LEGEND:

- Proposed Road Blacktop
- Proposed Road Median and Island
- Proposed Sidewalk
- Proposed Stormwater line
- Existing Manholes and Stormwater Pipe
- Traffic light
- Electrical/Cable manhole
- Gate
- Fence or Fencewall
- Building/Toilet
- Shack/Foundation
- Cadastral Boundary
- Tree
- Water Valve
- Water Manhole
- Bollards
- Sewer Manhole
- Palm tree
- Water Point
- Inspection Eye
- Pole Stay
- Electrical Pole
- Telkom Pole
- Powerline
- Lamppost
- Waste Bin
- Sign Board
- Tap
- Road Sign
- Optic-fibre manhole
- Fire Hydrant
- Electrical Box
- Existing Sewer line

Sign Posting Schedule

Km Distance	Sign	Series	Orientation	Symbol	Size (mm)
0.050	Speed Limit	R201-60	L.H.S	60	1200
0.280	Gentle Curve	W203	L.H.S		1200
0.420	Cross Access	W102	L.H.S		1200
0.490	Stop Sign	R1	L.H.S	STOP	1200
0.530	Stop Sign	R1	R.H.S	STOP	1200
0.560	Cross Access	W102	R.H.S		1200
0.570	Gentle Curve & Supplementary Plate	W202 + IN11.3 (120m)	L.H.S	120 m	- 1200 - 600 x 450
1.020	Gentle Curve & Supplementary Plate	W203 + IN11.3 (100m)	R.H.S	100 m	- 1200 - 600 x 450
1.120	Speed Limit	R201-60	R.H.S	60	1200

HORIZONTAL ALIGNMENT DATA - Diedericks Roads

NAME	CH	Y	X	DETAILS
START	0.000	-20 942.863	2 863 231.346	L 10.999m
BCC1 PI1 ECC1	10.999 24.899	-20 934.931 -20 929.896 -20 926.106	2 863 238.965 2 863 243.801 2 863 249.664	R 60.000m DA 13°16'30" TL 6.981m AL 13.900m
BCC2 PI2 ECC2	69.964 109.737	-20 901.641 -20 890.781 -20 884.704	2 863 287.510 2 863 304.309 2 863 323.368	R 150.000m DA 15°11'30" TL 20.004m AL 39.773m
BCC3 PI3 ECC3	343.488 396.371	-20 813.683 -20 805.565 -20 806.737	2 863 546.068 2 863 571.524 2 863 598.217	R 150.000m DA 20°12'00" TL 26.719m AL 52.883m
BCC4 PI4 ECC4	407.107 452.073	-20 807.207 -20 808.200 -20 802.466	2 863 608.943 2 863 631.574 2 863 653.489	R 150.000m DA 17°10'30" TL 22.653m AL 44.966m
BCC5 PI5 ECC5	689.084 923.850	-20 742.468 -20 708.290 -20 573.700	2 863 882.781 2 864 013.397 2 864 024.087	R 150.000m DA 70°47'40" TL 135.014m AL 234.766m
BCC6 PI6 ECC6	1164.988 -20 325.036 1181.603 -20 316.737	-20 333.318	2 864 043.179 2 864 043.837 2 864 044.219	R 500.000m DA 1°54'10" TL 8.308m AL 16.614m
END	1198.303	-20 300.055	2 864 044.988	L 16.700m

BENCH MARKS (WG SYSTEM)

POINT	Y	X	Z	MARKER
BM1	-20375.02	+2864029.33	1574.10	12 mm Iron Peg
BM2	-20673.66	+2863997.82	1575.66	12 mm Iron Peg
BM3	-20788.60	+2863738.81	1576.11	12 mm Iron Peg
BM4	-20833.31	+2863446.49	1579.77	12 mm Iron Peg
BM5	-20951.94	+2863212.47	1579.51	12 mm Iron Peg

General Notes:

1. All workmanship to be in accordance with the relevant project specification as included in the contract document.
2. All existing services whether indicated or not, on the drawing are to be treated as live. the contractor is to make the necessary allowances to deal with the services affected by the proposed works in accordance with the various services affected by the proposed work so that the necessary alterations can be made to the drawings without affecting the progress on the works.
3. All levels, dimensions and setting out details to be verified by Consultant and Contractors on site prior to construction.
4. All existing drainage culverts are to be inspected, and any found in unserviceable condition are to be replaced unless shown otherwise.
5. Culvert inverts are to be' decided by Engineer on site unless shown otherwise. Min. cover = 600mm, min. slope = 2%.
6. Pipe culverts are to be laid in class 'c' bedding in accordance with SD 0401 with depressed inlet and headwalls as per SD 0405/A and SD 0406. Min dia = 450mm for minor access roads and access bell-mouths, and min dia = 600mm for major road cross drainage.
7. For erosion control stone pitching is recommended at chute outlet and culvert inlets & outlets (5m^2 each).
8. Earth berms are to be constructed at culvert inlets to direct storm-water into culverts where necessary.
9. Rock bolsters are to be placed across the invert of drains susceptible to erosion for every 2m vertical drop .
10. Grassed/Concrete lined V-drains as per SD 0601/3 & 4 are recommended for shallow cuttings of depth less than 5m measured at a point 6m from edge of carriageway. Concrete lined 1 OOOV - drains as per SD 0601/2 are recommended for deep cuttings of depth greater than 5m measured at a point 6m from edge of carriageway.
11. Where surface runoff is toward the road, catch-water banks are to be provided to divert storm-water to major cross drainage structures.
12. The positions of accesses are to be determined in consultation with the local community. Daylighting requirements are to be decided by the Engineer on site. Concrete wedges as per SD 0303 may be used in place of surfaced bell-mouths for accesses serving single residential properties.
13. Guardrails are to be installed in accordance with SD 1101 and SD 1102 where fill embankments exceed 3m in height or where hazardous obstructions cannot be removed. Approach end must be buried type.
14. Existing road signs, services and fencing affected by construction are to be removed/relocated where necessary.
15. Underground service crossings and markers are to be in accordance with SD 1001 - 3.
16. All new road signs and road marking requirements are to conform to the Southern African Development Community Road Traffic Signs Manual (SADC - RTSM).
17. All work is to be carried out in accordance with "COLTO Specifications for Road and Bridge Works for State Road Authorities."
18. All survey and setting out data provided is based on (WGS 84 Lo.31) .
19. New fills and exposed cuttings are to be top-soiled and vegetated immediately after Construction to prevent erosion.

DATE	STATUS	REV	REVISION DESCRIPTION

REFERENCE DRAWING No.	REFERENCE DRAWING TITLE

NOTES:

		SIGNATURE
DESIGNED BY	M.TSHUMA	N/A
DRAWN BY	Z.BIYELA	N/A
DESIGN CHECKED	T.ZUMA	N/A
DRAWING CHECKED	M.TSHUMA	N/A
Pr TECH/ Pr ENGINEER APPROVAL		
NAME	T.ZUMA	SIGNATURE
DATE		PROFESSIONAL REG No. 201170074

ENGINEER:
MAFAHLENI ENGINEERS AND PROJECT MANAGERS
49 Ferreira Street
Nelspruit
1200
DEPARTMENT
CIVIL

CLIENT:
Emalahleni Local Municipality
EMALAHLENI MUNICIPALITY
P.O. Box 3
Emalahleni
1035

PROJECT TITLE
PROPOSED REHABILITATION OF BEATTY & DIEDERICKS

DRAWING TITLE
ROADS LAYOUT PLAN

DRAWING STATUS DESCRIPTION:
D=DEVELOPMENT T=TENDER P=PLANNING
C=CONSTRUCTION A=AS BUILT

SCALE	SHEET	SHEET SIZE
1:1000	1OF1	A0

MAFAHLENI ENGINEERS DRAWING NUMBER

ME PROJECT DESCRIPTION	DISCIPLINE	NUMBER	STATUS	REV
EMAL- 2024- RDS-	00	- T -	00	