

Aboriginal Housing Office, Seniors Living Development x 4 Units

30 Frank Street, Mount Druitt, NSW

Updated DA Issue - 4th June 2019

Architectural Drawing Schedule

2158.17	DA00	Cover Sheet
2158.17	DA01	Site Analysis & Block Plan
2158.17	DA02	Site & External Works Plan
2158.17	DA03	Cut and Fill Plan
2158.17	DA04	Ground Floor Plan
2158.17	DA05	Roof Plan
2158.17	DA06	Elevations & Sections
2158.17	DA07	Soft Landscaping and Deep Soil
2158.17	DA08	Shadow Diagrams
2158.17	DA09	External Colour Selection

Civil Drawing Schedule

171243	C01	Notes & Legends
171243	C02	Ground Floor Drainage Plan
171243	ESM1	Notes & Legends
171243	ESM2	Environmental Site Management Plan
171243	C10	Locality Map & Drawing Schedule
171243	C11	General Notes
171243	C12	Stormwater Layout Plan
171243	C13	Stormwater Layout Plan (enlarged)
171243	C14	Stormwater Longsection
171243	C15	Stormwater Notes & Details
171243	C16	Stormwater Catchment Plan
171243	C17	Erosion and Sediment Control Plan

Landscape Drawing Schedule

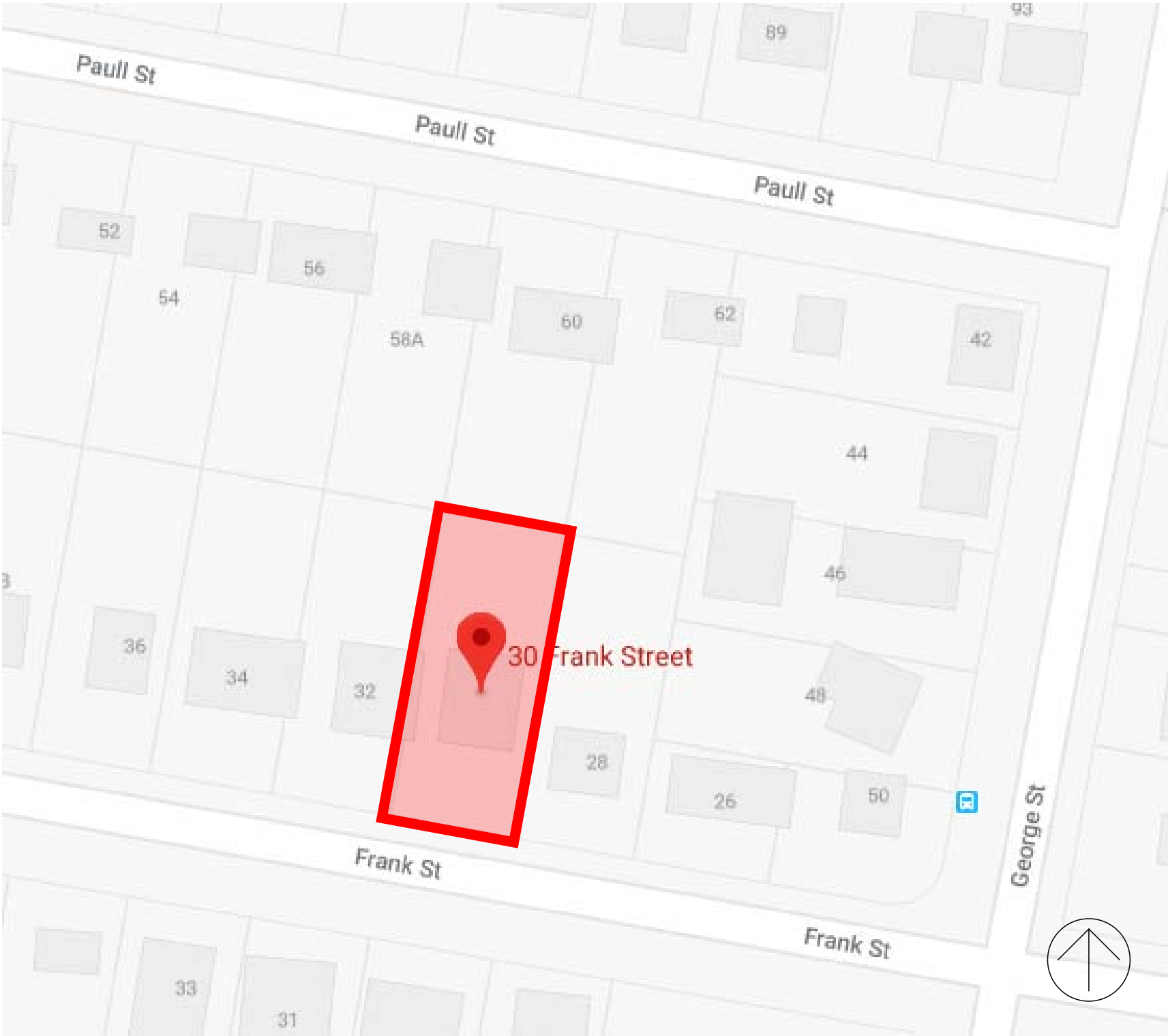
2158.17	L01	Landscape Plan
---------	-----	----------------

Survey Drawing Schedule

2158.17	Sht. 1 of 1	Plan Showing Detail and Levels
---------	-------------	--------------------------------



View from Frank Street



01 Site & Location Plan  
not to scale

Architecture  
Project management  
Interior design

  
stanton dahl  
architects

 Family & Community Services  
Aboriginal Housing Office

 Aboriginal Housing Office

Aboriginal Housing Office

Seniors Living Development x 4 Units

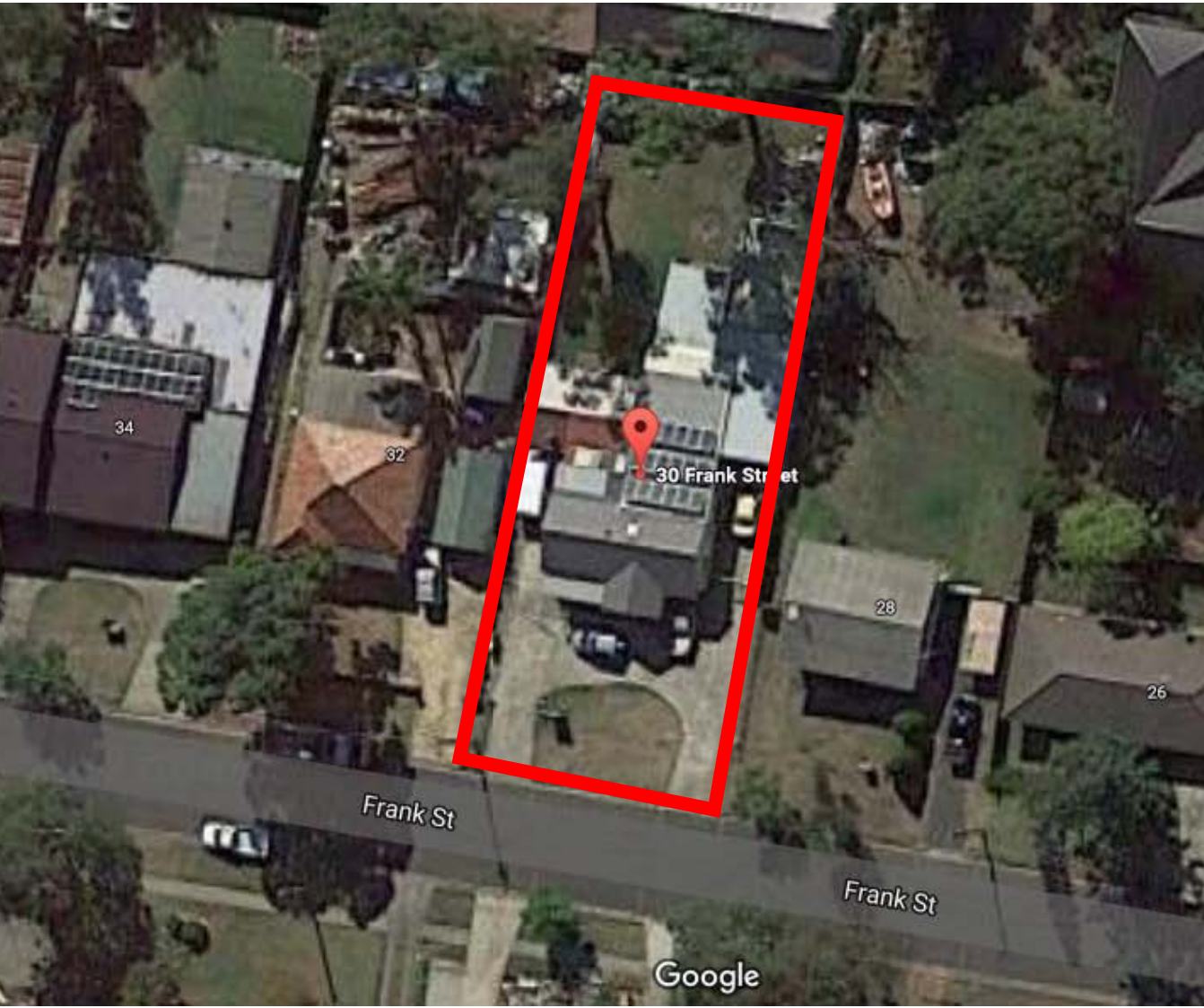
30 Frank Street,  
Mount Druitt, NSW

Drawn; JOK, CP  
Checked; JOK  
Plot date; 4/6/19  
Scale; N.T.S @ A1

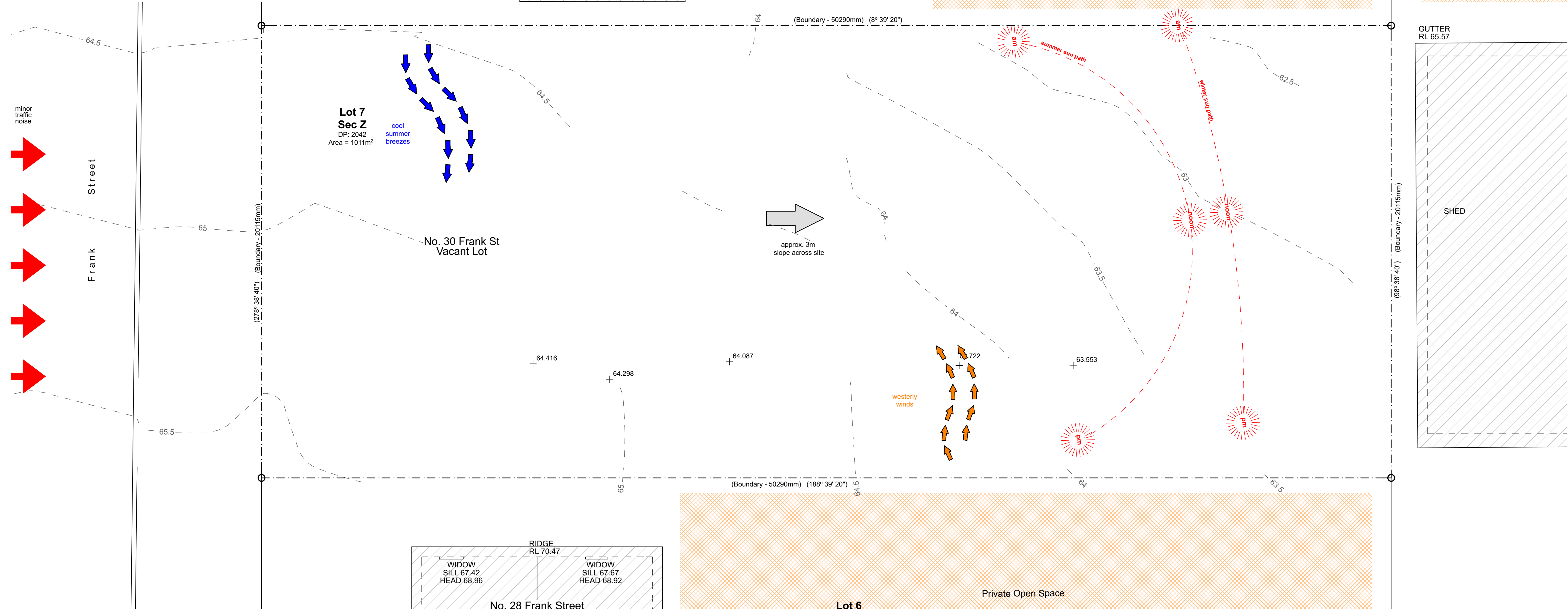
Project No;  
2158.17  
Drawing No;  
DA00  
Amendment#;  
03

Cover Sheet





01 Block Plan  
not to scale



01 Site and Block Analysis Plan  
1:100

- Legend**
- site analysis plan  
note: drawing may not contain all items listed below
- approx. location of existing trees
  - existing trees to be removed
  - approx. location of existing contours
  - approx. location of existing site & lot boundaries
  - approx. location of existing buildings
  - approx. location of private open space

All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.

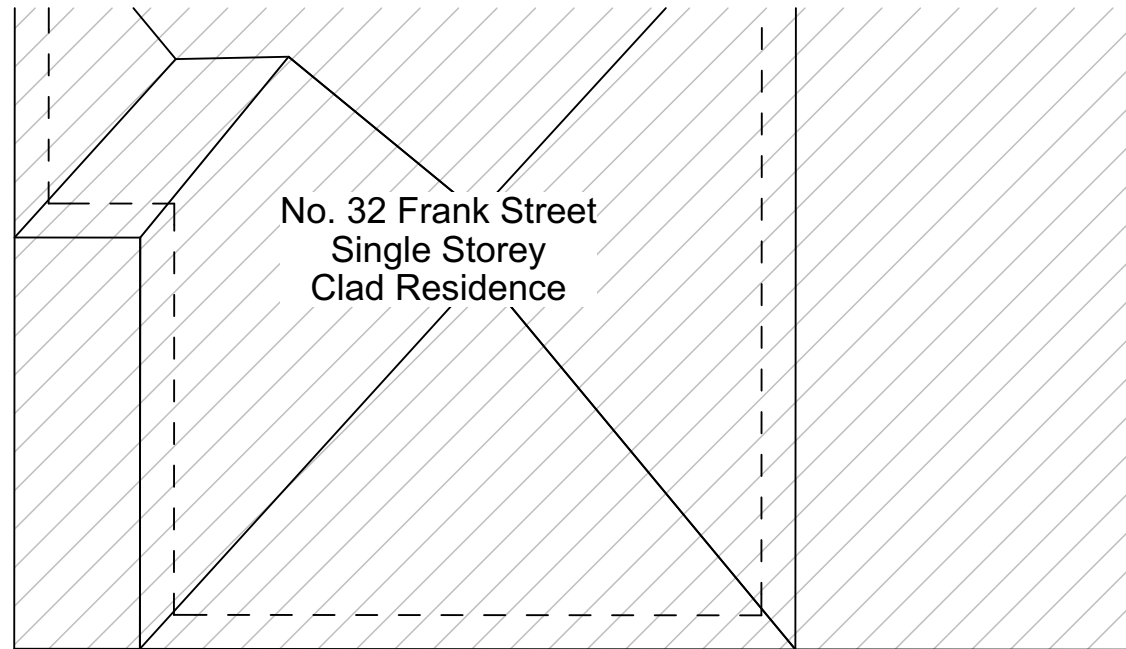
This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	DA Issue	16.03.18
02	Council Amendments	26.07.18
03	Revised DA Issue	04.06.19



0 1000 2000 3000 4000 5000 10 000  
scale: 1:100 @A1

NATHERS Thermal Performance Specification			
External Walls			
Wall Type	Insulation	Colour	Comments
Brick Veneer	R1.5	Light - SA < 0.475	As per plans and elevations
Metal Clad	R1.5	Light - SA < 0.475	As per plans and elevations
SA - Solar Absorption			
Internal Walls			
Wall Type	Insulation	Colour	Comments
Plaster board on Stud	None		Internally in units
Plaster board on Stud	R1.5		Internal walls adjacent to garage
Cavity Brick + Plaster Lining	None		Party walls
Floors			
Floor Type	Insulation	Colour	Comments
Concrete	None		Slab on ground
Ceilings			
Ceiling Type	Insulation	Colour	Comments
Plasterboard	R2.5		Throughout
Insulation loss due to downlights has not been modelled in this assessment. A sealed exhaust fan has been included in every kitchen, bathroom, laundry and ensuite.			
Roof			
Roof Type	Insulation	Colour	Comments
Metal	R1.3 foil faced blanket	Dark - SA > 0.7	Throughout
SA - Solar Absorption			
Glazing			
Glazing & Frame Type	U-Value	SHGC	Opening Style
Single Clear Aluminium	6.7	0.57	All awning and casement windows
Single Low E Aluminium	5.4	0.49	except on Unit 1
Single Clear Aluminium	6.7	0.7	All sliding doors and fixed windows
Single Low E Aluminium	5.4	0.58	except on Unit 1
U and SHGC values are based on the AFRC Default Windows Set. Glazing systems to be installed must have an equal or lower U value and a SHGC value ± 10% of the above specified values.			



Lot 8  
Sec Z  
DP 2042

LEGEND:

- approx. location of existing trees
- approx. location of trees to be removed
- 1 bed
- 2 bed
- landscape
- Private open Space
- Deep Soil (min. dim. 3m)

DEVELOPMENT DATA - SEPP SL OPTION				
ADDRESS	30 Frank St, Mount Druitt, 2770			
SITE AREA	1011m <sup>2</sup>			
NUMBER OF EXISTING LOTS	Lot 7 DP 2042			
NUMBER OF DWELLINGS	4 UNITS: 1 x 1b & 3 x 2b Senior Living Units			
DWELLINGS	Number	Type*	No of Beds	Area* (m <sup>2</sup> )
	UNIT 1	ADAPTABLE	1	59.29m <sup>2</sup>
	UNIT 2	SENIOR	2	73.22m <sup>2</sup>
	UNIT 3	SENIOR	2	73.22m <sup>2</sup>
	UNIT 4	SENIOR	2	73.22m <sup>2</sup>
Control			Requirement	Proposed
PARKING	SEPP SL 1 car space for each 5 dwellings where the development is made by or is made by a person jointly with a social housing provider		1 per 5 dwellings (1)	4
FLOOR SPACE RATIO	SEPP SL	0.5:1 (805.5m <sup>2</sup> )	0.39:1 (400.87m <sup>2</sup> )	
LANDSCAPING	SEPP SL	35m <sup>2</sup> per dwelling (140m <sup>2</sup> )	273.92m <sup>2</sup>	
DEEP SOIL	SEPP SL	15% of site area (151.65m <sup>2</sup> )	109.74m <sup>2</sup> (10.9%)	
SOLAR ORIENTATION	SEPP SL	70% of dwellings have 3 hours of sunlight between 9am and 3pm 21 June into living areas & POS	complies	
PRIVATE OPEN SPACE	SEPP SL	15m <sup>2</sup>	complies	
BUILDING HEIGHT	SEPP SL	8,000mm (2 storeys)	complies	
SETBACKS	Blacktown DCP	Front Setback: 6000mm Secondary Front: 3000mm Side: 2300mm Side Second Storey: 2300mm Rear: 2300mm	6000mm N/A 2,300mm N/A 2300mm	

Stanton Dahl & Associates Pty Limited ABN 12 002 361 396  
Registered Architects - DP Stanton 3643, S.M Evans 7686  
© Copyright 2013 Stanton Dahl

Stanton Dahl Architects  
PO Box 833, Epping, NSW 1710, Australia  
Tel +61 2 8876 5300 Fax +61 2 9868 2624  
www.stantondahl.com.au

All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.  
This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	DA Issue	16.03.18
02	Council Amendments	26.07.18
03	Revised DA Issue	04.06.19

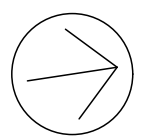
Family & Community Services  
NSW  
Aboriginal Housing Office

Aboriginal Housing Office

Architecture  
Project management  
Interior design



stanton dahl  
architects



Aboriginal Housing Office

Seniors Living Development x 4 Units

30 Frank Street,  
Mount Druitt, NSW

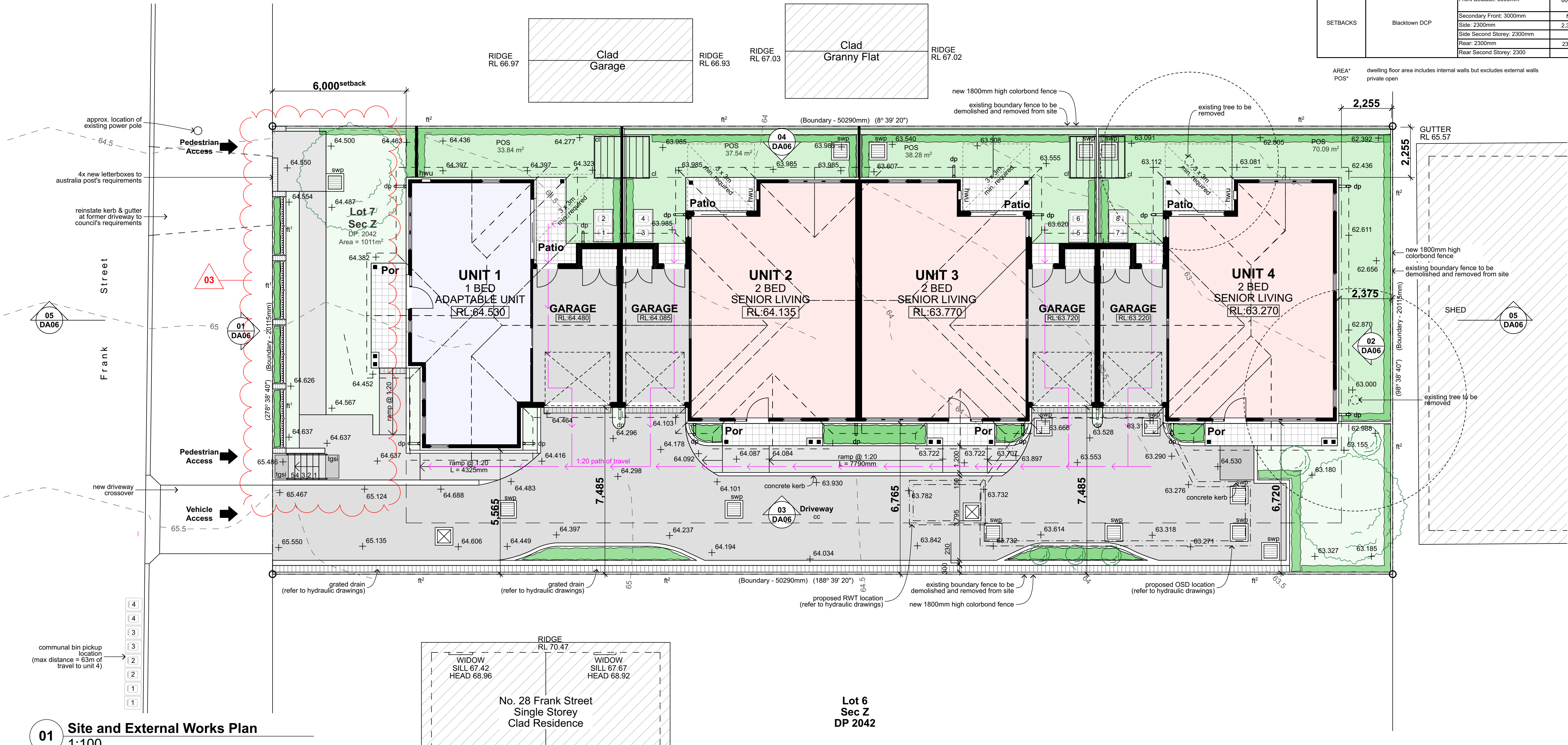
Drawn: JOK, CP  
Checked: JOK  
Plot date: 4/6/19

Scale: 1:100 as noted @ A1

Project No:  
2158.17

Drawing No: DA02  
Amendment#: 03

Site & External Works Plan



## 01 Site and External Works Plan 1:100

- Legend (external work / site plan)  
note: drawing may not contain all items listed below
- ex.contours
  - existing trees to be removed
  - existing trees to be retained
  - proposed trees
  - existing levels
  - proposed levels
  - balustrade (type)
  - brick on edge
  - concrete concrete (type)
  - ceramic floor tiles
  - clothes line
  - column
  - downpipe
  - facebrick work (type)
  - garbage bin
  - gate
  - grated drain
  - handrail (type)
  - hose tap
  - hot water unit
  - hydrant
  - kerb ramp
  - letter box
  - private open space
  - permeable pavers
  - power pole
  - retaining wall (type)
  - storm water pit
  - tactile ground surface indicator
  - top of wall



All dimensions to be verified on site and any discrepancies referred to architect for determination.  
figured dimensions to take precedence over scaled dimensions.

This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	DA Issue	16.03.18
02	Council Amendments	26.07.18
03	Revised DA Issue	04.06.19



Architecture  
Project management  
Interior design



stanton dahl  
architects

Aboriginal Housing  
Office

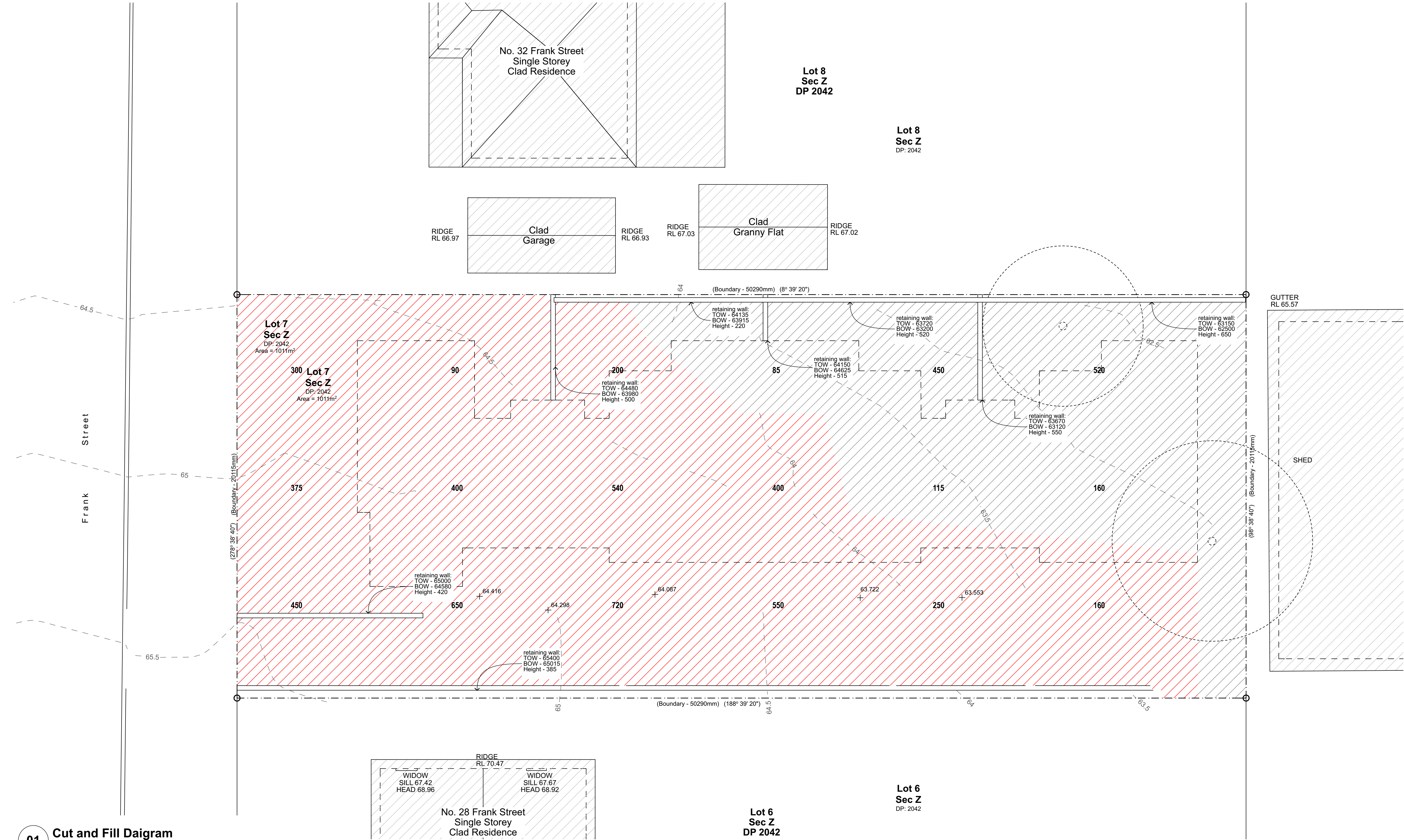
Seniors Living Development x 4 Units  
30 Frank Street,  
Mount Druitt, NSW

Drawn; JOK, CP  
Checked; JOK  
Plot date; 4/6/19

Scale; 1:100 as noted @ A1

Project No;  
**2158.17**  
Drawing No;      Amendment#;  
**DA03**              **03**

Cut and Fill Plan



01 Cut and Fill Daigram  
1:100

Legend (cut and fill diagram)  
note: drawing may not contain all items listed below

note:  
grey area indicated extent of fill

note:  
red area indicated extent of cut

50 approx. depth of cut and fill in millimetres

— indicates outline of new buildings

- - - indicates site boundaries

All dimensions to be verified on site and any discrepancies referred to architect for determination, figured dimensions to take precedence over scaled dimensions.  
This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	DA Issue	16.03.18
02	Council Amendements	26.07.18
03	Revised DA Issue	04.06.19



Architecture  
Project management  
Interior design



stanton dahl  
architects

## Aboriginal Housing Office

Seniors Living Development x 4 Units

30 Frank Street,  
Mount Druitt, NSW

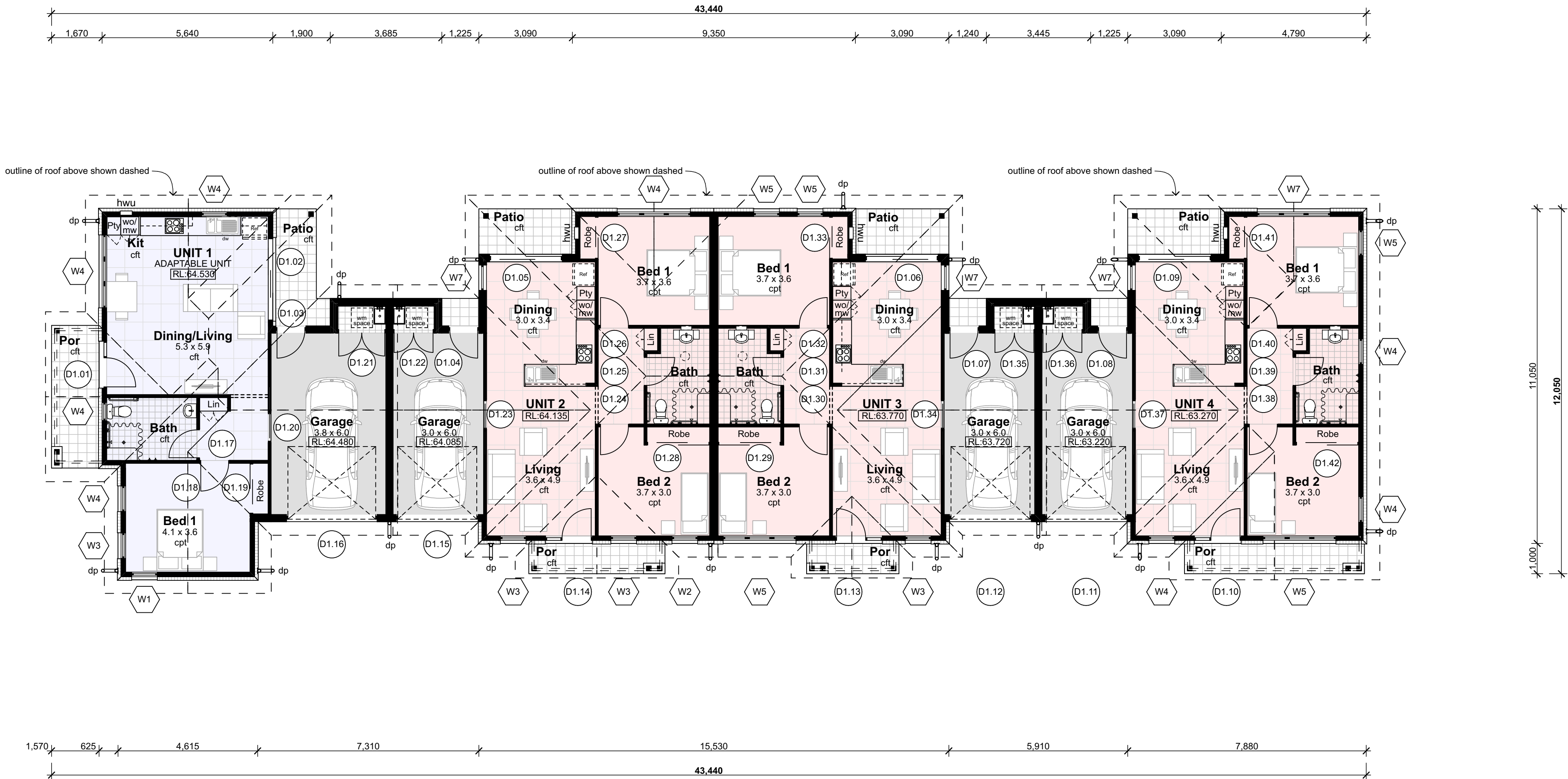
Drawn; JOK, CP  
Checked; JOK  
Plot date; 4/6/19

Scale; 1:100 as noted @ A1

Project No;  
2158.17

Drawing No; Amendment#;  
DA04 03

Ground Floor Plan



## 01 Ground Floor Plan

1:100

Legend (floor plans)									
note: drawing may not contain all items listed below									
D01	door numbers (as scheduled) (prefix ex. for existing door)	bsn	basin	gtd	grated drain	robe	wardrobe	wo	wall oven
		cft(1)	ceramic floor tile (type)	hr(1)	handrail (type)	rw(1)	retaining wall (type)	wm	washing machine space
		cl	clothes line	ht	hose tap	rwt	rainwater tank		
W03	window numbers (as scheduled) (prefix ex. for existing window)	col	column	hwu	hot water unit	snk	sink		
		cpt(1)	carpet (type)	hyd	hydrant	sc	steel column		
		ct	cooktop	kr	kerb ramp	shr	shower		
ap	access panel	dp	downpipe	lb	letter box	sk	skylight/skytube		
bal(1)	balustrade (type)	fb(1)	face brickwork (type)	lin	linen cupboard	sl	sliding door		
bfc	broom finish concrete	fs	fridge space	mw	microwave	st	store		
bol	bollard	fw	floor waste	pmp	permeable pavers	sv(1)	sheet vinyl (type)		
brl	broom cupboard	gb	garbage bin	pty	pantry	swp	storm water pit		
		gt	gate	ref	refrigerator	vp	vent pipe		



All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.

This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	DA Issue	16.03.18
02	Council Amendements	26.07.18
03	Revised DA Issue	04.06.19



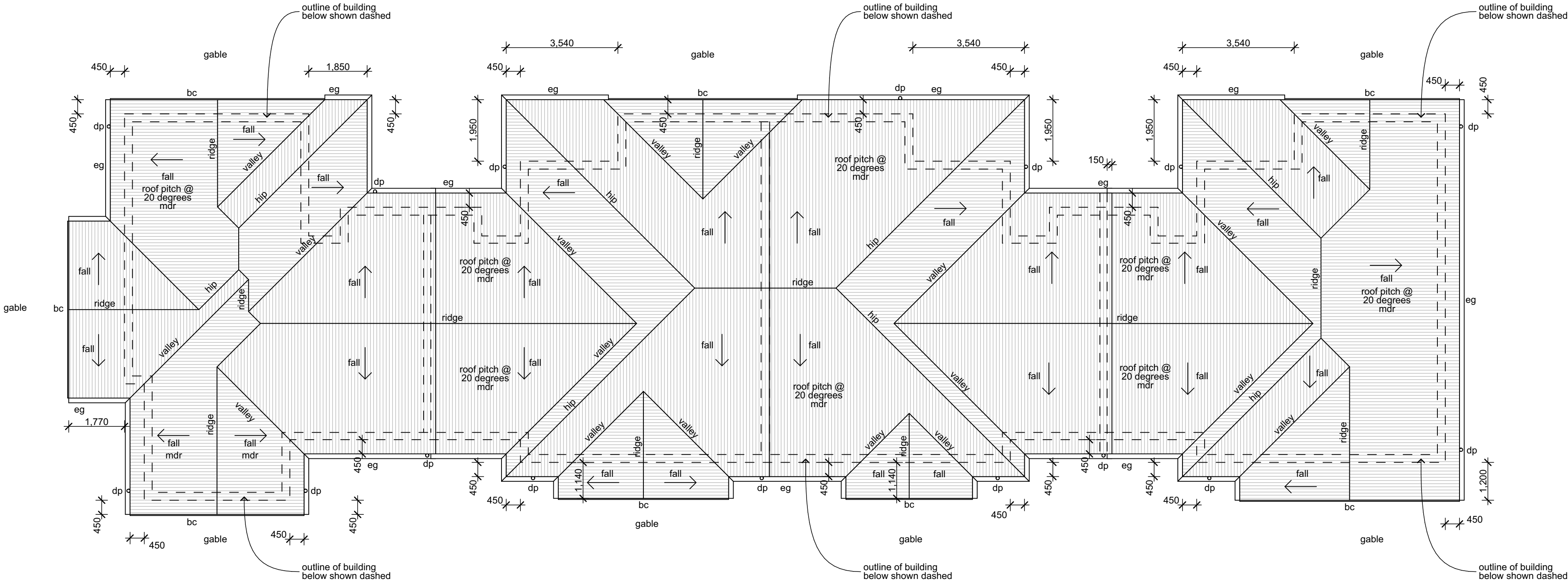
Architecture  
Project management  
Interior design



stanton dahl  
architects

## 01 Roof Plan 1:100

Legend (roof plans)	
note: drawing may not contain all items listed below	
ap	access panel
bc	barge capping
dp	downpipe
eg	eaves gutter
ex.	existing
fg	flashing
gu	gutter
mdr	metal deck roof sheeting
of	overflow
pc	parapet capping
pv	photovoltaic cells
rrc	roof ridge capping
rwh	rainwater head
sk	skylight/skytube
vp	vent pipe
note:	
1. provide flashings and cappings to all roof penetrations in accordance with roof manufacturers details	
2. provide gutter guards to all guttering throughout	
3. metal roof sheeting to comply with AS1562.1	



## Aboriginal Housing Office

Seniors Living Development x 4 Units

30 Frank Street,  
Mount Druitt, NSW

Drawn; JOK, CP  
Checked; JOK  
Plot date; 4/6/19

Scale; 1:100 as noted @ A1

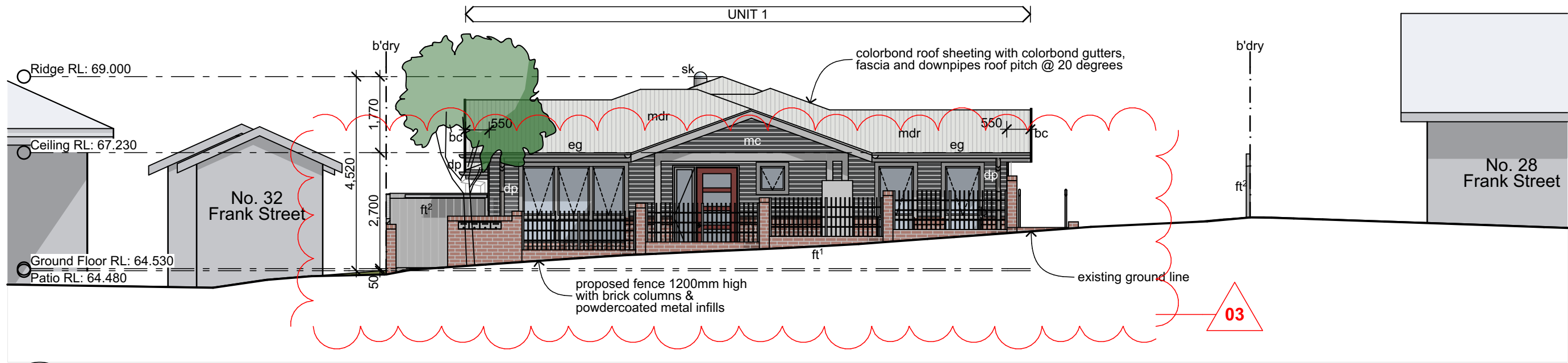
Project No;  
2158.17

Drawing No; DA05  
Amendment#; 03

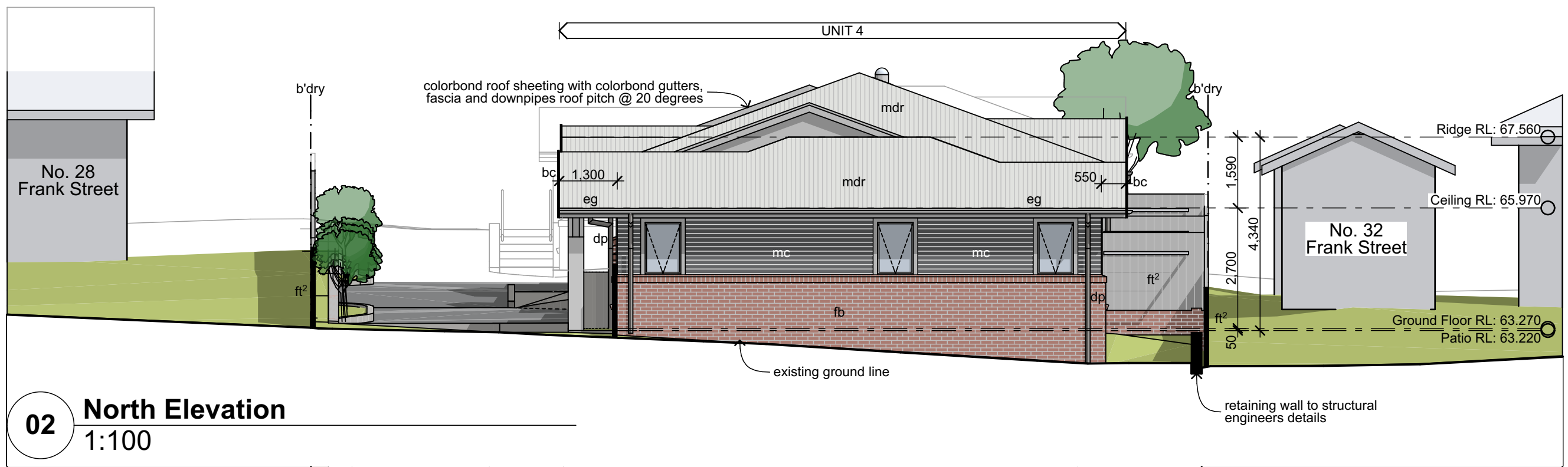
Roof Plan



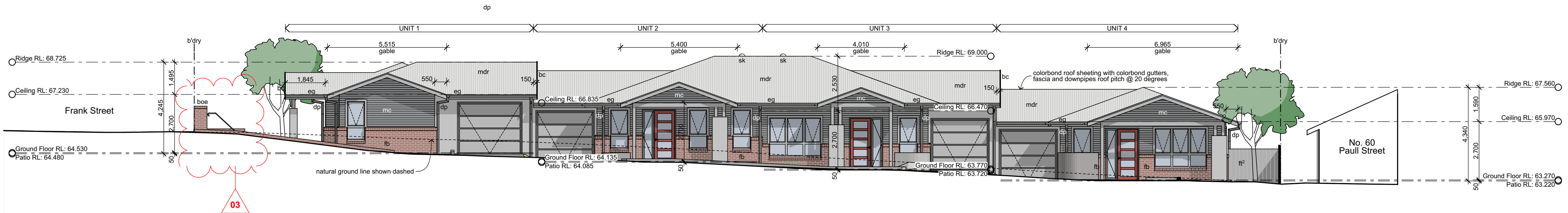
0 1000 2000 3000 4000 5000 10 000  
scale: 1:100 @A1



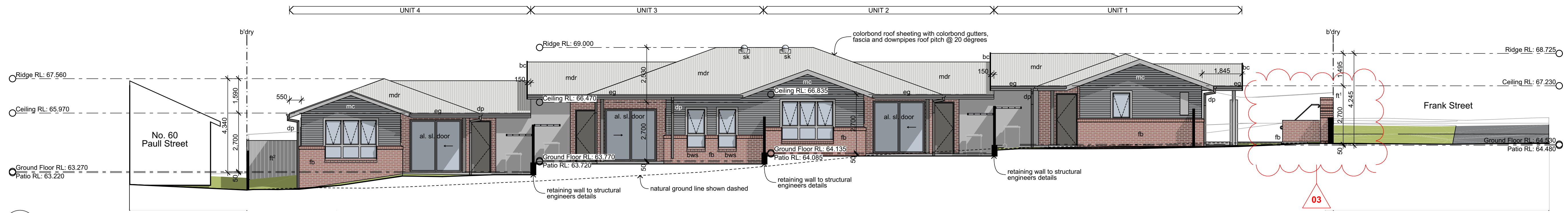
01 South Elevation (Frank Street)  
1:100



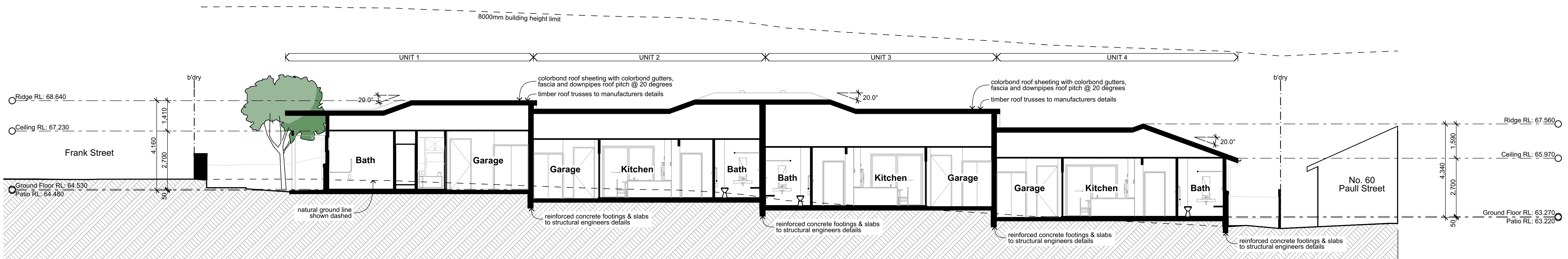
02 North Elevation  
1:100



03 East Elevation  
1:100



04 West Elevation  
1:100



05 Section  
1:100

Legend (elevation & sections)

note: drawing may not contain all items listed below

ac	air conditioner condenser	csc	cut soldier course	hr(1)	handrail (type)	rwh	rainwater head
ag	ag pipe	dp	downpipe	flv	fixed louvres	s	sliding sash window
alv	adjustable louvres	eg	eaves gutter	mc(1)	metal cladding (type)	sc	steel column
alw	aluminium framed window	egl	existing ground line	mdr	metal deck roof	sk	skylight/skytube
bal(1)	balustrade (type)	ex.	existing	olr	operable louvres	sl	sliding door
bc	barge capping	fb(1)	fixed sash window	p(1)	paint (type)	ss(1)	sun shade (type)
bhc	brick header course	fc	face brickwork (type)	pbd	plasterboard		
boe	brick on edge	fc1	finished ceiling level	pv	photovoltaic cells		
bws	brickwork sill	fl	finished floor level	rc	rendered concrete		
cfc	compessed fibre cement	flv	fixed louvres	rp	render & paint finish		
conc.	concrete	gl	ground line	rs	roller shutter		
		gt	gate	rw	retaining wall		

note:

1. all handrails, balustrades & louvres shown indicatively only. refer to detail drawings for clarity.
2. refer to engineer's drawings for final co-ordination.

Stanton Dahl & Associates Pty Limited ABN 12 002 363 396  
Registered Architects: D.P. Stanton 3643, S.M. Evans 7686  
© Copyright 2013 Stanton Dahl

Stanton Dahl Architects  
PO Box 833, Epping, NSW 1710, Australia  
Tel +61 2 8876 5300 Fax +61 2 9868 2624  
www.stantondahl.com.au

All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.  
This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	DA Issue	16.03.18
02	Council Amendments	26.07.18
03	Revised DA Issue	04.06.19

Family & Community Services  
NSW  
Aboriginal Housing Office



Architecture  
Project management  
Interior design



stanton dahl  
architects

Aboriginal Housing  
Office

Seniors Living Development x 4 Units

30 Frank Street,  
Mount Druitt, NSW

Drawn: JOK, CP  
Checked: JOK  
Plot date: 4/6/19

Scale: 1:100 as noted @ A1

Project No:  
2158.17

Drawing No: DA06  
Amendment#: 03

Elevations & Sections

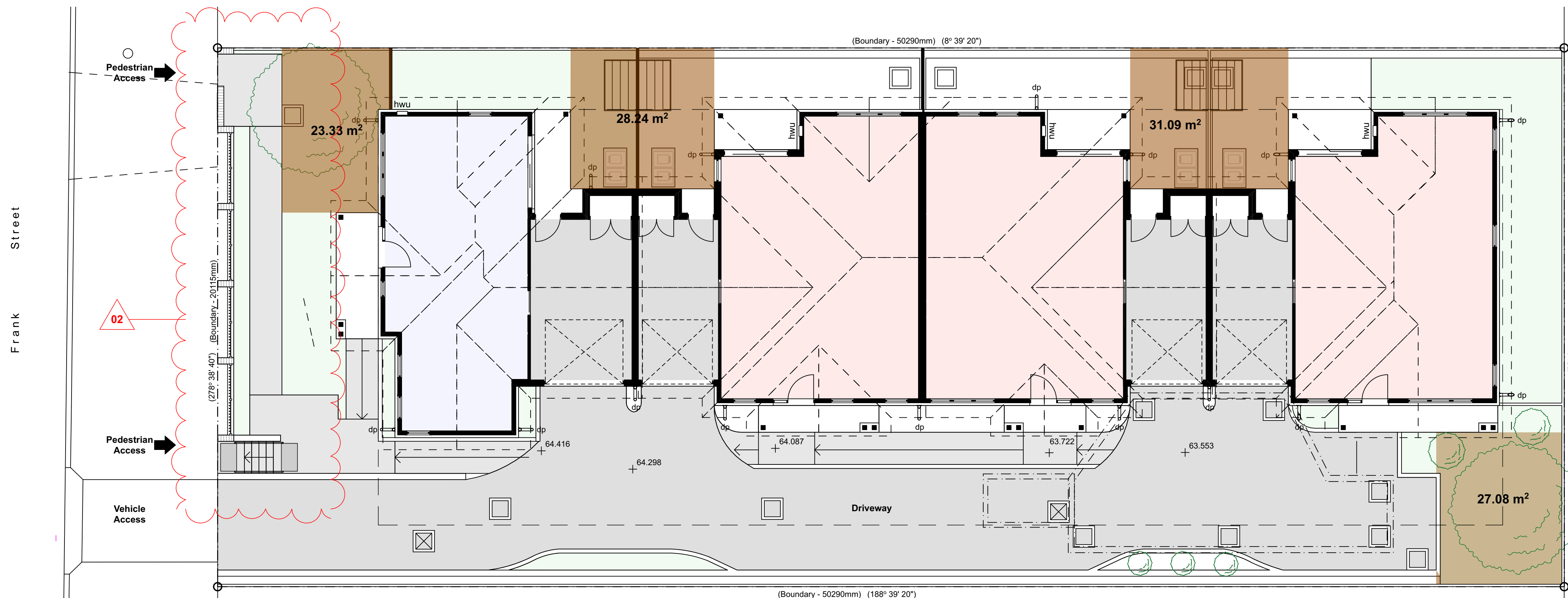


All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.

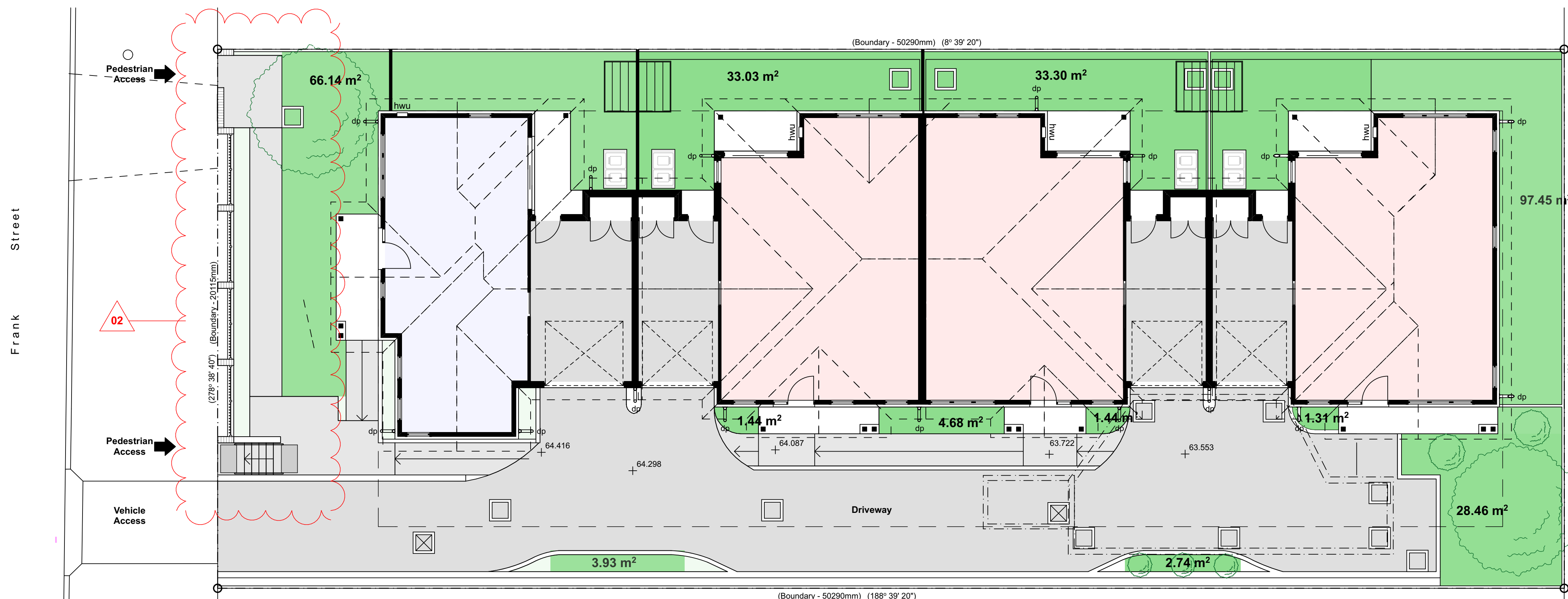
This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
01	Council Amendments	26.07.18
02	Revised DA Issue	04.06.19

Architecture  
Project management  
Interior design





**01 Deep Soil Plan**  
1:100



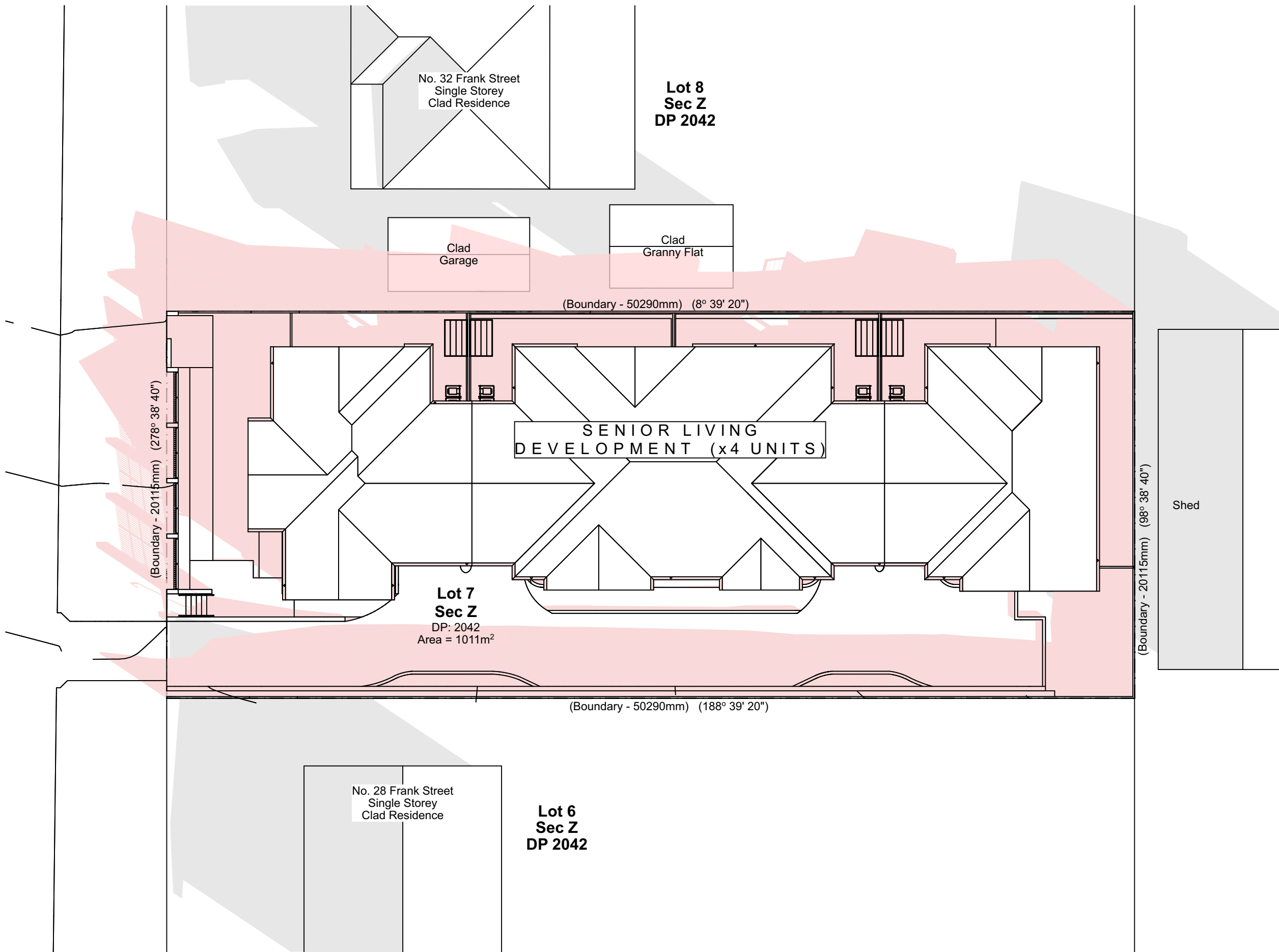
**01 Soft Landscaping Plan**  
1:100

**Legend** landscape and deep soil  
note: drawing may not contain all items listed below

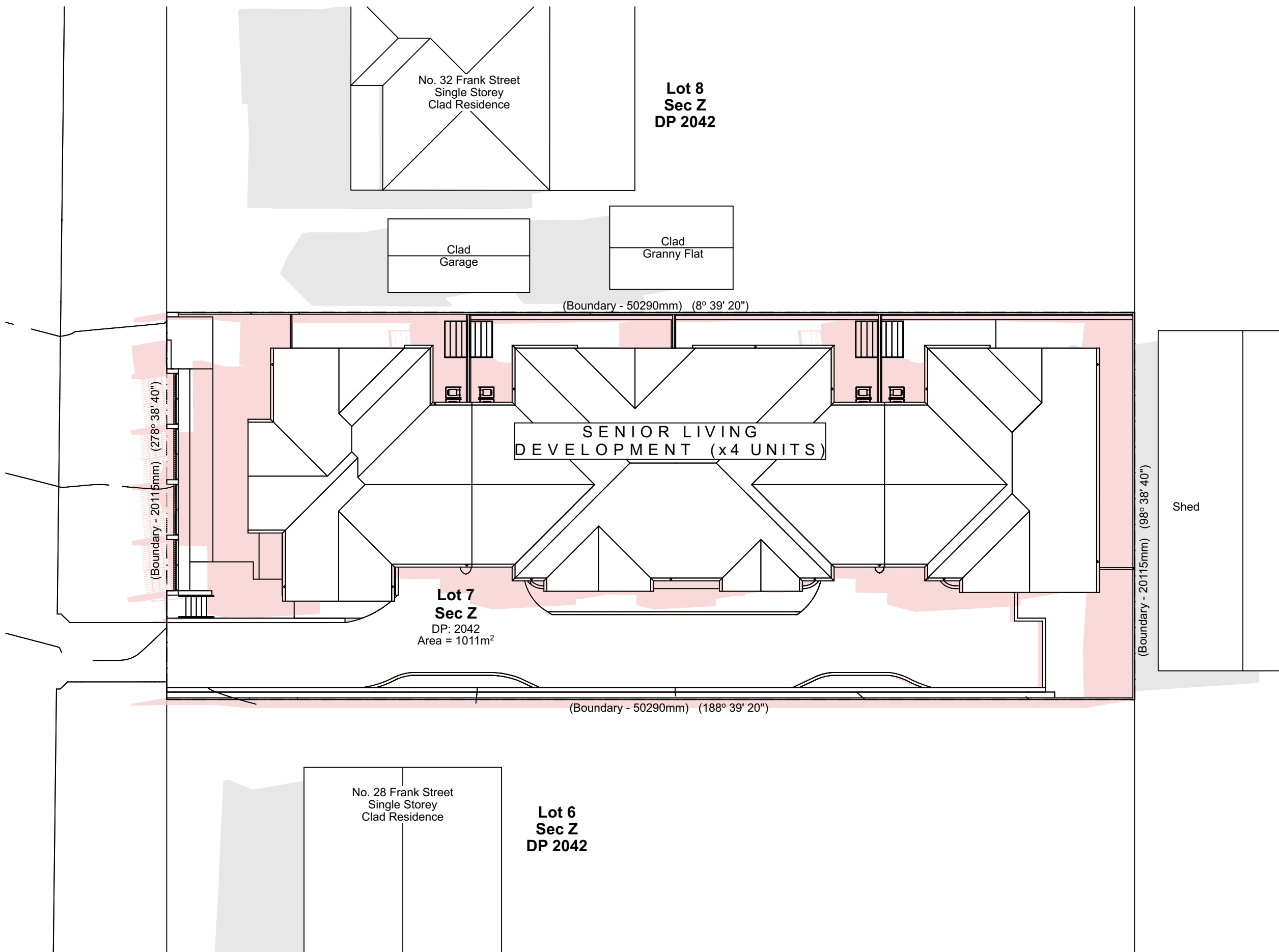
 Deep Soil Zones (109.74m²)

 Landscaping (273.92m²)

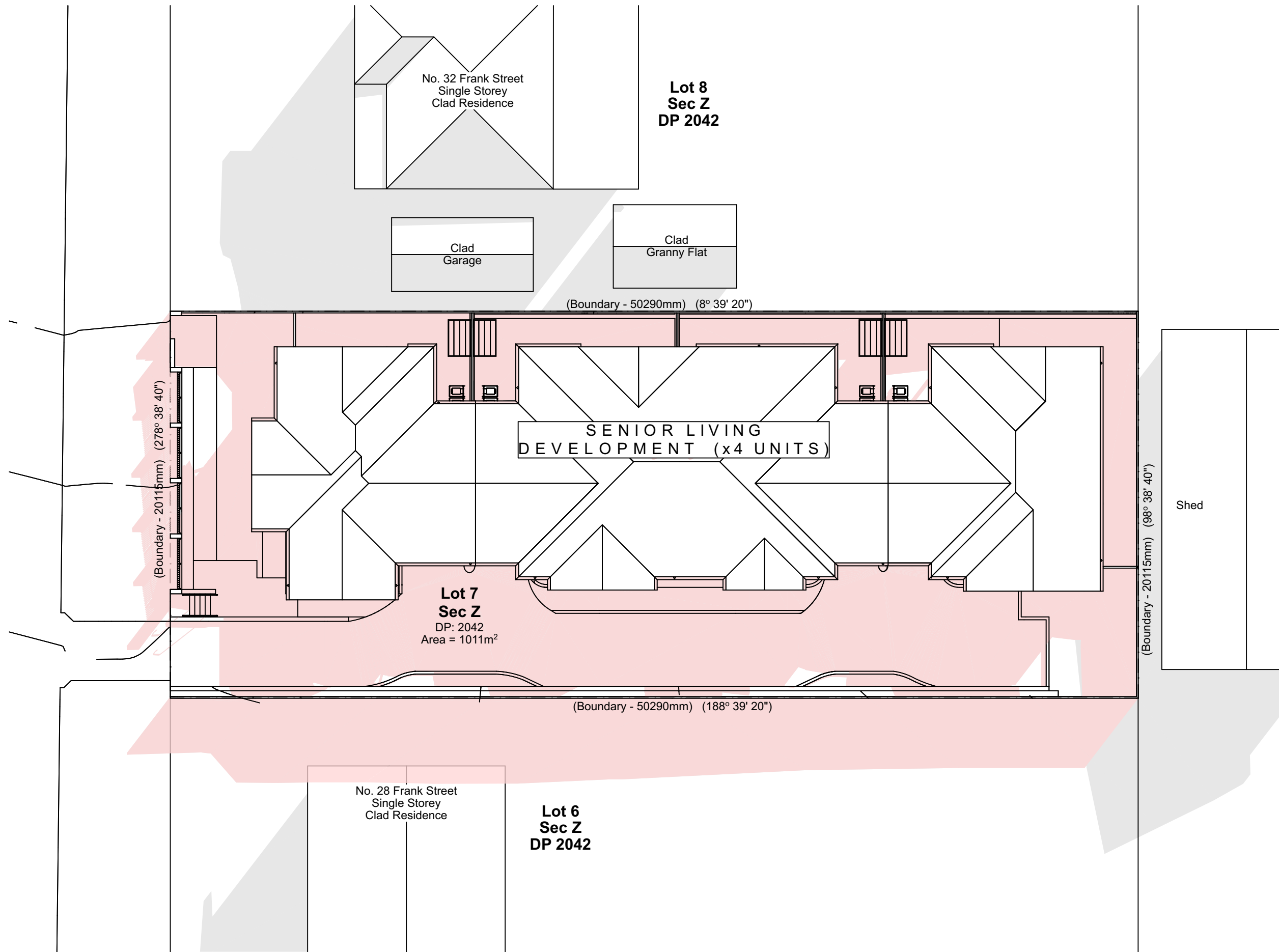




01 June 21 9AM Shadow Diagram  
1:200



02 June 21 9AM Shadow Diagram  
1:200



03 June 21 9AM Shadow Diagram  
1:200

Living Areas									
Solar Access	9am	10am	11am	12pm	1pm	2pm	3pm	Total	Complies
Unit 1	N	N	Y	Y	Y	Y	Y	4 hrs	Y
Unit 2	Y	Y	N	N	Y	Y	Y	3 hrs	Y
Unit 3	Y	Y	N	Y	Y	Y	Y	4 hrs	Y
Unit 4	Y	Y	N	N	Y	Y	Y	3 hrs	Y

Living areas of 70% of the dwellings must receive a minimum of 3 hours of sunlight between 9:00am and 3:00pm on 21 June. Complies - 4/4 = 100%

Private Open Space									
Solar Access	9am	10am	11am	12pm	1pm	2pm	3pm	Total	Complies
Unit 1	N	Y	Y	Y	Y	Y	Y	5 hrs	Y
Unit 2	N	N	Y	Y	Y	Y	Y	4 hrs	Y
Unit 3	N	Y	Y	Y	Y	Y	Y	5 hrs	Y
Unit 4	N	Y	Y	Y	Y	Y	Y	5 hrs	Y

Private open space of 70% of the dwellings must receive a minimum of 3 hours of sunlight between 9:00am and 3:00pm on 21 June. Complies - 4/4 = 100%

- sunlight to living area
- no sunlight to living area
- sunlight to private open space
- no sunlight to private open space

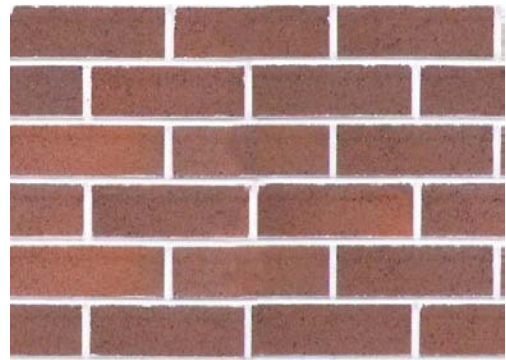
- Legend**
- Grey area indicates shadows cast by existing neighbours
  - Pink area indicates shadows cast by proposed development

Rev	Issue	Date
01	Revised DA Issue	04.06.19



External Colour Selection

30 Frank Street, Mount Druitt, NSW

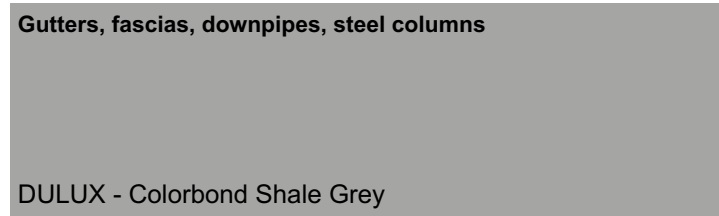


Face Brick (fb)  
PGH Bricks - Dry Pressed  
Colour: "Macarthur Mix"



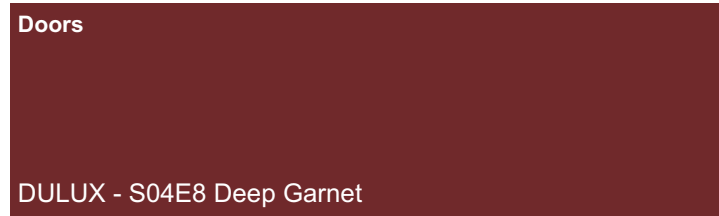
Rendered and painted (rp)  
External walls & Columns

DULUX - SW1G1 Vivid White



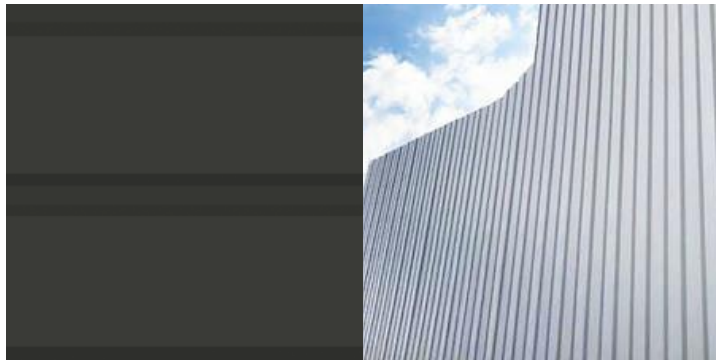
Gutters, fascias, downpipes, steel columns

DULUX - Colorbond Shale Grey

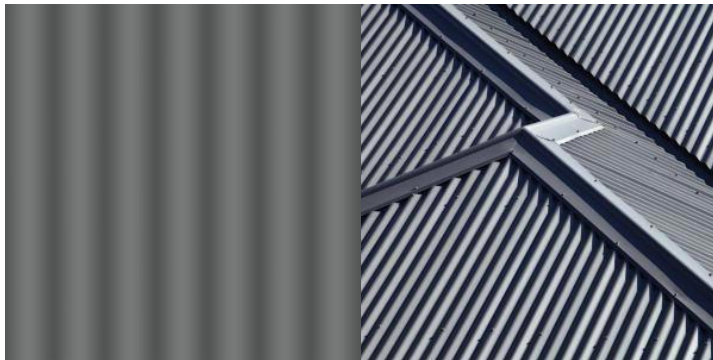


Doors

DULUX - S04E8 Deep Garnet



Metal Cladding (mc)  
Colorbond "Easyclad"  
Colour: "Woodland Grey"



Metal Deck Roofing (mdr)  
Colorbond "Custom-Orb"  
Colour: "Shale Grey"



Architecture  
Project management  
Access consulting  
Interior design



DA ISSUE

This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced copied or used without written permission of stanton dahl & associates pty limited.

All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.

Aboriginal Housing Office,  
Seniors Living Development x  
4 Units  
30 Frank Street, Mount  
Druitt, NSW

External Colour  
Selection

Project No;  
2158.17

Drawing No; DA09  
Amendment#; 03

Scale; N.T.S @ A3

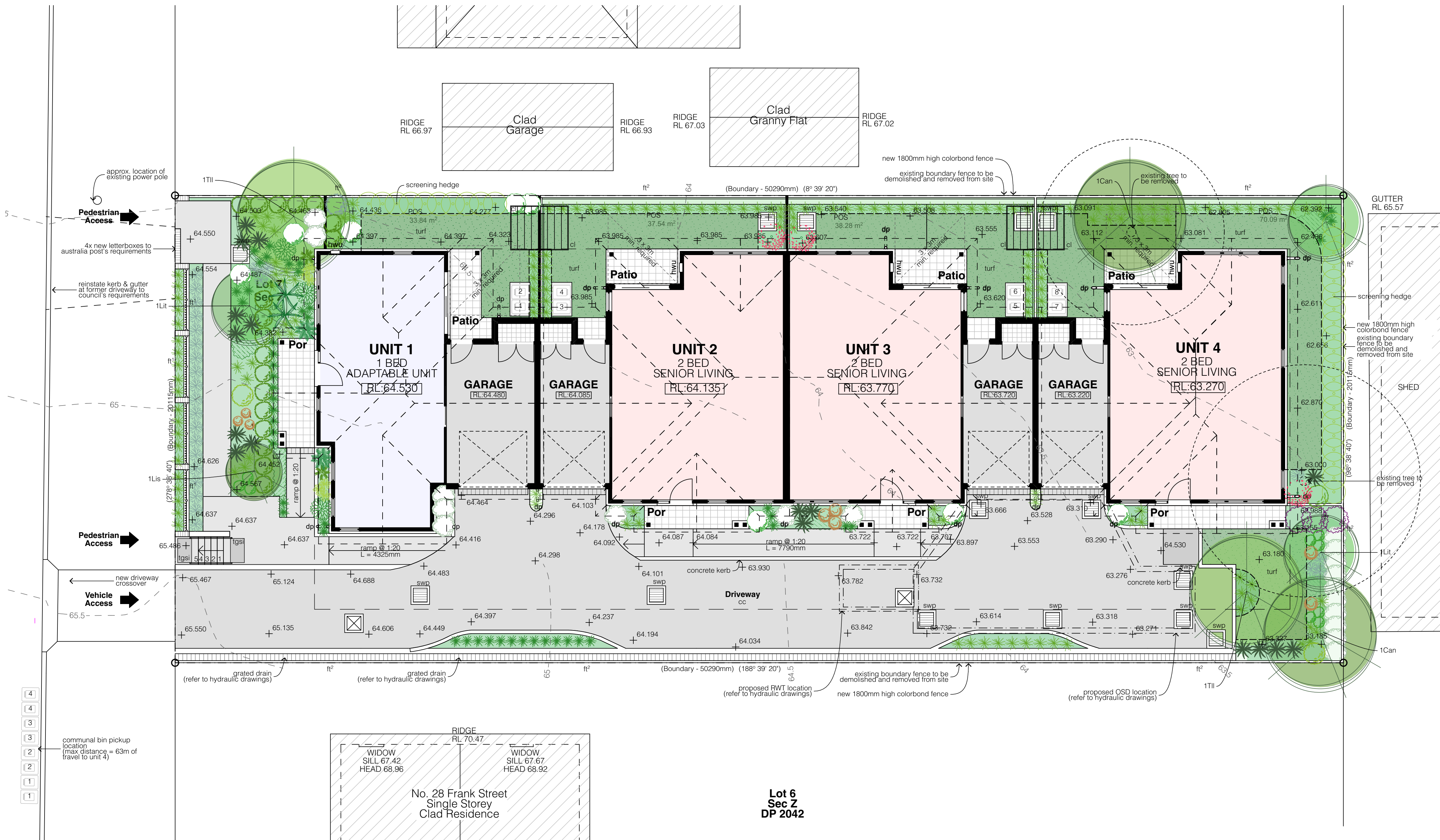
Drawn; JOK, CP

Plot date; 4/6/19

Stanton Dahl Architects  
PO Box 833, Epping, NSW 1710  
Tel +61 2 8876 5300  
www.stantondahl.com.au

Stanton Dahl & Associates Pty Limited. ABN 32 002 261 396 Nominated  
Architects : D.P Stanton 36 42, D.C Melloh 7864,  
S.M Evans 7686 © Copyright 2019 Stanton Dahl





### legend:

note: drawing may not contain all items listed below

RL00.00 → proposed levels

ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
ap	access panel
bal(1)	balustrade (type)
b/c	broom finished concrete
boe	brick on edge
bol	bollard
cl	clothes line
col	column
dp	downdrip
dip	doorpost
ex	existing
ft(1)	facebrick work (type)
ft(1)	fence (type)
gb	garbage bin
gde	grated drain
grd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
ofc	off form concrete
pp	power pole
rw(1)	retaining wall (type)
sfc	steel float concrete
swp	storm water pit
tfc	trowel finished concrete
tgsl	tactile ground surface indicator
tow	top of wall
w/c	wood float concrete
ex	ex contours & banking line

- existing trees to be retained
- existing trees to be removed
- kwik kerb garden edging
- fencing - for all fencing materials and types refer to the architects plans.
- proposed trees

planting areas ensure that the mass planting areas have been excavated to 300mm below finished levels. rip to a further depth of 150mm, supply and install 300mm soil mix. soil mix to comprise of one part approved compost to three parts top soil. topsoil shall be either imported topsoil or stockpiled site topsoil (if suitable ie. no clay). install 75mm of selected mulch. mulch to be non toxic shredded pine flakes (25 x 4 x 2mm)

turf excavate/ grade areas to be turfed to 120mm below the required finished levels. do not excavate with 1500mm of any existing tree to be retained. ensure that all of the surface water runoff is to be directed towards the inlet pits, kerbs etc. ad away from buildings. ensure that no pooling or ponding will occur. rip subgrade to 150mm deep. install 100mm depth of imported topsoil, just prior to spreading turf. spread 'shirleys' no. 17 lawn fertiliser over the topsoil at the recommended rate. lay Sir Walter Buffalo turf rolls closely butted. fill any small gaps with topsoil. water thoroughly.

note maintenance: all landscape works are to be maintained for a period of six months from the date of completion. this includes all watering, weeding, spraying and mulching necessary to achieve vigorous growth. any defects which arise during this period are to be rectified immediately. any plants or areas of turf which fail during this period are to be replaced at no additional cost.

Stanton Dahl & Associates Pty Limited ABN 32 002 201 396 Nominated Architects  
D.P. Stanton 38 42, D.C. Mohan 7884, S.M. Evans 7880  
© Copyright 2018 Stanton Dahl

Stanton Dahl Architects  
PO Box 833, Epping, NSW 1710, Australia  
Tel +61 2 8876 5300 Fax +61 2 9868 2624  
www.stantondahl.com.au

All dimensions to be verified on site and any discrepancies referred to architect for determination. figured dimensions to take precedence over scaled dimensions.

This design including its associated drawings, images, etc. is the intellectual property of stanton dahl & associates pty limited and must not be referenced, copied or used without written permission of stanton dahl & associates pty limited.

Rev	Issue	Date
1	Development Application Issue	27.02.18
2	Revised DA Issue	03.06.18

Family & Community Services  
NSW government  
Aboriginal Housing Office

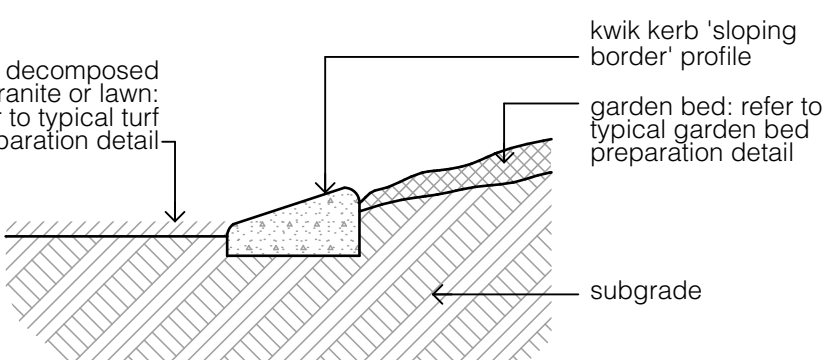
Aboriginal Housing Office

botanique design  
po box 462 berry new 2535  
p. 0434 887 620

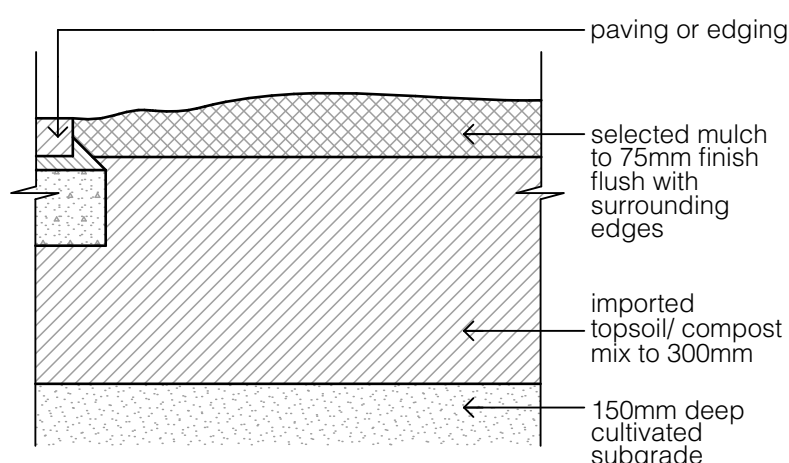
Architecture  
Project management  
Access consulting  
Interior design

stanton dahl architects

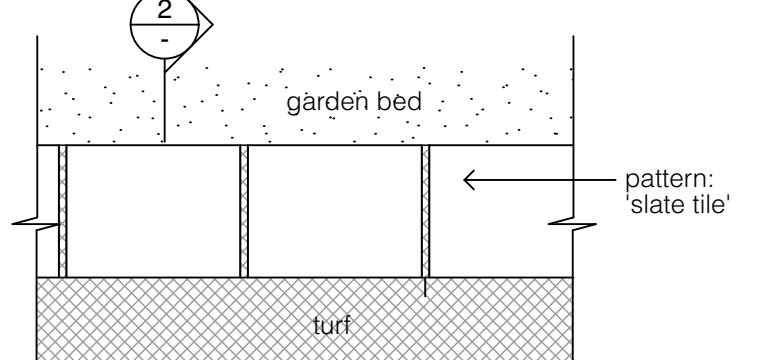
## 1 landscape plan 1:100



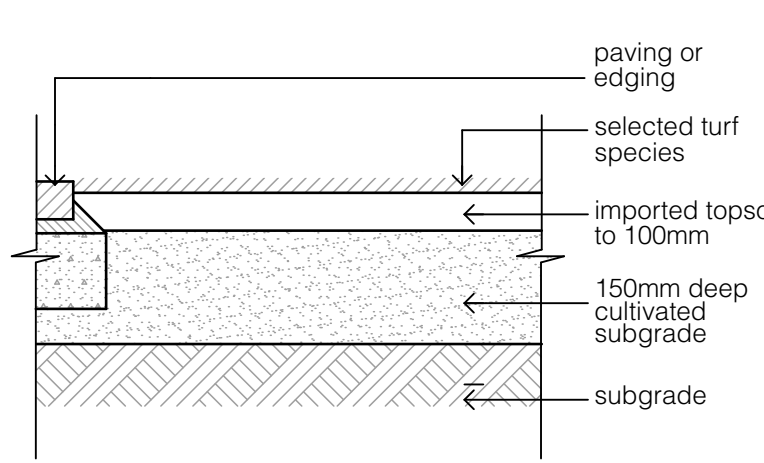
## 2 kwik kerb garden edge section 1:10



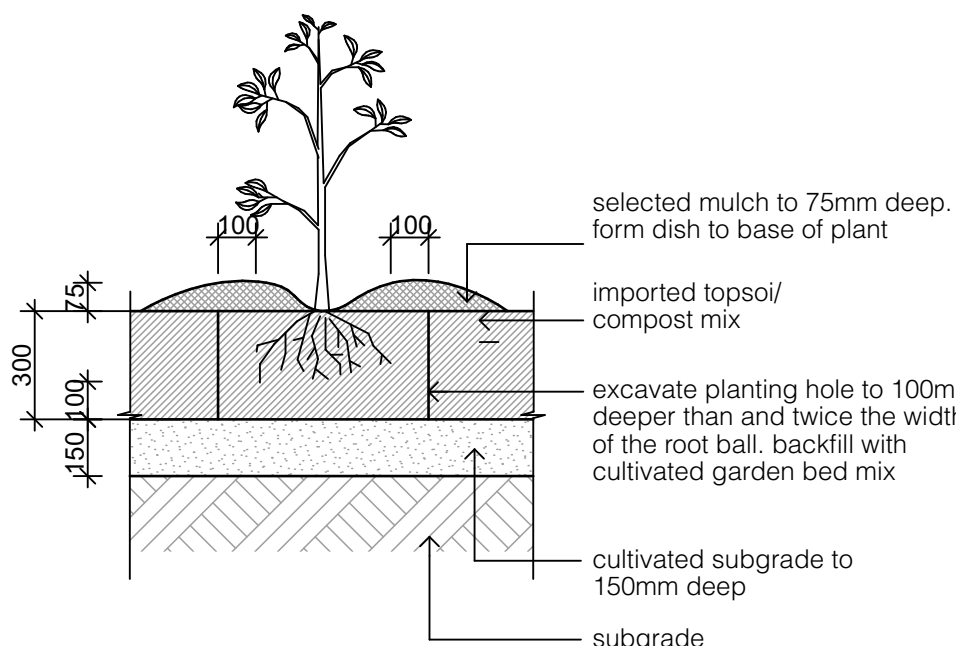
## 4 garden bed preparation detail 1:10



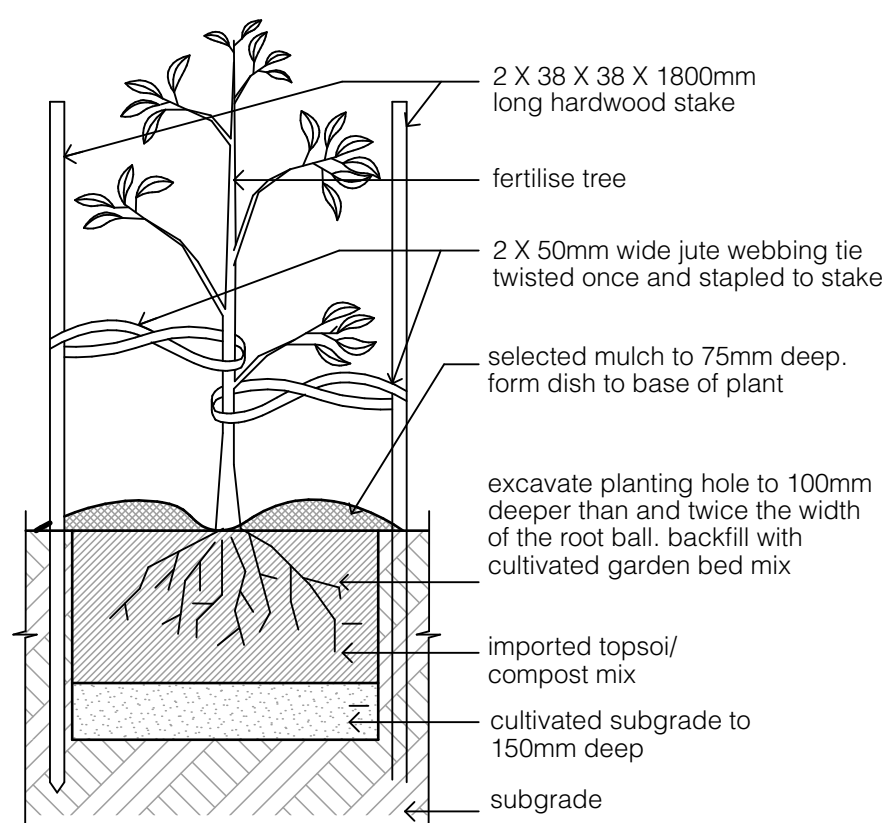
## 3 kwik kerb garden edge plan 1:10



## 5 turf preparation detail 1:10



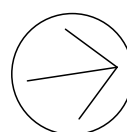
## 6 garden bed planting 1:20



## 7 15 - 45l tree planting detail 1:20

### plant schedule

code	botanical name	common name	mature height	pot size	stake
<b>Trees</b>					
Can	Cupaniopsis anacardioides	Tuckeroo	8.0m	35L	yes
Lis	Lagerstroemia indica 'Sioux'	Crepe Myrtle	4.0m	35L	yes
Lit	Lagerstroemia indica 'Tuscarora'	Crepe Myrtle	6.0m	35L	yes
Til	Tristanopsis laurina 'Luscious'	Water Gum	10.0m	35L	yes
<b>Shrubs</b>					
Cal	Correa alba	White Correa	1.5m	200mm	yes
Bbc	Banksia 'Birthday Candles'	Birthday Candles	0.4m	200mm	no
Ccc	Callistemon 'Captain Cook'	Bottlebrush	2.0m	200mm	yes
Cex	Crowea exalata	Crowea	0.5m	200mm	no
Cgb	Callistemon 'Great Balls of Fire'	Bottlebrush	1.5m	200mm	no
Cvs	Callistemon viminalis 'Slim'	Bottlebrush	3.0m	200mm	yes
Cwa	Callistemon 'White Anzac'	Bottlebrush	1.5m	200mm	yes
Lch	Loropetalum chinense var. Rubrum	Chinese Fringe Flower	1.5m	200mm	yes
Rop	Raphiolepis 'Oriental Pearl'	Indian Hawthorne	1.0m	200mm	no
Wab	Westringia 'Aussie Box'	Coastal Rosemary	0.6m	200mm	no
Wwg	Westringia 'Wynabbie Gem'	Coastal Rosemary	1.0m	200mm	no
<b>Groundcovers, Grasses and Feature Plants</b>					
Arv	Anigozanthus 'Ruby Velvet'	Kangaroo Paw	1.0m	200mm	no
Ael	Aspidistra elata	Cast Iron Plant	0.8m	200mm	no
Aau	Asplenium australasicum	Birds Nest Fern	1.0m	200mm	no
Bca	Blechnum cartilagineum	Gristle Fern	0.7m	200mm	no
Das	Doodia aspera	Rasp Fern	0.5m	140mm	no
Dex	Doryanthos excelsa	Gymea Lily	1.2m	140mm	no
Dij	Dianella 'Little Jess'	Lily Turf	0.4m	140mm	no
Gmt	Grevillea 'Mt Tamboritha'	Grevillea	0.3m	140mm	no
Lit	Lomandra longifolia 'Tanika'	Dwarf Mat Rush	0.5m	140mm	no
Smc	Scaevola 'Mauve Clusters'	Fan Flower	0.1m	140mm	no



Aboriginal Housing Office

Seniors Living Development x 4 Units

30 Frank Street,  
Mount Druitt, NSW

Drawn: MM  
Checked: JOK  
Plot date: 4/6/19

Scale: 1:100, 1:10, 1:20 as noted @ A1

Project No:  
2158.17

Drawing No: L01  
Amendment#: 2

Landscape Plan



# PROPOSED DEVELOPMENT

30 Frank St, Mount Druitt NSW  
greenview Job No: 171243

## GENERAL NOTES

- ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOMINATED OR APPLICABLE COUNCIL SPECIFICATION.
- THE CONTRACTOR SHOULD REPORT ANY DISCREPANCIES ON THE DRAWINGS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN.
- CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE OWNER.
- SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE.
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
- ALL DRAINAGE LINES THOUGH ADJACENT LOTS SHALL BE CONTAINED WITHIN EASEMENTS CONFORMING TO COUNCIL'S STANDARDS.
- PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN PREPARED BY AN ACCREDITED PERSON IN ACCORDANCE WITH RMS REQUIREMENTS, FOR ANY WORK ON OR ADJACENT TO PUBLIC ROADS, PLAN TO BE SUBMITTED TO COUNCIL & RMS AS REQUIRED.
- THESE PLANS SHALL BE A READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS.
- THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.
- THE BUILDER IS TO VERIFY ALL LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION.
- ALL THE CLEANING EYES (OR INSPECTION EYES) FOR THE UNDERGROUND PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES.
- ALL TERRACE FLOOR AND PLANTER GRATES TO HAVE FIRE COLLARS FITTED.
- ALL PITS HAVING AN INTERNAL DEPTH THAT EXCEEDS 1.0m SHALL BE PROVIDED WITH GALVANIZED STEP IRONS AT 300 mm CENTRES PLACED IN A STAGGERED PATTERN AND SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AS4198-1994.
- ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON SITE DETENTION STORAGE SHALL BE OF A NON-FLOATABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. BARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA.
- PRIOR TO COMMENCING ANY WORKS, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTION INTO COUNCIL'S KERBSIDE DRAINAGE SYSTEM MATCH THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.
- GREENVIEW IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY SURVEY INFORMATION PROVIDED ON THIS DRAWING.
- ALL LEVELS SHOWN ARE EXPECTED TO BE TO A.H.D.
- ALL CHAINAGES AND LEVELS ARE IN METERS, AND DIMENSIONS IN MILLIMETRES, UNLESS NOTED OTHERWISE.
- THE SURVEY INFORMATION ON THIS DRAWING HAS BEEN PROVIDED BY THE ARCHITECT.
- CONTRACTORS SHALL ARRANGE FOR THE WORKS TO BE SET OUT BY A REGISTERED SURVEYOR.
- W.A.F. DRAWINGS BY A REGISTERED SURVEYOR ARE REQUIRED PRIOR TO CERTIFICATION OF DRAINAGE.
- WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES WITHOUT WRITTEN APPROVAL.

## RAINWATER REUSE SYSTEM NOTES

- RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
- NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAINWATER SUPPLY
- PROVIDE AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
- PROVIDE AT LEAST ONE EXTERNAL HOSE COCK ON THE TOWN WATER SUPPLY FOR FIRE FIGHTING.
- PROVIDE APPROPRIATE FLOAT VALVE AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL.
- ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE.
- PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN.
- ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK SURFACE WATER INLETS ARE NOT TO BE CONNECTED.
- PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS PART 1 (AS/NZS2952 PART 1) SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED AS 'RAINWATER'. THIS MAY BE ACHIEVED FOR BELOW GROUND PIPES USING IDENTIFICATION TAPE (MADE IN ACCORDANCE WITH AS2848) OR FOR ABOVE GROUND PIPES BY USING ADHESIVE PIPE MARKERS (MADE IN ACCORDANCE WITH AS1345).
- EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1319.
- ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO AND VERMIN ENTRY.
- ALL DOWNPIPES CHARGED TO THE RAINWATER TANK ARE TO BE SEALED UP TO GUTTER LEVEL AND BE PRESSURE TESTED AND CERTIFIED.
- TOWN WATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS MAY REQUIRE PROVISION OF
  - PERMANENT AIR GAP
  - BACKFLOW PREVENTION DEVICE

## EARTHWORK NOTES

- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
- THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS ETC. TO THE EXTENT OF THE PROPOSED DEVELOPED AREA.
- PROVIDE PROTECTION BARRIERS TO PROTECTED/SENSITIVE AREAS PRIOR TO ANY BULK EXCAVATION.
- OVER FULL AREA OF EARTHWORKS, CLEAR VEGETATION, RUBBISH, SLABS ETC. AND STRIP TOP SOIL AVERAGE 200mm THICK. REMOVE FROM SITE, EXCEPT TOP SOIL, FOR RE-USE.
- CUT AND FILL OVER THE SITE TO LEVELS REQUIRED.
- PRIOR TO ANY FILLING IN AREAS OF CUT OR IN EXISTING GROUND, PROOF ROLL THE EXPOSED SURFACE WITH A ROLLER OF MINIMUM WEIGHT OF 5 TONNES WITH A MINIMUM OF 10 PASSES.
- EXCAVATE AND REMOVE ANY SOFT SPOTS ENCOUNTERED DURING PROOF ROLLING AND REPLACE WITH APPROVED FILL COMPACTED IN LAYERS. THE WHOLE OF THE EXPOSED SUBGRADE AND FILL SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT  $\pm$  2%.
- FOR ON SITE FILLING AREAS, THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
- WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN.
- FILL IN 200mm MAXIMUM (LOOSE THICKNESS) LAYERS TO UNDERSIDE OF BASECOURSE USING THE EXCAVATED MATERIAL AND COMPACTED TO 98% STANDARD (AS 1289 S1.1.1) MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT  $\pm$  2% SHOULD THERE BE INSUFFICIENT MATERIAL FROM SITE EXCAVATIONS, IMPORT AS NECESSARY CLEAN GRANULAR FILL TO APPROVAL.
- COMPACTION TESTING SHALL BE CARRIED OUT AT THE RATE OF 2 TESTS PER 1000SQ METRES PER LAYER BY A REGISTERED NATA LABORATORY. THE COSTS OF TESTING AND RE-TESTING ARE TO BE ALLOWED FOR BY THE BUILDER.
- BATTERS TO BE AS SHOWN, OR MAXIMUM 1 VERT : 4 HORIZ.
- ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL PAVEMENT.
- ALL BATTERS AND FOOTPATHS ADJACENT TO ROADS SHALL BE TOP SOILED WITH 150mm APPROVED LOAM AND SEEDED UNLESS OTHERWISE SPECIFIED.

## SAFETY IN DESIGN NOTES

THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING. WE NOTE THIS DESIGN IS TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS. GREENVIEW ASSESSMENT DID NOT IDENTIFY ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN.

## DRAINAGE INSTALLATION

### RCP CONVENTIONAL

### INSTALLATIONS & ROAD CROSSINGS

- SUPPLY & INSTALLATION OF DRAINAGE WORKS TO BE IN ACCORDANCE WITH THESE DRAWINGS, THE COUNCIL SPECIFICATION AND THE CURRENT APPLICABLE AUSTRALIAN STANDARDS.
- BACKFILL SHALL BE PLACED & COMPACTED IN ACCORDANCE WITH THE SPECIFICATION. A GRANULAR GRAVEL AGGREGATE MATERIAL (<10mm) BACKFILL IS RECOMMENDED FOR THE BEDDING, HAUNCH SUPPORT AND SIDE ZONE DUE TO IT'S SELF COMPACTING ABILITY.
- A MINIMUM OF 150mm CLEARANCE IS TO BE PROVIDED BETWEEN THE OUTSIDE OF THE PIPE BARREL AND THE TRENCH WALL FOR PIPES < 600 DIA. 200mm CLEARANCE FOR PIPES 600 TO 1200 DIA. AND D/G CLEARANCE FOR PIPES > 1200 DIA.
- BEDDING OF THE PIPELINES IS TO BE TYPE 'HS2' IN ACCORDANCE WITH THE STANDARDS AND AS FOLLOWS:

a. COMPACTED GRANULAR MATERIAL IS TO COMPLY WITH THE FOLLOWING GRADINGS:						
M	19	2.3600	0.6000	0.3000	0.1500	0.0750
% MASS PASSING	100	50-100	20-90	10-60	0-25	0-10

-AND THE MATERIAL PASSING THE 0.075 SIEVE HAVING LOW PLASTICITY AS DESCRIBED IN APPENDIX D OF AS1726.

b. BEDDING DEPTH UNDER THE PIPE TO BE 100mm.

c. BEDDING MATERIAL IS TO BE EXTENDED FROM THE TOP OF THE BEDDING ZONE UP TO 0.3 TIMES PIPE OUTSIDE DIAMETER. THIS REPRESENTS THE 'HAUNCH ZONE.'

d. THE BEDDING & HAUNCH ZONE MATERIAL IS TO BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 98% WITHIN ROAD RESERVES AND TRAFFICABLE AREAS AND 95% ELSEWHERE FOR COHESIVE MATERIAL OR A MINIMUM DENSITY INDEX OF 70% IN ACCORDANCE WITH THE STANDARDS FOR COHESIONLESS MATERIAL.

e. COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED ORGANISATION WITH A NATA CERTIFIED LABORATORY FOR ALL DRAINAGE LINES LAID WHOLLY OR IN PART UNDER THE KERB & GUTTER OR PAVEMENT

## STORMWATER DRAINAGE NOTES

- STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS INCLUDING AS3500.3, NCC AND COUNCIL'S SPECIFICATION.
- PIPES OF 225mm DIA. AND UNDER SHALL BE UPVC
- PIPES OF 300mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 RUBBER RING JOINTED UNO.
- ALL FRC OR RCP STORMWATER PIPES WITHIN ROAD RESERVE AREAS TO BE CLASS 3 U.N.O. BY COUNCIL'S SPECIFICATION.
- PIPES SHALL GENERALLY BE LAID AT THE GRADES INDICATED ON THE DRAWINGS.
- MINIMUM COVER TO PIPES 300mm DIA. AND OVER GENERALLY SHALL BE 600mm IN CARPARK & ROADWAY AREAS UNO.
- ALL PIPES LOCATED IN LANDSCAPE AREAS TO HAVE 300mm COVER, WHERE NOT POSSIBLE, IT AND COVER IS BETWEEN 150mm AND 300mm USE SEWER GRADE PIPE.
- PIPES 225mm DIA AND OVER SHALL BE LAID AT 0.5% MIN. GRADE U.N.O.
- PIPES UP TO 150mm DIA SHALL BE LAID AT 1.0% MIN. GRADE U.N.O.
- BACKFILL TRENCHES WITH APPROVED FILL COMPACTED IN 200mm LAYERS TO 98% OF STANDARD DENSITY.
- ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT ALL JOINTS.
- THE MINIMUM SIZES OF THE STORMWATER DRAINAGE PIPES SHALL NOT BE LESS THAN 90mm DIA FOR CLASS 1 BUILDINGS AND 100mm DIA FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY.
- DOWNPIPES SHOWN ARE INDICATIVE ONLY. REFER ARCHITECTURALS FOR FINAL LOCATIONS. ALL ROOF GUTTERING AND DOWNPIPES TO THE CURRENT AUSTRALIAN STANDARDS.
- ALL DOWNPIPES TO BE CONSTRUCTED OF ONE MATERIAL FOR AESTHETICS REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE, UNLESS APPROVED OTHERWISE BY THE PROJECT ARCHITECT.
- BUILD INTO UPSTREAM FACE OF ALL PITS A 3.0m SUBSOIL LINE ALLING TO PITS TO APPROVAL.
- ALL COURTYARD & LANDSCAPED PITS TO BE 450 SQUARE UNLESS NOTED OTHERWISE.
- ALL DRIVEWAY & OSD PITS TO BE 600 SQUARE UNLESS NOTED OTHERWISE.
- ALL PLANTER BOXES AND BALCONIES TO BE CONNECTED TO THE PROPOSED STORMWATER DRAINAGE LINE.
- ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS. WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG.
- GEOTEXTILE FABRIC TO BE PLACED UNDER RIP RAP SCOUR PROTECTION WHERE APPLICABLE.
- ALL BASES OF PITS TO BE BENCHED (TO HALF PIPE DEPTH) TO THE INVERT OF THE OUTLET PIPE AND PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE.
- ANY VARIATION TO THAT WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY THE ENGINEER PRIOR TO THE COMMENCEMENT.
- ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
- ALL GRATES TO HAVE CHILDPROOF LOOKS
- ALL DOWNPIPES TO HAVE LEAF GUARDS
- ALL WORK WITHIN COUNCIL RESERVE AREAS TO BE INSPECTED BY COUNCIL PRIOR TO BACKFILLING.
- COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
- WATER PROOF ALL CONCRETE BALCONIES & ROOFS TO ARCHITECTS DETAILS
- ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW.
- ALL SUBSOIL DRAINAGE SHALL BE A MINIMUM OF 265mm AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE CONSULTANT.
- SUBSOIL DRAINAGE PIPES AND FITTINGS SHALL BE PERFORATED PLASTIC TO CURRENT AUSTRALIAN STANDARDS. LAY PIPES ON FLOOR OF TRENCH GRADED AT 1% MIN. AND OVERLAY WITH FILTER MATERIAL EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND TOPSOIL. PROVIDE FLUSHING EYES AT HIGH POINTS OR TO COUNCIL'S REQUIREMENTS.
- GRATES TO BE IN ACCORDANCE WITH TABLE BELOW:

### PIT GRATE INLINE TYPE

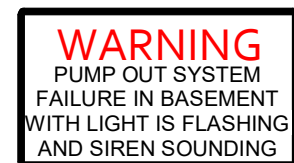
GRATE TYPE	TRAFFIC CONDITIONS
A - EXTRA LIGHT DUTY	FOOTWAYS AND AREAS ACCESSIBLE ONLY TO PEDESTRIANS AND PEDAL CYCLISTS.
B - LIGHT DUTY	FOOTWAYS THAT CAN BE MOUNTED BY VEHICLES.
C - MEDIUM DUTY	WALKS AND PEDESTRIAN AREAS OPEN TO SLOW MOVING COMMERCIAL VEHICLES.
D - HEAVY DUTY	CARRIAGEWAYS OF ROADS AND AREAS OPEN TO COMMERCIAL VEHICLES.
TABLE AS PER AS3906 - 2009. ENGINEER TO BE NOTIFIED IF LOAD CONDITIONS LISTED ABOVE ARE EXCEEDED.	

- COVER TO PIPE TO BE AS PER TABLE BELOW:

### COVER TABLE

LOCATION	PIPE TYPE	COVER
LANDSCAPE	PVC	300
LANDSCAPE (SINGLE DWELLING)	PVC	100
UNDER TRAFFICABLE AREA	PVC	100 BELOW UNDERSIDE OF PAVEMENT
CONCRETE	STEEL	NIL BELOW UNDERSIDE OF PAVEMENT
ROADS	RCP	500 BELOW UNDERSIDE OF PAVEMENT

## RECOMMENDED SAFETY SIGNS



## BASEMENT PUMP OUT FAILURE WARNING SIGN

- SIGN SHALL BE PLACED IN A CLEAR AND VISABLE LOCATION WHERE VEHICLES ENTER THE BASEMENT



## CONFINED SPACE DANGER SIGN

- A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS CONFINED SPACE.
  - MINIMUM DIMENSIONS OF THE SIGN
    - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS)
    - 250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)
- THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE
- SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN.

## EXISTING SERVICES



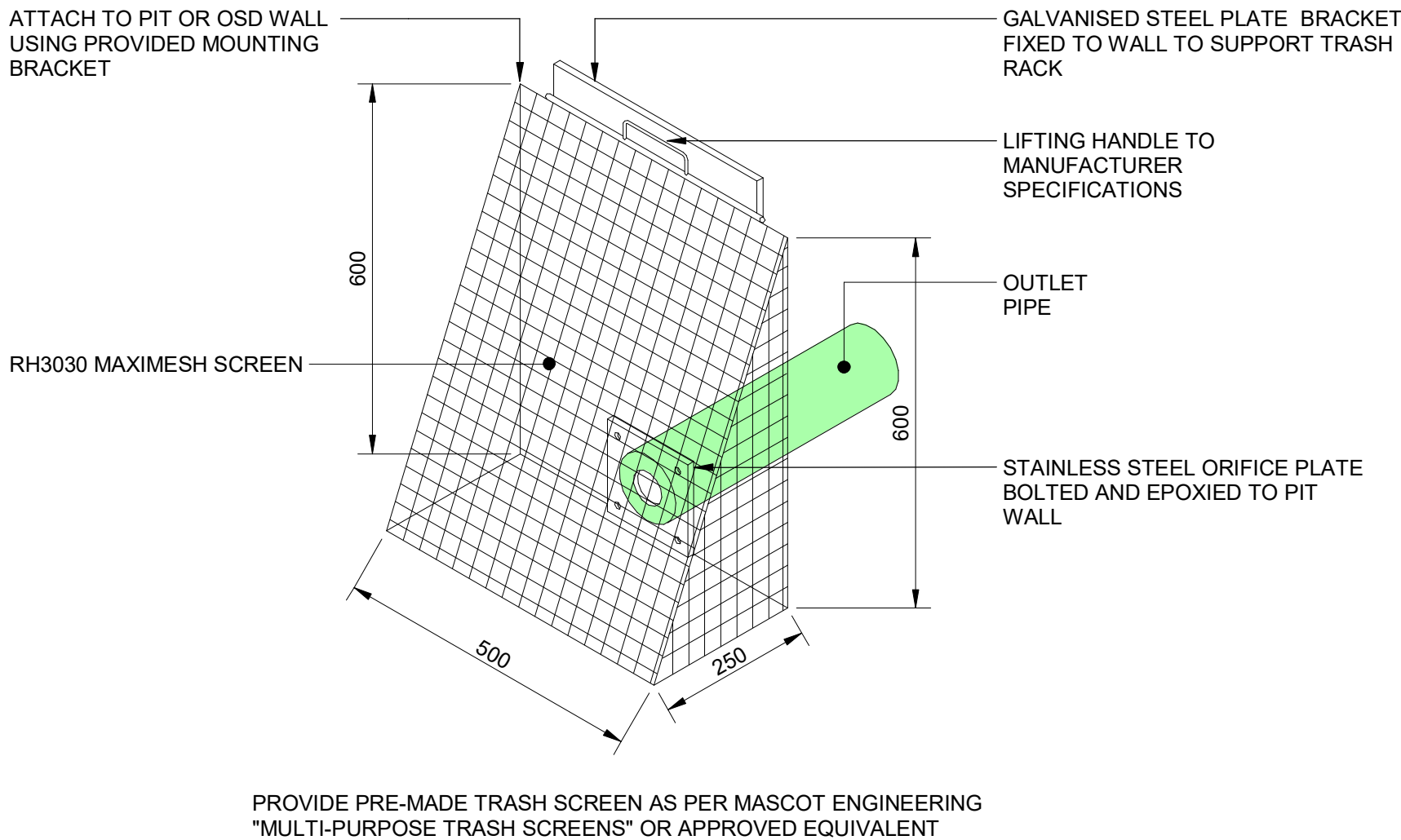
## ABBREVIATIONS

DP	DOWN PIPE
FFL	PROPOSED FINISHED FLOOR LEVEL
GL	PROPOSED PIT SURFACE LEVEL
IL	PROPOSED PIT INVERT LEVEL
IO	INSPECTION OPENING
K&G	KERB & GUTTER
P	FINISHED PAVEMENT LEVEL
RCP	REINFORCED CONCRETE PIPE
RKG	ROLL KERB & GUTTER
RL	FINISHED SURFACE LEVEL
RWO	RAINWATER DRAINAGE OUTLET
RWT	PROPOSED RAINWATER TANK
TK	TOP OF NEW KERB LEVEL
TOW	TOP OF NEW RETAINING WALL LEVEL
TWL	TOP OF WATER LEVEL
uPVC	RIGID PVC PIPE
VD	VERTICAL DROPPER

## COLOUR LEGEND

- NEW (REFER TO SCHEDULES FOR COLOUR DEFINITION)
- EXISTING
- REMOVED OR RELOCATED

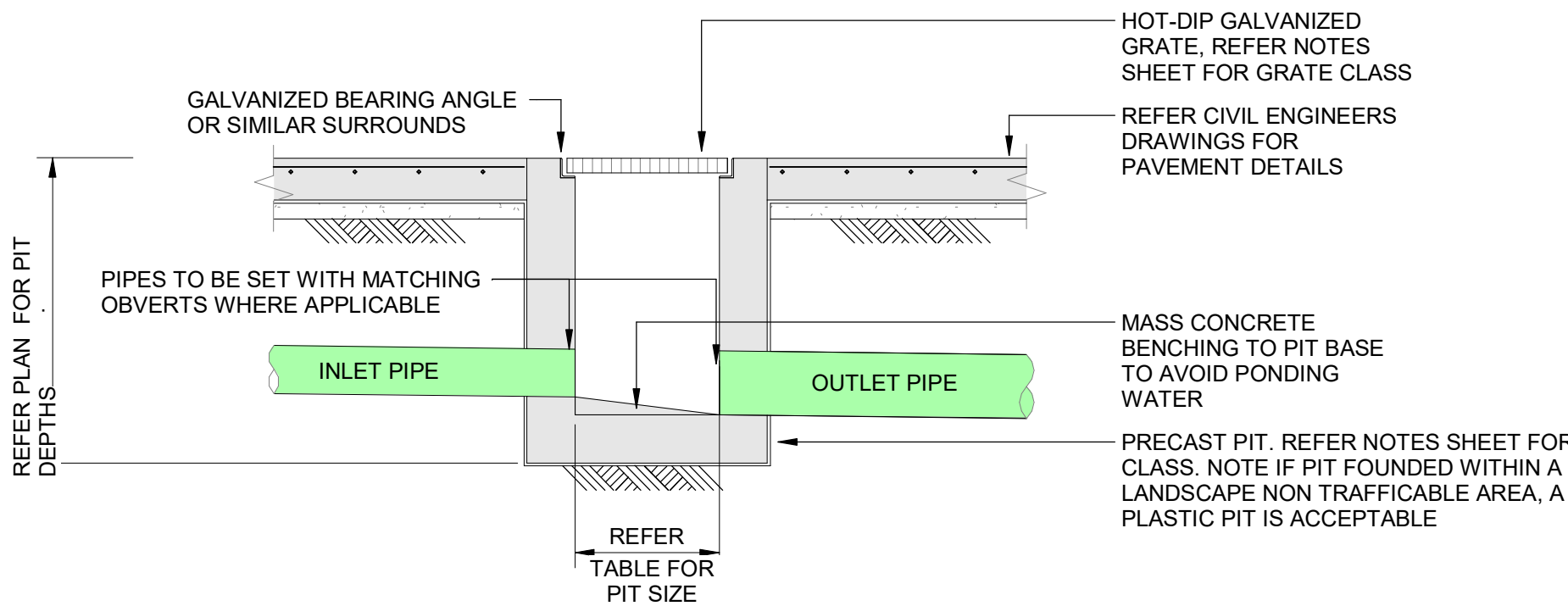
GREENVIEW CIVIL SHEET LIST		
No.	SHEET NAME	
C01	NOTES & LEGENDS	
C02	GROUND FLOOR DRAINAGE PLAN	



PROVIDE PRE-MADE TRASH SCREEN AS PER MASCOT ENGINEERING "MULTI-PURPOSE TRASH SCREENS" OR APPROVED EQUIVALENT

## TYPICAL TRASH SCREEN DETAIL

Scale: 1 : 10



- ENSURE CLIMB IRONS ARE PROVIDED UNDER LID AT 300 CTS TO COUNCIL'S SPECIFICATIONS WHERE PIT DEPTH IS DEEPER THAN 1000.
- GREENVIEW RECOMMENDS THE PLUMBER PROVIDES 90dia x 3000 LONG SUBSOIL DRAINAGE STUB PIPE SURROUNDED WITH 100mm THICKNESS OF NOMINAL 20mm COARSE FILTER MATERIAL WRAPPED IN GEOTEXTILE FILTER FABRIC. (BIDUM A24 OR APPROVED SIMILAR). TO BE PARALLEL TO UPSTREAM SIDE OF EACH INLET PIPE.

DEPTH	PIT DIMENSION
0 - 600	450 mm x 450 mm
600 - 900	600 mm x 600 mm
900 - 1200	600 mm x 900 mm
1200 +	900 mm x 900 mm

## TYPICAL CONCRETE INLET PIT - CONCRETE SURFACE

Scale: 1 : 20

REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
5	04.06.19	MJE	ISSUED FOR APPROVAL				
4	13.09.18	MJE	OSD CALCS				
3	31.07.18	MJE	COUNCIL CHANGES				
2	19.03.18	MJE	ISSUED FOR APPROVAL				
1	15.03.18	MJE	ISSUED FOR APPROVAL				

DESIGN: AMcK  
DRAWN: MJE  
SCALE: As indicated  
SIZE: A1



greenview  
CONSULTING

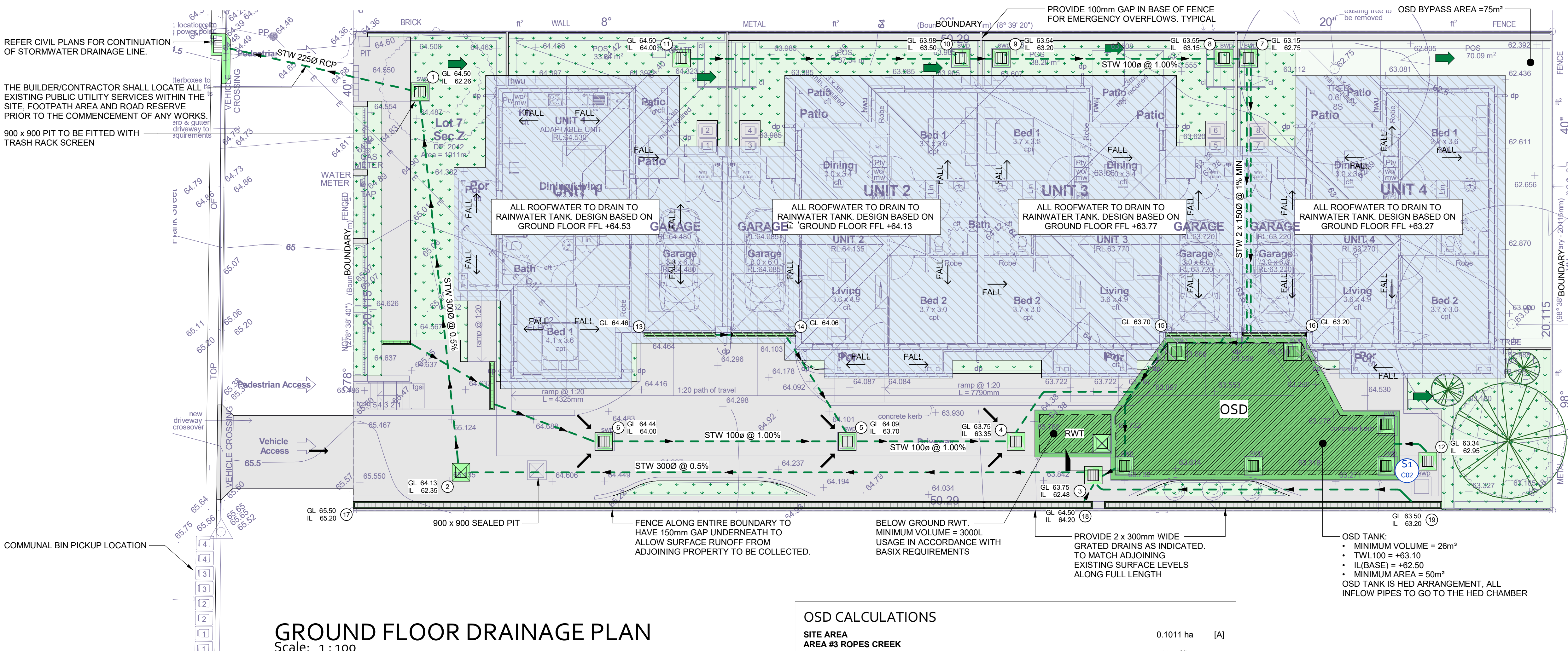
## PROPOSED DEVELOPMENT

30 Frank St, Mount Druitt NSW  
Stanton Dahl

CIVIL DESIGN  
NOTES & LEGENDS

171243  
DA  
C01 5





**GENERAL LEGEND**

- LANDSCAPE
- HARDSTAND
- ROOF AREA TO DRAIN
- OSD

PROPOSED TREES    EXISTING TREES

CIV - FIXTURES SCHEDULE		
	TYPE	DESCRIPTION
		GRADED STORMWATER PIT
		PERIMETER STRIP DRAIN
		SEALED STORMWATER PIT
	300W	GRADED STRIP DRAIN

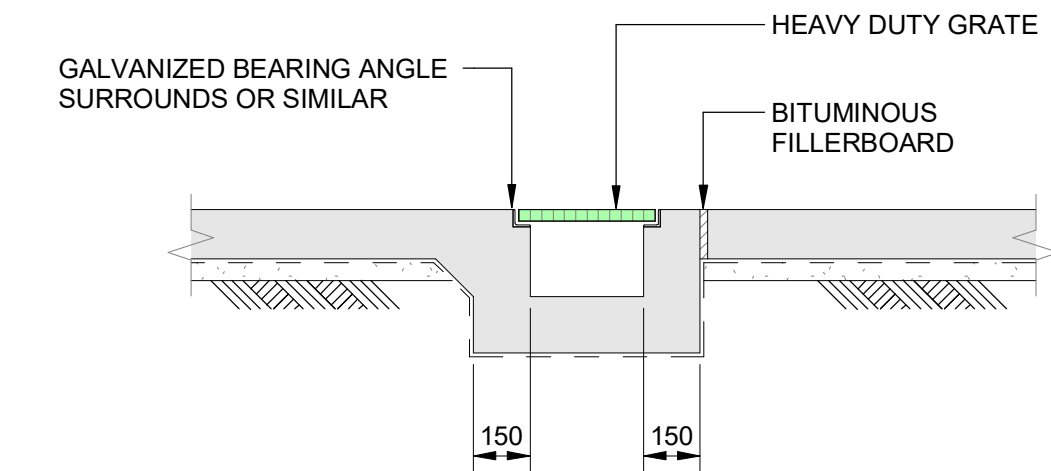
CIV - STANDARD SYMBOLS	
	DESCRIPTION
	FALL ARROW
	OVERLAND FLOW PATH
	ROOF FALL ARROW

CIV - STORMWATER SERVICES		
	TYPE	DESCRIPTION
	STW	STORMWATER

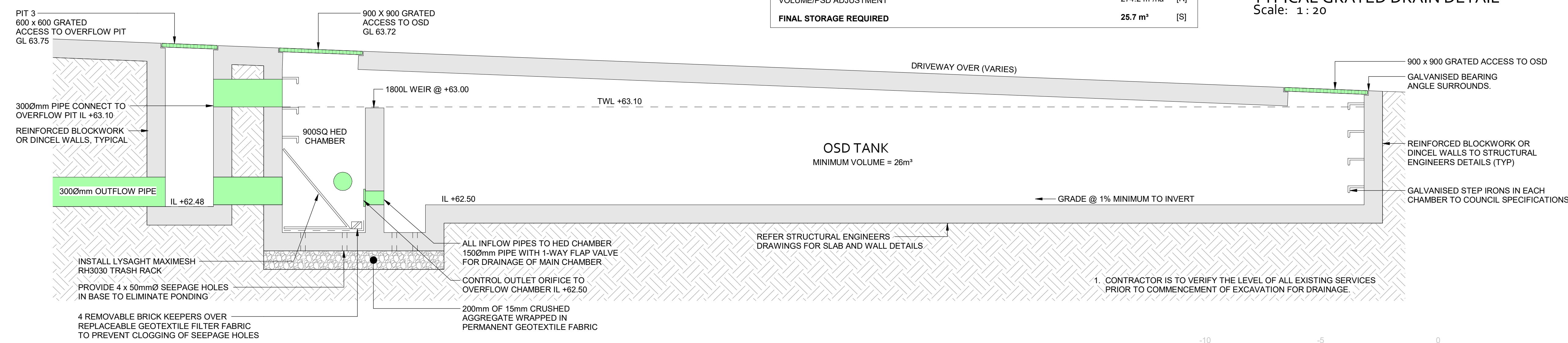
**GROUND FLOOR DRAINAGE PLAN**  
Scale: 1:100

- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
- THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.
- PRIOR TO COMMENCING ANY WORKS ON THE SITE, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTION INTO COUNCIL'S KERB/DRAINAGE SYSTEM MATCH THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.
- ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS. WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG.
- ALL BASES OF PITS TO BE BENCHED (TO HALF PIPE DEPTH) TO THE INVERT OF THE OUTLET PIPE WITH ALL PIPES CUT FLUSH WITH SIDE OF PIT, TO ALLOW SMOOTH FLOW OF STORMWATER.
- PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE WHERE IN TRAFFICABLE AREAS.
- PROVIDE 150mm GAP IN BASE OF FENCE FOR EMERGENCY OVERFLOWS.

OSD CALCULATIONS			
<b>SITE AREA</b>			
AREA #3 ROPES CREEK	0.1011 ha	[A]	
SSR	232 m³/ha		
PSD	181 l/s/ha		
<b>BASIC STORAGE VOLUME</b>			
BASIC DISCHARGE	23.455 m³	[B]	
<b>AREA OF SITE DRAINED</b>			
[D]/[A] (MINIMUM 80%)	0.0936 ha	[D]	
STORAGE PER HA OF CONTRIBUTING AREA ADJUSTED	92.6%	[E]	
PSD ADJUSTMENT	264.78	[F]	
DETERMINE PSD	148.36 l/s/ha	[G]	
	13.89 l/s	[H]	
<b>MAXIMUM HEAD TO ORIFICE (TWL - CENTRE ORIFICE RL) 63.10 - 62.50</b>			
SELECTED ORIFICE DIAMETER	0.60 m	[K]	
MAXIMUM DISCHARGE	91.20 mm	[J]	
	13.89 l/s	[L]	
<b>HEAD FOR HIGH EARLY DISCHARGE (WEIR RL - CENTRE ORIFICE RL) 63.00 - 62.50</b>			
HIGH EARLY DISCHARGE	0.50 m	[M]	
APPROXIMATE MEAN DISCHARGE	12.68 l/s	[N]	
AVERAGE DISCHARGE/HA	13.28 l/s	[P]	
VOLUME/PSD ADJUSTMENT	141.90 l/s/ha	[Q]	
	274.2 m³/ha	[R]	
<b>FINAL STORAGE REQUIRED</b>	<b>25.7 m³</b>	[S]	



**TYPICAL GRATED DRAIN DETAIL**  
Scale: 1:20



**SECTION S1-C02**  
Scale: 1:25

REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
5	04.06.19	MJE	ISSUED FOR APPROVAL				
4	13.09.18	MJE	OSD CALCS				
3	31.07.18	MJE	COUNCIL CHANGES				
2	19.03.18	MJE	ISSUED FOR APPROVAL				
1	15.03.18	MJE	ISSUED FOR APPROVAL				

DESIGN: AMcK  
DRAWN: MJE  
SCALE: As indicated  
SIZE: A1



**PROPOSED DEVELOPMENT**  
30 Frank St, Mount Druitt NSW  
Stanton Dahl

**CIVIL DESIGN**  
**GROUND FLOOR DRAINAGE PLAN**

171243  
DA  
C02 5



30 Frank St, Mount Druitt NSW  
greenview Job No: 171243

1. THIS SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH OTHER ENGINEERING PLANS RELATING TO THIS DEVELOPMENT.
2. CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS PLAN AND IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:
  - a. OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION" DEPT OF HOUSING, 1998 (BLUE BOOK)
3. ALL SUBCONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES TO REDUCE THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNWIND AREAS.
4. THESE PLANS SHALL BE READ IN CONJUNCTION WITH THE RELEVANT CONSTRUCTION CERTIFICATE AND THE CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS, WHERE DISCREPANCIES ARE FOUND NOTIFY THE ENGINEER IMMEDIATELY.
5. WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES.

1. DISTURBANCE TO BE NO FURTHER THAN 5 (PREFERRABLY 2) METRES FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON APPROVED PLANS. ALL SITE WORKERS WILL CARRY OUT RECOGNITION OF BOUNDARIES. WHERE NECESSARY, APPROPRIATE ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
2. ACCESS AREAS ARE TO BE LIMITED TO A MAXIMUM WIDTH OF 10 METRES THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE ZONES ON-SITE. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE BOUNDARIES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
3. SLOPE LANDS NOT REQUIRED FOR CONSTRUCTION OR ACCESS IS PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH.
4. WORKS ARE TO PROCEED IN THE FOLLOWING SEQUENCE.
  - A. INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN.
  - B. CONSTRUCT THE STABILISED SITE ACCESS.
  - C. CONSTRUCT DIVERSION DRAINS AS REQUIRED.
  - D. INSTALL MESH AND GRAVEL INLETS FOR ANY ADJACENT KEST INLETS.
  - E. INSTALL GEOTEXTILE INLET FILTERS AROUND ANY ON-SITE DRAIN INLET PITS.
  - F. LAY AND STRIP AND STOCKPILE TOPSOIL IN LOCATIONS SHOWN ON THE PLAN.
  - G. UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS INCLUDING THAT TEMPORARY OR PERMANENT DRAINAGE SYSTEMS ARE CONNECTED TO PERMANENT DRAINAGE AS SOON AS PRACTICABLE.
  - H. GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION WORKS.
5. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
6. ENSURE SLOPE STABILISATION AND EROSION CONTROL MEASURES WHERE PRACTICABLE. SLOPE LENGTHS ARE DETERMINED BY SITUATION FENCING AND CATCH DRAIN SPACING.
7. ON COMPLETION OF MAJOR WORKS LEAVE DISTURBED LANDS WITH UNBARRIRED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST WITH KEYPING TOPSOIL LATER.

1. THE SITE SUPERINTENDENT WILL INSPECT THE SITE AT LEAST WEEKLY AND AT THE CONCLUSION OF EVERY STORM EVENT TO:
  - A. ENSURE THAT DRAINS OPERATE PROPERLY AND TO EFFECT ANY NECESSARY REPAIRS.
  - B. REMOVE SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5 METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS FROM EROSION, WATERWAYS AND TIDED AREAS.
  - C. REMOVE TRAPPED SEDIMENT WHENEVER THE DESIGN CAPACITY OF THAT STRUCTURE HAS BEEN EXCEEDED.
  - D. ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND NOT TO INITIATE UPGRADING OR REPAIRS NECESSARY.
  - E. CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WETLANDS, MAKE OTHER NECESSARY REPAIRS OR PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECTED TO CHANGES IN CONDITIONS ON THE WORK-SITE OR ELSEWHERE IN THE CATCHMENT.
  - F. MAINTAIN EROSION AND SEDIMENT CONTROL STRUCTURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.

THE SITE SUPERINTENDENT WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL. ENTRIES WILL INCLUDE:

- THE VOLUME AND INTENSITY OF ANY RAINFALL EVENTS.
- THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS.
- THE CONDITION OF VEGETATION AND ANY NEED TO IRRIGATE.
- THE NEED FOR DUST PREVENTION STRATEGIES.
- ANY REMEDIAL WORKS TO BE UNDERTAKEN.

THE LOGBOOK WILL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF THE WORKS.

1. THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING. WE NOTE THIS DESIGN IS TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS. GREENVIEW ASSESSMENT DID NOT IDENTIFY ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN.

1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SUPERINTENDENT TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THE SOURCE
2. SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES
3. ALL TRAPPING DEVICES MUST BE LOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR
4. STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS SWALES, DRAINAGE DITCHES AND DROVDRAWS
5. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN DIVERTED TO AN APPROPRIATE DRAINAGE POINT
6. TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED
7. ACCESS TO TRAPS SHOULD BE STABILISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NOTED. THERE:

1. 2.5H:1V) WHERE SLOPE LENGTH LESS THAN 12 METRES

2. 2.5H:1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 16 METRES

3. 4H:1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 20 METRES

4. 4H:1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES

ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1-20 YEAR R.I.

5. WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.15 (60% GROUND COVER) WITHIN 10 WORKING DAYS AFTER CONSTRUCTION. VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN IN TABLE 5.1 OF "MANAGING URBAN STORMWATER-SOLIDS AND CONSTRUCTION".

6. DEPT OF HOUSING 1988 (BLUE BOOK), FOOT AND VEHICULAR TRAFFIC ARE TO BE LIMITED TO 100 KPH.

7. STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.1 (60% GROUND-COVER) WITHIN 10 WORKING DAYS AFTER CONSTRUCTION.

8. ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.15 (60% GROUND COVER) WITHIN 20 WORKING DAYS AFTER CONSTRUCTION. EVEN AFTER CONSTRUCTION, THE FOLLOWING AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER: JAPANESE MILLET 20 KG/HA AND RASTS 20 KG/HA.

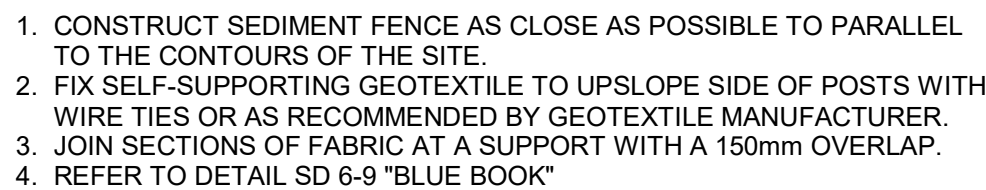
9. ALL PLANTED AREAS IN THE LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND-COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE RE-EVALUATED FOR RE-ESTABLISHMENT OF PLANTS. IF ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY, FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.

10. REVEGETATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES, SURF, SOIL AND SUBSTRATE.

11. NON-PERSISTENT ANNUAL COVER CROPS SHOULD BE USED.

1. ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED TO REMOVE AT LEAST 10% OF THE WASTE. THERE WILL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
2. ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINAGE AREAS, FLOOD PHONE AREAS, AND ANY OTHER CHALLENGING SITES. THESE AREAS ARE TO STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUND.
3. ALL SITE STAFF AND SUB-CONTRACTORS ARE TO BE INFORMED OF THIS REQUIREMENT AND TO USE WASTE CONTROL FACILITIES PROVIDED.
4. ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
5. PROVIDE DESIGNATED WASTE HANDLING AND WASTE REMOVAL MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUND.

2. ENSURE PERMISSION FOR DE-WATERING IS RECEIVED FROM AUTHORITIES BEFORE PUMPING OUT
3. ALL DEWATERING TREATMENT DISCHARGING TO THE STORMWATER SYSTEM WILL BE IMPLEMENTED. ALL SITE WATERS DURING CONSTRUCTION WILL BE CONTAINED ON SITE AND RELEASED ONLY WHEN pH IS between 5.5 & 6.5, SUSPENDED SOLIDS ARE LESS THAN 100mg/L, TOTAL PHOSPHORUS IS LESS THAN 0.5mg/L AND GREASE LESS THAN 10mg/L AND BIOCHEMICAL OXYGEN DEMAND (BOD5) LESS THAN 30mg/L. (FOR STORMS LESS THAN 1 IN 5)
4. METHODS OF SAMPLING AND ANALYSIS OF WATER QUALITY WILL BE IN ACCORDANCE WITH THE APPLICABLE METHOD LISTED IN THE APPROPRIATE METHOD STATEMENT FOR THE SAMPLING AND ANALYSIS OF WATER POLLUTANTS IN NEW SOUTH WALES
5. WHERE LABORATORY ANALYSIS IS REQUIRED AS INDICATED BY SITE TESTING, APPROPRIATE SAMPLE BOTTLES AND PRESERVATION METHODS WILL BE USED WITHIN THE METHOD STATEMENT. THE SAMPLING METHOD OBTAINED FROM APPLICABLE PARTS OF A5567:1 AND A5566:6 ANALYSIS WILL BE UNDERTAKEN WHERE THE ANALYSIS IS NOT AVAILABLE FROM A LABORATORY CERTIFIED TO PROVIDE THE APPLICABLE ANALYSIS
6. AS EXCAVATION TO TOP SOIL PROGRESSES, ANY WATER COLLECTED AT THE BOTTOM OF EXCAVATIONS WILL BE DIVERTED TO THE STORMWATER SYSTEM. ANY WATER IN THE HOLDING TANK, IF THE WATER CONTAINS ONLY SEDIMENTS, IT WILL BE FILTERED AND PUMPED TO STORMWATER. BEFORE THIS CAN HAPPEN IT WILL BE TESTED TO ENSURE IT DOES NOT EXCEED THE LIMITS OF POLLUTED WATER MUST NOT ENTER THE STORMWATER SYSTEM. IN SOME CIRCUMSTANCES, A LIQUID WASTE COMPANY MAY BE REQUIRED TO COLLECT AND TREAT THE WATER FOR DISPOSAL AT A LICENSED TREATMENT FACILITY.



DESIGN: AMcK  
DRAWN: MJE  
SCALE: As indicated  
SIZE: A1



30 Frank St, Mount Druitt NSW  
Stanton Dahl

# CIVIL DESIGN NOTES & LEGEND

171243  
PRELIMINARY  
ESM11







# EXTERNAL STORMWATER

PROJECT:  
**SENIORS LIVING DEVELOPMENT**

AT:  
**30 FRANK ST, MT DRUITT, NSW 2770**

CLIENT:  
**ABORIGINAL HOUSING OFFICE**

PROJECT No:  
**171243**

DRAWING SCHEDULE	
DRAWING No.	DRAWING TITLE
C10	LOCALITY MAP & DRAWING SCHEDULE
C11	GENERAL NOTES
C12	STORMWATER LAYOUT PLAN
C13	STORMWATER LAYOUT PLAN (ENLARGED)
C14	STORMWATER LONGSECTION
C15	STORMWATER NOTES & DETAILS
C16	STORMWATER CATCHMENT PLAN
C17	EROSION AND SEDIMENT CONTROL PLAN



**LOCALITY MAP**  
NOT TO SCALE

REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
B	04/06/2019	SR	ISSUED FOR CONSTRUCTION				
A	31/07/2018	SR	ISSUED FOR REVIEW				

DESIGN: SK  
DRAWN: SR  
SCALE: N.T.S.  
SIZE: A1



**greenview**  
CONSULTING

**SENIORS LIVING DEVELOPMENT**  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

LOCALITY MAP & DRAWING SCHEDULE

171243  
PRELIMINARY  
C10



GENERAL NOTES

1. IN CASE OF DOUBT - ASK
2. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOMINATED OR APPLICABLE COUNCIL SPECIFICATION.
3. ALL WORKS CARRIED OUT ON UTILITIES OR WITHIN A CLOSE VICINITY OF UTILITIES ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE RELEVANT UTILITY OWNERS REQUIREMENTS.
4. THE CONTRACTOR SHOULD REPORT ANY DISCREPANCIES ON THE DRAWINGS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN.
5. CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE OWNER.
6. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE.
7. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
8. ALL DRAINAGE LINES THOUGH ADJACENT LOTS SHALL BE CONTAINED WITHIN EASEMENTS CONFORMING TO COUNCIL'S STANDARDS.
9. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN PREPARED BY AN ACCREDITED PERSON IN ACCORDANCE WITH RMS REQUIREMENTS, FOR ANY WORK ON OR ADJACENT TO PUBLIC ROADS, PLAN TO BE SUBMITTED TO COUNCIL & RMS AS REQUIRED.
10. THESE PLANS SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS.
11. THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS.
12. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.
13. THE BUILDER IS TO VERIFY ALL LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION.
14. ALL PITS HAVING AN INTERNAL DEPTH THAT EXCEEDS 1.2m SHALL BE PROVIDED WITH GALVANIZED STEP IRON'S AT 300mm CENTRES PLACED IN A STAGGERED PATTERN AND SHALL BE IN ACCORDANCE WITH THE COUNCIL STANDARDS
15. PRIOR TO COMMENCING ANY WORKS ON THE SITE, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTION INTO COUNCIL'S KERB/DRAINAGE SYSTEM MATCH THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY
16. GREENVIEW IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY SURVEY INFORMATION PROVIDED ON THIS DRAWING.
17. ALL LEVELS SHOWN ARE EXPECTED TO BE TO A.H.D.
18. ALL CHAINAGES AND LEVELS ARE IN METERS, AND DIMENSIONS IN MILLIMETRES, UNLESS NOTED OTHERWISE.
19. THE SURVEY INFORMATION ON THIS DRAWING HAS BEEN PROVIDED BY THE ARCHITECT.
20. CONTRACTORS SHALL ARRANGE FOR THE WORKS TO BE SET OUT BY A REGISTERED SURVEYOR.
21. W.A.E DRAWINGS BY A REGISTERED SURVEYOR ARE REQUIRED PRIOR TO CERTIFICATION OF DRAINAGE.
22. WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES WITHOUT WRITTEN APPROVAL.

EARTHWORK NOTES

1. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS
2. THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS ETC. TO THE EXTENT OF THE PROPOSED DEVELOPED AREA.
3. PROVIDE PROTECTION BARRIERS TO PROTECTED/SENSITIVE AREAS PRIOR TO ANY BULK EXCAVATION.
4. OVER FULL AREA OF EARTHWORKS, CLEAR VEGETATION, RUBBISH, SLABS ETC. AND STRIP TOP SOIL. AVERAGE 200mm THICK. REMOVE FROM SITE, EXCEPT TOP SOIL FOR RE-USE.
5. CUT AND FILL OVER THE SITE TO LEVELS REQUIRED.
6. PRIOR TO ANY FILLING IN AREAS OF CUT OR IN EXISTING GROUND, PROOF ROLL THE EXPOSED SURFACE WITH A ROLLER OF MINIMUM WEIGHT OF 5 TONNES WITH A MINIMUM OF 10 PASSES.
7. EXCAVATE AND REMOVE ANY SOFT SPOTS ENCOUNTERED DURING PROOF ROLLING AND REPLACE WITH APPROVED FILL COMPACTED IN LAYERS.
8. THE WHOLE OF THE EXPOSED SUBGRADE AND FILL SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2%.
9. FOR ON SITE FILLING AREAS, THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
10. WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN.
11. FILL IN 200mm MAXIMUM (LOOSE THICKNESS) LAYERS TO UNDERSIDE OF BASECOURSE USING THE EXCAVATED MATERIAL AND COMPACTED TO 98% STANDARD (AS 1289 5.1.1). MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2%. SHOULD THERE BE INSUFFICIENT MATERIAL FROM SITE EXCAVATIONS, IMPORT AS NECESSARY CLEAN GRANULAR FILL TO APPROVAL.
12. COMPACTION TESTING SHALL BE CARRIED OUT AT THE RATE OF 2 TESTS PER 1000SQ METRES PER LAYER BY A REGISTERED NATA LABORATORY. THE COSTS OF TESTING AND RE-TESTING ARE TO BE ALLOWED FOR BY THE BUILDER.
13. BATTERS TO BE AS SHOWN, OR MAXIMUM 1 VERT : 4 HORIZ.
14. ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL PAVEMENT.
15. ALL BATTERS AND FOOTPATHS ADJACENT TO ROADS SHALL BE TOP SOILED WITH 150mm APPROVED LOAM AND SEEDED UNLESS OTHERWISE SPECIFIED.

SAFETY IN DESIGN NOTES

THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING. WE NOTE THIS DESIGN IS TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS. GREENVIEW ASSESSMENT DID NOT IDENTIFY ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN.

DRAINAGE INSTALLATION,  
RCP CONVENTIONAL INSTALLATIONS  
& ROAD CROSSINGS

1. SUPPLY & INSTALLATION OF DRAINAGE WORKS TO BE IN ACCORDANCE WITH THESE DRAWINGS, THE COUNCIL SPECIFICATION AND THE CURRENT APPLICABLE AUSTRALIAN STANDARDS.
2. A MINIMUM OF 150mm CLEARANCE IS TO BE PROVIDED BETWEEN THE OUTSIDE OF THE PIPE BARREL AND THE TRENCH WALL FOR PIPES < 600 DIA. 200mm CLEARANCE FOR PIPES 600 TO 1200 DIA AND D/6 CLEARANCE FOR PIPES > 1200 DIA.
3. COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED ORGANISATION WITH A NATA CERTIFIED LABORATORY FOR ALL DRAINAGE LINES LAID WHOLLY OR IN PART UNDER THE KERB & GUTTER OR PAVEMENT
8. CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE WORKPLACE, HEALTH AND SAFETY ACT - 2011 AND IN PARTICULAR PART 13 OF THE WORKPLACE, HEALTH AND SAFETY REGULATIONS - EXCAVATIONS, TRENCHES, CAISSONS, COFFERDAMS AND TUNNELS (REGULATIONS 125 TO 131 INCLUSIVE).

STORMWATER DRAINAGE NOTES

1. STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS INCLUDING AS3500.3 , NCC AND COUNCIL'S SPECIFICATION.
2. PIPES OF 225mm DIA. AND UNDER SHALL BE UPVC UNLESS NOTED OTHERWISE
3. PIPES OF 300mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 RUBBER RING JOINTED UNLESS NOTED OTHERWISE
4. ALL FRC OR RCP STORMWATER PIPES WITHIN ROAD RESERVE AREAS TO BE CLASS 3 U.N.O. BY COUNCIL'S SPECIFICATION OR ON THESE PLANS.
5. PIPES SHALL GENERALLY BE LAID AT THE GRADES INDICATED ON THE DRAWINGS.
6. MINIMUM COVER TO PIPES 300mm DIA. AND OVER GENERALLY SHALL BE 600mm IN CARPARK & ROADWAY AREAS UNO.
7. ALL PIPES LOCATED IN LANDSCAPE AREAS TO HAVE 300mm COVER. WHERE NOT POSSIBLE AND COVER IS BETWEEN 150mm AND 300mm USE SEWER GRADE PIPE.
8. PIPES 225mm DIA AND OVER SHALL BE LAID AT 0.5% MIN. GRADE U.N.O.
9. PIPES UP TO 150mm DIA SHALL BE LAID AT 1.0% MIN. GRADE U.N.O
10. ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT ALL JOINTS
11. THE MINIMUM SIZES OF THE STORMWATER DRAINAGE PIPES SHALL NOT BE LESS THAN 90mm DIA FOR CLASS 1 BUILDINGS AND 100mm DIA FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY.
12. ANY DOWNPIPES SHOWN ARE INDICATIVE ONLY. REFER ARCHITECTURALS FOR FINAL LOCATIONS.
13. ALL ROOF GUTTERING AND DOWNPIPES TO THE CURRENT AUSTRALIAN STANDARDS. ALL DOWNPIPES TO BE CONSTRUCTED OF ONE MATERIAL FOR AESTHETICS REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE. UNLESS APPROVED OTHERWISE BY HE PROJECT ARCHITECT.
14. BUILD INTO UPSTREAM FACE OF ALL PITS A 3.0m SUBSOIL LINE ALLING TO PITS TO MATCH PIT INVERTS.
15. ALL COURTYARD & LANDSCAPED PITS TO BE 450 SQUARE UNLESS NOTED OTHERWISE.
16. ALL DRIVEWAY & OSD PITS TO BE 600 SQUARE UNLESS NOTED OTHERWISE.
17. ALL PLANTER BOXES AND BALCONIES TO BE CONNECTED TO THE PROPOSED STORMWATER DRAINAGE LINE.
18. ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS. WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG.
19. GEOTEXTILE FABRIC TO BE PLACED UNDER RIP RAP SCOUR PROTECTION WHERE APPLICABLE.
20. ALL BASES OF PITS TO BE BENCHED TO THE INVERT OF THE OUTLET PIPE AND PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE.
21. ANY VARIATION TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY THE ENGINEER PRIOR TO THE COMMENCEMENT.
22. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
23. ALL GRATES TO HAVE CHILDPROOF LOCKS
24. ALL DOWNPIPES TO HAVE LEAF GUARDS
25. ALL WORK WITHIN COUNCIL RESERVE AREAS TO BE INSPECTED BY COUNCIL PRIOR TO BACKFILLING.
26. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
27. WATER PROOF ALL CONCRETE BALCONIES & ROOFS TO ARCHITECTS DETAILS
28. ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW.
29. ALL SUBSOIL DRAINAGE SHALL BE A MINIMUM OF Ø65mm AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE CONSULTANT.
30. SUBSOIL DRAINAGE PIPES AND FITTINGS SHALL BE PERFORATED PLASTIC TO CURRENT AUSTRALIAN STANDARDS. LAY PIPES ON FLOOR OF TRENCH GRADED AT 1% MIN. AND OVERLAY WITH FILTER MATERIAL EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND TOPSOIL. PROVIDE FLUSHING EYE'S AT HIGH POINTS OR TO COUNCILS REQUIREMENTS.
31. GRATES TO BE IN ACCORDANCE WITH TABLE BELOW:

PIT GRATE INLINE TYPE

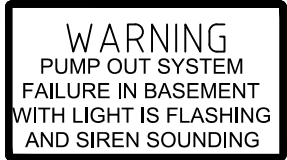
GRATE TYPE	TRAFFIC CONDITIONS
A - EXTRA LIGHT DUTY	FOOTWAYS AND AREAS ACCESSIBLE ONLY TO PEDESTRUANS AND PEDAL CYCLISTS.
B - LIGHT DUTY	FOOTWAYS THAT CAN BE MOUNTED BY VEHICLES.
C - MEDIUM DUTY	MALLS AND PEDESTRIAN AREAS OPEN TO SLOW MOVING COMMERCIAL VEHICLES.
D - HEAVY DUTY	CARRIGEWAYS OF ROADS AND AREAS OPEN TO COMMERCIAL VEHICLES.
TABLE AS PER AS3996 - 2006. ENGINEER TO BE NOTIFIED IF LOAD CONDITIONS LISTED ABOVE ARE EXCEEDED.	

32. COVER TO PIPE TO BE AS PER TABLE BELOW:

COVER TABLE

LOCATION	PIPE TYPE	COVER
LANDSCAPE	PVC	300
LANDSCAPE (SINGLE DWELLING)	PVC	100
UNDER TRAFFICABLE AREA	PVC	100 BELOW UNDERSIDE OF PAVEMENT
CONCRETE	STEEL	NIL BELOW UNDERSIDE OF PAVEMENT
ROADS	RCP	REFER DETAILS PROVIDED

RECOMMENDED SAFETY SIGNS



BASEMENT PUMP OUT FAILURE WARNING SIGN

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

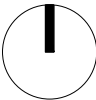


CONFINED SPACE DANGER SIGN

1. A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A 1. LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS CONFINED SPACE. MINIMUM DIMENSIONS OF THE SIGN:
  - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS)
  - 250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)
2. THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE
3. SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN.



B	04/06/2019	SR	ISSUED FOR CONSTRUCTION						
A	31/07/2018	SR	ISSUED FOR REVIEW						
REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION		



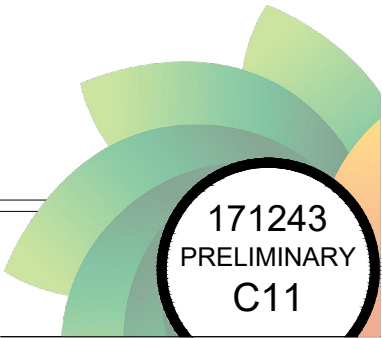
DESIGN: SK  
DRAWN: SR  
SCALE: N/A  
SIZE: A1



greenview  
CONSULTING

SENIORS LIVING DEVELOPMENT  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

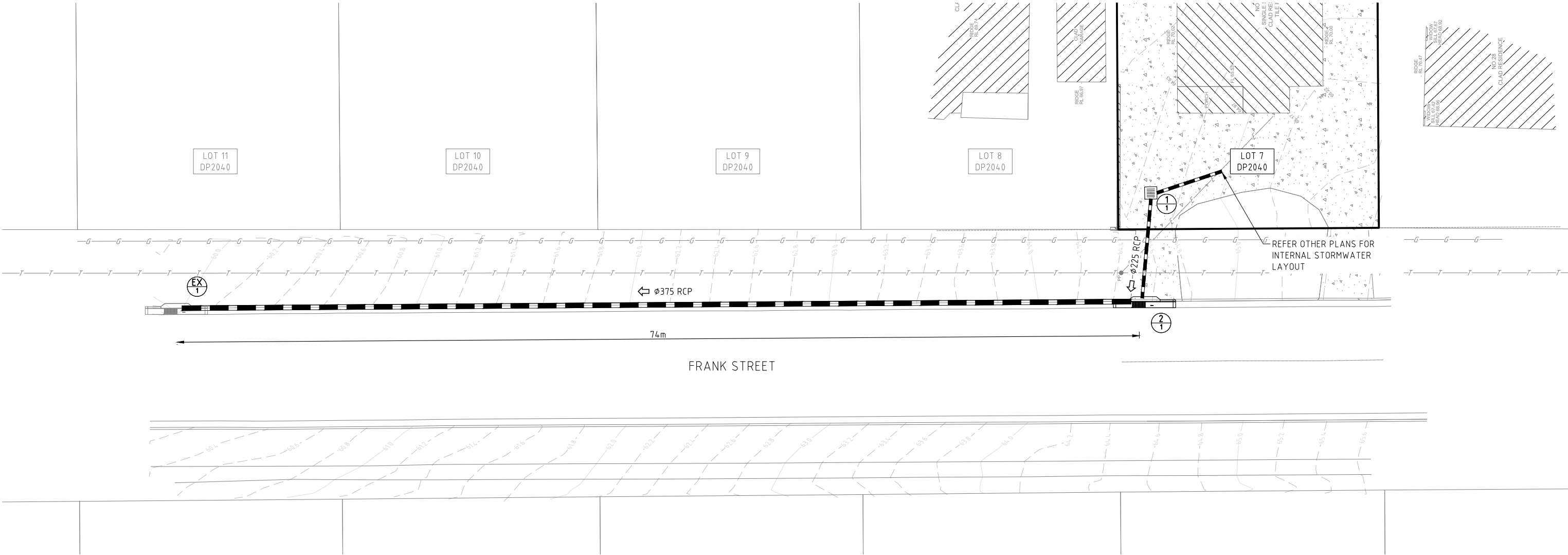
GENERAL NOTES



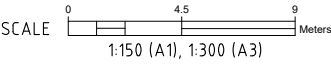


LEGEND:

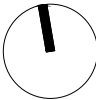
- PROPOSED STORMWATER PIPE
- EXISTING 5m D.E.M. CONTOURS (C.I. = 0.2m)
- EXISTING ELECTRICITY
- EXISTING GAS



EXTERNAL STORMWATER PLAN  
SCALE 1:150



REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
B	04/06/2019	SR	ISSUED FOR CONSTRUCTION				
A	31/07/2018	SR	ISSUED FOR REVIEW				



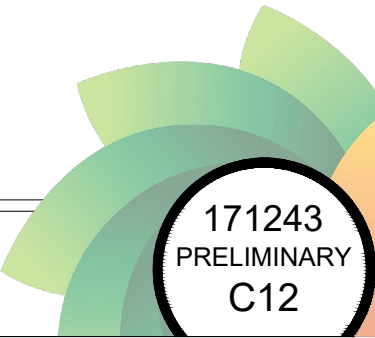
DESIGN: SK  
DRAWN: SR  
SCALE: 1:150  
SIZE: A1



greenview  
CONSULTING

SENIORS LIVING DEVELOPMENT  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

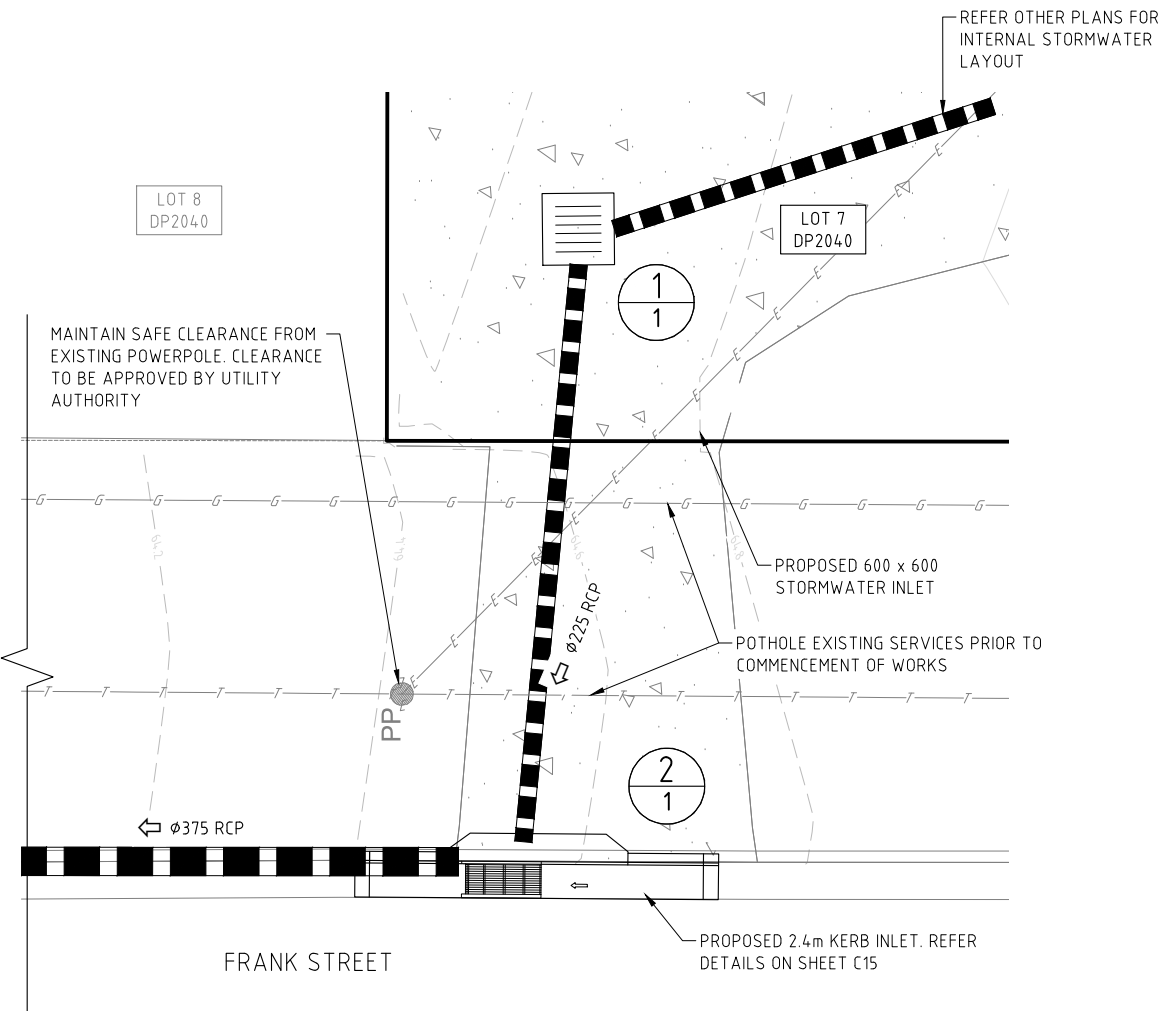
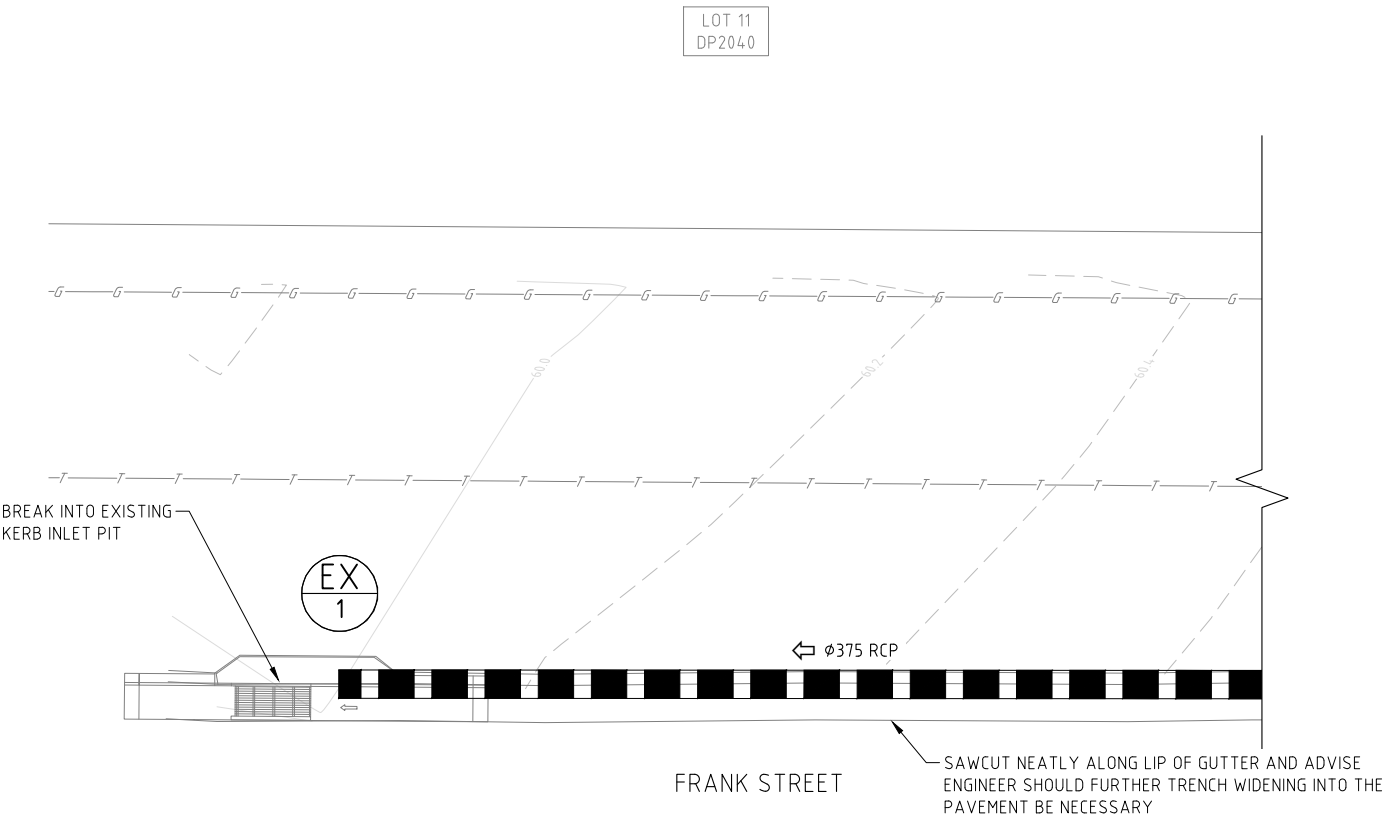
STORMWATER LAYOUT PLAN



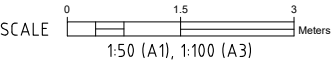


LEGEND:

- PROPOSED STORMWATER PIPE
- EXISTING 5m D.E.M. CONTOURS (C.I. = 0.2m)
- EXISTING ELECTRICITY
- EXISTING GAS



STORKMWATER PLAN - ENLARGED VIEWS  
SCALE 1:50



REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
B	04/06/2019	SR	ISSUED FOR CONSTRUCTION				
A	31/07/2018	SR	ISSUED FOR REVIEW				



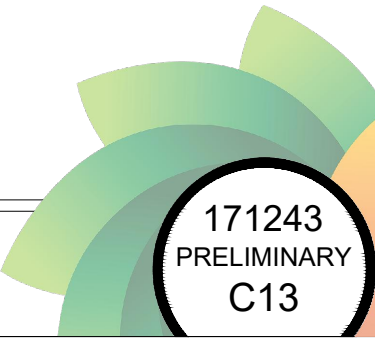
DESIGN: SK  
DRAWN: SR  
SCALE: 1:50  
SIZE: A1



greenview  
CONSULTING

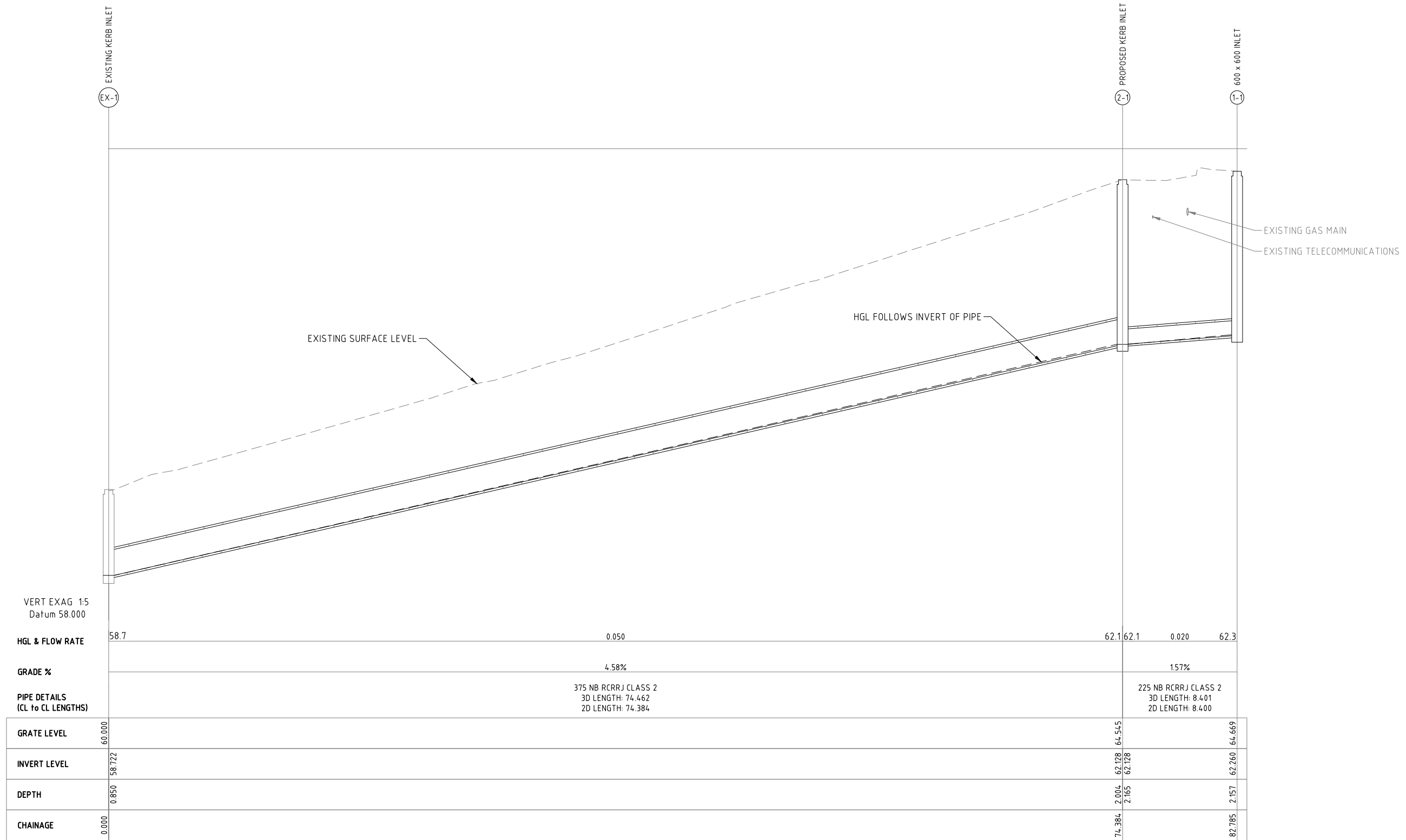
SENIORS LIVING DEVELOPMENT  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

STORMWATER LAYOUT PLAN (ENLARGED)



171243  
PRELIMINARY  
C13

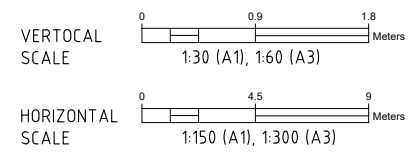




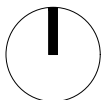
**PROPOSED STORMWATER LONG SECTION**

**NOTE - UNDERGROUND SERVICES**  
UNDERGROUND SERVICE LOCATIONS SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY FIELD SURVEY AND/OR OFFICE RECORDS, AND MAY NOT REPRESENT ALL SERVICES OR EXACT LOCATIONS. THE CONTRACTOR MUST ACCURATELY LOCATE AND DEPTH ALL SERVICES LIKELY TO BE ENCOUNTERED DURING CONSTRUCTION, PRIOR TO COMMENCING ANY EXCAVATION WORKS. ANY CLASHES MUST BE REPORTED TO THE DESIGN ENGINEER ASAP.

STORMWATER STRUCTURE SETOUT TABLE			
PIT NAME	STRUCTURE TYPE	EASTING	NORTHING
EX-1	EXISTING KERB INLET	298413.015	6260309.860
1-1	600 x 600 INLET	298488.646	6260306.881
2-1	PROPOSED KERB INLET	298486.564	6260298.743



REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
B	04/06/2019	SR	ISSUED FOR CONSTRUCTION				
A	31/07/2018	SR	ISSUED FOR REVIEW				

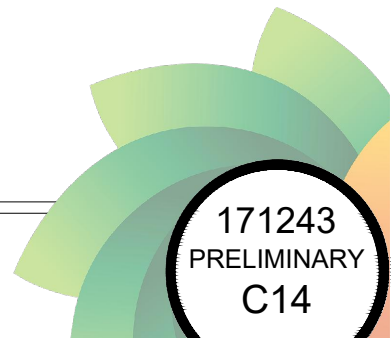


DESIGN: SK  
DRAWN: SR  
SCALE: SHOWN  
SIZE: A1

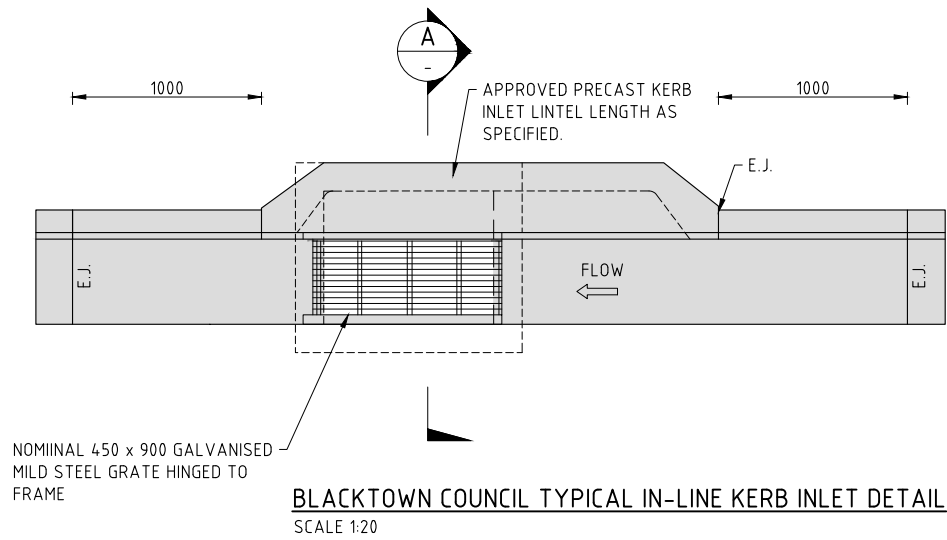


**SENIORS LIVING DEVELOPMENT**  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

STORMWATER LONGSECTION

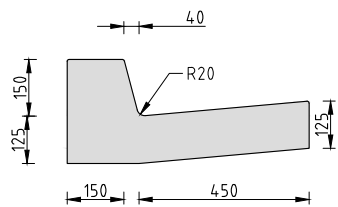
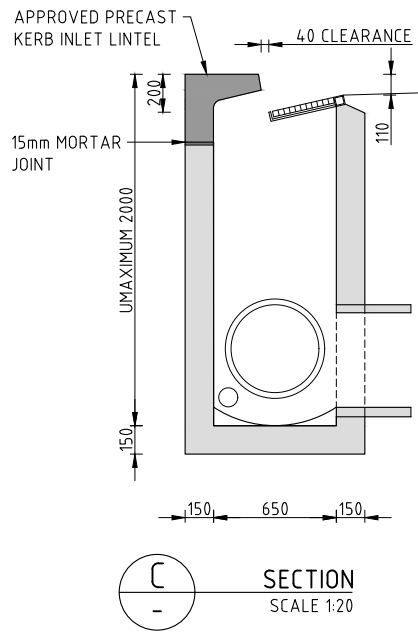
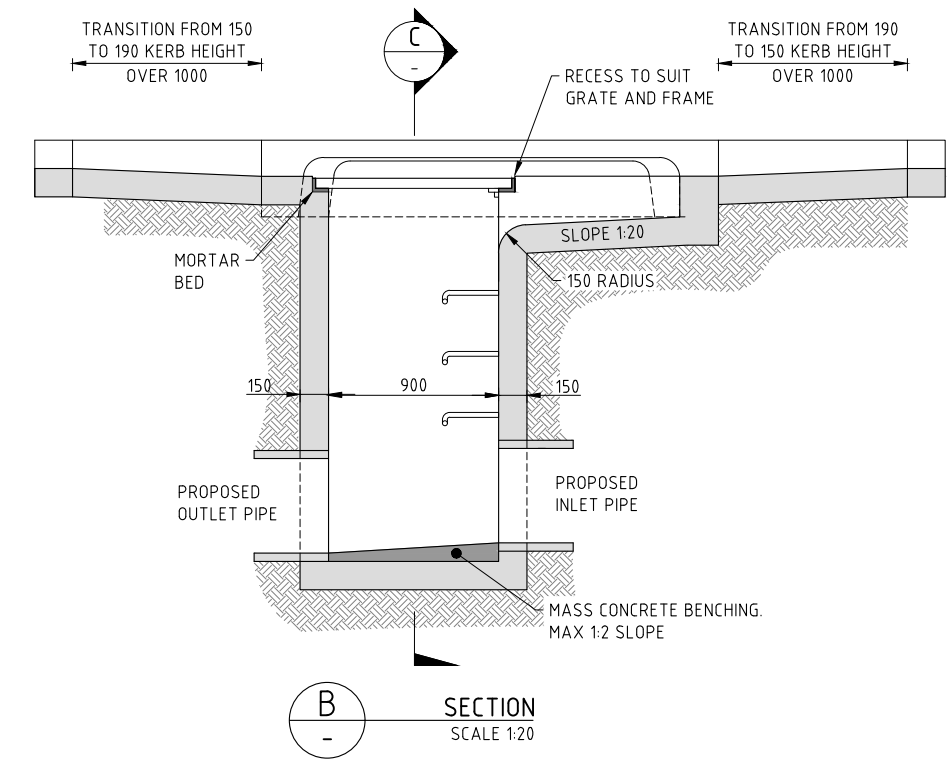






### KERB INLET NOTES:

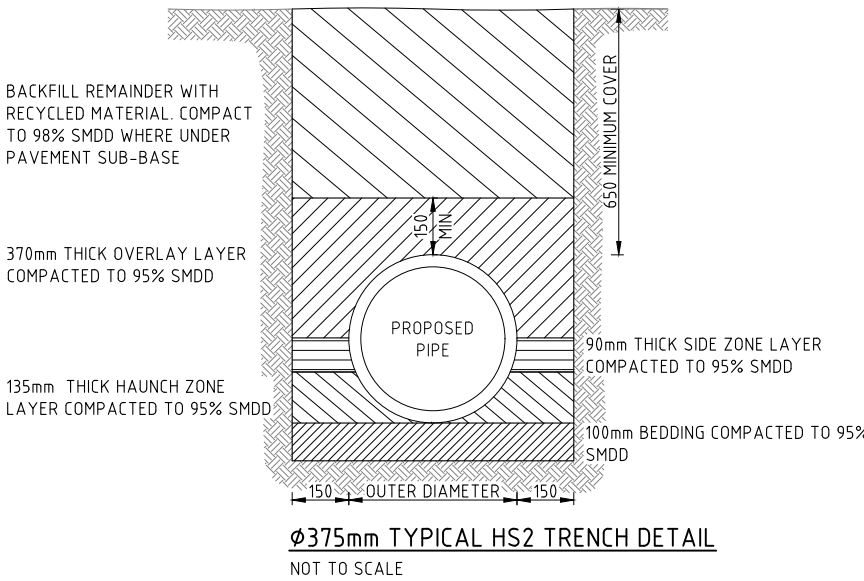
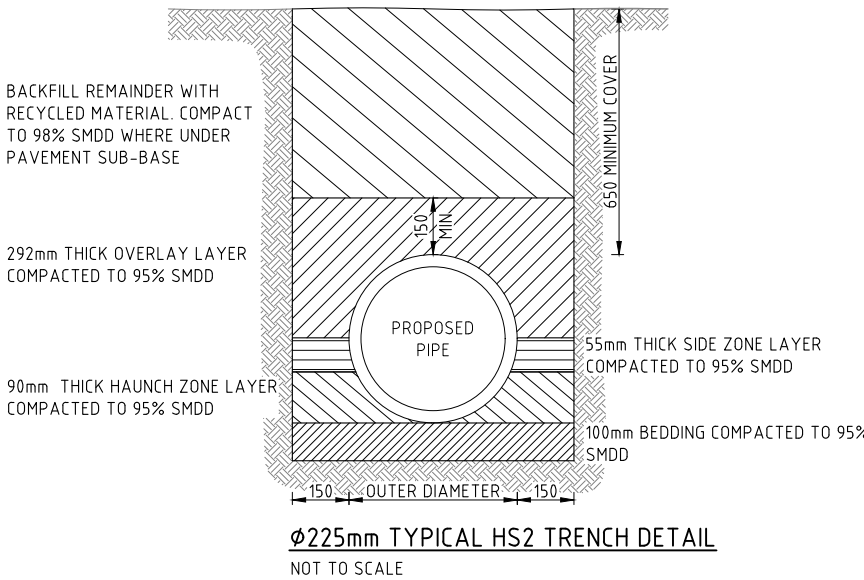
1. CONCRETE F'c TO BE 25MPa
2. PROVIDE SL82 MESH, 30 COVER FROM INTERNAL FACE FOR ALL PITS DEEPER THAN 15m
3. SAG PITS TO HAVE LINTEL PLACED CENTRALLY OVER PIT
4. APPROVED GRANULAR MATERIAL TO BE USED FOR BACKFILL
5. CONNECT 3m LENGTH OF  $\phi 100$ mm SUB-SOIL DRAIN WRAPPED IN APPROVED FILTER FABRIC TO UPSTREAM PIT WALL
6. PIT GRATE AND FRAME TO BE "WELDLOK" GG50 FOR RESIDENTIAL ROADS AND "WELDLOK" GG42D FOR INDUSTRIAL ROADS, UNLESS SPECIFIED OTHERWISE
7. PROVIDE STEP IRONS FOR ALL PITS EXCEEDING 12m DEEP. REFER BLACKTOWN CITY COUNCIL STANDARD DRAWING A(BS)111S FOR DETAILS
8. THE DETAILS SHOWN ARE FOR PIPES LESS THAN  $\phi 525$ mm ONLY



**BLACKTOWN COUNCIL 150mm KERB & GUTTER**  
SCALE 1:10

### BLACKTOWN COUNCIL KERB NOTES

1. ROUND ALL EXTERNAL EDGES TO 5mm RADIUS
2. SUBBASE PLACEMENT BENEATH KERBING IS TO EXTEND 150 BEHIND BACK OF KERB WITH A MINIMUM DEPTH OF 175mm
3. F'c = 20 MPa
4. REPLACE UNDERLYING SUBBASE AND BASE MATERIALS TO MATCH EXISTING



### HS2 TRENCH NOTES

1. ALL TRENCHES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE RELEVANT COUNCIL STANDARDS, AS 3725, AS 1726 AND ANY OTHER APPLICABLE STANDARDS
2. ANY MATERIAL CONTENT PASSING THE 0.075 SIEVE MUST HAVE A LOW PLASTICITY AS DEFINED BY APPENDIX D OF AS 1726.
3. ALL TRENCH MATERIAL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 150mm AND COMPACTED TO THE SPECIFIED RATE. COMPACTION ACHIEVED SHALL BE MONITORED BY FIELD TESTING IN ACCORDANCE WITH AS 1289.
4. FOR PIPES WITH SOCKETS PROTRUDING BEYOND THE NOMINAL OUTSIDE SURFACE, CHASES SHALL BE DUG INTO THE BED MATERIAL SUCH THAT THE PIPE IS SUPPORTED FOR IT'S FULL LENGTH AND IS NOT SUBJECTED TO POINT LOADS AT ANY LOCATION
5. THE PIPE BEDDING SHALL BE EVEN AND UNIFORMLY GRADED TO SUPPORT THE ENTIRE LENGTH OF THE PIPE
6. ALL MATERIAL LAYERS ARE TO BE PLACED FOR THE FULL WIDTH OF THE TRENCH
7. OVERLAY MATERIAL MAY BE RECYCLED EXCAVATION OR IMPORTED FILL BUT MUST HAVE NO PARTICLES EXCEEDING 150mm IN SIZE, AND LESS THAN 20% OF PARTICLES EXCEEDING 75mm IN SIZE.
8. BACKFILL MAY BE ANY SUITABLE MATERIAL AVAILABLE COMPACTED TO THE SPECIFIED RATE, UNLESS NOTED OTHERWISE.
9. NO COMPACTION IS TO BE UNDERTAKEN DIRECTLY OVER THE PIPE
10. THE PIPE IS TO BE APPROPRIATELY EMBEDDED AND COVERED BEFORE ANY CONSTRUCTION PLANT OR EQUIPMENT MAY TRAVERSE IT

12. TRENCHING BED, HAUNCH AND SIDE MATERIALS ARE TO BE AS FOLLOWS:

#### HS2 BEDDING AND HAUNCH ZONE MATERIAL

BEDDING AND HAUNCH ZONE TRENCH MATERIAL MAY CONSIST OF RECYCLED EXCAVATION OR IMPORTED MATERIAL IN ACCORDANCE WITH APPENDIX D OF AS1726; AND MUST BE CONSISTENT WITH THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

SIEVE SIZE (mm)	75	9.5	2.36	0.60	0.075
% MASS PASSING	100	100-50	100-30	50-15	25-0

#### HS2 SIDE ZONE MATERIAL

SIDE ZONE TRENCH MATERIAL MUST BE CONSISTENT WITH THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

SIEVE SIZE (mm)	75	9.5	2.36	0.60	0.075
% MASS PASSING	100	100-50	100-30	50-15	25-0

13. WHERE CONSTRUCTED UNDER EXISTING ROAD PAVEMENT, PAVEMENT IS TO BE REPLACED TO MATCH EXISTING

SCALE 0 0.6 1.2 Meters  
1:20 (A1), 1:40 (A3)

SCALE 0 0.3 0.6 Meters  
1:10 (A1), 1:20 (A3)

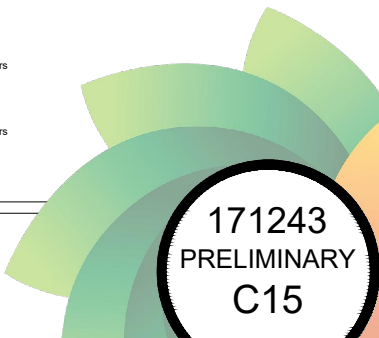
REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
B	04/06/2019	SR	ISSUED FOR CONSTRUCTION				
A	31/07/2018	SR	ISSUED FOR REVIEW				

DESIGN:	SK
DRAWN:	SR
SCALE:	SHOWN
SIZE:	A1



**SENIORS LIVING DEVELOPMENT**  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

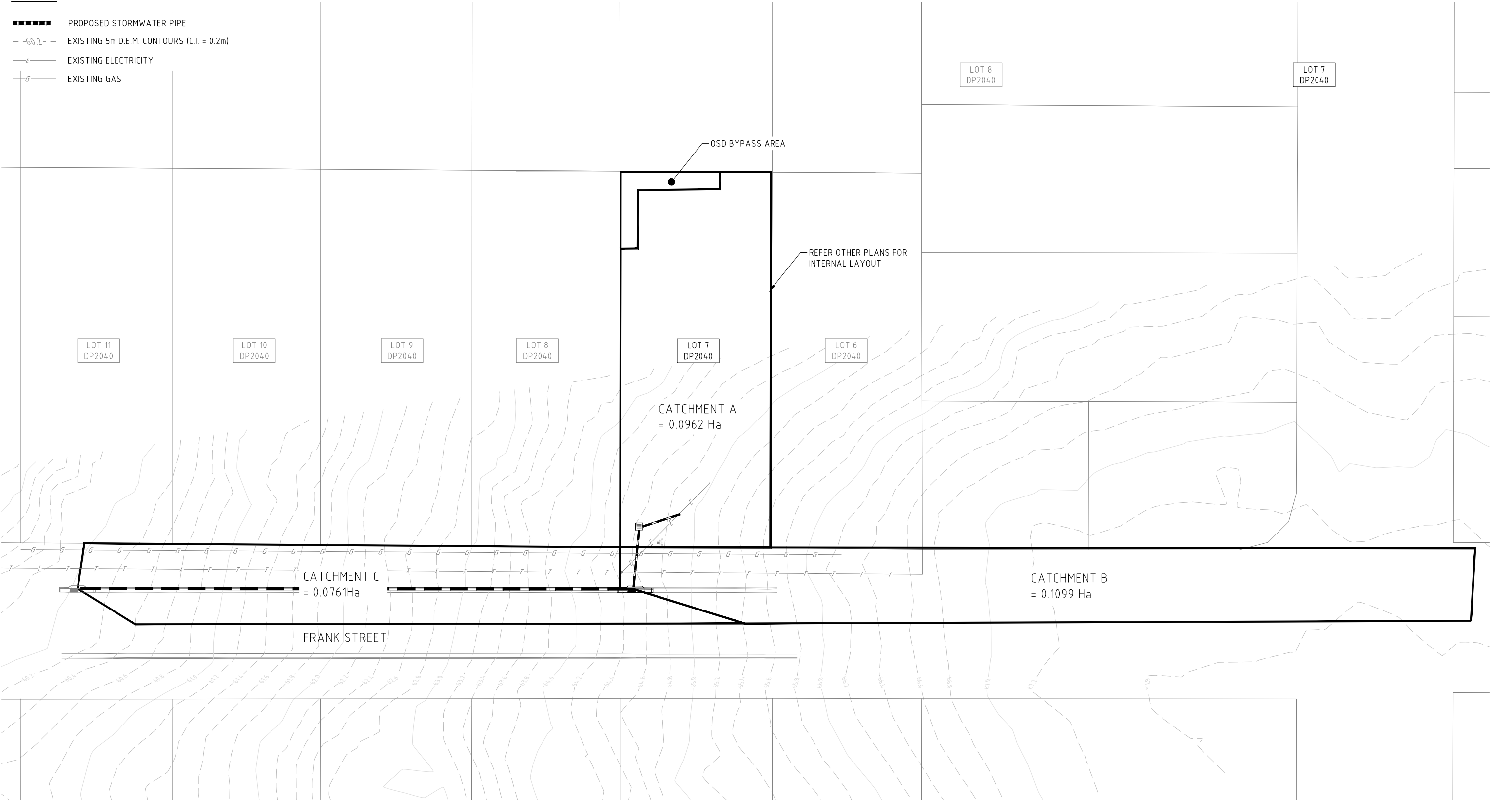
STORMWATER NOTES & DETAILS





LEGEND:

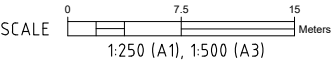
- PROPOSED STORMWATER PIPE
- EXISTING 5m D.E.M. CONTOURS (C.I. = 0.2m)
- EXISTING ELECTRICITY
- EXISTING GAS



STORMWATER CATCHMENT PLAN

SCALE 1:150

- NOTES:
- CATCHMENT AREAS ARE BASED ON 5m D.E.M. DATA PROVIDED BY GEOSCIENCE AUSTRALIA. CONSERVATIVE AREAS HAVE BEEN USED.
  - THE INTERNAL CATCHMENT AREA HAS BEEN USED TO CALCULATE DRAINAGE LOADS IN PLACE OF CONTROLLED DISCHARGE RATES. INTERNAL OSD DISCHARGE RATES WILL BE LESS THAN THOSE NOMINATED.



B	04/06/2019	SR	ISSUED FOR CONSTRUCTION						
A	31/07/2018	SR	ISSUED FOR REVIEW						
REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION		



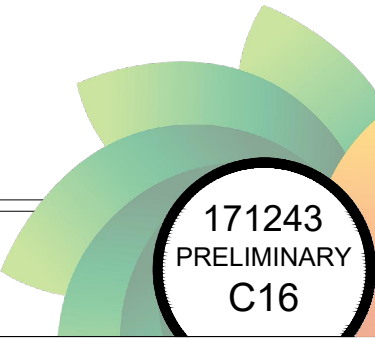
DESIGN: SK  
DRAWN: SR  
SCALE: 1:250  
SIZE: A1



greenview  
CONSULTING






SENIORS LIVING DEVELOPMENT  
30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

STORMWATER CATCHMENT PLAN

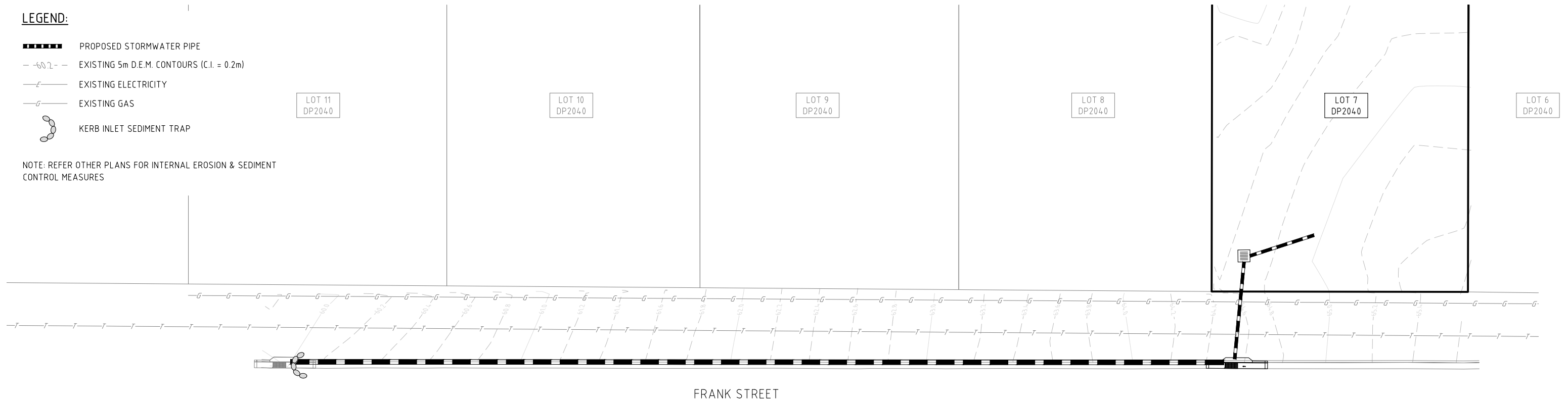




LEGEND:

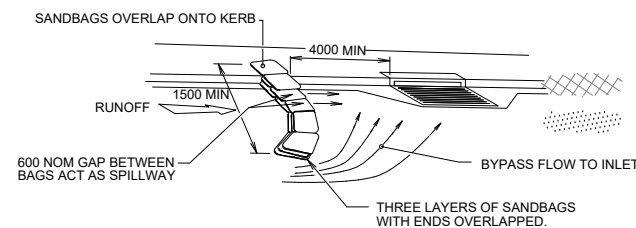
- |   |   |
|---|---|
|  | PROPOSED STORMWATER PIPE                  |
|  | EXISTING 5m D.E.M. CONTOURS (C.I. = 0.2m) |
|  | EXISTING ELECTRICITY                      |
|  | EXISTING GAS                              |
|  | KERB INLET SEDIMENT TRAP                  |

NOTE: REFER OTHER PLANS FOR INTERNAL EROSION & SEDIMENT CONTROL MEASURES



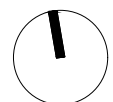
EROSION AND SEDIMENT CONTROL:

1. GENERAL
  - (a) TEMPORARY DRAINAGE CONTROL. FLOW SHOULD BE DIVERTED AROUND THE WORK SITE WHERE POSSIBLE.
  - (b) ALL DRAINAGE, EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND BE OPERATIONAL BEFORE COMMENCING UP-SLOPE EARTHWORKS.
  - (c) ALL CONTROL MEASURES TO BE INSPECTED AT LEAST WEEKLY AND AFTER SIGNIFICANT RUNOFF PRODUCING STORMS.
  - (d) CONTROL MEASURES MAY BE REMOVED WHEN ON-SITE EROSION IS CONTROLLED AND 70% PERMANENT SOIL COVERAGE IS OBTAINED OVER ALL UPSTREAM DISTURBED LAND.
  - (e) IN AREAS WHERE RUNOFF TURBIDITY IS TO BE CONTROLLED, EXPOSED SURFACES TO BE EITHER MULCHED, COVERED WITH EROSION CONTROL BLANKETS OR TURFED IF EARTHWORKS ARE EXPECTED TO BE DELAYED FOR MORE THAN 14 DAYS.
2. SEDIMENT FENCE
  - (a) NOT TO BE LOCATED IN AREAS OF CONCENTRATED FLOW.
  - (b) NORMALLY LOCATED ALONG THE CONTOUR WITH A MAXIMUM CATCHMENT AREA 0.6 HA PER 100M LENGTH OF FENCE.
  - (c) WOVEN FABRICS ARE PREFERRED, NON-WOVEN FABRICS MAY BE USED ON SMALL WORK SITES, I.E. OPERATIONAL PERIOD LESS THAN 6 MONTHS OR ON SITES WHERE SIGNIFICANT SEDIMENT RUNOFF IS NOT EXPECTED.
  - (d) WHERE FENCES NEED TO BE LOCATED ACROSS THE CONTOUR THE LAYOUT SHALL CONFORM TO 'TYPICAL LAYOUT ACROSS GRADE'.
  - (e) FENCES ARE REQUIRED 2M MIN FROM TOE OF CUT OR FILL BATTERS, WHERE NOT PRACTICAL ONE FENCE CAN BE AT THE TOE WITH A SECOND FENCE 1M MIN AWAY. FENCE SHOULD NOT BE LOCATED PARALLEL WITH TOE IF CONCENTRATION OF FLOW WILL OCCUR BEHIND THE FENCE.
3. TEMP CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP.
  - (a) ADJACENT STORMWATER RUNOFF TO BE DIVERTED AWAY FROM ENTRY/EXIT.
  - (b) WHEEL - WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.
4. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES, INCORPORATE TRAFFIC CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT.
5. ALL DIMENSIONS IN MILLIMETRES UNLESS INDICATED OTHERWISE.
6. FIELD INLET
  - (a) A STABILISED BYPASS OVERLAND FLOW PATH SHOULD EXIST ADJACENT TO THE FIELD INLET.
  - (b) WATER LEVEL CONTROL PERIMETER BANKS MAY BE REQUIRED.
  - (c) BLOCKS TO BE RESTRAINED BY A HORIZONTAL TIMBER RAIL AT BLOCK JOINT HEIGHT FIXED TO TIMBER STAKES AT CORNERS.
7. CHECK DAMS
  - (a) CATCHMENT AREA LIMITED TO 4 HA.
  - (b) USE IN MINOR OPEN DRAINS ONLY, (VELOCITY CONTROL), SEDIMENT COLLECTION IS A SECONDARY PURPOSE.
8. STRAW BALES ARE ONLY FOR EMERGENCY USE ONLY.
9. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES, INCORPORATE TRAFFIC CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT.
10. ALL DIMENSIONS IN MILLIMETRES.



### ON GRADE KERB INLET SEDIMENT TRAP

B	04/06/2019	SR	ISSUED FOR CONSTRUCTION				
A	31/07/2018	SR	ISSUED FOR REVIEW				
REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION



DESIGN: SK  
DRAWN: SR  
SCALE: 1:150  
SIZE: A1

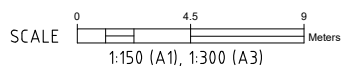


greenview  
CONSULTING

## SENIORS LIVING DEVELOPMENT

30 FRANK ST, MT DRUITT, NSW 2770  
ABORIGINAL HOUSING OFFICE

## EROSION AND SEDIMENT CONTROL PLAN



171243  
PRELIMINARY  
C17