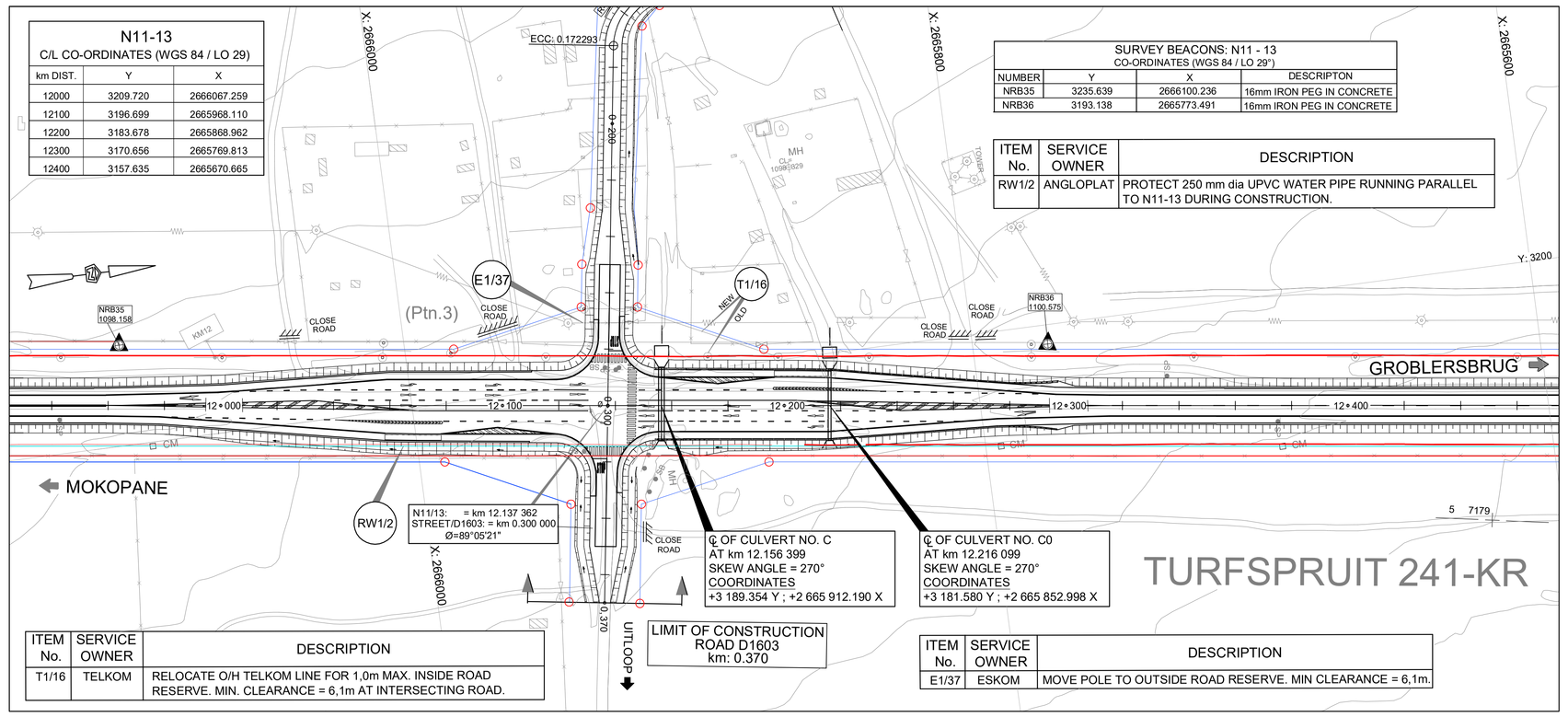
N11-13 C/L CO-ORDINATES (WGS 84 / LO 29)		
km DIST.	Y	X
12000	3209.720	2666067.259
12100	3196.699	2665968.110
12200	3183.678	2665868.962
12300	3170.656	2665769.813
12400	3157.635	2665670.665

SURVEY BEACONS: N11 - 13 CO-ORDINATES (WGS 84 / LO 29°)			
NUMBER	Y	X	DESCRIPTON
NRB35	3235.639	2666100.236	16mm IRON PEG IN CONCRETE
NRB36	3193.138	2665773.491	16mm IRON PEG IN CONCRETE

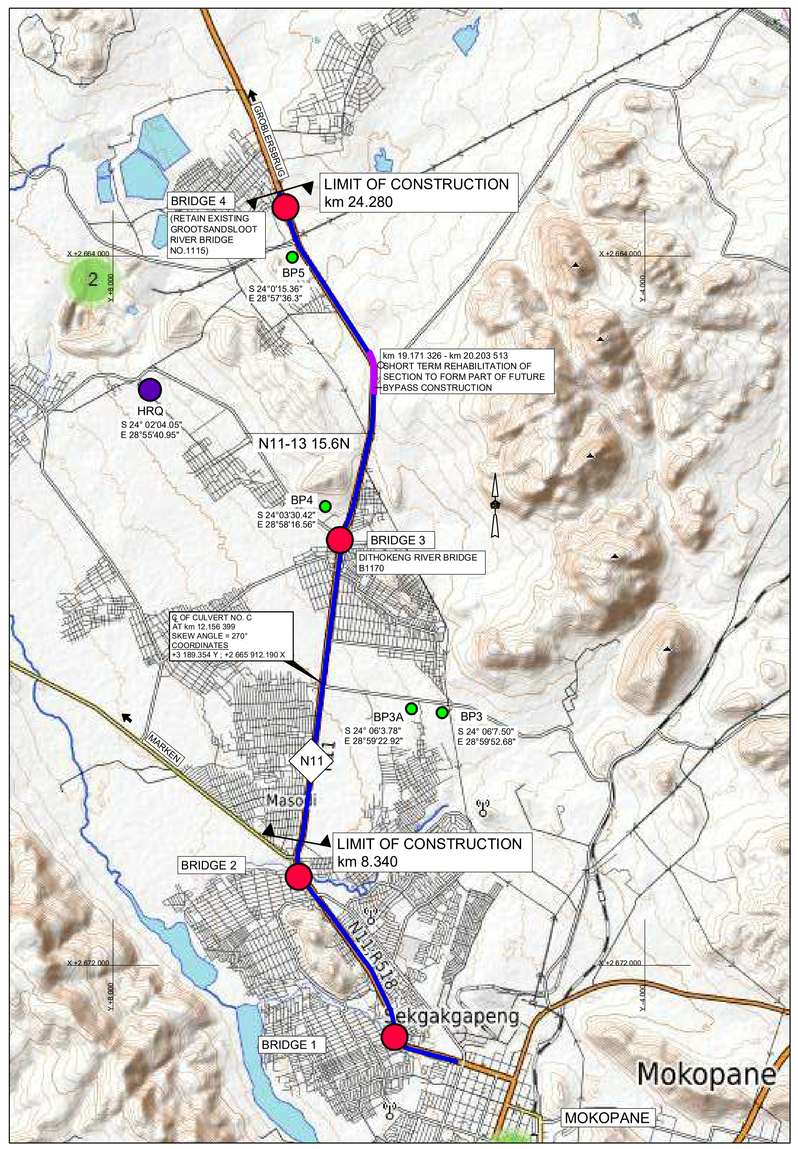
ITEM No.	SERVICE OWNER	DESCRIPTION
RW1/2	ANGLOPLAT	PROTECT 250 mm dia UPVC WATER PIPE RUNNING PARALLEL TO N11-13 DURING CONSTRUCTION.

ITEM No.	SERVICE OWNER	DESCRIPTION
T1/16	TELKOM	RELOCATE O/H TELKOM LINE FOR 1,0m MAX. INSIDE ROAD RESERVE. MIN. CLEARANCE = 6,1m AT INTERSECTING ROAD.

ITEM No.	SERVICE OWNER	DESCRIPTION
E1/37	ESKOM	MOVE POLE TO OUTSIDE ROAD RESERVE. MIN CLEARANCE = 6,1m.



SITE PLAN
SCALE 1:1000

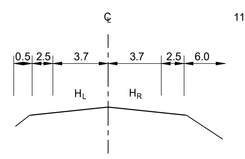


LOCALITY PLAN
SCALE 1:50 000

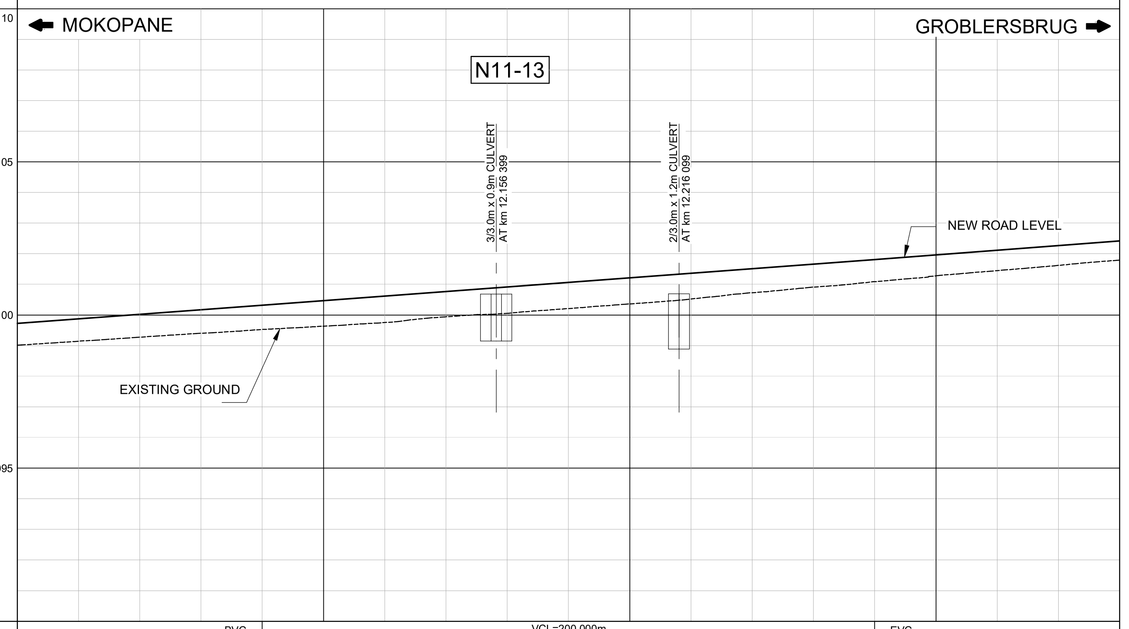
LEGEND
- EXISTING TELEPHONE LINE
- NEW RELOCATED TELEPHONE LINE
- EXISTING POWER LINE
- NEW RELOCATED POWER CABLE
- CULVERTS
- DOWN CHUTES
- CHANNEL OUTLET
- CATCHWATER BERM
- EXISTING WATER LINE
- GUARDRAIL
- NEW ACCESS
- FINAL ROAD RESERVE
- EXISTING ROAD RESERVE

GUARDRAILS	LEFT	
	RIGHT	
KERBS	LEFT	
	RIGHT	
BARRIER LINES	LEFT	
	RIGHT	
SUBSURFACE DRAIN	LEFT	
	RIGHT	
SIDE DRAIN	LEFT	
	RIGHT	
CLIMBING LANES	LEFT	
	RIGHT	

DESIGN SPEED
100 km/h



PROFILE



SCALES:
Horizontal 1:1000
Vertical 1:100

DATUM 1090.000

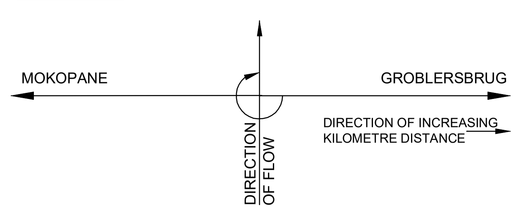
VERTICAL PROFILE GRADES	BVC 12.080000	VCL=200.000m K=8462	EVC 12.280000
	0.735%	12.180000 | 101.050	0.759%

FINAL DESIGN ROAD LEVELS																									
HL = 3.7m LEFT	1099.652	1099.800	1099.947	1100.094	1100.241	1100.388	1100.536	1100.684	1100.833	1100.982	1101.132	1101.282	1101.432	1101.583	1101.735	1101.887	1102.038	1102.190	1102.342
CENTRE LINE (CL)	1099.726	1099.874	1100.021	1100.168	1100.315	1100.462	1100.610	1100.758	1100.907	1101.056	1101.206	1101.356	1101.506	1101.657	1101.809	1101.961	1102.112	1102.264	1102.416
HR = 3.7m RIGHT	1099.652	1099.800	1099.947	1100.094	1100.241	1100.388	1100.536	1100.684	1100.833	1100.982	1101.132	1101.282	1101.432	1101.583	1101.735	1101.887	1102.038	1102.190	1102.342
GROUND LEVELS ON CL	1099.010	1099.144	1099.273	1099.402	1099.526	1099.633	1099.754	1099.843	1100.056	1100.210	1100.362	1100.521	1100.726	1100.910	1101.088	1101.280	1101.449	1101.619	1101.795
DISTANCE (km)	12.000	12.020	12.040	12.060	12.080	12.100	12.120	12.140	12.160	12.180	12.200	12.220	12.240	12.260	12.280	12.300	12.320	12.340	12.360
SUPERELEVATION	LEFT · · · · ·																		
	RIGHT — —	-2.0%																	
HORIZONTAL ALIGNMENT	DIRECTION 187° 28' 50"																		

APPROVED LONGITUDINAL SECTION: DRAWING NO. 251020/PPO/012/LS

LONGITUDINAL SECTION ALONG N11/13
SCALE: HOR. 1:1000
VERT. 1:100

NOTATION:



LIST OF DRAWINGS	
251020-PPO-MC13-01	SITE PLAN
251020-PPO-MC13-02	GENERAL LAYOUT
251020-PPO-MC13-03	GENERAL DETAILS
251020-PPO-MC13-04	REINFORCING LAYOUT AND BENDING SCHEDULE

FOR TENDER PURPOSES ONLY

No.	DATE	REVISION	CONSULT. ENG.

CONSTRUCTION RECORD
WORKS CONTRACT ENGINEER
Name :
Prof. Reg. No. :
Date :
SANRAL PROJECT MANAGER
Name :
Prof. Reg. No. :
Date :

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All dimensions to be checked on site before any work is put in hand. Refer any discrepancies to the engineer.

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CHECKED BY
NAME :
Prof. Reg. No. :
DRAWN BY
NAME :

CONSULTANT APPROVAL
Name :
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SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

ACCEPTANCE
THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING

for CEO: SA NATIONAL ROADS AGENCY LTD.
Date:

REHABILITATION OF NATIONAL ROUTE 11 SECTION 13 FROM R518 INTERSECTION (km 8.340) TO GROOTSANDSLOOT RIVER (km 24.280)

NEW 3/3.00 x 0.90m CULVERT AT km 12.156 399

SITE PLAN

SCALE : AS SHOWN
SHEET 1 OF 4

PROJECT NUMBER	NRA N.011-130-2010/1	
DRAWING LOCATION DATA	START	END
ROUTE	N11	N11
SECTION	13	13
DRAWING km DISTANCE	12.156	12.156
DRAWING TYPE	STRUCTURES-CULVERTS	
BRIDGE/STRUCTURE No.		
CONSULTANT DRAWING No.	251020-PPO-MC13-01	VER
SANRAL DOCUMENT #		V1