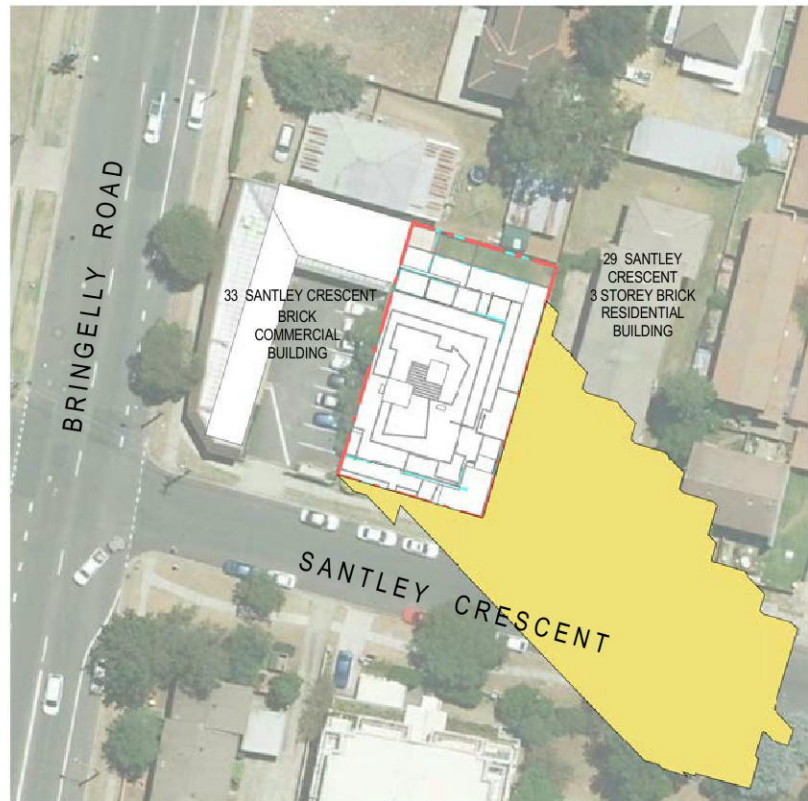


1 SHADOW DIAGRAM - 09am, 21 JUNE



2 SHADOW DIAGRAM - 12noon, 21 JUNE

1 : 1000



3 SHADOW DIAGRAM - 03pm, 21 JUNE

1 : 1000

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SHADOW DIAGRAM LEGEND

- SHADOWS CAST BY EXISTING BUILDING
- SHADOWS CAST BY PROPOSED BUILDING

Rev.	Date	Description
A	24/11/16	DA SUBMISSION

Scale
 m 0 2 4 6 8
 1:200 at A3 1:100 at A1

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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
SHADOW DIAGRAMS

DA SUBMISSION

Job no.	Drawing no.	Rev.
J16374D	DA 600	A

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SM	JY	Approver	OCT 2016



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Rev.	Date	Description
A	24/11/16	DA SUBMISSION

Scale
 m 0 2 4 6 8
 1:200 at A3 1:100 at A1

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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
PHOTOMONTAGE

DA SUBMISSION		
Job no.	Drawing no.	Rev.
J16374D	DA 710	A
Drawn by	Checked by	Approved by
SS	JY	Approver
Date	OCT 2016	

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 FIGURED DIMENSIONS TO BE USED AT ALL TIME.
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MATERIAL LEGEND

	AWD1	ALUMINIUM FRAME WINDOWS & DOORS - COLOUR 1
	CG	CLEAR GLASS
	MP1	METAL PANEL - VINTAGE BRUSH REYNOLUX
	MP2	METAL PANEL - LIGHT GREY REYNOLUX
	PF1	PAINT FINISH - DULUX OFF WHITE
	PF1	XXXXXX
	PF2	PAINT FINISH - DULUX CHARCOAL ESSENCE

A	24/11/16	DA SUBMISSION
Rev.	Date	Description

NOT TO SCALE

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Project
PROPOSED RESIDENTIAL FLAT BUILDING

31 SANTLEY CRESCENT KINGSWOOD
 Drawing Title
FINISHES SCHEDULE

DA SUBMISSION

Job no.	Drawing no.	Rev.
J16374D	DA 730	A

Drawn by	Checked by	Approved by	Date
SM	JY	Approver	OCT 2016



STORMWATER DRAWINGS

FOR

31 SANTLEY CRESCENT, KINGSWOOD N.S.W.

DRAWING SCHEDULE

DRAWING No.	DRAWING TITLE
D00	COVER SHEET, LEGEND & DRAWING SCHEDULE
D01	BASEMENT 2 STORMWATER DRAINAGE PLAN
D02	BASEMENT 1 STORMWATER DRAINAGE PLAN
D03	GROUND FLOOR STORMWATER DRAINAGE PLAN
D04	PIPE LINE CONTINUATION
D06	SITE STORMWATER DRAINAGE DETAILS PAGE 1
D07	SITE STORMWATER DRAINAGE DETAILS PAGE 2
D09	CATCHMENT AREA- MUSIC MODEL BREAKDOWN PLAN
D10	EROSION AND SEDIMENT CONTROL PLAN & DETAILS

SYMBOLS

RL	PIT SURFACE LEVEL
IL	INVERT LEVEL
TK	TOP OF KERB
— SV — SV —	STORMWATER DRAINAGE PIPE
— RVT —	DOWNPIPE TO RAINWATER TANK
— SV —	OVERFLOW PIPE FROM RAINWATER TANK
— AG — AG —	#100 SUBSOIL PIPE
FW	FLOOR WASTE 150X150
FW	FLOOR WASTE 150Ø
RWO	RAINWATER OUTLET 300Ø
DP	DOWN PIPE
CO	CLEAN OUT
IO	INSPECTION OPENING
VD	VERTICAL DROP
VR	VERTICAL RISER
☒	CONCRETE COVER JUNCTION PIT
☐	GRATED INLET PIT
▨	WIDE GRATED DRAIN
←	OVERLAND FLOW PATH

NOTES

- ALL LINES ARE TO BE MIN. 100Ø UPVC @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS. ALL DESIGN LEVELS SHOWN ON PLAN SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
- ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
- ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3.2:1998 AND COUNCIL SPECIFICATIONS.
- LOCATION OF DOWNPIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY TO BE DETERMINED BY BUILDER & IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
- THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, LANDSCAPE AND STRUCTURAL PLANS.
- ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION.
- ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
- ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES
- PROVIDE EMERGENCY OVERFLOW TO ALL PLANTER BOX AND BALCONIES.
- ALL PITS WITH DEPTH MORE THAN 1M MUST HAVE IRON STEPS.
- PROVIDE STORMWATER GRATE 200Wx200D AT THE BASE OF ALL MECHANICAL SHAFTS AND UNCOVERED STAIRS OR OPENINGS.
- ENSURE ALL DRAINAGE WORKS ARE AWAY FROM TREE ROOTS

LEGEND

REFER TO AS 3500 PART 3 TABLE 7.2
P1 : 100Ø UPVC PIPE AT 1.0% MIN. GRADE
P2 : 150Ø UPVC PIPE AT 1.0% MIN. GRADE
P3 : 225Ø UPVC PIPE AT 0.5% MIN. GRADE
P4 : 300Ø UPVC PIPE AT 0.4% MIN. GRADE
P5 : 375Ø UPVC PIPE AT 0.4% MIN. GRADE



AS 3500.3- TABLE 8.2 SIZE OF MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS

DEPTH OF INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR WIDTH	LENGTH	CIRCULAR DIAMETER
≤600	450	450	600
>600 ≤900	600	600	900
>900 ≤1200	600	900	1000
>1200	900	900	1000

A1 1 2 3 4 5 6 7 8 9 10

ARCHITECT				 LEVEL 2, 60 PARK STREET SYDNEY NSW 2000 P: 02 9267 2000 W: www.cdarchitects.com.au				 AUSTRALIAN CONSULTING ENGINEERS PTY LTD - A.C.N. 084 059 941 SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2157 PH: (02) 9763 1500 FX: (02) 9763 1515 EMAIL: info@aceeng.com.au				PROJECT				PROPOSED RESIDENTIAL BUILDING 31 SANTLEY CRESCENT KINGSWOOD				SHEET SUBJECT				COVER SHEET, LEGEND & DRAWING SCHEDULE				PROJECT				31 SANTLEY CRESCENT, KINGSWOOD			
DATE		OCT 2016		DRAWN		S.N.		DESIGNED		S.N.		CHECKED		O.C.		SCALE @ A1		NTS		JOB No		161086		AUTHORISED		Dr. Anthony Hasham		DWG No		D00		REV		A	
ARCH. REF:																																			
A FOR D.A. APPROVAL		O.C.		S.N.		03.11.16																													
No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	

- LEGEND
- REFER TO AS.3500 PART 3 TABLE 7.2
- P1 : 100Ø UPVC PIPE AT 1.0% MIN. GRADE
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 - P3 : 225Ø UPVC PIPE AT 0.5% MIN. GRADE
 - P4 : 300Ø UPVC PIPE AT 0.4% MIN. GRADE
 - P5 : 375Ø UPVC PIPE AT 0.4% MIN. GRADE

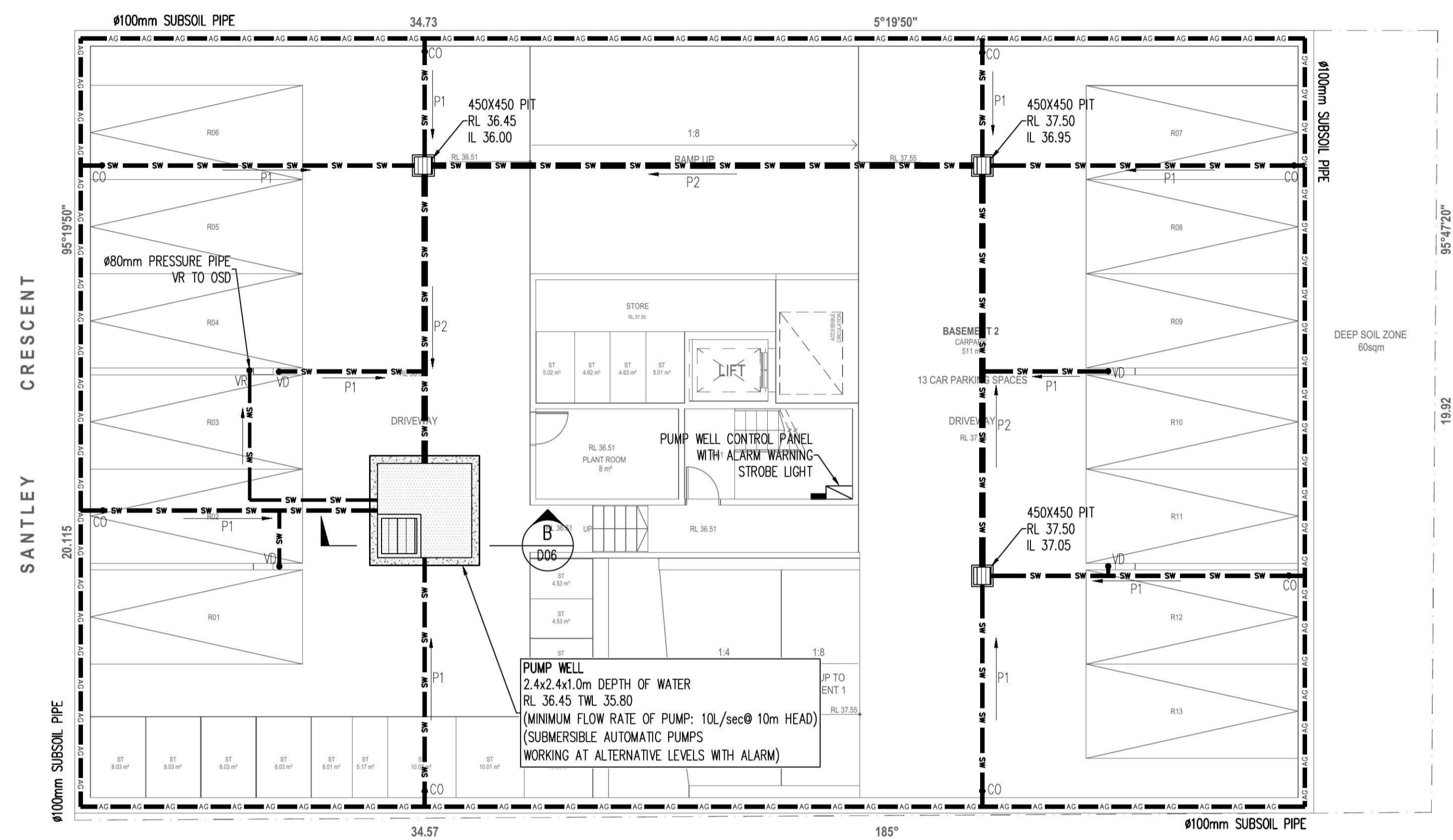


NOTES

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5. ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3.2:1998 AND COUNCIL SPECIFICATIONS.
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9. ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
10. ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES

SYMBOLS

- RL PIT SURFACE LEVEL
- IL INVERT LEVEL
- TK TOP OF KERB
- SW STORMWATER DRAINAGE PIPE
- RWT DOWNPIPE TO RAINWATER TANK
- SW OVERFLOW PIPE FROM RAINWATER TANK
- 100 SUBSOIL PIPE
- FW FLOOR WASTE 150X150
- FW FLOOR WASTE 150Ø
- RWO RAINWATER OUTLET 300Ø
- DP DOWN PIPE
- CO CLEAN OUT
- IO INSPECTION OPENING
- VD VERTICAL DROP
- VR VERTICAL RISER
- CC CONCRETE COVER JUNCTION PIT
- GI GRATED INLET PIT
- WD WIDE GRATED DRAIN
- OF OVERLAND FLOW PATH



A1 1 2 3 4 5 6 7 8 9 10

ARCHITECT				PROJECT				SHEET SUBJECT				PROJECT							
								PROPOSED RESIDENTIAL BUILDING 31 SANTLEY CRESCENT KINGSWOOD				31 SANTLEY CRESCENT, KINGSWOOD							
LEVEL 2, 60 PARK STREET SYDNEY NSW 2000 P: 02 9267 2000 W: www.cdarchitects.com.au				PTY LTD - A.C.N. 084 059 941 SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2137 PH: (02) 9763 1500 FX: (02) 9763 1515 EMAIL: info@aceeng.com.au				BASEMENT 2 STORMWATER DRAINAGE PLAN				DATE: OCT 2016 SCALE: 1:100 AUTHOURISED: Dr. Anthony Hasham				DESIGNED: S.N. CHECKED: O.C. JOB No: 161086 DWG No: D01 REV: A			
A FOR D.A. APPROVAL				O.C. S.N. 03.11.16															
No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE

LEGEND
 REFER TO AS.3500 PART 3 TABLE 7.2
 P1 : 100Ø UPVC PIPE AT 1.0% MIN. GRADE
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 P4 : 300Ø UPVC PIPE AT 0.4% MIN. GRADE
 P5 : 375Ø UPVC PIPE AT 0.4% MIN. GRADE

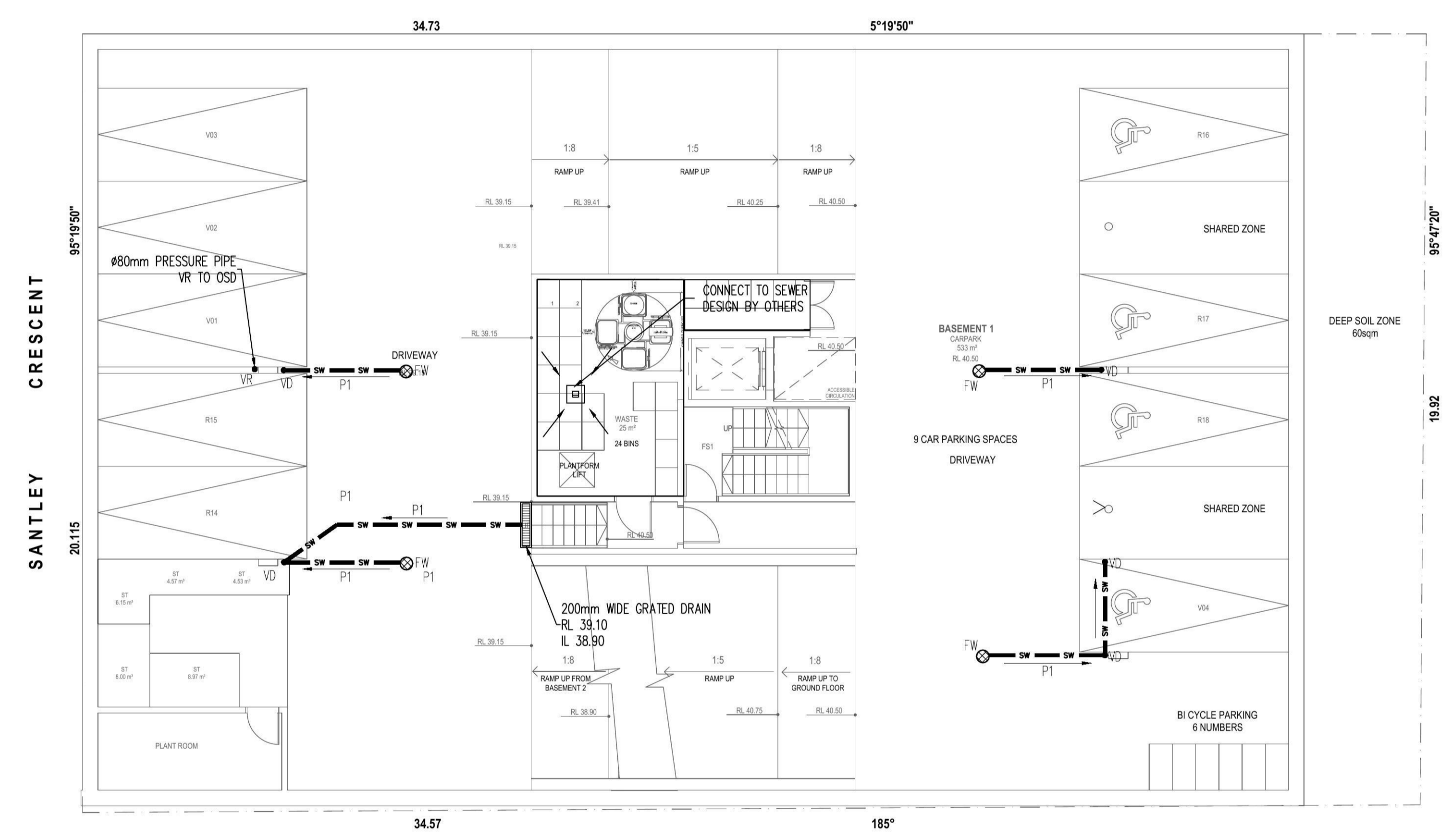


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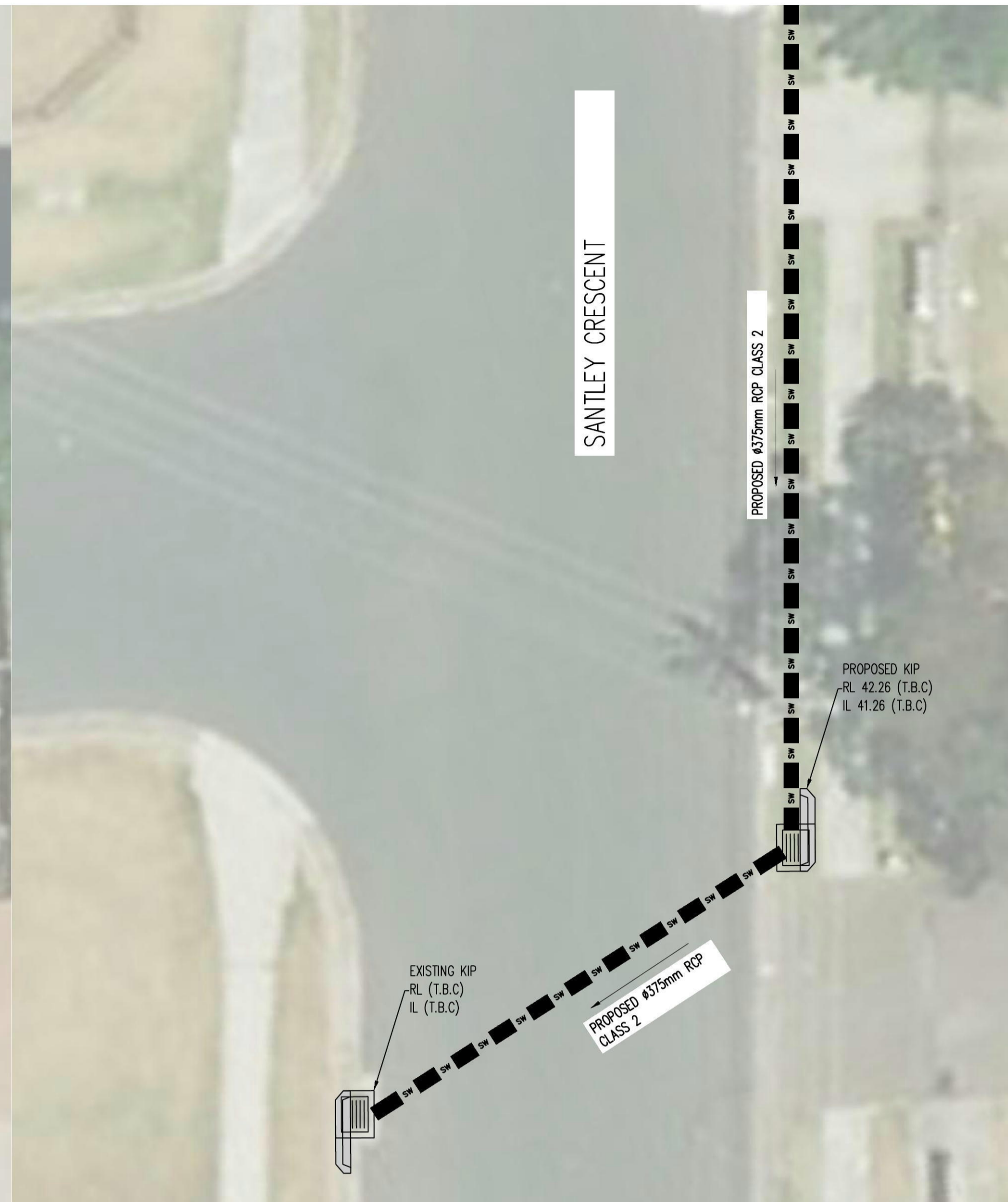
SYMBOLS

- RL PIT SURFACE LEVEL
- IL INVERT LEVEL
- TK TOP OF KERB
- SW STORMWATER DRAINAGE PIPE
- RWT DOWNPIPE TO RAINWATER TANK
- SW OVERFLOW PIPE FROM RAINWATER TANK
- 100 Ø SUBSOIL PIPE
- FW FLOOR WASTE 150X150
- FW FLOOR WASTE 150Ø
- RWO RAINWATER OUTLET 300Ø
- DP DOWN PIPE
- CO CLEAN OUT
- IO INSPECTION OPENING
- VD VERTICAL DROP
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- WD WIDE GRATED DRAIN
- OF OVERLAND FLOW PATH



A1 1 2 3 4 5 6 7 8 9 10

<p>ARCHITECT: DDA CDARCHITECTS LEVEL 2, 60 PARK STREET SYDNEY NSW 2000 P: 02 9267 2000 W: www.cdarchitects.com.au</p>										<p>PROJECT: AUSTRALIAN CONSULTING ENGINEERS. PTY LTD - A.C.N. 084 059 941 SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2137 PH: (02) 9763 1500 FX: (02) 9763 1515 EMAIL: info@aceeng.com.au</p>					<p>PROJECT: PROPOSED RESIDENTIAL BUILDING 31 SANTLEY CRESCENT KINGSWOOD</p>					<p>SHEET SUBJECT: BASEMENT 1 STORMWATER DRAINAGE PLAN</p>					<p>PROJECT: 31 SANTLEY CRESCENT, KINGSWOOD</p> <table border="1"> <tr> <td>DATE: OCT 2016</td> <td>DRAWN: S.N.</td> <td>DESIGNED: S.N.</td> <td>CHECKED: O.C.</td> </tr> <tr> <td colspan="2">SCALE @ A1: 1:100</td> <td colspan="2">JOB No: 161086</td> </tr> <tr> <td colspan="2">AUTHORISED: Dr. Anthony Hasham</td> <td>DNW No: D02</td> <td>REV: A</td> </tr> </table>					DATE: OCT 2016	DRAWN: S.N.	DESIGNED: S.N.	CHECKED: O.C.	SCALE @ A1: 1:100		JOB No: 161086		AUTHORISED: Dr. Anthony Hasham		DNW No: D02	REV: A								
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ARCHITECT

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LEVEL 2, 60 PARK STREET
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AUSTRALIAN CONSULTING ENGINEERS.

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SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2157
PH: (02) 9763 1500 FX: (02) 9763 1515
EMAIL: info@aceeng.com.au

PROJECT

PROPOSED RESIDENTIAL BUILDING
31 SANTLEY CRESCENT
KINGSWOOD

SHEET SUBJECT

PIPE LINE CONTINUATION

ARCH. REF:

PROJECT 31 SANTLEY CRESCENT, KINGSWOOD			
DATE	DRAWN	DESIGNED	CHECKED
OCT 2016	S.N.	S.N.	O.C.
SCALE @ A1		JOB No	
1:100		161086	
AUTHORISED		DWG No	REV
Dr. Anthony Hasham		D04	A

WARNING
PUMP OUT SYSTEM
FAILURE IN BASEMENT
WHEN LIGHT IS FLASHING
AND SIREN SOUNDING

COLOURS :
WARNING - RED
BORDER AND OTHER - BLACK

NOTES:

SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE LOCATION WHERE VEHICLES ENTER THE BASEMENT.

A SUITABLE ALARM SYSTEM POSITIONED AT ENTRANCE OF BASEMENT CARPARK TO PROVIDE A FLOOD WARNING IN CASE OF PUMP FAILURE (TO COUNCILS SPEC).

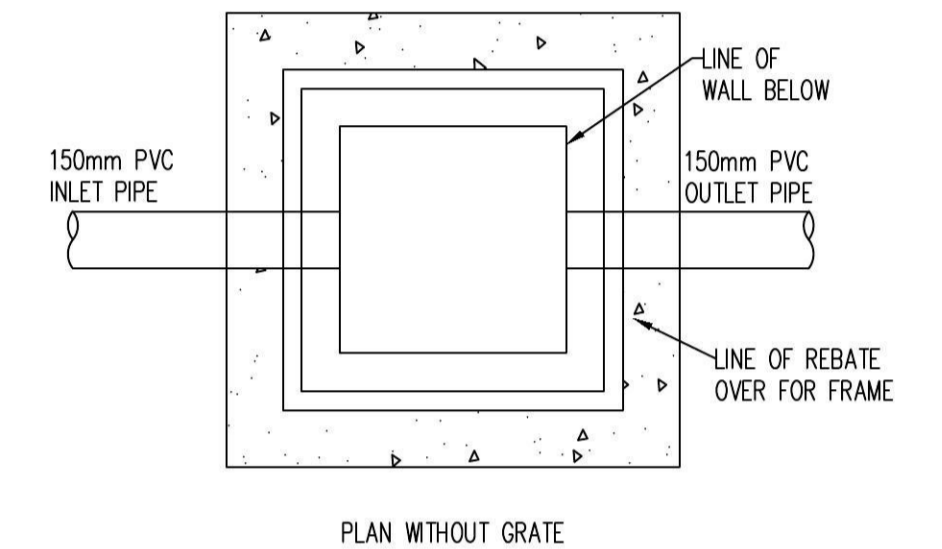
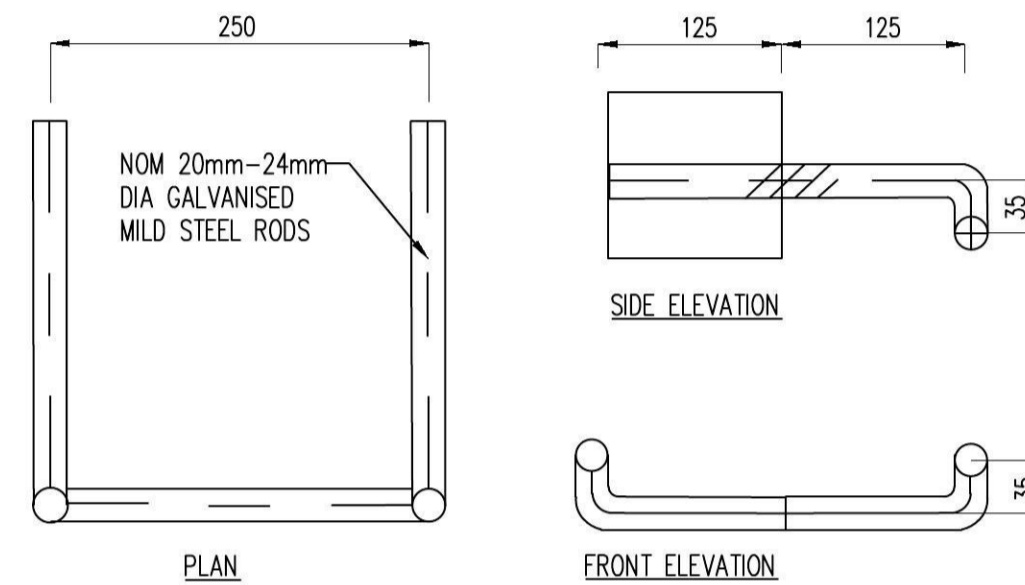
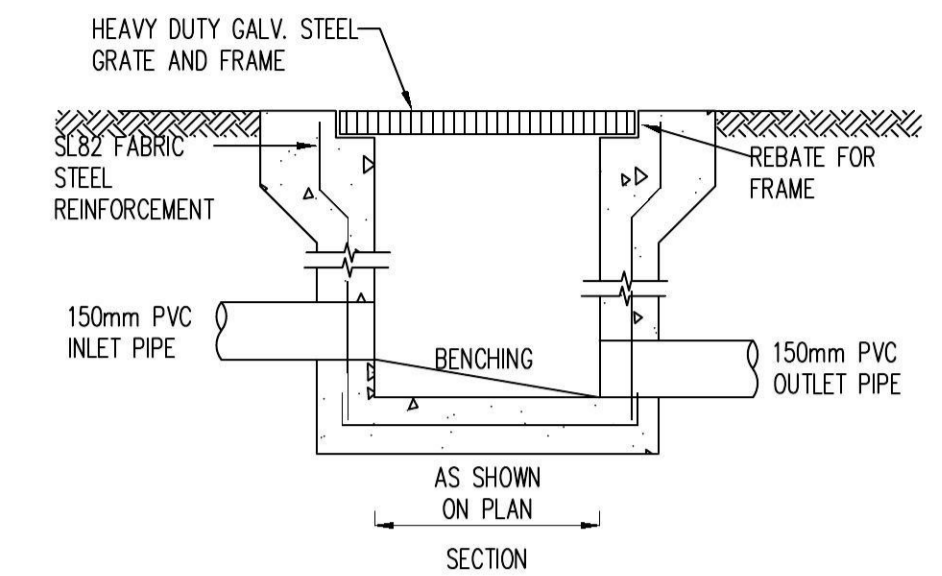
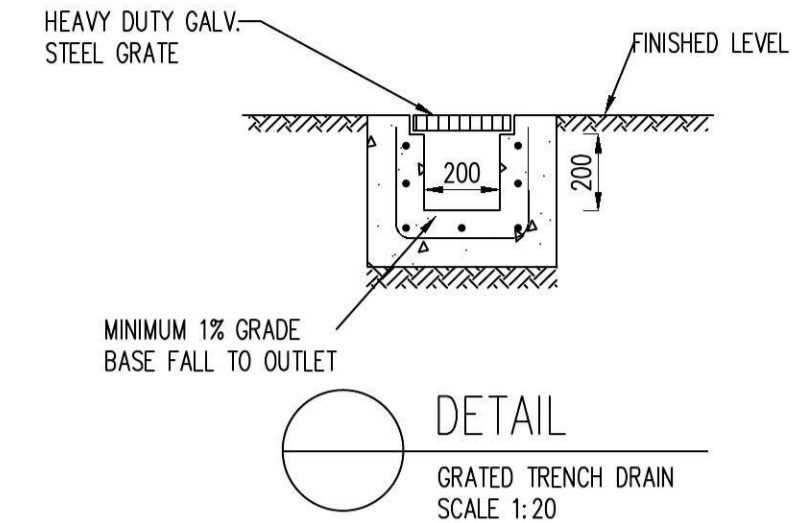
DANGER
CONFINED SPACE
NO ENTRY WITHOUT
CONFINED SPACE
TRAINING

WIDTH 200MM

HEIGHT 150MM

COLOURS:
"DANGER" AND BACKGROUND WHITE
ELLIPTICAL AREA RED
RECTANGLE CONTAINING ECLIPSE BLACK
OTHER LETTERING AND BORDER BLACK

MATERIALS:
POLYPROPYLENE



MAINTENANCE ACTION	FREQUENCY	RESPONSIBILITY	PROCEDURE
Outlets			
Inspect & remove any blockage of orifices	Six monthly	Owner	Remove grate & screen to inspect orifice. See plan for location of outlets
Check attachment of orifice plates to wall of chamber and/or pit (gaps less than 5 mm)	Annually	Maintenance Contractor	Remove grate and screen. Ensure plates are mounted securely, tighten fixings if required. Seal gaps as required.
Check orifice diameters are correct and retain sharp edges	Five yearly	Maintenance Contractor	Compare diameter to design (see Work-as-Executed) and ensure edge is not pitted or damaged.
Inspect screen and clean	Six monthly	Owner	Remove grate(s) and screens if required to clean them.
Check attachment of screens to wall of chamber or pit	Annually	Maintenance Contractor	Remove grate(s) and screen(s). Ensure screen fixings are secure. Repair as required.
Check screen(s) for corrosion	Annually	Maintenance Contractor	Remove grate(s) and examine screen(s) for rust or corrosion, especially at corners or welds.
Inspect walls (internal and external, if appropriate) for cracks or spalling	Annually	Maintenance Contractor	Remove grate(s) to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect outlet sumps & remove any sediment/sludge	Six monthly	Owner	Remove grate(s) and screen(s). Remove sediment/sludge build-up and check orifices are clear.
Inspect grate(s) for damage or blockage	Six monthly	Owner	Check both sides of a grate for corrosion, (especially corners and welds) damage or blockage.
Inspect outlet pipe & remove any blockage	Six monthly	Maintenance Contractor	Remove grate(s) and screen(s). Ventilate underground storage if present. Check orifices and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge/debris on upstream side of return line.
Check step irons for corrosion	Annually	Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage.
Check fixing of step irons is secure	Six monthly	Maintenance Contractor	Remove grate(s) and ensure fixings are secure prior to placing weight on step iron.
Storage			
Inspect storage & remove any sediment/sludge in pit	Six monthly	Owner	Remove grate(s) and screen(s). Remove sediment/sludge build-up.
Inspect internal walls of storage (and external, if appropriate) for cracks or spalling	Annually	Maintenance Contractor	Remove grate(s) to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect & remove any debris/litter/mulch etc blocking grates	Six monthly	Owner	Remove blockages from grate(s) and check if storage is blocked.
Inspect areas draining to the storage(s) & remove debris/mulch/litter etc likely to block screens/grates	Six monthly	Owner	Remove debris and floatable material likely to be carried to grates.
Compare storage volume to volume approved. (Rectify if loss > 5%)	Annually	Maintenance Contractor	Compare actual storage available with Work-as Executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Inspect storages for subsidence near pits	Annually	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

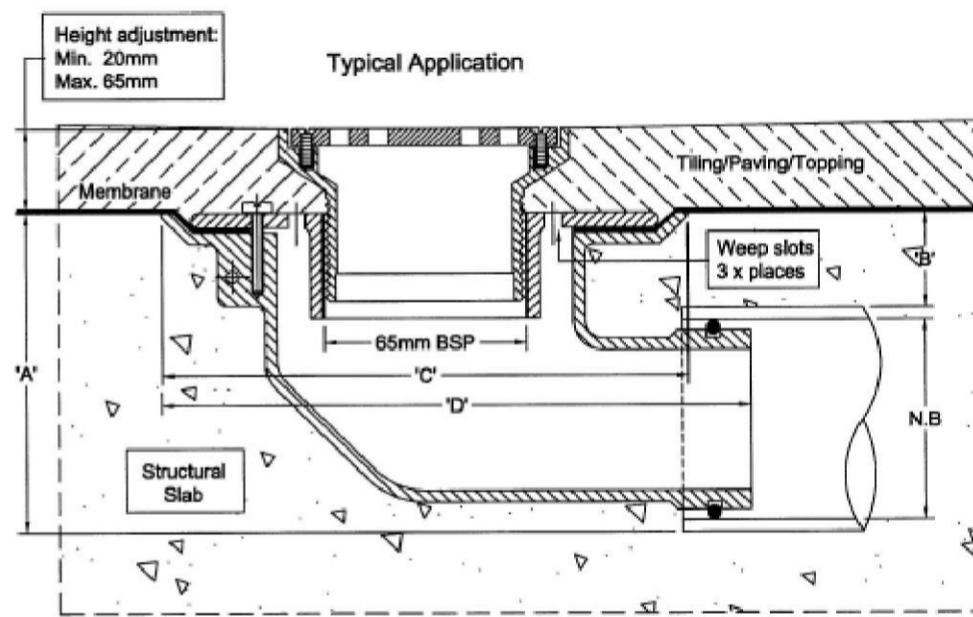
SPS 100mm Round Vari-Level Side Outlet Drain 65/50mm outlet

Specification code:
R100B/C90 (brass grate, ABS lower body)
R100N/C90 (nickel bronze grate, ABS lower body)
R100S4/C90 (polished 304 stainless steel, ABS lower body)
R100S/C90 (satin 316 stainless steel grate, ABS lower body)

100mm Round

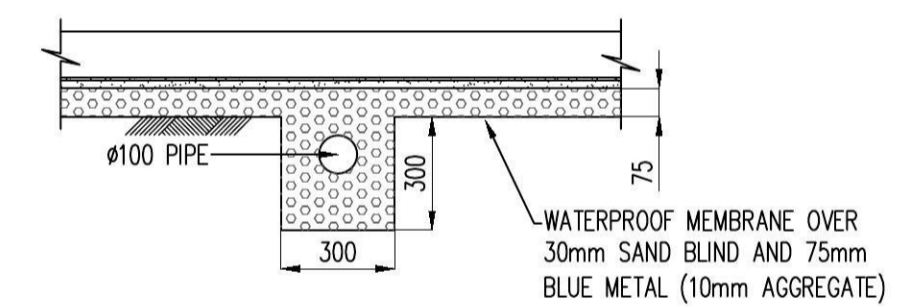


- Round grate available in nickel bronze, 304 & 316 stainless steel. Bronze non-stock option.
- ABS 90° Body and Reversible Membrane Clamp Collar with female 65mm BSP thread.

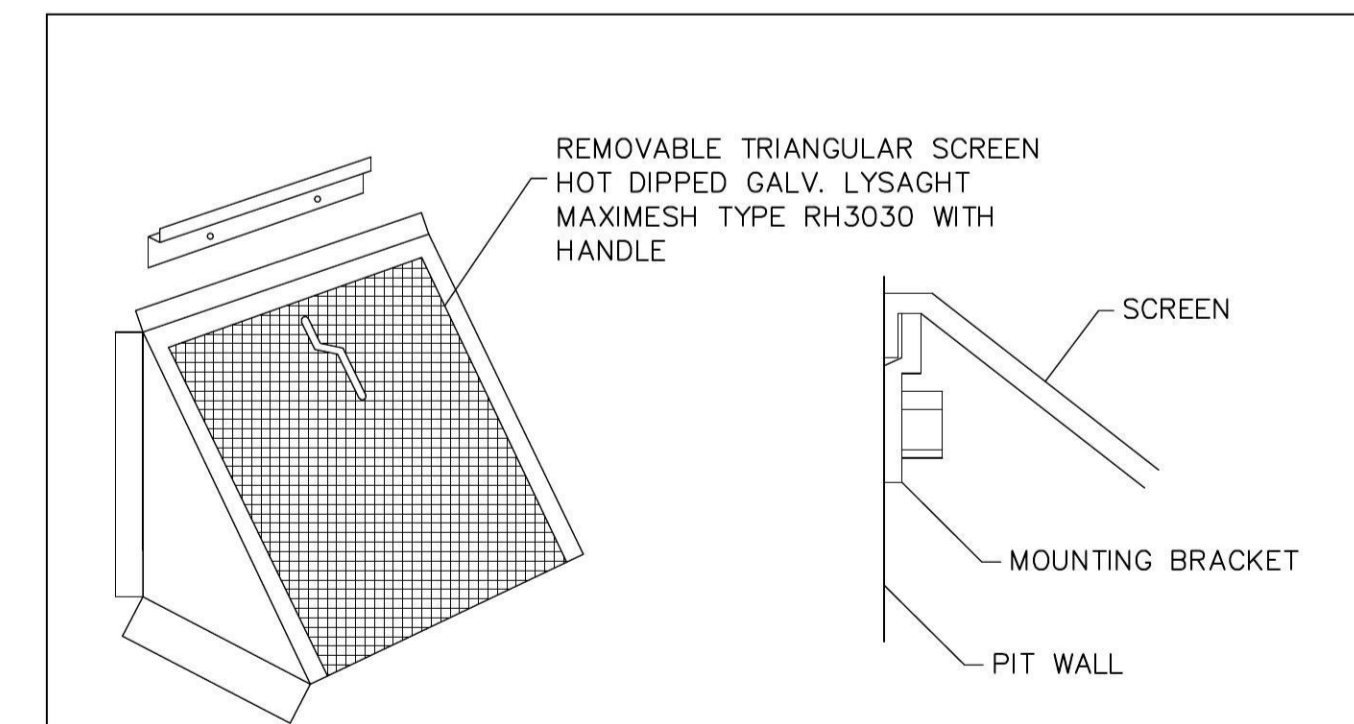


Spigot pushes into 65mm PVC or copper with o-ring connection, or connects to 50mm PVC/HDPE with no-hub coupling.

N.B.	A	B	C	D
50	100	40	180	200
65	105	37	180	200



TYPICAL SECTION THROUGH SUBSOIL HARD PIPE
SCALE 1:20

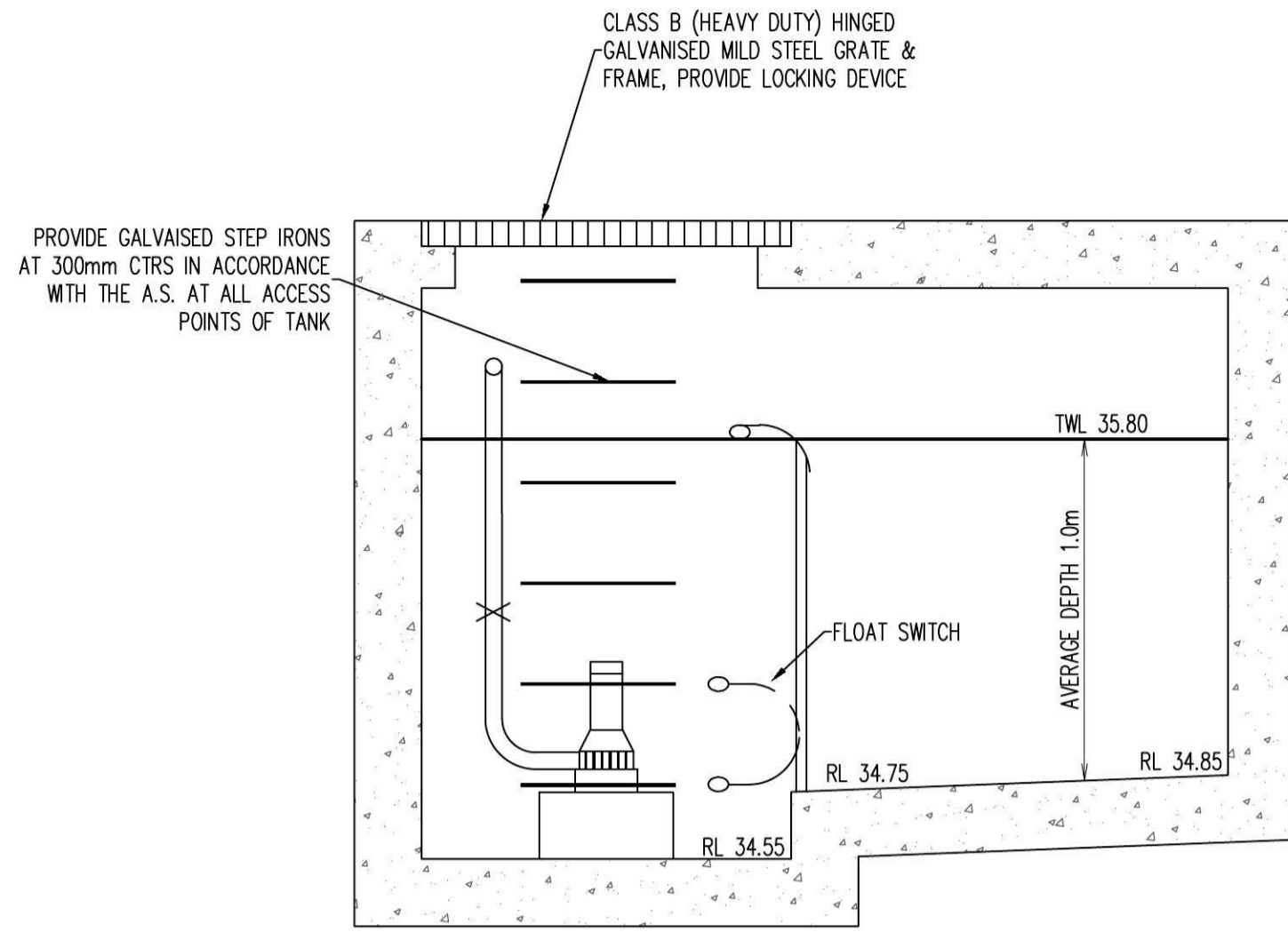


MULTI PURPOSE FILTER SCREEN

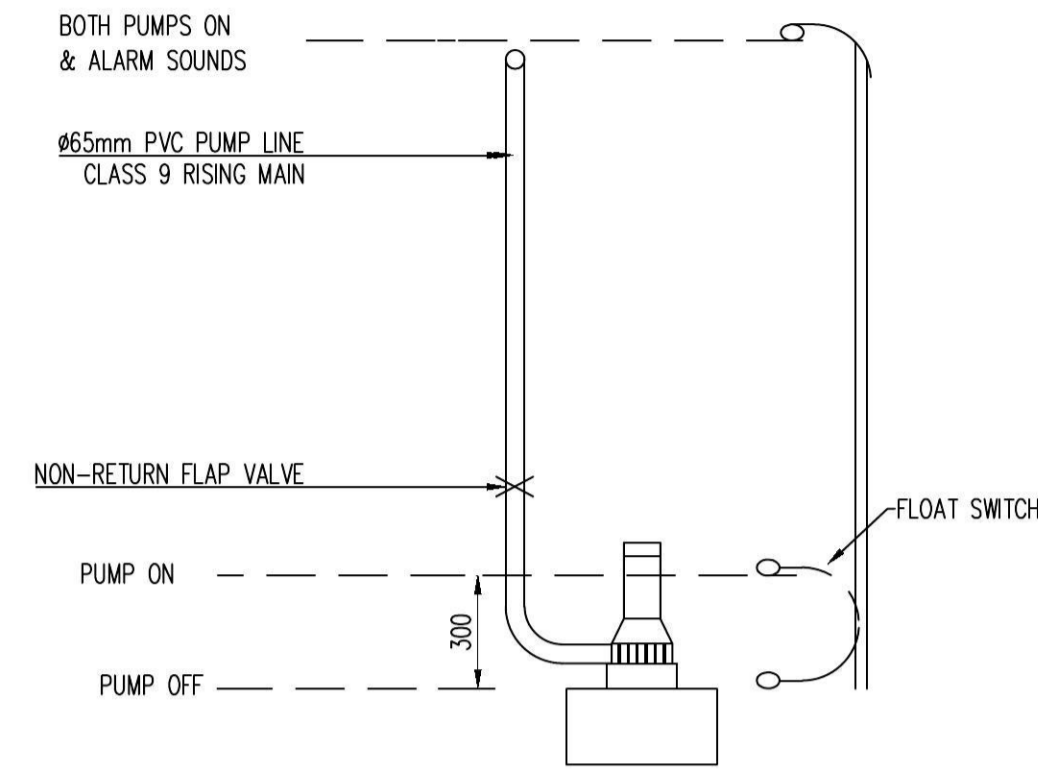


SAMPLE OSD MAINTENANCE SCHEDULE UPRCT HANDBOOK, 2005

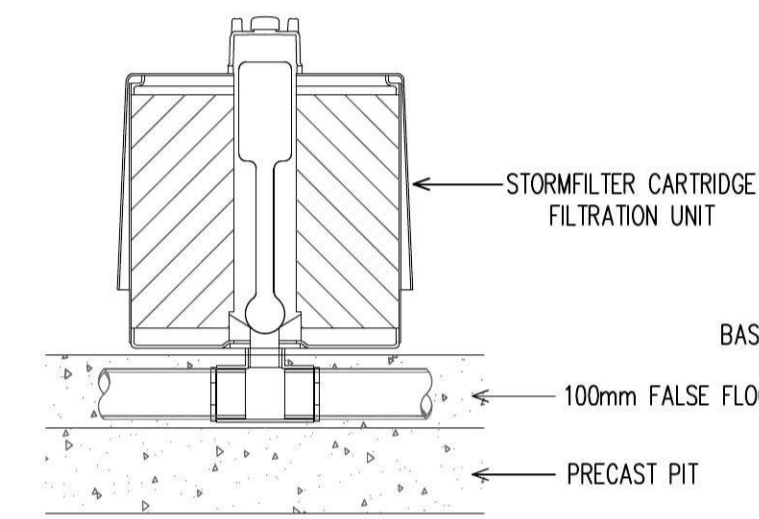
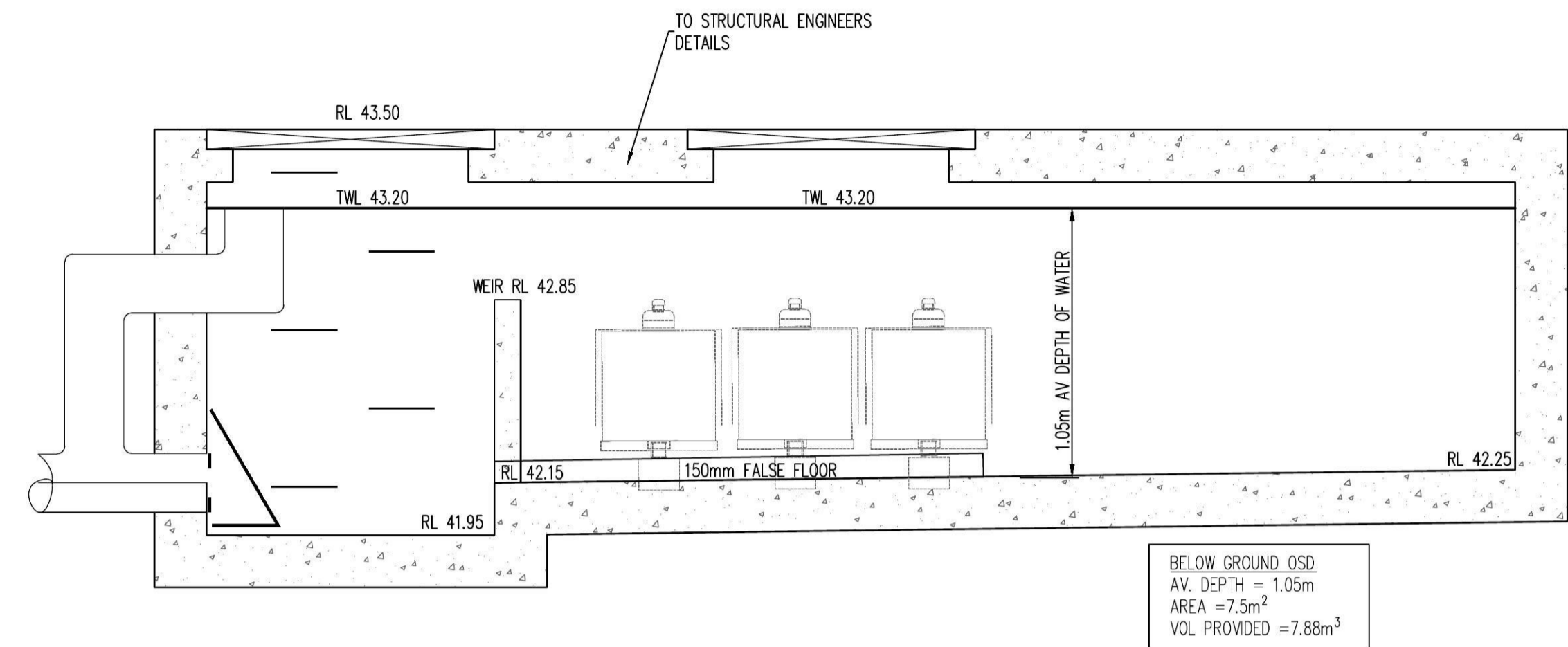
ARCHITECT				PROJECT				SHEET SUBJECT				PROJECT			
DDA CDARCHITECTS				PROPOSED RESIDENTIAL BUILDING 31 SANTLEY CRESCENT KINGSWOOD				SITE STORMWATER DRAINAGE DETAILS 1				31 SANTLEY CRESCENT, KINGSWOOD			
LEVEL 2, 60 PARK STREET SYDNEY NSW 2000 P. 02 9267 2000 W. www.cdarchitects.com.au				AUSTRALIAN CONSULTING ENGINEERS. PTY LTD - A.C.N. 084 059 941 SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2137 PH: (02) 9763 1500 FX: (02) 9763 1515 EMAIL: info@aceeng.com.au				DATE: OCT 2016 DRAWN: S.N. DESIGNED: S.N. CHECKED: O.C. SCALE: @ A1 AS SHOWN JOB No: 161086				AUTHORISED: Dr. Anthony Hasham DWG No: D06 REV: A			
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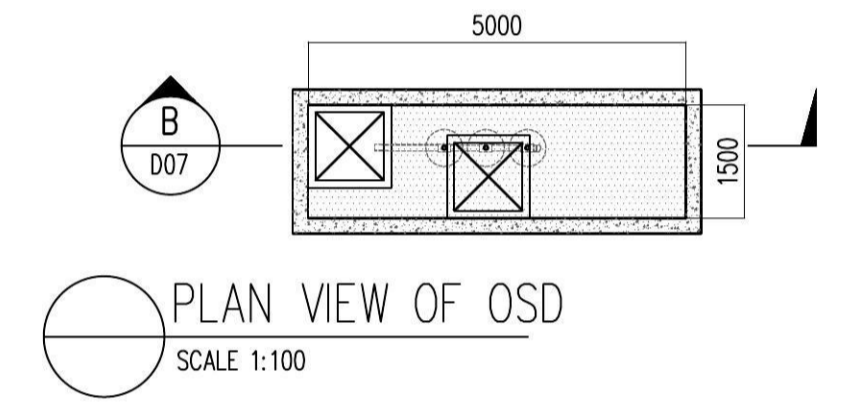
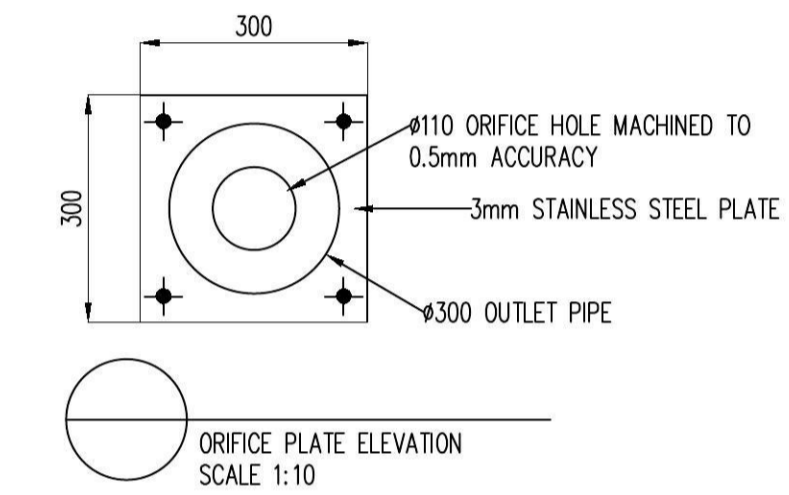
A TYPICAL SECTION THROUGH PUMP PIT
D01 SCALE 1:20
PUMP WELL VOLUME 5.76m³



A TYPICAL SECTION OF PUMP
D01 SCALE 1:20



STORMFILTER CARTRIDGE DETAIL



PUMP SPECIFICATIONS
STANDARD PUMP-OUT NOTES

- THE PUMP-OUT SYSTEM IS DESIGNED TO WORK IN THE FOLLOWING MANNER -
- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE EQUAL OPERATION LOAD & PUMP LIFE.
 - A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.
 - A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE & DRAIN THE TANK TO THE LEVEL OF THE LOW LEVEL FLOAT.
 - A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING & ACTIVATE THE ALARM.
 - AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT & A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.

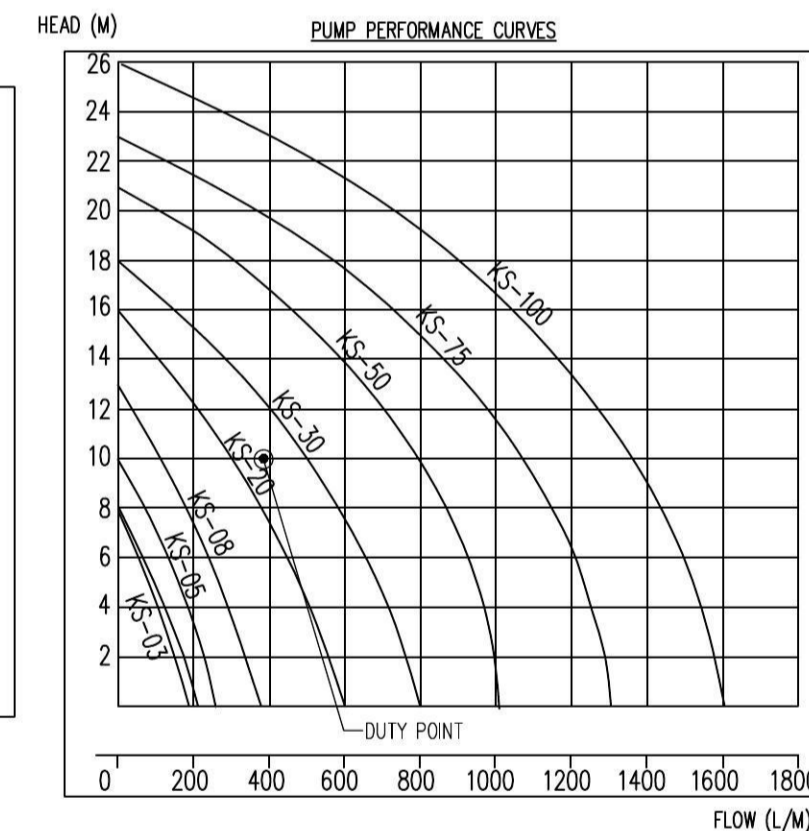
PUMP WELL DETAILS

AREA DRAINING TO SUMP= 65.0m²

SUMP SIZE BASED ON 100 YEAR 2 HR STORM, I= 44.1 mm/hr,
Q=CIA/3600= 1X 44.1 X 60.0/3600 = 0.80 L/sec
VOLUME REQUIRED = 0.80 X(2x60x60) =5733 L = 5.7m³
(MIN. VOLUME REQUIRED AS PER AS3500.3 IS 3.0m³)
STORAGE PROVIDED 2.4X2.4X1.0= 5.76m³

PUMP OUT RATE BASED ON 100YR 6MIN STORM, I=206 mm/hr
(MIN RATE REQUIRED AS PER AS3500.3 IS 10 L/sec)
Q=CIA/3600= 1X 206X 60.0/3600 = 3.43 L/sec

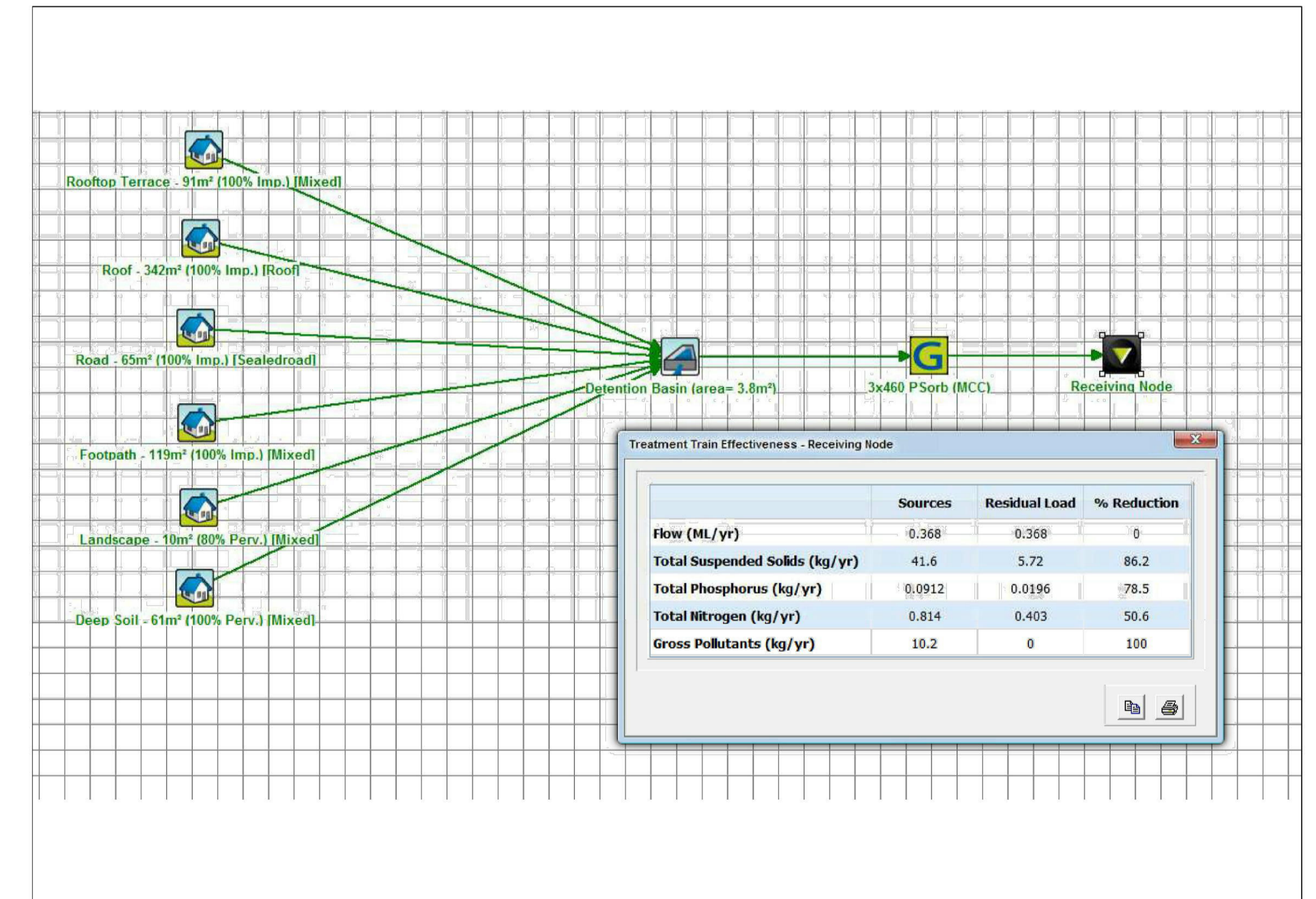
DUAL KS-30 PUMP OR EQUIVALENT TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL WHICH WILL ALLOW FOR THE PUMPS TO OPERATE ALTERNATIVELY ON HIGH LEVEL ALARMS AT 10 L/sec (PER PUMP) AT 10m HEAD



DRAINS MODEL RESULTS

STORM EVENT	PRE-DEVELOPMENT		POST-DEVELOPMENT	
	Flow (L/s)	Flow (L/s)	Flow (L/s)	Flow (L/s)
MAJOR STORM (100 YEAR ARI)	31 L/s	25 L/s	25 L/s	21 L/s
MODERATE STORM (20 YEAR ARI)	25 L/s	21 L/s	21 L/s	17 L/s
MINOR STORM (5 YEAR ARI)	17 L/s	17 L/s	17 L/s	17 L/s

Type	Output		Outlet		Rated			Maximum		Weigh	Dimension		
	HP	kW	mm	Inch	Head Capacity	Head	LPM	Head	Capacity		M	L(mm)	W(mm)
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188	141	305	
KS-04	1/2	0.4	50	2"	5	150	8	220	11	208	140	359	
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230	156	375	
KS-08	1	0.75	50	2"	6	240	13	380	21	290	180	425	
KS-20	2	1.5	80	3"	10	300	16	600	31	278	182	475	
KS-30	3	2.2	80	3"	10	500	18	800	42	390	250	450	
KS-50	5	3.7	100	4"	10	800	21	1100	48	450	240	530	
KS-75	7 1/2	5.6	100	4"	15	800	23	1300	60	550	310	590	
KS-100	10	7.5	150	6"	18	900	25	1600	70	550	310	610	



MUSIC MODEL SNAPSHOT

REVISIONS				ARCHITECT				PROJECT				SHEET SUBJECT				DATE							
A FOR D.A. APPROVAL				DDA CDARCHITECTS				AUSTRALIAN CONSULTING ENGINEERS				PROPOSED RESIDENTIAL BUILDING 31 SANTLEY CRESCENT KINGSWOOD				SITE STORMWATER DRAINAGE DETAILS 2				OCT 2016			
O.C. S.N. 03.11.16				LEVEL 2, 60 PARK STREET SYDNEY NSW 2000 P. 02 9267 2000 W. www.cdarchitects.com.au				PTY LTD - A.C.N. 084 059 941 SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2137 PH: (02) 9763 1500 FX: (02) 9763 1515 EMAIL: info@aceengr.com.au				SANTLEY CRESCENT, KINGSWOOD				S.N. O.C.				SCALE @ A1 AS SHOWN			
AMENDMENT ENG DRAFT DATE				AMENDMENT ENG DRAFT DATE				AMENDMENT ENG DRAFT DATE				AMENDMENT ENG DRAFT DATE				JOB No 161086				AUTHORISED Dr. Anthony Hasham			
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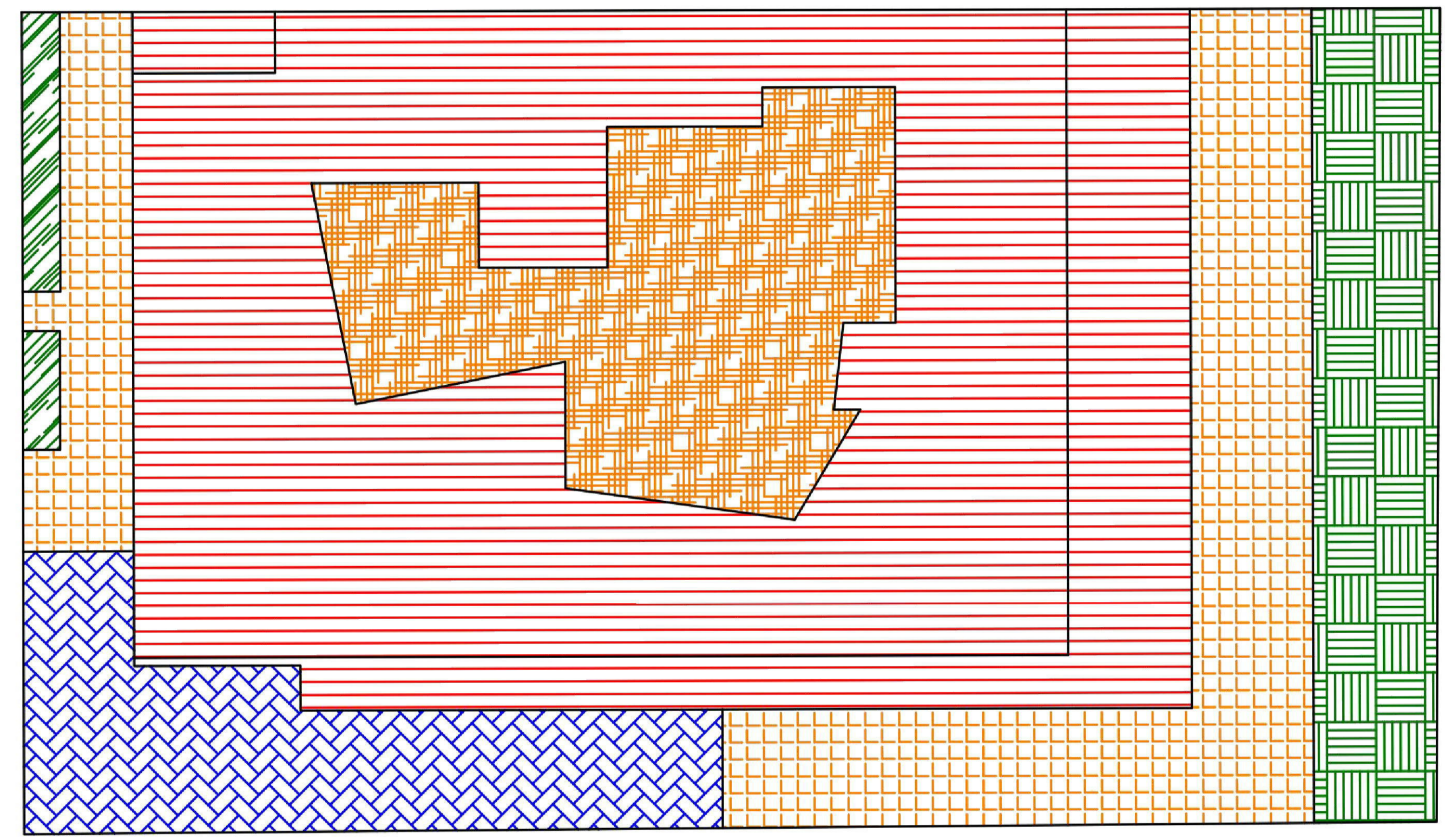
MUSIC Model Site Area Breakup

LEGEND
 REFER TO AS.3500 PART 3 TABLE 7.2
 P1 : 100Ø UPVC PIPE AT 1.0% MIN. GRADE
 P2 : 150Ø UPVC PIPE AT 1.0% MIN. GRADE
 P3 : 225Ø UPVC PIPE AT 0.5% MIN. GRADE
 P4 : 300Ø UPVC PIPE AT 0.4% MIN. GRADE
 P5 : 375Ø UPVC PIPE AT 0.4% MIN. GRADE



NOTES

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- ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
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Roof : 342m²

Road: 65m²

Paved: 119m²

Landscape: 10m²

Rooftop Terrace: 91m²

Deep Soil: 61m²

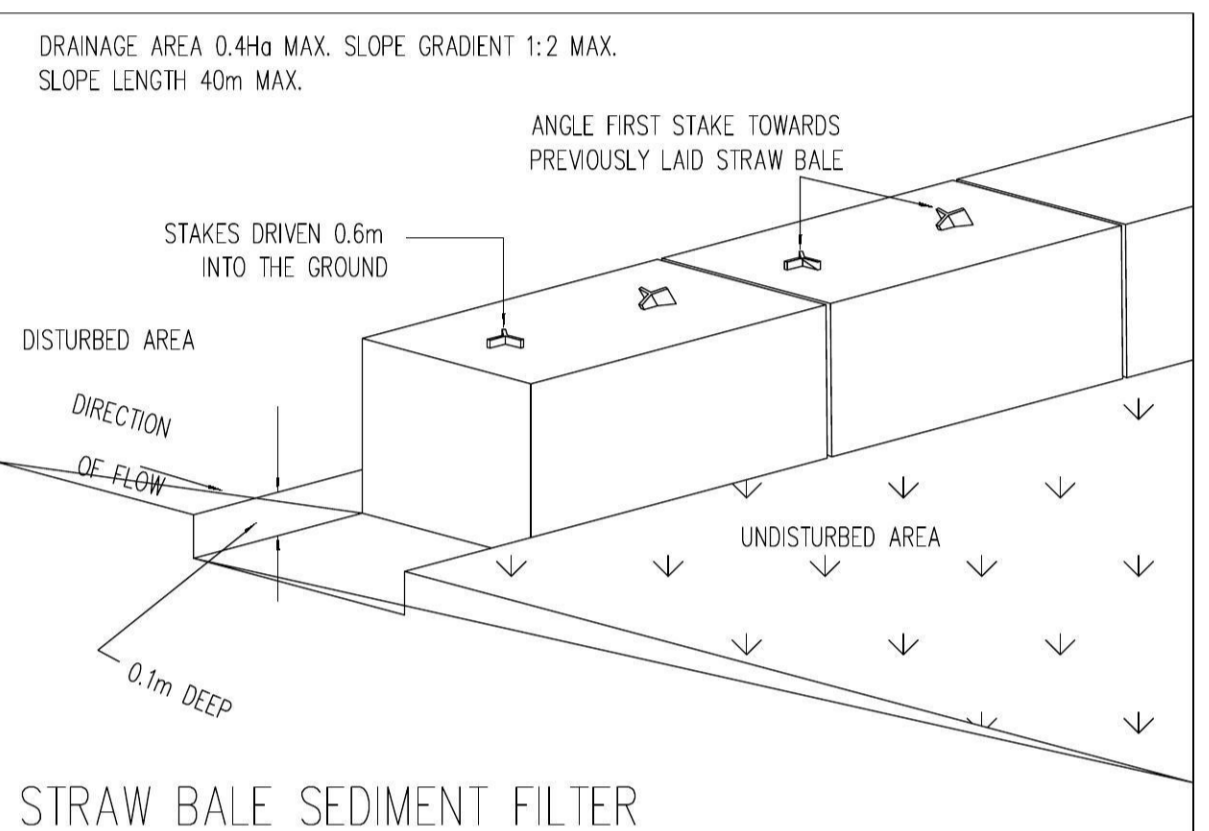
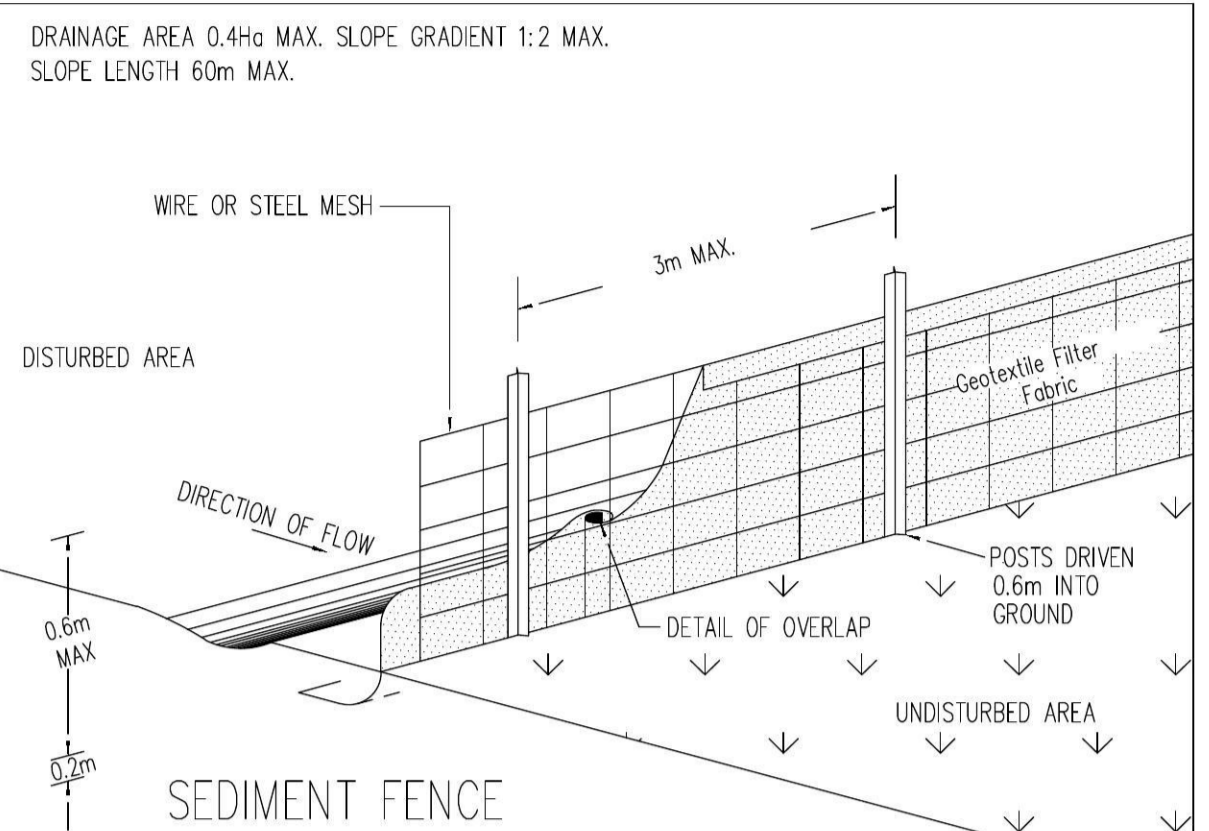
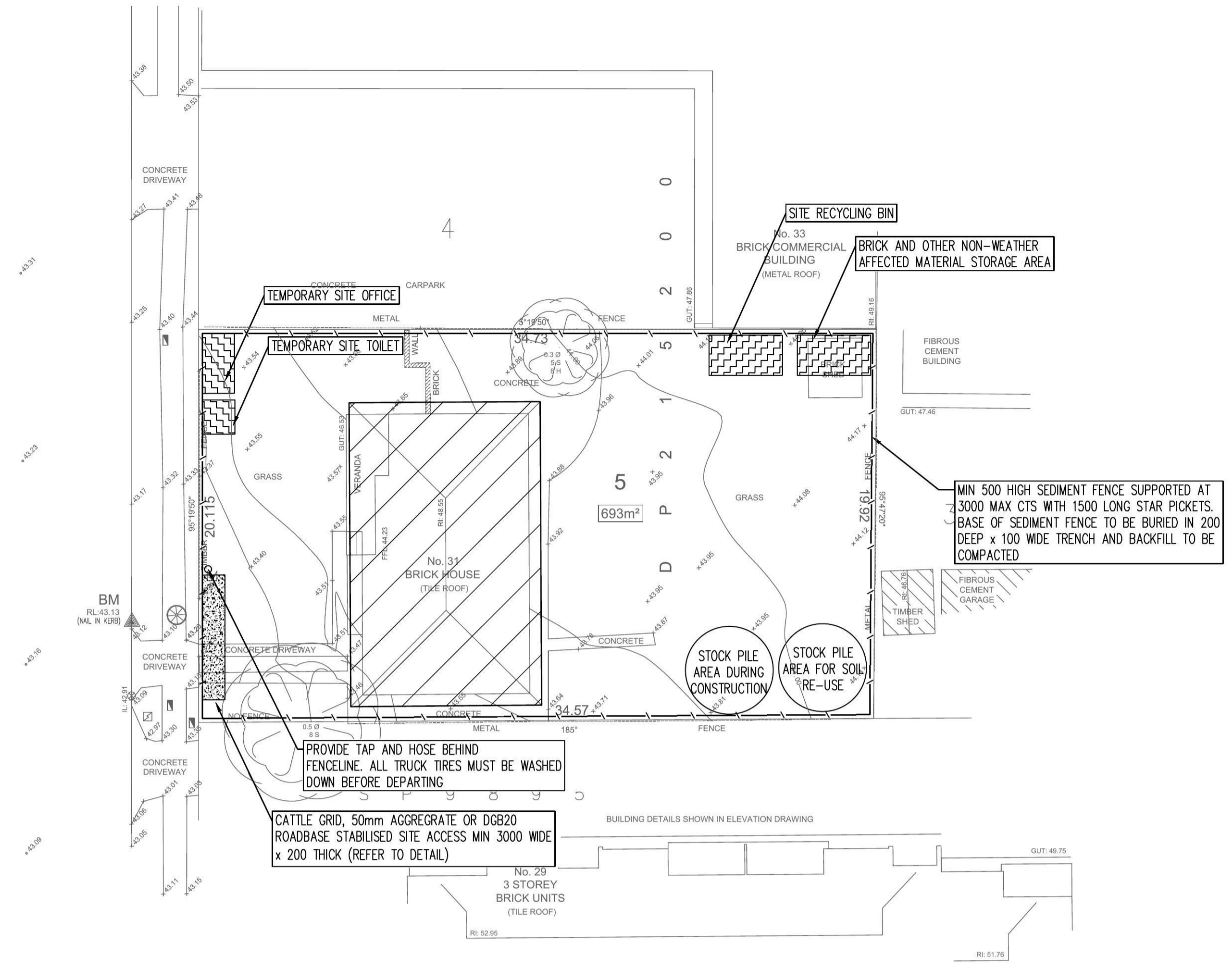
SYMBOLS

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- IL INVERT LEVEL
- TK TOP OF KERB
- SW — SW STORMWATER DRAINAGE PIPE
- RWT — RWT DOWNPIPE TO RAINWATER TANK
- SW — SW OVERFLOW PIPE FROM RAINWATER TANK
- 100 — 100 #100 SUBSOIL PIPE
- ⊠ FW ⊠ FW FLOOR WASTE 150X150
- ⊙ FW ⊙ FW FLOOR WASTE 150Ø
- ⊙ RWO ⊙ RWO RAINWATER OUTLET 300Ø
- DP ● DP DOWN PIPE
- CO ● CO CLEAN OUT
- IO ● IO INSPECTION OPENING
- VD ● VD VERTICAL DROP
- VR ● VR VERTICAL RISER
- ⊠ ⊠ CONCRETE COVER JUNCTION PIT
- ⊠ ⊠ GRATED INLET PIT
- ▬ ▬ WIDE GRATED DRAIN
- ← ← OVERLAND FLOW PATH

A1 1 2 3 4 5 6 7 8 9 10

<p>ARCHITECT DDA CDARCHITECTS LEVEL 2, 60 PARK STREET SYDNEY NSW 2000 P: 02 9267 2000 W: www.cdarchitects.com.au</p>												<p>PROJECT AUSTRALIAN CONSULTING ENGINEERS. PTY LTD - A.C.N. 084 059 941 SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2137 PH: (02) 9763 1500 FX: (02) 9763 1515 EMAIL: info@aceeng.com.au</p>						<p>PROJECT PROPOSED RESIDENTIAL BUILDING 31 SANTLEY CRESCENT KINGSWOOD</p>						<p>SHEET SUBJECT CATCHMENT AREA – MUSIC MODEL BREAKDOWN PLAN</p>						<p>PROJECT 31 SANTLEY CRESCENT, KINGSWOOD</p> <table border="1"> <tr> <td>DATE</td> <td>DRAWN</td> <td>DESIGNED</td> <td>CHECKED</td> </tr> <tr> <td>OCT 2016</td> <td>S.N.</td> <td>S.N.</td> <td>O.C.</td> </tr> <tr> <td colspan="2">SCALE @ A1</td> <td colspan="2">JOB No</td> </tr> <tr> <td colspan="2">1:100</td> <td colspan="2">161086</td> </tr> <tr> <td colspan="2">AUTHORISED</td> <td colspan="2">DWG No</td> </tr> <tr> <td colspan="2">Dr. Anthony Hasham</td> <td colspan="2">D09</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">REV</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">A</td> </tr> </table>						DATE	DRAWN	DESIGNED	CHECKED	OCT 2016	S.N.	S.N.	O.C.	SCALE @ A1		JOB No		1:100		161086		AUTHORISED		DWG No		Dr. Anthony Hasham		D09				REV				A	
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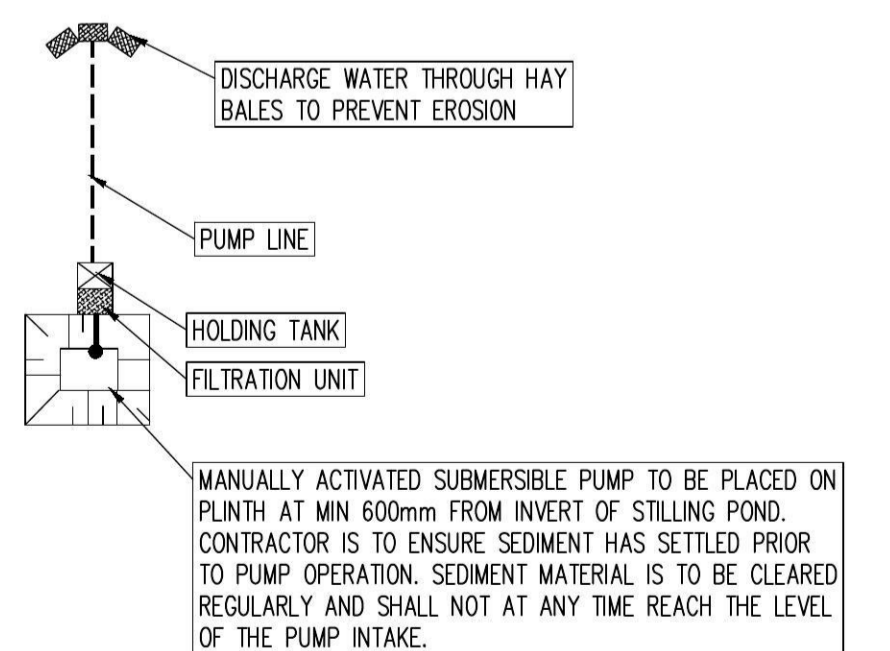
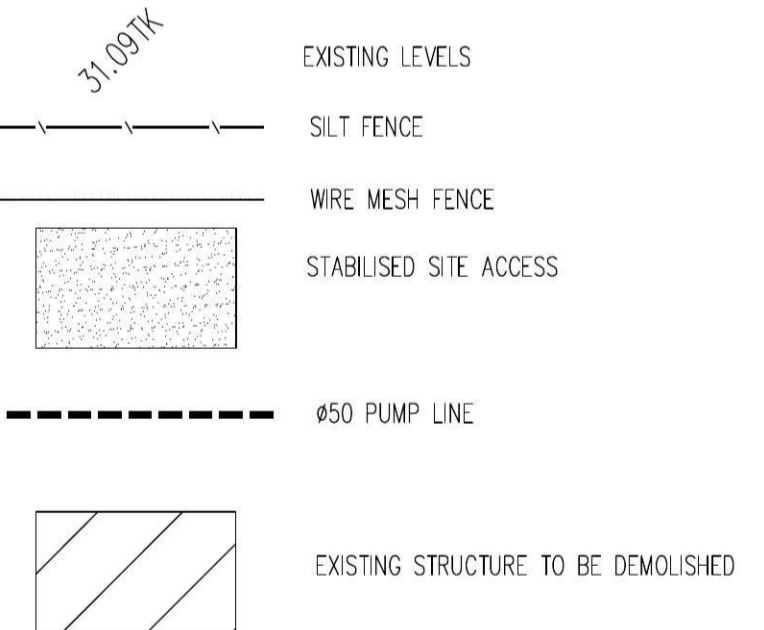
CRESCENT
SANTLEY



EROSION CONTROL NOTES

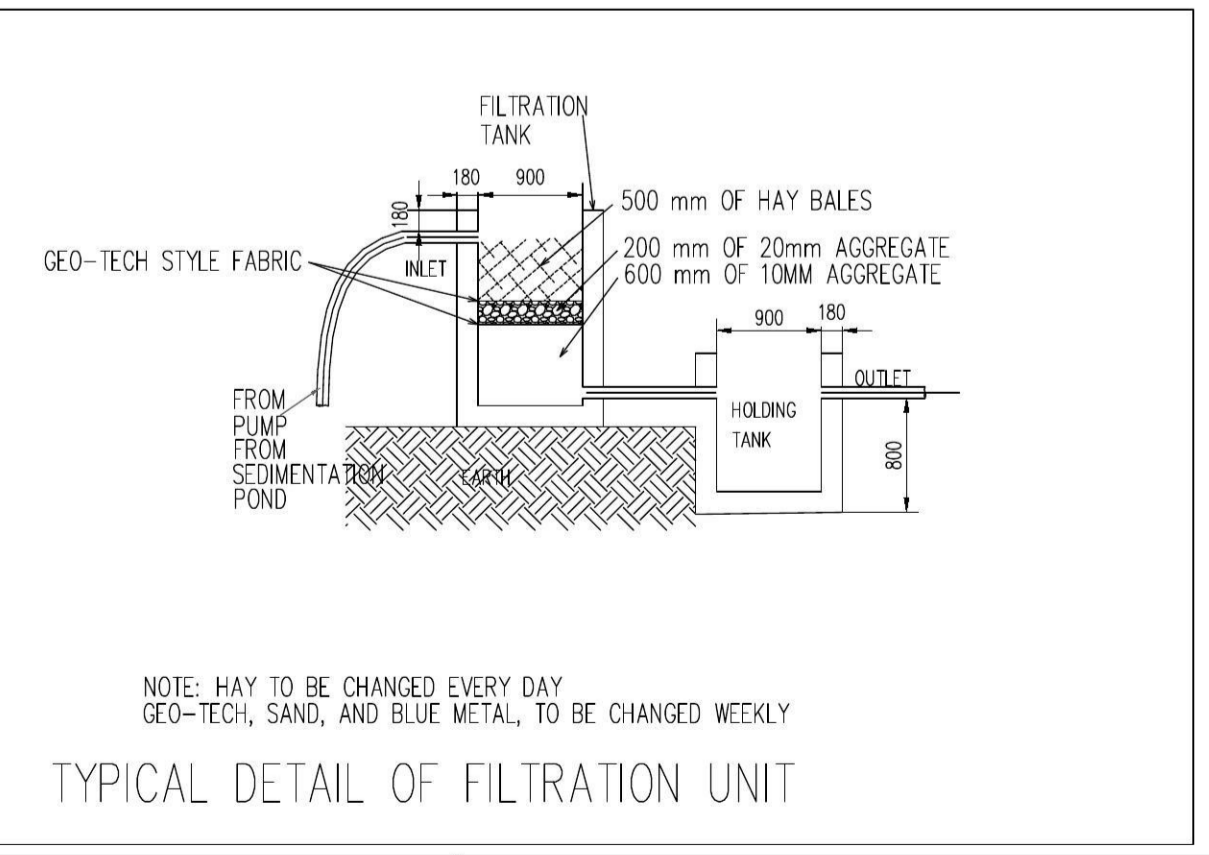
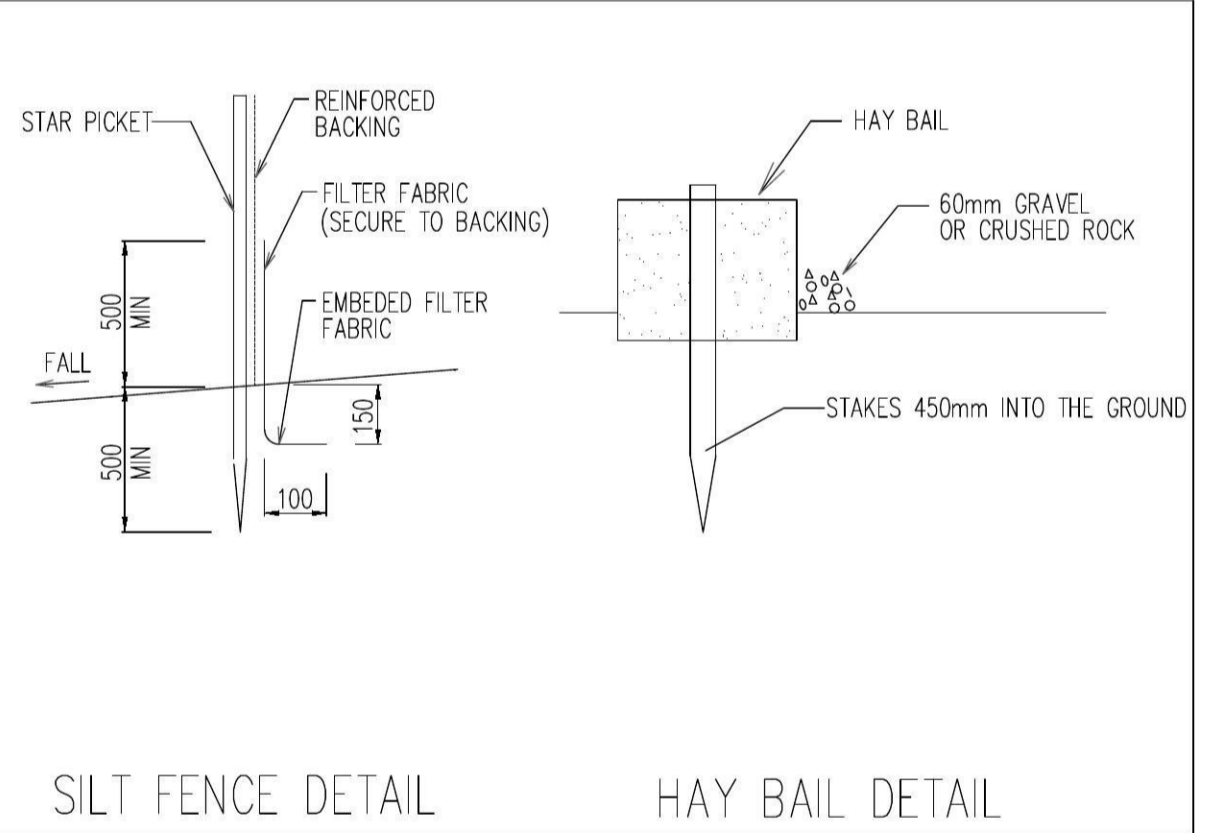
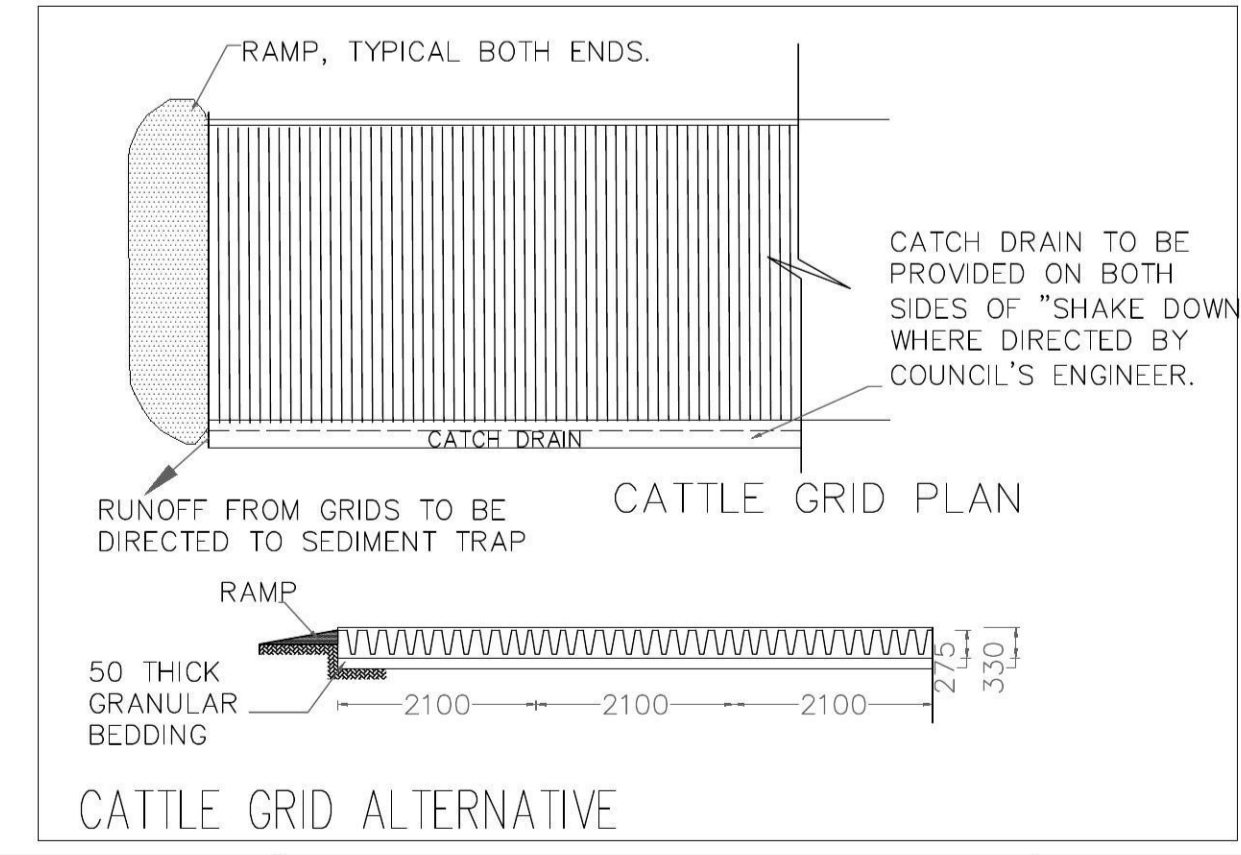
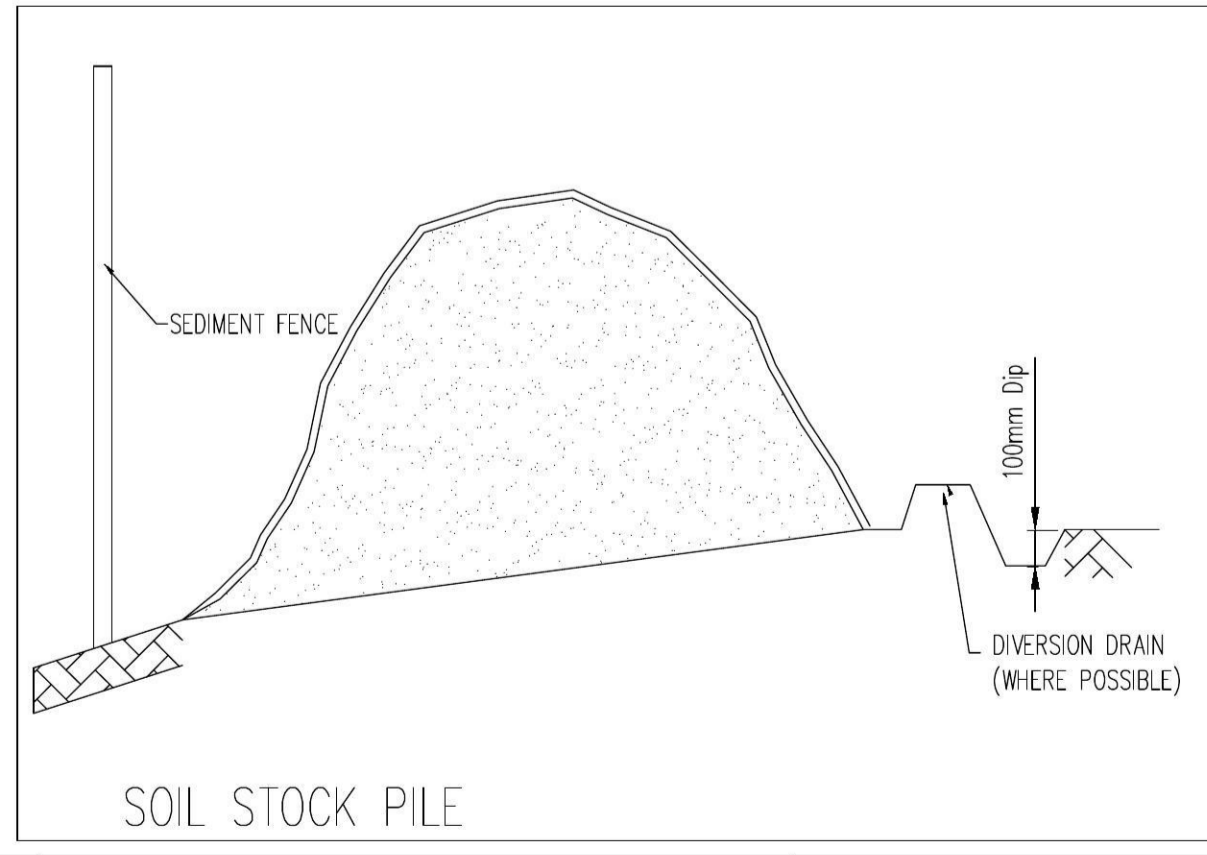
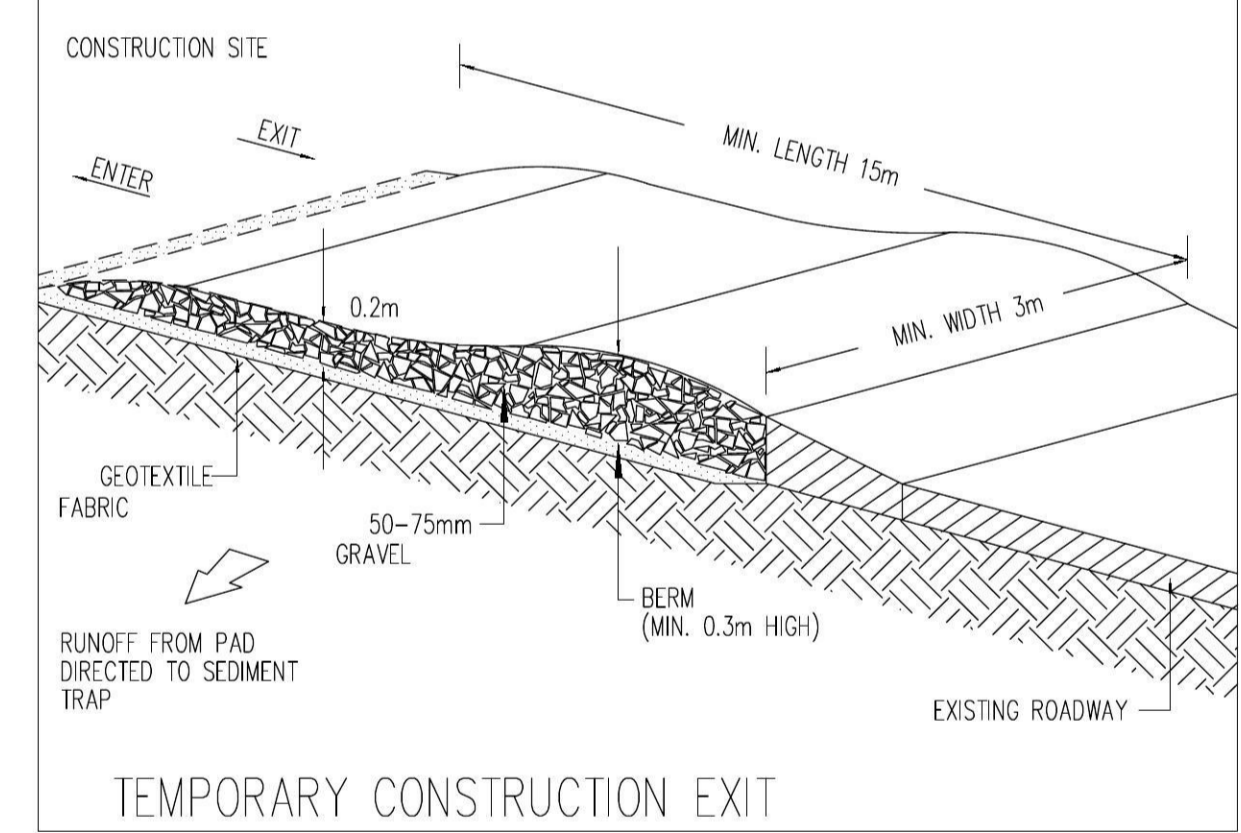
- ALL EROSION & SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED & MAINTAINED IN ACCORDANCE WITH 'MANAGING URBAN STORMWATER, 4TH EDITION' BY LANDCOM.
 - ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION AND REMOVED REGULARLY DURING CONSTRUCTION
 - ALL TREES ARE TO BE PRESERVED UNLESS INDICATED OTHERWISE ON THE ARCHITECT'S OR LANDSCAPE ARCHITECT'S DRAWINGS. EXISTING GRASS COVER SHALL BE MAINTAINED EXCEPT IN AREAS CLEARED FOR BUILDINGS, PAVEMENTS ETC- CONTRACTOR TO MINIMISE DISTURBED AREAS.
 - INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PITS LIKELY TO COLLECT SILT LADEN WATER
 - NOT WITHSTANDING DETAILS SHOWN, IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO ENSURE THAT ALL SITE ACTIVITIES COMPLY WITH THE REQUIREMENTS OF THE CLEAN WATERS ACT.
 - ALL DISTURBED AREAS AND STOCKPILES TO BE STABILISED WITHIN 14 DAYS. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
 - TOPSOIL TO BE STRIPPED, STOCKPILED AND RE-SPREAD ON COMPLETION OF EARTHWORKS. NONE TO BE REMOVED.
 - NO DISTURBANCE OF SITE PERMITTED OTHER THAN IMMEDIATE AREA OF THE WORKS.
 - DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
- NON-COMPLIANCE MAY RESULT IN A \$1500 FINE

SYMBOLS



NOTES THIS DRAWING

- ALL DOCUMENTS WILL BE SUBMITTED TO COUNCIL FOR APPROVAL.
- ALL SEDIMENT CONTROL MEASURES ARE TO BE IN PLACE.
- INSTALLATION OF SILT FENCING, SEDIMENTATION BARRIERS AROUND DRAINS.
- FENCING IS TO BE 1.8m(min) HEIGHT, PLACED AROUND THE SITE UNTIL THE WORK IS COMPLETE.
- THE SITE GATES WILL BE LOCATED AT SANTLEY CRESCENT.
- THE HARDSTAND AREAS OR CATTLE GRIDS WILL BE PLACED AT THE SITE ENTRANCES AND EXITS. TO REMOVE THE BULK OF DIRT AND MUD THAT MAY ACCUMULATE ON TRUCK TYRES.
- CONTRACTOR WILL CONDUCT REGULAR STREET SWEEPS ALONG THE ACCESS ROUTE TO ENSURE THE ROADS ADJACENT TO THE SITE ENTRANCES ARE KEPT CLEAN OF ANY DIRT AND DEBRIS.
- REGULAR ENVIRONMENTAL INSPECTIONS WILL BE CARRIED OUT BY CONTRACTOR'S PERSONNEL TO ENSURE COMPLIANCE WITH THIS PLAN.



No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE
A	FOR D.A. APPROVAL	O.C.	S.N.	03.11.16										

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W: www.ddarchitects.com.au

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AUSTRALIAN CONSULTING ENGINEERS.
PTY LTD - A.C.N. 084 059 941
SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2157
PH: (02) 9763 1500 FX: (02) 9763 1515
EMAIL: info@aceeng.com.au

PROJECT
PROPOSED RESIDENTIAL BUILDING
31 SANTLEY CRESCENT
KINGSWOOD

SHEET SUBJECT
EROSION AND SEDIMENT CONTROL PLAN & DETAILS

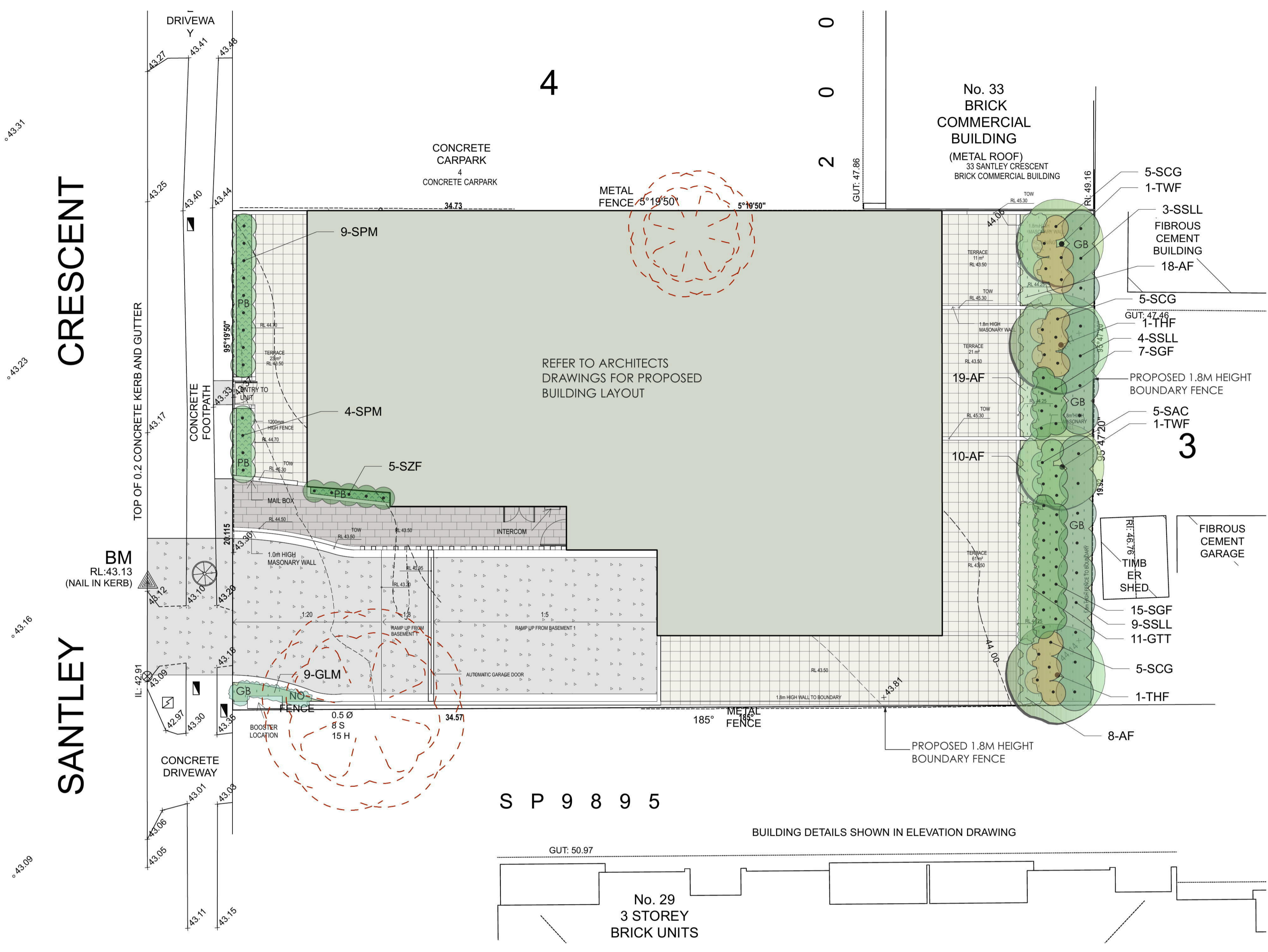
PROJECT 31 SANTLEY CRESCENT, KINGSWOOD
DATE OCT 2016
SCALE @ A1 1:200
AUTHORISED Dr. Anthony Hasham
DESIGNED S.N.
DRAWN S.N.
CHECKED O.C.
JOB No 161086
DWG No D10
REV A

LEGEND

-  Existing trees to be removed
-  Proposed tree plantings
-  Proposed shrub plantings
-  Proposed groundcover plantings
-  Concrete driveway pavement
-  Non slip unit path pavement
-  Non slip patio pavement
-  Proposed planter bed
-  Proposed garden bed

Notes:

- Refer Architects drawings for pavement, walls, fence, steps, and levels
- Refer Engineers drawings for hydraulic information
- Refer GD.03 for Plant Schedule, landscape details and specification



GENERAL NOTES:

1. Do not scale of drawings. Follow written dimensions. If in doubt obtain written advice from the Superintendent.
2. Verify all dimensions on site.
3. Refer to legend for all symbol and code keys.
4. Read in conjunction with the specifications
5. Read in conjunction with all associated drawings

A	FOR APPROVAL	CL	01.11.16
	AMENDMENT		
ISSUE		DRAWN	DATE

DESIGNED:	PREPARED FOR:
GD	NIFITSA PTY LTD
DRAWN:	
CL	

PREPARED BY:

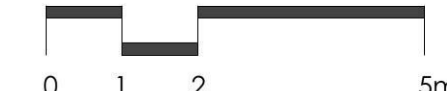



Greenland Design Pty Ltd
 ABN 73 139 152 855
 Registered Landscape Architect: Bao Ly
 PO Box 3228 Wetherill Park NSW 2164
 T: 0403 164 198
 E: gd@greenlanddesign.com.au

PROJECT:	PROJECT ADDRESS:
PROPOSED RESIDENTIAL FLAT	NO. 31 SANTLEY CRESCENT KINGSWOOD

DRAWING TITLE:

Landscape Plan - Ground Floor

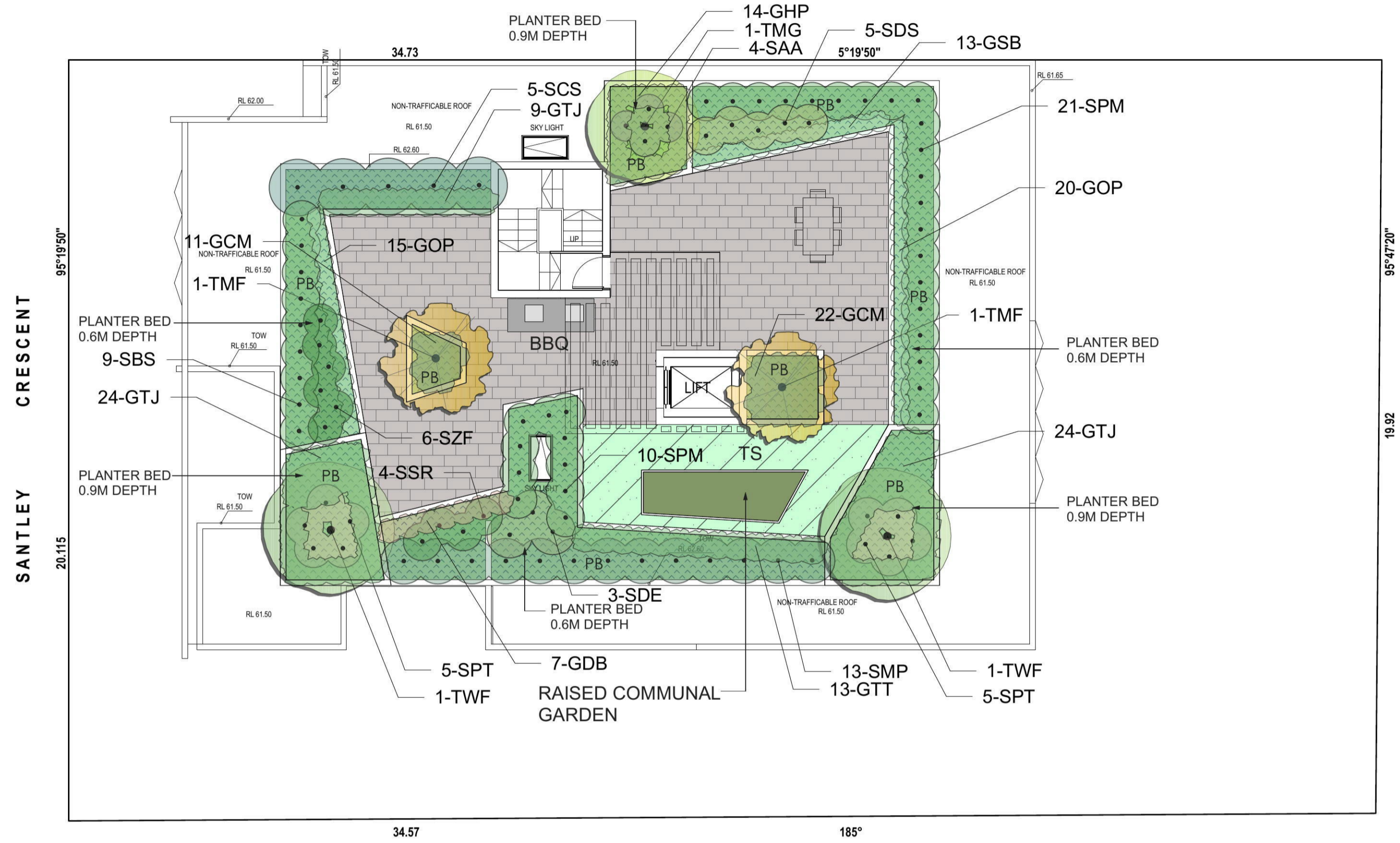
DATE:	NOVEMBER 2016
SCALE:	1:200
FULL SIZE:	A3
ISSUE:	A
DRAWING NO.:	1504.GD.01

LEGEND

- Proposed tree plantings
- Proposed shrub plantings
- Proposed groundcover plantings
- Non slip unit pavement
- Proposed planter bed

Notes:

- Refer Architects drawings for pavement, walls, fence, steps, and levels
- Refer Engineers drawings for hydraulic information
- Refer GD.03 for Plant Schedule, landscape details and specification



GENERAL NOTES:

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A	FOR APPROVAL	CL	01.11.16
ISSUE	AMENDMENT	DRAWN	DATE

DESIGNED: GD
 DRAWN: CL
 PREPARED FOR: NIFITSA PTY LTD

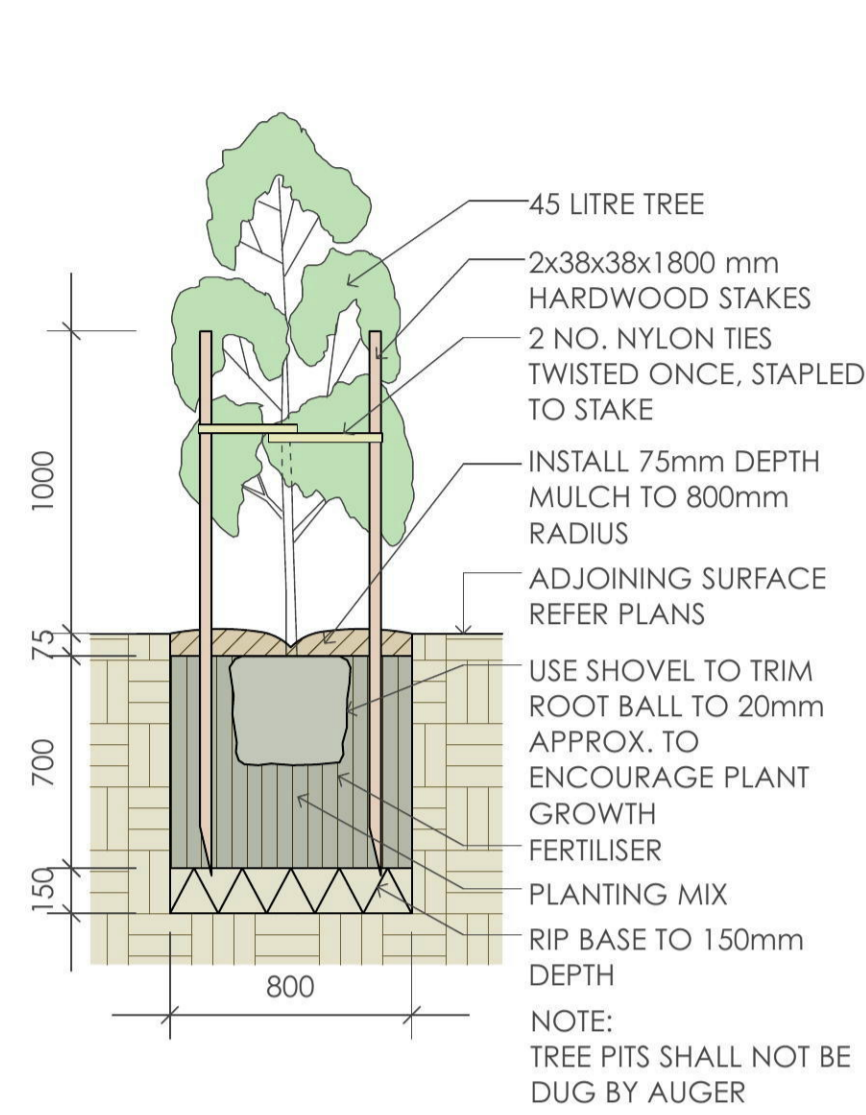
PREPARED BY:

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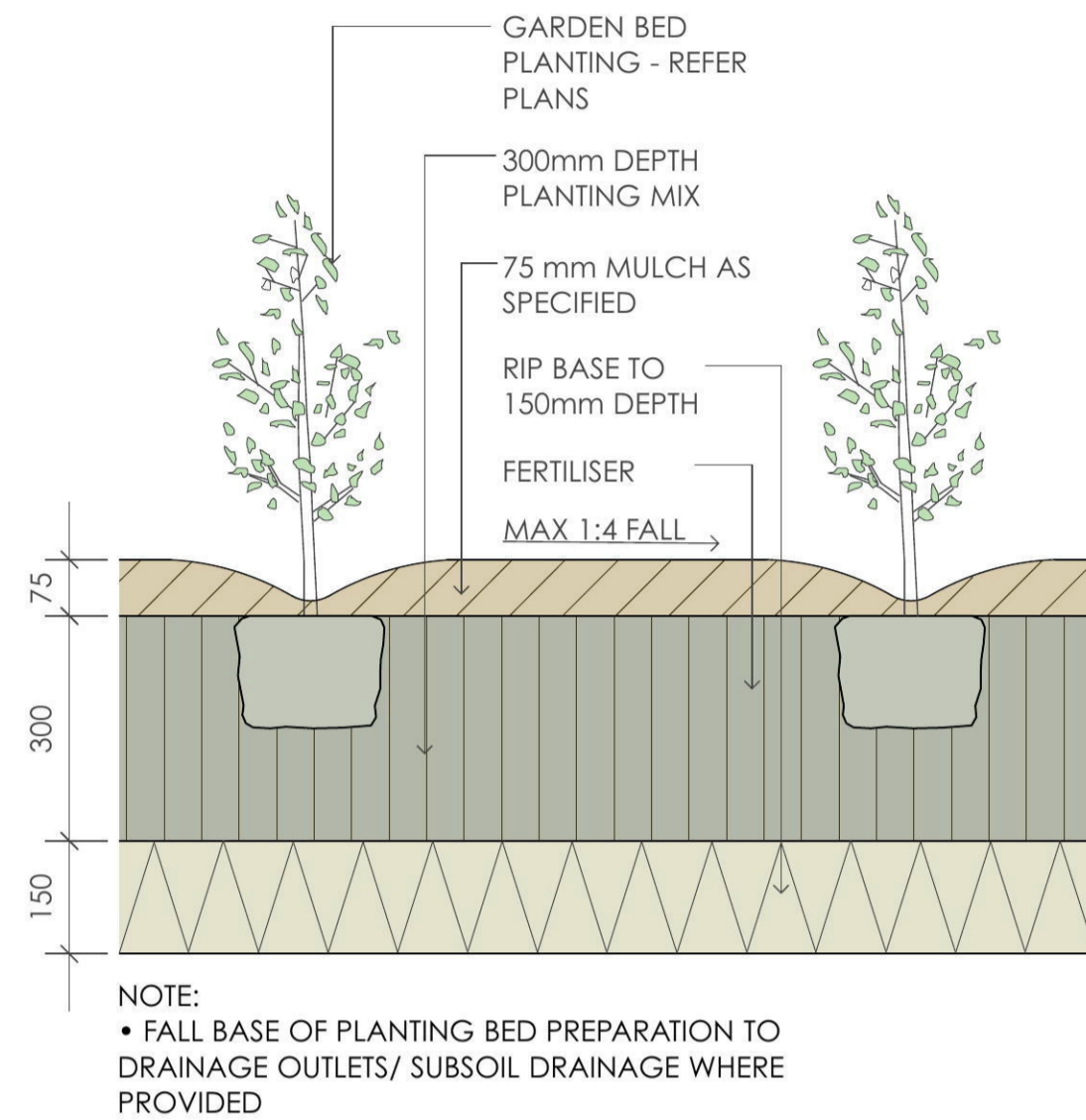
PROJECT: **PROPOSED RESIDENTIAL FLAT**
 PROJECT ADDRESS: NO. 31 SANTLEY CRESCENT KINGSWOOD

DRAWING TITLE: **Landscape Plan - Roof Terrace**

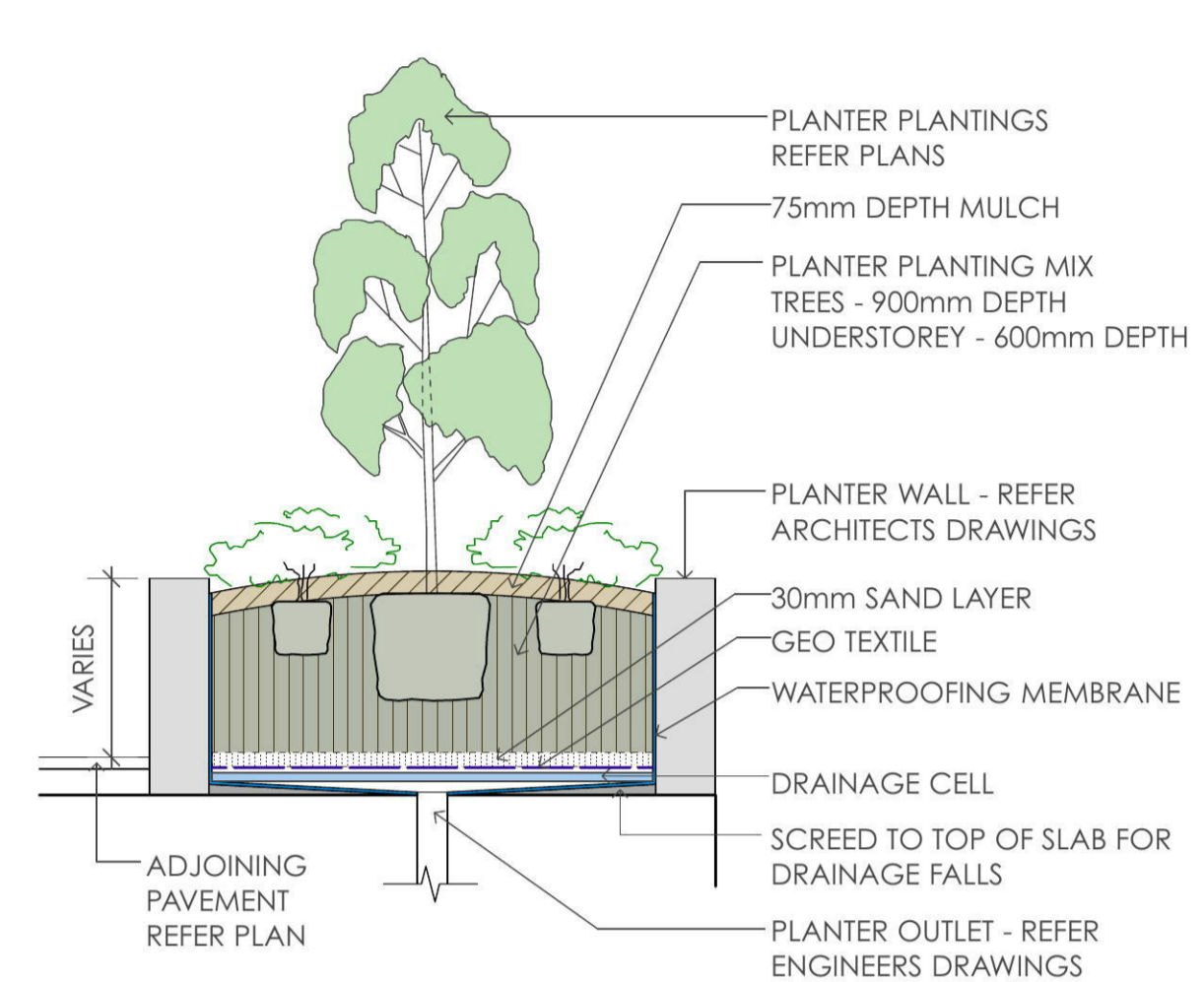
DATE: NOVEMBER 2016	
SCALE: 1:200 FULL SIZE: A3	ISSUE: A
DRAWING NO: 1504.GD.02	



1 45 Litre Tree Planting
scale 1:50



2 Planting Bed Detail
scale 1:20



3 Planter Bed On Slab
scale 1:50

ID	Qty	Common Name	Botanical Name	Size	Mature Height	Mature Spread	Native (N)
Trees							
THF	2	Native Frangipani	Hymenosporum flavum	45Litre	8 - 12m	3.0 - 4m	N
TMF	2	Flowering Crabapple	Malus x floribunda	45Litre	4 - 6m	6 - 10m	
TMG	1	Little Gem Southern Magnolia	Magnolia grandiflora 'Little Gem'	45Litre	4 - 6m	2.0 - 3.5m	
TWF	4	Weeping Lilly Pilly	Waterhousia floribunda	45Litre	6 - 8m	3.5 - 6m	N
Shrubs							
SAA	4	Century Plant	Agave attenuata	200mm	0.75 - 0.9m	0.6 - 0.9m	
SAC	5	Green Mist	Acmena 'Allyn Magic'	200mm	1.0 - 1.5m	0.8 - 1.0m	N
SBS	9	Common Boxwood	Buxus sempervirens	200mm	1 - 1.5m	0.9 - 1.2m	
SCG	15	Bottle Brush	Callistemon "Great Balls of Fire"	200mm	1 - 1.2m	1.0 - 1.5m	N
SCS	5	Sasanqua Camellia	Camellia sasanqua	200mm	3 - 5m	3.5 - 6m	
SDE	3	Gymea Lily	Doryanthes excelsa	200mm	1.2 - 2m	1.2 - 2.0m	N
SDS	5	Duranta Gold	Duranta 'Sheenas Gold'	200mm	0.8 - 1.2m	0.9 - 1.2m	
SGF	22	Florida Gardenia	Gardenia augusta 'Florida'	200mm	0.8 - 1.0m	0.9 - 1.2m	
SMP	13	Orange Jessamine	Murraya paniculata	200mm	1.5 - 3m	3.5 - 6m	
SPM	44	Miss Muffet	Pittosporum tobira 'Miss Muffet'	200mm	0.8 - 1.0m	1.2 - 1.5m	
SPT	10	New Zealand Flax	Phormium tenax 'Flamin'	200mm	0.6-0.9m	0.8 - 1.0m	
SSLL	16	Small-Heaved Lilly Pilly	Syzygium luehmannii 'Lulu'	200mm	4 - 6m	6 - 10m	N
SSR	4	Bird Of Paradise	Strelitzia reginae var junccea	200mm	0.9 - 1.5m	0.9 - 1.2m	
SZF	11	Carboard Plant	Zamia furfuracea	200mm	0.75 - 0.9m	0.6 - 0.9m	
Ground Covers							
AF	55	Kangaroo Paw 'Gold Velvet'	Anigozanthos 'Gold Velvet'	150mm	0.75 - 0.9m	0.3 - 0.6m	N
GHP	14	Licorice Plant	Helichrysum petiolare 'Limelight'	150mm	0.3 - 0.45m	0.6 - 0.9m	
GSB	13	Lamb's Ear	Stachys byzantina	150mm	0.0 - 0.3m	0.3 - 0.6m	
GCM	33	Bush Lily	Clivia miniata	150mm	0.45 - 0.6m	0.3 - 0.6m	
GLM	9	Giant Lily Turf	Liriope muscari 'Evergreen Giant'	150mm	0.0 - 0.3m	0.0 - 0.3m	
GOP	35	Black Mondo Grass	Ophiopogon planiscapus 'Nigrescens'	150mm	0.3 - 0.45m	0.0 - 0.3m	
GDB	7	Flax Lily	Dianella tasmanica 'Blaze'	150mm	0.4 - 0.5m	0.4 - 0.6m	N
GTT	24	Tricolour Star Jasmine	Trachelospermum 'Tricolour'	150mm	0.3 - 0.6m	1 - 4m	
GTJ	57	Star Jasmine	Trachelospermum jasminoides	150mm	0.3 - 0.6m	1 - 4m	



SPECIFICATION NOTES

PLANTING MATERIALS

Planting Mix:

Planting mix for tree pit backfill shall be "Organic Garden Mix" consisting of
 50% Black Soil
 20% Coarse Sand
 30% Organic Material

as available from Australian Native Landscapes, Phone: [02] 9450 1444, or approved equivalent. Samples shall be provided to the Superintendent prior to ordering or delivery to site. Any material delivered to site, that is rejected by the Superintendent, shall be removed by the contractor at his own expense. Minimum depths of mix to all planting bed areas is as specified on details.

Planter Mix:

Planter mix shall be Peat and Planter Mix as supplied by Australian Native Landscape Pty Ltd (ph [02] 9450 1444 or approved equivalent).

Planter Drainage Cell:

Planter drainage cell shall be VersiCell as supplied by Elmich Australia Pty Ltd (ph [02] 9448 2073 or approved equivalent).

Mulch:

Mulch to garden bed:

Mulch shall mean hardwood mulch (25mm grade), free from material derived from Privet, Willow, Poplar, Coral trees, or other noxious weeds. Any mulch exceeding the 25mm grade shall be rejected / removed from the site. Graded hardwood mulch to be supplied by Australian Native Landscapes Pty Ltd Phone [02] 9450 1444, or approved equivalent.

Mulch to planter beds:

Mulch to planter beds shall be Pine bark mini nuggets mulch (25mm grade), free from fines and as available from Australian Native Landscapes Pty Ltd Phone (02) 9450 1444, or approved equivalent.

Spread mulch so that after settling, it is:

- smooth and evenly graded between design surface levels;
- flush with adjacent finished levels;
- of the required depths (75mm); and
- sloped towards the base of plant stems in plantation beds, but not in contact with the stem (not closer than 50mm in the case of gravel mulches).

Place after the preparation of the planting bed, planting and all other work.

Plant Material:

All plant material must be true to the species. No substitutes will be allowed. All plants shall be free of fungus and insect damage. All plants shall be healthy, well shaped, not soft or force grown and not root bound. Plants are available from **Andreasens Green** wholesale nursery, contact Darren (02) 8777 4713, email darren@andreasensgreen.com.au or approved equivalent.

Turfed areas:

All new turfed areas are to be selected weed free Soft Leaf Buffalo. Turf shall be laid neatly butted with staggered joints, flush with adjacent surfaces and have even running falls to all drainage points.

All new turfed area shall have a minimum 150mm depth of weed free top soil, placed and levelled prior to turfing.

PREPARATION AND HARDWORKS

Excavating for Spot Planting

To planting areas, excavate a hole for each plant large enough to provide not less than twice the depth and twice the diameter than the root ball of species to be planted.

Staking

Use durable hardwood, straight, free from knots or twists, pointed at one end. Drive stakes into the ground a minimum one third of their length, avoiding damage to the root system.

- 45 Litre trees in 2 x 38x38x1800mm Hardwood Stake with double Nylon tie TIES: Provide a 50mm wide Nylon webbing tie per stake, fixed securely to the stakes, one tie at half the height of the main stem and the other as necessary to stabilise the plant.

Decorative Pebble

MATERIAL: Decorative pebble shall be Western White pebble, gravel to be of uniform size or graded material in the size 30 - 40mm grade to nominal 75mm thickness as available from Australian Native Landscapes. Ph: [02] 9450 1444.

Porous Pavement

MATERIAL: Porous pavement shall be 115x230x80mm porous paving installed to manufacturers recommendations and specifications as available from Boral Pty Ltd (Ph 1300 134 002) or approved equivalent. Sample to be provided for approval by Superintendent.

Porous Pavement

MATERIAL: Porous pavement shall be Stoneset Pour On Gravel binder pavement colour Gold as available from Pour On Pty Ltd (Phone 1300 392 155) or approved equivalent. Install to manufacturer's recommendations. Sample to be provided for approval by Superintendent.

Concrete Edge

MATERIALS: Concrete to be off white colour.
 INSTALLATION: Supply and install 150 x 100mm (width) reinforced flush concrete kerb to locations as approved on site by the Superintendent. Provide flexible joints at maximum 3 metre intervals in colour to match concrete. Lightly expose aggregate through rinsing / sponging. Tool finish exposed edges with 10mm pencil round to prevent chipping.

Timber Edge

MATERIAL: Timber edging shall consist of:
 Edging: 100 x 50mm hardwood
 Pegs: 50 x 50 x 400mm hardwood
 Fastenings: 10 x 75x3.75mm diam. galvanised nails
 INSTALLATION: Setout alignment of timber edges on site for approval of Superintendent. Excavate to approved alignment and place edge band within trench to confirm peg locations. Install pegs and affix timber edge in accordance with details. All timber edging to finish flush with adjoining turf.

MAINTENANCE / PLANT ESTABLISHMENT

Maintenance shall apply to all hard and soft landscape materials installed prior to the "handover" and acceptance by Principles Representative and the Site Superintendent. The maintenance period shall commence at the granting of practical completion and shall extend for 26 weeks.

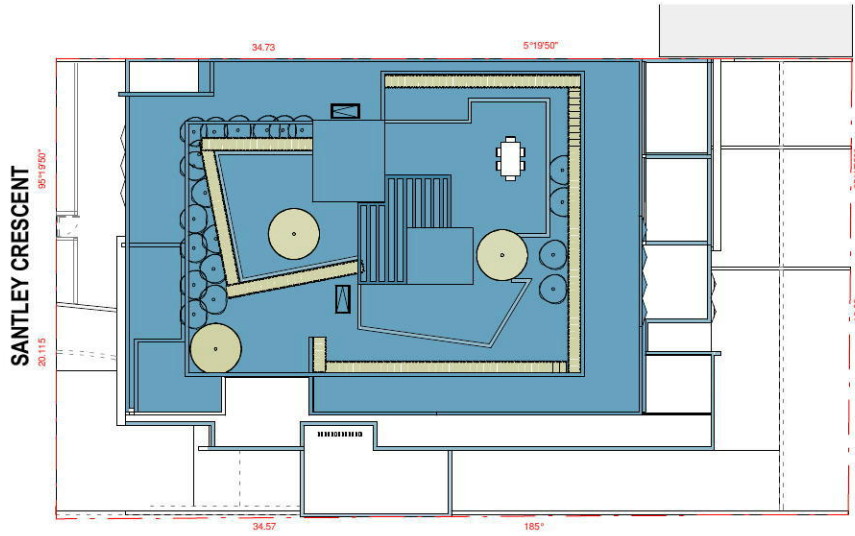
Maintenance shall consist of the following works:

- Follow a daily watering programme to be approved by Superintendent. Water all plants individually, twice per week or when necessary to ensure constant plant growth. Water all turf and native grassed areas, twice per week.
- Apply appropriate weed control sprays and hand weed as required to maintain planting areas, native grassing bed areas, turfed areas, paved areas, and tree pits in turf free of weed or rogue grass growth.
- Regularly tidy and top up mulch and trim edges to prevent spill over onto paved / grassed areas.
- Spray to control pests and diseases.
- Replace plants, which fail with plants of a similar size and quality as originally specified to approval of Superintendent. Costs of replacement shall be the responsibility of the Contractor. Replacement planting will be undertaken within 2 weeks of identification of dead material or instruction be the Superintendent.
- Report any incidence of plants stolen or destroyed by vandalism.
- Adjust stakes and lies to plants as necessary. Ensure that strangulation of plants does not occur.
- Prune and shape plants as directed or where necessary.
- Make good any defects or faults arising out of defective workmanship or materials.
- Fertilise lawn areas to maintain healthy growth.
- Make good any erosion or soil subsidence, which may occur including soft areas in pathways.
- Mow lawn to maintain neat healthy growth.
- A final inspection shall be made by the Superintendent before handover. Any items requiring rectification shall be repaired before the works are finally approved, and retention moneys released.

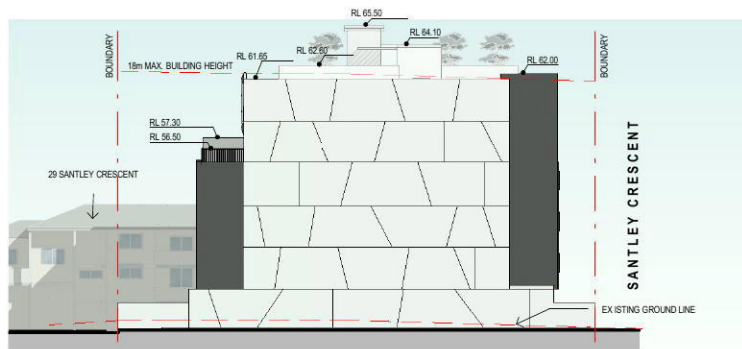
NOTE:

- All finished levels are to be verified by Contractor on site.
- All landscape works be in strict accordance with Council's landscape code and guidelines
- This plan to be used in conjunction with all other submitted architectural, hydraulics and engineering drawing where applicable.

GENERAL NOTES: 1. Do not scale of drawings. Follow written dimensions. If in doubt obtain written advice from the Superintendent. 2. Verify all dimensions on site. 3. Refer to legend for all symbol and code keys. 4. Read in conjunction with the specifications 5. Read in conjunction with all associated drawings	A	FOR APPROVAL	CL	01.11.16	DESIGNED: GD	PREPARED FOR: NIFITSA PTY LTD	PREPARED BY:  Greenland Design Pty Ltd ABN 73 139 152 855 Registered Landsc. Architect: Bao Ly PO Box 3228 Wetherill Park NSW 2164 T: 0403 164 198 E: gd@greenlanddesign.com.au	PROJECT: PROPOSED RESIDENTIAL FLAT	DRAWING TITLE: Landscape Details & Specification	DATE: NOVEMBER 2016
		ISSUE	AMENDMENT	DRAWN	DATE	CL		PROJECT ADDRESS: NO. 31 SANTLEY CRESCENT KINGSWOOD		SCALE: varies FULL SIZE: A3
										DRAWING NO: 1504.GD.03



1 SITE PLAN
1 : 300



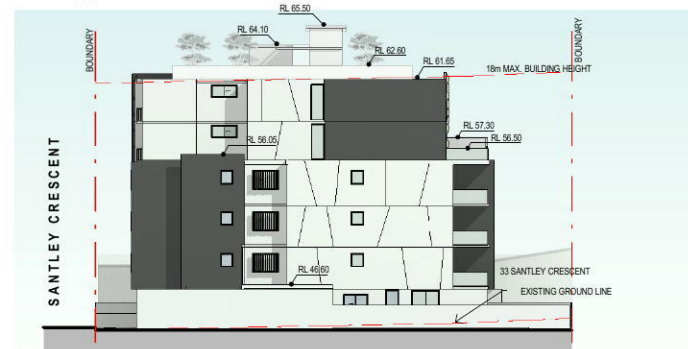
2 NOTIFICATION-WEST ELEVATION
1 : 500



3 NOTIFICATION-SOUTH ELEVATION
1 : 500



4 NOTIFICATION-NORTH ELEVATION
1 : 500



5 NOTIFICATION-EAST ELEVATION
1 : 500



Project Architect
DDA
CDARCHITECTS

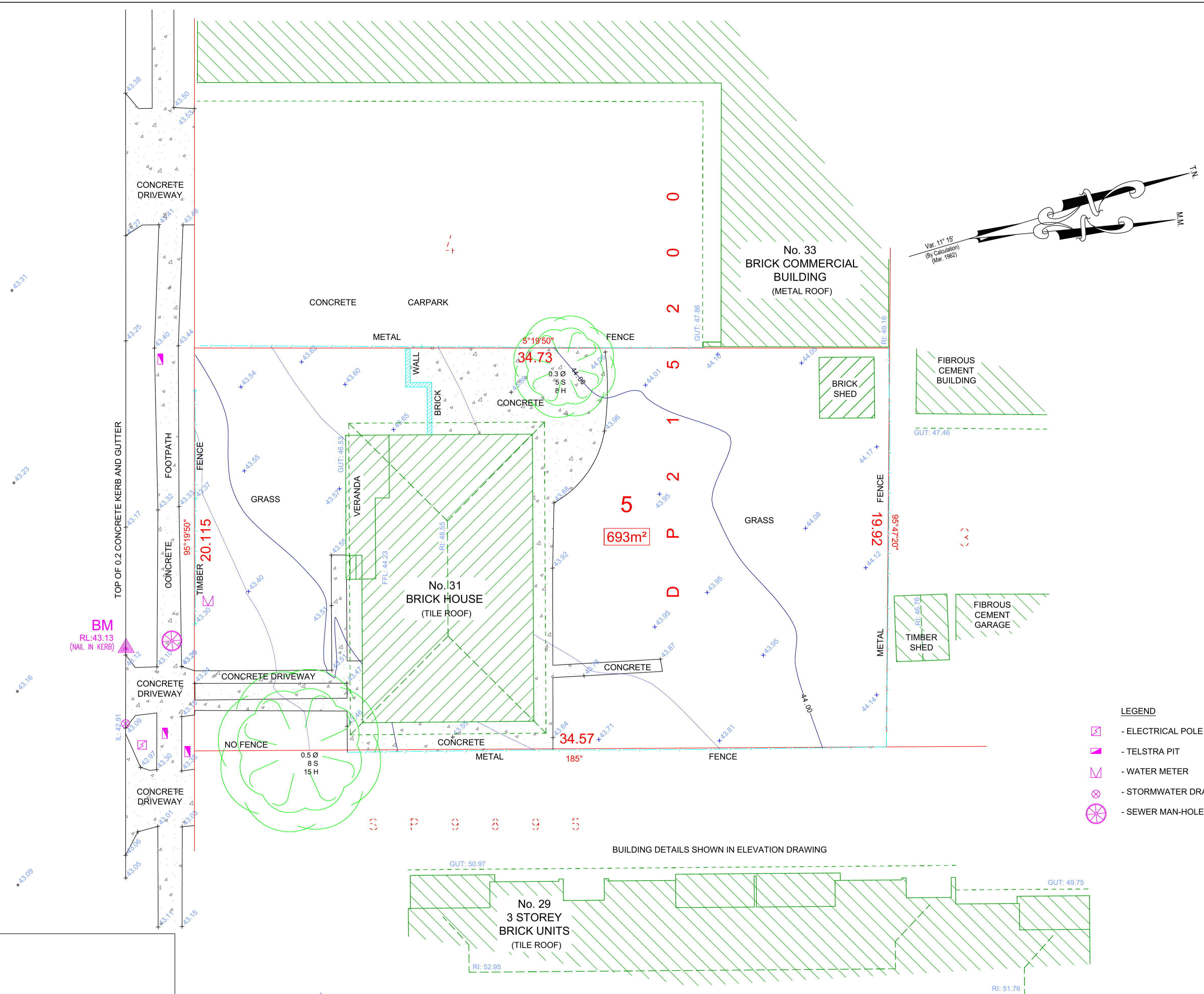
LEVEL 2, 60 PARK STREET
SYDNEY NSW 2000
P: 02 9267 2000
W: www.cdarchitects.com.au

Project
PROPOSED RESIDENTIAL FLAT BUILDING
31 SANTLEY CRESCENT KINGSWOOD

Drawing title
NOTIFICATION PLANS

SANTLEY CRESCENT

SANTLEY



NOTES

- TREE SPREADS SHOWN 'APPROXIMATELY' ONLY
- VISIBLE SERVICES (AT TIME OF SURVEY) SHOWN ONLY
- NO SERVICE PITS ACCESSED/OPENED SHOWN AS LABELED
- BOUNDARIES BY THE TITLE DIAGRAM ONLY,(NOT SURVEYED)
- ALL PITS SHOULD BE ACCESSED, CONFIRMED AND HAVE SUBSURFACE EXTENTS MEASURED BY THE RELEVANT AUTHORITIES, PRIOR TO ADOPTION.
- ALL PIPES, CABLES & DUCTS IN THE EXCAVATION AREA SHOULD BE ACCURATELY LOCATED BY A "PIPE LOCATOR" OR BY THE RELEVANT AUTHORITY, PRIOR TO ANY EXCAVATION IS UNDERTAKEN.
- THE SUBJECT TITLE IS NOT BURDENED BY ANY EASEMENTS, RESTRICTIONS OR COVENANTS

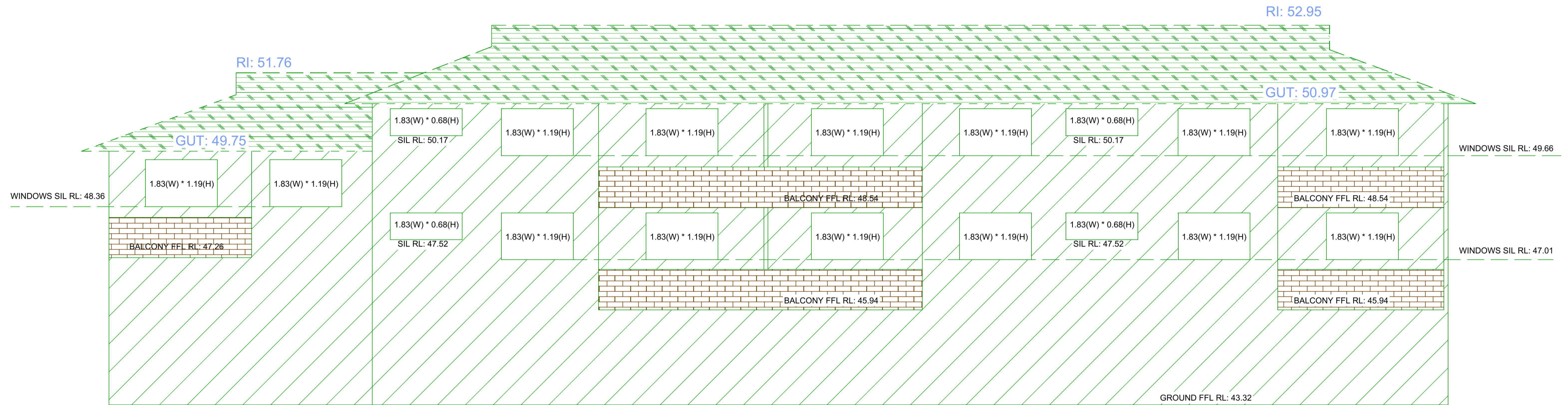
daw & walton CONSULTING SURVEYORS
 PVT LTD
 ABN 65 120 413 372

PO BOX 3222
 REDFERN, NSW, 2016
 Ph: (02) 8065 1156
 Fax: (02) 8065 1297
 Email: survey@daw-walton.com.au

DETAIL SURVEY @
 No. 31 SANTLEY CRESCENT
 KINGSWOOD NSW 2747
 CLIENT: MICHAEL HAWATT

JOB No: 3192-16
 SURVEYED ON: 16/05/2016
 BY: L. WANG & T. KALAITZIS
 DRAWN ON: 17/05/2016
 BY: L. WANG

SCALE: 1:100 (@A1)/ 1:200 (@A3)
 NORTH: MAGNETIC (by DP215200)
 DATUM: PM 30118 RL: 43.485 (AHD)
 CONTOUR INT: 0.5m Maj/0.2m Min



FACADE DETAILS OF EASTERN SIDE UNITS

NOTES

- TREE SPREADS SHOWN 'APPROXIMATELY' ONLY
- VISIBLE SERVICES (AT TIME OF SURVEY) SHOWN ONLY
- NO SERVICE PITS ACCESSED/OPENED SHOWN AS LABELED
- BOUNDARIES BY THE TITLE DIAGRAM ONLY,(NOT SURVEYED)
- ALL PITS SHOULD BE ACCESSED, CONFIRMED AND HAVE SUBSURFACE EXTENTS MEASURED BY THE RELEVANT AUTHORITIES, PRIOR TO ADOPTION.
- ALL PIPES, CABLES & DUCTS IN THE EXCAVATION AREA SHOULD BE ACCURATELY LOCATED BY A "PIPE LOCATOR" OR BY THE RELEVANT AUTHORITY, PRIOR TO ANY EXCAVATION IS UNDERTAKEN.
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SHEET 2/2



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DETAIL SURVEY @
 No. 31 SANTLEY CRESCENT
 KINGSWOOD NSW 2747

CLIENT: MICHAEL HAWATT

JOB No: 3192-16
 SURVEYED ON: 16/05/2016
 BY: L. WANG & T. KALAITZIS

DRAWN ON: 17/05/2016
 BY: L. WANG

SCALE: 1:50 (@A1)/ 1:100 (@A3)
 NORTH: MAGNETIC (by DP215200)
 DATUM: PM 30118 RL: 43.485 (AHD)
 CONTOUR INT: N/A