

THULAMELA LOCAL MUNICIPALITY

BID NO. : 09/2023/2024



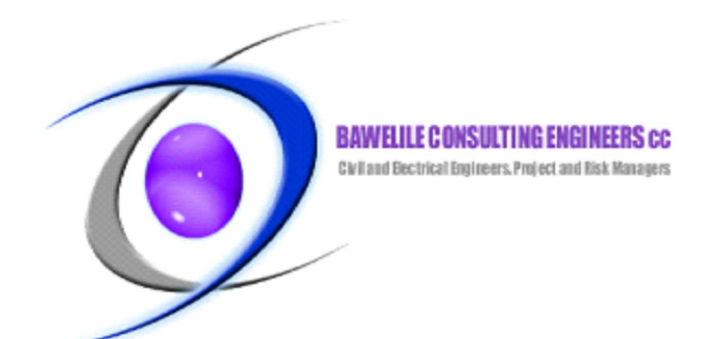
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS

PHASE1

BOOK 2 OF 2

DRAWINGS ISSUED FOR TENDER

COMPILED BY:



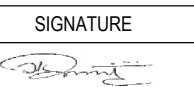
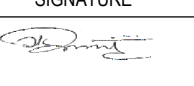
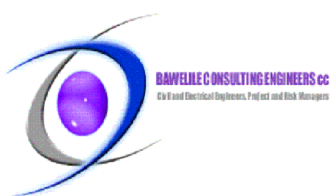
THULAMELA LOCAL MUNICIPALITY

UPGRADING OF THOHOYANDOU K AND K PORTIONS STREET- PHASE 1

PROJECT DRAWINGS LIST

DRAWING NO.	DRAWING DESCRIPTION	SHEET NO.	PAPER
TLM 09/2023/2024-GL-01	LOCATION MAP	1 OF 1	A 3
TLM 09/2023/2024-GL-02	GENERAL LAYOUT	1 OF 1	A 3
TLM 09/2023/2024-DL-01	GENERAL STORMWATER LAYOUT	1 OF 1	A 3
TLM 09/2023/2024-CV-01	STORMWATER LAYOUT	1 OF 2	A 3
TLM 09/2023/2024-CV-01	STORMWATER LAYOUT	2 OF 2	A 3
TLM 09/2023/2024-CV-02	ROAD 3 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-03	ROAD 7 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-04	ROAD 8 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-05	ROAD 9 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-06	ROAD 10 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-07	ROAD 11 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-08	ROAD 12 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-09	ROAD 19 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-10	ROAD 20 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-11	ROAD 31 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-12	ROAD 43 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-12 A	ROAD 41 & 42 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-13	ROAD 39 & 40 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-14	ROAD 22, 37, & 38 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-15	ROAD 32 & 36 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-CV-16	ROAD 34 & 35 PLAN AND LONGSECTION	1 OF 1	A 3
TLM 09/2023/2024-TRS-01	TYPICAL ROAD CROSS SECTION AND LAYERWORKS DETAILS	1 OF 1	A 3
TLM 09/2023/2024-SPH-01	TYPICAL SPEED HUMP LAYOUT AND DETAILS	1 OF 1	A 3
TLM 09/2023/2024-BD-01	TYPICAL INFORMATION BOARD	1 OF 1	A 3
TLM 09/2023/2024-DET-01	STANDARD DETAIL- KERB & CHANNEL DETAIL	1 OF 1	A 3
TLM 09/2023/2024-DET-03	PIPE CULVERT DETAIL	1 OF 1	A 3
TLM 09/2023/2024-DET-05	ROAD MARKING DETAIL	1 OF 1	A 3
TLM 09/2023/2024-DET-06	STORMWATER PIPE BEDDING	1 OF 1	A 3
TLM 09/2023/2024-DET-07	TYPICAL KERB INLET DETAIL	1 OF 1	A 3



REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.			
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.			
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND			
6. THIS DRAWINGS IS NOT TO BE SCALED, FIGURED DIMENSION TO BE USED .ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.			
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.	DATE	DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
Location Plan			
FILE No.	09/2023/2024		ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
No. 1 Leewood Street Ardor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-GL-01	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



BENCH MARK COORDINATES

BM26	54308.510	2543170.524
BM27	54208.702	2543225.396
BM28	54162.223	2543330.246
BM29	54050.103	2543448.895
BM3	53563.998	2543614.975
BM30	53978.316	2543222.355
BM31	53933.219	2543130.147
BM32	53859.845	2542971.018
BM33	53738.010	2542868.600
BM34	53607.012	2542771.807
BM35	53415.159	2542670.443
BM36	53289.204	2542523.762
BM37	53431.112	2542491.527
BM38	53631.268	2542516.579
BM39	53737.061	2542403.351
BM4	53416.546	2543724.833
BM40	53878.186	2543137.608
BM41	53660.177	2542612.904
BM42	53899.599	2542673.002

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
NOTES:	
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.	
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.	
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED .ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.	
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.	

REV No.

DATE

DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

General Layout

FILE No.	09/2023/2024	ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA
SCALE	AS SHOWN	T. ZIYANE
RESPONSIBLE PROFESSIONAL		
DATE	NAME	SIGNATURE
20.07.2023	T. ZIYANE	2018300197
PROJECT COORDINATED		
DATE	NAME	SIGNATURE
20.07.2023	T. ZIYANE	2018300197

CONSULTANT



No: 1
Leadwood Street
Arbor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR

DATE / DATUM

PROJECT STATUS

DESIGN
DRAWING

TENDER
DRAWING

APPROVED FOR
CONSTRUCTION
DRAWING

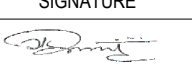
AS
BUILT
DRAWING

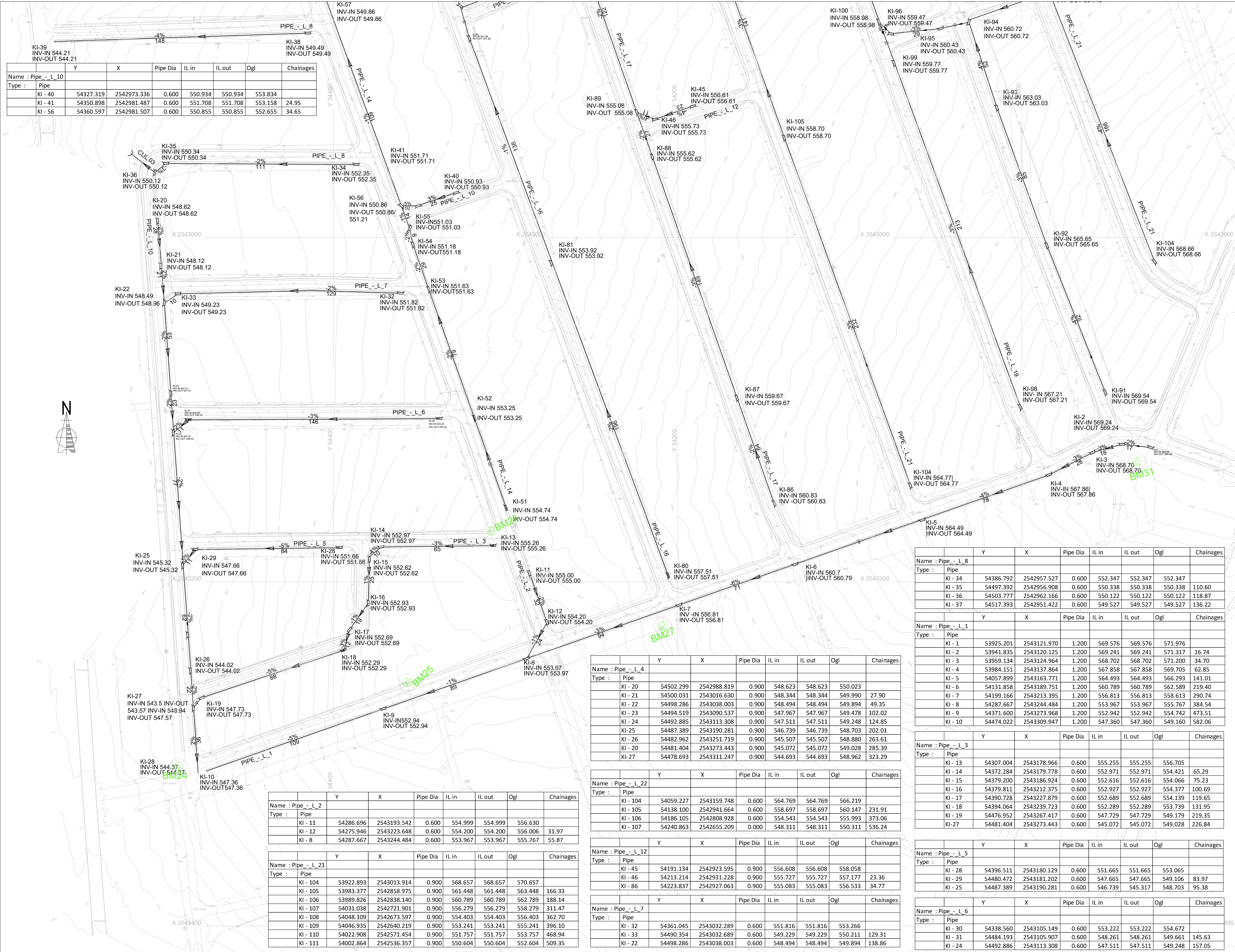
DRAWING NUMBER:

TLM 09/2023/2024-GL-02

SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.			
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.			
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.			
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.	DATE	DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
GENERAL STORMWATER LAYOUT			
FILE No.	09/2023/2024		ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN T. ZIYANE		CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
No. 1 Leadwood Street Anchor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-DL-01	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 2	0



Name : Pipe - L 10	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 40	54327.319	2542973.336	0.600	550.934	550.934	553.834	
KI - 41	54350.898	2542981.487	0.600	551.708	551.708	553.158	24.95
KI - 56	54360.597	2542981.507	0.600	550.855	550.855	552.655	34.65

Name : Pipe - L 2	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 11	54286.696	2543193.542	0.600	554.999	554.999	556.630	
KI - 12	54275.946	2543223.648	0.600	554.200	554.200	556.006	31.97
KI - 8	54287.667	2543244.484	0.600	553.967	555.767	555.87	

Name : Pipe - L 21	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 104	53922.893	2543013.914	0.900	568.657	568.657	570.657	
KI - 105	53983.377	2542858.975	0.900	561.448	561.448	563.448	166.33
KI - 106	53989.826	2542838.140	0.900	560.789	560.789	562.789	188.14
KI - 107	54031.038	2542721.901	0.900	556.279	556.279	558.279	311.47
KI - 108	54048.109	2542673.597	0.900	554.403	554.403	556.403	362.70
KI - 109	54046.935	2542640.219	0.900	553.241	553.241	555.241	396.10
KI - 110	54022.908	2542571.454	0.900	551.757	551.757	553.757	468.94
KI - 111	54002.864	2542536.357	0.900	550.604	550.604	552.604	509.35

Name : Pipe - L 4	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 20	54502.299	2542988.819	0.900	548.623	548.623	550.023	
KI - 21	54500.031	2543016.630	0.900	548.344	548.344	549.990	27.90
KI - 22	54498.286	2543038.003	0.900	548.494	548.494	549.894	49.35
KI - 23	54494.519	2543090.537	0.900	547.967	547.967	549.478	102.02
KI - 24	54492.885	2543113.308	0.900	547.511	547.511	549.248	124.85
KI - 25	54487.389	2543190.281	0.900	546.739	546.739	548.703	202.01
KI - 26	54482.962	2543251.719	0.900	545.507	545.507	548.880	263.61
KI - 20	54481.404	2543273.443	0.900	545.072	545.072	549.028	285.39
KI - 27	54478.693	2543311.247	0.900	544.693	544.693	548.962	323.29

Name : Pipe - L 22	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 104	54059.227	2543159.748	0.600	564.769	564.769	566.219	
KI - 105	54138.100	2542941.664	0.600	558.697	558.697	560.147	231.91
KI - 106	54186.105	2542808.928	0.600	554.543	554.543	555.993	373.06
KI - 107	54240.863	2542655.209	0.000	548.311	548.311	550.311	536.24

Name : Pipe - L 12	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 45	54191.134	2542923.595	0.900	556.608	556.608	558.058	
KI - 46	54213.214	2542931.228	0.900	555.727	555.727	557.177	23.36
KI - 86	54223.837	2542927.063	0.900	555.083	555.083	556.533	34.77

Name : Pipe - L 7	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 32	54361.045	2543032.289	0.600	551.816	551.816	553.266	
KI - 33	54490.354	2543032.689	0.600	549.229	549.229	550.211	129.31
KI - 22	54498.286	2543038.003	0.600	548.494	548.494	549.894	138.86

Name : Pipe - L 8	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 34	54386.792	2542957.527	0.600	552.347	552.347	552.347	
KI - 35	54497.392	2542956.908	0.600	550.338	550.338	550.338	110.60
KI - 36	54503.777	2542962.166	0.600	550.122	550.122	550.122	118.87
KI - 37	54517.393	2542951.422	0.600	549.527	549.527	549.527	136.22

Name : Pipe - L 1	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 1	53925.201	2543121.970	1.200	569.576	569.576	571.976	
KI - 2	53941.835	2543120.125	1.200	569.241	569.241	571.317	16.74
KI - 3	53959.134	2543124.964	1.200	568.702	568.702	571.200	34.70
KI - 4	53984.151	2543137.864	1.200	567.858	567.858	569.705	62.85
KI - 5	54057.899	2543163.771	1.200	564.493	564.493	566.293	141.01
KI - 6	54131.858	2543189.751	1.200	560.789	560.789	562.589	219.40
KI - 7	54199.166	2543213.395	1.200	556.813	556.813	558.613	290.74
KI - 8	54287.667	2543244.484	1.200	553.967	553.967	555.767	384.54
KI - 9	54371.600	2543273.968	1.200	552.942	552.942	554.742	473.51
KI - 10	54474.022	2543309.947	1.200	547.360	547.360	549.160	582.06

Name : Pipe - L 3	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 13	54307.004	2543178.966	0.600	555.255	555.255	556.705	
KI - 14	54372.284	2543179.778	0.600	552.971	552.971	554.421	65.29
KI - 15	54379.200	2543186.924	0.600	552.616	552.616	554.066	75.23
KI - 16	54379.811	2543212.375	0.600	552.927	552.927	554.377	100.69
KI - 17	54390.728	2543227.879	0.600	552.689	552.689	554.139	119.65
KI - 18	54394.064	2543239.723	0.600	552.289	552.289	553.739	131.95
KI - 19	54476.952	2543267.417	0.600	547.729	547.729	549.179	219.35
KI - 27	54481.404	2543273.443	0.600	545.072	545.072	549.028	226.84

Name : Pipe - L 5	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 28	54396.511	2543180.129	0.600	551.665	551.665	553.065	
KI - 29	54480.472	2543181.202	0.600	547.665	547.665	549.106	83.97
KI - 25	54487.389	2543190.281	0.600	546.739	545.317	548.703	95.38

Name : Pipe - L 6	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 30	54338.560	2543105.149	0.600	553.222	553.222	554.672	
KI - 31	54484.193	2543105.907	0.600	548.261	548.261	549.661	145.63
KI - 24	54492.886	2543113.308	0.600	547.511	547.511	549.248	157.05

REFERENCE DRAWINGS

DRAWING No. DESCRIPTION

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.

2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.

3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.

7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No. DATE DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

STORMWATER LAYOUT

FILE No. 09/2023/2024 ITEM No.

DESIGN T. ZIYANE D. MAKHANYA DRAWN

SCALE AS SHOWN T. ZIYANE CHECKED

RESPONSIBLE PROFESSIONAL

DATE NAME SIGNATURE Reg. No.

20.07.2023 T. ZIYANE 2018300197

PROJECT COORDINATED

DATE NAME SIGNATURE Reg. No.

20.07.2023 T. ZIYANE 2018300197

CONSULTANT

No. 1
Leadwood Street
Anzor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR DATE / DATUM

PROJECT STATUS

DESIGN DRAWING TENDER DRAWING APPROVED FOR CONSTRUCTION DRAWING AS BUILT DRAWING

DRAWING NUMBER: TLM 09/2023/2024-CV-01

SIZE SCALE SHEET NO. REV

A1 N.T.S. SHEET 1 of 2 0

Name : Pipe - L_15	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 59	54082.913	2542560.802	1.200	550.681	550.681	552.681	
KI - 60	54102.607	2542585.752	1.200	550.737	550.737	552.737	31.79
KI - 61	54121.742	2542601.362	1.200	550.908	550.908	552.908	56.48
KI - 62	54165.798	2542625.925	1.200	550.088	550.088	552.088	106.92
KI - 63	54182.569	2542629.111	1.200	549.553	549.553	551.553	123.99
KI - 64	54235.021	2542649.648	1.200	548.370	548.370	550.370	180.32
KI - 65	54240.861	2542655.208	1.200	548.311	548.311	550.311	188.39
KI - 66	54255.283	2542657.830	1.200	547.618	547.618	549.618	203.04
KI - 67	54303.231	2542675.497	1.200	546.851	546.851	548.851	254.14
KI - 68	54309.087	2542681.713	1.200	546.725	546.725	548.725	262.68
KI - 69	54326.370	2542683.219	1.200	546.340	546.340	548.340	280.03
KI - 70	54370.738	2542697.966	1.200	545.362	545.362	547.362	326.79
KI - 71	54381.056	2542704.866	1.200	545.252	545.252	547.252	339.20
KI - 72	54406.370	2542710.133	1.200	544.568	544.568	546.568	365.07
KI - 73	54445.705	2542729.484	1.200	543.645	543.645	545.645	408.88
KI - 74	54449.541	2542737.518	1.200	543.556	543.556	545.728	417.78
KI - 75	54467.331	2542740.801	1.200	543.366	543.166	545.166	435.87
KI - 76	54497.942	2542765.306	1.200	542.866	542.866	544.878	475.08
KI - 77	54518.703	2542792.643	1.200	543.466	543.466	544.995	509.41
KI - 78	54549.825	2542840.650	1.200	544.038	544.038	545.193	566.62

Name : Pipe - L_11	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 43	54293.165	2542854.176	0.600	554.200	554.200	554.200	
KI - 81	54326.393	2542865.461	0.600	553.264	553.264	553.264	35.09

Name : Pipe - L_13	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 48	54153.402	2542803.823	0.600	557.105	557.105	557.105	
KI - 49	54175.909	2542810.740	0.600	556.559	556.559	556.559	23.55
KI - 106	54186.100	2542808.942	0.600	555.993	555.993	555.993	33.89

Name : Pipe - L_20	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 101	54037.959	2542851.622	0.600	560.136	560.136	561.586	
KI - 102	54096.266	2542688.386	0.600	554.153	554.153	555.603	173.34
KI - 103	54102.062	2542610.004	0.600	552.149	552.149	553.599	251.93
KI - 61	54121.742	2542601.362	0.600	550.908	550.908	552.908	273.43

Name : Pipe - L_16	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 80	54205.152	2543197.603	0.600	557.510	557.510	558.960	
KI - 81	54273.274	2543013.398	0.600	553.923	553.923	555.373	196.40
KI - 82	54321.066	2542884.165	0.600	551.980	551.980	553.430	334.18
KI - 83	54326.394	2542865.460	0.600	551.814	551.814	553.264	353.63
KI - 84	54347.305	2542812.071	0.600	551.093	551.093	552.543	410.97
KI - 85	54369.854	2542744.750	0.600	548.177	548.177	549.627	481.97
KI - 71	54381.056	2542704.866	0.600	545.252	545.252	547.252	523.40

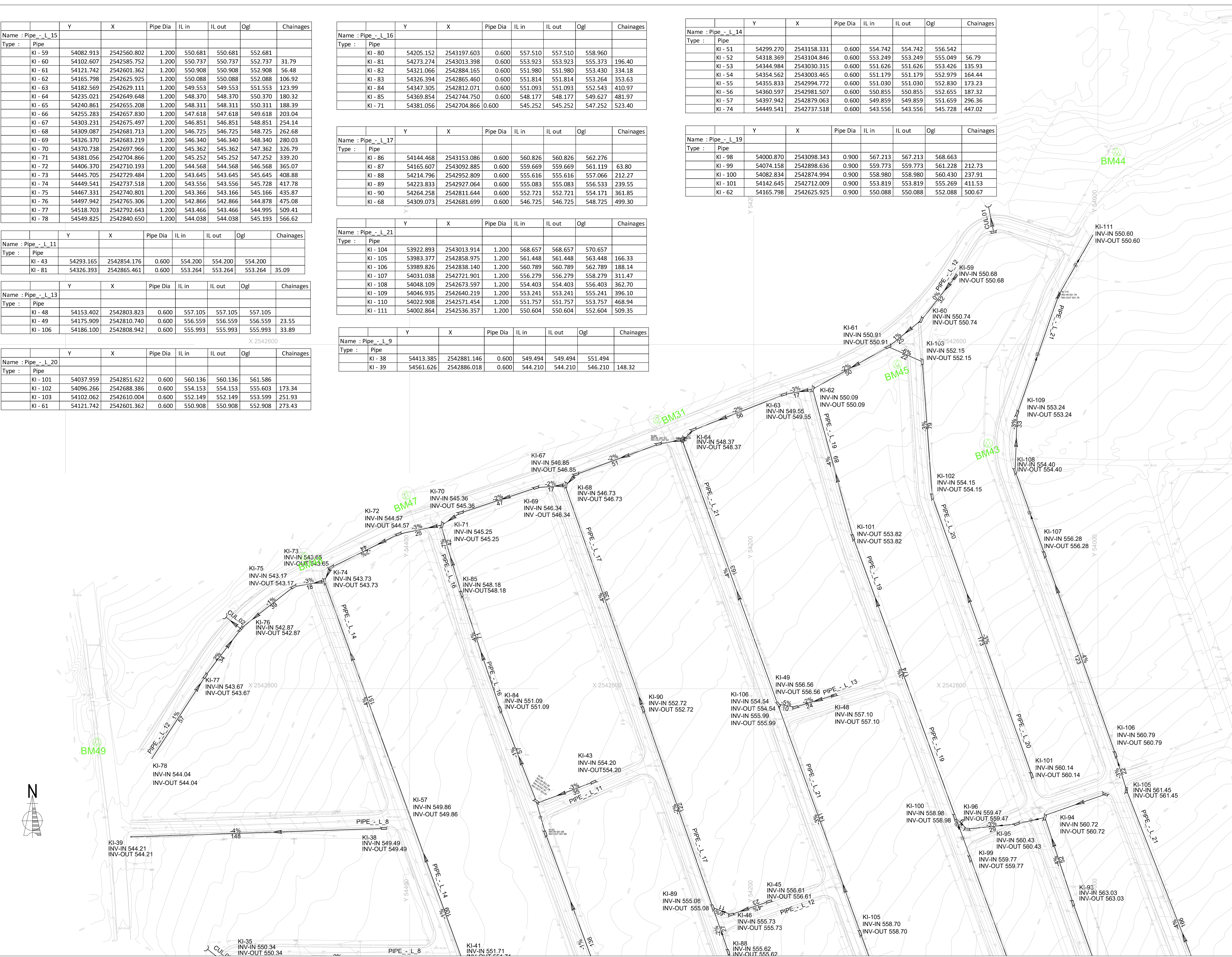
Name : Pipe - L_17	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 86	54144.468	2543153.086	0.600	560.826	560.826	562.276	
KI - 87	54165.607	2543092.885	0.600	559.669	559.669	561.119	63.80
KI - 88	54214.796	2542952.809	0.600	555.616	555.616	557.066	212.27
KI - 89	54223.833	2542927.064	0.600	555.083	555.083	556.533	239.55
KI - 90	54264.258	2542811.644	0.600	552.721	552.721	554.171	361.85
KI - 68	54309.073	2542681.699	0.600	546.725	546.725	548.725	499.30

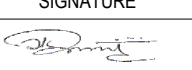
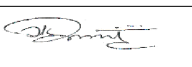
Name : Pipe - L_21	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 104	53922.893	2543013.914	1.200	568.657	568.657	570.657	
KI - 105	53983.377	2542858.975	1.200	561.448	561.448	563.448	166.33
KI - 106	53989.826	2542838.140	1.200	560.789	560.789	562.789	188.14
KI - 107	54031.038	2542721.901	1.200	556.279	556.279	558.279	311.47
KI - 108	54048.109	2542673.597	1.200	554.403	554.403	556.403	362.70
KI - 109	54046.935	2542640.219	1.200	553.241	553.241	555.241	396.10
KI - 110	54022.908	2542571.454	1.200	551.757	551.757	553.757	468.94
KI - 111	54002.864	2542536.357	1.200	550.604	550.604	552.604	509.35

Name : Pipe - L_9	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 38	54413.385	2542881.146	0.600	549.494	549.494	551.494	
KI - 39	54561.626	2542886.018	0.600	544.210	544.210	546.210	148.32

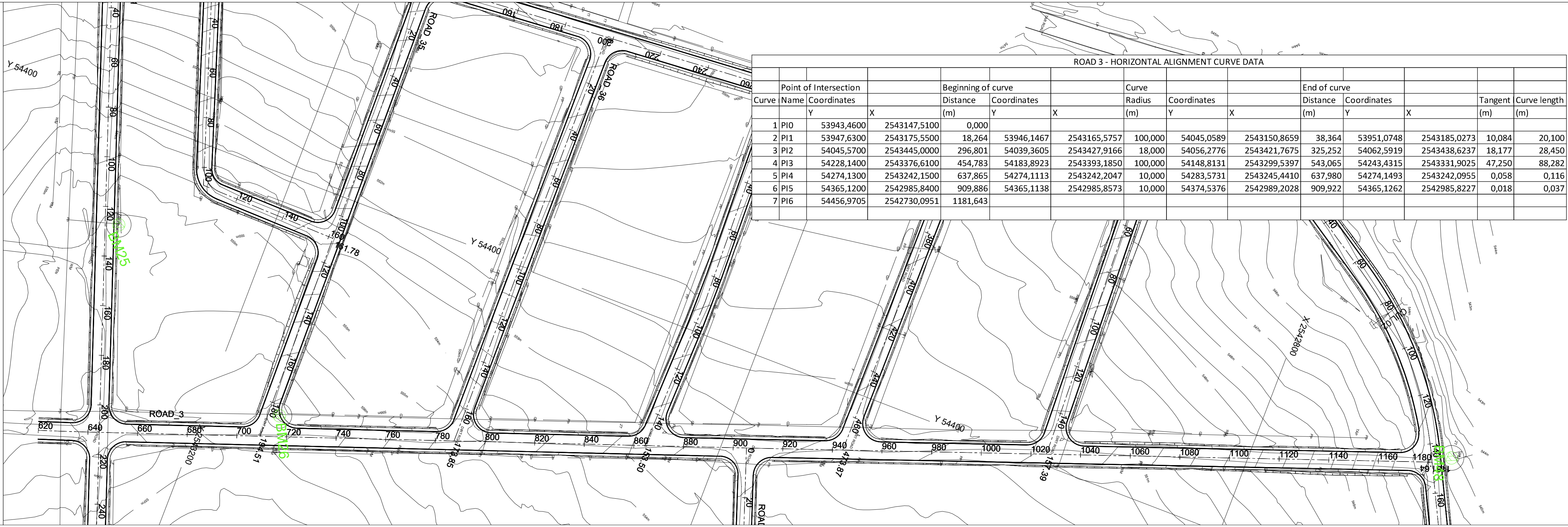
Name : Pipe - L_14	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 51	54299.270	2543158.331	0.600	554.742	554.742	556.542	
KI - 52	54318.369	2543104.846	0.600	553.249	553.249	555.049	56.79
KI - 53	54344.984	2543030.315	0.600	551.626	551.626	553.426	135.93
KI - 54	54354.562	2543003.465	0.600	551.179	551.179	552.979	164.44
KI - 55	54355.833	2542994.772	0.600	551.030	551.030	552.830	173.23
KI - 56	54360.597	2542981.507	0.600	550.855	550.855	552.655	187.32
KI - 57	54397.942	2542879.063	0.600	549.859	549.859	551.659	296.36
KI - 74	54449.541	2542737.518	0.600	543.556	543.556	545.728	447.02

Name : Pipe - L_19	Y	X	Pipe Dia	IL in	IL out	Ogl	Chainages
Type : Pipe							
KI - 98	54000.870	2543098.343	0.900	567.213	567.213	568.663	
KI - 99	54074.158	2542898.636	0.900	559.773	559.773	561.228	212.73
KI - 100	54082.834	2542874.994	0.900	558.980	558.980	560.430	237.91
KI - 101	54142.645	2542712.009	0.900	553.819	553.819	555.269	411.53
KI - 62	54165.798	2542625.925	0.900	550.088	550.088	552.088	500.67

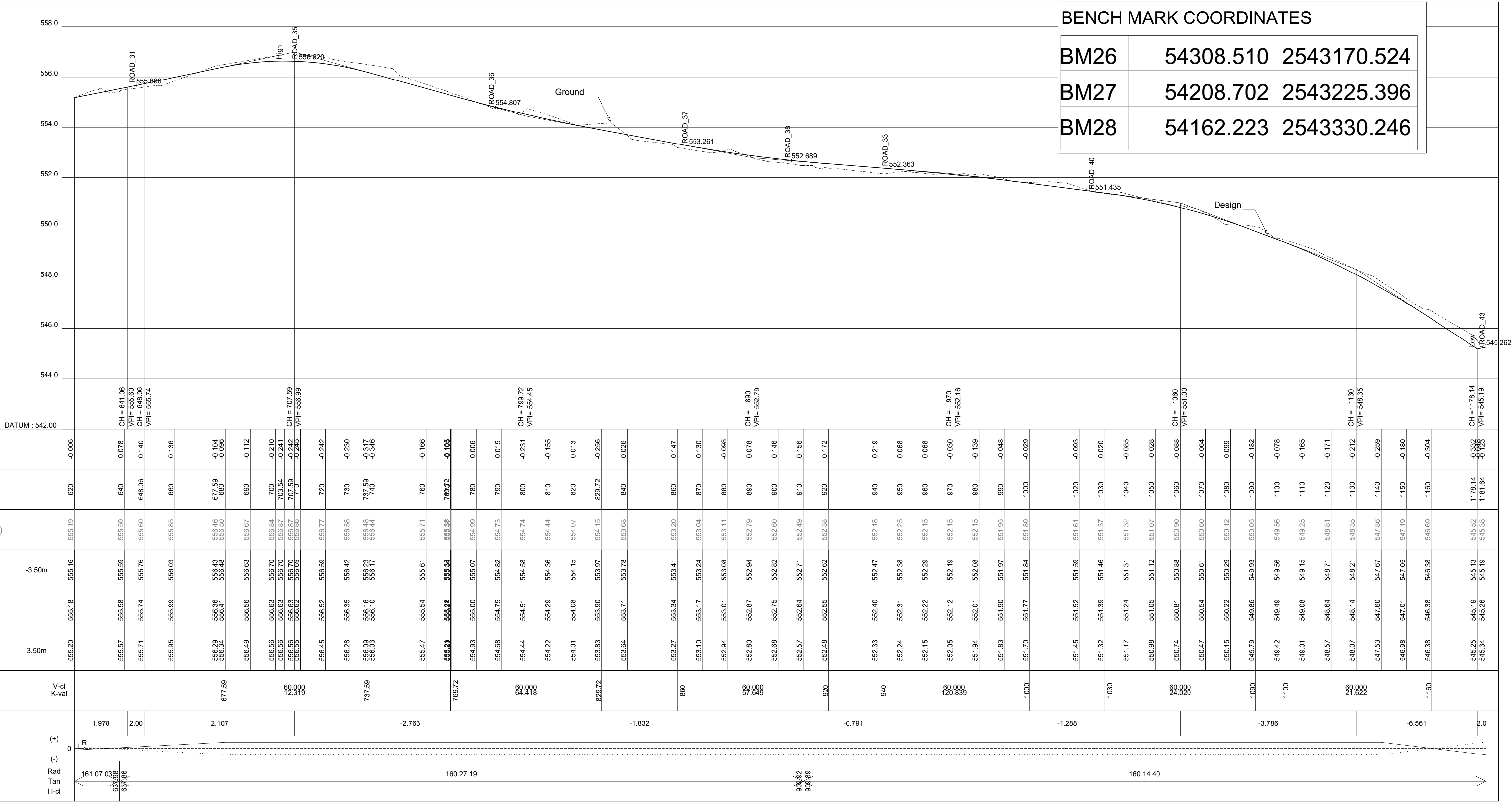


REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.			
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.			
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND			
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.			
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.		DATE	
DATE		DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
STORMWATER LAYOUT			
FILE No.	09/2023/2024		ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN		T. ZIYANE CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
No. 1 Leadwood Street Anzor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-CV-01	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 2 of 2	0

Plan Layout
Scale 1:1000



ROAD_3
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No. DESCRIPTION

NOTES:

- ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
- ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No. DATE DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 3 PLAN & LONG SECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No. 1
Leadwood Street
Ankor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

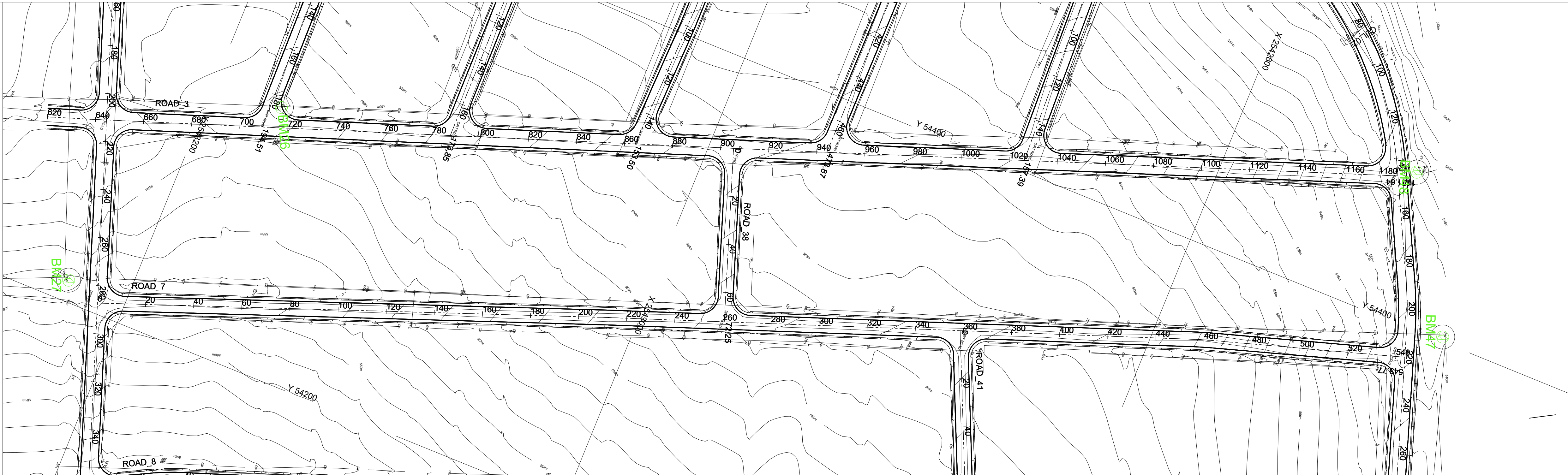
APPROVED / GOEDGEKEUR DATE / DATUM

PROJECT STATUS

DESIGN DRAWING
TENDER DRAWING
APPROVED FOR CONSTRUCTION DRAWING
AS BUILT DRAWING

DRAWING NUMBER:	TLM 09/2023/2024-CV-02	SHEET NO.	REV
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0

Plan Layout
Scale 1:1000

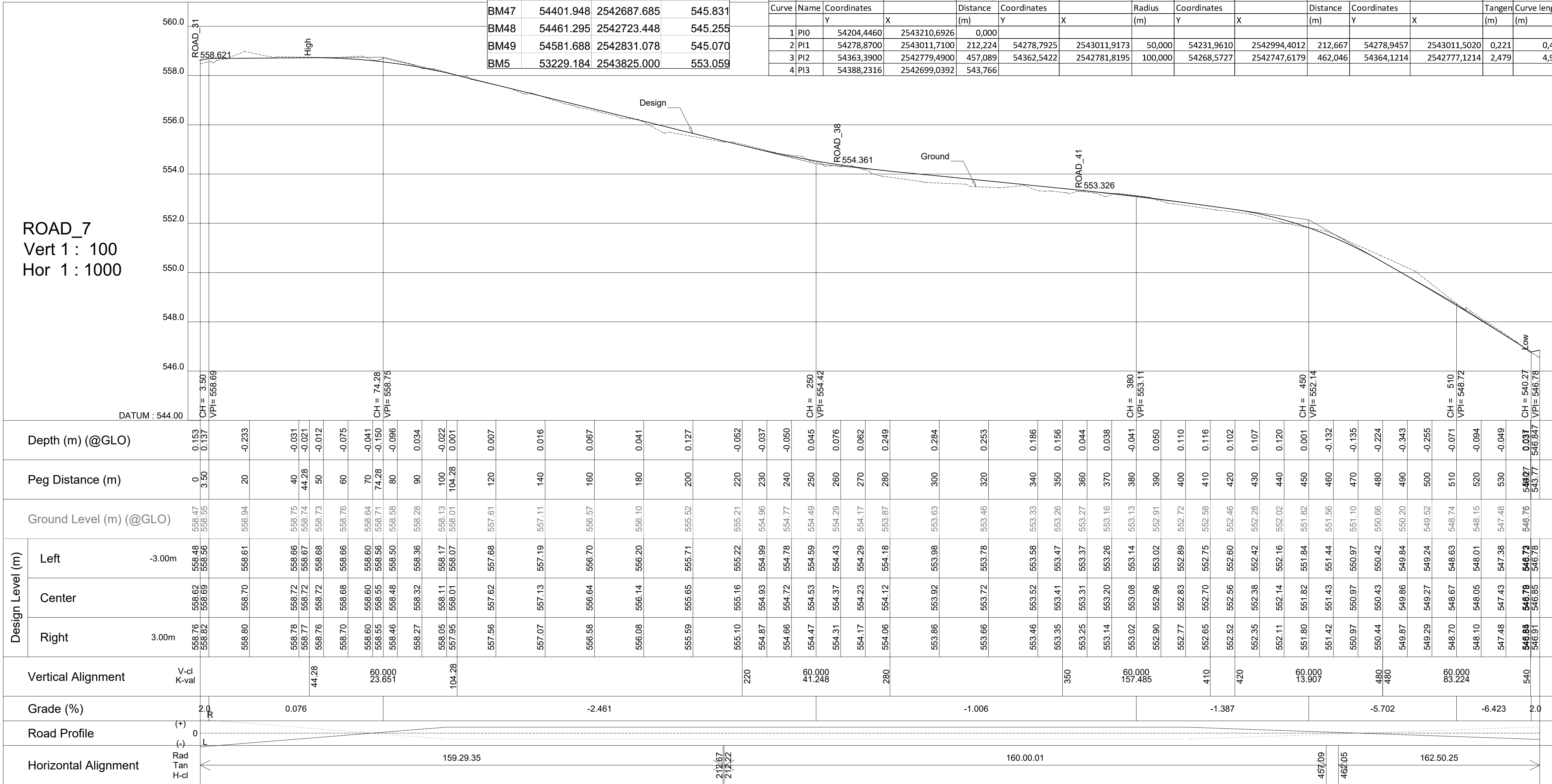


BENCH MARK COORDINATES

BM45	54116.621	2542611.500	553.216
BM46	54256.028	2542643.703	549.648
BM47	54401.948	2542687.685	545.831
BM48	54461.295	2542723.448	545.255
BM49	54581.688	2542831.078	545.070
BM5	53229.184	2543825.000	553.059

ROAD 7 - HORIZONTAL ALIGNMENT CURVE DATA												
Curve	Point of Intersection		Beginning of curve		Curve		End of curve		Tangent		Curve length	
	Name	Coordinates	Distance (m)	Coordinates	Radius (m)	Coordinates	Distance (m)	Coordinates	(m)	Coordinates	(m)	(m)
1	PI0	54204,4460	2543210,6926	0,000								
2	PI1	54278,8700	2543011,7100	212,224	54278,7925	2543011,9173	50,000	54231,9610	2542994,4012	212,667	54278,9457	0,221
3	PI2	54363,3900	2542779,4900	457,089	54362,5422	2542781,8195	100,000	54268,5727	2542747,6179	462,046	54364,1214	2,479
4	PI3	54388,2316	2542699,0392	543,766								

ROAD_7
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No. DESCRIPTION

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No. DATE DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 7 PLAN & LONG SECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No 1
Leadwood Street
Anzor Park
TZANEEN
0850
TEL: 015 307 1795

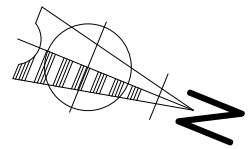
P.O BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR DATE / DATUM

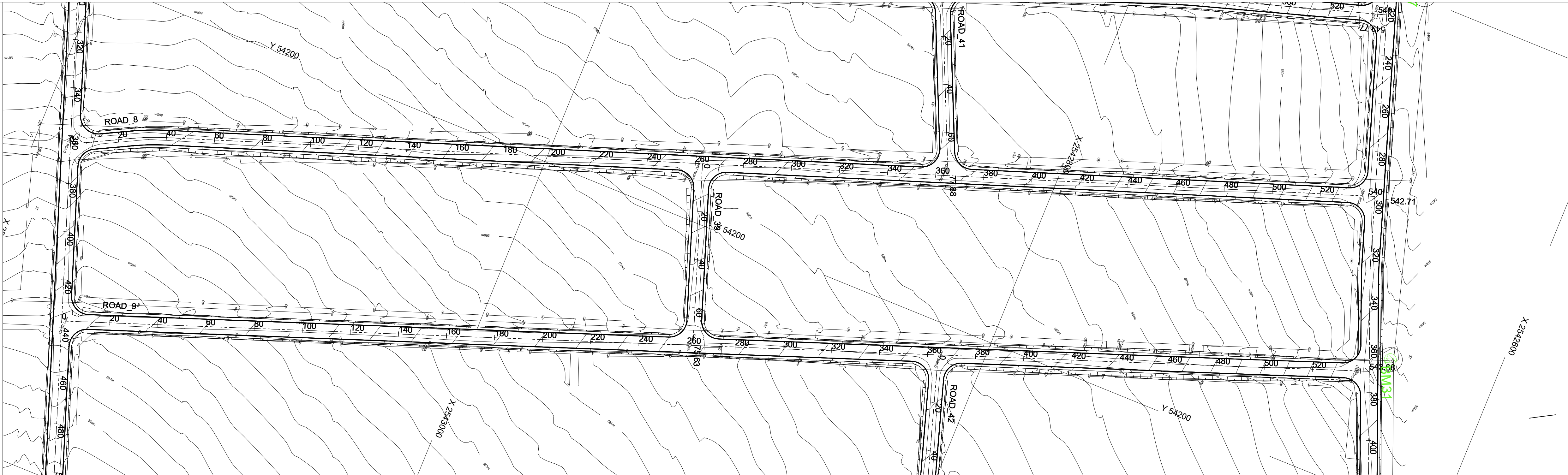
PROJECT STATUS

- DESIGN DRAWING TENDER DRAWING APPROVED FOR CONSTRUCTION DRAWING AS BUILT DRAWING

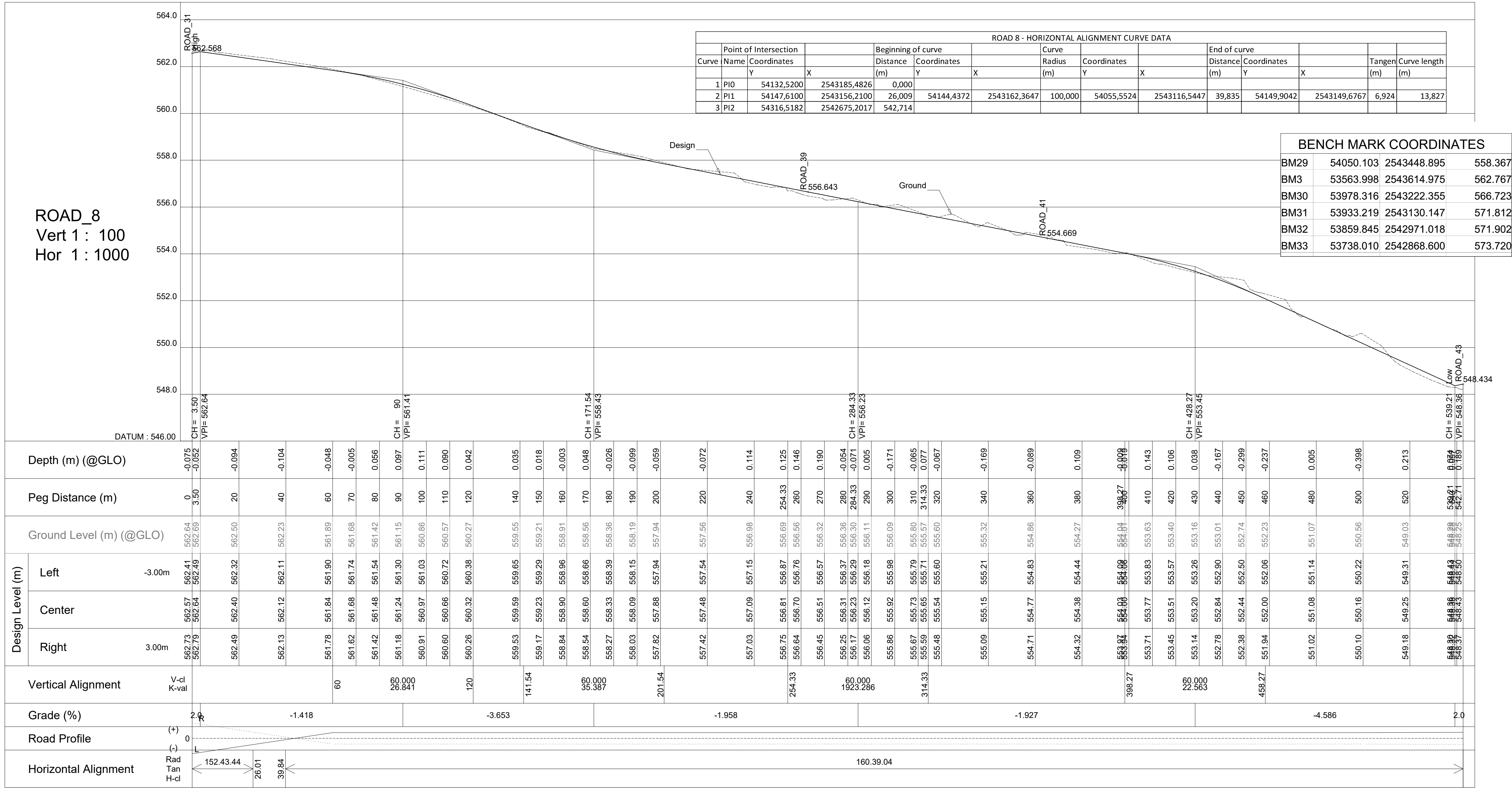
DRAWING NUMBER:		TLM 09/2023/2024-CV-03	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



Plan Layout
Scale 1:1000



ROAD_8
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
-------------	-------------

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No.	DATE	DESCRIPTION
---------	------	-------------



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 8 PLAN & LONG SECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No 1
Leadwood Street
Anzor Park
TZANEEN
0850
TEL: 015 307 1795

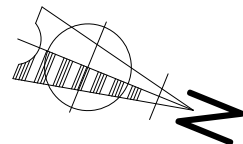
P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR DATE / DATUM

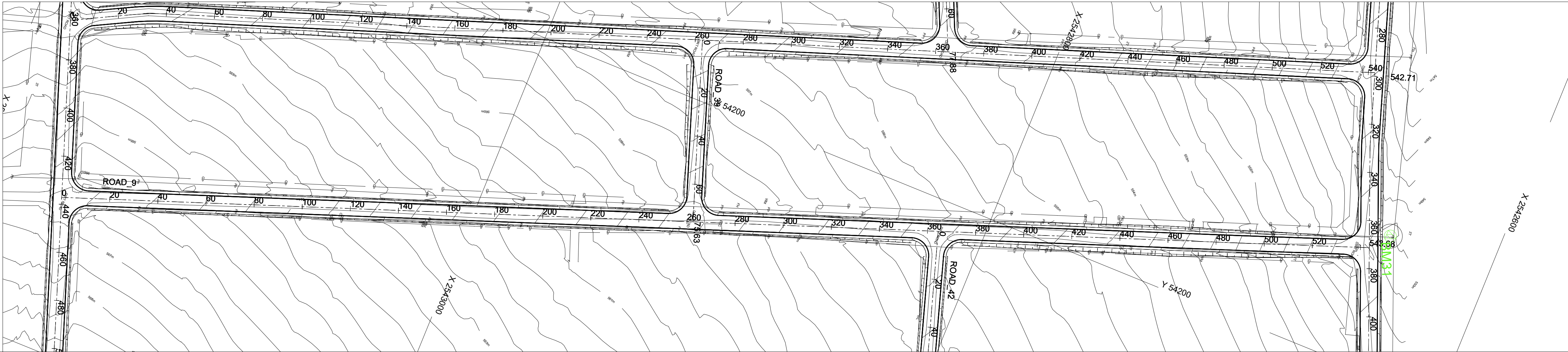
PROJECT STATUS

- ☐ DESIGN DRAWING ☒ TENDER DRAWING ☐ APPROVED FOR CONSTRUCTION DRAWING ☐ AS BUILT DRAWING

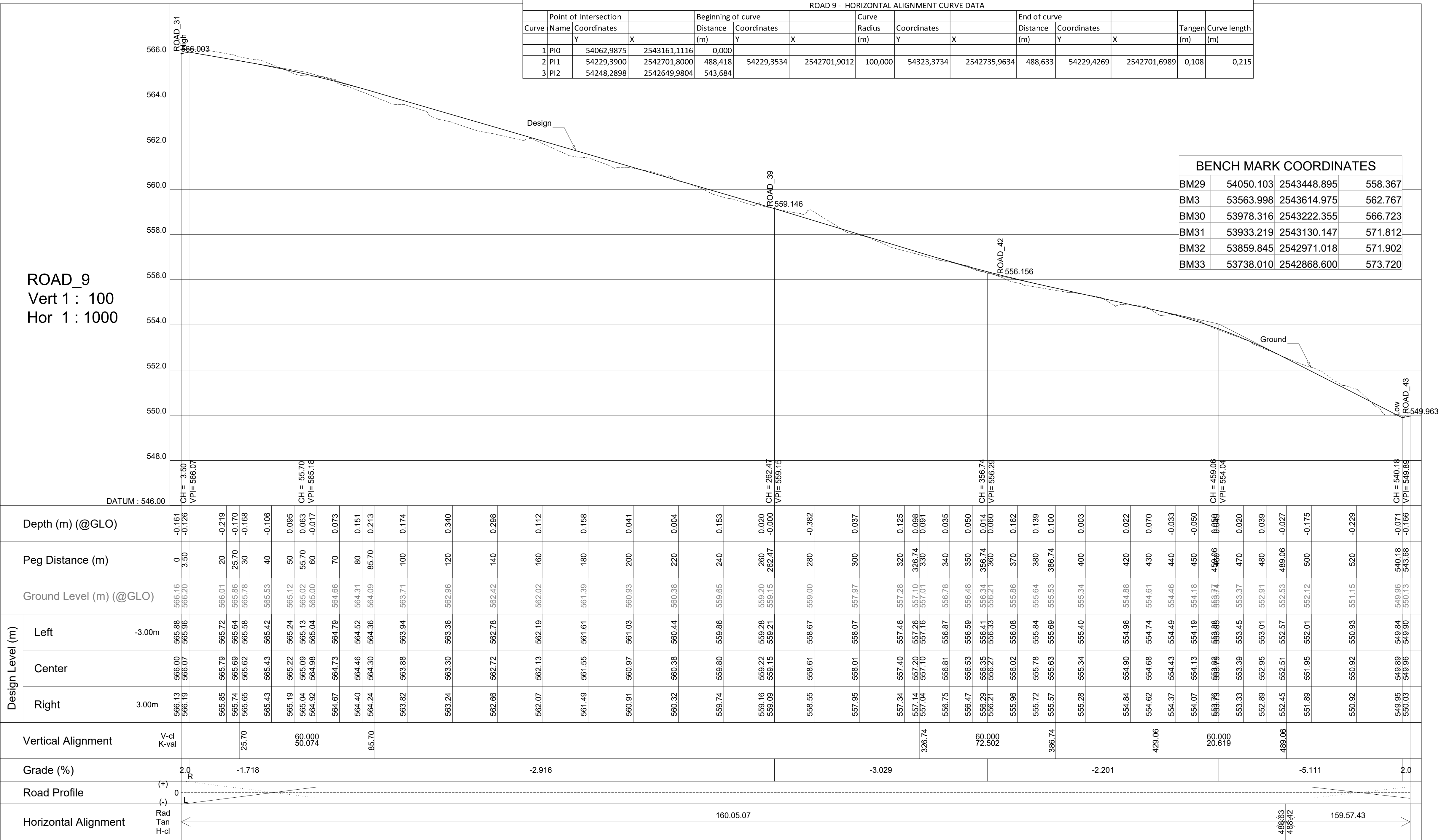
DRAWING NUMBER:		TLM 09/2023/2024-CV-04	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



Plan Layout
Scale 1:1000



ROAD_9
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No. DESCRIPTION

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No. DATE DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 9 PLAN & LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No 1
Leadwood Street
Anzor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

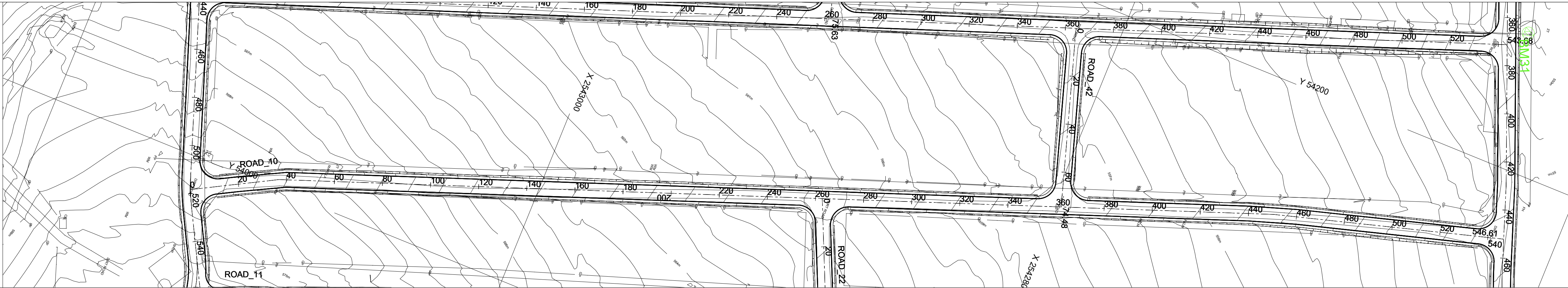
APPROVED / GOEDGEKEUR DATE / DATUM

PROJECT STATUS

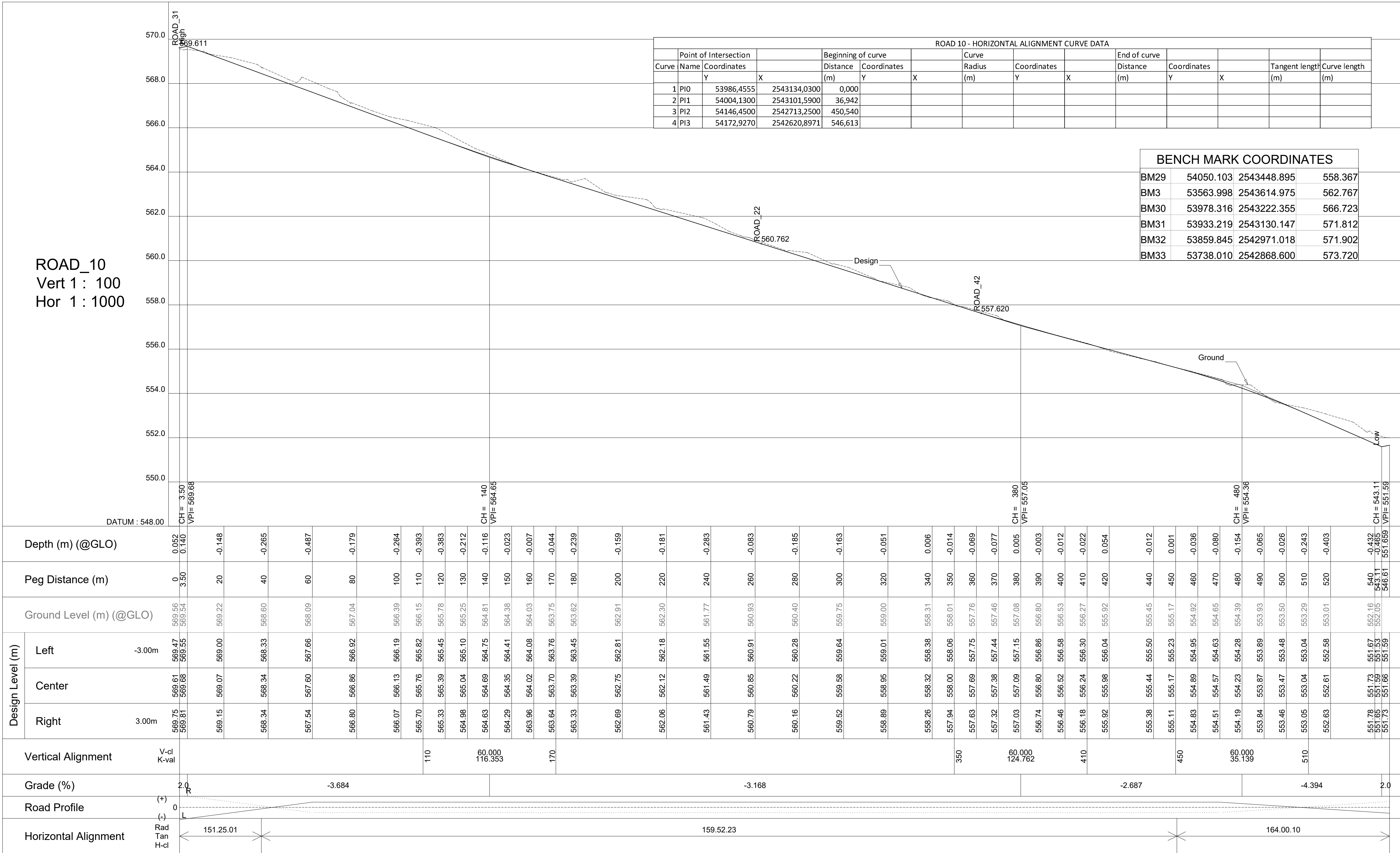
DESIGN DRAWING
TENDER DRAWING
APPROVED FOR CONSTRUCTION DRAWING
AS BUILT DRAWING

DRAWING NUMBER:		TLM 09/2023/2024-CV-05	
SIZE	SCALE	SHEET NO.	REV
A 1	N.T.S.	SHEET 1 of 1	0

Plan Layout
Scale 1:1000



ROAD_10
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No. DESCRIPTION

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No. DATE DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 10 PLAN & LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No. 1
Leadwood Street
Ankor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

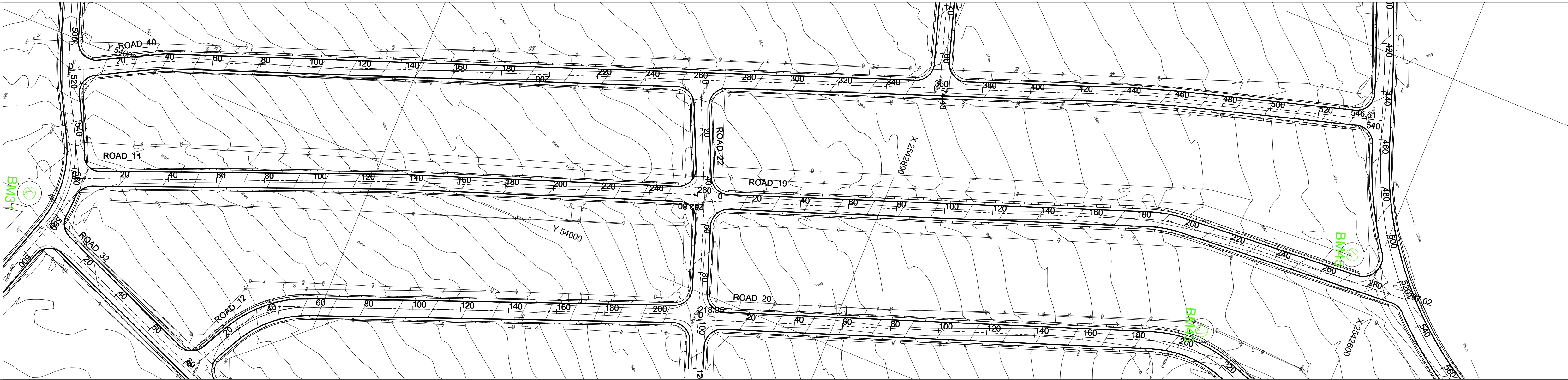
APPROVED / GOEDGEKEUR DATE / DATUM

PROJECT STATUS

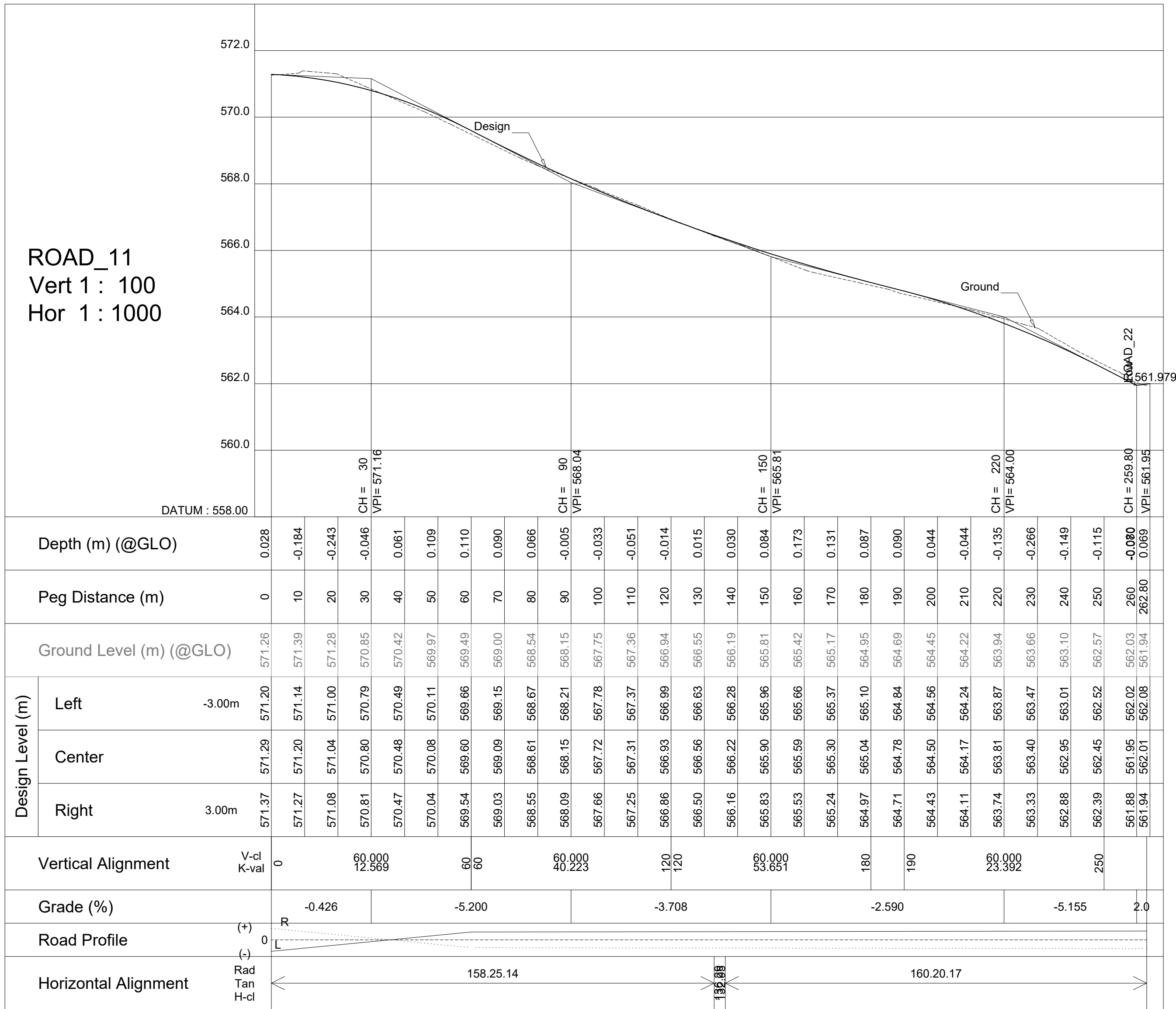
DESIGN DRAWING TENDER DRAWING APPROVED FOR CONSTRUCTION DRAWING AS BUILT DRAWING

DRAWING NUMBER:		TLM 09/2023/2024-CV-06	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0

Plan Layout
Scale 1:1000



BENCH MARK COORDINATES			
BM43	54063.825	2542657.495	555.340
BM44	53988.955	2542488.379	549.814
BM45	54116.621	2542611.500	553.216
BM46	54256.028	2542643.703	549.648
BM47	54401.948	2542687.685	545.831
BM48	54461.295	2542723.448	545.255



REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
-------------	-------------

NOTES:

1.

ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.

2.

THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.

3.

ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

4.

ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

5.

THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

6.

THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.

7.

ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No.

DATE

DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

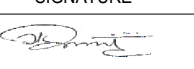
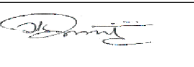
CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

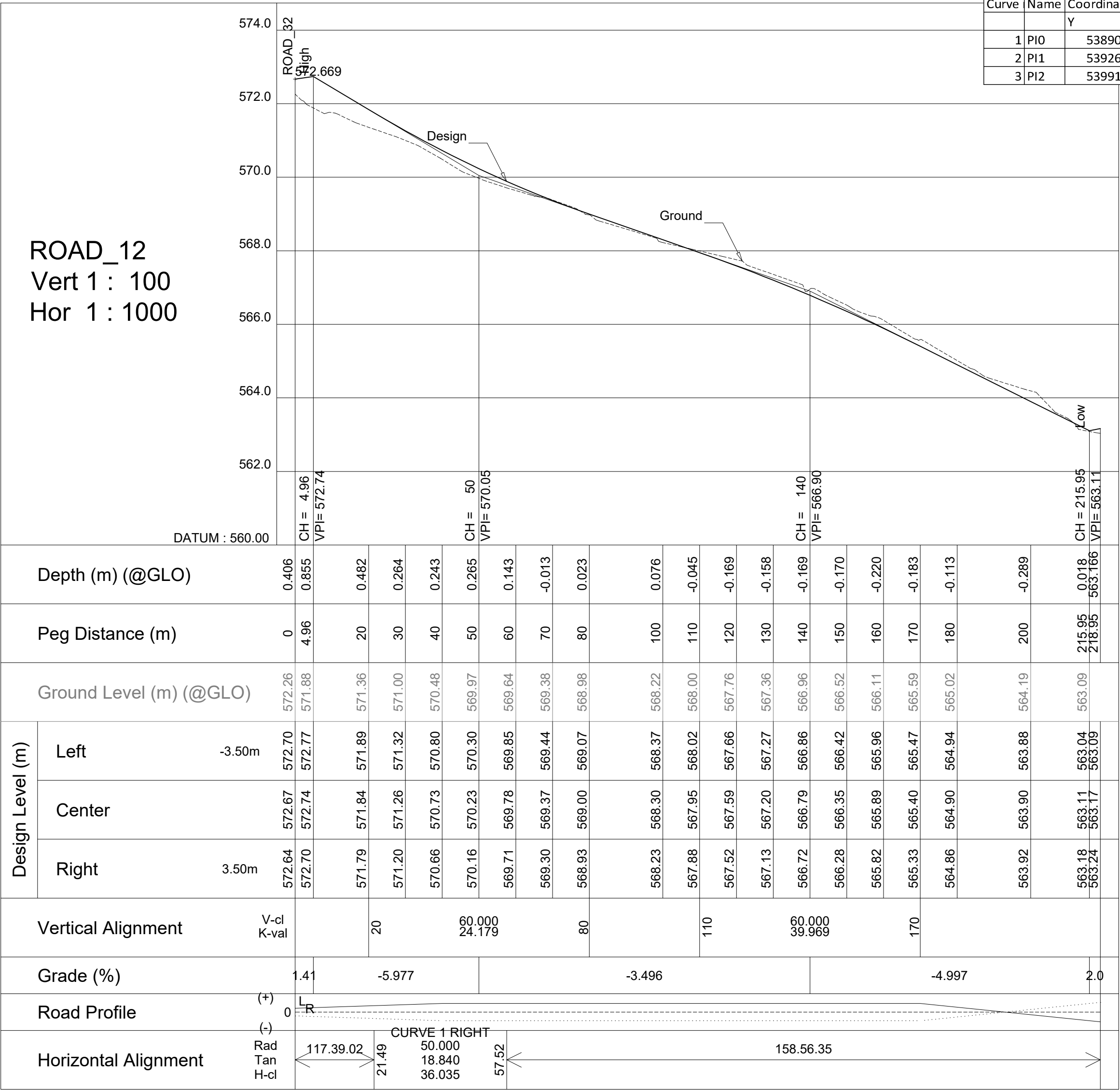
ROAD 11 PLAN & LONGSECTION

FILE No.	09/2023/2024	ITEM No.			
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN		
SCALE	AS SHOWN	T. ZIYANE	CHECKED		
RESPONSIBLE PROFESSIONAL					
DATE	NAME	SIGNATURE	Reg. No.		
20.07.2023	T. ZIYANE		2018300197		
PROJECT COORDINATED					
DATE	NAME	SIGNATURE	Reg. No.		
20.07.2023	T. ZIYANE		2018300197		
CONSULTANT					
					
No. 1 Leadwood Street Anzor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516			
APPROVED / GOEDGEKEUR					
DATE / DATUM					
PROJECT STATUS					
☒ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING		
DRAWING NUMBER:		TLM 09/2023/2024-CV-07			
SIZE	SCALE	SHEET NO.	REV		
A1	N.T.S.	SHEET 1 of 1	0		

Plan Layout
Scale 1:1000



ROAD_12
Vert 1 : 100
Hor 1 : 1000



ROAD 12 - HORIZONTAL ALIGNMENT CURVE DATA											
Curve	Point of Intersection			Beginning of curve		Curve		End of curve		Tangent (m)	Curve length (m)
	Name	Coordinates Y	Coordinates X	Distance (m)	Coordinates Y	Radius (m)	Coordinates Y	Distance (m)	Coordinates Y		
1	PI0	53890,8957	2543040,6564	0,000							
2	PI1	53926,6200	2543021,9400	21,490	53909,9317	2543030,6832	50,000	53886,7278	2542986,3935	57,525	53933,3890
3	PI2	53991,3891	2542853,7096	218,953							

BENCH MARK COORDINATES			
BM43	54063.825	2542657.495	555.340
BM44	53988.955	2542488.379	549.814
BM45	54116.621	2542611.500	553.216
BM46	54256.028	2542643.703	549.648
BM47	54401.948	2542687.685	545.831
BM48	54461.295	2542723.448	545.255

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
-------------	-------------

NOTES:

- ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
- ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No.	DATE	DESCRIPTION
---------	------	-------------



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 12 PLAN & LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No. 1
Leadwood Street
Ankor Park
TZANEEN
0850
TEL: 015 307 1795

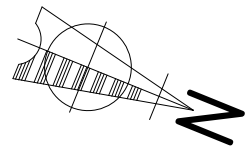
P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR DATE / DATUM

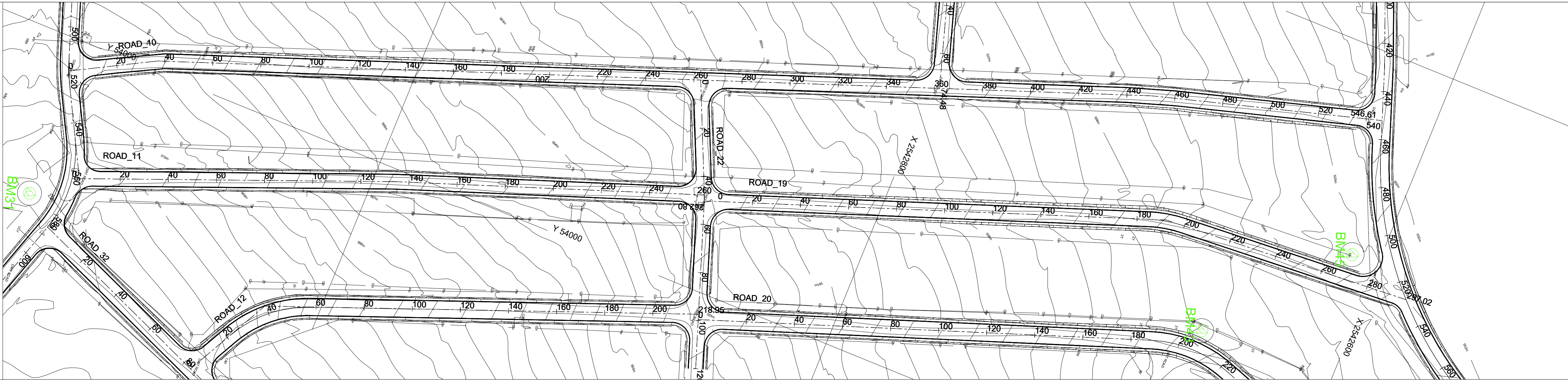
PROJECT STATUS

- ☐ DESIGN DRAWING ☒ TENDER DRAWING ☐ APPROVED FOR CONSTRUCTION DRAWING ☐ AS BUILT DRAWING

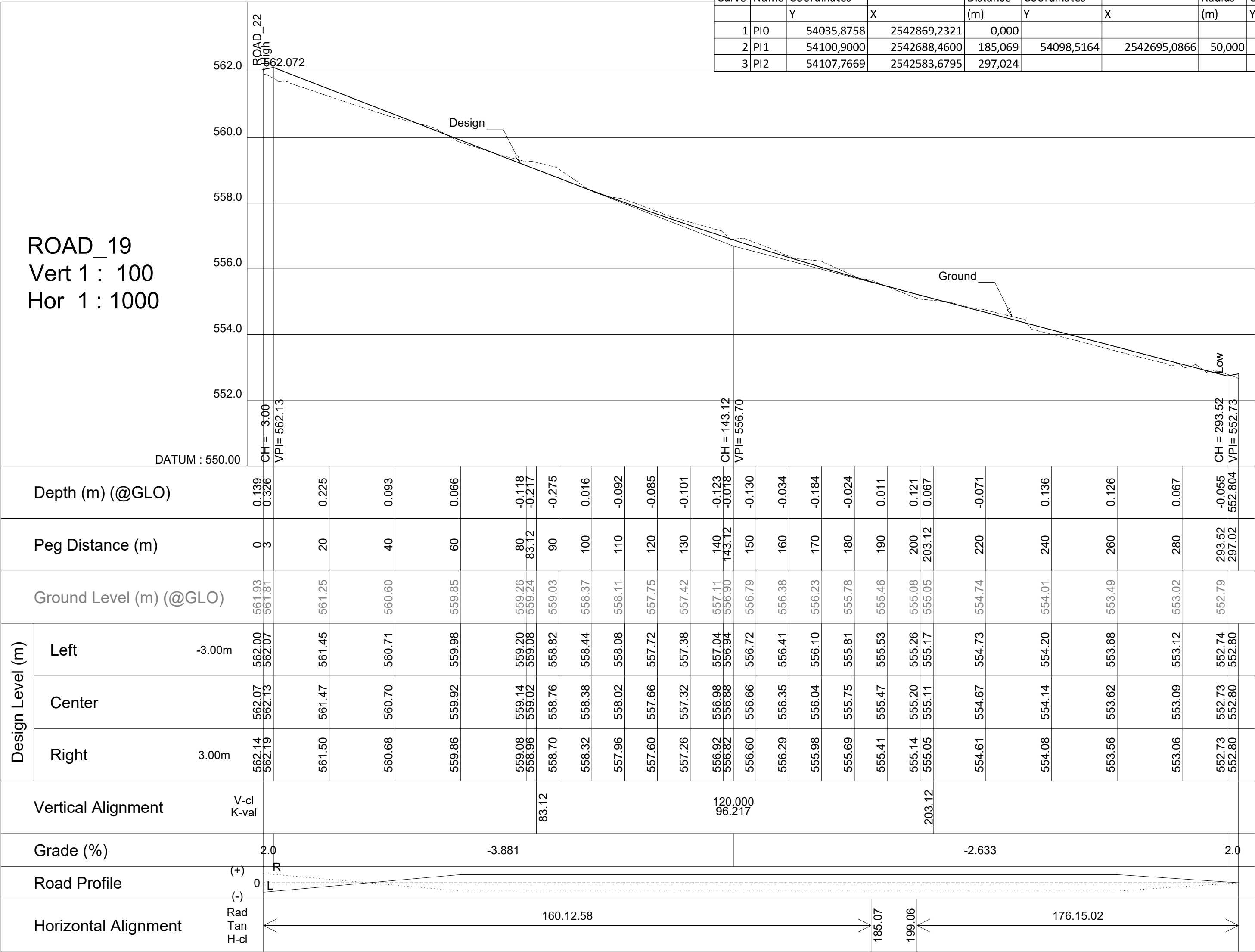
DRAWING NUMBER:		TLM 09/2023/2024-CV-08	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



Plan Layout
Scale 1:1000



ROAD 19 - HORIZONTAL ALIGNMENT CURVE DATA												
Curve	Point of Intersection			Beginning of curve			Curve			End of curve		
	Name	Coordinates		Distance	Coordinates		Radius	Coordinates		Distance	Coordinates	
1	PI0	54035,8758	2542869,2321	0,000								
2	PI1	54100,9000	2542688,4600	185,069	54098,5164	2542695,0866	50,000	54051,4676	2542678,1630	199,061	54101,3605	2542681,4328
3	PI2	54107,7669	2542583,6795	297,024								



BENCH MARK COORDINATES			
BM43	54063.825	2542657.495	555.340
BM44	53988.955	2542488.379	549.814
BM45	54116.621	2542611.500	553.216
BM46	54256.028	2542643.703	549.648
BM47	54401.948	2542687.685	545.831
BM48	54461.295	2542723.448	545.255

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
-------------	-------------

NOTES:

- ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
- ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No.	DATE	DESCRIPTION
---------	------	-------------



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 19 PLAN & LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No. 1
Leadwood Street
Anzor Park
TZANEEN
0850
TEL: 015 307 1795

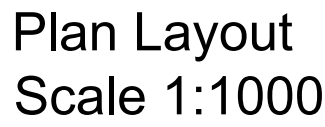
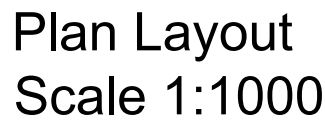
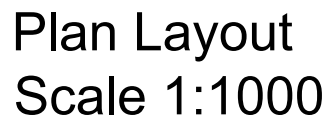
P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR DATE / DATUM

PROJECT STATUS

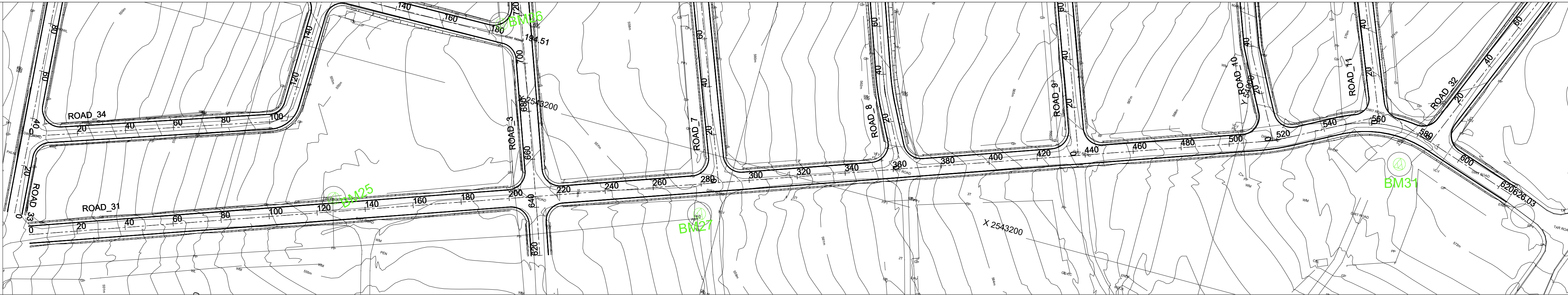
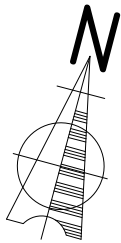
- ☐ DESIGN DRAWING ☒ TENDER DRAWING ☐ APPROVED FOR CONSTRUCTION DRAWING ☐ AS BUILT DRAWING

DRAWING NUMBER:		TLM 09/2023/2024-CV-09	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



Plan Layout
Scale 1:1000

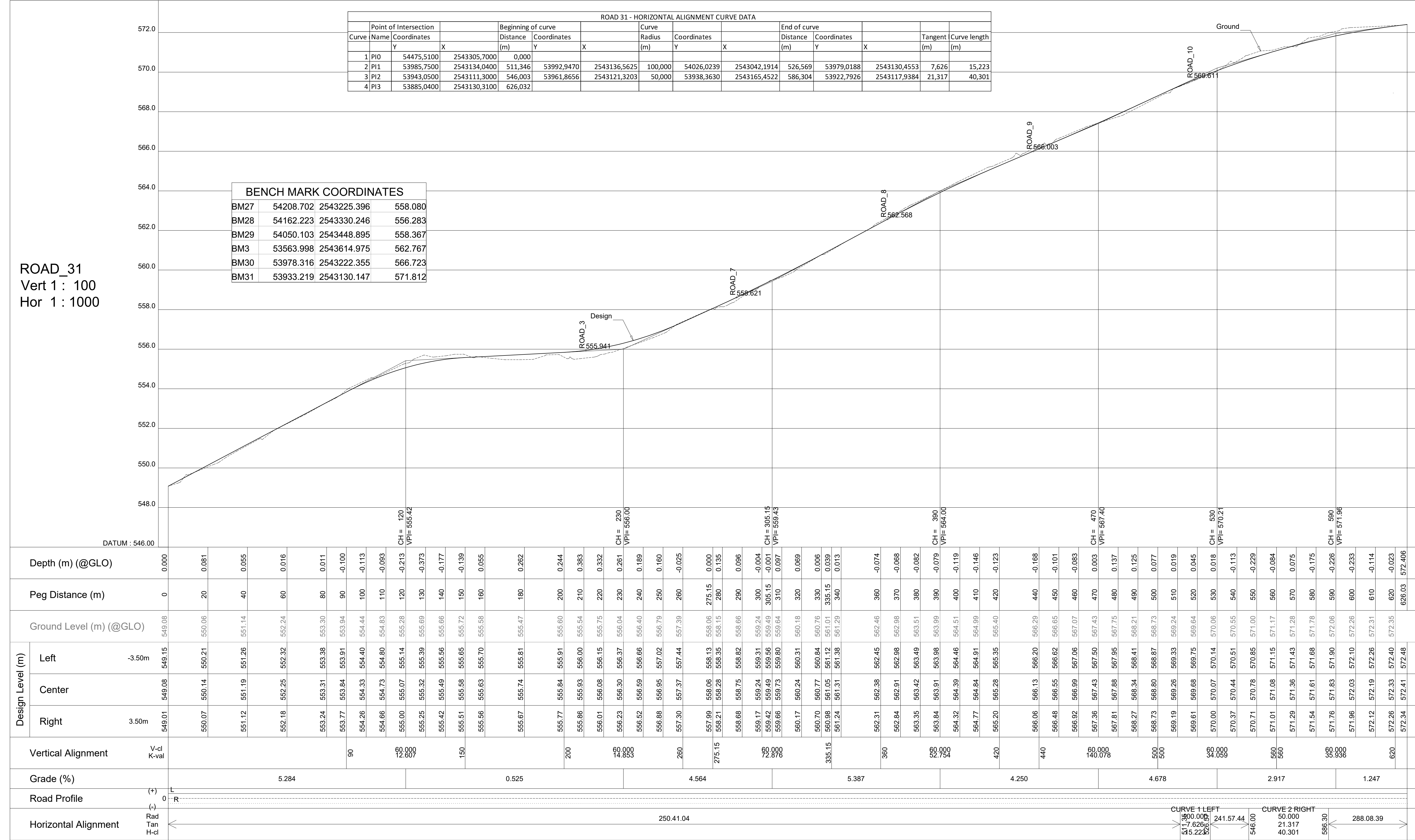
Plan Layout
Scale 1:1000



ROAD 31 - HORIZONTAL ALIGNMENT CURVE DATA														
Curve	Point of Intersection		Beginning of curve	Curve	End of curve	Tangent	Curve length							
	Name	Coordinates						Distance (m)	Coordinates	Radius (m)	Coordinates	Distance (m)	Coordinates	
	Y	X	Y	X	Y	X	Y	X	Y	X	(m)	(m)		
1	PI0	54475,5100	2543305,7000	0,000										
2	PI1	53985,7500	2543134,0400	511,346	53992,9470	2543136,5625	100,000	54026,0239	2543042,1914	526,569	53979,0188	2543130,4553	7,626	15,223
3	PI2	53943,0500	2543111,3000	546,003	53961,8656	2543121,3203	50,000	53938,3630	2543165,4522	586,304	53922,7926	2543117,9384	21,317	40,301
4	PI3	53885,0400	2543130,3100	626,032										

BENCH MARK COORDINATES				
BM27	54208.702	2543225.396	558.080	
BM28	54162.223	2543330.246	556.283	
BM29	54050.103	2543448.895	558.367	
BM3	53563.998	2543614.975	562.767	
BM30	53978.316	2543222.355	566.723	
BM31	53933.219	2543130.147	571.812	

ROAD_31
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
NOTES:	
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.	
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.	
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.	
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.	

REV No.

DATE

DESCRIPTION

INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

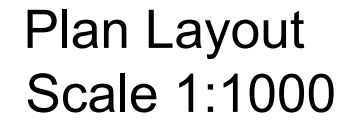
WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

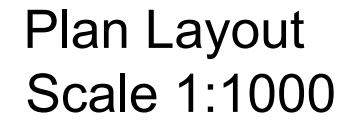
DRAWING DESCRIPTION

ROAD 31 PLAN & LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
No 1 Leadwood Street Ankor Park TZANEEN 0850 TEL: 015 307 1795			
P.O BOX 1009 TZANEEN 0850 FAX: 086 545 3516			
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-CV-11	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0

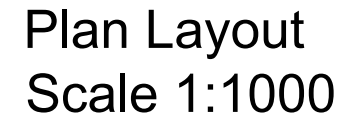
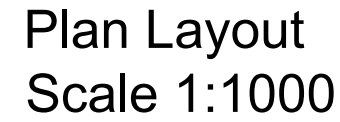


Plan Layout
Scale 1:1000



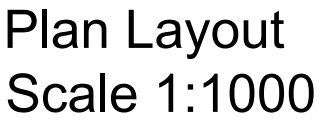
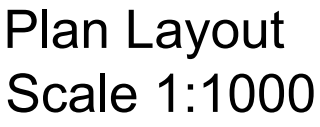
Plan Layout
Scale 1:1000

Plan Layout
Scale 1:1000



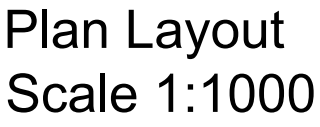
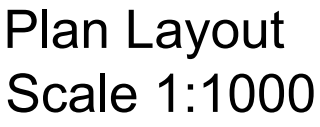
Plan Layout
Scale 1:1000

Plan Layout
Scale 1:1000



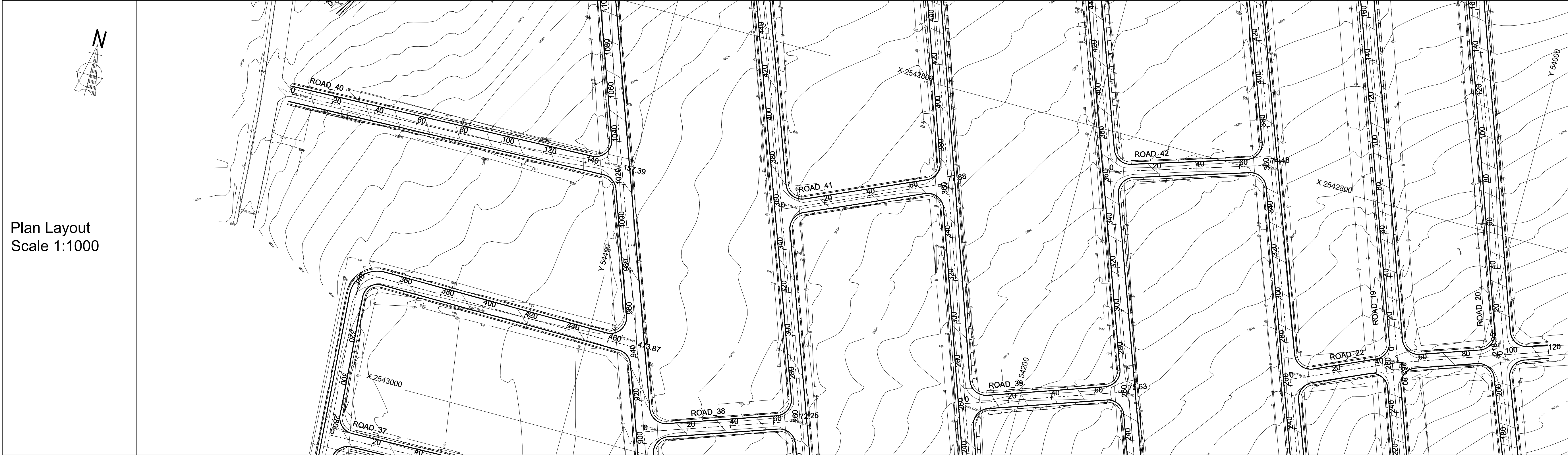
Plan Layout
Scale 1:1000

Plan Layout
Scale 1:1000



Plan Layout
Scale 1:1000

Plan Layout
Scale 1:1000



REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
NOTES:	
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.	
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.	
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.	
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.	

REV No. DATE DESCRIPTION



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

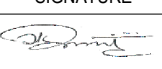
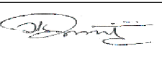
CIVIL AND STRUCTURAL

WORK DESCRIPTION

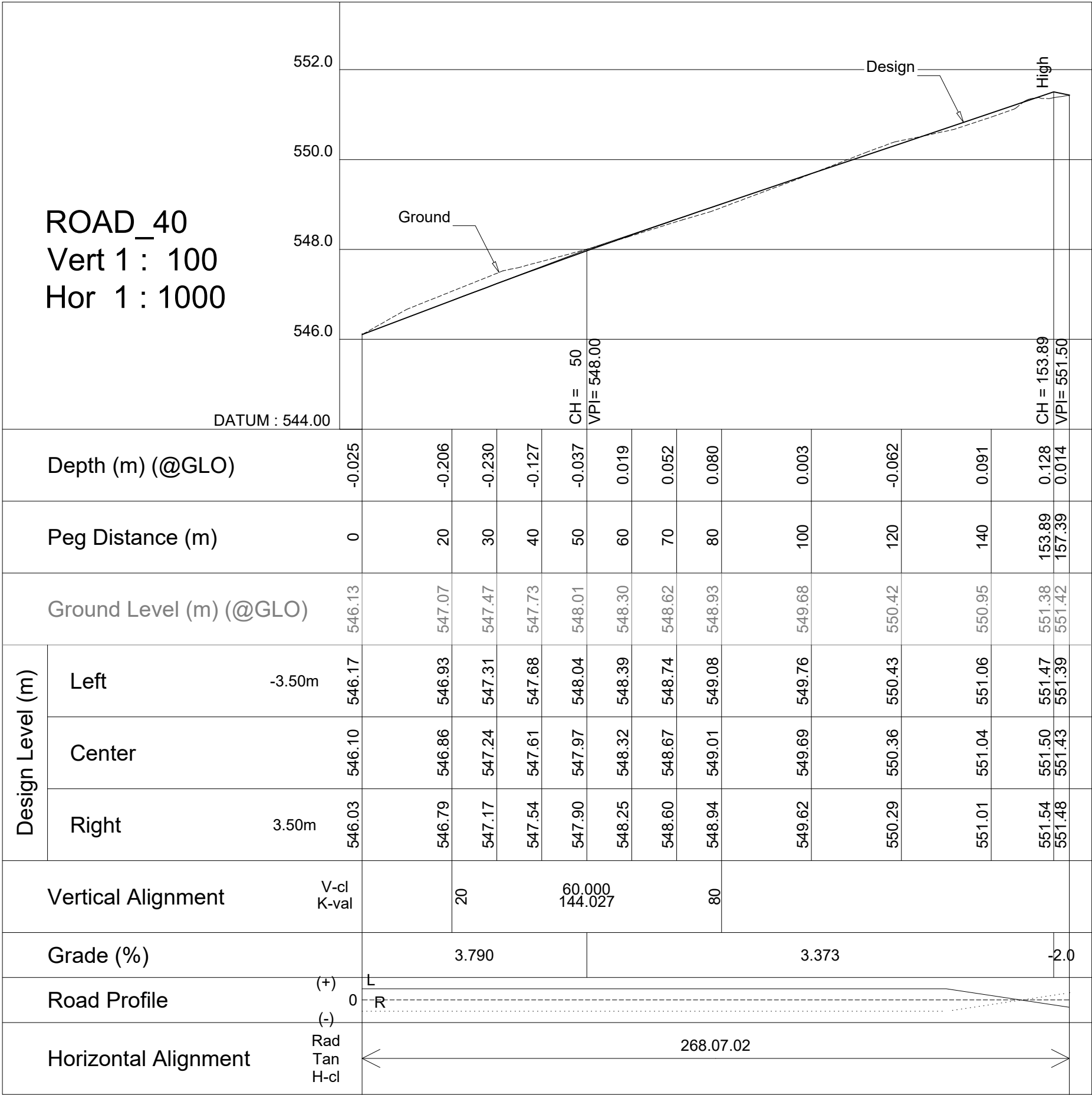
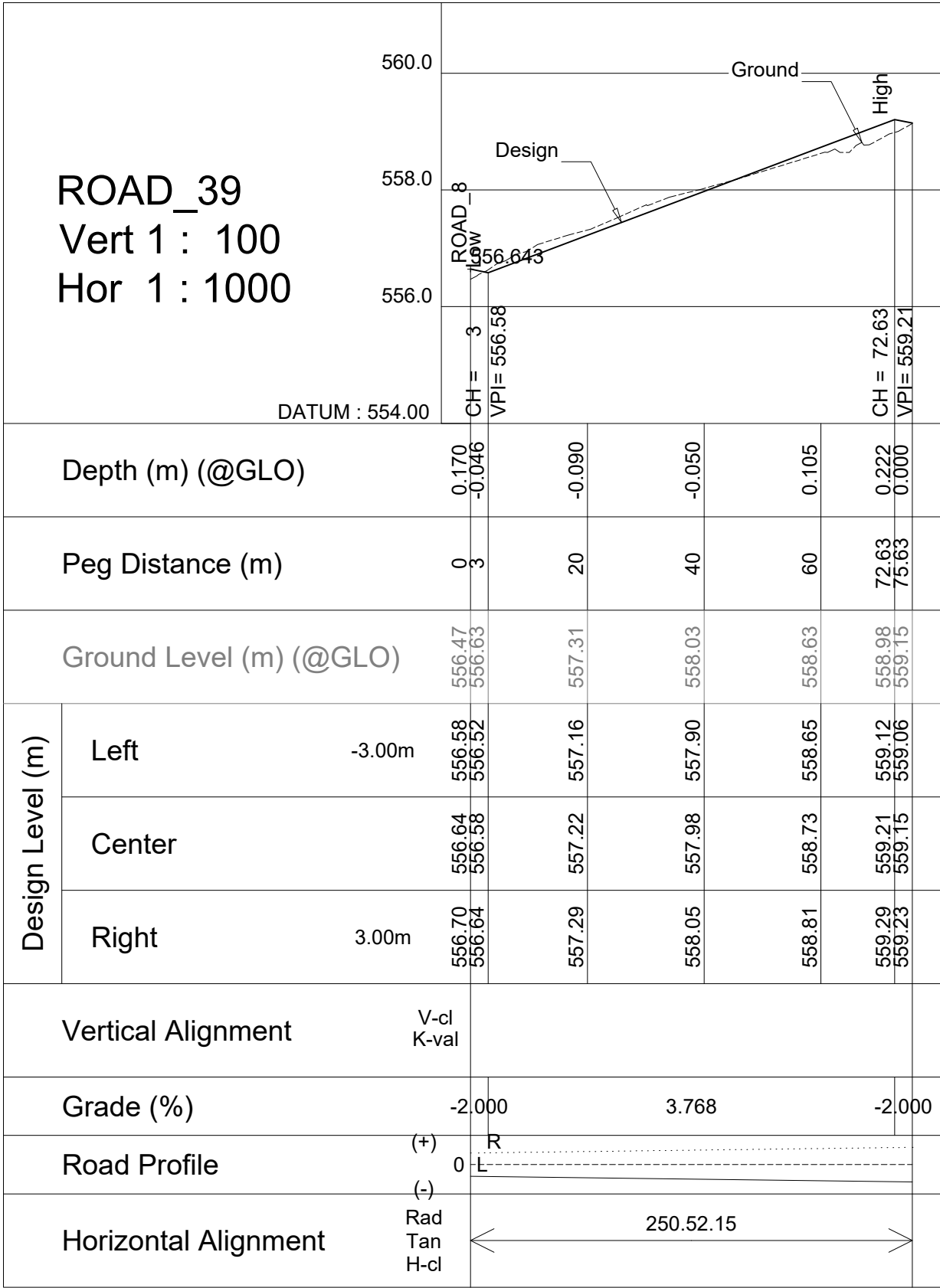
UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

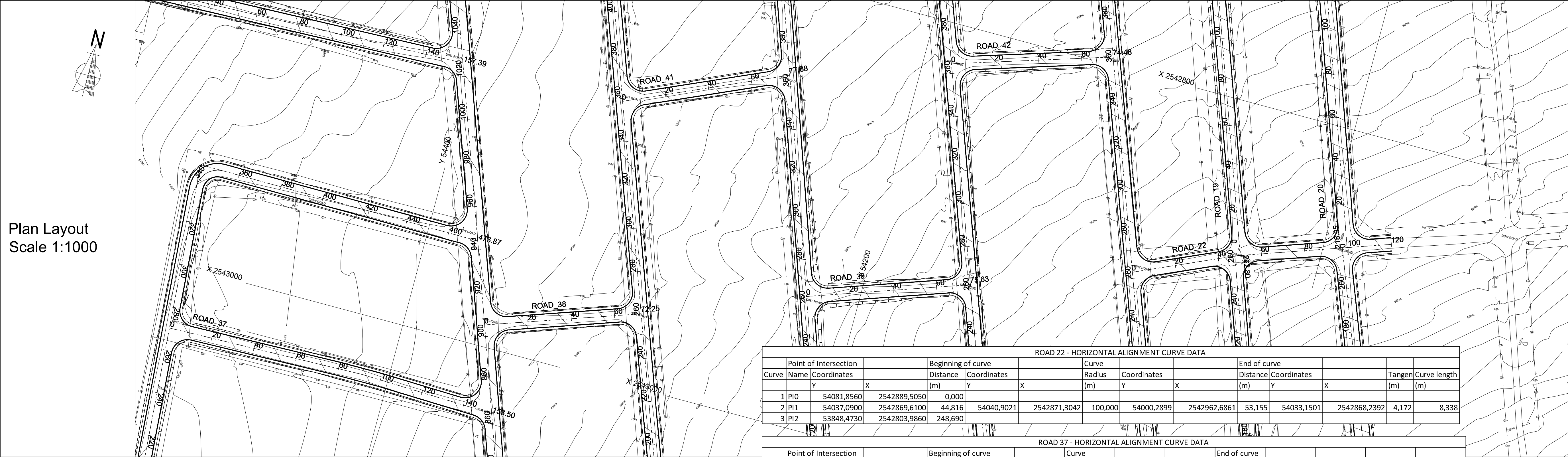
DRAWING DESCRIPTION

ROAD 39&40 PLAN &
LONGSECTION

FILE No.	09/2023/2024	ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA
SCALE	AS SHOWN	CHECKED
RESPONSIBLE PROFESSIONAL		
DATE	NAME	SIGNATURE
20.07.2023	T. ZIYANE	
PROJECT COORDINATED		
DATE	NAME	SIGNATURE
20.07.2023	T. ZIYANE	
CONSULTANT		
		
No. 1 Leadwood Street Anzor Park TZANEEN 0850 TEL: 015 307 1795		
P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516		
APPROVED / GOEDGEKEUR		
DATE / DATUM		
PROJECT STATUS		
☐ DESIGN DRAWING ☒ TENDER DRAWING ☐ APPROVED FOR CONSTRUCTION DRAWING ☐ AS BUILT DRAWING		
DRAWING NUMBER:		TLM 09/2023/2024-CV-13
SIZE	SCALE	SHEET NO.
A1	N.T.S.	SHEET 1 of 1
		REV
		0

BENCH MARK COORDINATES			
BM43	54063.825	2542657.495	555.340
BM44	53988.955	2542488.379	549.814
BM45	54116.621	2542611.500	553.216
BM46	54256.028	2542643.703	549.648
BM47	54401.948	2542687.685	545.831
BM48	54461.295	2542723.448	545.255





Plan Layout
Scale 1:1000

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
NOTES:	
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.	
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.	
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.	
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.	
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.	

REV No. DATE DESCRIPTION

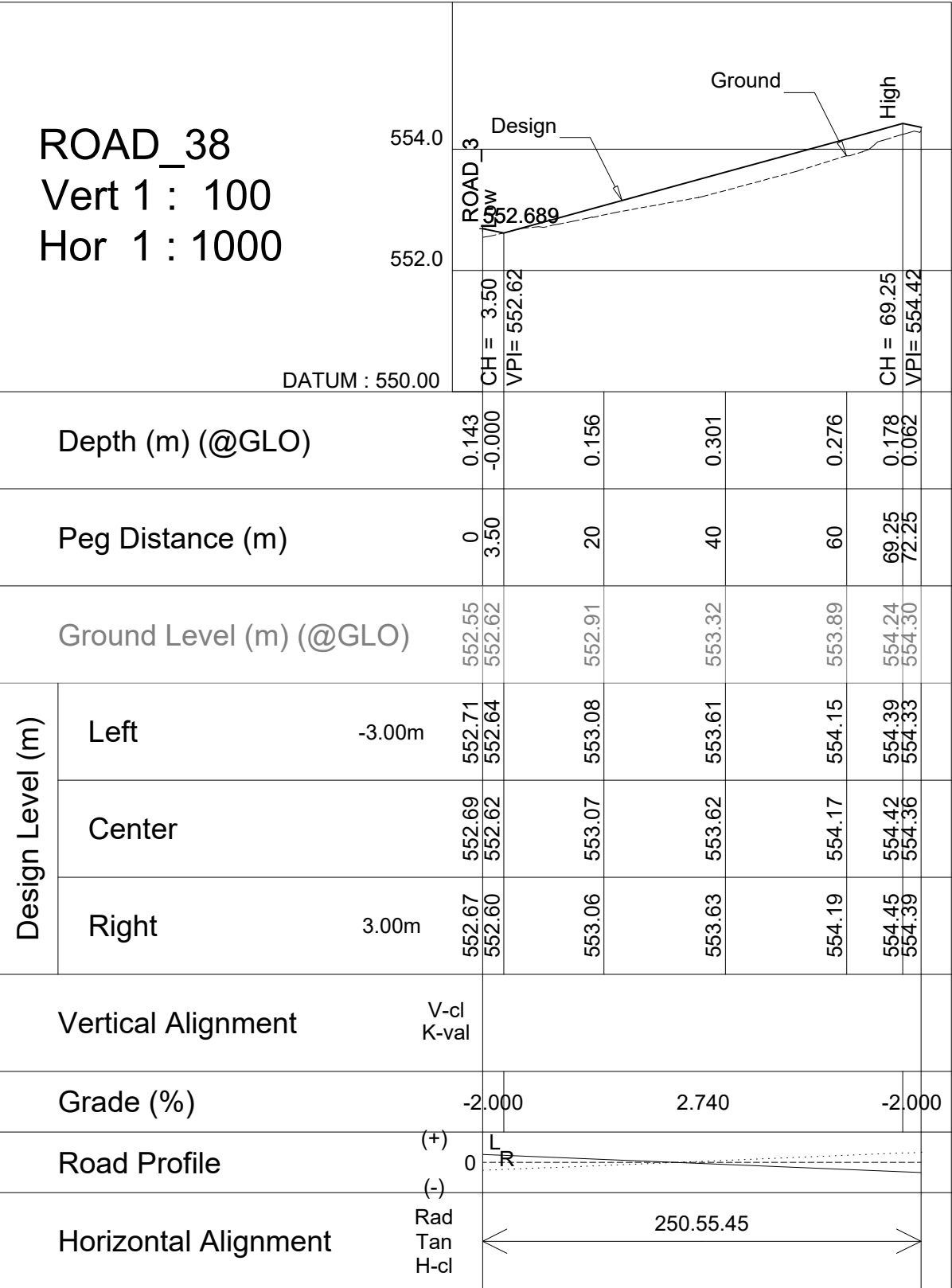
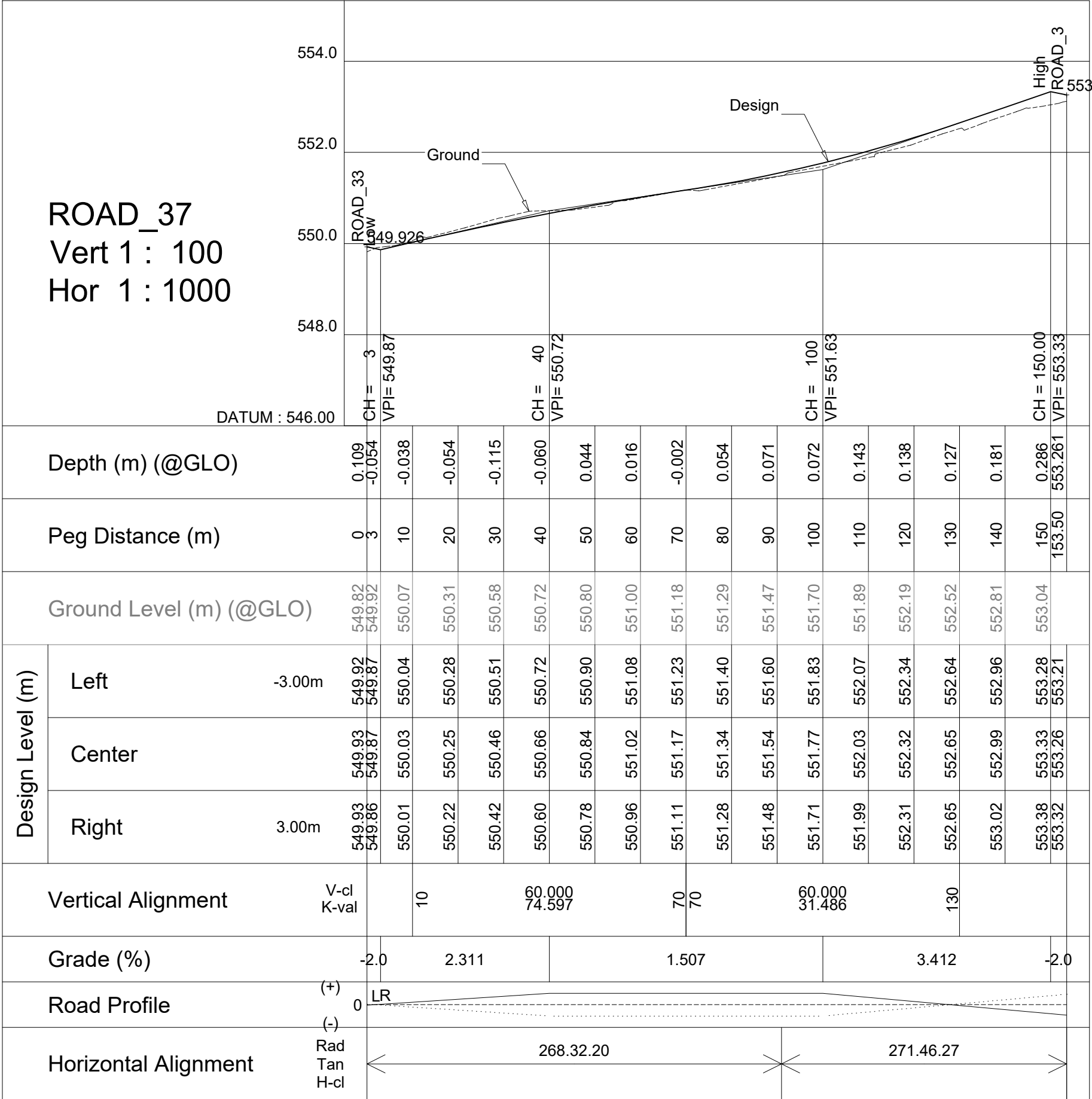
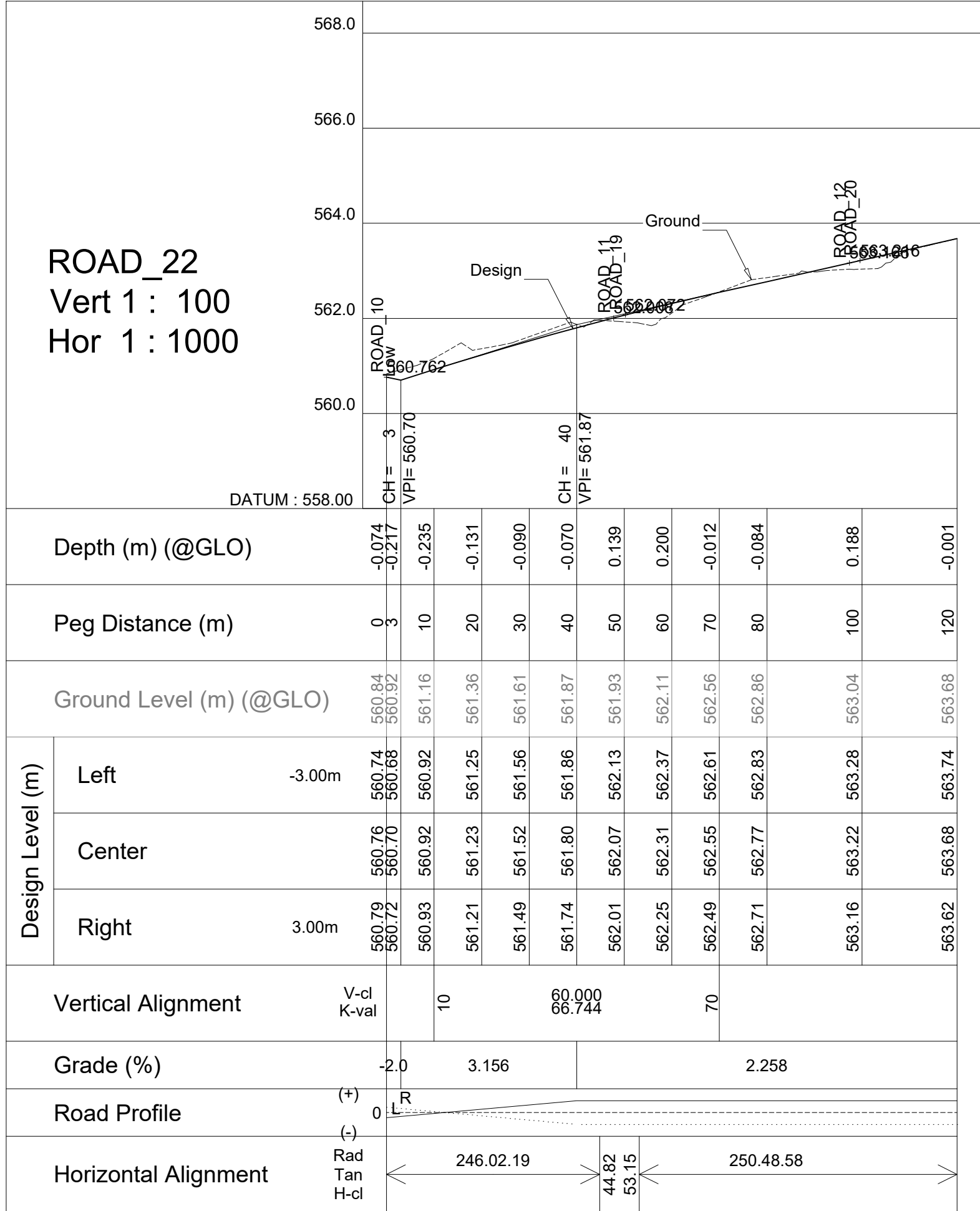


BENCH MARK COORDINATES				
BM43	54063.825	2542657.495	555.340	
BM44	53988.955	2542488.379	549.814	
BM45	54116.621	2542611.500	553.216	
BM46	54256.028	2542643.703	549.648	
BM47	54401.948	2542687.685	545.831	
BM48	54461.295	2542723.448	545.255	

ROAD 22 - HORIZONTAL ALIGNMENT CURVE DATA									
Curve	Point of Intersection		Beginning of curve		Curve		End of curve		Tangen
	Name	Coordinates	Distance	Coordinates	Radius	Coordinates	Distance	Coordinates	
		Y	X	(m)	Y	X	(m)	Y	X
1	PI0	54081,8560	2542889,5050	0,000					
2	PI1	54037,0900	2542869,6100	44,816	54040,9021	2542871,3042	100,000	54000,2899	2542962,6861
3	PI2	53848,4730	2542803,9860	248,690				53,155	54033,1501

ROAD 37 - HORIZONTAL ALIGNMENT CURVE DATA									
Curve	Point of Intersection		Beginning of curve		Curve		End of curve		Tangent length
	Name	Coordinates	Distance	Coordinates	Radius	Coordinates	Distance	Coordinates	
		Y	X	(m)	Y	X	(m)	Y	X
1	PI0	54503,3663	2543029,0192	0,000					
2	PI1	54412,4500	2543026,7000	90,946					
3	PI2	54349,9272	2543028,6365	153,499					

ROAD 38 - HORIZONTAL ALIGNMENT CURVE DATA									
Curve	Point of Intersection		Beginning of curve		Curve		End of curve		Tangent length
	Name	Coordinates	Distance	Coordinates	Radius	Coordinates	Distance	Coordinates	
		Y	X	(m)	Y	X	(m)	Y	X
1	PI0	54363,6034	2542990,1120	0,000					
2	PI1	54295,3225	2542966,5066	72,246					



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 22,37& 38 PLAN &
LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No 1:
Leadwood Street
Ankor Park
TZANEEN
0850
TEL:015 307 1795

P.O BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR

DATE / DATUM

PROJECT STATUS

☐ DESIGN
DRAWING

☒ TENDER
DRAWING

☐ APPROVED FOR
CONSTRUCTION
DRAWINGS

☐ AS
BUILT
DRAWING

DRAWING NUMBER:		TLM 09/2023/2024-CV-14	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0

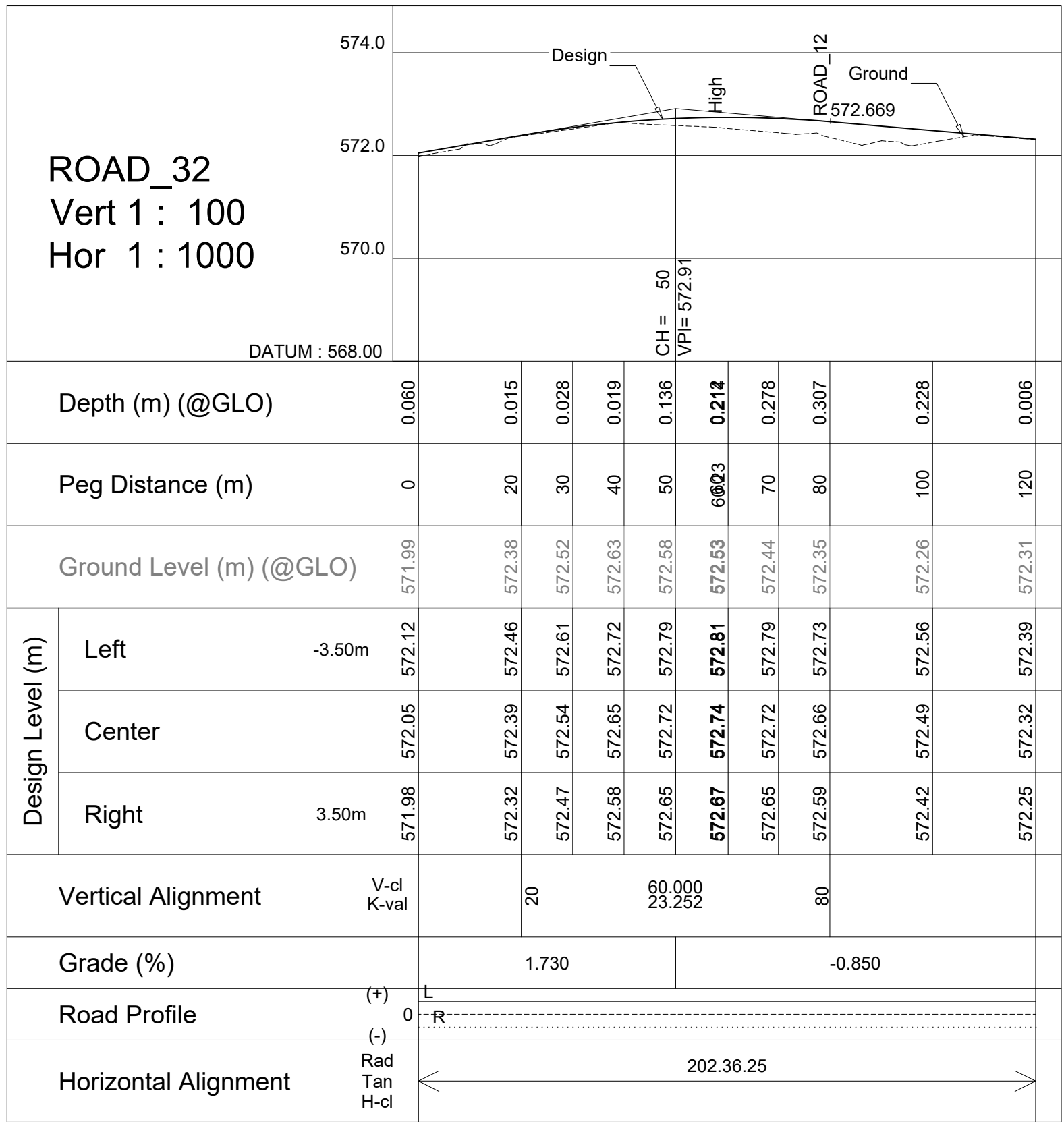
Plan Layout
Scale 1:1000



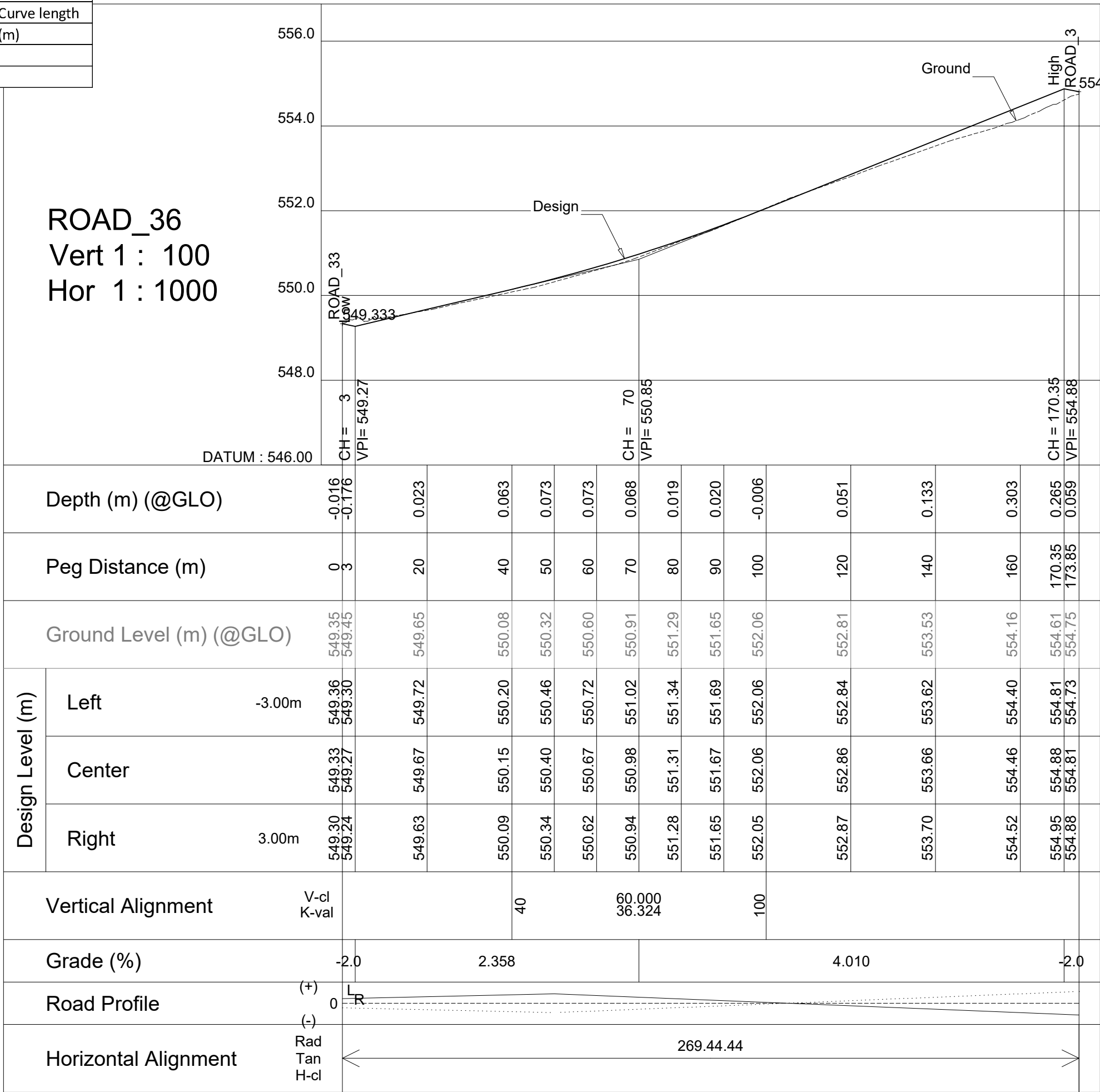
ROAD 32 - HORIZONTAL ALIGNMENT CURVE DATA														
Point of Intersection			Beginning of curve			Curve			End of curve					
Curve	Name	Coordinates	Distance	Coordinates	Radius	Coordinates	Distance	Coordinates	Tangent	Curve length				
	Y	X	(m)	Y	X	(m)	Y	X	(m)	Y	X	(m)		
1	PI0	53923,0422	2543117,8574	0,000										
2	PI1	53873,6500	2542999,2400	122,837	53875,8230	2543004,4586	30,000	53848,1281	2543015,9907	134,012	53869,7268	2542995,1702	5,653	11,175
3	PI2	53738,8000	2542859,3500	309,874	53747,6755	2542868,5573	100,000	53675,6798	2542937,9591	335,313	53727,8930	2542852,6726	12,789	25,439
4	PI3	53408,5700	2542657,1800	696,634	53419,7351	2542664,0154	100,000	53471,9483	2542578,7289	722,668	53399,5407	2542647,7009	13,091	26,034
5	PI4	53363,8000	2542610,1800	761,218	53372,9521	2542619,7880	250,000	53553,9710	2542447,3578	787,732	53355,7164	2542599,6572	13,269	26,514
6	PI5	53289,2000	2542513,0700	896,919										

ROAD 36 - HORIZONTAL ALIGNMENT CURVE DATA														
	Point of Intersection			Beginning of curve			Curve			End of curve				
Curve	Name	Coordinates		Distance	Coordinates		Radius	Coordinates		Distance	Coordinates		Tangent length	Curve length
	Y	X		(m)	Y	X	(m)	Y	X	(m)	Y	X	(m)	(m)
1	PI0	54498,0287		2543101,9256		0,000								
2	PI1	54324,1837		2543101,1535		173,847								

BENCH MARK COORDINATES			
BM25	54357.210	2543258.446	555.826
BM26	54308.510	2543170.524	556.969
BM27	54208.702	2543225.396	558.080
BM28	54162.223	2543330.246	556.283
BM29	54050.103	2543448.895	558.367
BM3	53563.998	2543614.975	562.767



ROAD_36
Vert 1 : 100
Hor 1 : 1000



REFERENCE DRAWINGS

DRAWING No. DESCRIPTION

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.

2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.

3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.

6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.

7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No. DATE DESCRIPTION

INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 32&36 PLAN &
LONGSECTION

FILE No. 09/2023/2024 ITEM No.

DESIGN T. ZIYANE D. MAKHANYA DRAWN

SCALE AS SHOWN T. ZIYANE CHECKED

RESPONSIBLE PROFESSIONAL

DATE NAME SIGNATURE Reg. No.

20.07.2023 T. ZIYANE 2018300197

PROJECT COORDINATED

DATE NAME SIGNATURE Reg. No.

20.07.2023 T. ZIYANE 2018300197

CONSULTANT

No: 1
Leadwood Street
Arbor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

APPROVED / GOEDGEKEUR DATE / DATUM

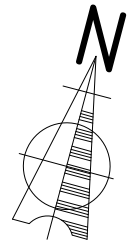
PROJECT STATUS

DESIGN DRAWING TENDER DRAWING APPROVED FOR CONSTRUCTION DRAWING AS BUILT DRAWING

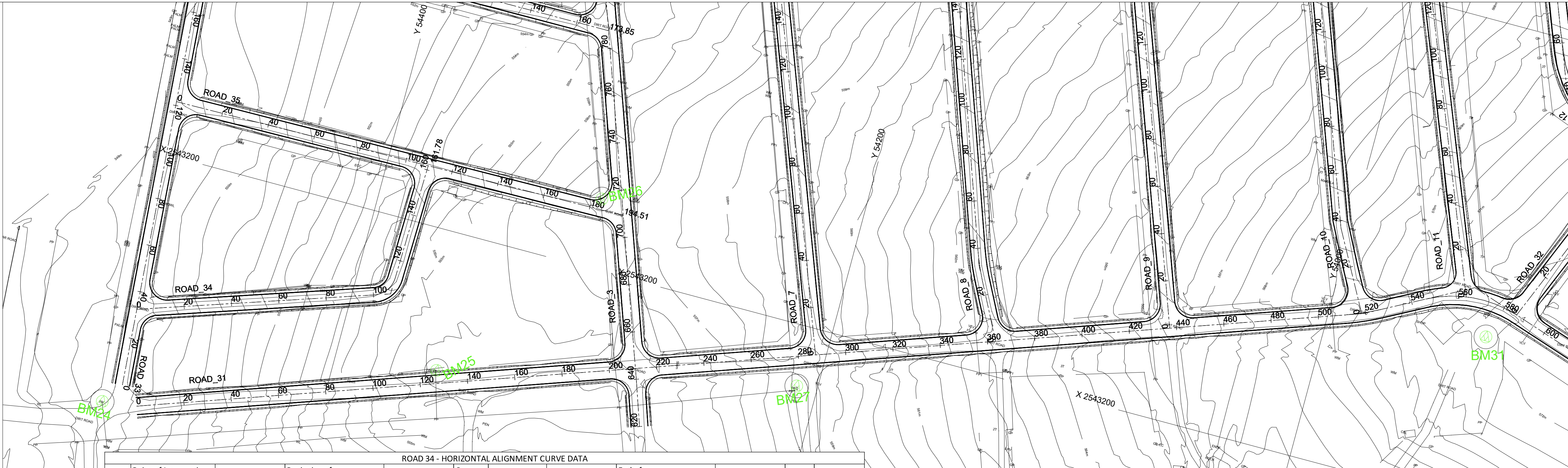
DRAWING NUMBER: TLM 09/2023/2024-CV-15

SIZE SCALE SHEET NO. REV

A1 N.T.S. SHEET 1 of 1 0



Plan Layout
Scale 1:1000



ROAD 34 - HORIZONTAL ALIGNMENT CURVE DATA														
	Point of Intersection		Beginning of curve			Curve			End of curve					
Curve	Name	Coordinates		Distance	Coordinates		Radius	Coordinates		Distance	Coordinates		Tangen	Curve length
		Y	X	(m)	Y	X	(m)	Y	X	(m)	Y	X	(m)	(m)
1	PI0	54486,0004	2543266,2228	0,000										
2	PI1	54384,2900	2543232,2400	100,216	54390,9494	2543234,4650	10,000	54394,1184	2543224,9804	112,459	54384,1213	2543225,2207	7,021	12,243
3	PI2	54382,9359	2543175,9104	161,784										

ROAD 35 - HORIZONTAL ALIGNMENT CURVE DATA											
Curve Name	Point of Intersection		Beginning of curve		Curve		End of curve		Tangent		Curve length
	Coordinates		Distance	Coordinates	Radius	Coordinates	Distance	Coordinates	(m)	(m)	
	Y	X	(m)	Y	X	(m)	Y	X	(m)	(m)	
1 PI0	54492,5124		2543177,2736								
2 PI1	54298,0200		2543174,8541	194,507							

BENCH MARK COORDINATES

BM27	54208.702	2543225.396	558.080
BM28	54162.223	2543330.246	556.283
BM29	54050.103	2543448.895	558.367
BM3	53563.998	2543614.975	562.767
BM30	53978.316	2543222.355	566.723
BM31	53933.219	2543130.147	571.812

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
-------------	-------------

NOTES:

1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No.	DATE	DESCRIPTION
---------	------	-------------



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

ROAD 34&35 PLAN &
LONGSECTION

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No. 1
Leadwood Street
Ankor Park
TZANEEN
0850
TEL: 015 307 1795

P.O. BOX 1009
TZANEEN
0850
FAX: 086 545 3516

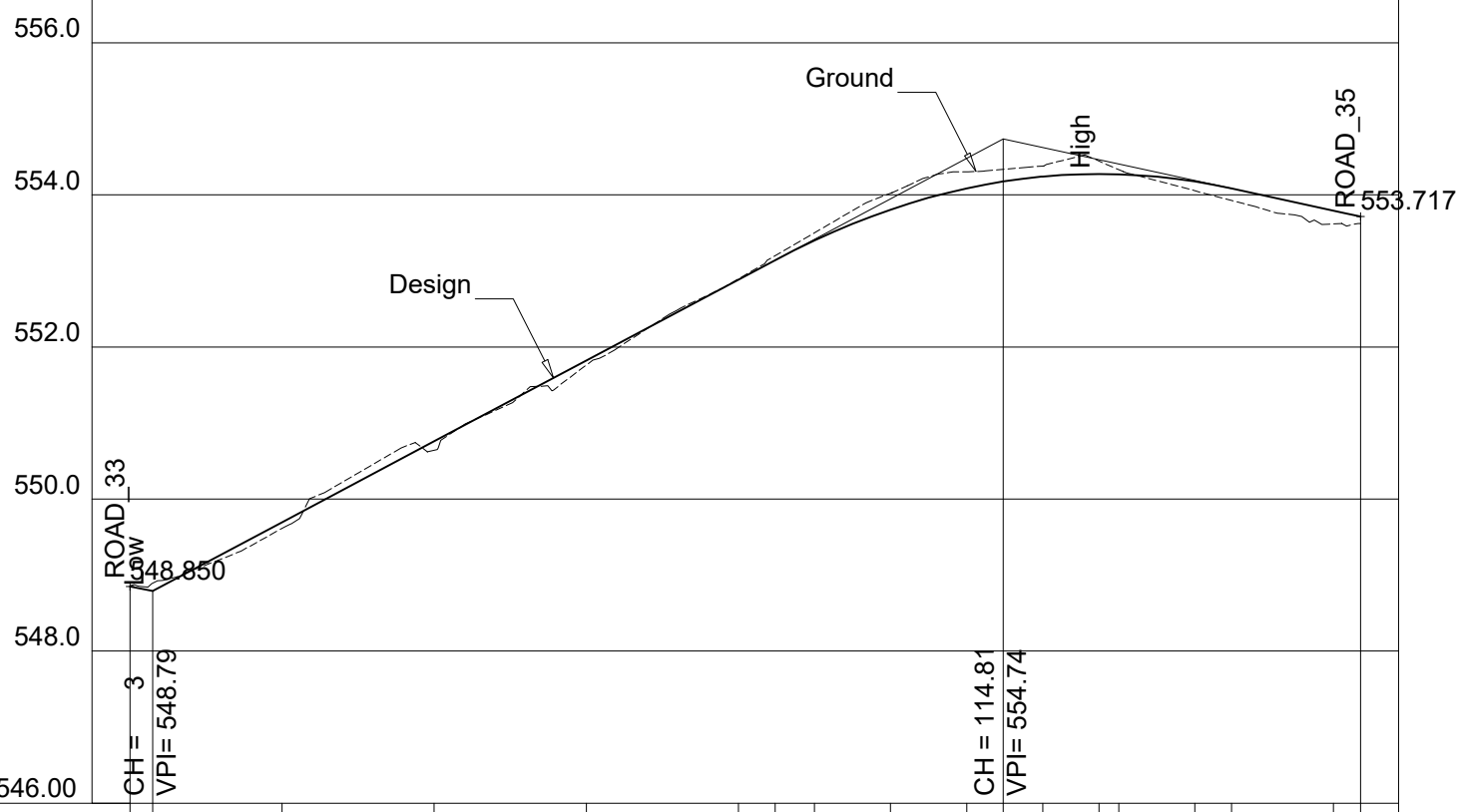
APPROVED / GOEDGEKEUR DATE / DATUM

PROJECT STATUS

- ☐ DESIGN DRAWING ☒ TENDER DRAWING ☐ APPROVED FOR CONSTRUCTION DRAWING ☐ AS BUILT DRAWING

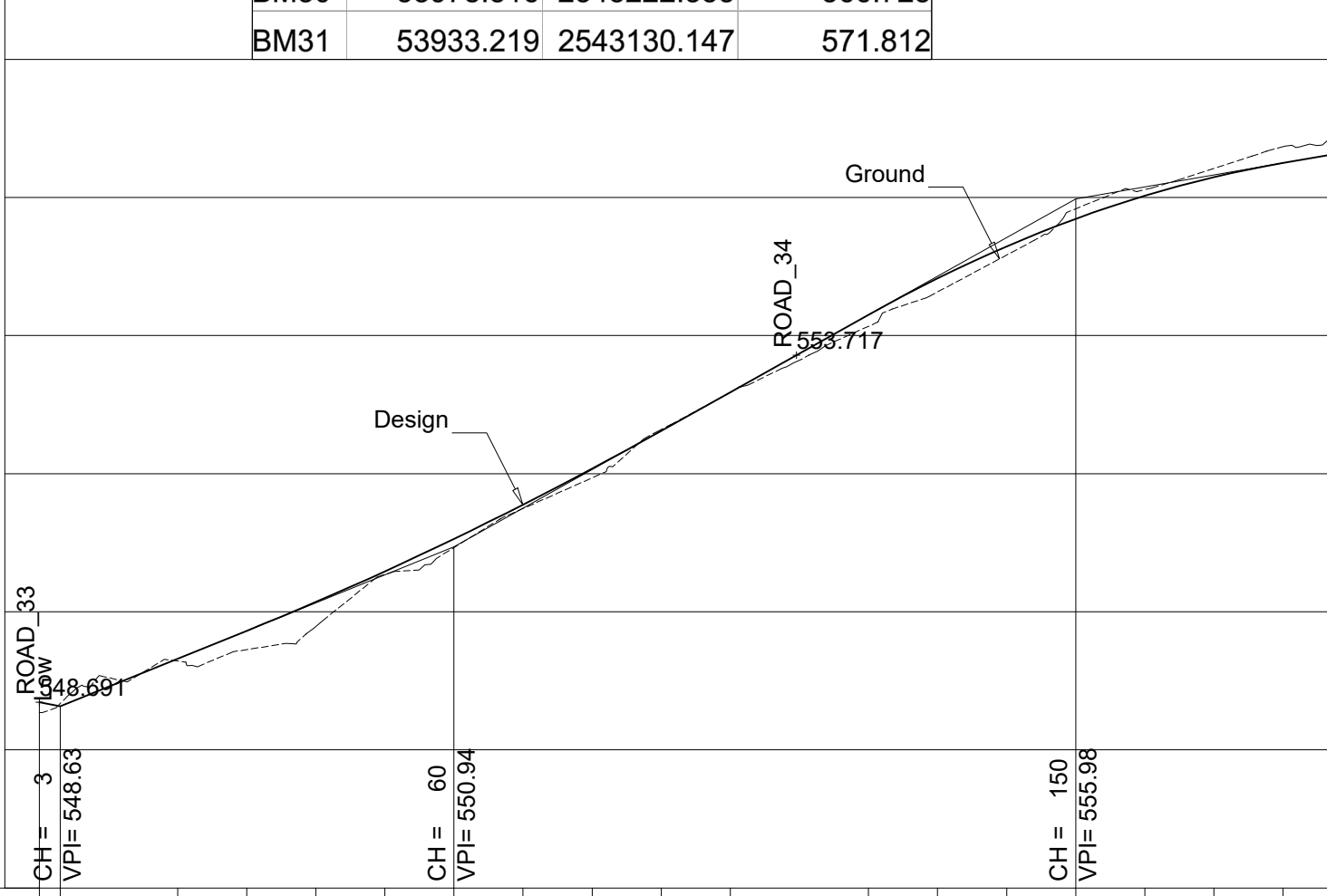
DRAWING NUMBER:	TLM 09/2023/2024-CV-16		
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0

ROAD_34
Vert 1 : 100
Hor 1 : 1000

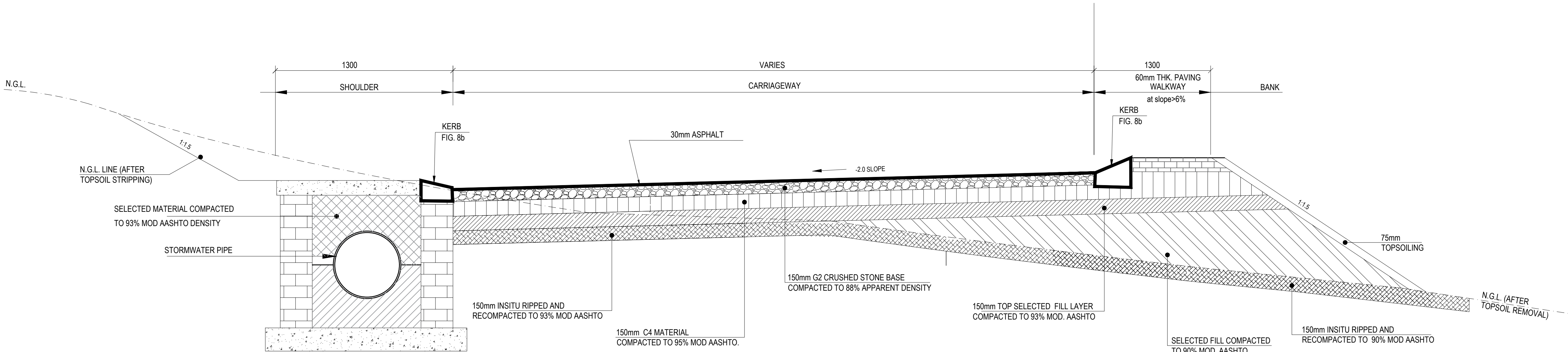


Design Level (m)		Left	Center	Right
Vertical Alignment		V-cl K-val		
Grade (%)		-2.0	5.320	-2.174
Road Profile		(+) 0		
Horizontal Alignment		Rad Tan H-cl	251.31.29	100.22 112.46 181.22.37

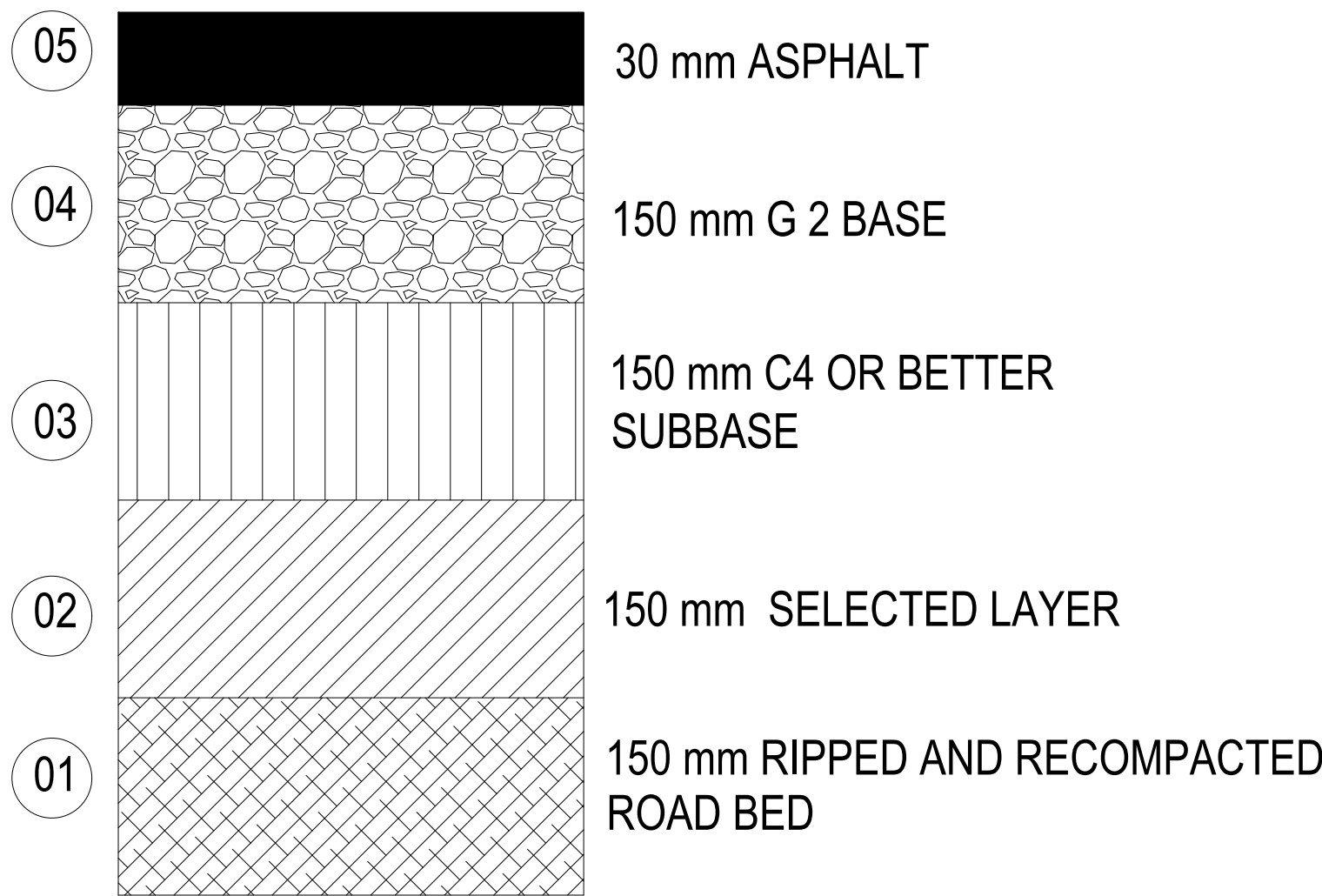
ROAD_35
Vert 1 : 100
Hor 1 : 1000



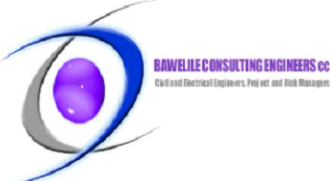
Depth (m) (@GLO)		0.148 -0.038																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
------------------	--	-----------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

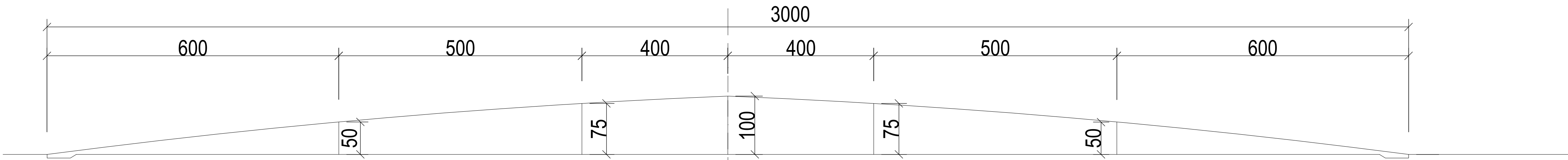


TYPICAL CROSS SECTION
N.T.S.

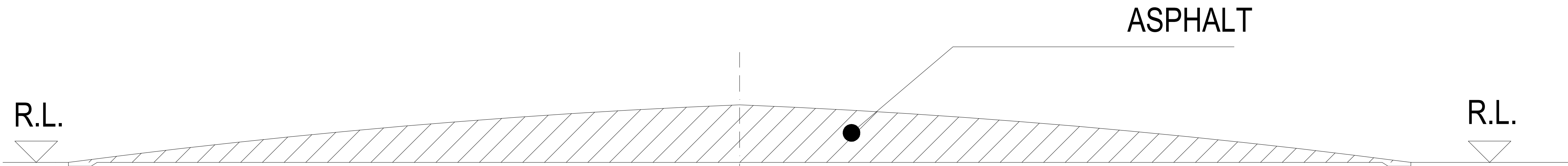


TYPICAL ROAD LAYERS

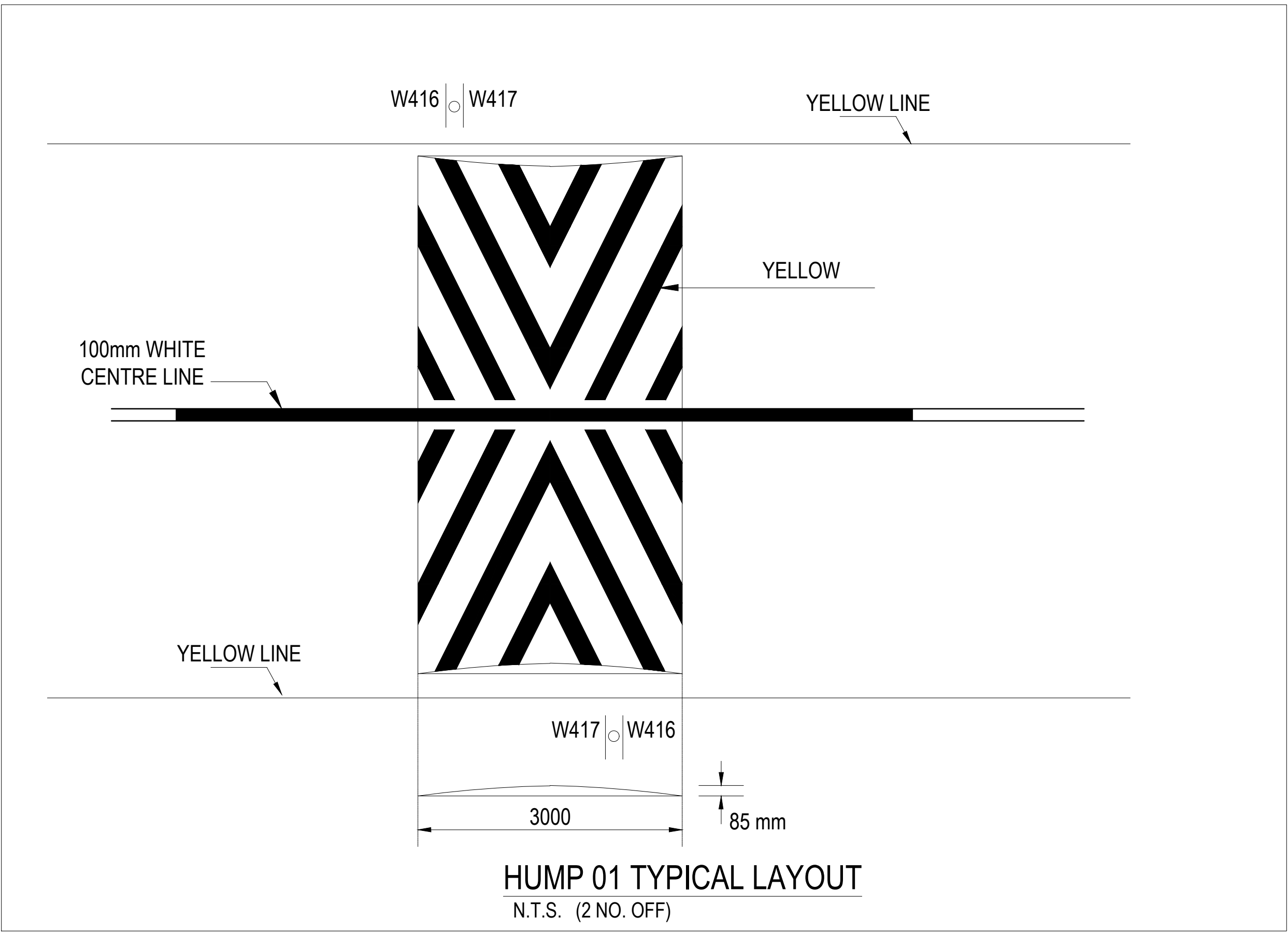
REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. THIS DRAWING TO BE READ WITH ALL RELEVANT ENGINEER'S DRAWINGS			
2. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WITHOUT DELAY, FOR CLARIFICATION.			
REV No.	DATE	DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHoyANDOU K AND K PORTION STREETS PHASE 1			
DRAWING DESCRIPTION			
TYPICAL ROAD CROSS SECTION AND LAYER WORKS DETAILS			
FILE No.	1202		ITEM No.
DESIGN	T. ZYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN		CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZYANE		2018300197
CONSULTANT			
			
No.1 Leadwood Street Anchor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 015 307 1795	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-TRS-01	
SIZE	SCALE	SHEET NO.	REV
A 1	AS SHOWN	SHEET 1 of 1	0



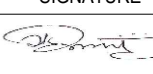
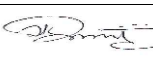
HUMP 01 PROFILE



TYPICAL HUMP 01 SECTION
N.T.S.

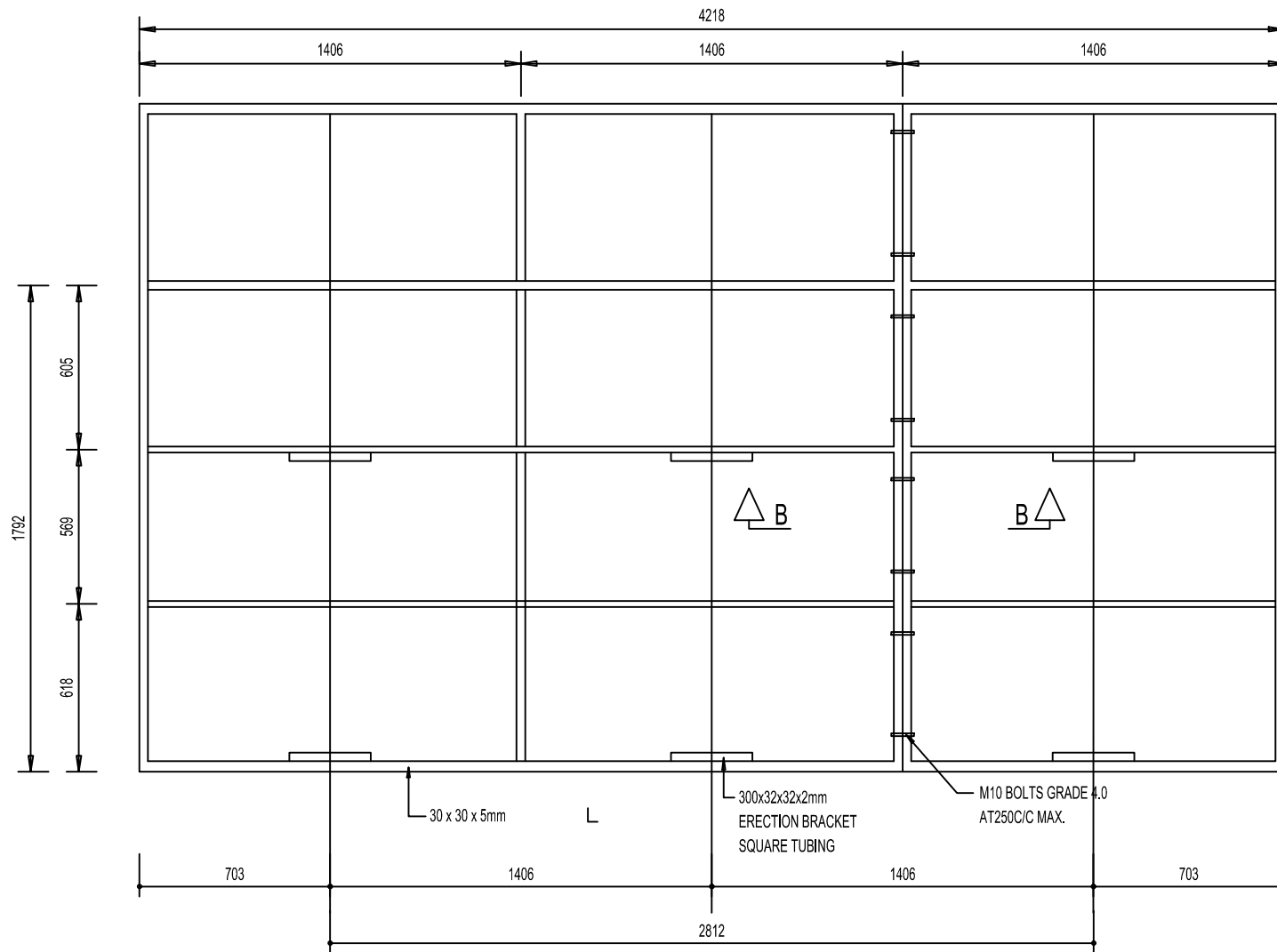


HUMP 01 TYPICAL LAYOUT
N.T.S. (2 NO. OFF)

REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. THIS DRAWING TO BE READ WITH ALL RELEVANT ENGINEER'S DRAWINGS			
2. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WITHOUT DELAY, FOR CLARIFICATION.			
REV No.	DATE	DESCRIPTION	
SPONSOR			
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
TYPICAL SPEED HUMP LAYOUT AND DETAILS			
FILE No.	1202		ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
1 LEADWOOD CRESCENT ARBOR PARK TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0860 FAX: 015 307 1795	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09-2023/2024-CV-SPH-01	
SIZE	SCALE	SHEET NO.	REV
A1	AS SHOWN	SHEET 1 of 1	0

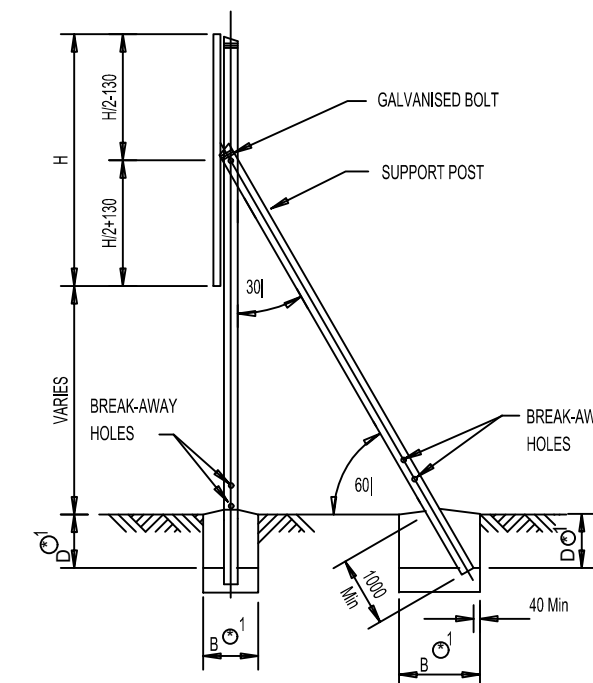


FRONT ELEVATION

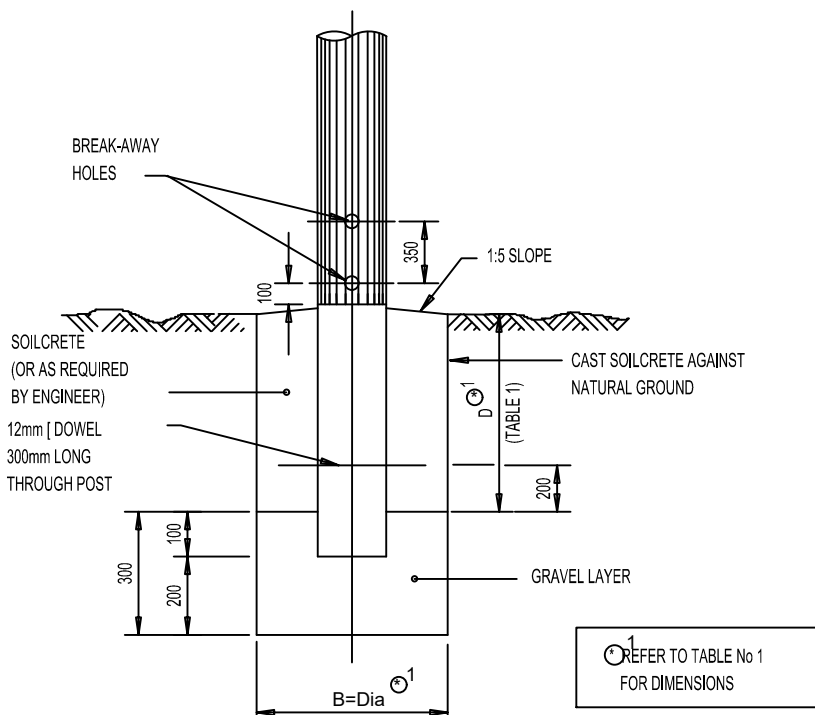


REAR SIDE BRACING

- NOTES:
- EMBLEME:
1. ALL EMBLEMS TO BE DISPLAYED IN FULL COLOUR ON A SEMI-MATT BACKGROUND.
- LETTERS AND NUMBERS:
2. DESCRIPTION - MATT BLACK, SERIES DIN 9 LETTERS AND NUMBERS ON A SEMI-MATT SMOKE-GRAY BACKGROUND.
- BORDERS:
3. BORDER - GREEN NON-REFLECTORIZED.
- QUANTITY:
4. ONE SIGN BOARD, SHALL BE ERRECTED AT POSITIONS AS DETERMINED BY THE ENGINEER.

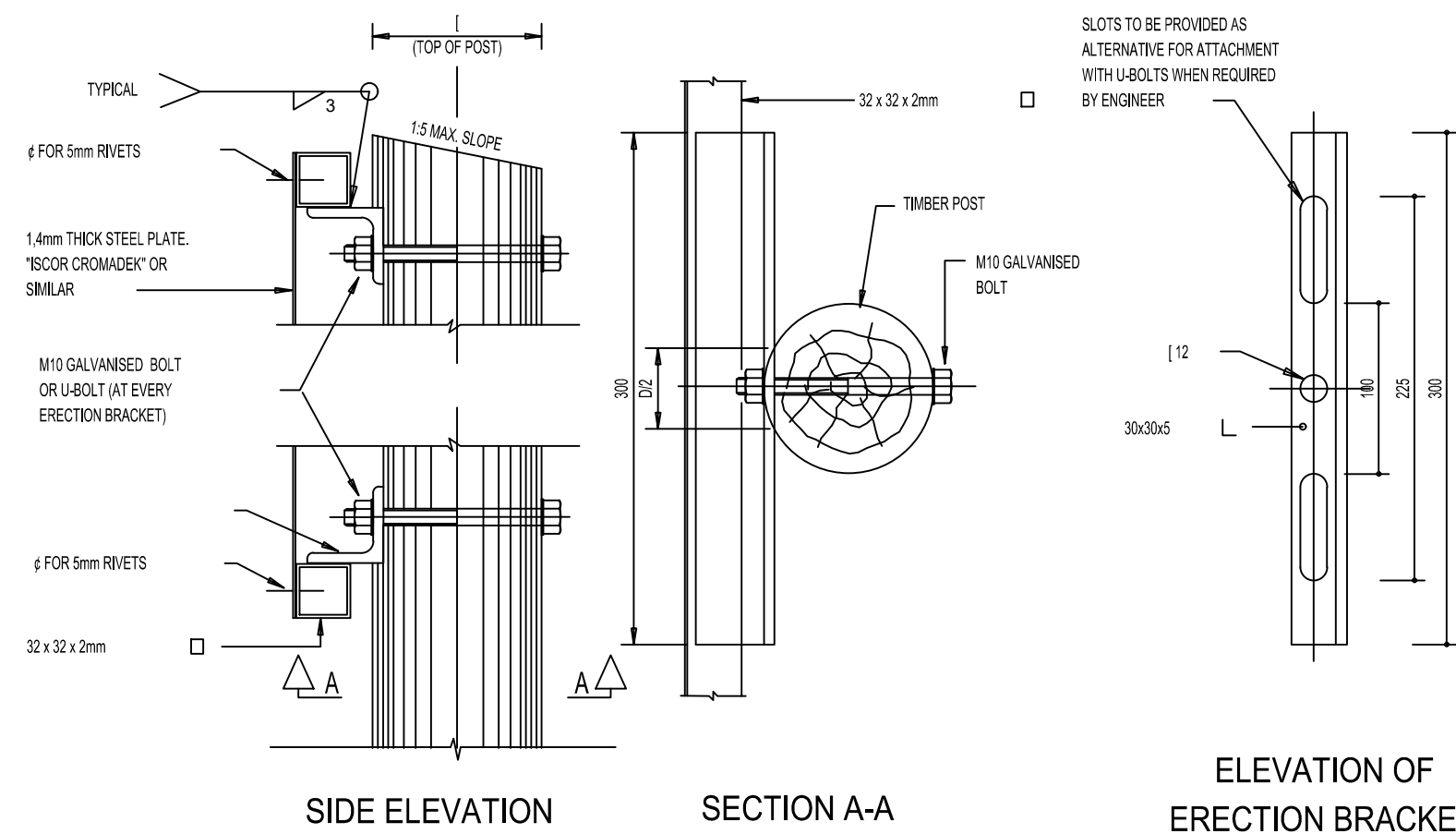


SIDE ELEVATION OF ROAD SIGN



FOUNDATION DETAIL

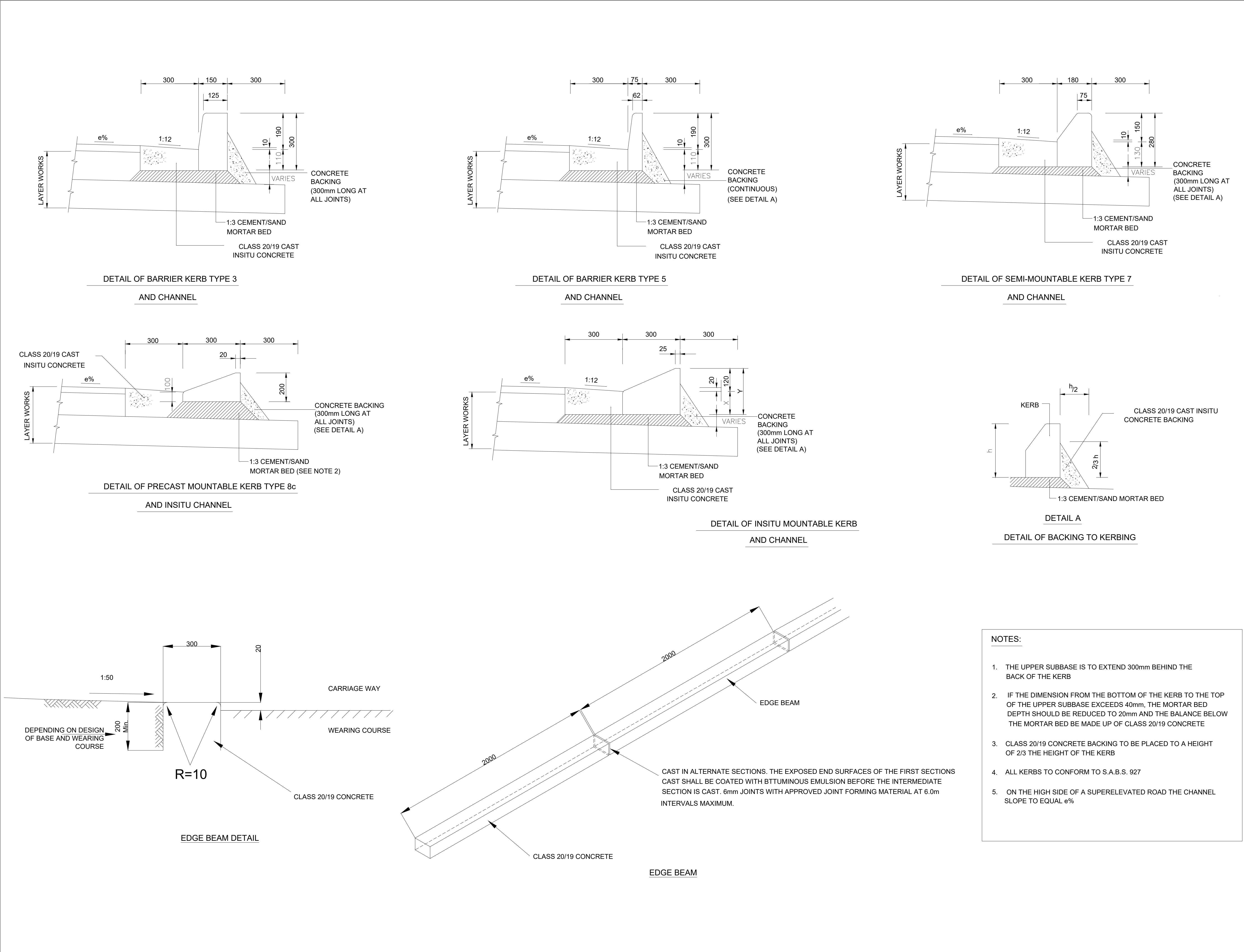
DETERMINATION OF BREAK-AWAY HOLES		
POLE DIA (mm)	HOLE DIA (mm)	
< 140	NONE	
141 - 170	40	
171 - 200	50	
201 - 225	65	

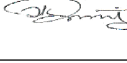
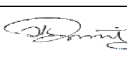


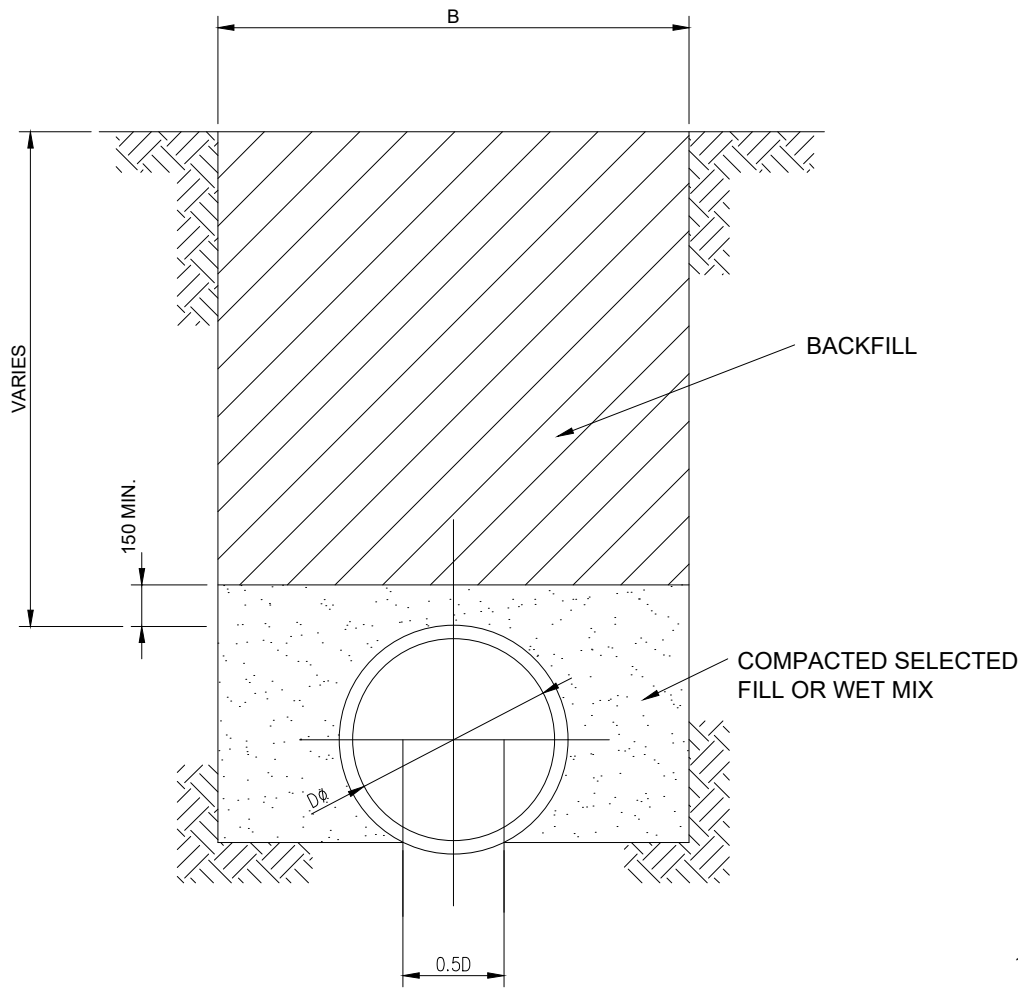
FIXING DETAIL FOR SIGN BOARDS

TABLE 1: DETERMINATION OF POSTS & FOOTINGS			
ERECTION DETAILS			
TYPE OF POST	UPRIGHT	STAY	D B (DIA)
TIMBER POST AND STAY	100mm	60mm	600mm
TIMBER POST	180mm	100mm	1450mm
D SECTION STEEL POST	100mm x 4mm	100mm	1450mm

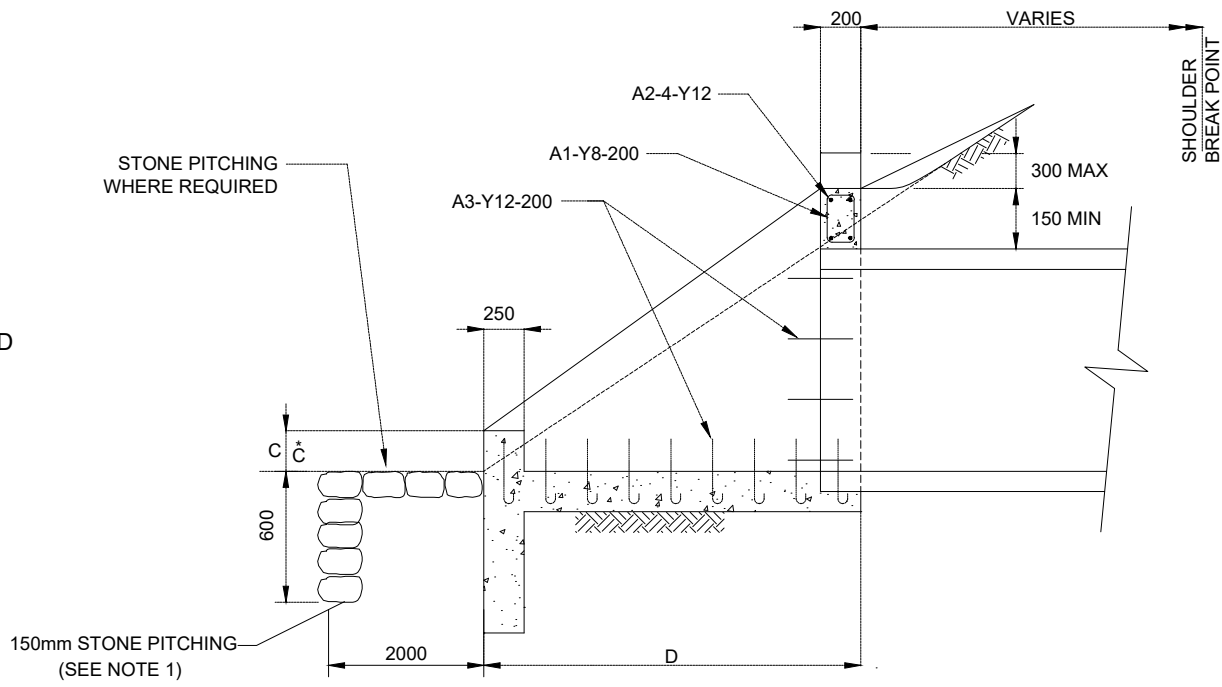
REFERENCE DRAWINGS						
DRAWING No.	DESCRIPTION					
NOTES:						
1. THIS DRAWING TO BE READ WITH ALL RELEVANT ENGINEER'S DRAWINGS						
2. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WITHOUT DELAY, FOR CLARIFICATION.						
REV No.	DATE	DESCRIPTION				
						
INSTITUTION						
THULAMELA LOCAL MUNICIPALITY						
CONTRACT NUMBER						
BID NO. : 09/2023/2024						
DISCIPLINE						
CIVIL AND STRUCTURAL						
WORK DESCRIPTION						
UPGRADING OF THOHOYANDOU K AND K PORTION STREETS PHASE 1						
DRAWING DESCRIPTION						
TYPICAL INFORMATION BOARD						
FILE No.	1202		ITEM No.			
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN			
SCALE	AS SHOWN	T. ZIYANE	CHECKED			
RESPONSIBLE PROFESSIONAL						
DATE	NAME	SIGNATURE	Reg. No.			
20.07.2023	T. ZIYANE		2018300197			
PROJECT COORDINATED						
DATE	NAME	SIGNATURE	Reg. No.			
20.07.2023	T. ZIYANE		2018300197			
CONSULTANT						
						
No.1 Leadwood Street Arbor Park TZANEEN 0850 TEL: 015 307 1795						
P.O. BOX 1009 TZANEEN 0850 FAX: 015 307 1795						
APPROVED / GOEDGEKEUR						
DATE / DATUM						
PROJECT STATUS						
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING			
DRAWING NUMBER:	TLM 09/2023/2024-BD-01					
SIZE	SCALE	SHEET NO.	REV			
A1	AS SHOWN	SHEET 1 of 1	0			



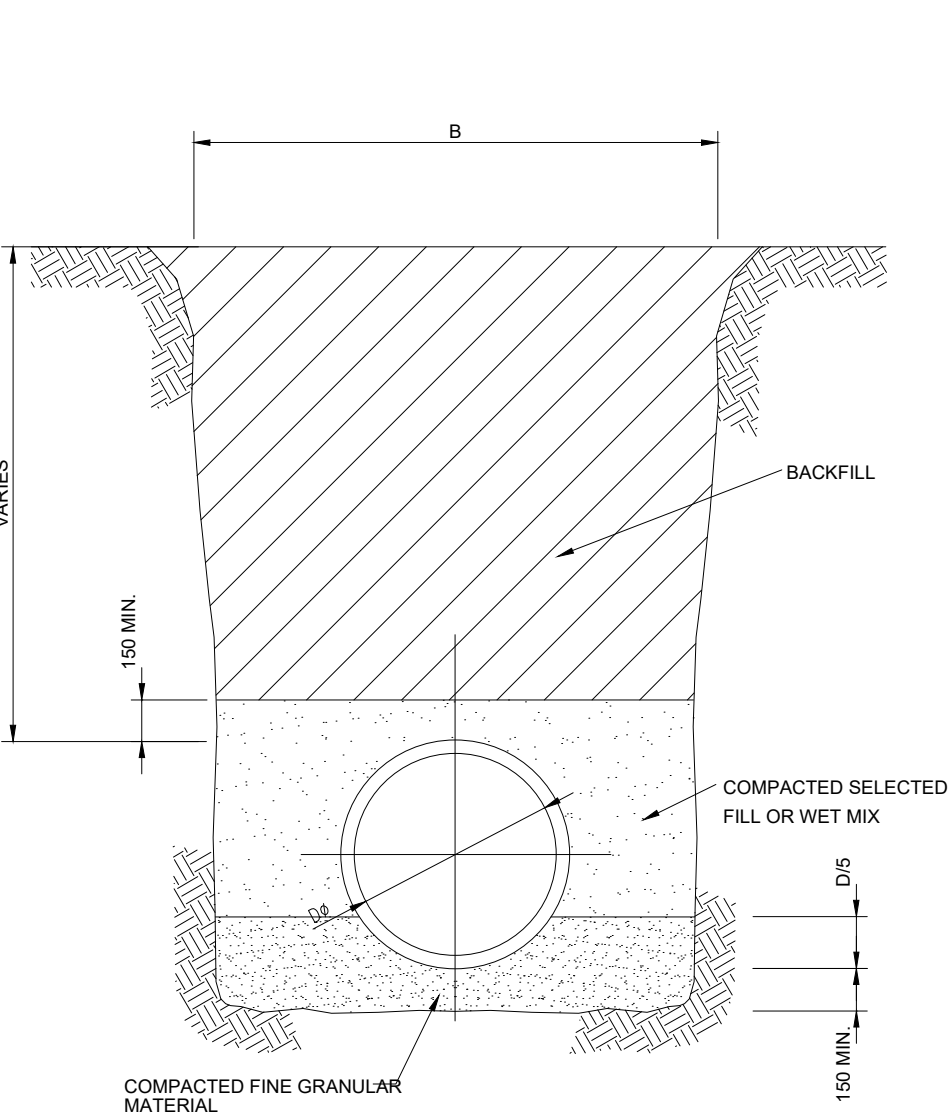
REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.			
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.			
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.			
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.	DATE	DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
STANDARD DETAIL - KERB AND CHANNEL DETAIL			
FILE No.	09/2023/2024		ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN		T. ZIYANE CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
No. 1 Leadwood Street Arbor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-DET-01	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



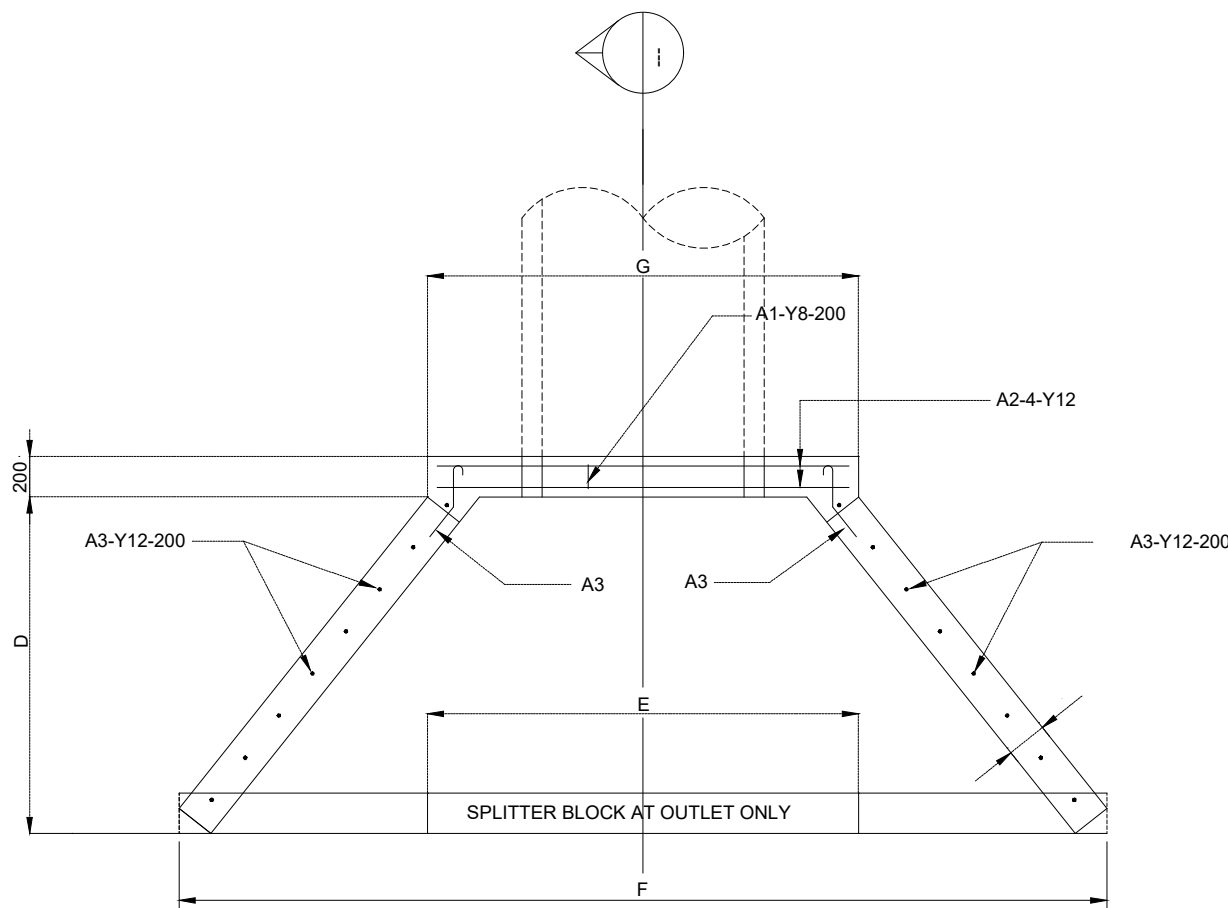
CLASS C PIPE BEDDING IN SOIL
N.T.S



SECTION A-A
(FOR DIMENSIONS SEE TABLE 1)
(FOR REINFORCEMENT SEE TABLE 2)



CLASS C PIPE BEDDING IN ROCK
N.T.S



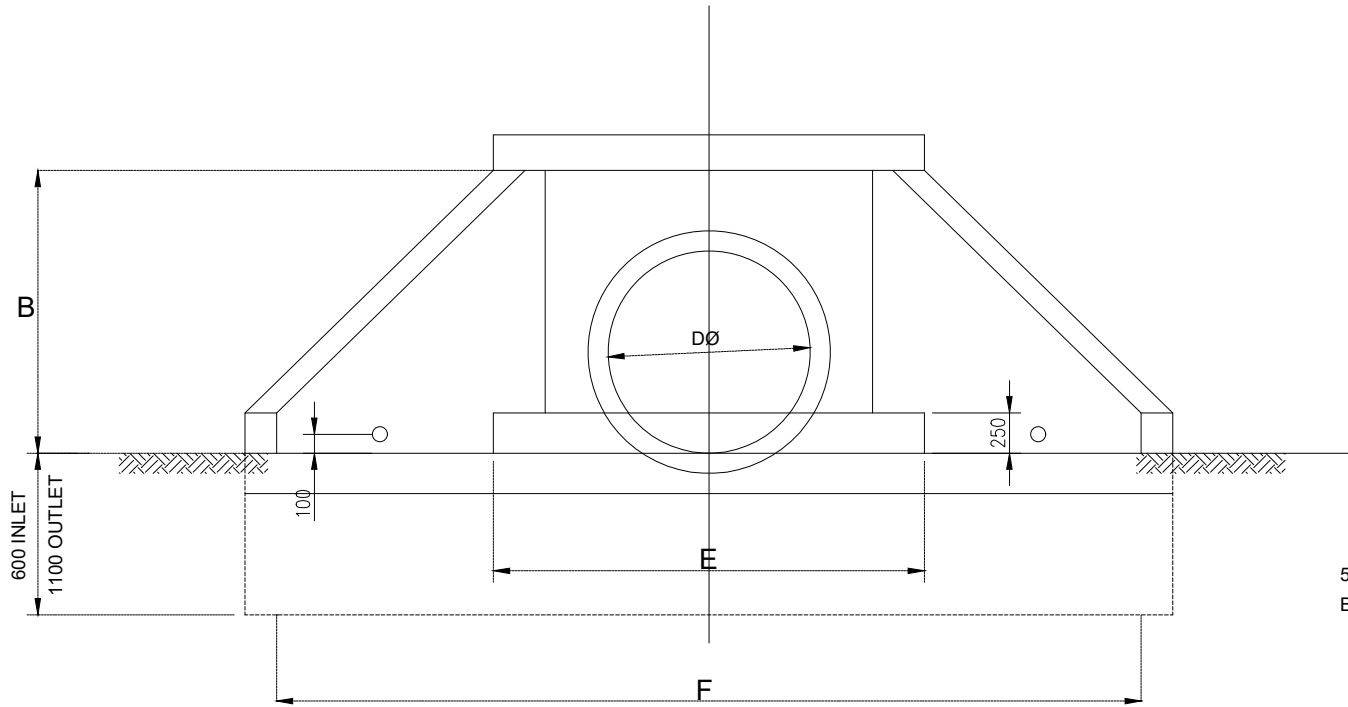
PLAN
(FOR DIMENSIONS SEE TABLE 1)
(FOR REINFORCEMENT SEE TABLE 2)

NOMINAL DIAMETER	DIMENSIONS						
	A	B	C	C *	D	E	G
450	660	270	350	790	1140	2050	1140
600	810	320	420	990	1300	2420	1300
750	970	390	510	1160	1470	2810	1470
900	1120	450	580	1340	1630	3180	1630
1050	1280	510	660	1540	1800	3570	1800
1200	1440	580	750	1730	1960	3960	1960

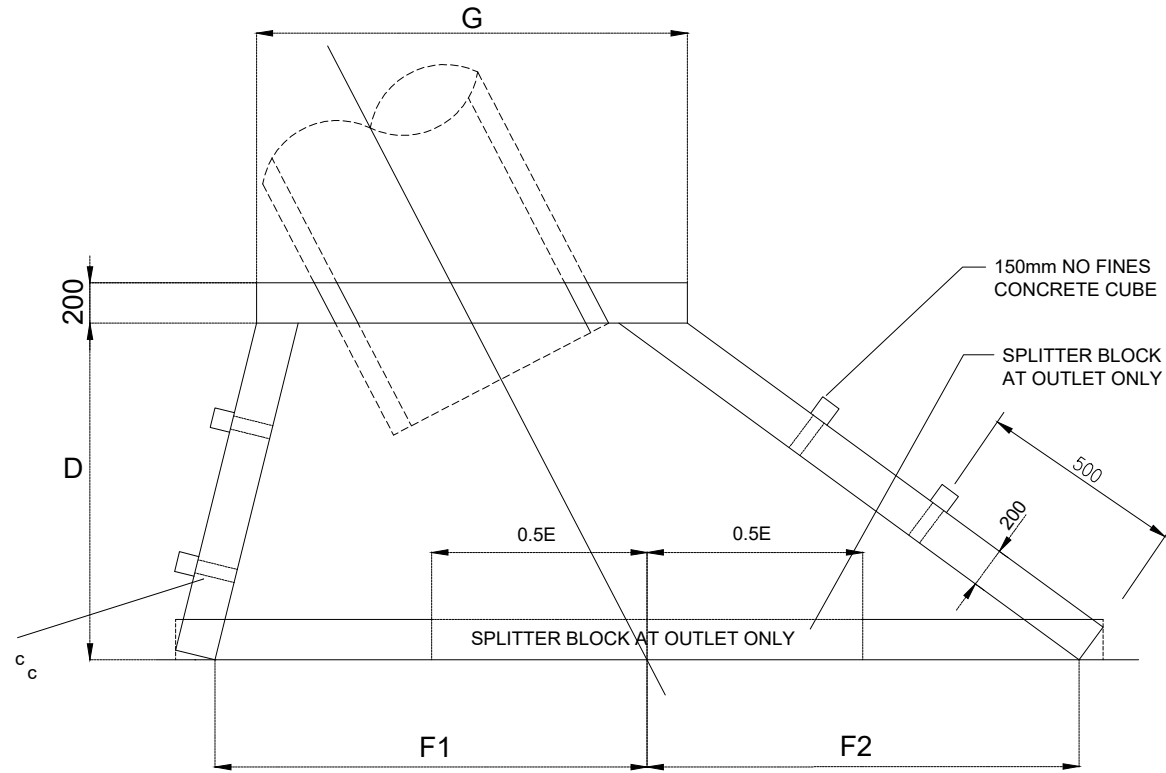
FOR DIMENSION C SEE NOTE 11

WIDTH 'B'		
DØ	SINGLE PIPE	DOUBLE PIPE
600	1600	2500
750	1750	2875
900	1900	3250

PIPE BEDDING DETAILS



FRONT ELEVATION - SINGLE PIPE
(FOR DIMENSIONS SEE TABLE 1)

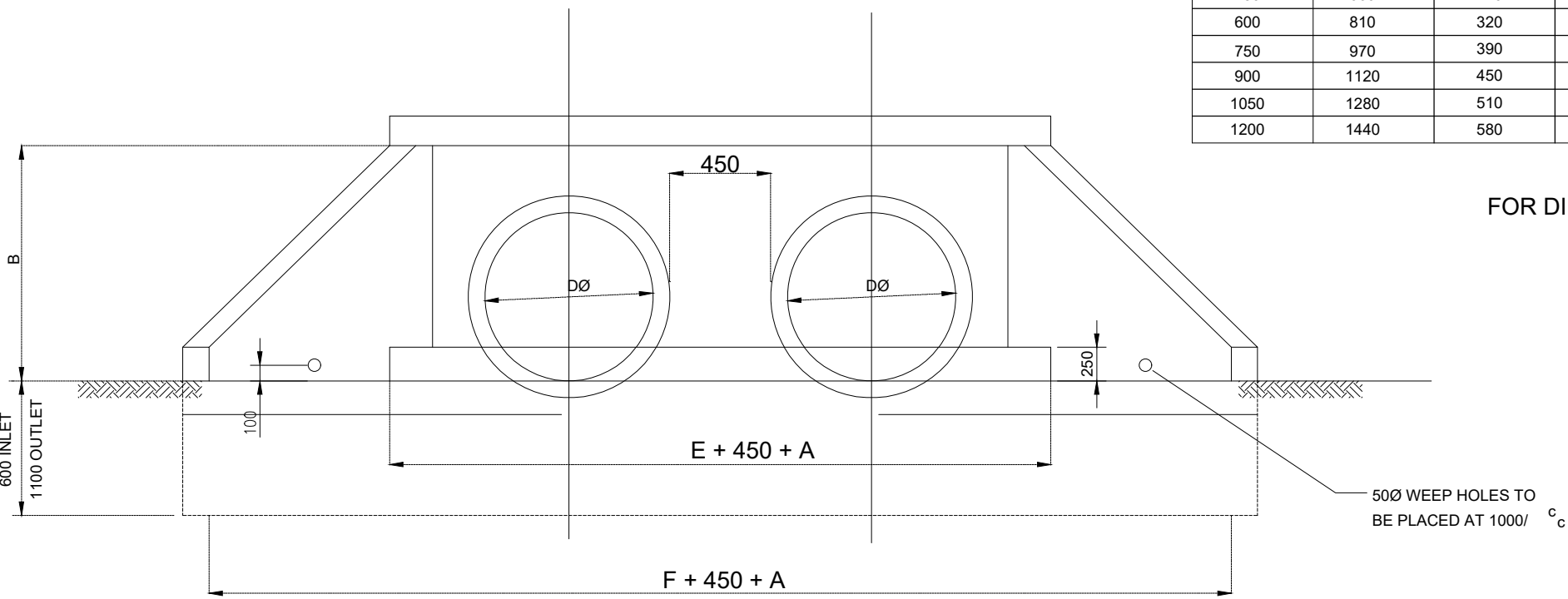


SKEW PIPE CULVERT
(FOR DIMENSIONS SEE TABLE 3)

TABLE 3

NOMINAL DIAMETER	DIMENSIONS							
	A	B	C	C *	D	E	F1	F2
450	660	270	350	790	1140	1025	1025	1140
600	810	320	420	990	1300	1210	1210	1300
750	970	390	510	1160	1470	1410	1410	1470
900	1120	450	580	1340	1630	1590	1590	1630
1050	1280	510	660	1540	1800	1800	1800	1800
1200	1440	580	750	1730	1960	980	980	1960

FOR DIMENSION C SEE NOTE 11



FRONT ELEVATION - MULTIPLE PIPES
(FOR DIMENSIONS SEE TABLE 1)

TABLE 2

ITEM	NUMBER	DIAMETER	CUT LENGTH	CODE	SHAPE
A1	VARIES	Y8	600	60	150 110
A2	4	Y12	VARIES	20	STRAIGHT
A3	VARIES	Y12	500	32	

NOTES:

- INLET/OUTLET APPROACHES IN FILL CONDITION TO BE STONE PITCHED WHERE EROSION IS LIKELY TO OCCUR.
- FOR CULVERT INLET IN CUT CONDITION SEE DRG. K3304/EL/009SD.
- SPLITTER BLOCK MAY BE OMITTED IF DISCHARGE VELOCITY IS LESS THAN 1.50m/s AND PROVIDED AT OUTLETS ONLY.
- CUT OFF WALLS MAY BE OMITTED IF STRUCTURE IS FOUNDED ON ROCK.
- FOR MULTIPLE PIPE CULVERTS INCREASE DIMENSIONS "E" AND "F" BY (n-1)(A+450)mm WHERE n = NUMBER OF PIPES WHERE A = NOMINAL DIAMETER OF PIPES
- FOR SKEW PIPE CULVERTS THE HEADWALL SHALL BE PARALLEL TO THE CENTER LINE OF THE ROAD.
- IF CORRUGATED METAL PIPES ARE USED 4 x 20mm x 150mm LONG GALVANISED ANCHOR BOLTS IN THE HOLLOW OF THE CORRUGATIONS ARE TO BE USED.
- ALL CONCRETE TO BE 20MPa. MIN COVER TO STEEL IS 40mm.
- SQUARE MESH FABRIC (REFERENCE S.M.F 311) TO BE PLACED CENTRALLY OF ROCLA PIPE CULVERT TYPE SC TO SABS.
- DIMENSION C APPLIES TO EMBANKMENT SLOPES OF 1:2.5 (SEE DRG. K3304/EL/001TD FOR THE SPECIFIC SECTIONS)

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION
-------------	-------------

NOTES:

- ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.
- THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
- ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.

REV No.	DATE	DESCRIPTION
---------	------	-------------



INSTITUTION

THULAMELA
LOCAL MUNICIPALITY

CONTRACT NUMBER

BID NO.: 09/2023/2024

DISCIPLINE

CIVIL AND STRUCTURAL

WORK DESCRIPTION

UPGRADING OF
THOHOYANDOU K AND K
PORTIONS STREETS
PHASE 1

DRAWING DESCRIPTION

PIPE CULVERT DETAIL

FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

PROJECT COORDINATED

DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197

CONSULTANT



No. 1 Leadwood Street Arbor Park TZANEEN 0850 TEL: 015 307 1795	P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516
--	---

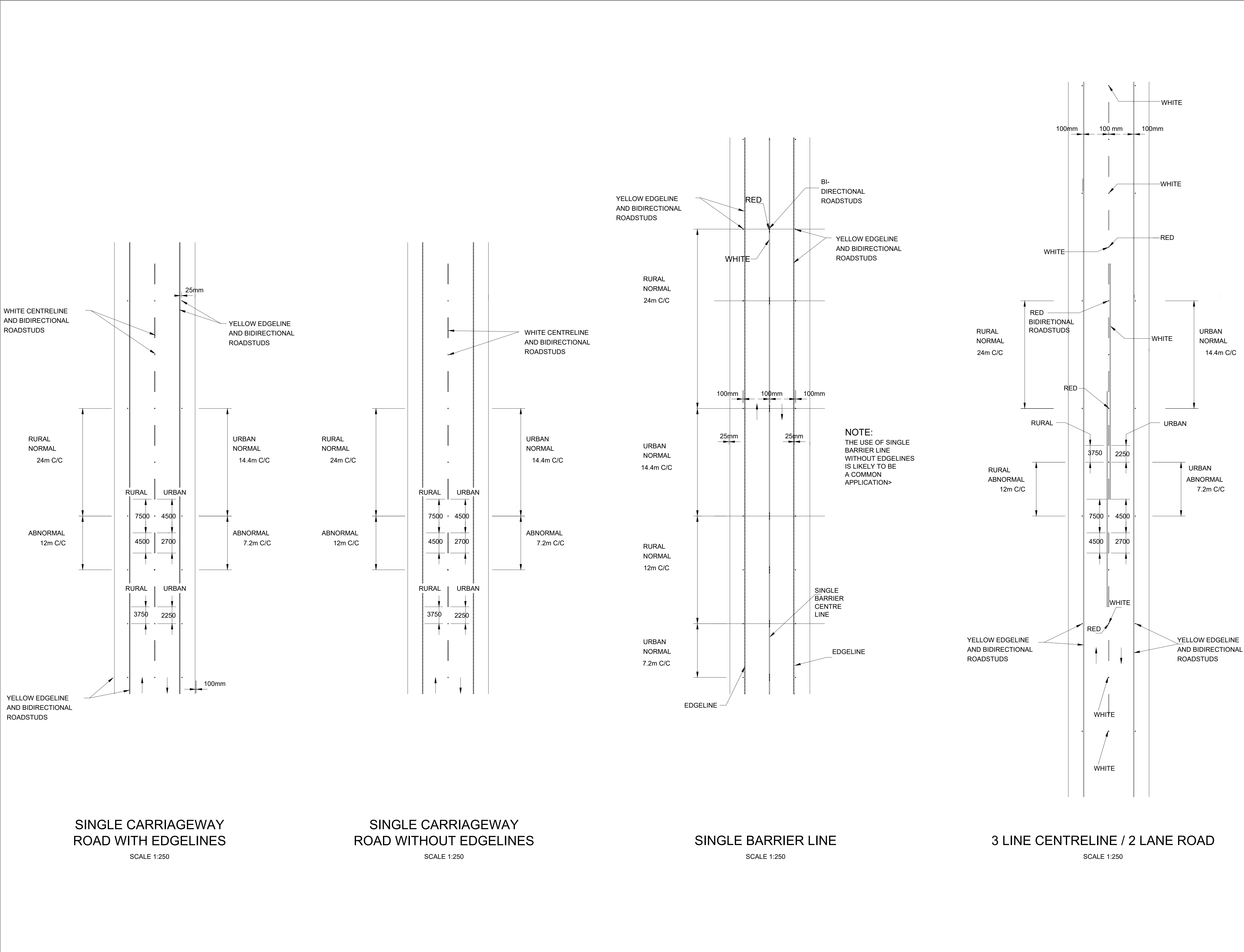
APPROVED / GOEDGEKEUR	DATE / DATUM
-----------------------	--------------

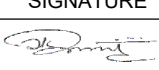
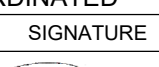
PROJECT STATUS

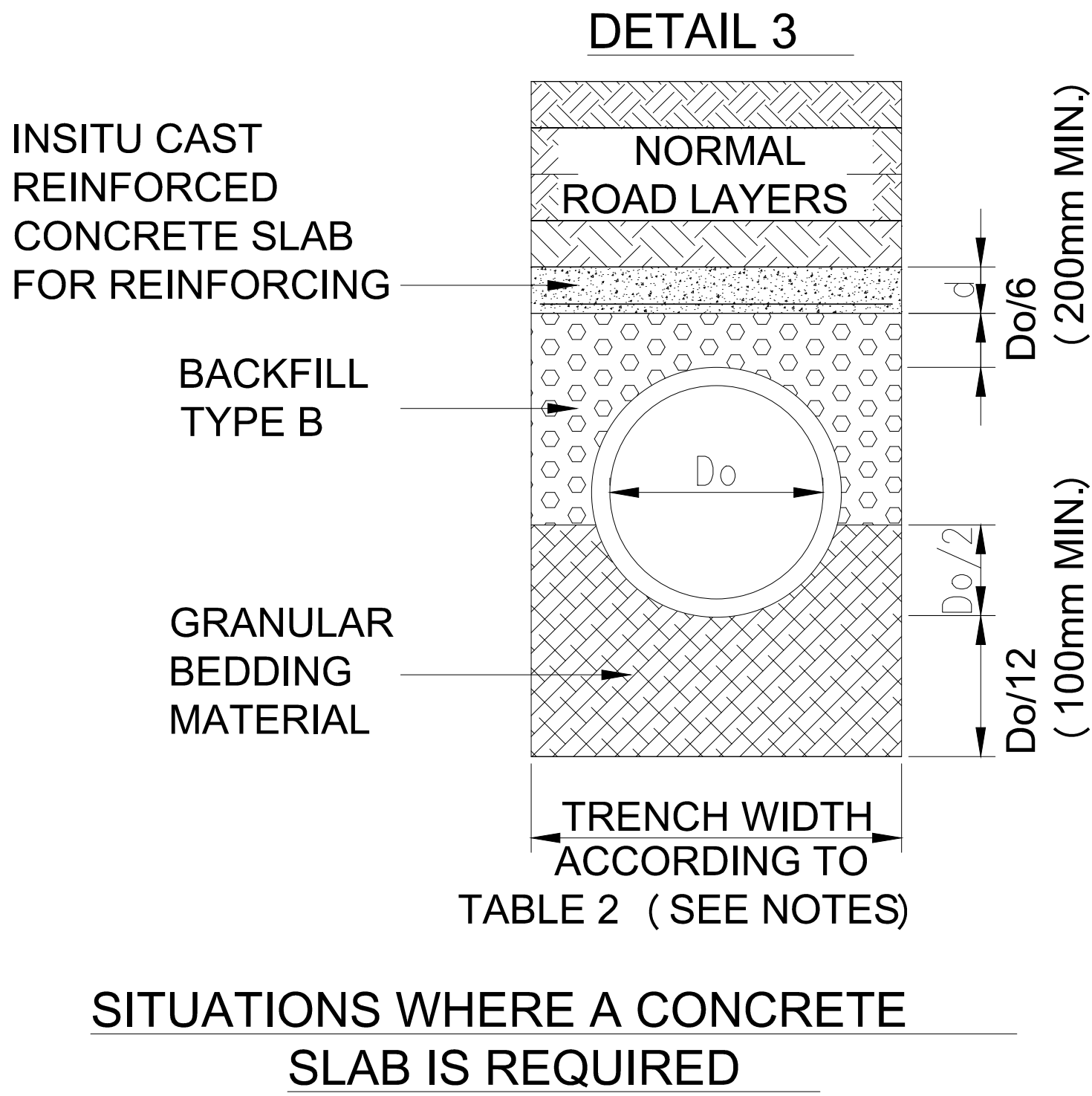
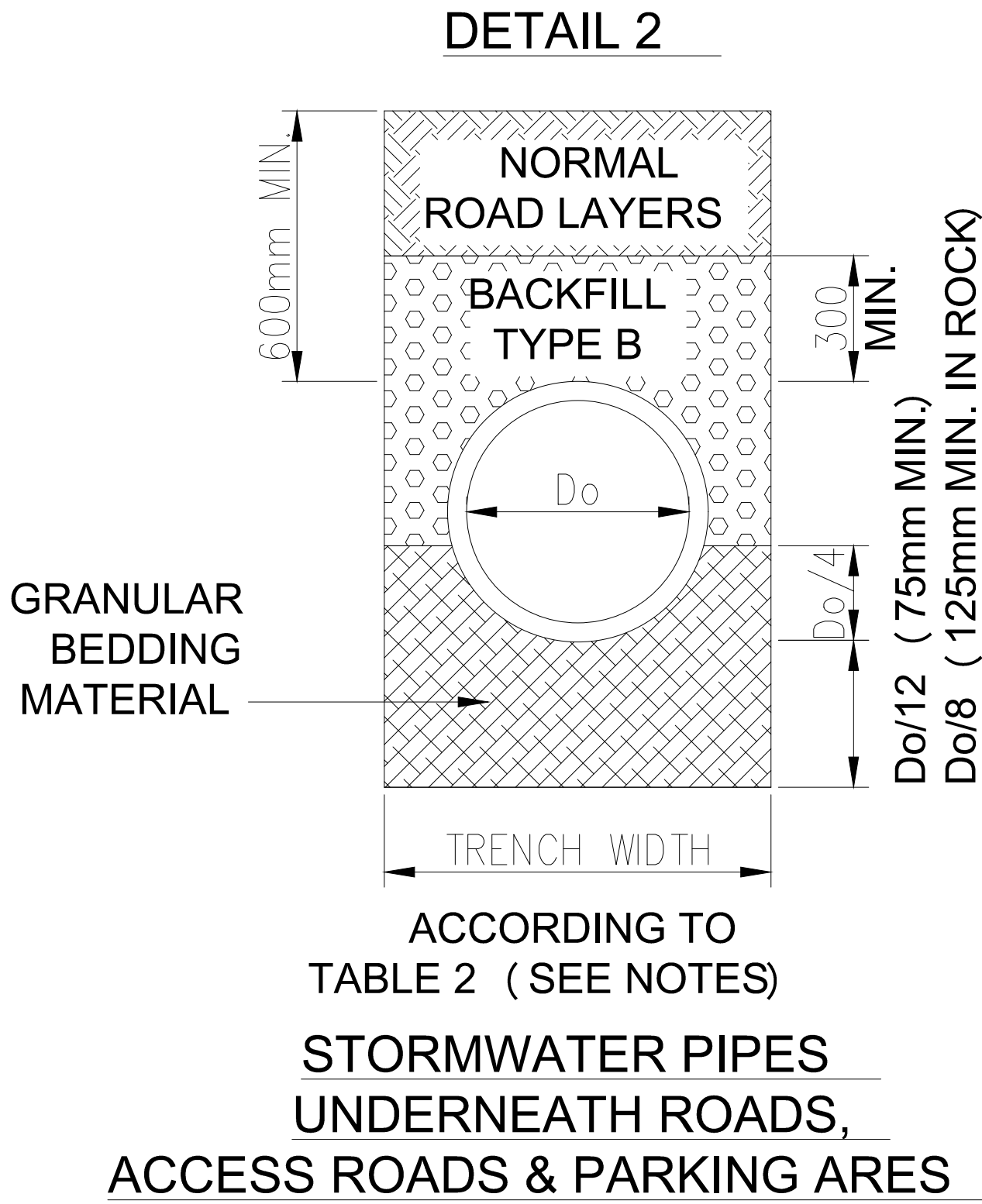
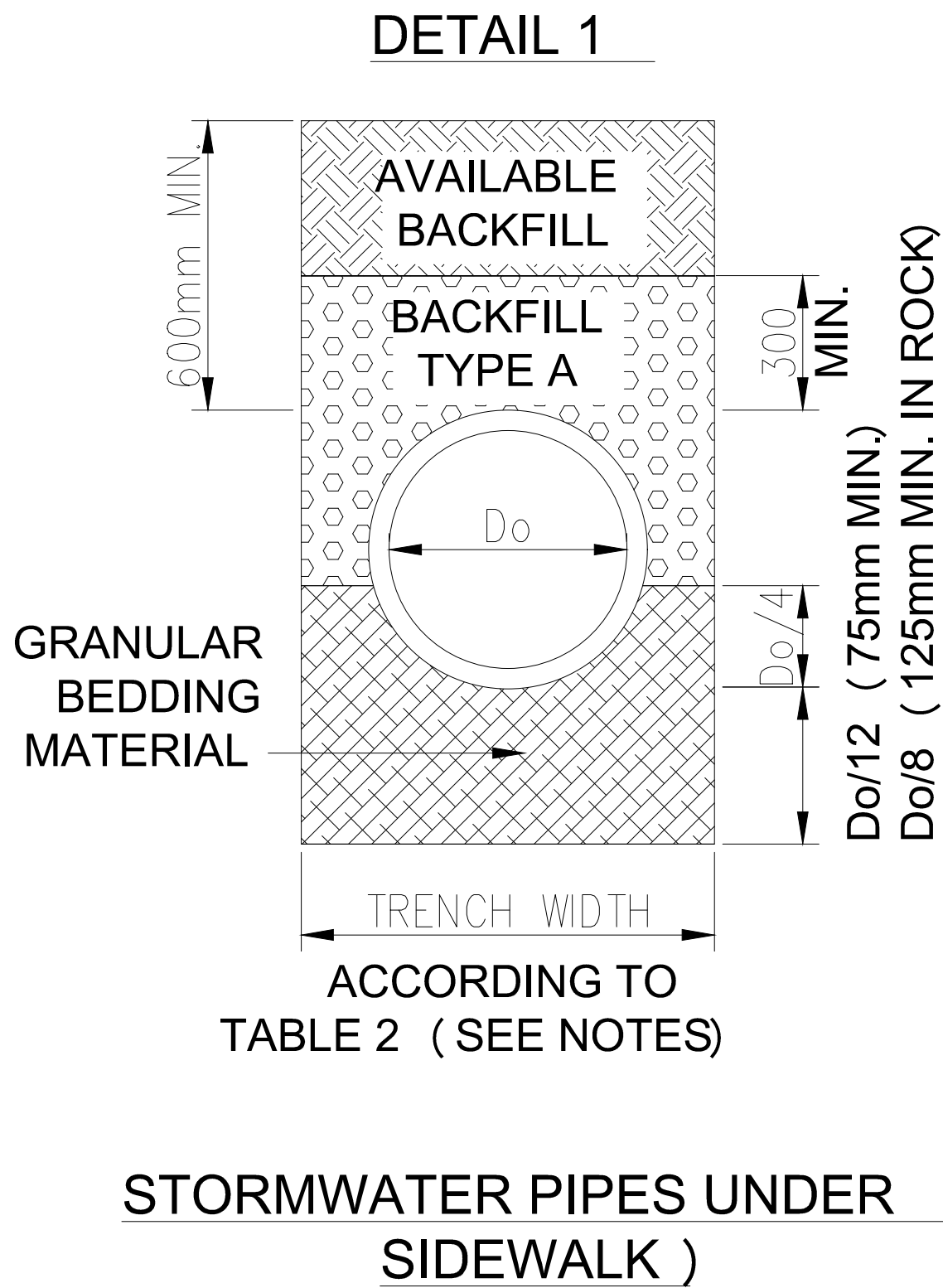
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
---	--	--	--

DRAWING NUMBER:	TLM 09/2023/2024-DET-03
-----------------	-------------------------

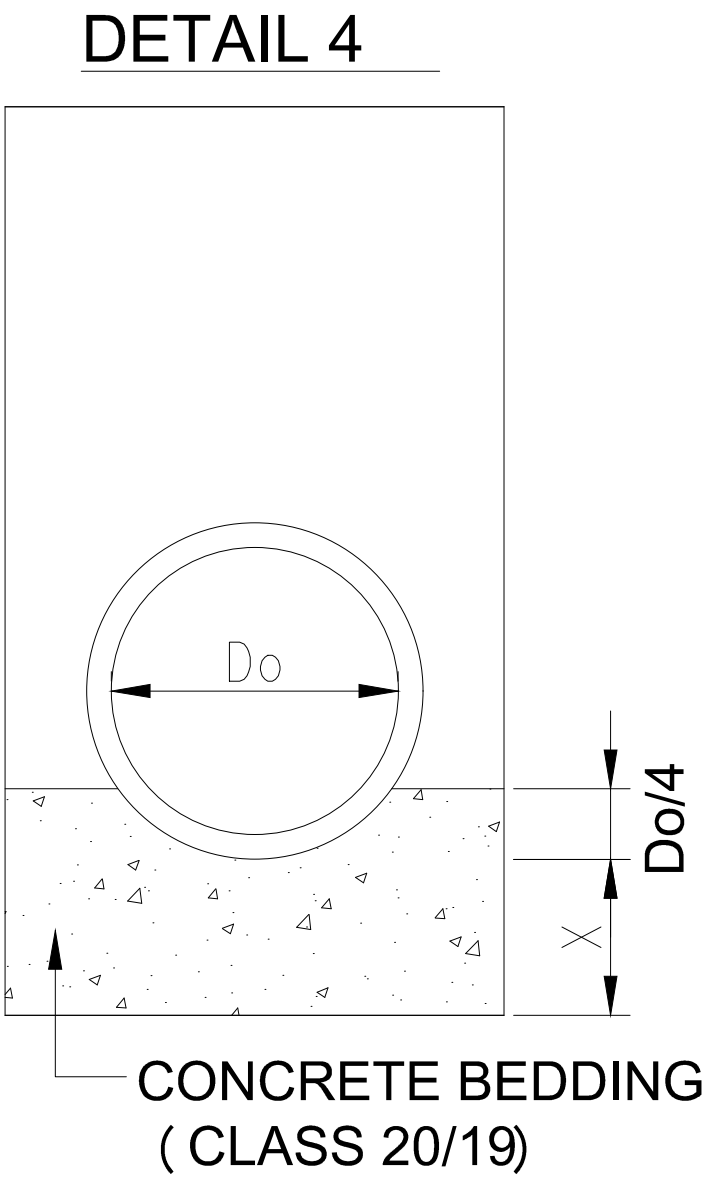
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.			
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.			
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED .ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.			
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.	DATE	DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
ROAD MARKING DETAIL			
FILE No.	09/2023/2024		ITEM No.
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN		T. ZIYANE CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
No. 1 Leadwood Street Arbor Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-DET-05	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



- STORMWATER PIPES UNDERNEATH MAIN ROUTES UNDER THE FOLLOWING CIRCUMSTANCES
- COVER < 800mm FOR Do ≤ 750mm
 - COVER < 900mm FOR Do > 750mm

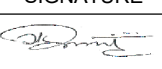
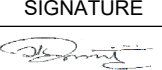


- X = Do/4 WHEN TRENCH IS IS GRAVEL-SOIL
- X = Do/8 WHEN TRENCH IS IN ROCK

SITUATIONS WHERE A CONCRETE BEDDING IS REQUIRED

NOTES

- ALL PIPES BELOW SIDEWALKS & OPEN AREAS TO BE CLASS 50 'D' EXCEPT WHERE COVER < 2.m ON 1200mm Ø AND GREATER THE CLASS OF THE PIPES ARE TO BE INCREASED TO 75 'D'.
- THE CONTRACTOR SHALL AT ALL TIMES ADHERE TO THE SAFETY PRECAUTIONS AS SET OUT IN SABS 1200 D-1988

REFERENCE DRAWINGS			
DRAWING No.	DESCRIPTION		
NOTES:			
- ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES. - THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS. - ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND. - ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND. - THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND. - THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED .ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED. - ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.	DATE	DESCRIPTION	
			
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
STORMWATER PIPE BEDDING			
FILE No.	09/2023/2024	ITEM No.	
DESIGN	T. ZIYANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN	T. ZIYANE	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIYANE		2018300197
CONSULTANT			
			
No. 1 Leadwood Street Arbor Park TZANEEN 0850 TEL: 015 307 1795			
P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516			
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-DET-06	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0



REFERENCE DRAWINGS			
DRAWING No.		DESCRIPTION	
NOTES:			
1. ALL MATERIAL AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT COLTO CODES.			
2. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.			
3. ANY DISCREPANCIES ON THE DRAWINGS TO BE BROUGHT TO THE ENGINEER ATTENTION BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
4. ALL THE DIMENSIONS AND LEVELS DISPLAYED ON ISSUED DRAWINGS MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE PUTTING WORK IN HAND.			
5. THE CONTRACTOR MUST OBTAIN THE ENGINEERS WRITTEN CONFIRMATION OF ANY INSTRUCTION WHICH INVOLVES A VARIATION TO THE CONTRACTOR BEFORE PUTTING WORK IN HAND			
6. THIS DRAWINGS IS NOT TO BE SCALED. FIGURED DIMENSION TO BE USED. ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE STATED.			
7. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT COLTO 1998 EDITION SPECIFICATION.			
REV No.		DATE	
INSTITUTION			
THULAMELA LOCAL MUNICIPALITY			
CONTRACT NUMBER			
BID NO.: 09/2023/2024			
DISCIPLINE			
CIVIL AND STRUCTURAL			
WORK DESCRIPTION			
UPGRADING OF THOHOYANDOU K AND K PORTIONS STREETS PHASE 1			
DRAWING DESCRIPTION			
TYPICAL KERB INLET DETAIL			
FILE No.	09/2023/2024		ITEM No.
DESIGN	T. ZIVANE	D. MAKHANYA	DRAWN
SCALE	AS SHOWN		T. ZIVANE
CHECKED			
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIVANE		2018300197
PROJECT COORDINATED			
DATE	NAME	SIGNATURE	Reg. No.
20.07.2023	T. ZIVANE		2018300197
CONSULTANT			
			
No. 1 Leadwood Street Arboret Park TZANEEN 0850 TEL: 015 307 1795		P.O. BOX 1009 TZANEEN 0850 FAX: 086 545 3516	
APPROVED / GOEDGEKEUR		DATE / DATUM	
PROJECT STATUS			
☐ DESIGN DRAWING	☒ TENDER DRAWING	☐ APPROVED FOR CONSTRUCTION DRAWING	☐ AS BUILT DRAWING
DRAWING NUMBER:		TLM 09/2023/2024-DET-07	
SIZE	SCALE	SHEET NO.	REV
A1	N.T.S.	SHEET 1 of 1	0