

No	APPROVED	AMENDMENTS	DATE
Z	KP	ISSUED AS RECORD DRAWING	2 OCT 2023
0	KP	ISSUED FOR CONSTRUCTION	30 OCT 2023
SURVEYED			
DRAWN			
DESIGNED			
CHECKED			
APPROVED			

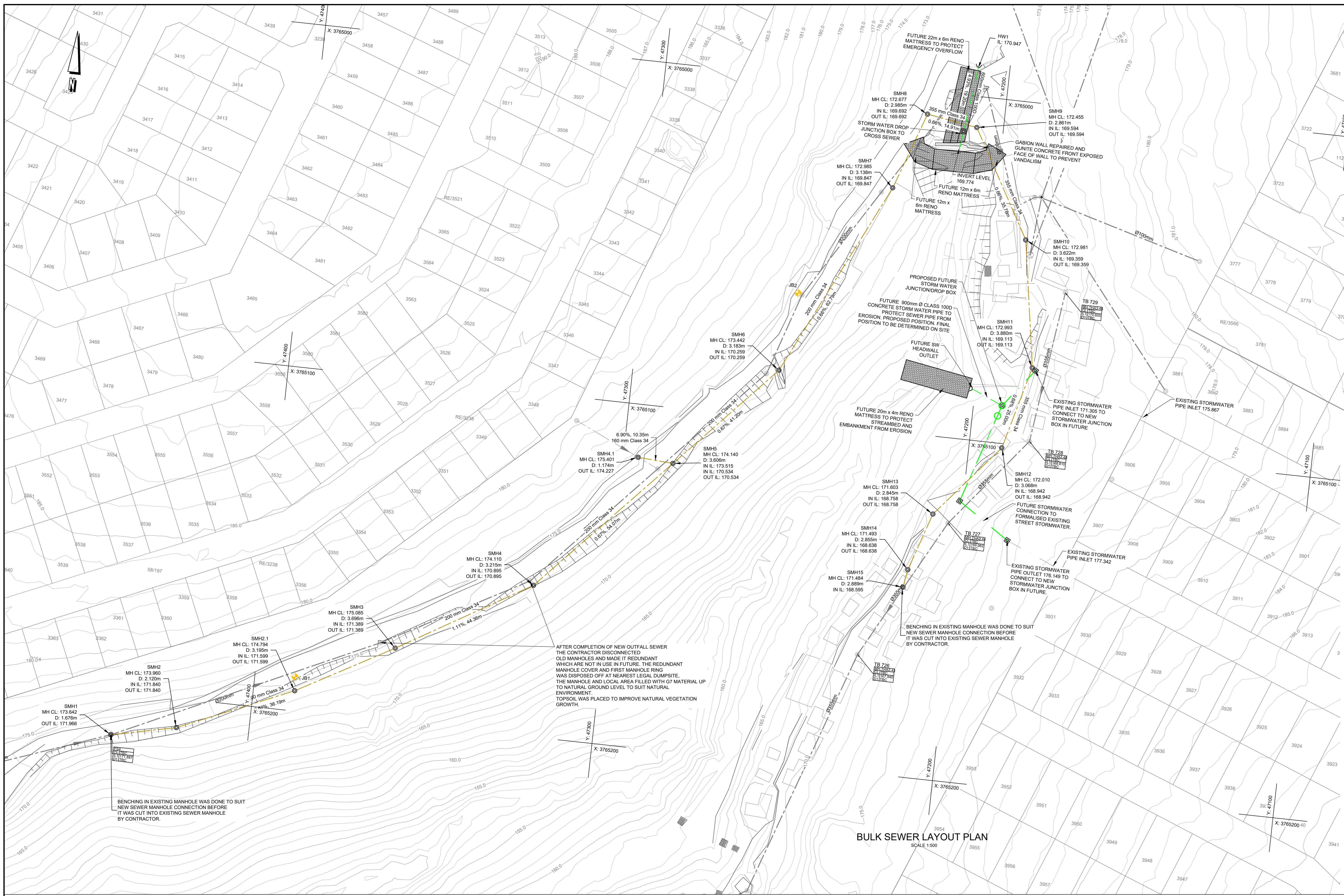
PROFESSIONAL REGISTRATION NO: 2017/0044 DATE: 02-10-2024

**LUKHOZI**  
 LUKHOZI CONSULTING ENGINEERS (PTY) LTD  
 ST JOHN'S PLACE, 8 ST JOHN'S STREET,  
 DORMALSDRIF, GEORGE  
 TEL: 044 058 4158  
 EMAIL: info@lukhozi.co.za  
 WEB: www.lukhozi.co.za

**GEORGE**  
 THE CITY OF RIVERS  
 GEORGE LOCAL MUNICIPALITY

PROJECT TITLE		
THEMBALETHU BULK SEWER PHASE 3&4: PORTION 1		
DRAWING TITLE		
PORTION 1 LOCALITY PLAN		
SCALE	SHEET SET	SHEET SIZE
1:500	SHEET 1 OF 1 SHEETS	A0
DRAWING No.		REVISION
1762-GEN-001		Z

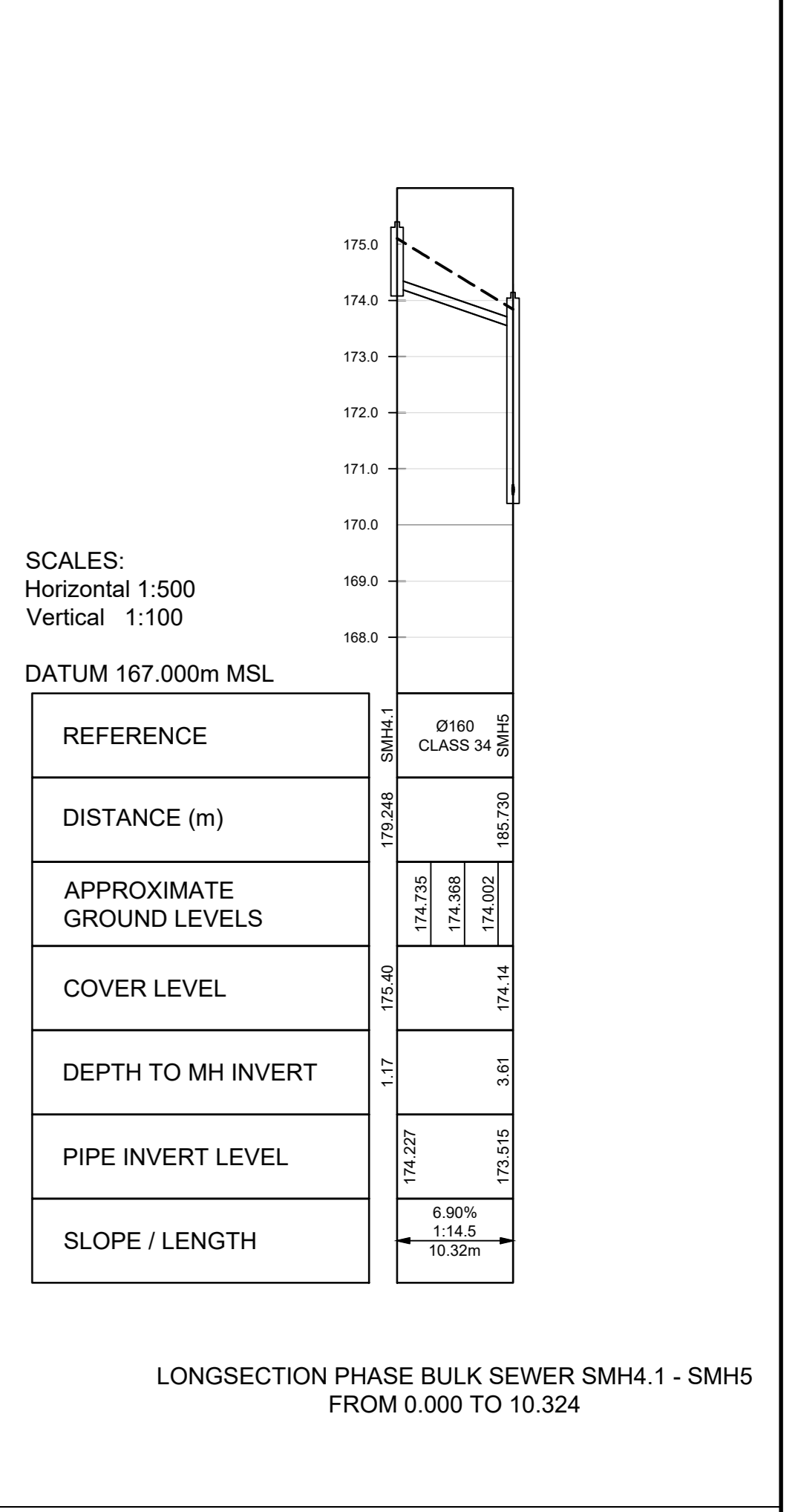




### STRUCTURE LIST-PHASE 1 BULK SEWER NETWORK

STRUCTURE NAME	Y	X	RIM ELEVATION	SUMP ELEVATION SUMP DEPTH	INVERT ELEVATION	MATERIAL
SMH1	47 499.935	3 765 212.627	173.942	171.966 1.976	P14-NV OUT 171.966	Upvc
SMH2	47 421.127	3 765 208.523	173.960	171.940 2.020	P14-NV IN 171.940 P3-NV OUT 171.940	Upvc
SMH2.1	47 387.938	3 765 194.084	174.794	171.599 3.195	P3-NV IN 171.599 P3 (4)-NV OUT 171.599	Upvc
SMH3	47 360.118	3 765 178.551	175.055	171.399 3.656	P3 (4)-NV IN 171.399 P4-NV OUT 171.389	Upvc
SMH4	47 321.955	3 765 155.944	174.110	170.855 3.215	P4-NV IN 170.855 P5-NV OUT 170.855	Upvc
SMH4.1	47 295.652	3 765 115.484	175.401	174.227 1.174	P29-NV OUT 174.227	Upvc
SMH5	47 285.350	3 765 116.154	174.140	170.534 3.606	P29-NV IN 173.515 P5-NV IN 170.534 P7-NV OUT 170.534	Upvc
SMH6	47 257.522	3 765 085.768	173.442	170.259 3.183	P7-NV IN 170.259 P8-NV OUT 170.259	Upvc
SMH7	47 230.263	3 765 029.209	172.985	169.847 2.995	P8-NV IN 169.847 P9-NV OUT 169.847	Upvc
SMH8	47 222.491	3 765 006.741	172.677	169.692 2.985	P6 (3)-NV IN 169.692 P10-NV OUT 169.692	Upvc
SMH9	47 207.759	3 765 009.063	172.455	169.594 2.861	P10-NV IN 169.594 P13-NV OUT 169.594	Upvc
SMH10	47 190.027	3 765 040.136	172.981	169.359 3.622	P13-NV IN 169.359 P13 (3)-NV OUT 169.359	Upvc
SMH11	47 184.070	3 765 077.059	172.993	169.113 3.880	P13 (3)-NV IN 169.113 P13 (1) (1)(10)-NV OUT 169.113	Upvc
SMH12	47 190.395	3 765 101.248	172.010	169.942 3.068	P13 (1) (1)(10)-NV IN 169.942 P13 (1) (1)(10) (4)-NV OUT 169.942	Upvc
SMH13	47 208.306	3 765 122.630	171.603	168.758 2.845	P13 (1) (1)(10) (4)-NV IN 168.758 P13 (1) (1)(10) (4) (1)-NV OUT 168.758	Upvc
SMH14	47 213.813	3 765 139.575	171.493	168.638 2.855	P13 (1) (1)(10) (4) (1)-NV IN 168.638 P13 (1) (1)(10) (4) (1) (1)-NV OUT 168.638	Upvc
SMH15	47 214.685	3 765 144.786	171.484	168.595 2.889	P13 (1) (1)(10) (4) (1) (1)-NV IN 168.595	Upvc

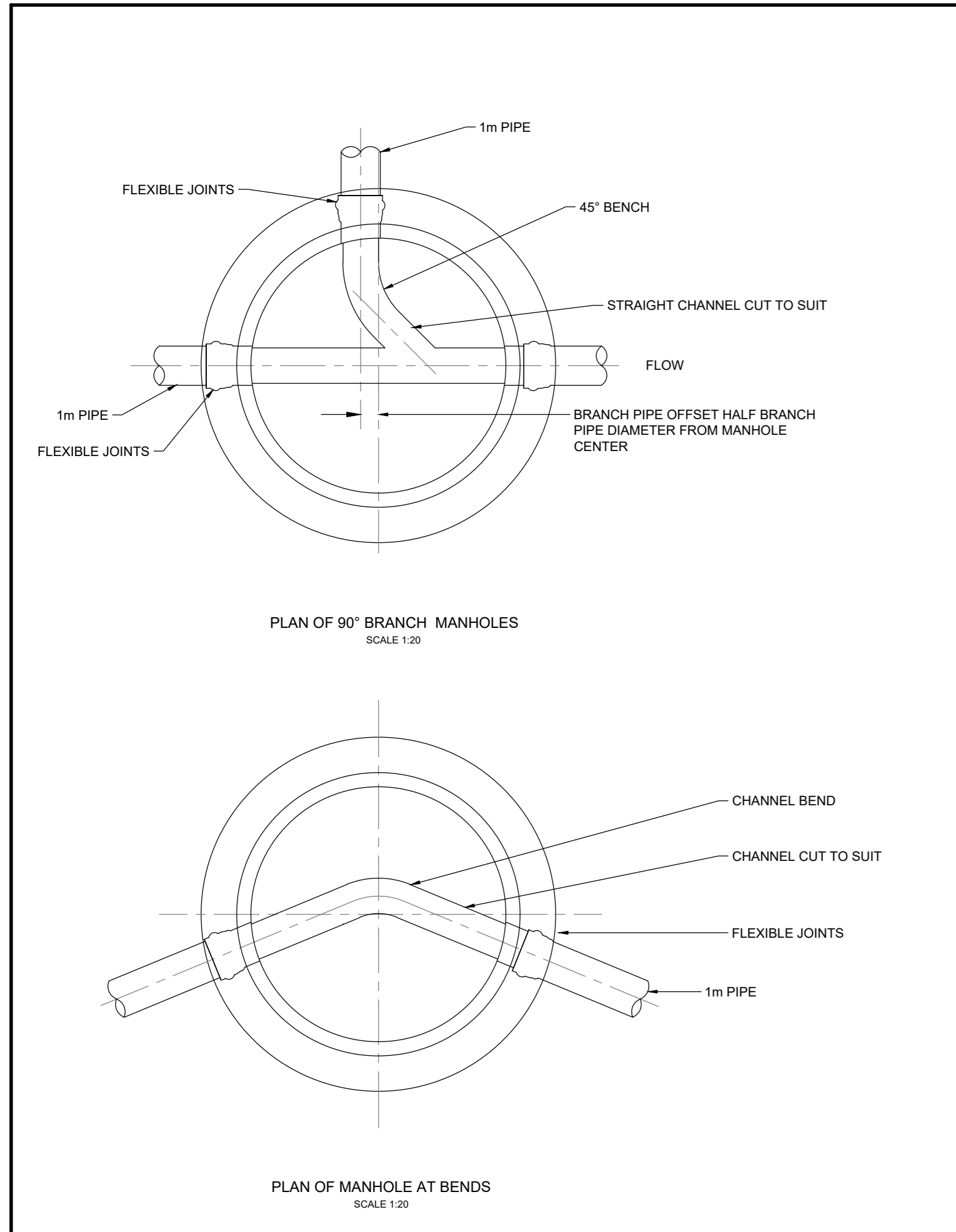
- #### LEGEND
- EXISTING SERVICES
    - SEWER PIPELINE
    - STORMWATER PIPELINE
    - SEWER MANHOLE
    - FENCE LINE
    - GATE
    - SLOOT
    - BENCHMARK
    - PAVED ROAD
    - EXISTING ROAD
    - GABIONS AND RENO MATRESSES
  - PROPOSED SERVICES
    - SEWER PIPELINE
    - SEWER MANHOLE
    - STORMWATER PIPELINE
    - STORMWATER HEADWALL
    - GABIONS AND RENO MATRESSES
- #### GENERAL NOTES:
- SURVEY COORDINATE SYSTEM: LO 23 HARTEBEESTHOEK 94.
  - ALL CONSTRUCTION WORK DONE IN ACCORDANCE WITH THE RELEVANT SANS 1200 SPECIFICATIONS FOR CIVIL ENGINEERING CONSTRUCTION AS AMENDED BY THE SCOPE OF WORKS.
  - ANY CONSTRUCTION DETAILS NOT SHOWN ON THE DRAWINGS WERE CONSTRUCTED IN ACCORDANCE WITH THE MUNICIPAL STANDARD DETAILS.
  - ALL SEWER CONNECTIONS 110mm UPVC CLASS 34, UNLESS OTHERWISE SHOWN OR REQUIRED.
  - THE CONTRACTOR WAS RESPONSIBLE TO VERIFY ALL LEVELS AND DIMENSIONS ON SITE PRIOR TO COMMENCING WITH ANY EXCAVATIONS.
  - THE EXACT POSITIONS AND LEVELS OF ALL EXISTING SERVICES WERE DETERMINED BY HAND EXCAVATION OR APPROVED LOCATION DEVICE BEFORE COMMENCING WITH CONSTRUCTION.
  - THE ENGINEER WAS CALLED TO INSPECT TRENCHES PRIOR TO ANY BACKFILL.
  - MATERIAL TESTS FOR CONSTRUCTION WORKS WERE SUBMITTED TO THE ENGINEER FOR APPROVAL.
  - ANY DISCREPANCIES WERE BROUGHT TO THE ENGINEER'S ATTENTION WHERE REQUIRED.
  - REFER TO DRAWING NO. 1762-GEN-001 FOR THE PORTION 1 LOCALITY PLAN.
  - REFER TO DRAWING NO. 1762-GEN-002 FOR EXISTING SERVICES LAYOUT.
  - REFER TO DRAWING NO. 1762-GEN-003 FOR SERVICES TYPICAL DETAILS.
  - SEWER GRAVITY PIPES 110mm, 200mm AND 300mm HEAVY DUTY CLASS 34 FOR SEWER BULK COLLECTOR, UNLESS OTHERWISE SHOWN OR REQUIRED.
  - SEWER MANHOLES CONSTRUCTED WHERE 1.0m DIAMETER PRECAST RINGS FOR PIPE DIAMETER UP TO 200mm AND 1.5m DIAMETER PRECAST RINGS FOR PIPE DIAMETER UP TO 300mm TO DEPTH IN ACCORDANCE WITH THE DESIGNS & DRAWINGS. FINISHED COVER LEVELS:
    - ROAD RESERVE - COVER 50mm ABOVE THE FINISHED ROAD SURFACE
    - OPEN SPACES - COVER ± 25-30mm ABOVE FINISHED GROUND LEVEL



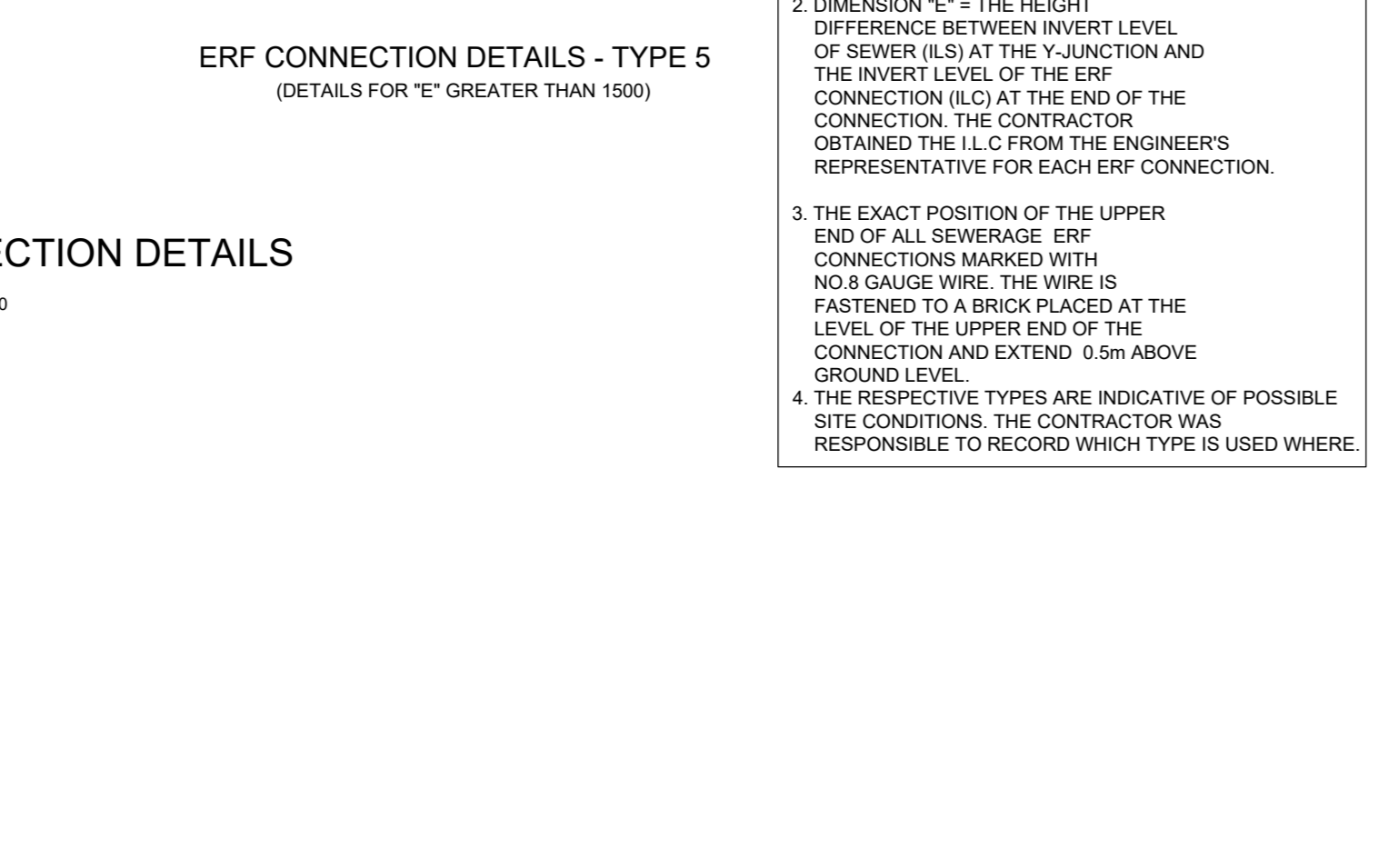
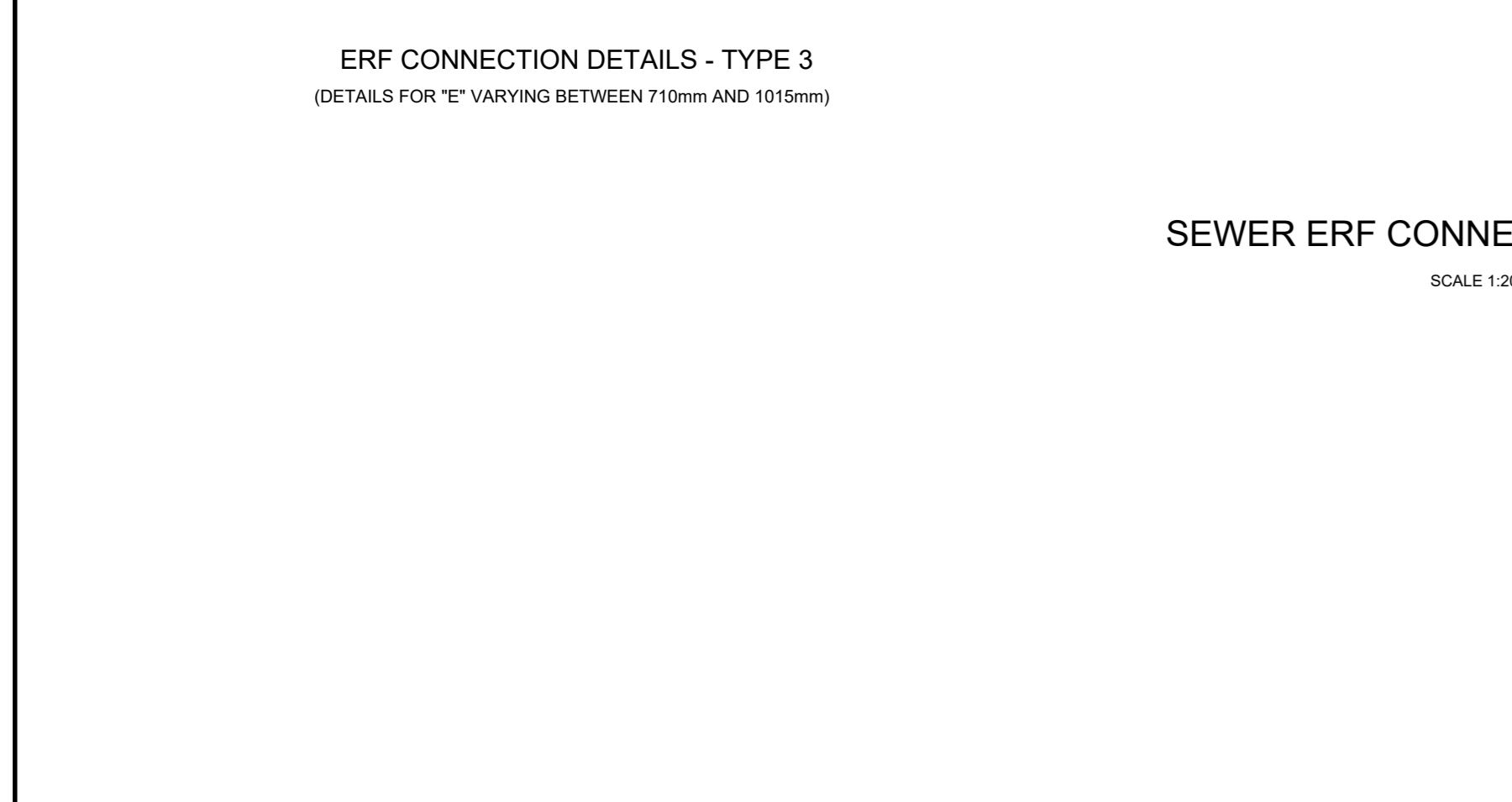
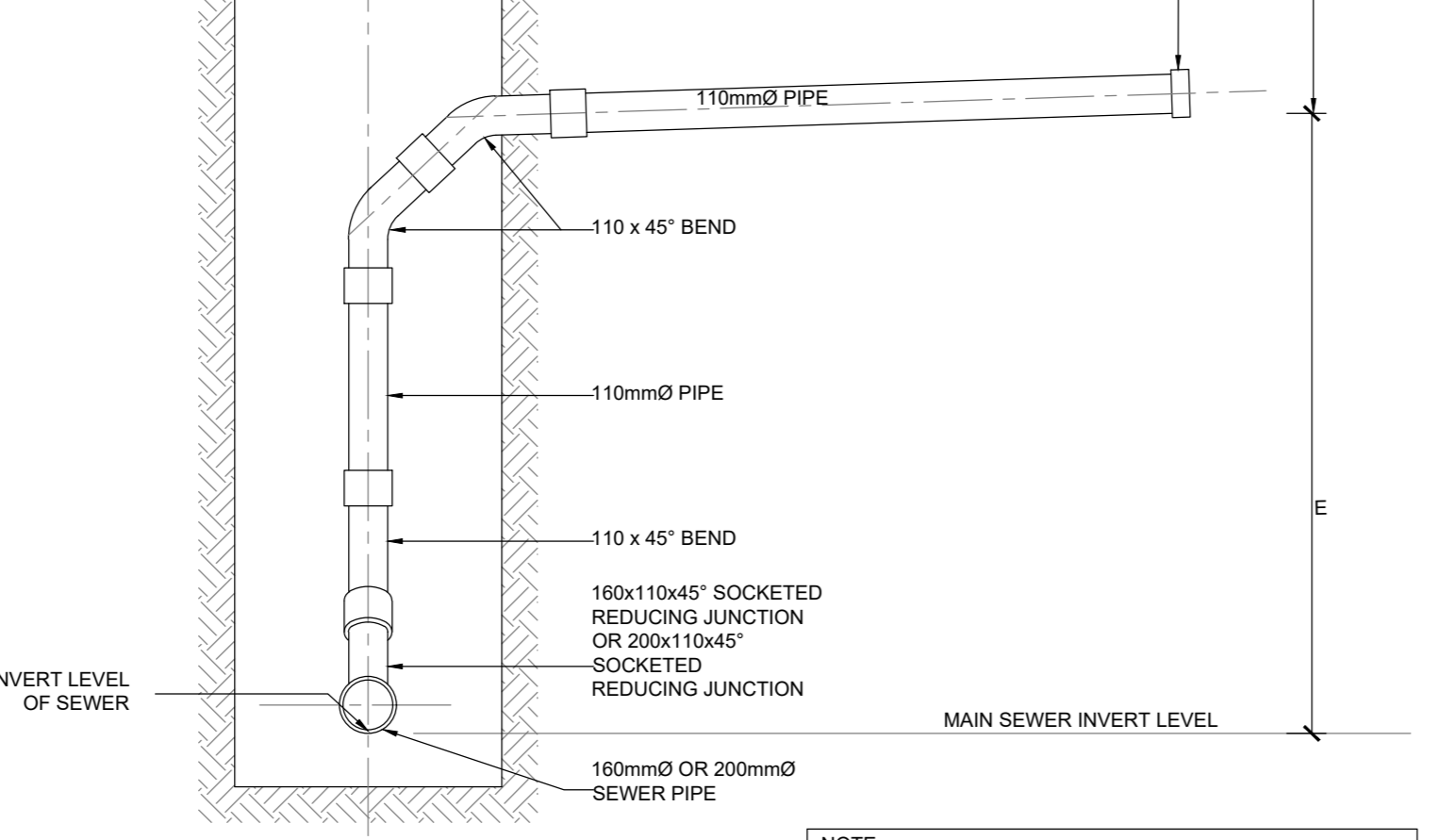
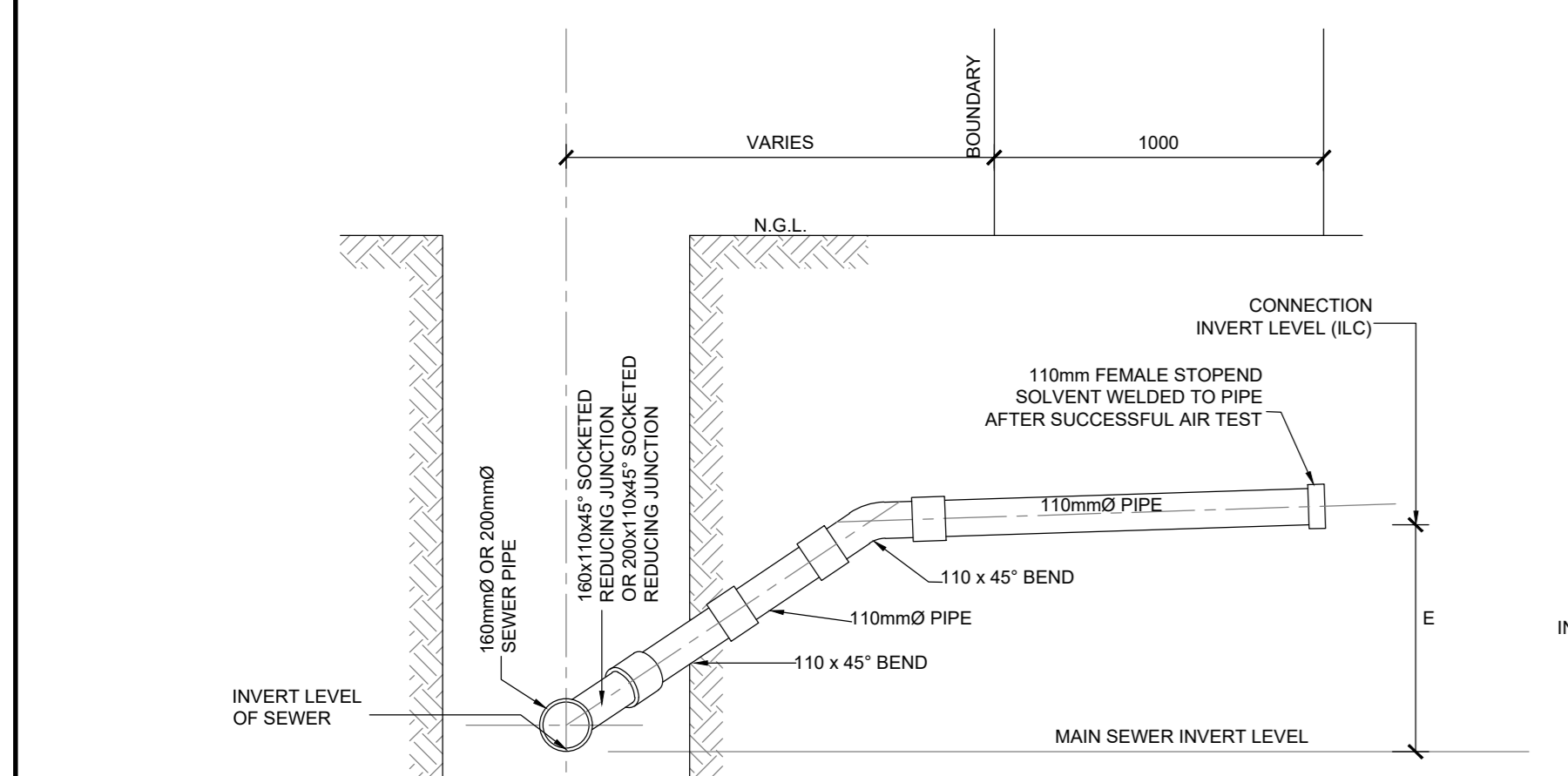
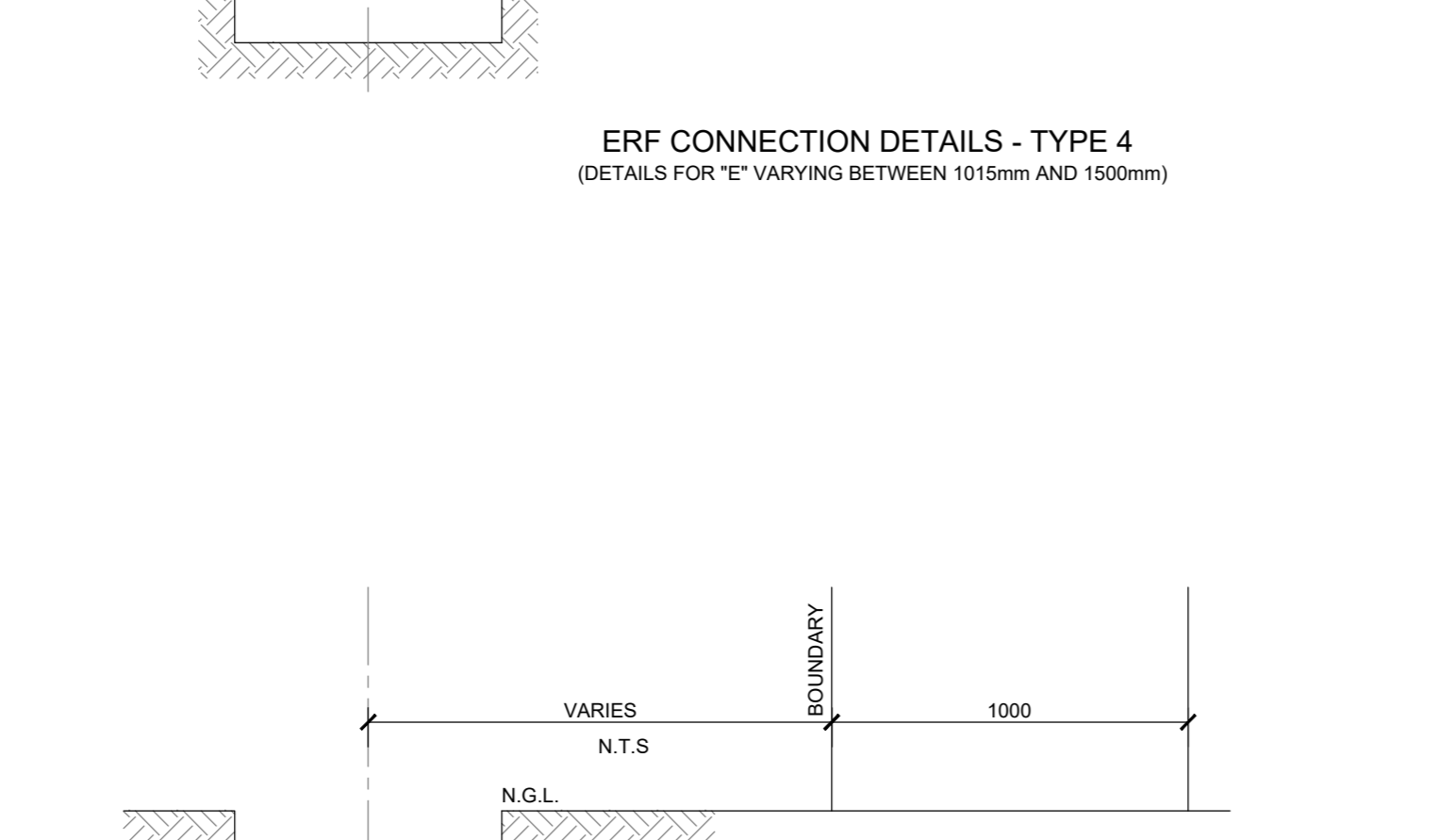
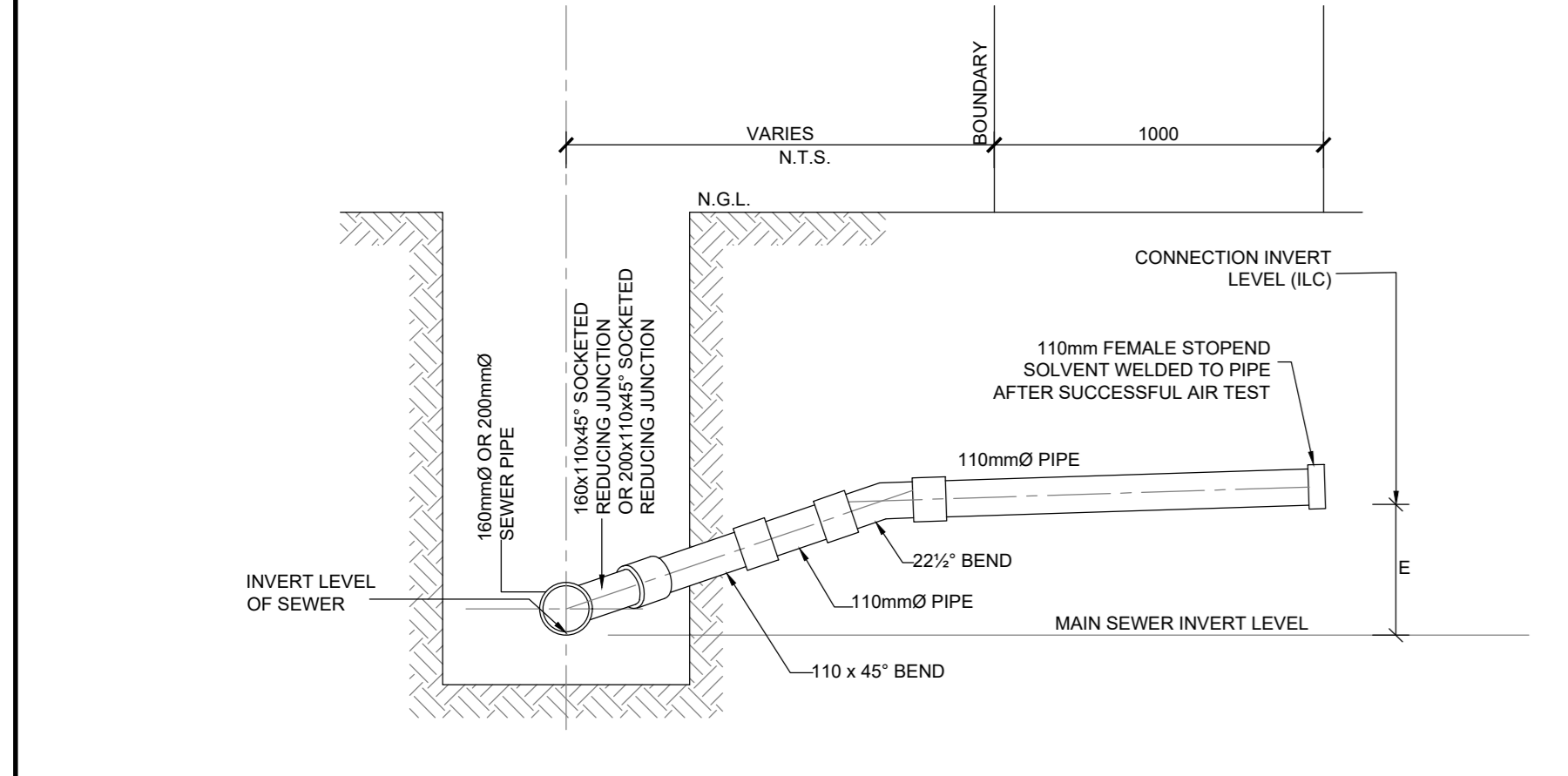
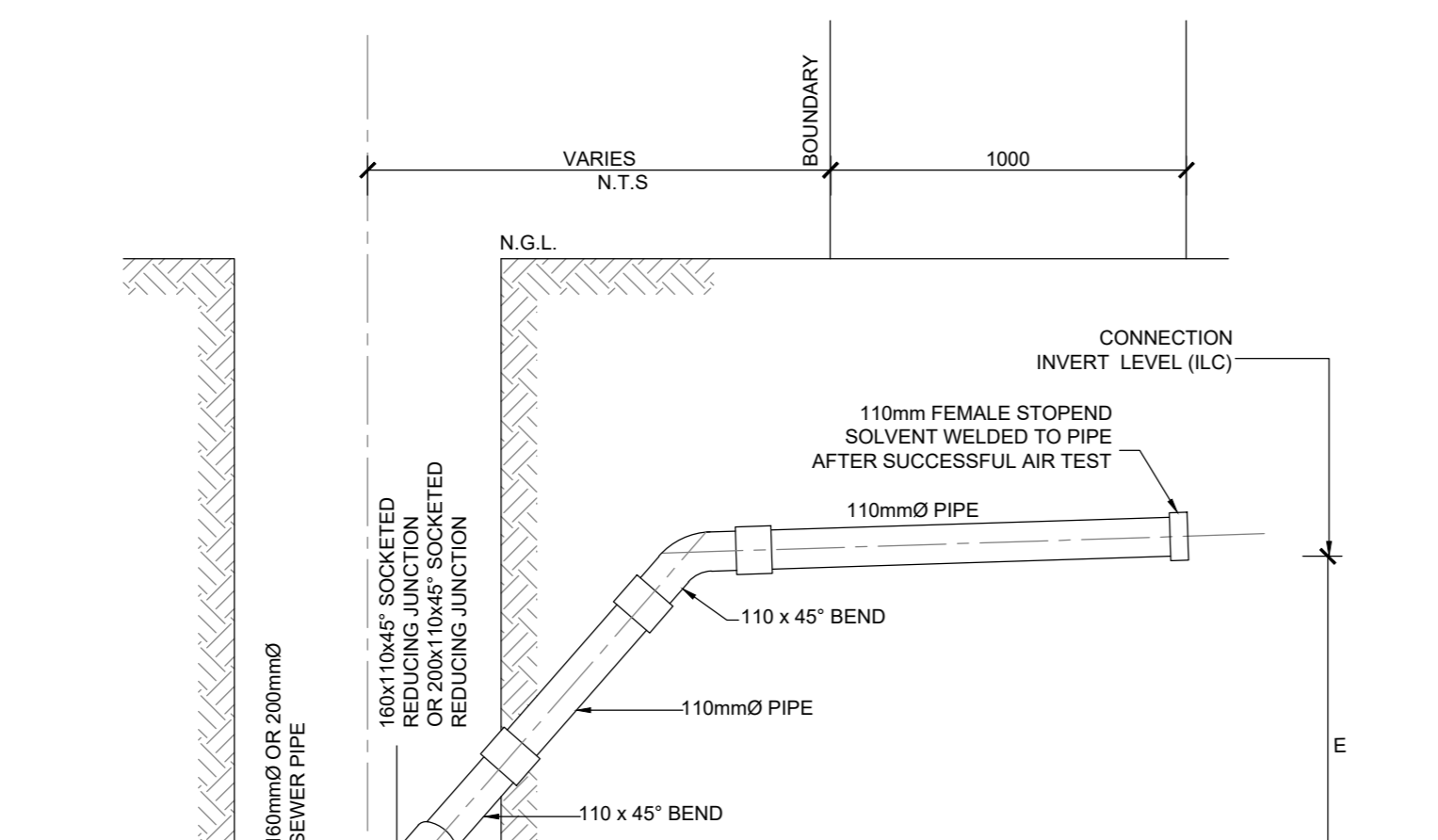
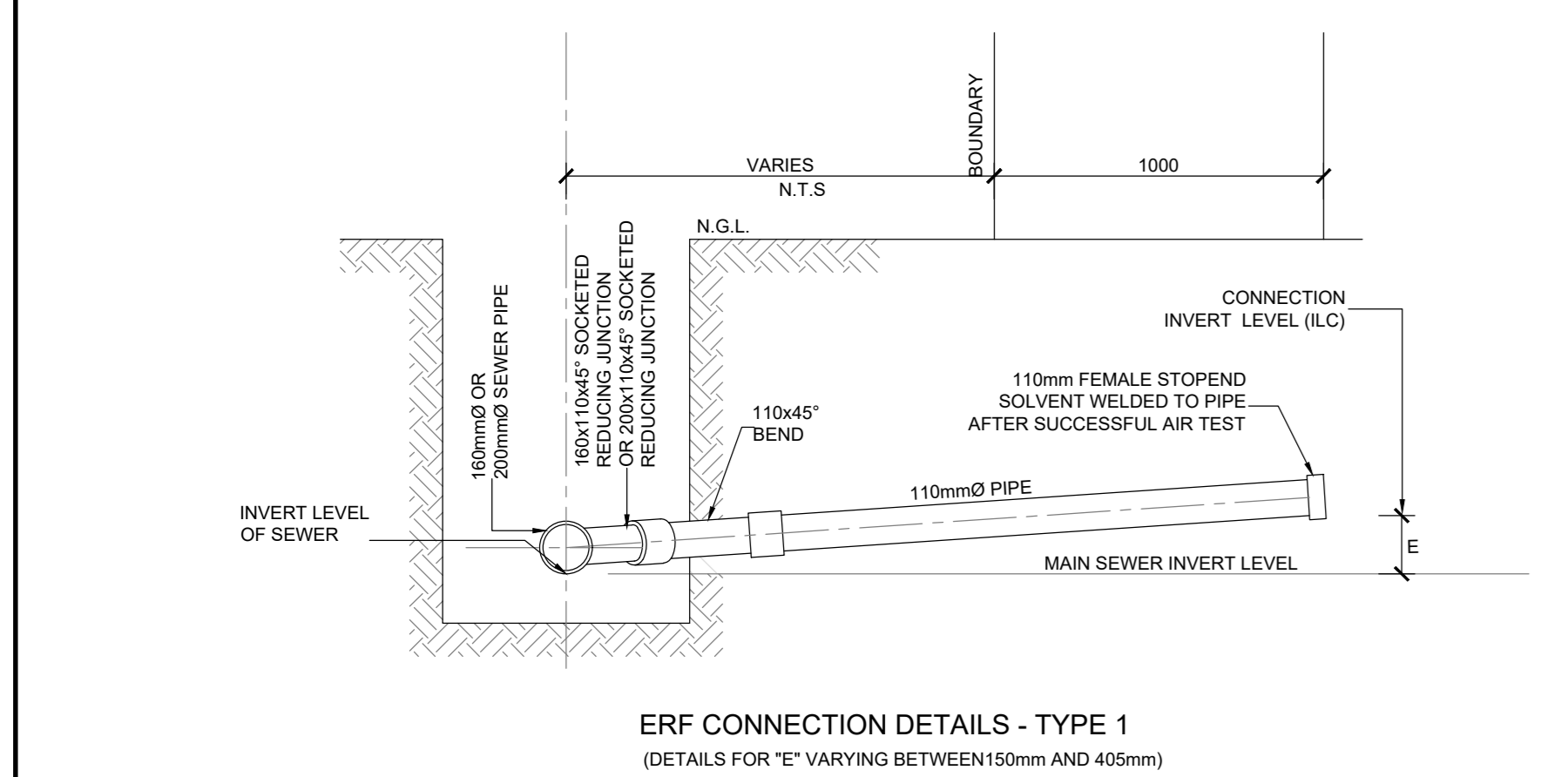
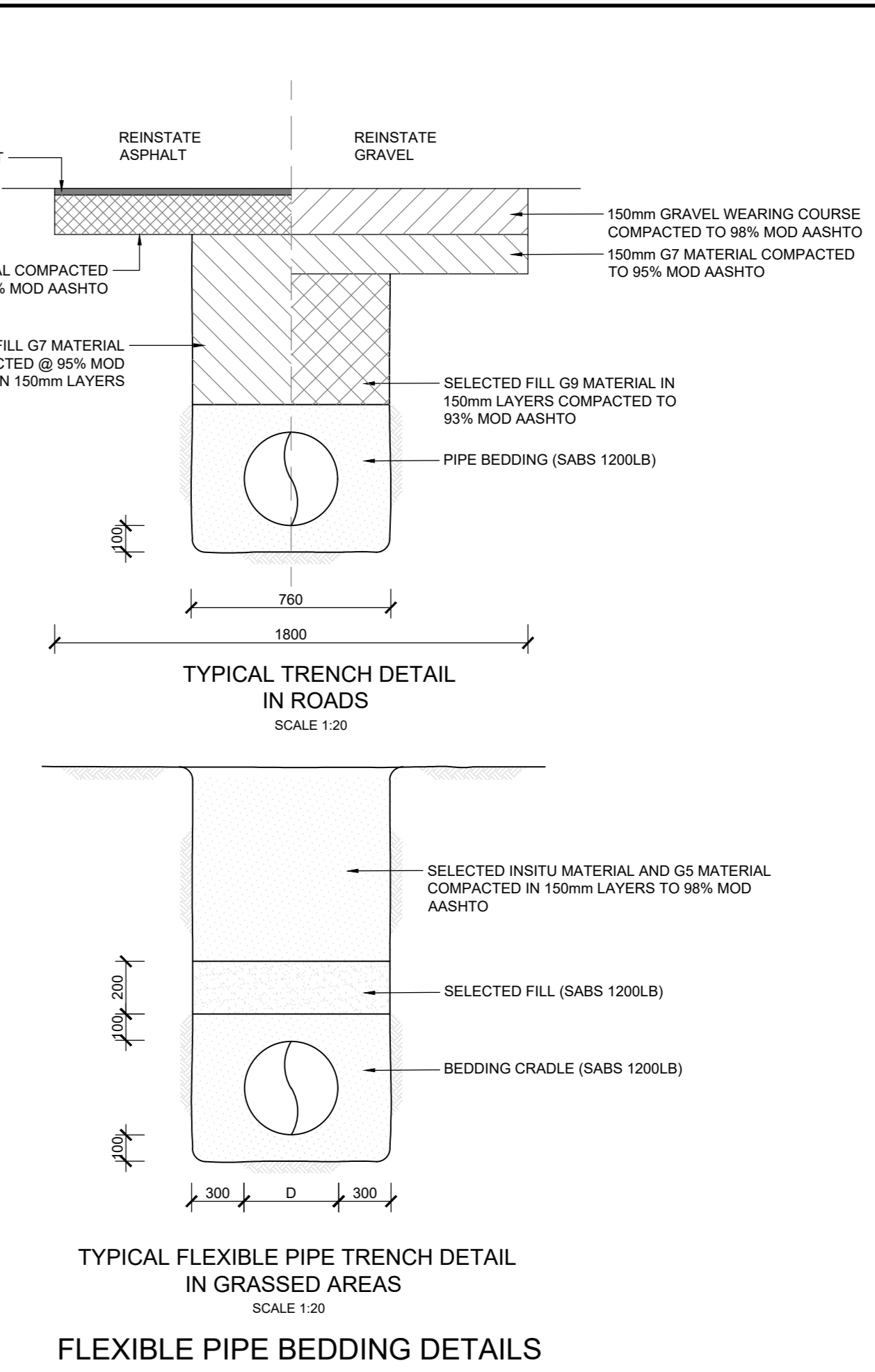
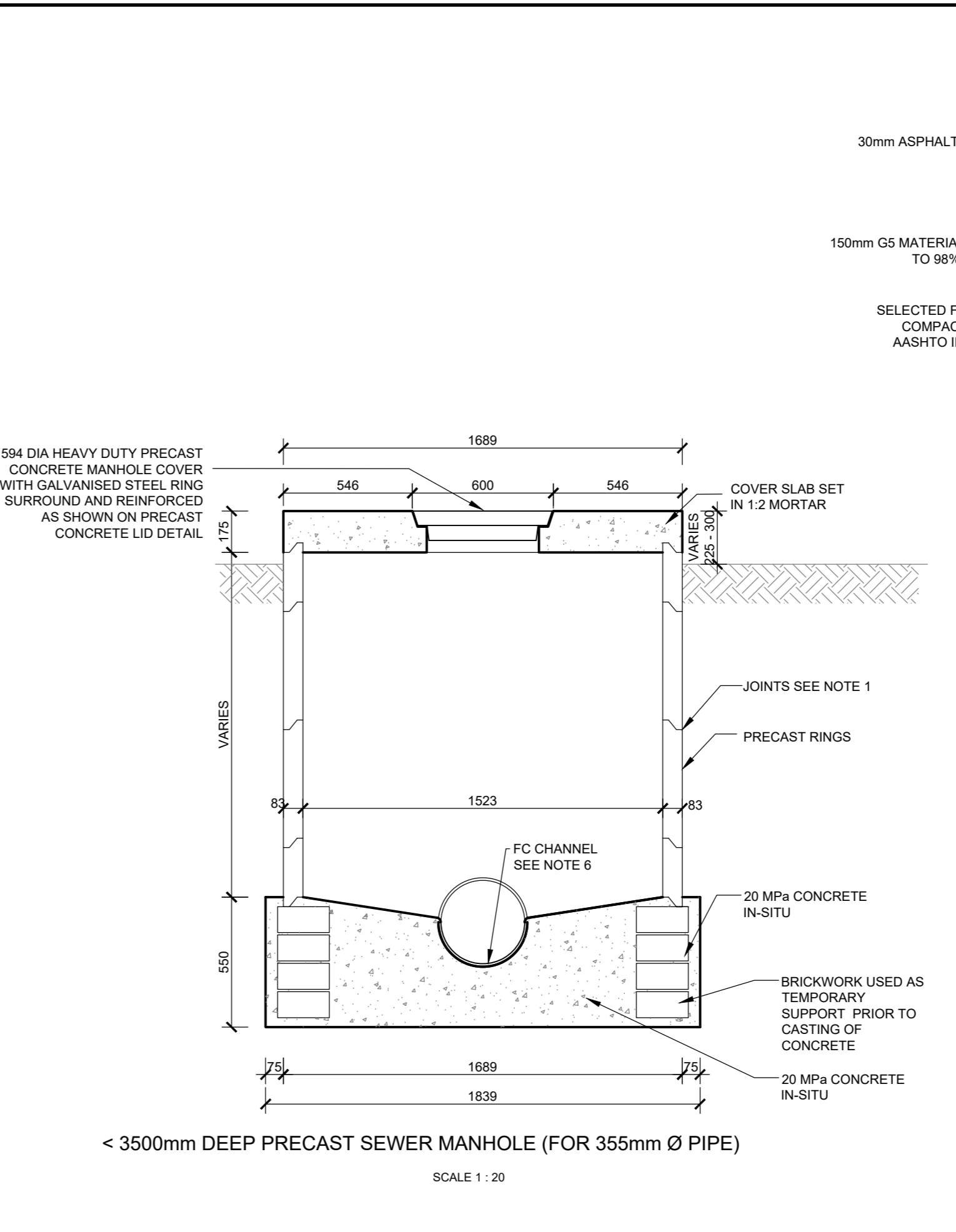
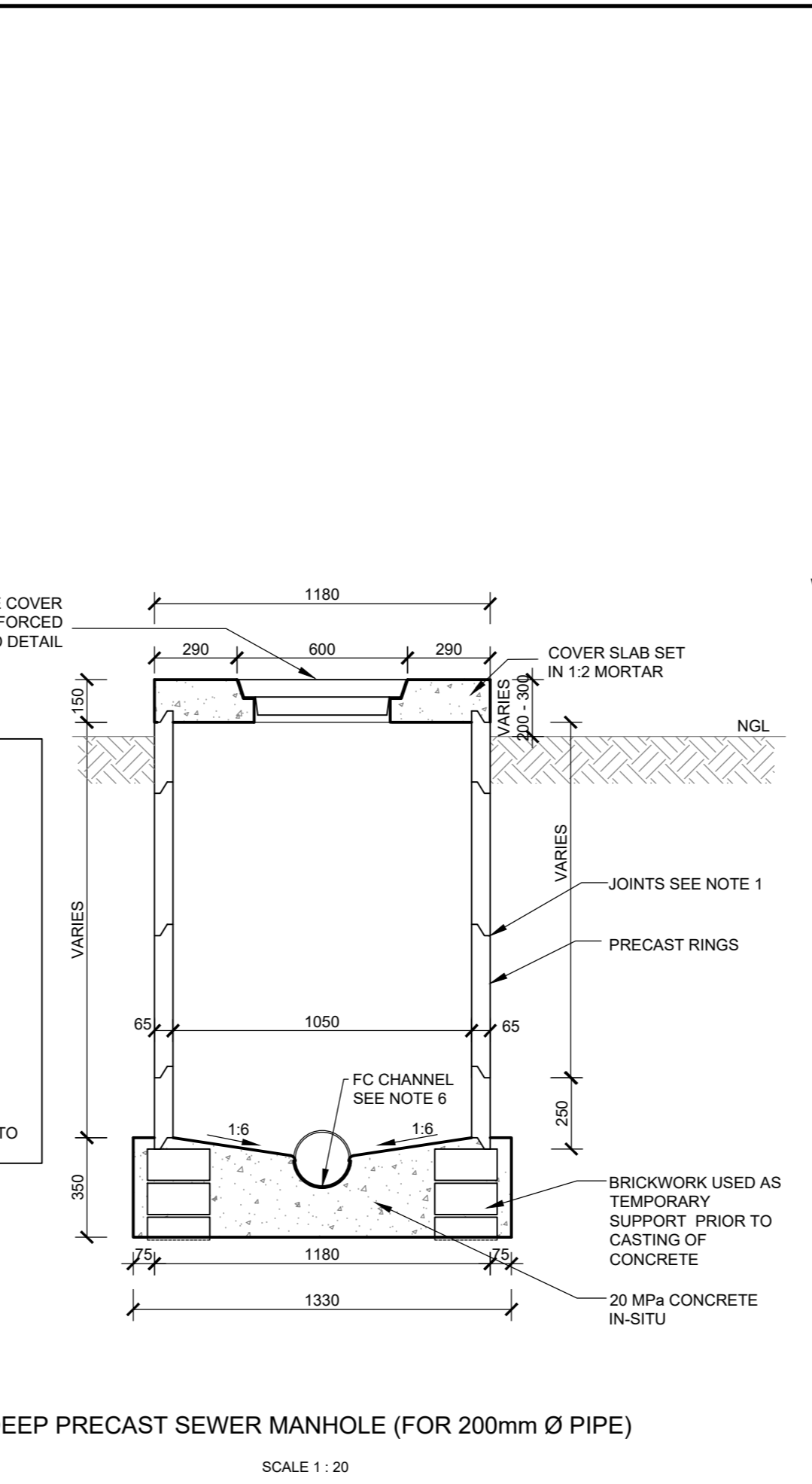
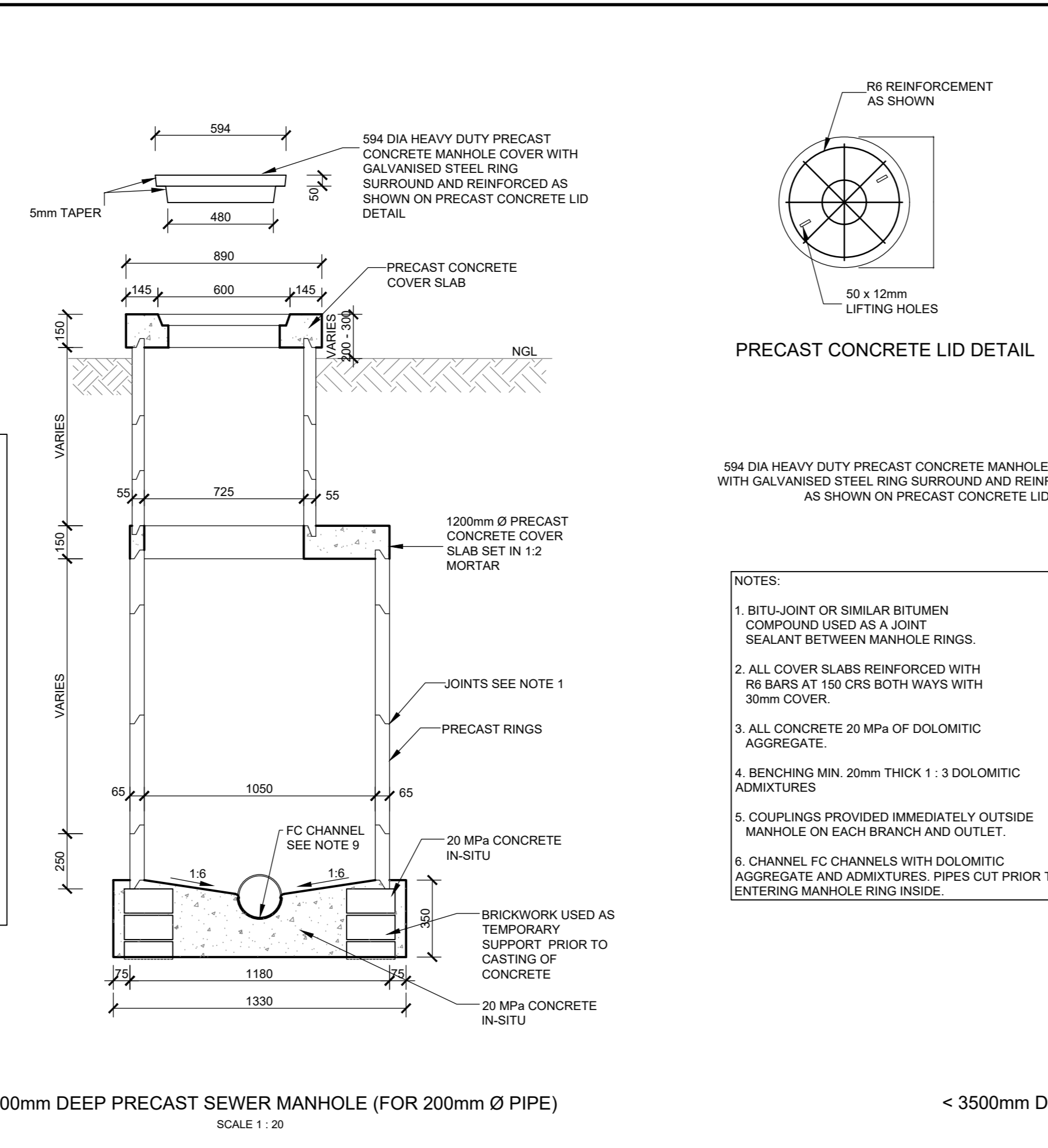
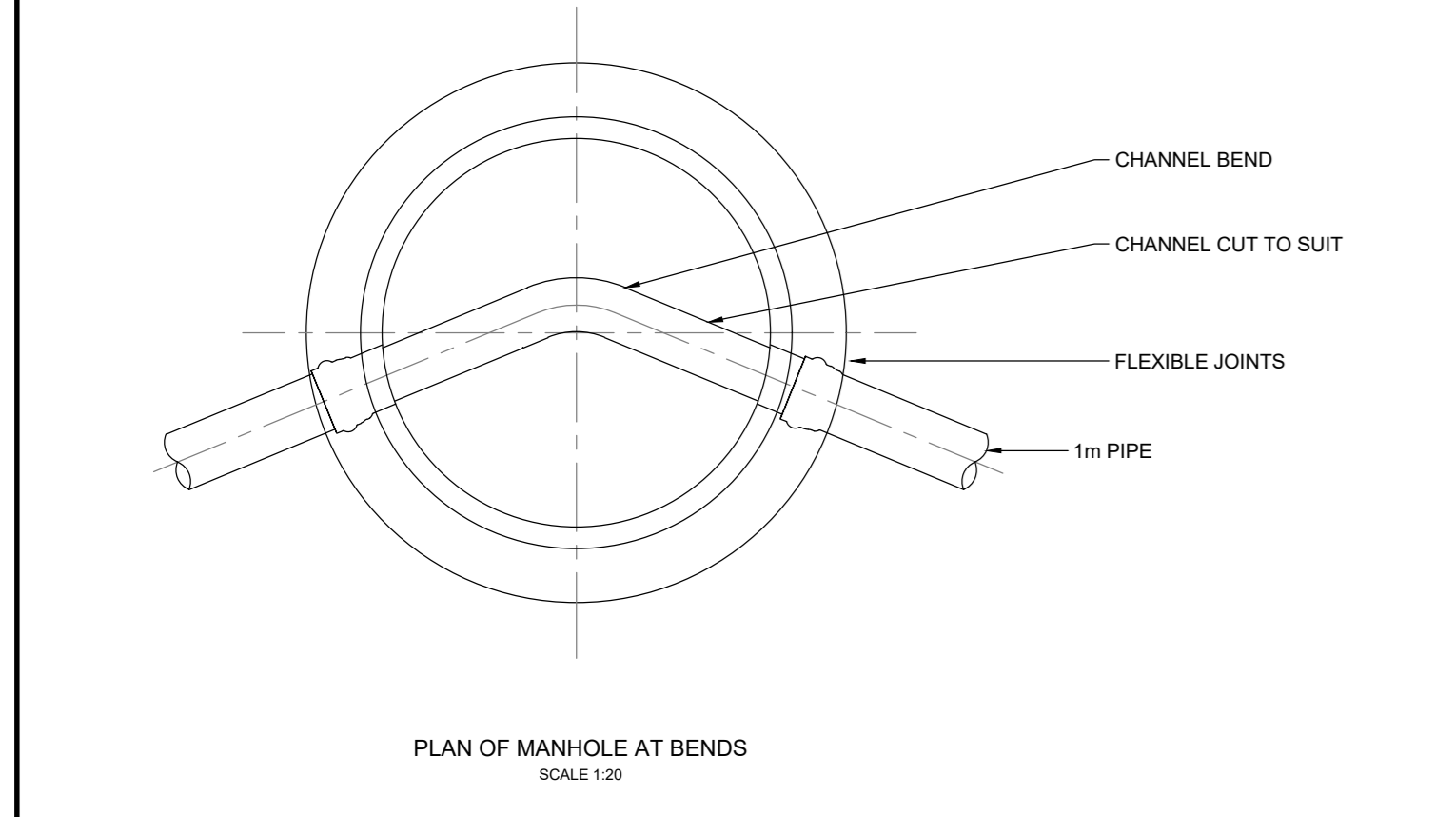
REFERENCE	DISTANCE (m)	APPROXIMATE GROUND LEVELS	COVER LEVEL	DEPTH TO MH INVERT	PIPE INVERT LEVEL	SLOPE / LENGTH
SMH1	0.000	173.962	173.962	1.976	171.986	0.65% 1:152.8 30.25m
SMH2	19.251	173.960	173.960	2.12	171.840	0.67% 1:150.2 36.19m
SMH2.1	56.444	174.794	174.794	3.20	171.599	0.67% 1:151.7 31.86m
SMH3	87.307	175.055	175.055	3.70	171.399	0.67% 1:149.8 54.07m
SMH4	131.683	174.110	174.110	3.22	170.895	0.67% 1:149.8 54.07m
SMH4.1	154.416	175.401	175.401	3.18	172.221	0.67% 1:149.8 54.07m
SMH5	195.720	174.140	174.140	3.61	170.534	0.67% 1:152.4 62.79m
SMH6	226.833	173.442	173.442	3.18	170.259	0.67% 1:152.4 62.79m
SMH7	269.178	172.985	172.985	3.14	169.847	0.67% 1:152.4 62.79m
SMH8	313.492	172.677	172.677	2.98	169.692	0.67% 1:152.4 62.79m
SMH9	357.806	172.455	172.455	2.96	169.594	0.67% 1:152.4 62.79m
SMH10	402.120	172.981	172.981	2.96	169.359	0.67% 1:152.4 62.79m
SMH11	446.434	172.993	172.993	3.88	169.113	0.67% 1:152.4 62.79m
SMH12	490.748	172.010	172.010	3.06	169.942	0.67% 1:148.2 29.00m
SMH13	535.062	171.603	171.603	2.84	168.758	0.67% 1:148.2 29.00m
SMH14	579.376	171.493	171.493	2.85	168.638	0.67% 1:148.2 29.00m
SMH15	623.690	171.484	171.484	2.89	168.595	0.67% 1:148.2 29.00m

No. APPROVED AMENDMENTS DATE SURVEYED JOUBERT & BRINK OCT 2023 0 KP ISSUED FOR CONSTRUCTION 30 OCT 2023 DRAWN S.KULLU OCT 2023 1 KP SEWER PIPELINE REVISED, STORMWATER LINE ADDED 23 NOV 2023 DESIGNED K.POTGIETER, S.KULLU OCT 2023 2 KP SEWER PIPELINE REVISED AND STORMWATER INCLUDED 15 JAN 2024 CHECKED K.POTGIETER OCT 2023 3 KP RENO MATRESS DETAILS AMENDED 10 SEP 2024 4 KP ISSUED AS RECORD DRAWING 2 OCT 2024	LUKHOZI CONSULTING ENGINEERS (PTY) LTD ST JOHN'S PLACE, 877 JOHNS STREET, DORNBURG, GEORGE TEL: 044 304 1111 FAX: 044 304 1112 WEB: www.lukhozi.co.za	CLIENT: GEORGE LOCAL MUNICIPALITY	PROJECT TITLE: THEMBALETHU BULK SEWER PHASE 3 & 4: PORTION 1	DRAWING TITLE: BULK SEWER LAYOUT PLAN	SCALE: AS SHOWN SHEET SET: SHEET 1 OF 1 SHEETS SHEET SIZE: A0	DRAWING NO.: 1762-SEW-001 REVISION: Z
---	--	-----------------------------------	--	---------------------------------------	---	---------------------------------------

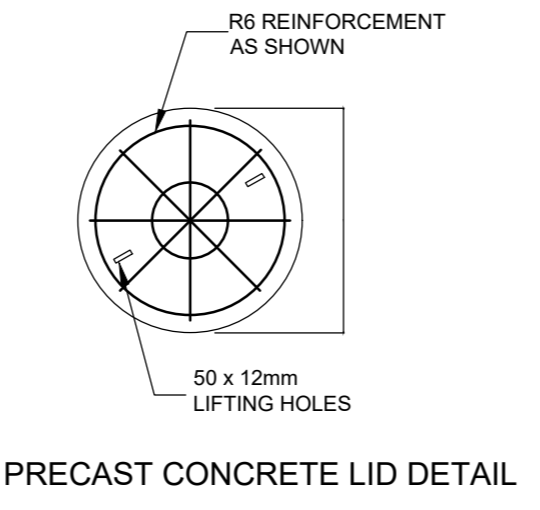
COPYRIGHT OF THIS DRAWING IS VESTED IN LUKHOZI CONSULTING ENGINEERS (PTY) LTD. THIS DRAWING FORMS PART OF THE CONSULTING ENGINEERING SERVICES PROVIDED FOR THE PROJECT STATED IN THE TITLE BLOCK, AND MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE OR PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF LUKHOZI CONSULTING ENGINEERS (PTY) LTD.



- NOTES:
1. 'CALCUMITE' STEP IRONS PROVIDED IN MANHOLES > 1.0m DEEP
  2. STEP IRONS STAGGERED AT 300mm CRS VERTICALLY AND 200mm CRS HORIZONTALLY STARTING 500mm BELOW COVER LEVEL
  3. BITU-JOINT OR SIMILAR BITUMEN COMPOUND USED AS A JOINT SEALANT BETWEEN MANHOLE RINGS
  4. ALL COVER SLABS REINFORCED WITH #12 BARS AT 150 CRS BOTH WAYS WITH 30mm COVER
  5. OPENING IN COVER SLABS OFFSET TO ONE SIDE
  6. ALL CONCRETE 20 MPa OF DOLOMITIC AGGREGATE + ADMIXTURES
  7. BENCHING MIN. 20mm THICK 1:3 DOLOMITIC ADMIXTURES
  8. COUPLINGS PROVIDED IMMEDIATELY OUTSIDE MANHOLE ON EACH BRANCH AND OUTLET
  9. CHANNEL FC CHANNELS WITH DOLOMITIC AGGREGATE AND ADMIXTURES. PIPES CUT PRIOR TO ENTERING MANHOLE RING INSIDE

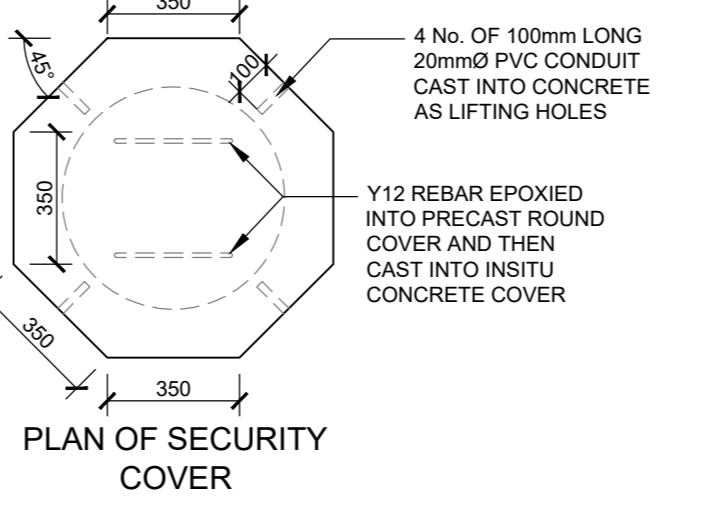


- NOTE:
1. PIPE MATERIAL USED FOR CONNECTION THE SAME AS SEWER
  2. DIMENSION 'E' = THE HEIGHT DIFFERENCE BETWEEN INVERT LEVEL OF SEWER (LS) AT THE JUNCTION AND THE INVERT LEVEL OF THE ERF CONNECTION (LC) AT THE END OF THE CONNECTION. THE CONTRACTOR OBTAINED THE (LC) FROM THE ENGINEER'S REPRESENTATIVE FOR EACH ERF CONNECTION
  3. THE EXACT POSITION OF THE UPPER END OF ALL SEWERAGE ERF CONNECTIONS MARKED WITH NO. 8 GAUGE WIRE. THE WIRE IS FASTENED TO A BRICK PLACED AT THE LEVEL OF THE UPPER END OF THE CONNECTION AND EXTEND 0.6m ABOVE GROUND LEVEL
  4. THE RESPECTIVE TYPES ARE INDICATIVE OF POSSIBLE SITE CONDITIONS. THE CONTRACTOR WAS RESPONSIBLE TO RECORD WHICH TYPE IS USED WHERE.

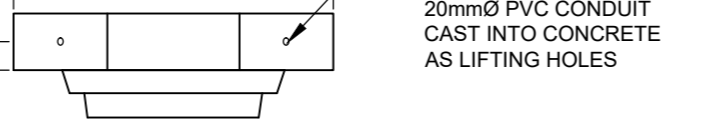


PRECAST CONCRETE LID DETAIL

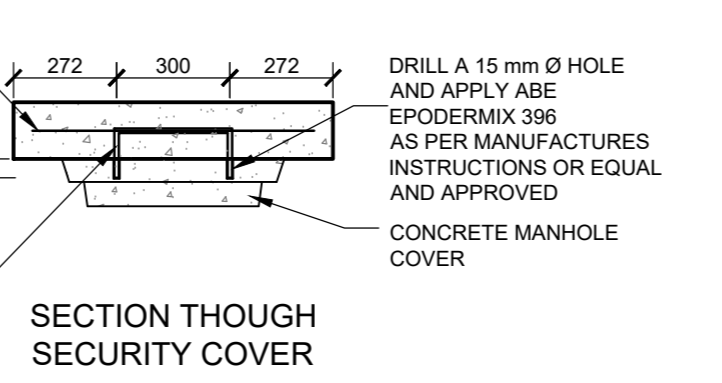
- NOTES:
1. BITU-JOINT OR SIMILAR BITUMEN COMPOUND USED AS A JOINT SEALANT BETWEEN MANHOLE RINGS
  2. ALL COVER SLABS REINFORCED WITH #6 BARS AT 150 CRS BOTH WAYS WITH 30mm COVER
  3. ALL CONCRETE 20 MPa OF DOLOMITIC AGGREGATE
  4. BENCHING MIN. 20mm THICK 1:3 DOLOMITIC ADMIXTURES
  5. COUPLINGS PROVIDED IMMEDIATELY OUTSIDE MANHOLE ON EACH BRANCH AND OUTLET
  6. CHANNEL FC CHANNELS WITH DOLOMITIC AGGREGATE AND ADMIXTURES. PIPES CUT PRIOR TO ENTERING MANHOLE RING INSIDE



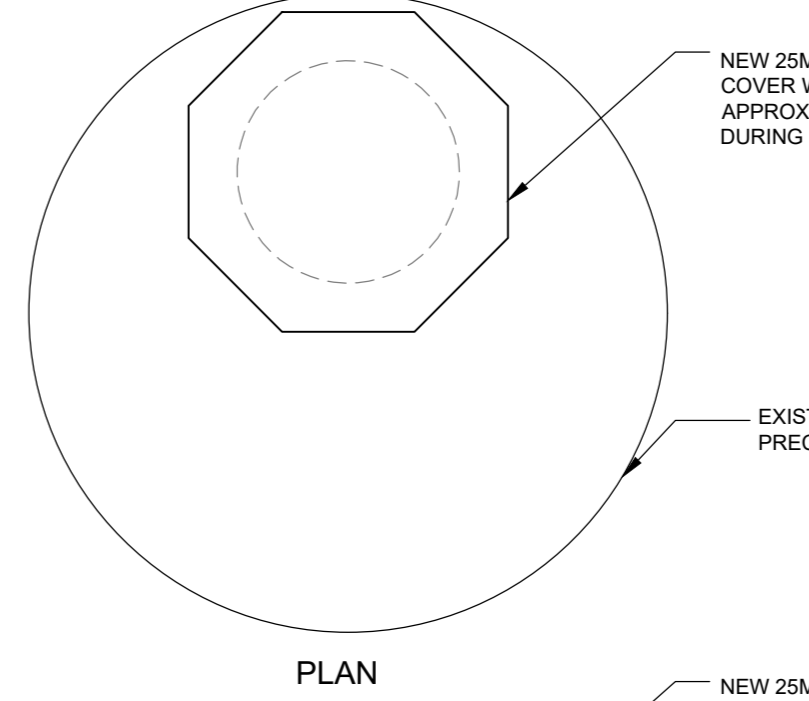
PLAN OF SECURITY COVER



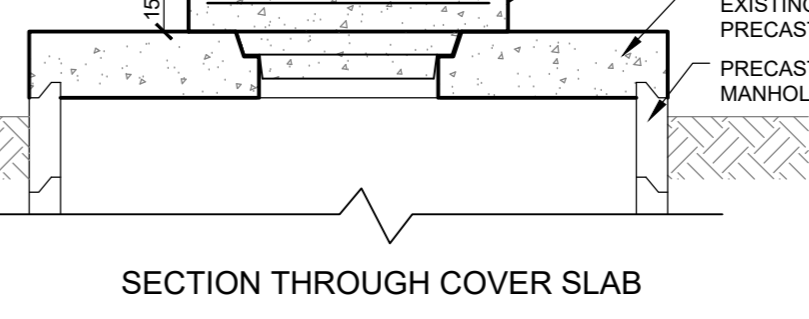
FRONT VIEW OF SECURITY COVER



SECTION THROUGH SECURITY COVER

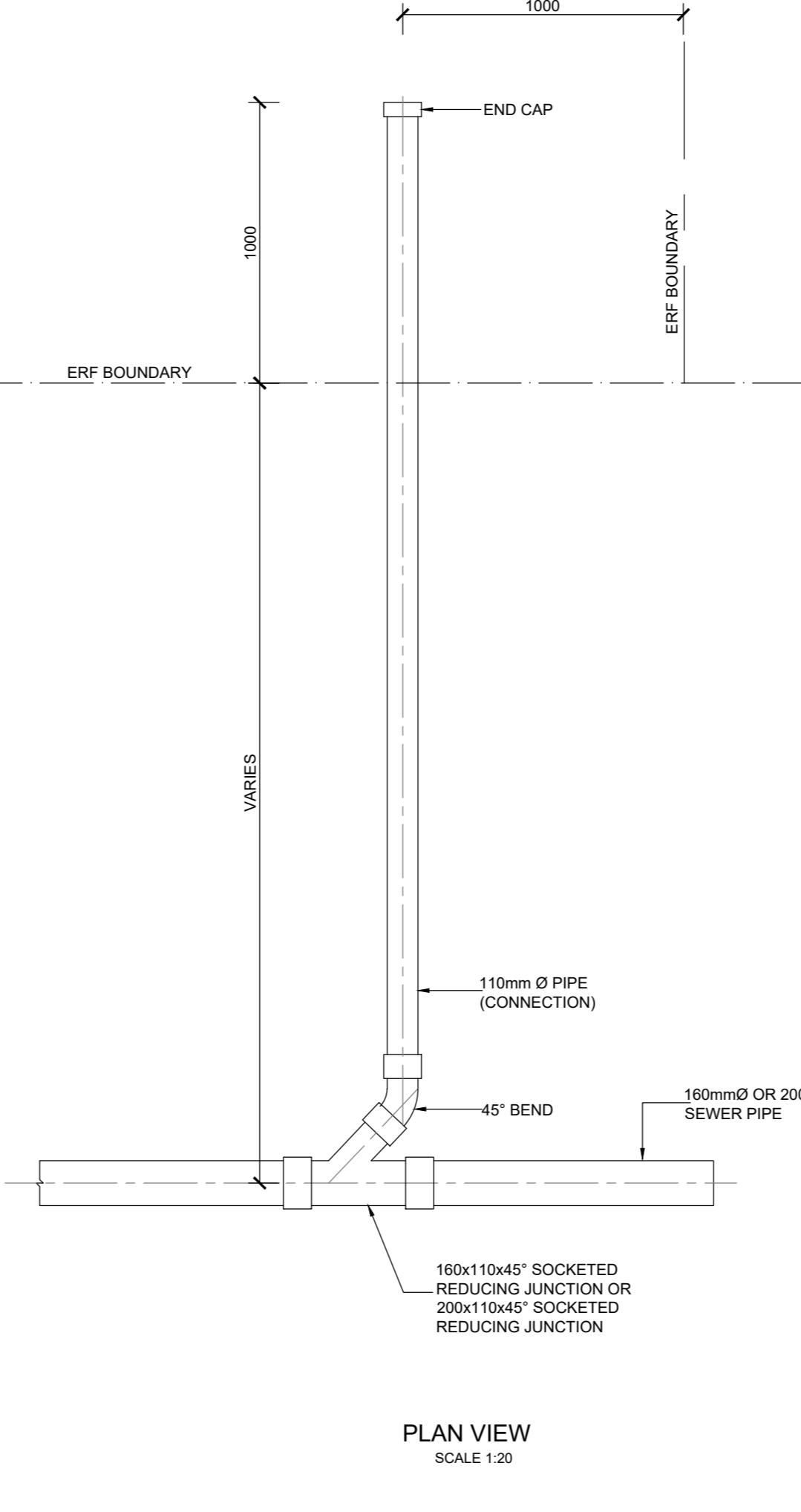


CONCRETE SECURITY COVER FOR MANHOLE COVERS ON PIPE 355mm Ø DIAMETER SCALE 1:20

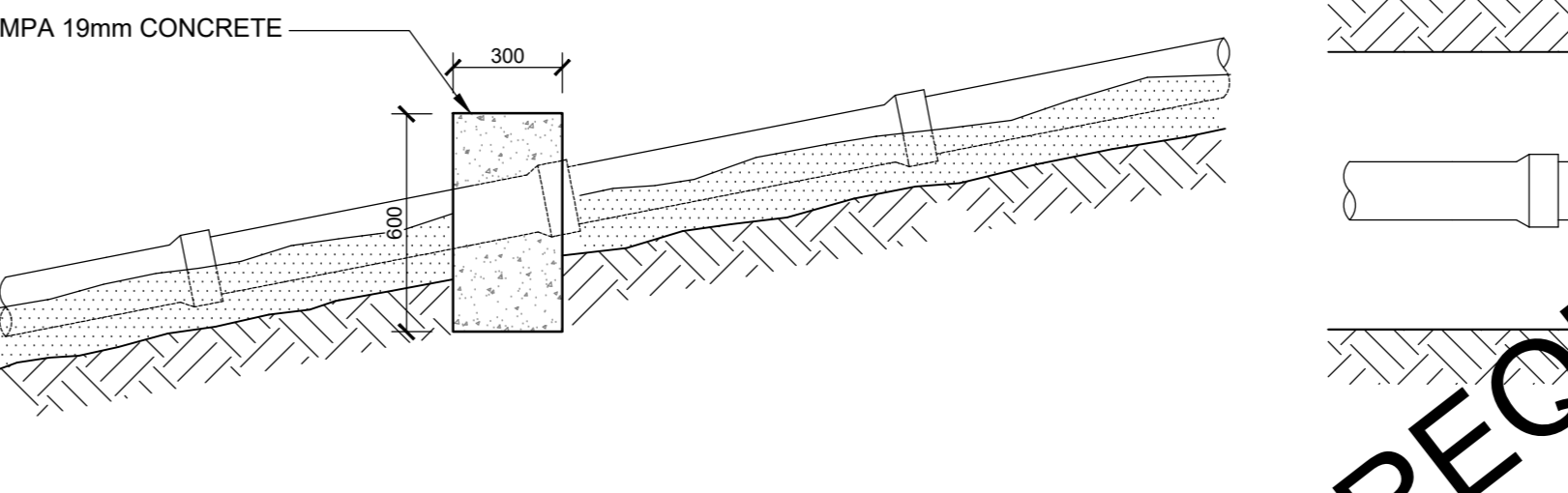


SECTION THROUGH COVER SLAB

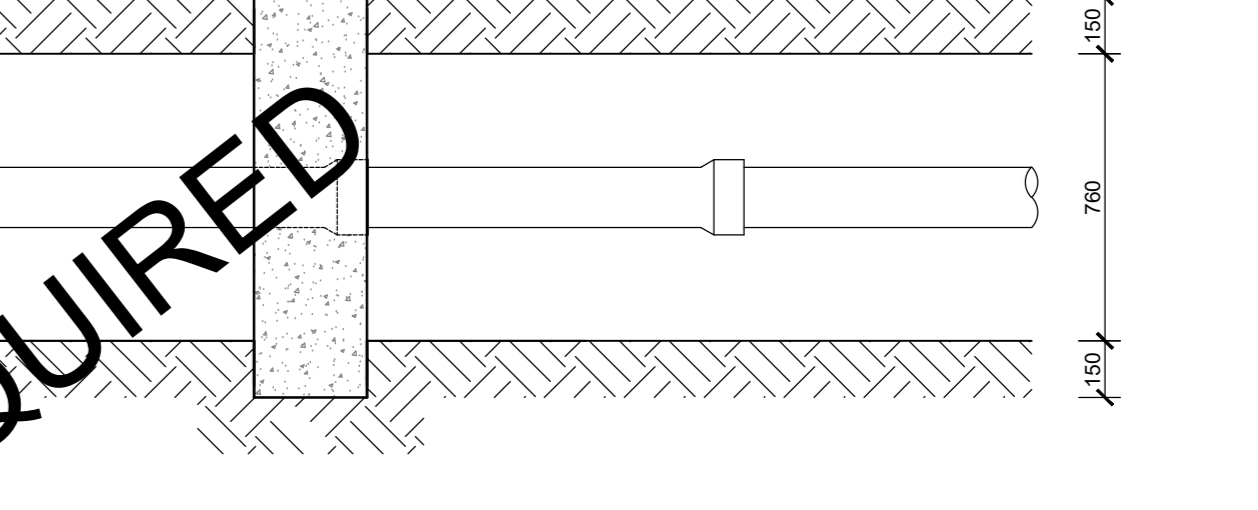
CONCRETE SECURITY COVER FOR MANHOLE COVERS ON PIPE 355mm Ø DIAMETER SCALE 1:20



PLAN VIEW SCALE 1:20



SECTION: ANCHOR BLOCK (STEEPER THAN 10%) SCALE 1:20



PLAN: ANCHOR BLOCK (STEEPER THAN 10%) SCALE 1:20

WAS NOT REQUIRED

No	APPROVED	AMENDMENTS	DATE
Z	KP	ISSUED AS RECORD DRAWING	1 OCT 2024
0	KP	ISSUED FOR CONSTRUCTION	30 OCT 2023
70	KP	ISSUED FOR TENDER	OCT 2023
P0	KP	ISSUED FOR INFORMATION	NOV 2023

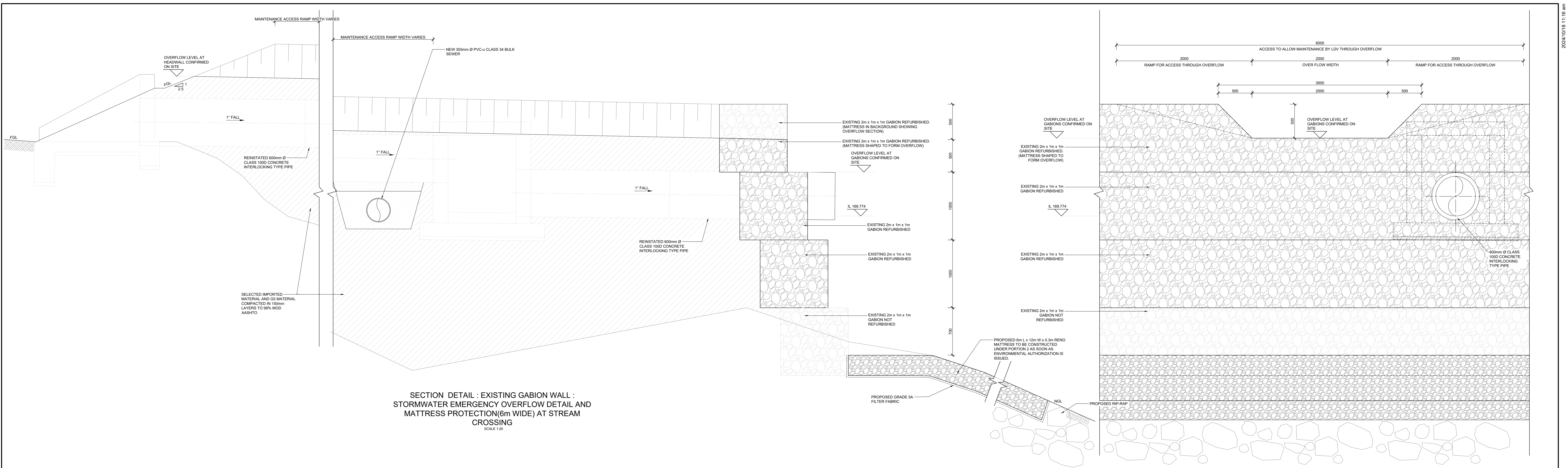
NO	APPROVED	AMENDMENTS	DATE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

PROJ REGISTRATION NO. 201712044 DATE: 01-10-2024

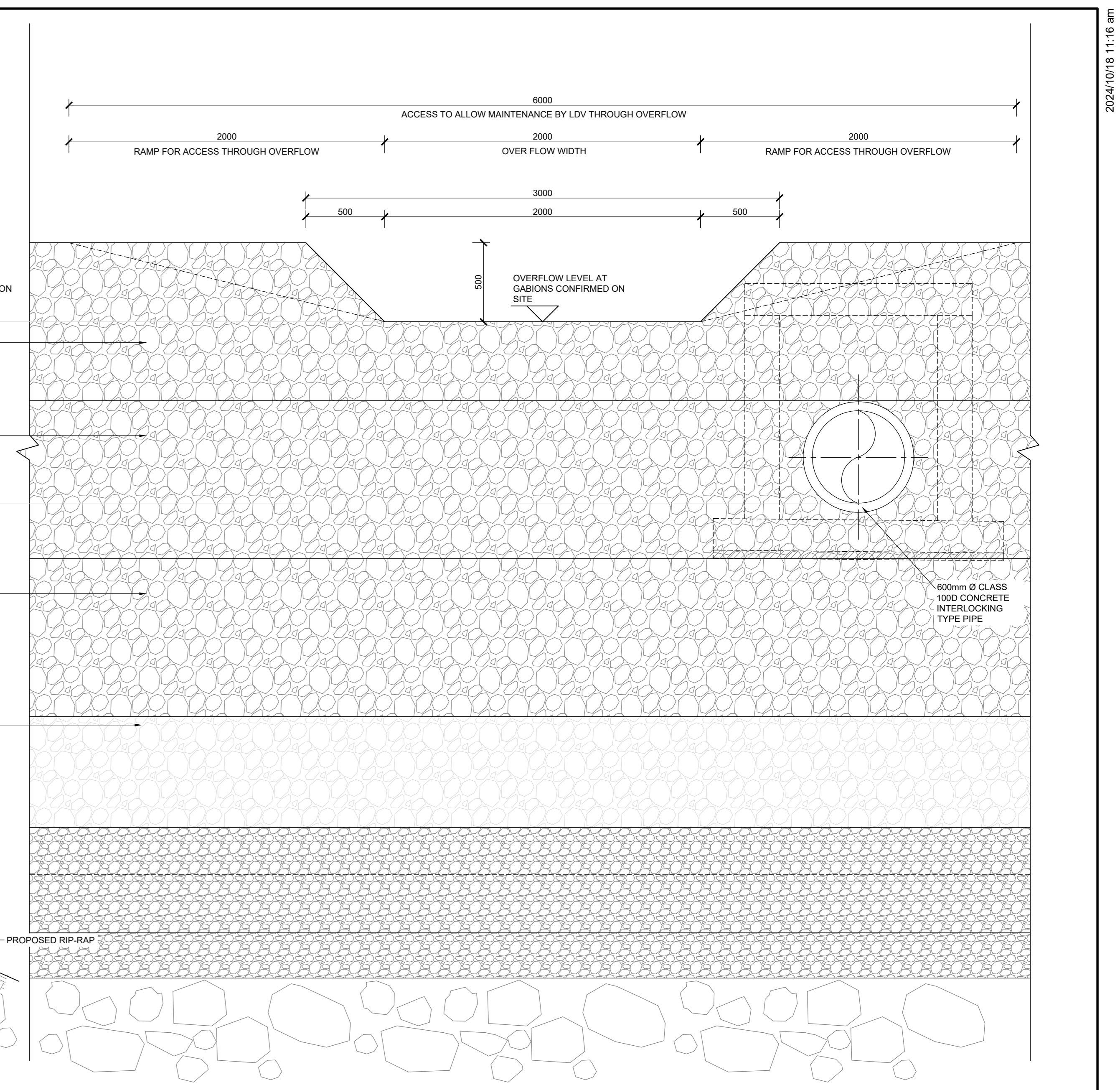
LUKHOZI CONSULTING ENGINEERS (PTY) LTD  
 ST JOHN'S PLACE, 8 ST JOHN'S STREET, DORMELSDORF - GEORGE  
 TEL: 044 059 4158  
 EMAIL: g@lukhozi.co.za  
 WEB: www.lukhozi.co.za

GEORGE LOCAL MUNICIPALITY

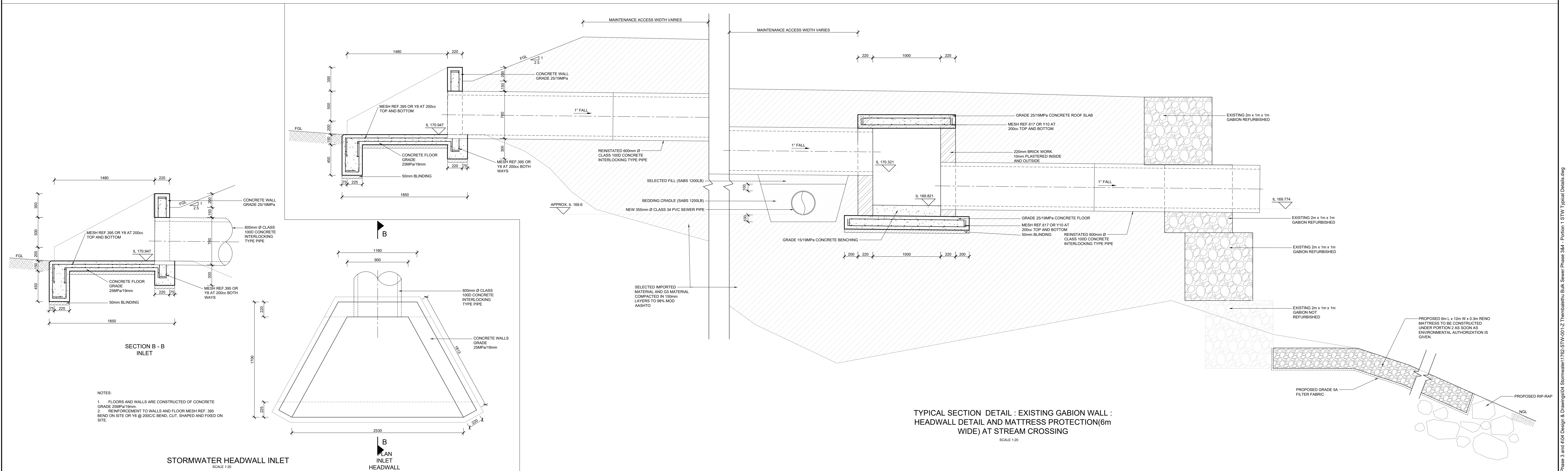
PROJECT TITLE	THEMBALETHU BULK SEWER PHASE 3&4: PORTION 1		
DRAWING TITLE	TYPICAL SEWER DETAILS		
SCALE	SHEET SET	SHEET NO	AS SHOWN
DRAWING No.	1762-SEW-010	REVISION	Z



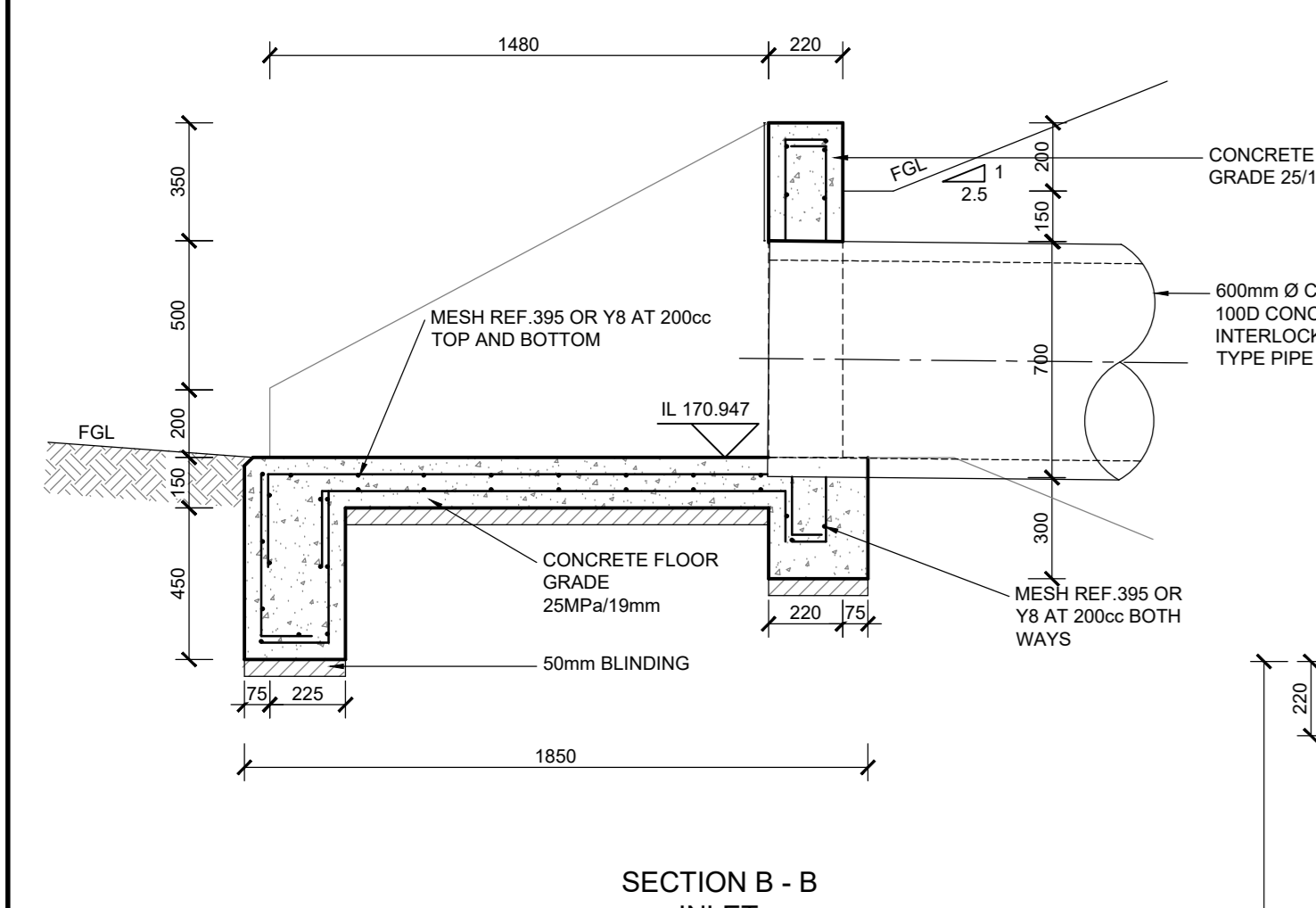
SECTION DETAIL : EXISTING GABION WALL :  
STORMWATER EMERGENCY OVERFLOW DETAIL AND  
MATTRESS PROTECTION(6m WIDE) AT STREAM  
CROSSING  
SCALE 1:20



FRONT ELEVATION : EXISTING GABION WALL :  
STORMWATER EMERGENCY OVERFLOW DETAIL AND  
MATTRESS PROTECTION(6m WIDE) AT STREAM  
CROSSING  
SCALE 1:20



TYPICAL SECTION DETAIL : EXISTING GABION WALL :  
HEADWALL DETAIL AND MATTRESS PROTECTION(6m  
WIDE) AT STREAM CROSSING  
SCALE 1:20



SECTION B - B  
INLET  
STORMWATER HEADWALL INLET  
SCALE 1:20

No.	APPROVED	AMENDMENTS	DATE	SURVEYED	-	-
0	KP	ISSUED FOR CONSTRUCTION	03 MAY 2024	DRAWN	T.MOSIA	APRIL 2024
1	KP	ISSUED AS RECORD DRAWING	03 OCT 2024	DESIGNED	K.POTGIETER	APRIL 2024
				CHECKED	K.POTGIETER	APRIL 2024
				APPROVED		

 LUKHOZI CONSULTING ENGINEERS (PTY) LTD 87 JOHN'S PLACE, 87 JOHN'S STREET, DORNBURG, GEORGE TEL: 044 551 4141 EMAIL: info@lukhozi.co.za WEB: www.lukhozi.co.za	 GEORGE LOCAL MUNICIPALITY	CLIENT  PROJECT TITLE <b>THEMBALETHU BULK SEWER PHASE 3&amp;4 PORTION 1</b>	DRAWING TITLE <b>PORTION 1 : STREAM CROSSING, STORMWATER OVERFLOW AND STORMWATER DETAILS</b>	SCALE 1 : 20	SHEET SET SHEET 1 OF 1 SHEETS	SHEET SIZE A0
COPYRIGHT OF THIS DRAWING IS VESTED IN LUKHOZI CONSULTING ENGINEERS (PTY) LTD. THIS DRAWING FORMS PART OF THE CONSULTING ENGINEERING SERVICES PROVIDED FOR THE PROJECT STATED IN THE TITLE BLOCK, AND MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE OR PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF LUKHOZI CONSULTING ENGINEERS (PTY) LTD.			DRAWING NO. <b>1762-STW-001</b>	REVISION <b>Z</b>	PR REGISTRATION NO. 201770064 DATE 2024/10/18	REVISION <b>Z</b>

2024/10/18 11:16 am  
P:\03\1762 Thembaletu Bulk Sewer Phase 3 and 4\Design & Drawings\04 Stormwater\1762-STW-001-Z Thembaletu Bulk Sewer Phase 3&4 - Portion 1 STW Typical Details.dwg



LEGEND	
---	EXISTING SERVICES
---	TOP OF BANK
---	SEWER PIPELINE
---	SEWER PIPELINE FROM GEORGE GIS
---	STORMWATER PIPELINE
●	SEWER MANHOLE
---	FENCE LINE
⬇	GATE
+	BENCHMARK
□	TEMPORARY HOUSING

No	APPROVED	AMENDMENTS	DATE

PO	KP	ISSUED FOR INFORMATION	NOV 2023


SURVEYED	-	-
DRAWN	S KULU	NOV 2023
DESIGNED	S KULU	NOV 2023
CHECKED	K POTGIETER	NOV 2023

APPROVED: REGISTRATION NO. 2011770064 DATE: 2024/05/03

COPYRIGHT OF THIS DRAWING IS VESTED IN LUKHOZI CONSULTING ENGINEERS (PTY) LTD. THIS DRAWING FORMS PART OF THE CONSULTING ENGINEERING SERVICES PROVIDED FOR THE PROJECT STATED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE OR PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF LUKHOZI CONSULTING ENGINEERS (PTY) LTD.



LUKHOZI CONSULTING ENGINEERS (PTY) LTD  
 ST JOHN'S PLACE, 8 ST JOHN'S STREET,  
 DORMEALSDRIF, GEORGE  
 TEL 044 058 8158  
 EMAIL g@lukhozi.co.za  
 WEB www.lukhozi.co.za



GEORGE LOCAL MUNICIPALITY

PROJECT TITLE  
**THEMBALETHU BULK SEWER PHASE 3 & 4: PORTION 2**

DRAWING TITLE  
**PORTION 2 EXISTING SERVICES LAYOUT PLAN**

SCALE	SHEET SET	SHEET SIZE
1: 2000	SHEET 1 OF 1 SHEETS	A0

DRAWING No.	REVISION
1762-GEN-004	P0

LAYOUT PLAN  
 SCALE: 1:2000



**LEGEND**

EXISTING SERVICES	
	TOP OF BANK
	SEWER PIPELINE
	SEWER PIPELINE FROM GEORGE GIS
	STORMWATER PIPELINE
	SEWER MANHOLE
	FENCE LINE
	GATE
	BENCHMARK
	TEMPORARY HOUSING

PROPOSED SERVICES	
	SEWER PIPELINE
	SEWER MANHOLE
	EXISTING GRAVEL ROADS TO BE RESURFACED

No	APPROVED	AMENDMENTS	DATE

PO	KP	ISSUED FOR INFORMATION	DATE
			20/11/2024

SURVEYED		

DRAWN	S.KULU	28/11/2024

DESIGNED	S.KULU	28/11/2024

CHECKED	K.POTGIETER	28/11/2024

APPROVED		DATE

COPYRIGHT OF THIS DRAWING IS VESTED IN LUKHOZI CONSULTING ENGINEERS (PTY) LTD. THIS DRAWING FORMS PART OF THE CONSULTING ENGINEERING SERVICES PROVIDED FOR THE PROJECT STATED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE OR PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF LUKHOZI CONSULTING ENGINEERS (PTY) LTD.

**LUKHOZI**  
  
 LUKHOZI CONSULTING ENGINEERS (PTY) LTD  
 1ST FLOOR, OFFICE UNIT 1C,  
 121 MITCHELL STREET, GEORGE CENTRAL,  
 GEORGE, 6529  
 TEL: 044 000 4154  
 EMAIL: info@lukhozi.co.za  
 WEB: www.lukhozi.co.za

CLIENT  
  
**GEORGE**  
 LOCAL MUNICIPALITY

PROJECT TITLE  
**THEMBALETHU  
 BULK SEWER PHASE 3 & 4:  
 PORTION 2**

DRAWING TITLE  
**GRAVEL ACCESS ROADS  
 NETWORK KEY PLAN**

SCALE	SHEET SET	SHEET SIZE
1:1000	SHEET 1 OF 1 SHEETS	A0

DRAWING No.	REVISION
1762-RDS-001	P0

P:\2024\1762 Thembalethu Bulk Sewer Phase 3 and 4\Design & Drawings\03 Road\1762\_Gravel Access Road\_Rev 01.dwg 2024/11/28 04:45 PM



**LEGEND**

**EXISTING SERVICES**

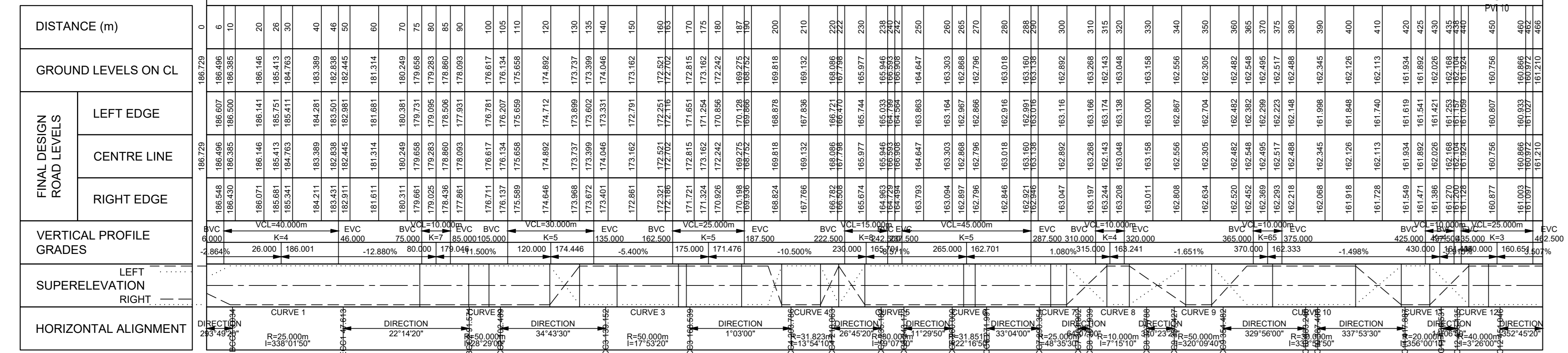
- TOP OF BANK
- SEWER PIPELINE
- SEWER PIPELINE FROM GEORGE GIS
- STORMWATER PIPELINE
- SEWER MANHOLE
- FENCE LINE
- GATE
- BENCHMARK
- TEMPORARY HOUSING

**PROPOSED SERVICES**

- SEWER PIPELINE
- SEWER MANHOLE
- EXISTING GRAVEL ROADS TO BE RESURFACED

SCALES:  
Horizontal 1:500  
Vertical 1:100

DATUM 160.000m MSL







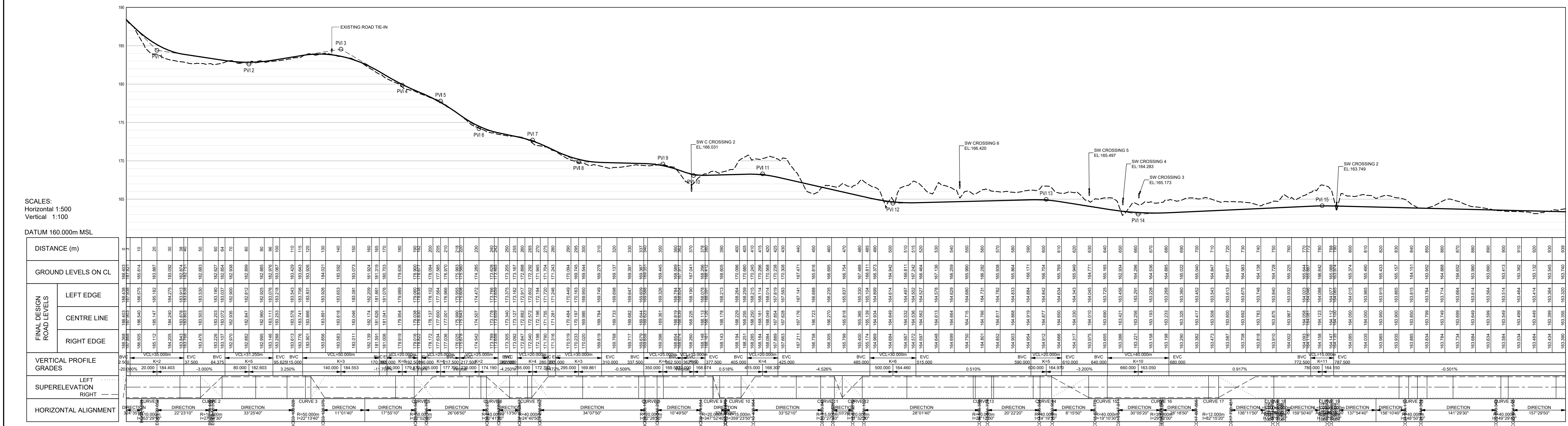
SCALES:  
Horizontal 1:500  
Vertical 1:100

DATUM 160 000m MSL

DISTANCE (m)	GROUND LEVELS ON CL		
	LEFT EDGE	CENTRE LINE	RIGHT EDGE
0	182.535	182.535	182.535
10	182.535	182.535	182.535
20	182.535	182.535	182.535
30	182.535	182.535	182.535
40	182.535	182.535	182.535
50	182.535	182.535	182.535
60	182.535	182.535	182.535
70	182.535	182.535	182.535
80	182.535	182.535	182.535
90	182.535	182.535	182.535
100	182.535	182.535	182.535
110	182.535	182.535	182.535
120	182.535	182.535	182.535
130	182.535	182.535	182.535
140	182.535	182.535	182.535
150	182.535	182.535	182.535

**LEGEND**

	EXISTING SERVICES
	TOP OF BANK
	SEWER PIPELINE
	SEWER PIPELINE FROM GEORGE GIS
	STORMWATER PIPELINE
	SEWER MANHOLE
	FENCE LINE
	GATE
	BENCHMARK
	TEMPORARY HOUSING
	PROPOSED SERVICES
	SEWER PIPELINE
	SEWER MANHOLE
	EXISTING GRAVEL ROADS TO BE RESURFACED



SCALES:  
Horizontal 1:500  
Vertical 1:100

DATUM 160 000m MSL

DISTANCE (m)	GROUND LEVELS ON CL		
	LEFT EDGE	CENTRE LINE	RIGHT EDGE
0	182.535	182.535	182.535
10	182.535	182.535	182.535
20	182.535	182.535	182.535
30	182.535	182.535	182.535
40	182.535	182.535	182.535
50	182.535	182.535	182.535
60	182.535	182.535	182.535
70	182.535	182.535	182.535
80	182.535	182.535	182.535
90	182.535	182.535	182.535
100	182.535	182.535	182.535
110	182.535	182.535	182.535
120	182.535	182.535	182.535
130	182.535	182.535	182.535
140	182.535	182.535	182.535
150	182.535	182.535	182.535

No	APPROVED	AMENDMENTS	DATE

PO	KP	ISSUED FOR INFORMATION	20/11/2024
SURVEYED	-	-	-
DRAWN	S.KULU	28/11/2024	28/11/2024
DESIGNED	S.KULU	28/11/2024	28/11/2024
CHECKED	K.POTGIETER	28/11/2024	28/11/2024
APPROVED			
PR REGISTRATION NO.		DATE	

**LUKHOZI CONSULTING ENGINEERS (PTY) LTD**
  
 1ST FLOOR OFFICE UNIT 1C
   
 121 MITCHELL STREET GEORGE CENTRAL
   
 GEORGE 6529
   
 TEL: 044 200 4154
   
 EMAIL: info@lukhozi.co.za
   
 WEB: www.lukhozi.co.za

**GEORGE LOCAL MUNICIPALITY**

PROJECT TITLE	<b>THEMBALETHU BULK SEWER PHASE 3 &amp; 4: PORTION 2</b>	
DRAWING TITLE	<b>ROAD 2 &amp; 1 LAYOUT PLAN &amp; LONGITUDINAL SECTION</b>	
SCALE	SHEET SET	SHEET NO.
1:1000	SHEET 1 OF 1 SHEETS	A0
DRAWING NO.	REVISION	PO
1762-RDS-003		

LONGSECTION ROAD 2 FROM 0.000 TO 938.624

P:\GIS\2024\Thembalethu Bulk Sewer Phase 3 and 4\04\_Design & Drawings\GIS Road\1762\_Cover\_Access\_Road\_Rev 02.dwg 2024/11/25 04:49 pm

