



PI 2	
Y =	45043.85
X =	3366946.60
R =	140.00
CL =	178.61
T =	103.78
Bc =	67.50
Ec =	246.10

PI 3	
Y =	45248.32
X =	3366499.50
R =	130.00
CL =	117.22
T =	62.84
Bc =	571.03
Ec =	688.26

PI 5	
Y =	45269.00
X =	3366988.50
R =	130.00
CL =	177.42
T =	105.64
Bc =	965.14
Ec =	1142.57

PI 4	
Y =	45163.05
X =	3366332.80
R =	130.00
CL =	114.66
T =	61.36
Bc =	751.20
Ec =	865.86

- NOTES :**
- All levels, dimensions and setting out details to be verified on site prior to construction.
 - All existing drainage culverts are to be inspected, and any found in unserviceable condition are to be replaced unless shown otherwise.
 - Culvert inverts are to be decided by the Engineer on site unless shown otherwise. Min. cover = 600mm, min. slope=2%.
 - Pipe culverts are to be laid in accordance with SD 0401 with headwalls as per SD 0402, SD 0403 or SD0406.
Min dia = 450mm for minor access roads and access bellmouths, and min dia = 600mm for major road cross drainage.
 - Box culverts < 1,8m high are to be constructed in accordance with SD 0404 or SD 0407. Box culverts > 1,8m high are to be appropriately designed by a Structural Engineer in accordance with KZNDOT standards.
 - For erosion control cement grouted stone pitching or gabion mattresses are recommended at culvert inlets and outlets.
 - Earth berms are to be constructed at culvert inlets to direct stormwater into culverts where necessary.
 - Rock bolsters are to be placed across the invert of drains susceptible to erosion for every 2m vertical drop.
 - Grassed/Concrete lined V-drains as per SD 0601/3 & 4 are recommended for shallow cuttings of depth less than 5 mm measured at a point 6m from edge of carriageway. Concrete lined 1000 V - drains as per SD 0601/2 are recommended for deep cuttings of depth greater than 5 m measured at a point 6m from edge of carriageway.
 - Subsoil drains as per SD 0501 are to be installed with 1000 V-drains or where high water tables are encountered.
 - Kerb and channel drains as per SD 0701 are to be provided where fill embankments exceed 3m in height.
 - Where surface runoff is towards the road, catchwater banks are to be provided to divert stormwater to major cross drainage structures.
 - 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 bellmouths for accesses serving single residential properties.
 - 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.
 - Existing road signs, services and fencing affected by construction are to be removed/relocated where necessary.
 - Underground service crossings and markers are to be in accordance with SD 1001 - 3.
 - All new road signs and road marking requirements are to conform to the South African Road Traffic Signs Manual (SARTSM).
 - All work into be carried out in accordance with "COLTO Specifications for Road and Bridge Works for State Road Authorities."
 - All survey and setting out data provided is based on (WGS 84)

Symbol	Date	Description	Checked	Signed
AMENDMENTS				

AS BUILT

Supervising Engineer: Date:

Supervising Authority:

Continued from:-	-	Designed by:-	S. SAMLALL
Continued on:-		Checked by:-	S. SAMLALL
Cross Section No:-		Drawn by:-	S. GOVINDAVELU
Longitudinal Section No:-		Checked by:-	S. SAMLALL
Survey Plan No:-		Date of approval:-	



PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF TRANSPORT

Designed by:-
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Director: Date:

Head: Transport

MAIN ROAD 254

PORTION
UPGRADING PORTION OF MR254 : KM 0,000 - KM 7,500

DESIGN / SERVICES PLAN

Staked km distance	KM 0,000 to KM 1,240	Sheet :- 1 of :- 6
Scale	1 : 1000	Plan No.:-