

FOREST LODGE WARRIEWOOD CIVIL & STORMWATER ISSUE FOR S4.56



SITE BOUNDARY

AREA TO BE
DEVELOPED

LOCALITY AERIAL
NOT TO SCALE

SOURCE : SIXMAPS

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11/25/2024 10:00:00 AM
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KLIATRO

PROJECT MANAGER

KLIATRO

ARCHITECT

ADS
ARCHITECTS



WSce Pty Ltd
ACN 668 655 141
ABN 75 668 655 141
info@wsce.com.au
wsce.com.au

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TITLE

COVER SHEET

SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
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JOB No.	DRAWING No.	ISSUE		
7368002	C1.01	4		
DATE	STATUS	ISSUE FOR S4.56		
SEPTEMBER 2023				

Plot Date

ref: X-736802-TB_A1H
 Login Name: rtho
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 Cad File: T:\736802\Drawings\AutoCAD\Civil\Design\Civil 2D\54 56\C1 02 Specification Notes.dwg

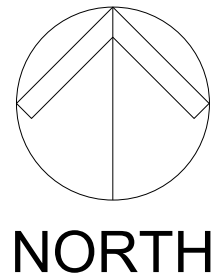
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LEGEND	
	SITE BOUNDARY
	EXISTING OVERHEAD ELECTRICTY
	EXISTING WATER MAIN
	EXISTING STORMWATER MAIN
	EXISTING TELECOMMS LINE

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REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	ISSUE FOR S4.56	03/11/23			

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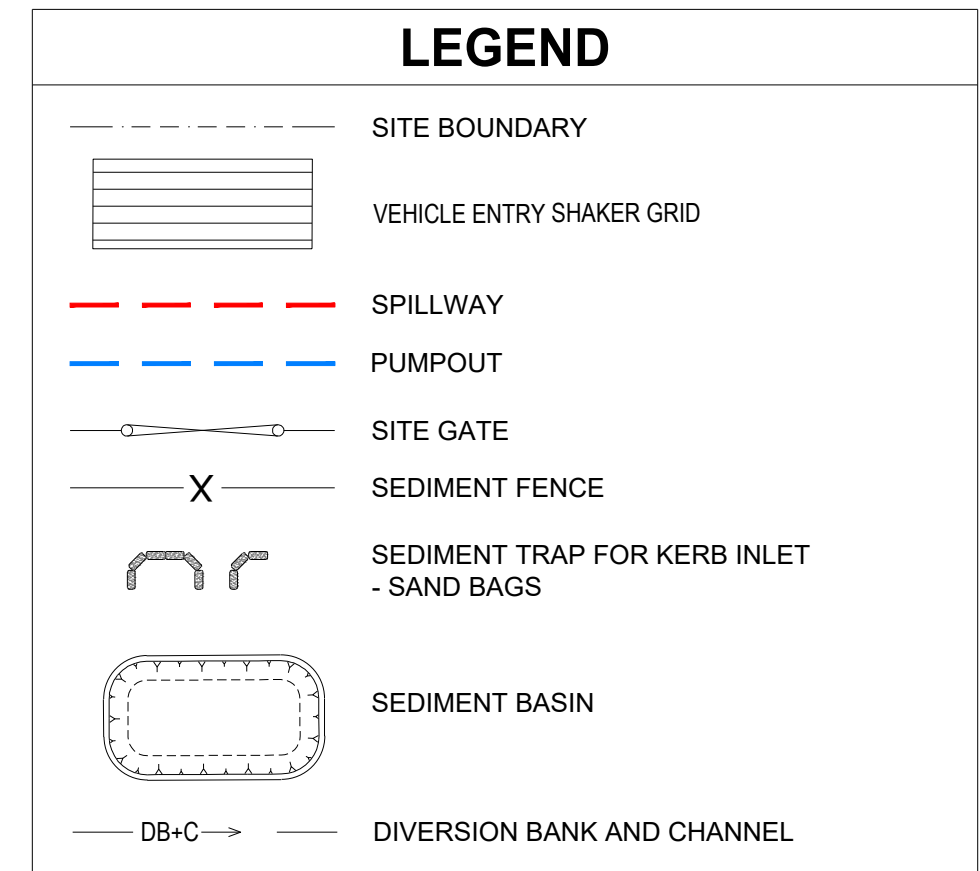
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TITLE					
EXSITING SURVEY					
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JOB No.	DRAWING No.		ISSUE		
7368002	C1.03		1		
DATE	STATUS				
SEPTEMBER 2023	ISSUE FOR S4.56				



1. GEOTEXTILE INLET FILTER BAGS TO BE FITTED IN ALL EXISTING AND PROPOSED STORMWATER GRATED PITS WITHIN THE DEVELOPMENT AREA WHICH ARE IN USE.
2. STOCKPILE LOCATION SHALL BE DETERMINED ON SITE DURING CONSTRUCTION STAGE. STOCKPILE ARE TO REMAIN CLEAR OF SITE ACCESS, DRAINS AND PAVED AREAS. HEIGHT OF STOCKPILE SHALL NOT EXCEED 2m.
3. INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES IS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE 'BLUE BOOK - MANAGING URBAN STORMWATER'. ALL CONTROLS ARE TO BE INSTALLED PRIOR TO CONSTRUCTION COMMENCING.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT INSTALLATION AND ONGOING MAINTENANCE OF THE CONTROLS. REFER TO DRG C2.02 FOR MAINTENANCE REQUIREMENTS.
5. SUITABLE AND APPROVED BINS SHALL BE UTILISED FOR THE CONTAINMENT OF ALL HARD WASTE, INCLUDING CONCRETE SLURRIES, BUILDING WASTE AND LITTER. IN THE CASE OF ACCIDENTAL SPILLS OF SOIL OR OTHER MATERIAL, PARTICULARLY IN THE PUBLIC RESERVE, THE MATERIAL SHALL BE SWEEP AND CONTAINED AND NOT WASHED INTO A GUTTER.

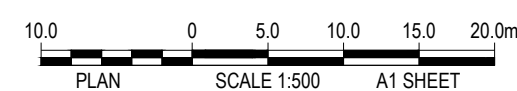
SEDIMENT BASINS HAVE BEEN SIZED BY USING PROCEDURES DETAILED IN THE 'BLUE BOOK - MANAGING URBAN STORMWATER' FOR TYPE D BASINS. A SUMMARY OF THE CALCULATED AND PROVIDED VOLUMES IS PROVIDED BELOW.

SEDIMENT BASIN 1:	
REQUIRED VOLUME	= 339 m ³
BASE AREA	= 167 m ²
TOP AREA	= 726 m ²
DEPTH	= 2.11 m
MAX SIDE SLOPE	= 1V:2.5H
VOLUME PROVIDED	= 942 m ³

PROVIDE 2m SPILLWAY TO CREEK.

REQUIRED VOLUME	= 376 m ³
BASE AREA	= 157 m ²
TOP AREA	= 511 m ²
DEPTH	= 1.2 m
MAX SIDE SLOPE	= 1V:2.5H
VOLUME PROVIDED	= 400 m ³

PROVIDE 2m SPILLWAY TO CREEK.



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1	ISSUE FOR \$4.56	03/11/23			
2	RE-ISSUE FOR \$4.56	05/12/23			
3	RE-ISSUE FOR \$4.56	01/02/24			
4	ISSUE FOR \$4.56	14/06/24			

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PROJECT	FOREST LODGE WARRIEWOOD

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TITLE	SEDIMENT & EROSION CONTROL PLAN
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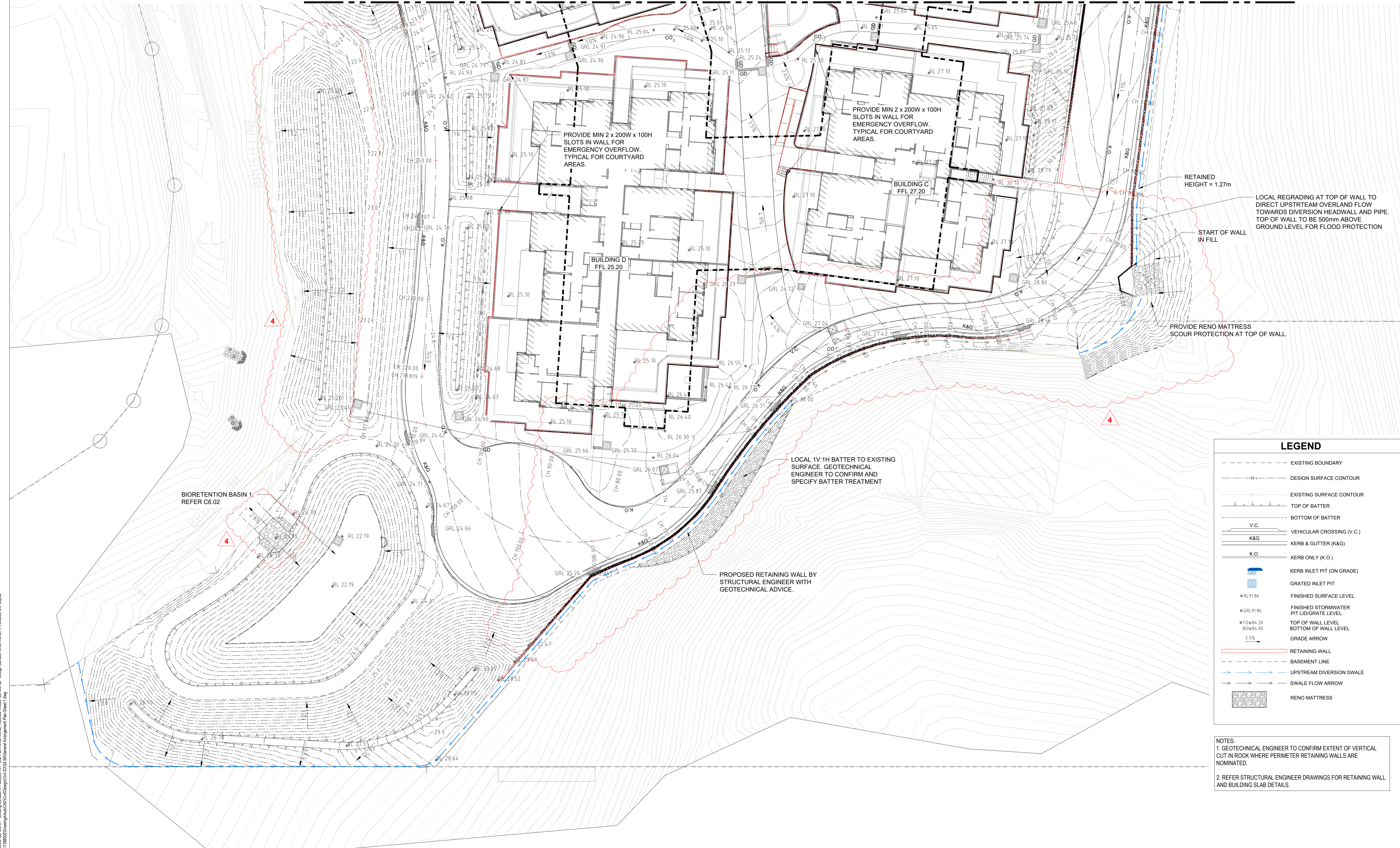
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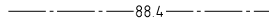
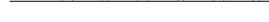
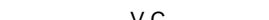
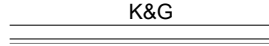
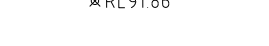
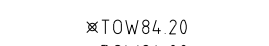
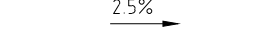
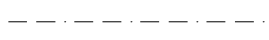
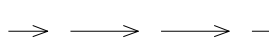
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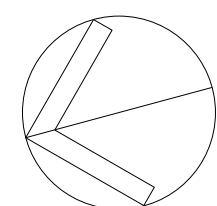
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|---|--|
|  | EXISTING BOUNDARY |
|  | DESIGN SURFACE CONTOUR |
|  | EXISTING SURFACE CONTOUR |
|  | TOP OF BATTER |
|  | BOTTOM OF BATTER |
|  | VEHICULAR CROSSING (V.C.) |
|  | KERB & GUTTER (K&G) |
|  | KERB ONLY (K.O.) |
|  | KERB INLET PIT (ON GRADE) |
|  | GRATED INLET PIT |
|  | FINISHED SURFACE LEVEL |
|  | FINISHED STORMWATER
PIT LID/GRADE LEVEL |
|  | TOP OF WALL LEVEL
BOTTOM OF WALL LEVEL
GRADE ARROW |
|  | RETAINING WALL |
|  | BASEMENT LINE |
|  | UPSTREAM DIVERSION SWALE |
|  | SWALE FLOW ARROW |
|  | RENO MATTRESS |

NOTES:

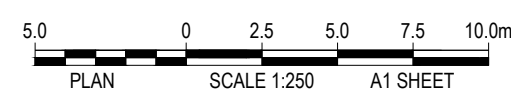
1. GEOTECHNICAL ENGINEER TO CONFIRM EXTENT OF VERTICAL CUT IN ROCK WHERE PERIMETER RETAINING WALLS ARE NOMINATED.
2. REFER STRUCTURAL ENGINEER DRAWINGS FOR RETAINING WALL AND BUILDING SLAB DETAILS.

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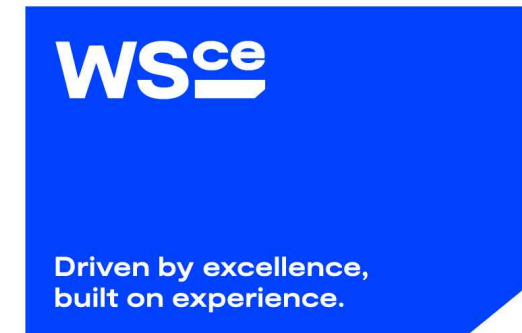
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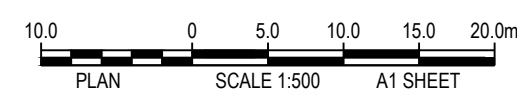
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GENERAL ARRANGEMENT PLAN-SHEET 2				
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AS SHOWN	I.K.	I.O.	J.G.	J
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7368002		C4.02		4
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SEPTEMBER 2023			ISSUE FOR \$4.56	

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DATE SEPTEMBER 2023		STATUS ISSUE FOR \$4.56		



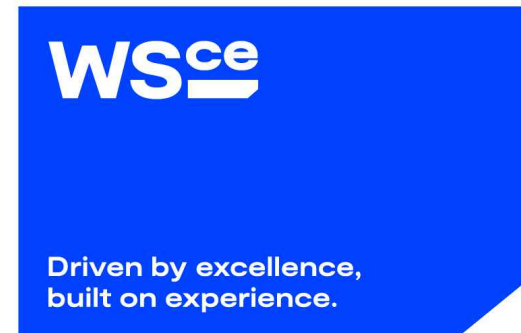
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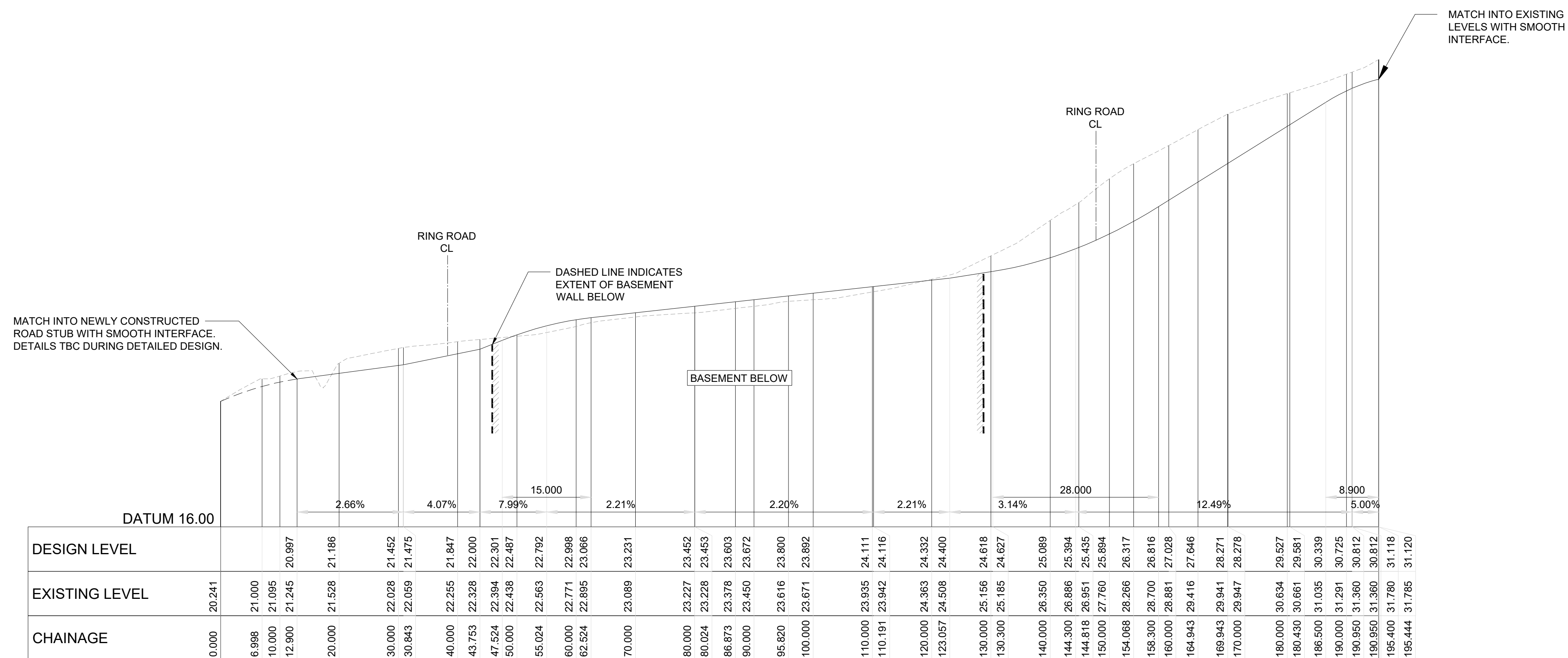
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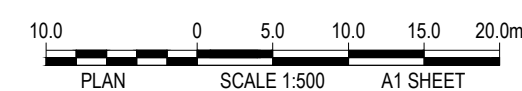
TITLE				
ROAD SET-OUT PLAN				
SCALE AS SHOWN	DRAWN I.K.	DESIGNED I.O.	CHECKED J.G.	APPROVED J.G.
JOB No. 7368002		DRAWING No. C5.01	ISSUE 3	
DATE SEPTEMBER 2023	STATUS ISSUE FOR \$4.56			



Access Road LONGITUDINAL SECTION
HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:50

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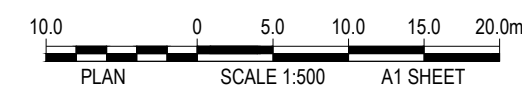
ROAD LONG SECTIONS - ACCESS ROAD

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JOB No. 7368002		DRAWING No. C5.11		ISSUE 1
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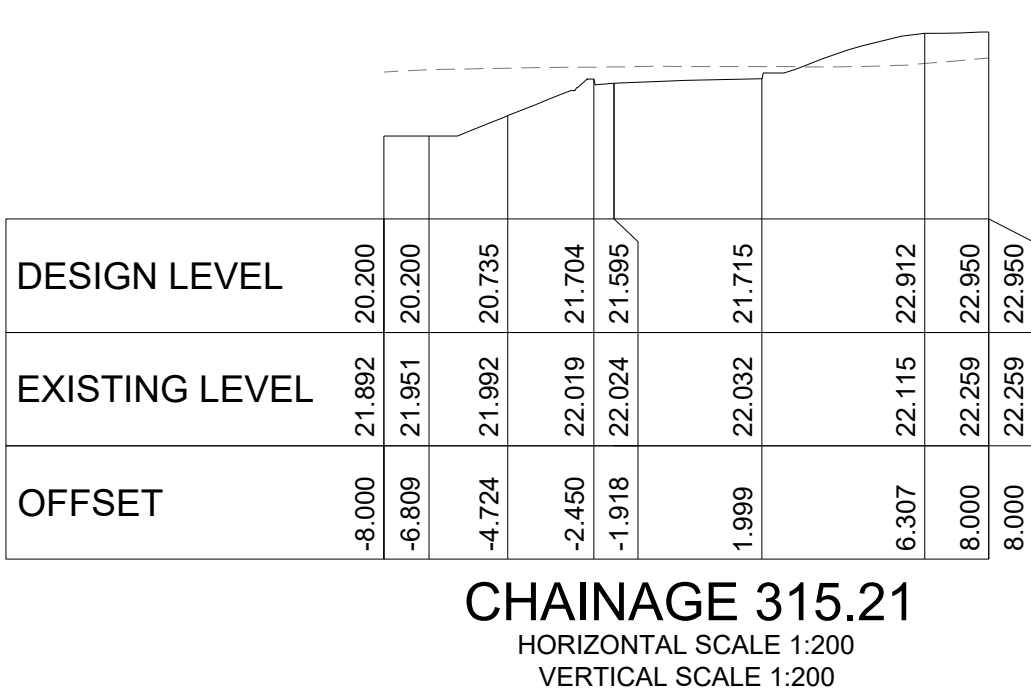
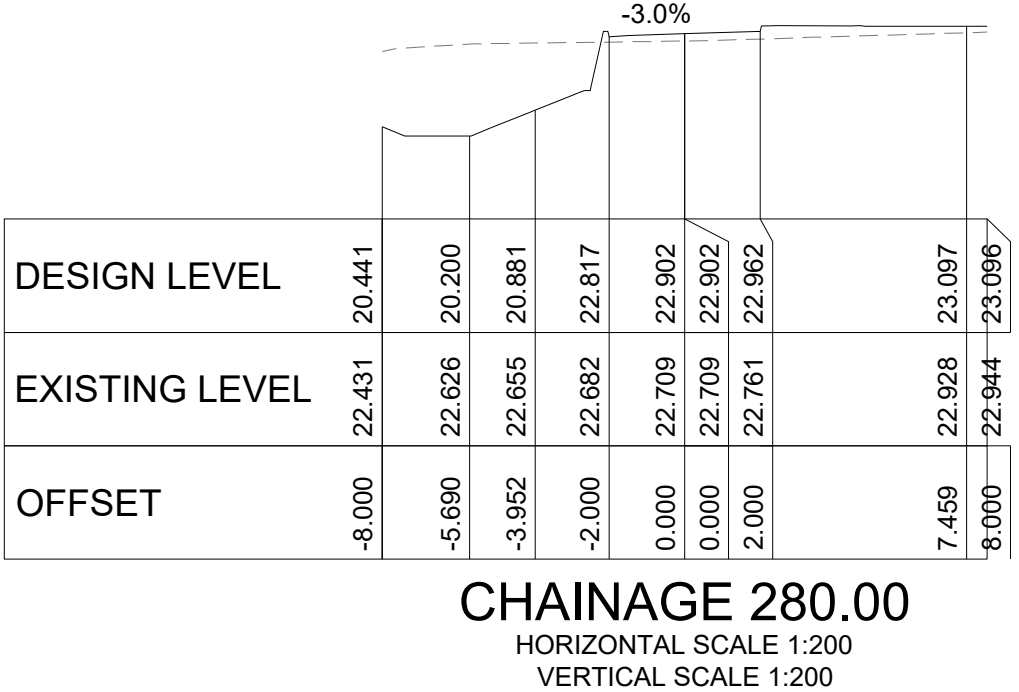
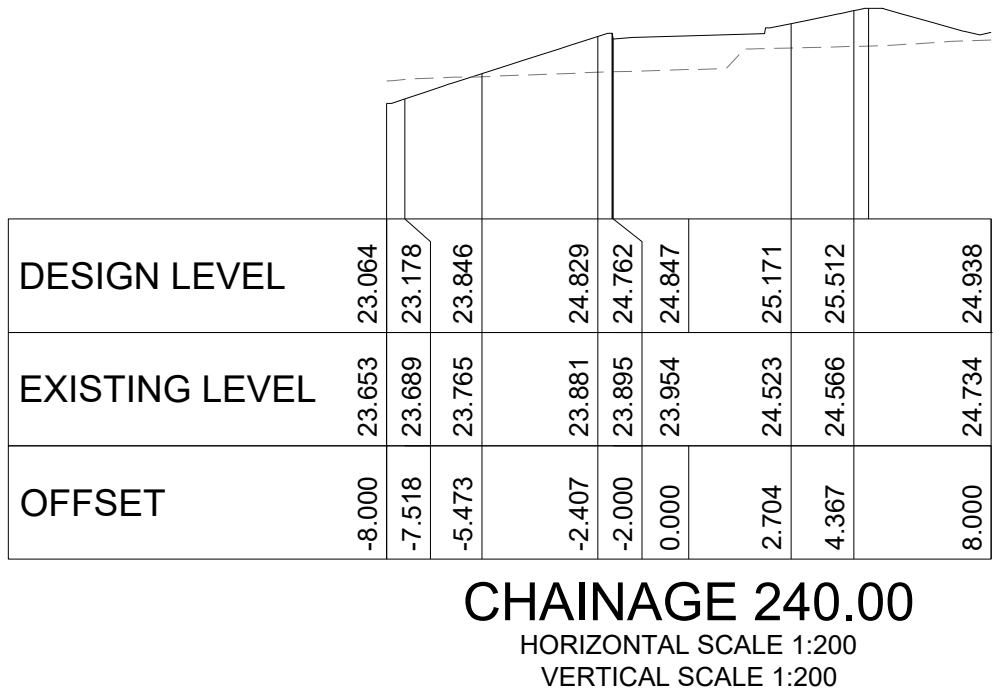
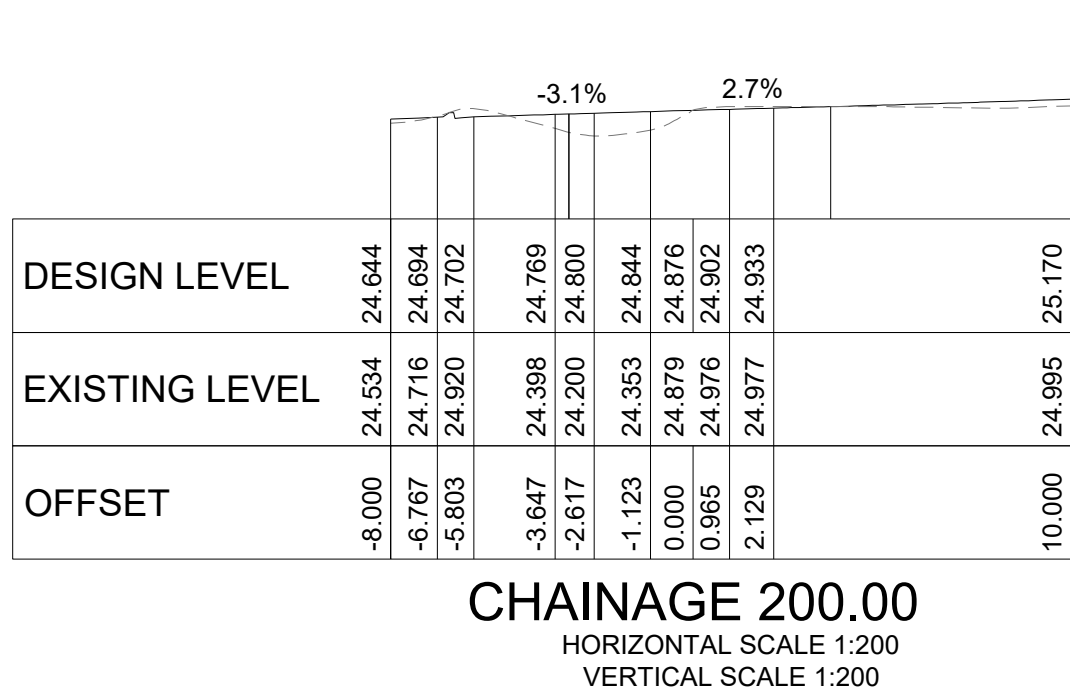
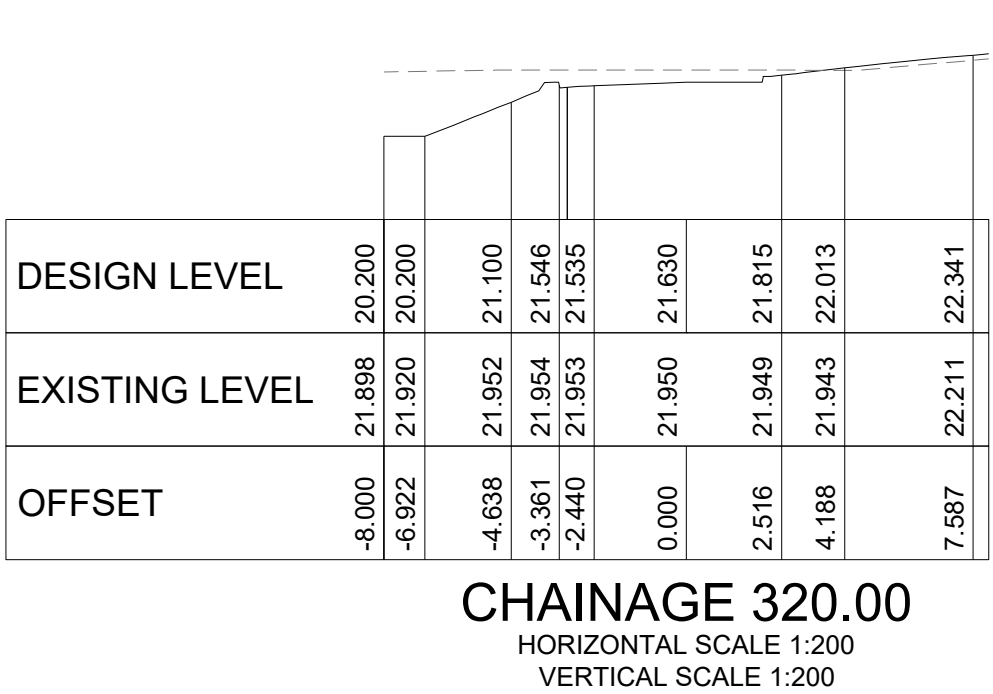
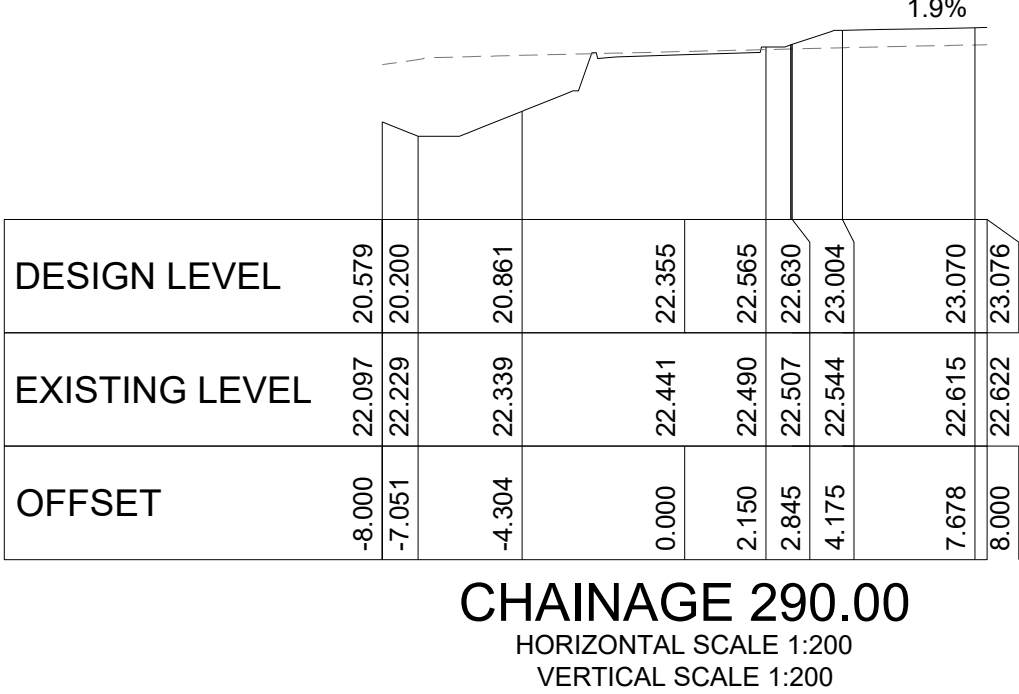
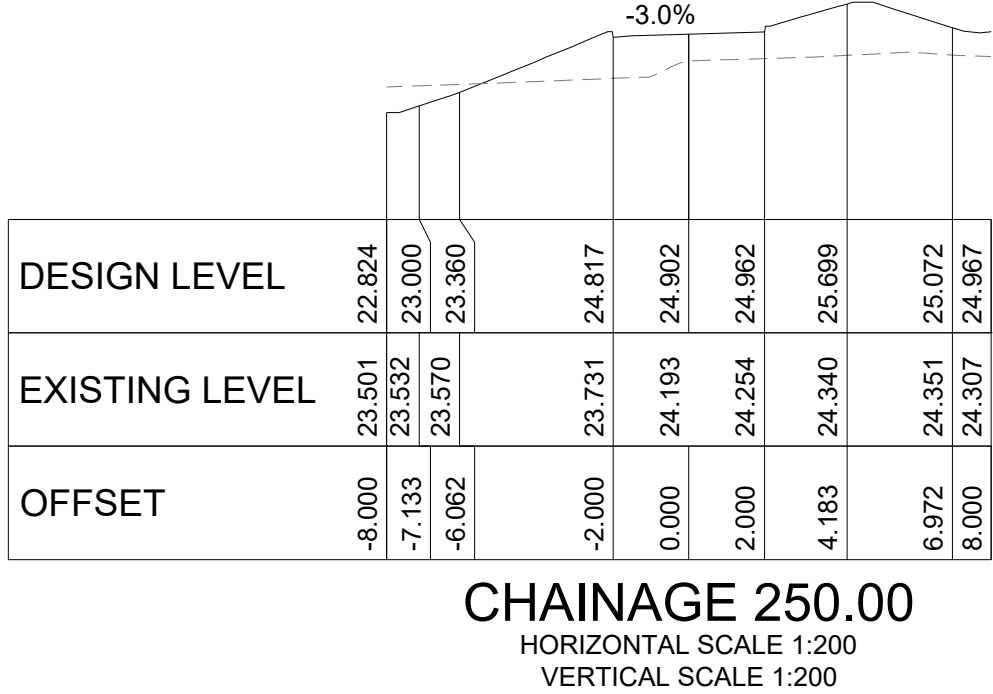
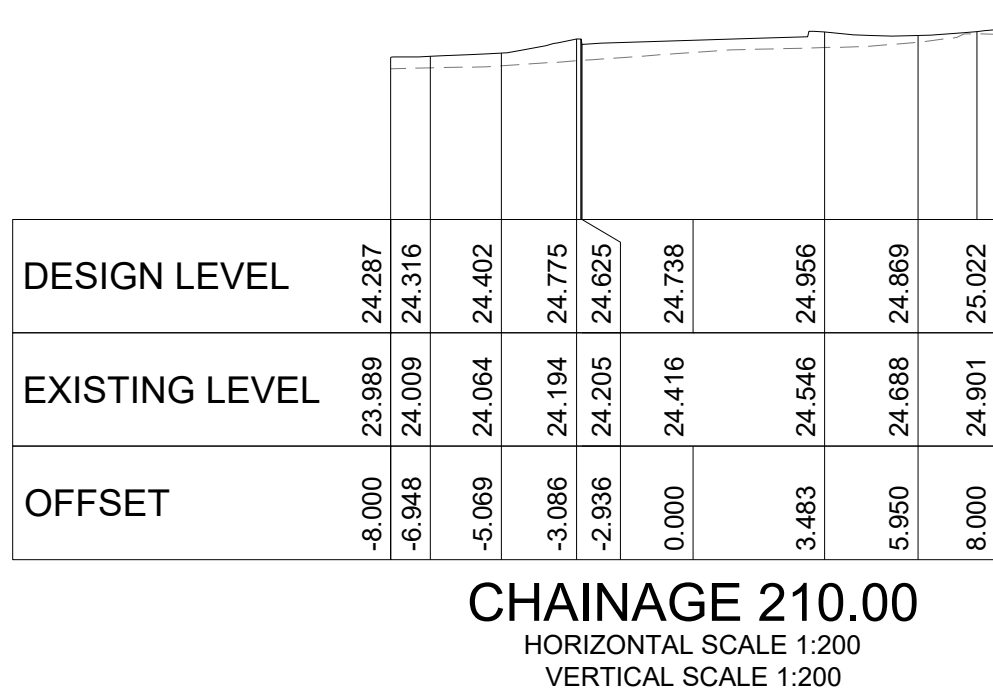
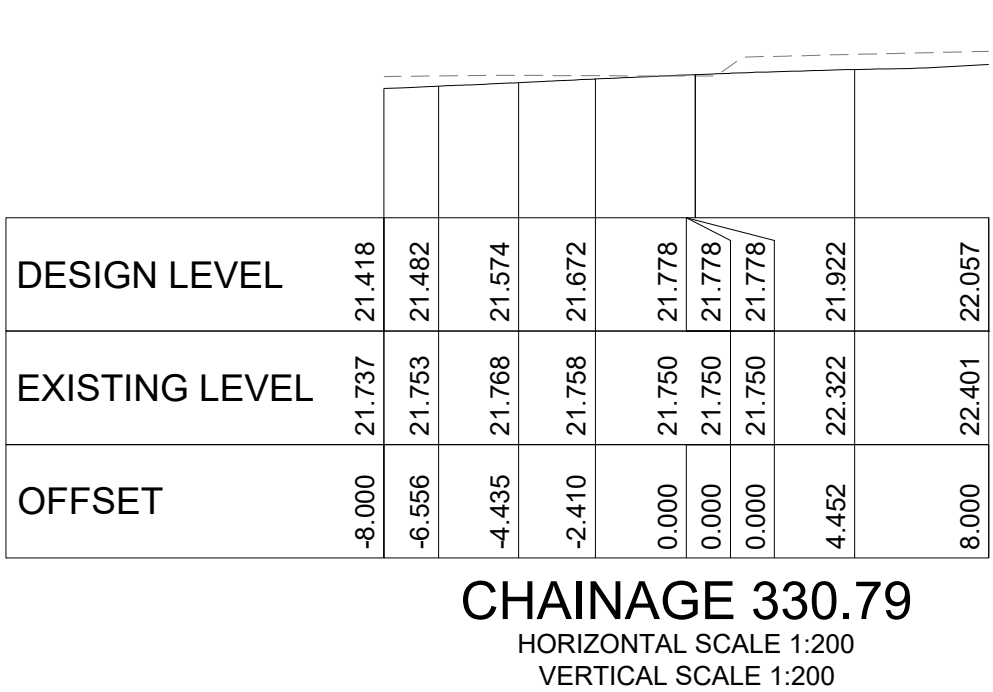
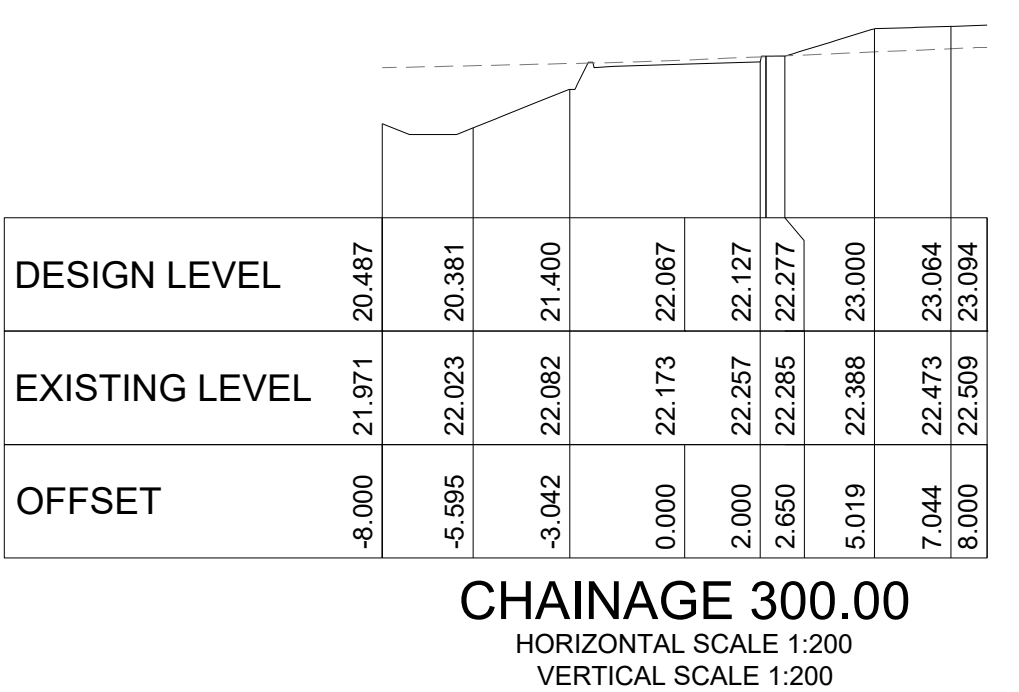
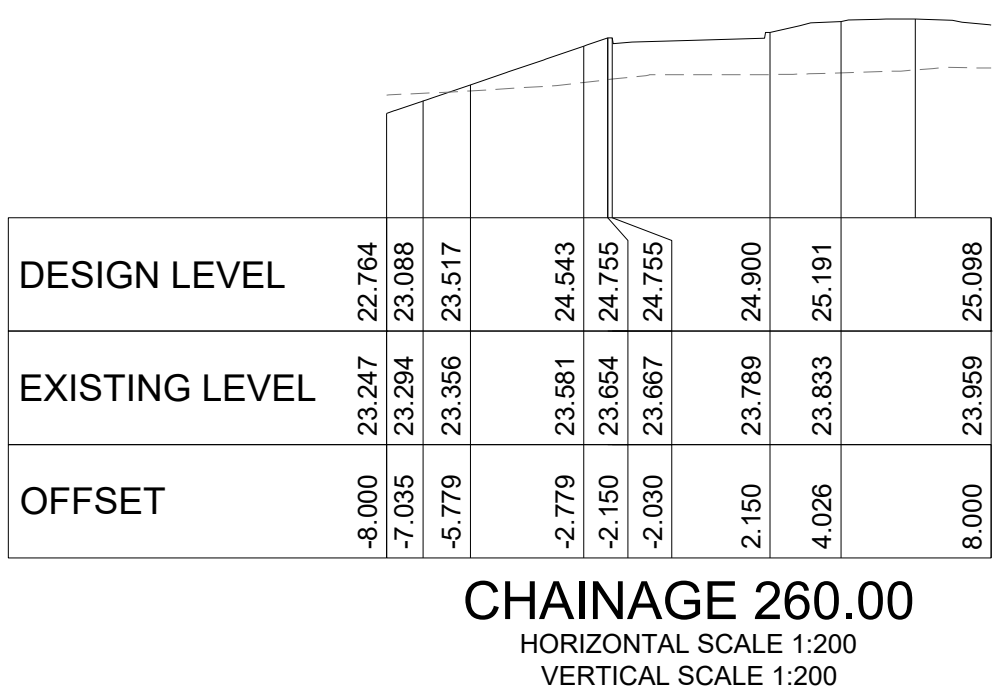
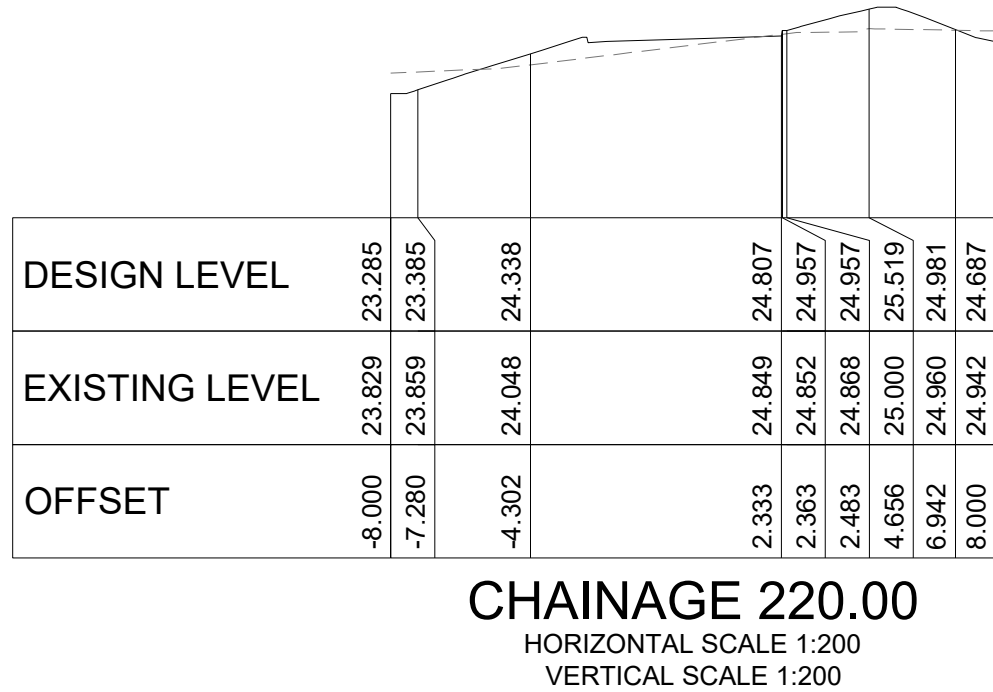
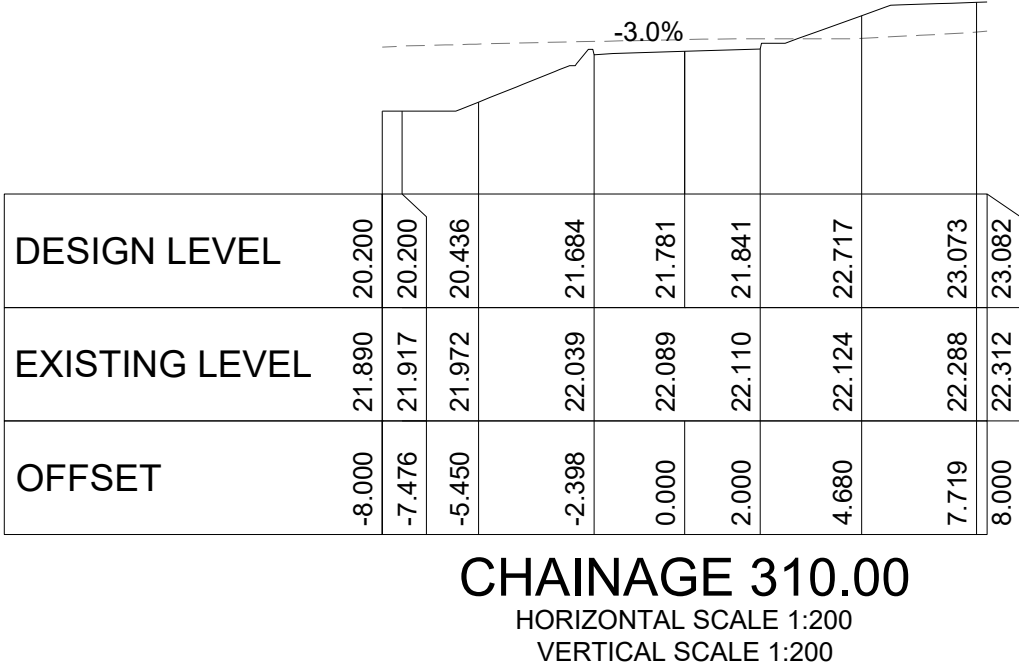
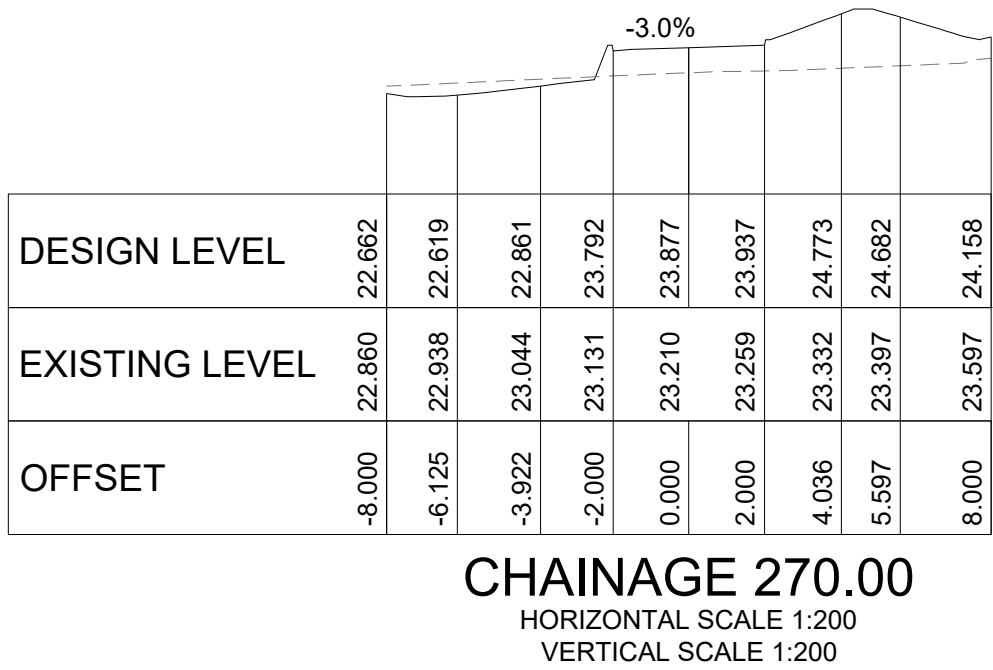
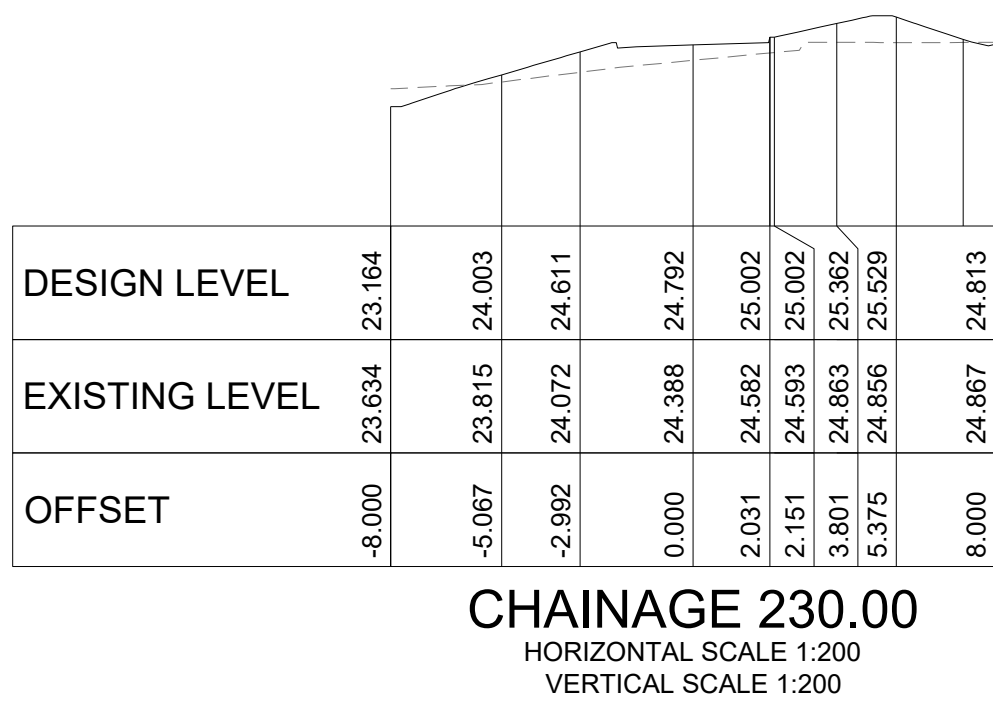
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FOREST LODGE
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TITLE				
ROAD LONG SECTIONS - RING ROAD				
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
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7368002		C5.12	2	
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Plot Date: 14/06/2024@14:58:01
User: X:\7368002\B...
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2.5 0 2.5 5.0 7.5 10.0m
PLAN
SCALE 1:200
A1 SHEET

REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	ISSUE FOR \$4.56	03/11/23			
2	RE-ISSUE FOR \$4.56	05/12/23			
3	ISSUE FOR \$4.56	17/06/24			

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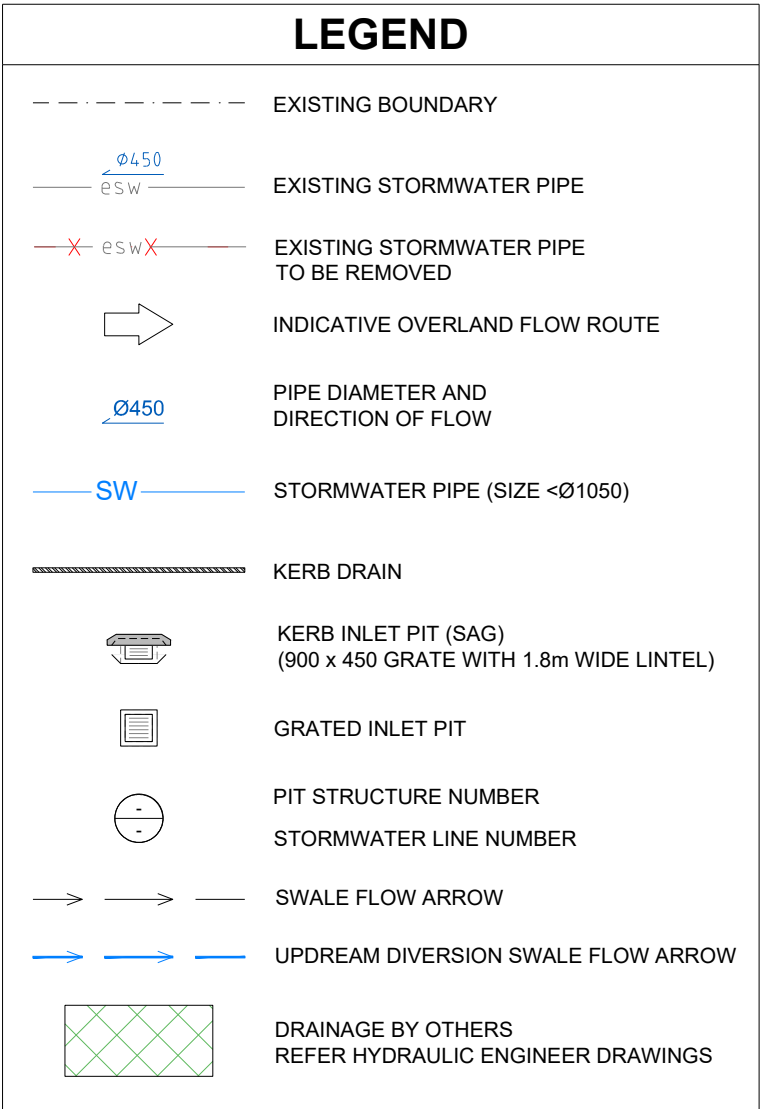
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TITLE					
ROAD CROSS SECTIONS - RING ROAD SHEET 2					
SCALE	AS SHOWN	DRAWN	I.K.	DESIGNED	I.O.S.
JOB No.	7368002	CHECKED	J.G.	DRAWING No.	C5.23
DATE	SEPTEMBER 2023	APPROVED	J.G.	ISSUE	3
STATUS		ISSUE FOR \$4.56			



NOTES:

1. STORMWATER DRAINAGE ASSOCIATED WITH ALL SUSPENDED AREAS AND COURTYARDS ARE TO BE UNDERTAKEN BY THE HYDRAULIC ENGINEER.
2. COORDINATION WITH THE HYDRAULIC ENGINEER IS REQUIRED.

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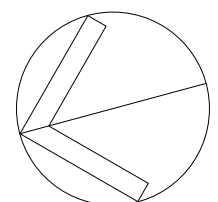
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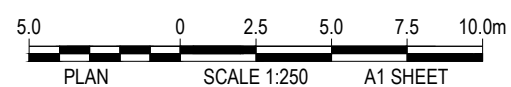
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STORMWATER LAYOUT PLAN-SHEET 1				
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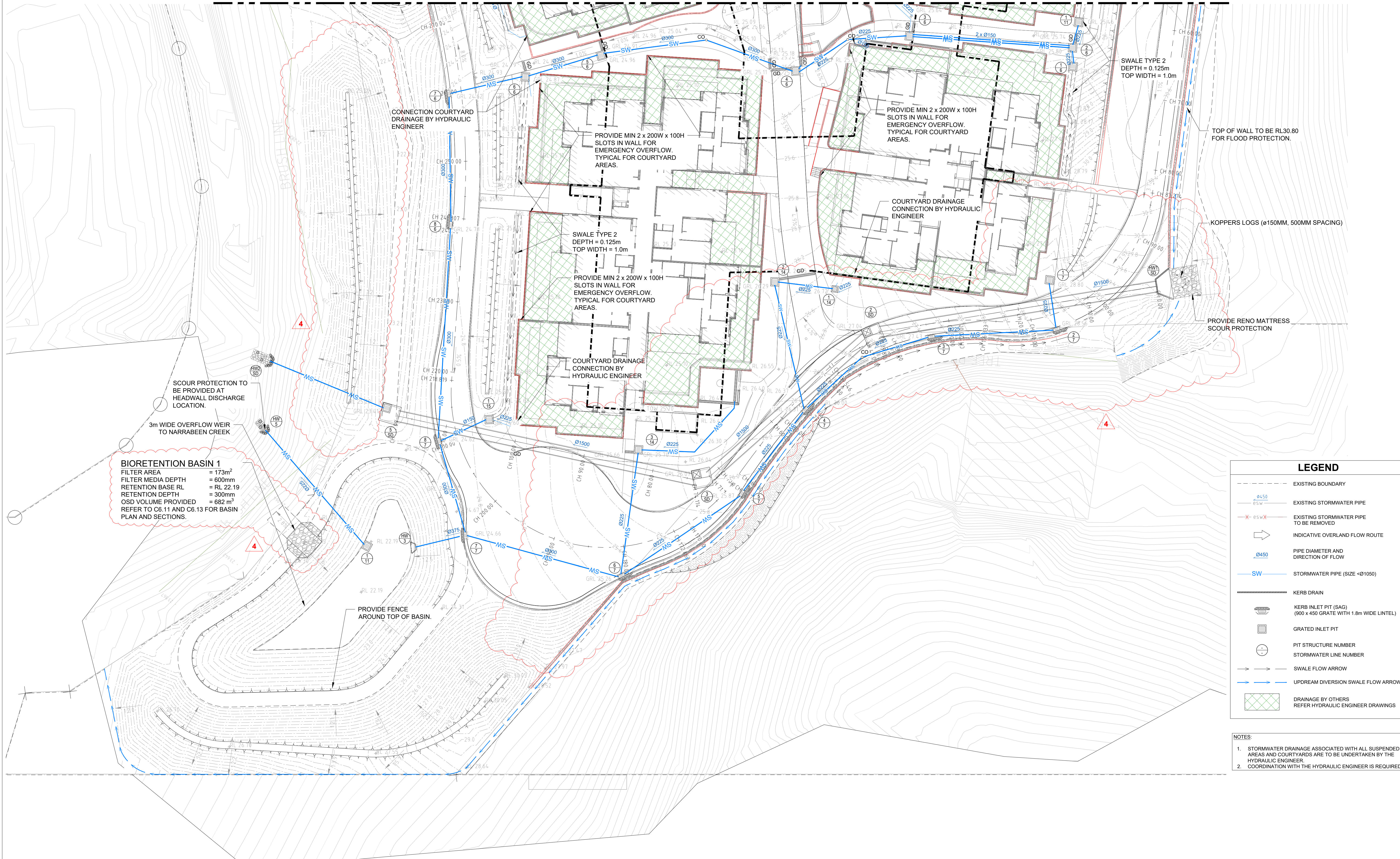
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NORTH



REFER C6.01 FOR CONTINUATION



BIORETENTION BASIN 1
FILTER AREA = 173m²
FILTER MEDIA DEPTH = 600mm
RETENTION BASE RL = RL 22.19
RETENTION DEPTH = 300mm
OSD VOLUME PROVIDED = 682 m³
REFER TO C6.11 AND C6.13 FOR BASIN PLAN AND SECTIONS.

SCOUR PROTECTION TO BE PROVIDED AT HEADWALL DISCHARGE LOCATION.

3m WIDE OVERFLOW WEIR TO NARRABEEN CREEK

PROVIDE FENCE AROUND TOP OF BASIN.

CONNECTION COURTYARD DRAINAGE BY HYDRAULIC ENGINEER

PROVIDE MIN 2 x 200W x 100H SLOTS IN WALL FOR EMERGENCY OVERFLOW. TYPICAL FOR COURTYARD AREAS.

SWALE TYPE 2 DEPTH = 0.125m TOP WIDTH = 1.0m

PROVIDE MIN 2 x 200W x 100H SLOTS IN WALL FOR EMERGENCY OVERFLOW. TYPICAL FOR COURTYARD AREAS.

COURTYARD DRAINAGE CONNECTION BY HYDRAULIC ENGINEER

PROVIDE MIN 2 x 200W x 100H SLOTS IN WALL FOR EMERGENCY OVERFLOW. TYPICAL FOR COURTYARD AREAS.

COURTYARD DRAINAGE CONNECTION BY HYDRAULIC ENGINEER

SWALE TYPE 2 DEPTH = 0.125m TOP WIDTH = 1.0m

TOP OF WALL TO BE RL30.80 FOR FLOOD PROTECTION.

KOPPERS LOGS (ø150MM, 500MM SPACING)

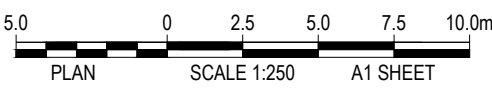
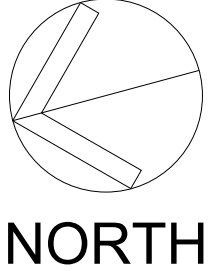
PROVIDE RENO MATTRESS SCOUR PROTECTION

LEGEND

- EXISTING BOUNDARY
- EXISTING STORMWATER PIPE
- EXISTING STORMWATER PIPE TO BE REMOVED
- INDICATIVE OVERLAND FLOW ROUTE
- PIPE DIAMETER AND DIRECTION OF FLOW
- STORMWATER PIPE (SIZE <Ø1050)
- KERB DRAIN
- KERB INLET PIT (SAG) (900 x 450 GRATE WITH 1.8m WIDE LINTEL)
- GRATED INLET PIT
- PIT STRUCTURE NUMBER
- STORMWATER LINE NUMBER
- SWALE FLOW ARROW
- UPSTREAM DIVERSION SWALE FLOW ARROW
- DRAINAGE BY OTHERS REFER HYDRAULIC ENGINEER DRAWINGS

- NOTES:
- STORMWATER DRAINAGE ASSOCIATED WITH ALL SUSPENDED AREAS AND COURTYARDS ARE TO BE UNDERTAKEN BY THE HYDRAULIC ENGINEER.
 - COORDINATION WITH THE HYDRAULIC ENGINEER IS REQUIRED.

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1	ISSUE FOR \$4.56	03/11/23			
2	RE-ISSUE FOR \$4.56	05/12/23			
3	RE-ISSUE FOR \$4.56	01/02/24			
4	ISSUE FOR \$4.56	17/06/24			

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STORMWATER LAYOUT PLAN-SHEET 2				
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	I.K.	I.O.	J.G.	J.G.
JOB No.	DRAWING No.		ISSUE	
7368002	C6.02		4	
DATE	STATUS			
SEPTEMBER 2023	ISSUE FOR \$4.56			

Ver: X:\7368002_TB_A.H
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 C:\F:\17368002\Drawings\AutoCAD\Civil\Design\Civil\2D\S4_56\05.05 Stormwater Pit Schedule.dwg
 User Name: slawert
 Login Name: slawert

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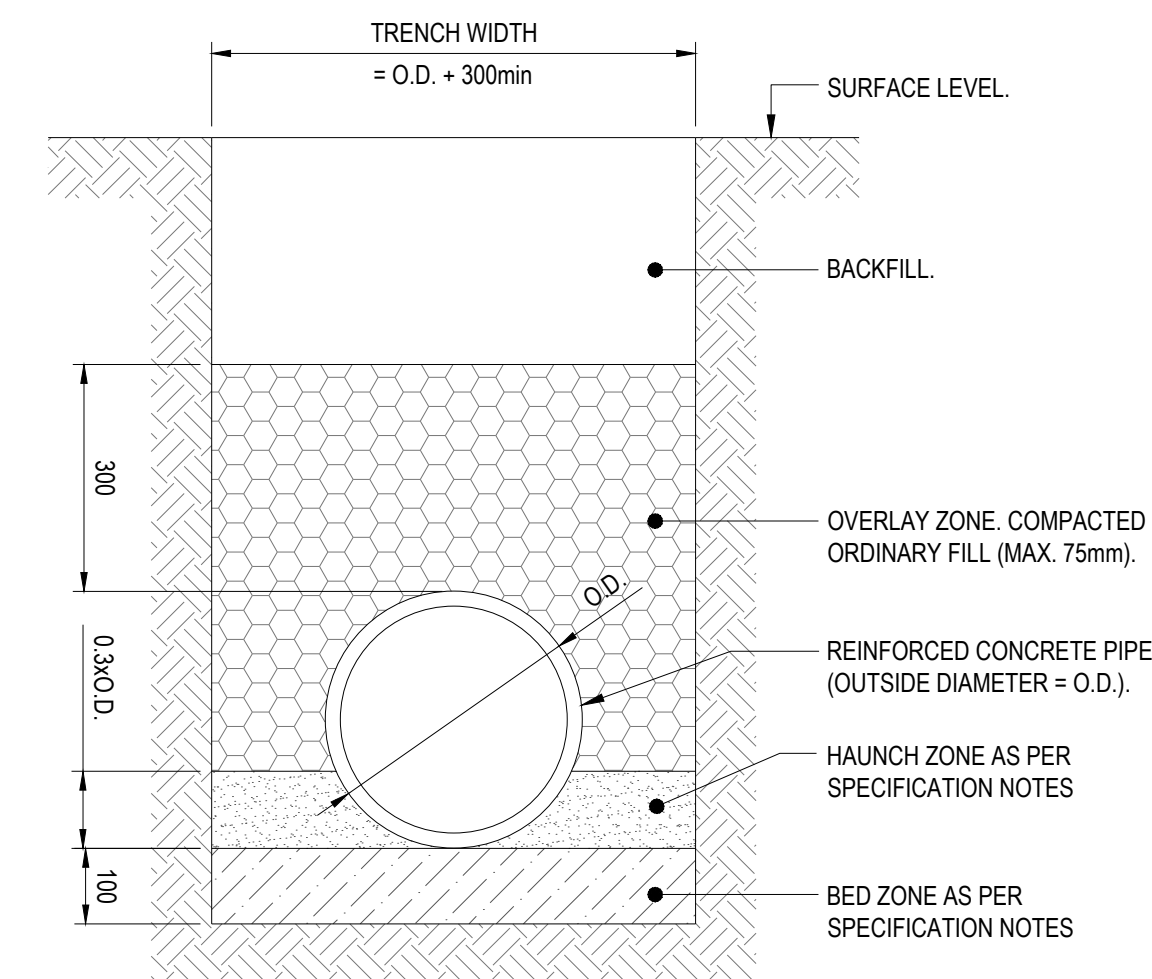
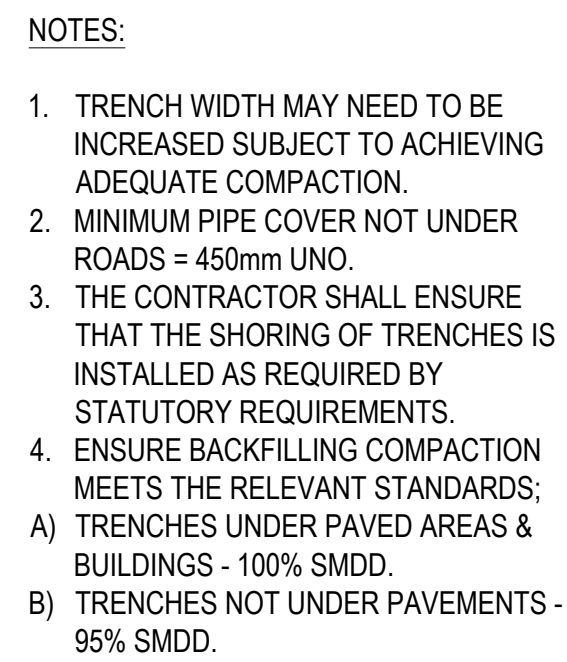

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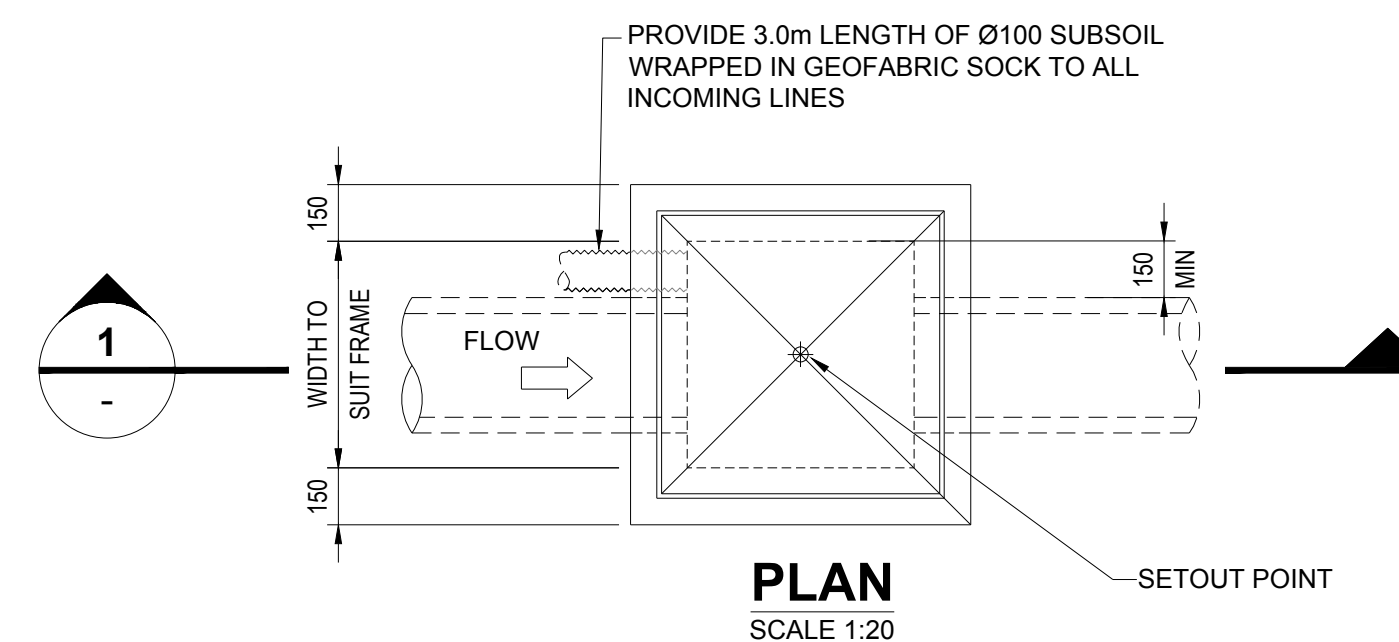
TITLE					
STORMWATER PIT SCHEDULE					
SCALE	AS SHOWN	DRAWN	I.K.	DESIGNED	I.O.
JOB No.	7368002		DRAWING No.	C6.04	
DATE	SEPTEMBER 2023		STATUS	ISSUE FOR \$4.56	
				CHECKED	J.G.
				APPROVED	J.G.
				ISSUE	4

NAME	SURFACE ELEV. (m)	PIT DEPTH (m)	PIT SIZE AND TYPE	FROM	TO	LENGTH (m)	U/S IL (m)	D/S IL (m)	SLOPE (%)	PIPE TYPE	DIA (mm)	No. PIPES
Pit 1/1	24.41	0.67	900SQ PIT WITH CLASS B GRATE	Pit 1/1	Pit 2/1	13.20	23.74	23.61	0.98	uPVC	225	1
Pit 2/1	24.50	1.73	900SQ PIT WITH CLASS B GRATE	Pit 2/1	Pit 3/1	17.80	22.77	22.59	1.01	uPVC	225	1
Pit 3/1	23.48	1.49	900SQ PIT WITH CLASS B GRATE	Pit 3/1	Pit 4/1	12.40	21.99	21.87	0.97	uPVC	225	1
Pit 4/1	22.69	0.87	600SQ PIT WITH CLASS B GRATE	Pit 4/1	Pit 5/1	12.00	21.82	21.70	1.00	uPVC	300	1
Pit 5/1	22.64	1.43	900SQ PIT WITH CLASS B GRATE	Pit 5/1	Pit 6/1	18.20	21.21	21.03	0.99	uPVC	300	1
Pit 6/1	21.97	0.99	600SQ PIT WITH CLASS B GRATE	Pit 6/1	Pit 7/1	13.70	20.98	20.84	1.02	uPVC	300	1
Pit 7/1	21.90	1.11	600SQ PIT WITH CLASS B GRATE	Pit 7/1	Pit 8/1	11.90	20.79	20.67	1.01	uPVC	300	1
Pit 8/1	22.09	1.47	900SQ PIT WITH CLASS B COVER	Pit 8/1	Pit 9/1	17.50	20.62	20.45	0.97	uPVC	300	1
Pit 9/1	21.31	1.01	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 9/1	Pit 10/1	7.10	20.30	20.26	0.56	RCP	375	2
Pit 10/1	21.33	1.09	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 10/1	Basin 2	7.20	20.24	20.20	0.56	RCP	375	2
Basin 2	21.40		OSD BASIN 2	Basin 2	HW4	28.20	19.25	18.00	4.43	uPVC	300	1
Pit 13/1	21.49	1.00	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 13/1	Basin 2	2.90	20.49	20.20	10	uPVC	225	1
Pit 1/2	25.80	1.27	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 1/2	Pit 2/2	9.60	24.53	24.01	5.42	uPVC	225	1
Pit 2/2	24.85	0.75	900SQ PIT WITH CLASS B GRATE	Pit 2/2	Pit 3/2	4.20	24.10	24.05	1.19	uPVC	225	1
Pit 3/2	24.86	0.96	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 3/2	Pit 4/2	7.00	23.90	23.83	1.00	uPVC	225	1
Pit 4/2	24.85	1.12	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 4/2	Pit 5/2	44.70	23.73	22.76	2.17	uPVC	225	1
Pit 5/2	23.61	1.01	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 5/2	Pit 6/2	15.40	22.60	22.19	2.66	uPVC	300	1
Pit 6/2	23.24	1.07	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 6/2	Pit 7/2	32.00	22.17	20.94	3.84	uPVC	300	2
Pit 7/2	21.85	0.97	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 7/2	Pit 9/1	7.70	20.88	20.40	6.23	uPVC	300	2
Pit 1/3	23.60	0.90	18m LENGTH ACO TRENCH DRAIN WITH CLASS D GRATE	Pit 1/3	Pit 5/2	7.40	22.70	22.62	1.08	uPVC	150	2
Pit 2/4	23.66	0.90	3.8m LENGTH ACO TRENCH DRAIN WITH CLASS D GRATE	Pit 2/4	Pit 4/4	10.70	22.76	22.34	3.93	uPVC	150	2
Pit 4/4	23.25	0.91	7.2m LENGTH ACO TRENCH DRAIN WITH CLASS D GRATE	Pit 4/4	Pit 6/2	7.40	22.34	22.26	1.08	uPVC	150	2
Pit 1/5	21.85	0.91	900SQ PIT WITH CLASS D GRATE	Pit 1/5	Pit 7/2	7.00	20.94	20.90	0.57	uPVC	300	2
Pit 1/6	26.10	1.10	900SQ PIT WITH CLASS B GRATE	Pit 1/6	Pit 2/6	1.80	25.00	24.85	8.33	uPVC	225	1
Pit 2/6	25.70	1.00	900SQ PIT WITH CLASS B GRATE	Pit 2/6	Pit 3/6	22.50	24.70	24.50	0.89	uPVC	225	1
Pit 3/6	25.46	1.01	900SQ PIT WITH 600 x 900 CLASS B SINGLE GRATE WITH 1.2m LENGTH ACO TRENCH DRAIN	Pit 3/6	Pit 4/6	18.80	24.45	24.27	0.96	uPVC	225	1
Pit 4/6	25.13	1.48	900SQ PIT WITH CLASS B GRATE WITH 2.8m LENGTH ACO TRENCH DRAIN	Pit 4/6	Pit 5/6	23.80	23.65	23.53	0.50	uPVC	300	1
Pit 5/6	25.19	1.69	900SQ PIT WITH 600 x 900 CLASS B SINGLE GRATE WITH 1.2m LENGTH ACO TRENCH DRAIN	Pit 5/6	Pit 6/6	10.20	23.50	23.44	0.59	uPVC	300	1
Pit 6/6	24.87	1.46	900SQ PIT WITH 600 x 900 CLASS B SINGLE GRATE WITH 1.2m LENGTH ACO TRENCH DRAIN	Pit 6/6	Pit 7/6	10.50	23.41	23.35	0.57	uPVC	300	1
Pit 7/6	24.63	1.31	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 7/6	Pit 8/6	17.80	23.32	23.23	0.51	uPVC	300	1
Pit 8/6	24.78	1.58	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 8/6	Pit 8/7	29.90	23.20	23.01	0.64	uPVC	300	1
Pit 1/7	28.80	0.85	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 1/7	Pit 2/7	6.40	27.95	27.70	3.91	uPVC	225	1
Pit 2/7	28.56	0.91	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 2/7	Pit 3/7	16.70	27.65	26.55	6.59	uPVC	225	1
Pit 3/7	27.43	0.93	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 3/7	Pit 4/7	20.40	26.50	25.45	5.15	uPVC	225	1
Pit 4/7	26.31	1.11	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 4/7	Pit 5/7	14.00	25.20	25.00	1.43	uPVC	225	1
Pit 5/7	25.87	0.92	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 5/7	Pit 6/7	19.80	24.95	24.40	2.78	uPVC	225	1
Pit 6/7	25.26	0.91	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 6/7	Pit 7/7	22.40	24.35	23.40	4.24	uPVC	300	1
Pit 7/7	24.66	1.76	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 7/7	Basin 1	7.00	22.90	22.43	6.71	RCP	375	1
Pit 8/7	24.62	1.60	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 8/7	Pit 7/7	13.00	23.02	22.95	0.54	uPVC	300	1
Basin 1	24.30	2.81	OSD BASIN 1	Basin 1	HW5	21.10	21.49	21.00	2.32	uPVC	150	1
Pit 1/8	28.62	1.55	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit1/8	Pit2/8	24.30	27.07	24.64	10.00	uPVC	225	1
Pit 2/8	25.49	0.88	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit2/8	Pit 1/2	4.80	24.61	24.56	1.04	uPVC	225	1
Pit 3/8	26.14	0.89	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 3/8	Pit2/8	7.20	25.25	24.64	8.47	uPVC	225	1
Pit 1/9	22.99	0.96	900SQ PIT WITH CLASS B GRATE	Pit 1/9	Pit 2/9	8.70	22.03	21.70	3.79	uPVC	300	1
Pit 2/9	22.63	2.13	900SQ PIT WITH 600 x 900 CLASS D SINGLE GRATE WITH 1.8m LINTEL OPENING	Pit 2/9	Basin 2	3.00	20.50	20.20	10.00	uPVC	300	1
Pit 1/11	25.46	0.71	900SQ PIT WITH CLASS B GRATE	Pit 1/11	Pit 2/6	2.90	24.75	24.72	1.03	uPVC	225	1
Pit 1/12	23.05	0.95	900SQ PIT WITH CLASS B GRATE	Pit 1/12	Pit 1/9	3.70	22.10	22.06	1.08	uPVC	225	1
Pit 1/14	26.72	0.87	600SQ PIT WITH CLASS B GRATE	Pit 1/14	Pit 2/14	7.70	25.85	25.45	5.19	uPVC	225	1
Pit 2/14	26.29	0.89	900SQ PIT WITH CLASS B GRATE & 3.8m LENGTH ACO TRENCH DRAIN	Pit 2/14	Pit 4/7	17.90	25.40	25.25	0.84	uPVC	225	1
Pit 3/14	25.66	0.96	900SQ PIT WITH CLASS B GRATE & 1.5m LENGTH ACO TRENCH DRAIN	Pit 3/14	Pit 6/7	18.20	24.70	24.40	1.65	uPVC	225	1
Pit 1/15	24.60	0.93	900SQ PIT WITH CLASS B COVER	Pit 1/15	Pit 8/7	7.10	23.67	23.05	8.73	uPVC	150	1

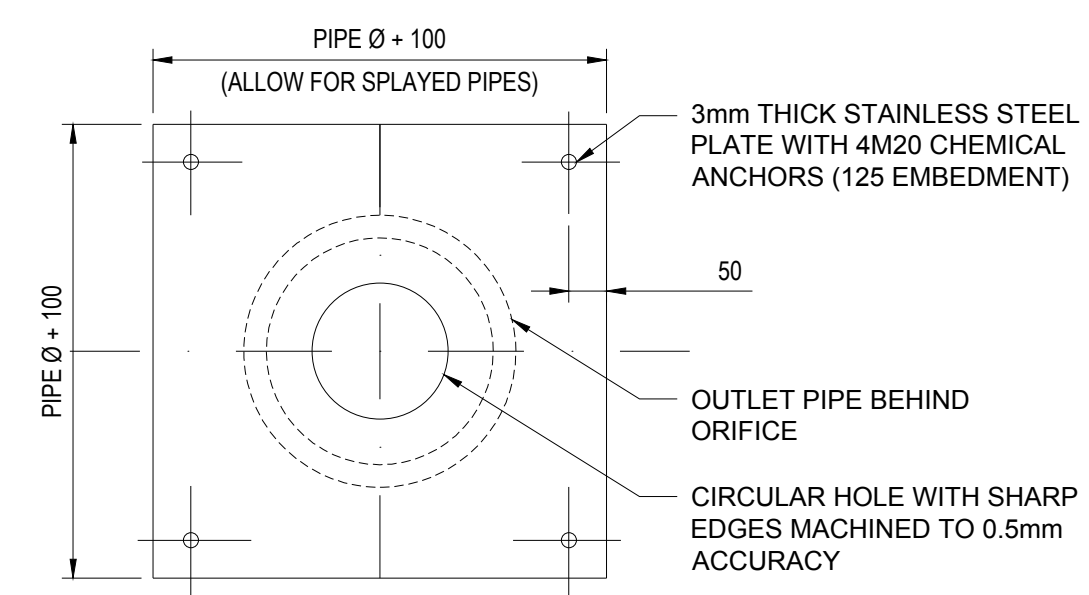


NOTES:

1. TRENCH WIDTH MAY NEED TO BE INCREASED SUBJECT TO ACHIEVING ADEQUATE COMPACTION.
2. MINIMUM PIPE COVER NOT UNDER ROADS = 450mm UNO.
MINIMUM PIPE COVER UNDER ROADS = 600mm UNO.
3. THE CONTRACTOR SHALL ENSURE THAT THE SHORING OF TRENCHES IS INSTALLED AS REQUIRED BY STATUTORY REQUIREMENTS.
4. ENSURE BACKFILLING COMPACTION MEETS THE FOLLOWING STANDARDS:
 - A) TRENCHES UNDER PAVED AREAS & BUILDINGS - 100% SMD.
 - B) TRENCHES NOT UNDER PAVEMENTS - 90% SMD.

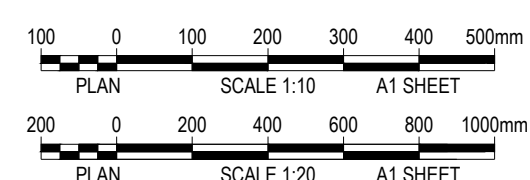


600 - 900SQ SURFACE INLET PITS



ORIFICE PLATE

SCALE 1:10

[illegible]

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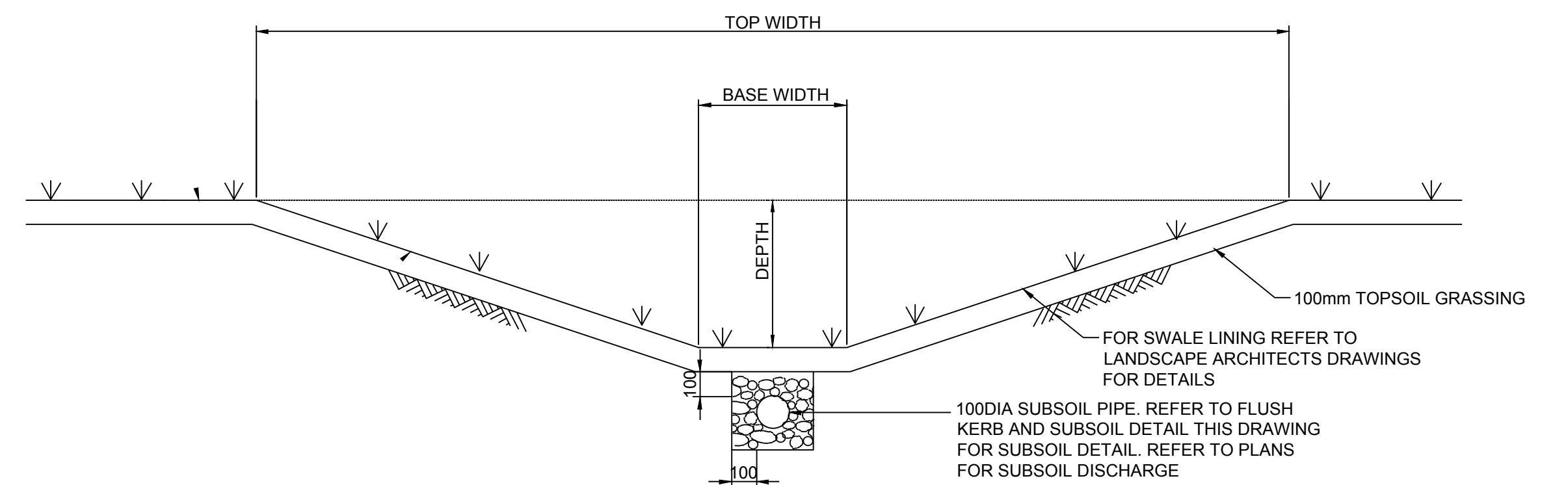
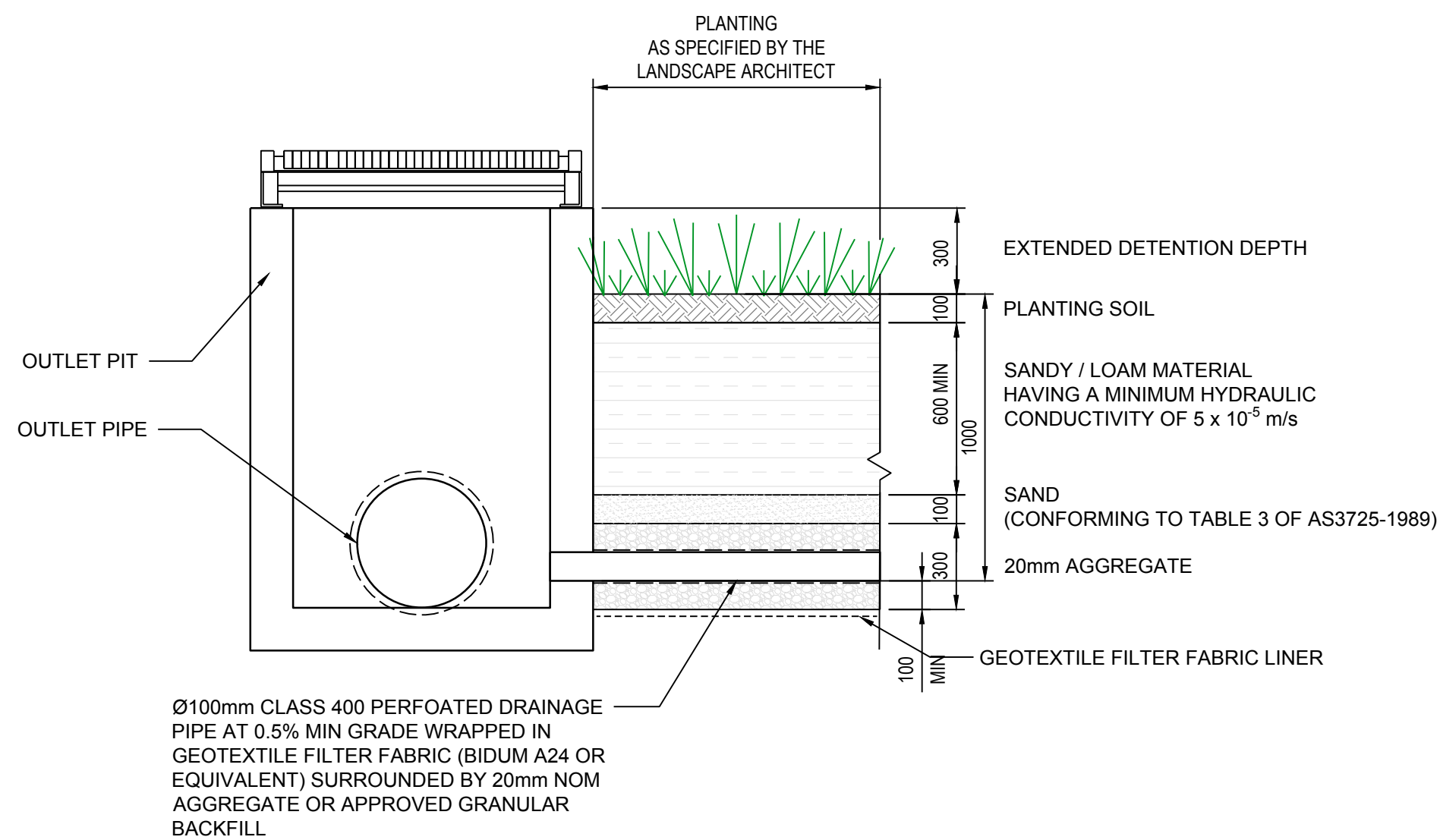
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STORMWATER DRAINAGE DETAILS - SHEET 1

SCALE	AS SHOWN	DRAWN	I.K.	DESIGNED	I.O.	CHECKED	J.G.	APPROVED	J.G.
JOB No.		DRAWING No.				ISSUE			
7368002		C6.06				2			
DATE		STATUS		ISSUE FOR \$4.56					
SEPTEMBER 2023									



1. REFER TO PLAN FOR SWALE DIMENSIONS
2. SWALE INVERT LEVELS AS SPECIFIED ON PLAN. MIN LONGITUDINAL GRADE 0.5% (UNO)

PLAN
NOT TO SCALE

PLACE 5 BOULDERS
Ø500mm - Ø600mm AS
SHOWN FOR ENERGY
DISSIPATION

TAPER AT 1 IN 3

3

1

PIPE FLOW

RIP-RAP

STACKED ROCK
HEADWALL

SEDGES AND RUSHES PLANTED
IN TOPSOIL FILLED VOIDS

CROSS SECTION
NOT TO SCALE

STACKED ROCK
HEADWALL AND WINGS

RIP-RAP

COARSE GRAVELS
/ COBBLES

LENGTH OF SCOUR PROTECTION	
OUTLET PIPE SIZE	L (mm)
375 - 750	4000
900 - 1350	6000
1500 - 1800	8000

ROCK HEADWALL - TYPICAL ARRANGEMENT
NOT TO SCALE

CONCRETE TRENCH STOP

75

150

150

PIPE FLOW

STACKED ROCK HEADWALL OVER PIPE END

STACKED ROCK BOULDERS AT SIDES FOR HEADWALL WINGS

SEDGES AND RUSHES PLANTED IN TOPSOIL FILLED VOIDS BETWEEN ROCKS

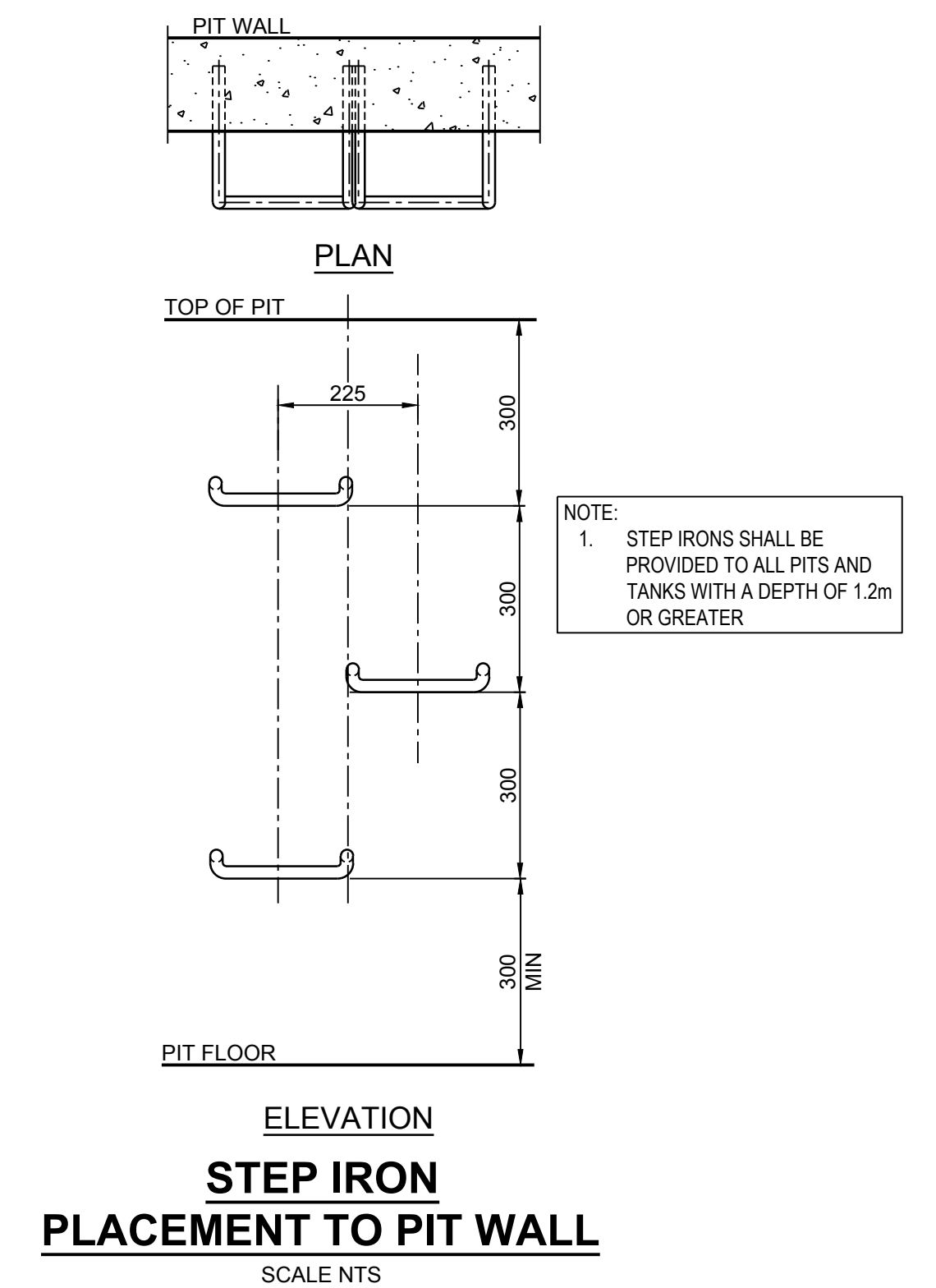
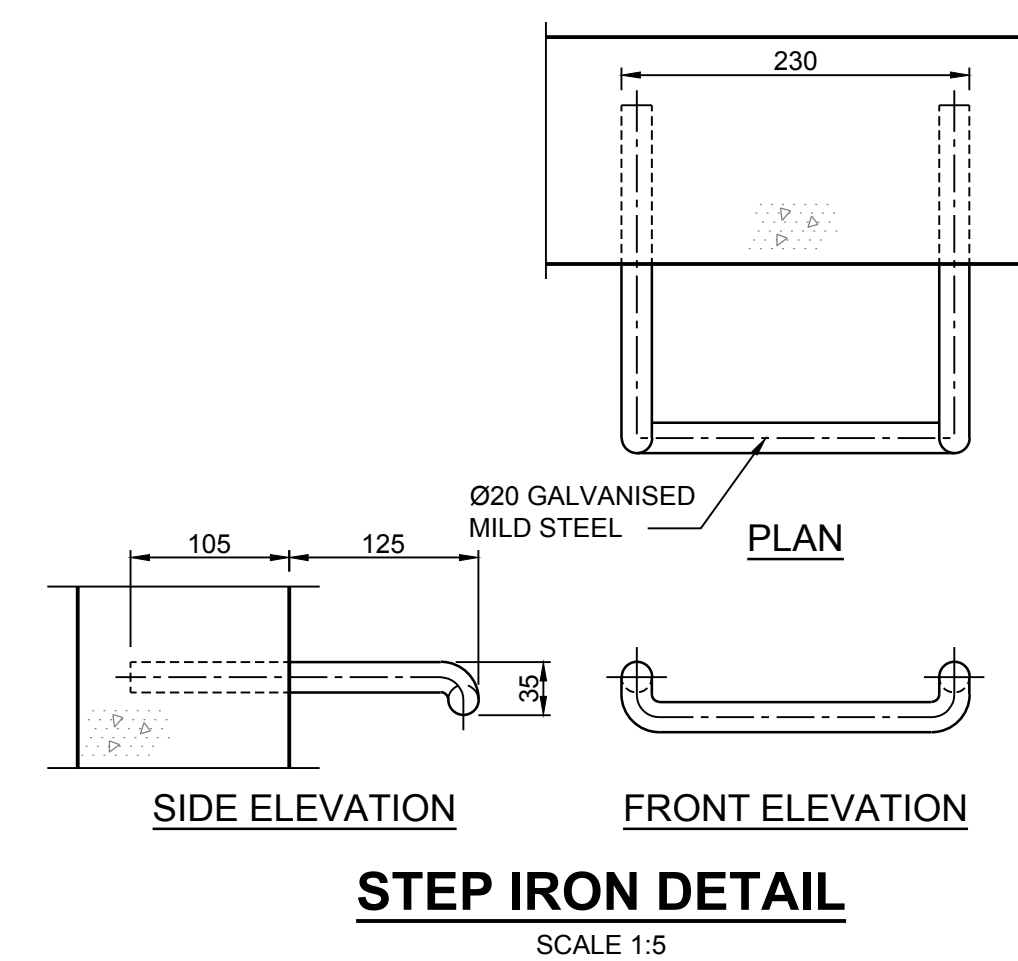
SCOUR PROTECTION TO INVERT LEVEL

L (REFER TABLE)

PROVIDE 3.0m LENGTH OF Ø100mm SUBSOIL WRAPPED IN GEOTEXTILE SOCK

PROVIDE RIP-RAP ROCK VARYING IN SIZE Ø100mm-Ø300mm

LAY BIDUM A44 GEOTEXTILE FABRIC OR APPROVED EQUIVALENT WITH MINIMUM OVERLAP OF 500mm

[illegible]

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FOREST LODGE WARRIEWOOD

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SCALE AS SHOWN	DRAWN I.K.	DESIGNED I.O.	CHECKED J.G.	APPROVED J.G.
JOB No. 7368002		DRAWING No. C6.07		ISSUE 2
DATE SEPTEMBER 2023		STATUS ISSUE FOR S4 56		



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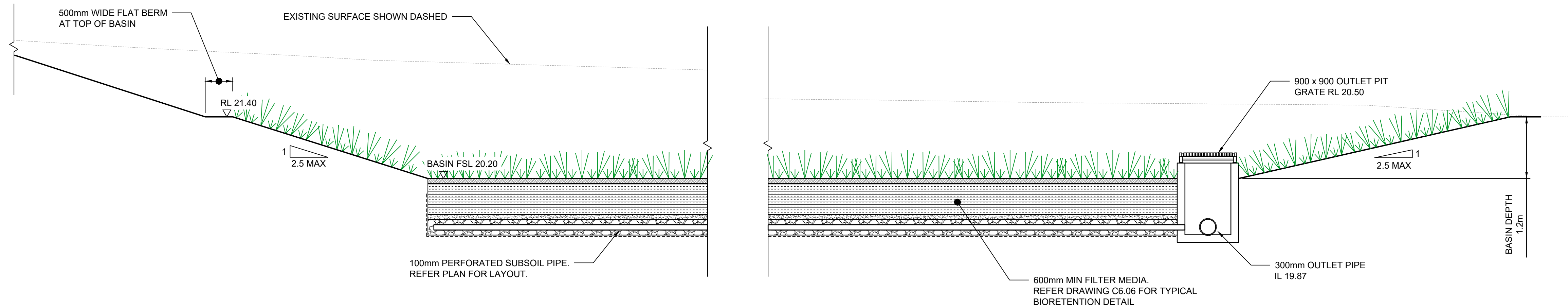
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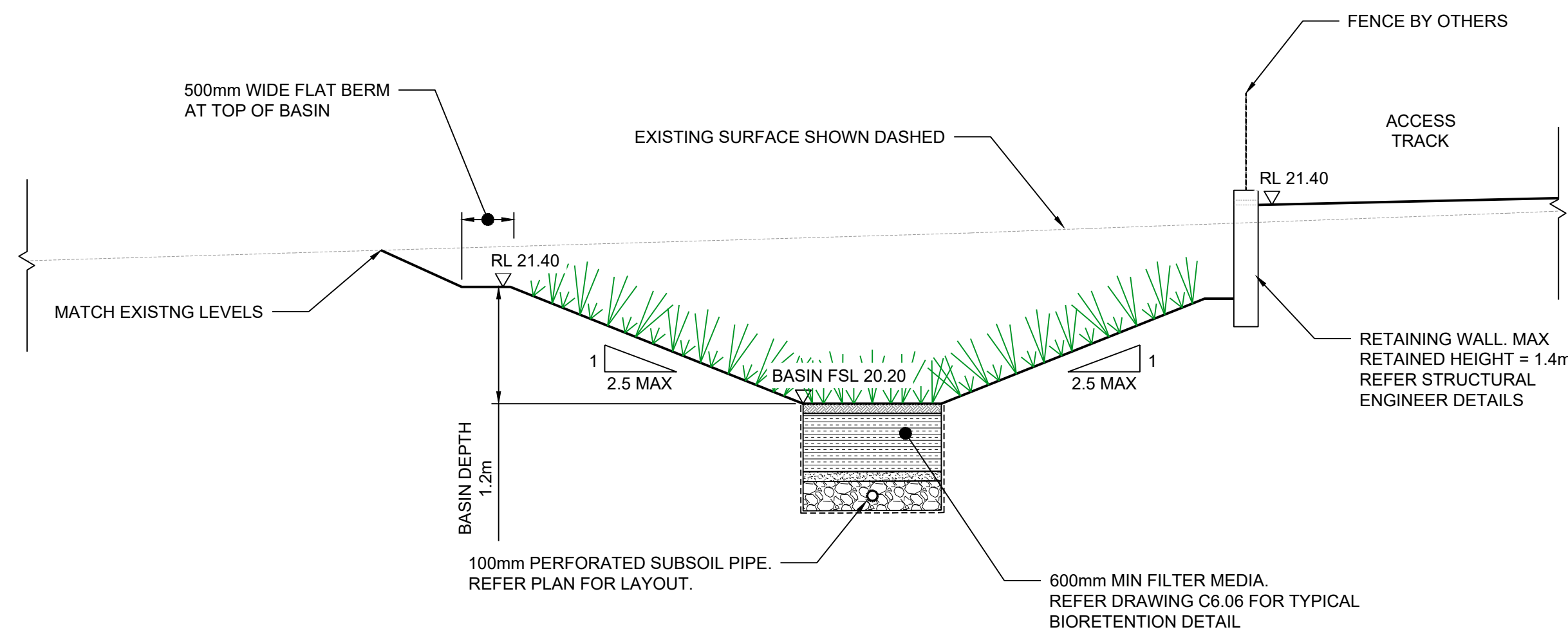
Prefs: X:7368002-TB_A1H_A1H X:7368002-SW-Layout, X:7368002-SU--Existing Survey, X:7368000-AR - Site Plan RING ROAD, 7368002-WSCE-CS-MO-02 - Design Surface RING ROAD
 Cad File: T:7368002/Drawings/AutoCAD/Civil/Design/Civil 20/S4.56/06.11 Boretening Basin Plan.dwg
 Logon Name: istewart
 Logon Date: 17/05/2024@08:01:49



BIORETENTION BASIN SECTIONS - SHEET 1				
SCALE AS SHOWN	DRAWN I.K.	DESIGNED I.O.	CHECKED J.G.	APPROVED J.G.
JOB No. 7368002		DRAWING No. C6.13	ISSUE 1	
DATE SEPTEMBER 2023	STATUS ISSUE FOR \$4.56			



SECTION 1
SCALE 1:50
C6.12



SECTION 2
SCALE 1:50
C6.12

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REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	ISSUE FOR \$4.56	03/11/23			

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WARRIWOOD

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ABN 75 648 655 141

info@wsce.com.au

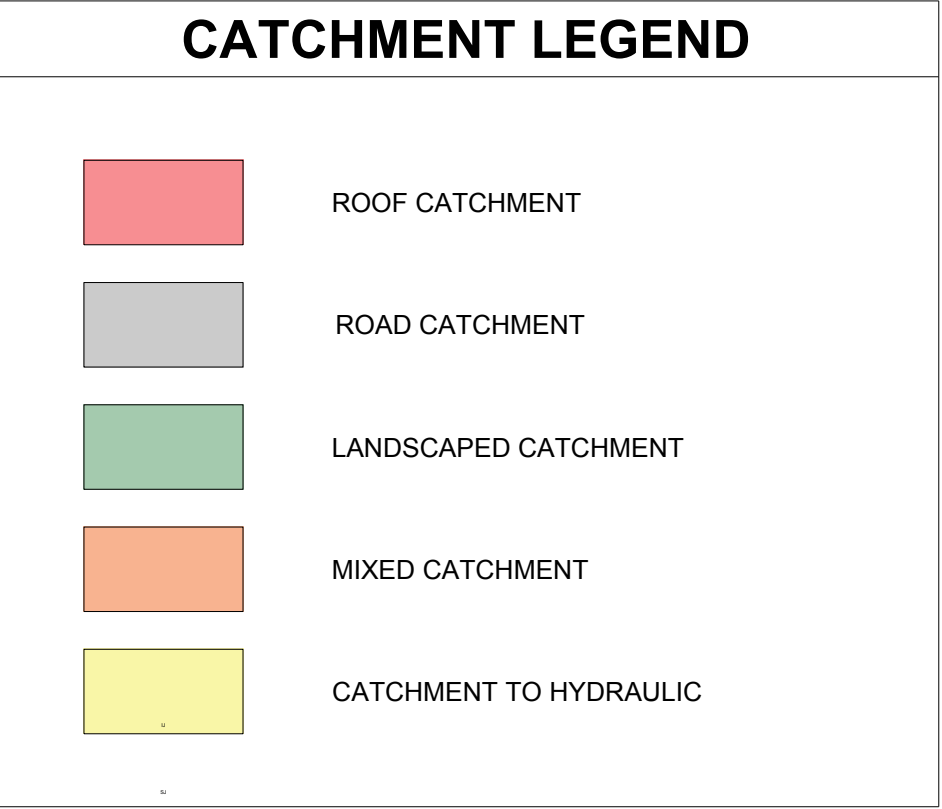
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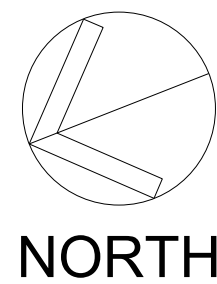


TITLE					
BIORETENTION BASIN SECTIONS - SHEET 2					
SCALE		DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN		I.K.	I.O.	J.G.	J.G.
JOB No.		DRAWING No.		ISSUE	
7368002		C6.14		1	
DATE		STATUS			
SEPTEMBER 2023		ISSUE FOR \$4.56			



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5.0 0 2.5 5.0 7.5 10.0m
PLAN SCALE 1:250 A1 SHEET

[illegible]

CLIENT	KLATRO
PROJECT	FOREST LODGE WARRIEWOOD

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ABN 75 668 655 141
info@wsce.com.au



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**STORMWATER CATCHMENT
PLAN - SHEET 1**

SCALE AS SHOWN	DRAWN I.K.	DESIGNED I.O.	CHECKED J.G.	APPROVED J.G.
JOB No. 7368002		DRAWING No. C6.21		ISSUE 3
DATE SEPTEMBER 2023	STATUS ISSUE FOR \$4.56			

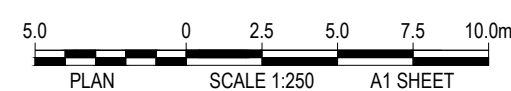
CATCHMENT LEGEND

	ROOF CATCHMENT
	ROAD CATCHMENT
	LANDSCAPED CATCHMENT
	MIXED CATCHMENT
	CATCHMENT TO HYDRAULIC



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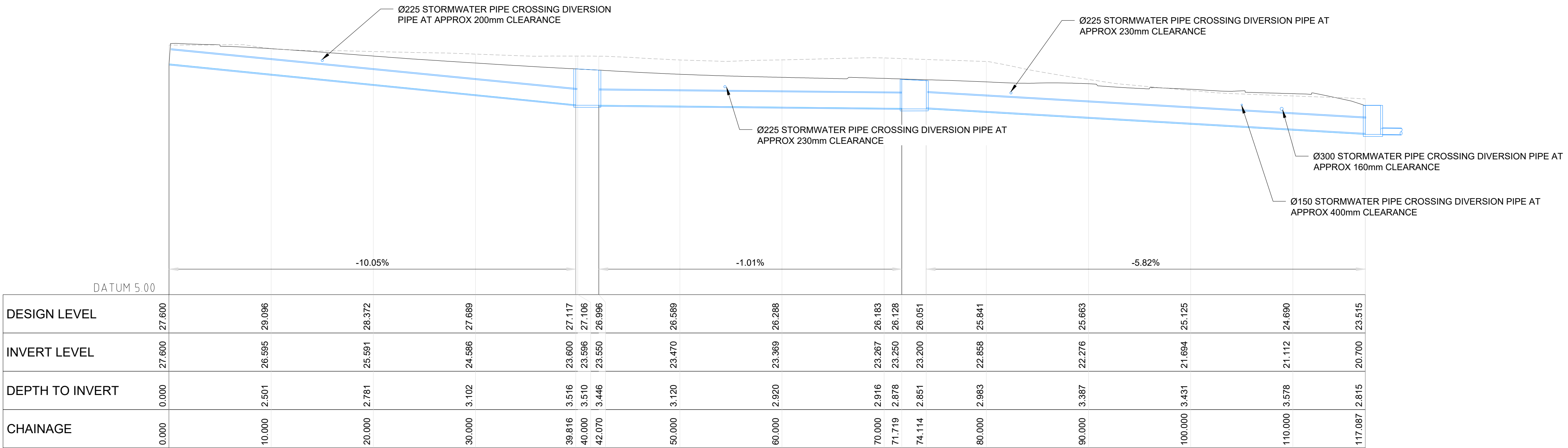
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TITLE				
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UPSTREAM DIVERSION PIPE DRAINAGE LONG SECTION

HORIZONTAL SCALE 1:250

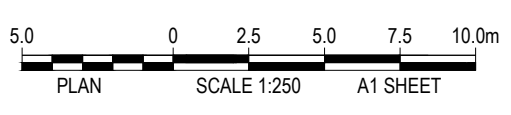
VERTICAL SCALE 1:250

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1	ISSUE FOR S4.56	03/11/23			
2	RE-ISSUE FOR S4.56	01/02/24			
3	ISSUE FOR S4.56	17/06/24			

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ACN 648 655 141
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