

RESIDENTIAL DEVELOPMENT 36-38 RODLEY AVENUE, PENRITH STORMWATER CONCEPT EASEMENT DIVERSION

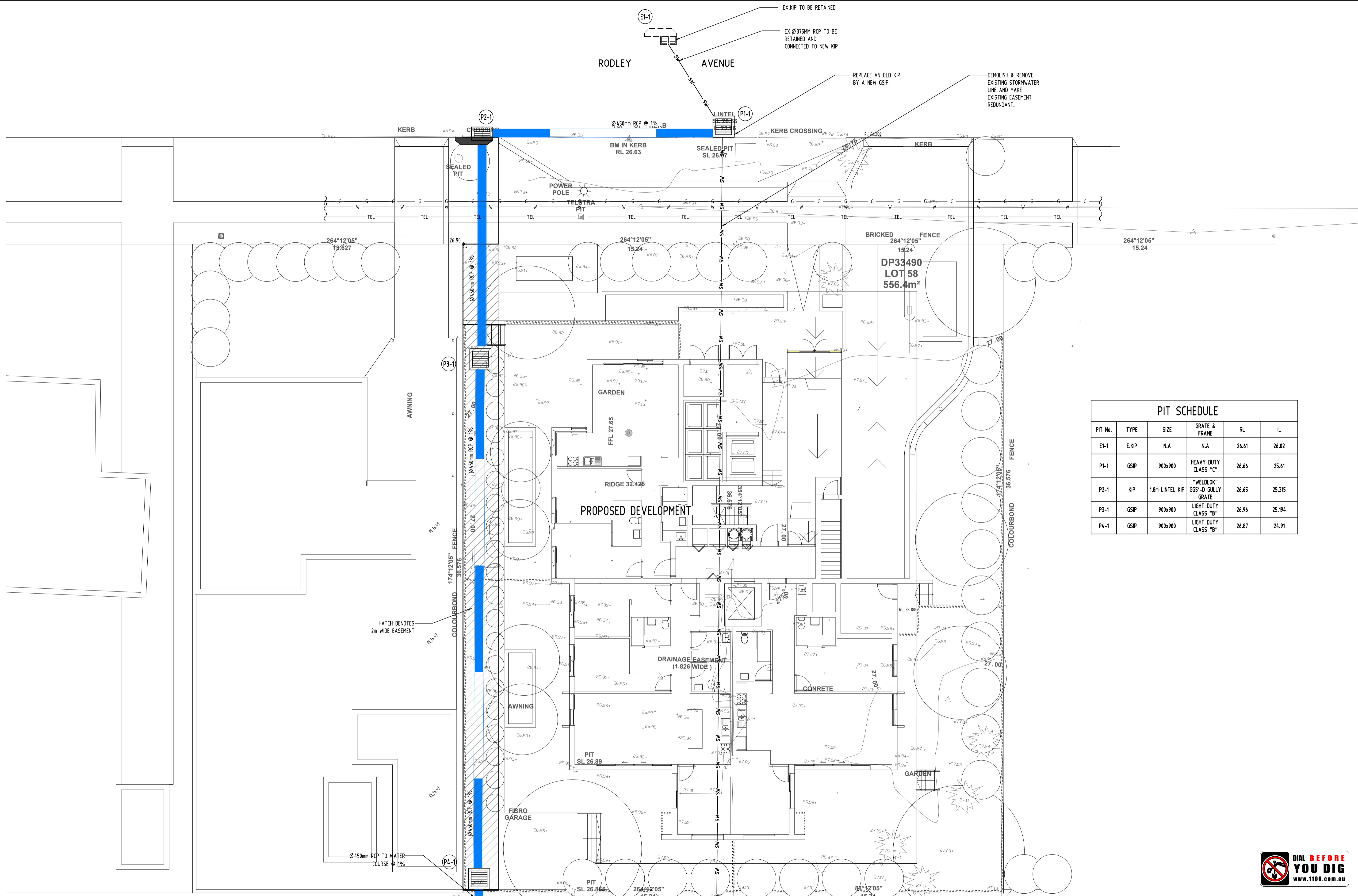


LOCALITY PLAN
NOT TO SCALE
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DRAWINGS LIST			
SHEET No.	DWG No.	TITLE	REV
1	EW100	COVER SHEET	A
2	EW200	STORMWATER CONCEPT DESIGN - EASEMENT DIVERSION PLANPLAN	A
3	EW201	STORMWATER CONCEPT DESIGN - UPSTREAM CATCHMENT PLAN	A
4	EW300	STORMWATER CONCEPT DESIGN - LONG SECTION AND HGL DETAILS	A



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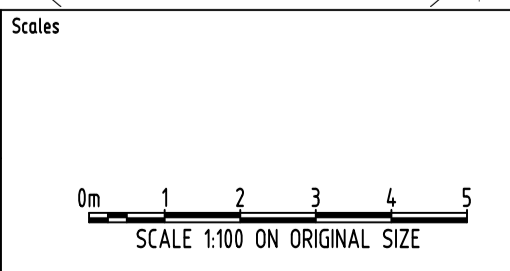
PIT SCHEDULE					
PIT No.	TYPE	SIZE	GRATE & FRAME	RL	IL
E1-1	E.KIP	N.A	N.A	26.61	26.02
P1-1	GSP	900x900	HEAVY DUTY CLASS "C"	26.66	25.61
P2-1	KIP	1.8m LINTEL KIP	"WELDOK" GGS-D GULLY GRATE	26.65	25.315
P3-1	GSP	900x900	LIGHT DUTY CLASS "B"	26.96	25.194
P4-1	GSP	900x900	LIGHT DUTY CLASS "B"	26.87	24.91



Reference Coordination Drawing			
Discipline	Drawing Title and Number	Date	Rev.
ARCH			
MECH			
ELEC			
HYD			
FRG			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL	
DRAWN	DATE
LA	
CHECKED	DATE
DESIGNED	DATE
LA	
VERIFIED	DATE
APPROVED	DATE

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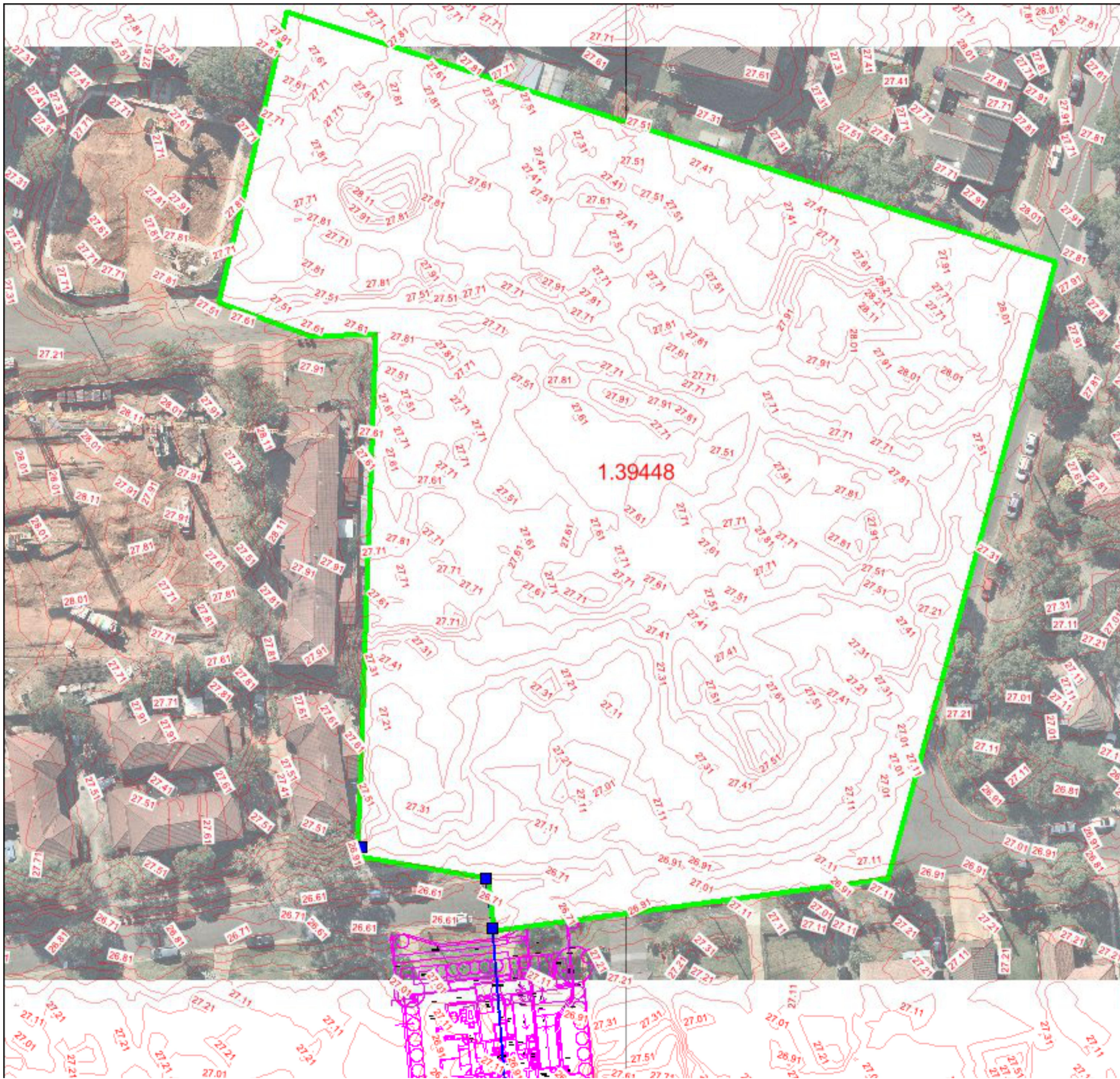
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PROJECT
PROPOSED SENIORS LIVING DEVELOPMENT
434 OLD NORTHERN ROAD, 2/2A FULLER ROAD
GLENHAVEN

Drawing Status		
FOR APPROVAL		
NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Drawing Title		
STORMWATER CONCEPT DESIGN EASEMENT DIVERSION PLAN		
Project No	Drawing No	Revision No
20180061	EW200	A
Grid	Datum	Sheet
-	A.H.D.	2 OF 9
Scale (at original size)		1:100 @ A1



LEGEND

- EXISTING PITS OBTAINED FROM THE COUNCIL FLOOD MODEL.
- EXISTING PIPE LINES OBTAINED FROM THE COUNCIL FLOOD MODEL.
- BOUNDARY LINE OF UPSTREAM CATCHMENT.

UPSTREAM CATCHMENT PLAN
NOT TO SCALE



Reference Coordination Drawing			
Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD	LN 22.08.2018	2	
FRG			
LANDS			
CIVIL			
SURVEY			

ENGINEERS AUSTRALIA
Chartered Professional Engineer
MEMBER

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QUALITY CONTROL		
DRAWN	LA	DATE
CHECKED		DATE
DESIGNED	LA	DATE
VERIFIED		DATE
APPROVED	CIVIL	DATE

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Scales

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PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
36-38 RODLEY AVENUE
PENRITH

Grid: - Datum: A.H.D. Sheet: 2 OF 3 Scale (at original size): NOT TO SCALE

Drawing Status	FOR APPROVAL
	NOT TO BE USED FOR CONSTRUCTION PURPOSES
Drawing Title	STORMWATER CONCEPT DESIGN UPSTREAM CATCHMENT PLAN
Project No	20180061
Drawing No	EW201
Revision No	A

PIPE FLOW PIPE DIA. PIPE GRADE	P1-1	P2-1	P3-1	P4-1	WATER COURSE
	305L/s 450mm 1.00%				
HGL (10-YR ARI)	Datum El. 24	26.432	26.377 26.095	26.004 25.727	25.507 25.360
SURFACE LEVEL	26.66	26.65	26.96	26.87	26
INVERT LEVEL	25.610	25.315 25.315	25.194 25.194	24.910 24.910	24.860
CHAINAGE	0	29.50	41.63	70.03	75.03

PIPE FLOW PIPE DIA. PIPE GRADE	E1-1	P1-1
	135L/s 375mm 1.00%	
HGL (10-YR ARI)	26.559	26.551
SURFACE LEVEL	26.61	26.66
INVERT LEVEL	26.020	25.960
CHAINAGE	0	6.00

PIPE NOTE
ALL PIPES ARE REINFORCED CONCRETE CLASS 4 U.N.O.

SUB-CATCHMENT DETAILS

Name	Max Flow Q (cu.m/s)	Max Paved Grassed Paved Due to Storm	Grassed Paved Due to Storm	Tc (min)	Tc (min)
Co1408	0.190	0.147	0.047	7.20	13.68
Co11	0.190	0.147	0.047	7.20	13.68

AR&R 10 year, 25 minutes storm, average 71.1 mm/h, Zone 1
AR&R 10 year, 25 minutes storm, average 71.1 mm/h, Zone 1

PIPE DETAILS

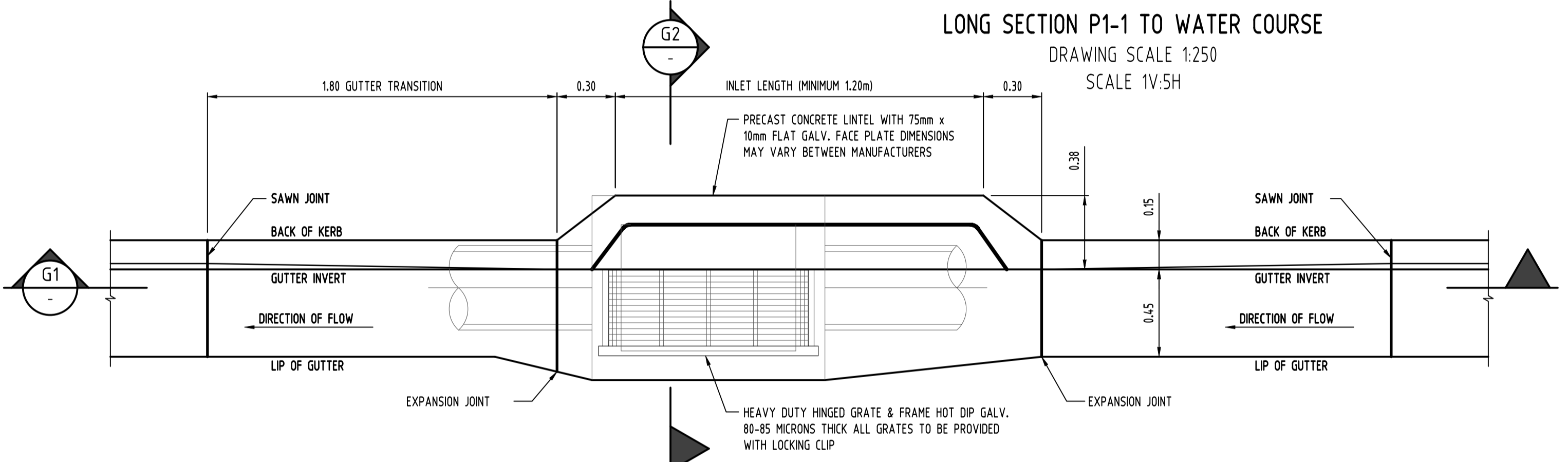
Pipe	Flow (cu.m/s)	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Int. Dia (mm)	Rough (mm)	Nom. Capacity (cu.m/s)	V (m/s)	D/S HGL (m)	Friction U/S HGL Loss (m)	PIT & NODE DETAILS	Node HGL (m)	Headloss Coeff (K _u)	Shock Loss (m)	HGL Free-board (cu.m/s)
Pipe4	0.276	5	24.910	24.860	1.00	450	0.3	0.349	2.4	25.163	0.050	P4-1	1.5	0.230	25.443	1.43
Pipe3	0.276	28.4	25.194	24.910	1.00	450	0.3	0.349	1.7	25.443	0.180	P3-1	1.5	0.230	25.853	1.11
Pipe2	0.276	12.13	25.315	25.194	1.00	450	0.3	0.349	1.7	25.853	0.077	P2-1	1.5	0.230	26.160	0.49
Pipe1	0.276	29.5	25.610	25.315	1.00	450	0.3	0.349	1.7	26.160	0.187	P1-1	1.5	0.230	26.577	0.08
Pipe136	0.135	6	26.020	25.960	1.00	375	0.3	0.216	1.2	26.577	0.024	E1-1	1.5	0.114	26.715	-0.10

OVERFLOW ROUTE DETAILS

Name	Max Q (cu.m/s)	U/S (m)	Max Q D/S (m)	Safe Q (cu.m/s)	Max D (m)	Max D _x V (m)	Max Width (m)	Max V Due to Storm (m/s)
OF1200	0.122	0.122	0.000	0.055	0.04	4.00	0.77	AR&R 10 year, 25 minutes storm, average 71.1 mm/h, Zone 1
OF328	0	0	0.288	0	0	0	0	
OF3	0	0	1.479	0	0	0	0	
OF4	0	0	0.288	0	0	0	0	

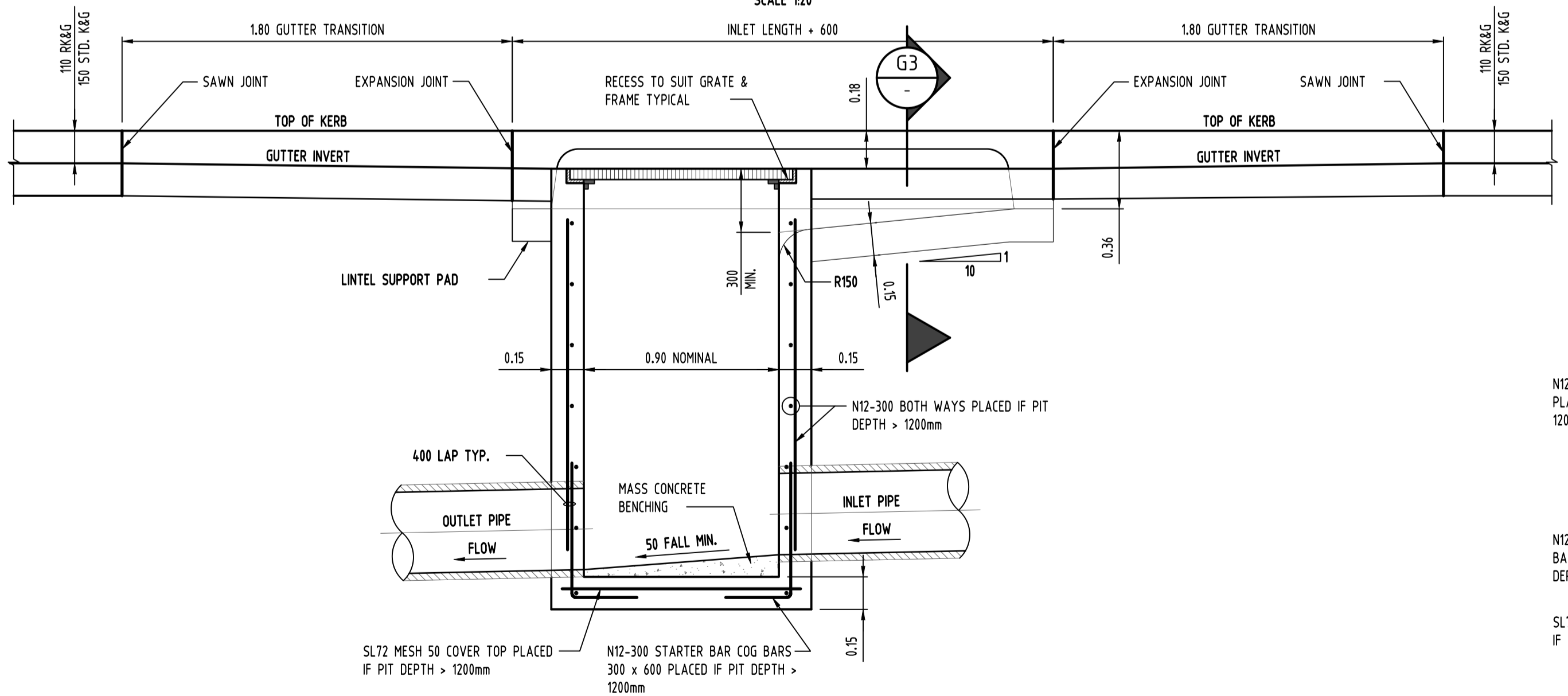
LONG SECTION P1-1 TO WATER COURSE

DRAWING SCALE 1:250
SCALE 1V:5H



STANDARD GRATED GULLY PIT (ON-GRADE) - PLAN

SCALE 1:20

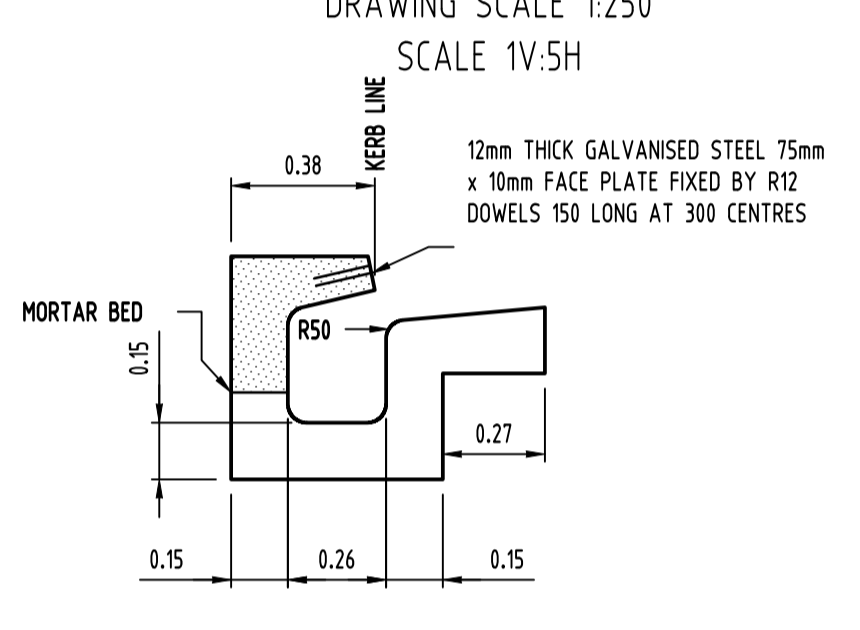


SECTION G1 FOR PIT DEPTHS < 1800mm

SCALE 1:20 REFER STORMWATER PIT NOTES

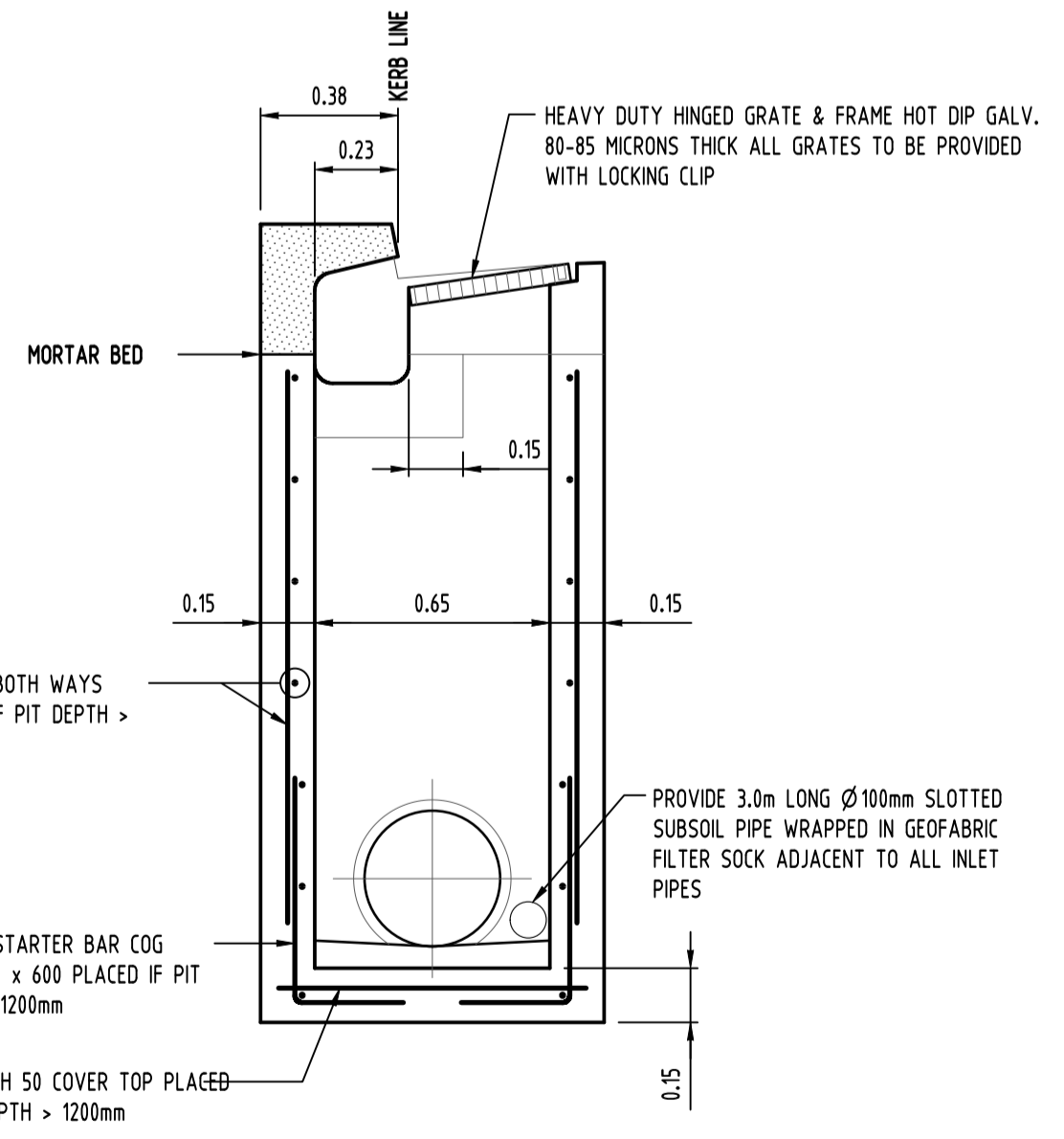
LONG SECTION E1-1 TO P1-1

DRAWING SCALE 1:250
SCALE 1V:5H



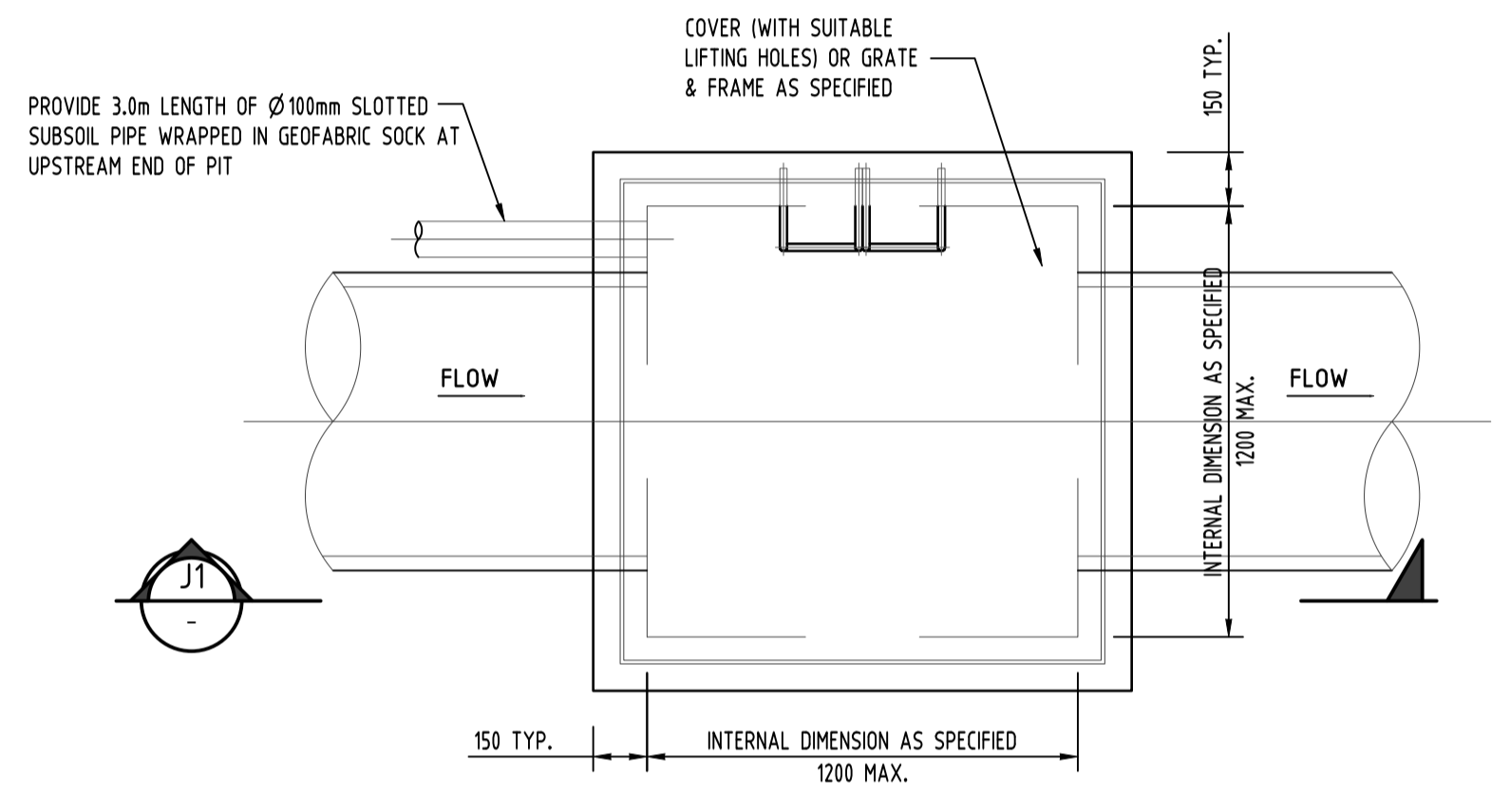
SECTION G3

SCALE 1:20



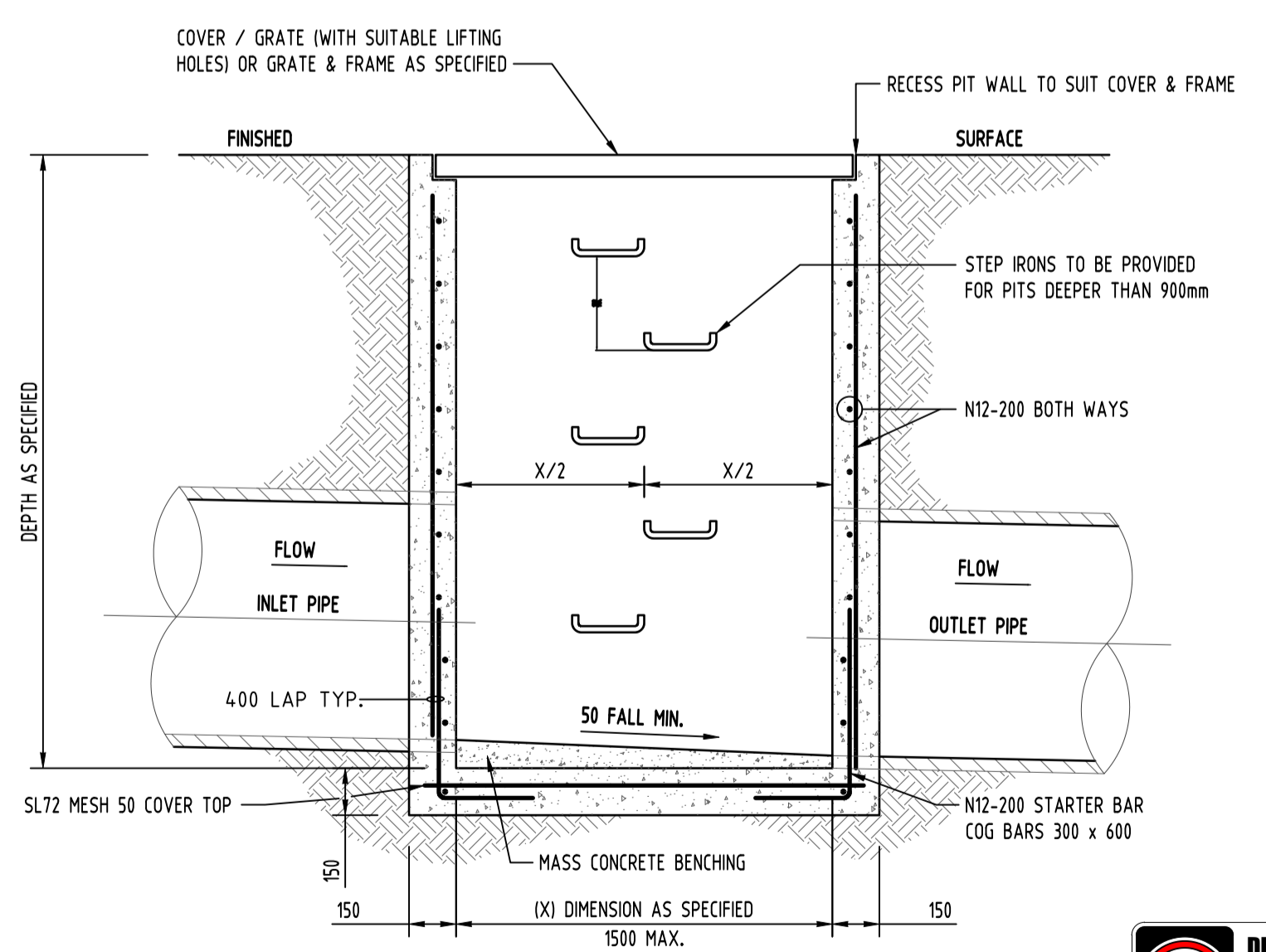
SECTION G2 FOR PIT DEPTHS < 1800mm

SCALE 1:20 REFER STORMWATER PIT NOTES



DETAIL JUNCTION / GSP PIT

SCALE 1:20



SECTION J1

SCALE 1:20



Issue	Last revision title	by	Date	Status
A	ISSUE FOR DA	LN	22.08.2018	2

Issuer internal sequence and revision history

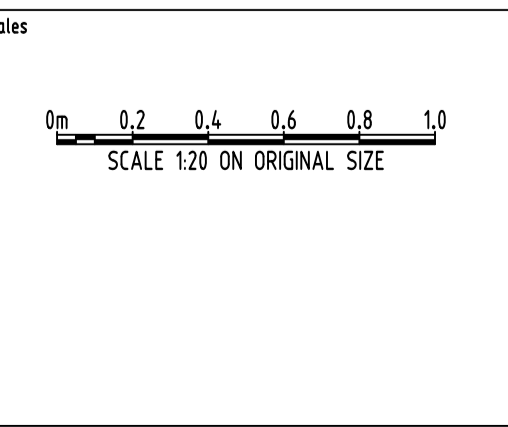
1-preliminary	2-development application	3-construction certificate
4-tender	5-construction	6-other

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
MECH			
ELEC			
HYD			
PIPE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL

DRAWN	LA	DATE
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VERIFIED		DATE
APPROVED		DATE



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PROPOSED RESIDENTIAL DEVELOPMENT
36-38 RODLEY AVENUE
PENRITH

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	4 OF 4	1:100 @ A1

Project No	Drawing No	Revision No
20180061	SW300	A