DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 20+000 **To:** 21+000

Chain-age	(kilometres)		20 + 0				20 + 100				20 + 200				20 + 300				20 + 400				20 + 500				20 + 600				20 + 700				20 + 800				20 + 900				21 + 0
	(metres)		0																																						
Road form.	Subgrade		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
	Cross section		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works	Method: RES, ETL or FILL		RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
	Choice of reshaping: L, T or E		E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	Volume of ETL or Fill (m3/m)																																								
Gra-vel	Total	Thickness (cm,comp.)																																							
		Source (quarry No.)																																							
Longitudinal gradient (in %)			0				0				0				0				0				0				0				0				0				0			
Mitre drains	Total	Number left =	1								1								1								1								1							
	10	Number right =					1								1								1								1								1			
Catch water	Total	Length of drain left =	100				100				100				100				100				100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100				100				100				100				100				100			
Culverts	N	Chainage (m) = New line																																							
	Ex	= Existing line																																							
	CD	= Cross drainage																																							
	AC/D	= Access culvert/ drift																																							
	L/R	= Left/ right																																							
	Length (m)	Ø 450mm																																							
		Ø 600mm																																							
		Ø 900mm																																							
	Ramp	Earth fill (m3)																																							
		H. Concrete (m3)																																							
Head-walls	Inlet (Material/Type)																																								
	Outlet (Material/Type)																																								
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																																							
	0	Spacing right (m) = =Total No. this sheet																																							
Additional Instruction as per Reference																																								

Chainage:	20+000	20+200	20+400	20+600	20+800	21+000

Input Measurements: — **Free Clearance Width for Calculating areas**

	20+000 Aver. (m)	20+000 1 to 4 readings*)					20+200						20+400						20+600						20+800 Aver. (m)	20+800 1 to 4 readings				
Bush Clearing	7	7	0	0	0	m	7	7	0	0	0	m	7	7	0	0	0	m	7	7	0	0	0	m	8	8	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	7	7	0	0	0	m	7	7	0	0	0	m	7	7	0	0	0	m	7	7	0	0	0	m	8	8	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch | - | - | - | - | -

Measurements for small cut to fill: — **Height of Cut / Differences in Levels for calculating volumes**

	20+000 Aver. (m)	20+000 1 to 4 readings*)					20+200						20+400						20+600						20+800 Aver. (m)	20+800 1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping :	**Difference in Level between Exist. Camber and Side Drain for calculating volumes**																													
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities: — **Quantities**

	20+000		20+200		20+400		20+600		20+800	Total this page
Bush Clearing	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,000	**5,800**
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	800	m2	800	m2	800	m2	600	**3,800**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

	20+000		20+200		20+400		20+600		20+800	Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment/Fill		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	1,134	**1,134**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** …… **Date:** …… **Signature:** ……

DETAILED IMPROVEMENT PLAN Page: 12

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 21+000 **To:** 22+000

Chain-age		(kilometres) (metres)	21 + 0				21 + 100				21 + 200				21 + 300				21 + 400				21 + 500				21 + 600				21 + 700				21 + 800				21 + 900			22 + 0
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
		Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works		Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																																								
Gra-vel	Total	Thickness (cm,comp.)																																								
		Source (quarry No.)																																								
		Longitudinal gradient (in %)	0				0				0				0				0				0				0				0				0				0			
Mitre drains	Total	Number left =	1								1								1								1								1							
	10	Number right =					1								1								1								1								1			
Catch water	Total	Length of drain left =	100				100				100				100				100				100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100				100				100				100				100				100			
Culverts	N Ex	Chainage (m) = New line = Existing line	21+050 N																								21+600 N															
	CD	= Cross drainage	CD																								CD															
	AC/D	= Access culvert/ drift																																								
	L/R	= Left/ right																																								
	Length (m)	Ø 450mm																																								
		Ø 600mm																																								
		Ø 900mm	8																								8															
	Ramp	Earth fill (m3)																																								
		H. Concrete (m3)	IV																								IV															
Head-walls		Inlet (Material/Type)	I																								I															
		Outlet (Material/Type)	I																								I															
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																																								
	0	Spacing right (m) = =Total No. this sheet																																								
		Additional Instruction as per Reference																																								

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	21+000	To:	22+000	pg	13

Chainage:	21+000	21+200	21+400	21+600	21+800	22+000

Input Measurements: — **Free Clearance Width for Calculating areas**

	21+000 Aver. (m)	21+000 1 to 4 readings*)					21+200 Aver. (m)	21+200 1 to 4 readings					21+400 Aver. (m)	21+400 1 to 4 readings					21+600 Aver. (m)	21+600 1 to 4 readings					21+800 Aver. (m)	21+800 1 to 4 readings				
Bush Clearing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Measurements for small cut to fill: — **Height of Cut / Differences in Levels for calculating volumes**

	21+000 Aver. (m)	21+000 1 to 4 readings*)					21+200 Aver. (m)	21+200 1 to 4 readings					21+400 Aver. (m)	21+400 1 to 4 readings					21+600 Aver. (m)	21+600 1 to 4 readings					21+800 Aver. (m)	21+800 1 to 4 readings				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping :	**Difference in Level between Exist. Camber and Side Drain for calculating volumes**																													
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities: — **Quantities**

	21+000		21+200		21+400		21+600		21+800	Total this page
Bush Clearing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	600	m2	600	m2	600	m2	600	m2	600	**3,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

	21+000		21+200		21+400		21+600		21+800	Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment/Fill	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	**5,670**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 22+000 **To:** 23+000

Chain-age		(kilometres)	22 + 0				22 + 100				22 + 200				22 + 300				22 + 400				22 + 500				22 + 600				22 + 700				22 + 800				22 + 900			23 + 0
		(metres)																																								
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
		Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works		Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																																						
Gra-vel	Total	Thickness (cm,comp.)																																						
		Source (quarry No.)																																						
		Longitudinal gradient (in %)	0				0				0				0				0				0				0				0				0				0			
Mitre drains	Total	Number left =	1								1								1								1								1							
	10	Number right =					1								1								1								1								1			
Catch water	Total	Length of drain left =	100				100				100				100				100				100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100				100				100				100				100				100			
Culverts		Chainage (m) = New line					22+100 N																22+500 N				22+600 N															
	N																																								
	Ex	= Existing line																																							
	CD	= Cross drainage					CD																CD				CD															
	AC/D	= Access culvert/ drift																																							
	L/R	= Left/ right																																							
	Length (m)	Ø 450mm																																							
		Ø 600mm																																							
		Ø 900mm					8																8				8															
	Ramp	Earth fill (m3)																																							
		H. Concrete (m3)					IV																IV				IV															
Head-walls		Inlet (Material/Type)					I																I				I															
		Outlet (Material/Type)					I																I				I															
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																																								
	0	Spacing right (m) = =Total No. this sheet																																								
Additional Instruction as per Reference																																									

Chainage:	22+000	22+200	22+400	22+600	22+800	23+000

Input Measurements: — Free Clearance Width for Calculating areas

	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings				
Bush Clearing	8	8	0	0	0	m	5	5	0	0	0	m	5	5	0	0	0	m	7	7	0	0	0	m	7	7	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	8	8	0	0	0	m	5	5	0	0	0	m	5	5	0	0	0	m	7	7	0	0	0	m	7	7	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch

Measurements for small cut to fill: — Height of Cut / Differences in Levels for calculating volumes

	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping : Difference in Level between Exist. Camber and Side Drain for calculating volumes																														
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:

	Quantities									Total this page
Bush Clearing	1,000	m2	1,600	m2	1,600	m2	1,200	m2	1,200	**6,600**
Grass Cutting		m2		m2		m2		m2		
Grubbing	600	m2	1,200	m2	1,200	m2	800	m2	800	**4,600**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

	Quantities									Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment/Fill	1,134	m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		**1,134**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN Page: 14

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 23+000 **To:** 24+000

Chain-age		(kilometres) (metres)	23 + 0				23 + 100				23 + 200				23 + 300				23 + 400			
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
		Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works		Method: RES, ETL or FILL	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	FILL	FILL	FILL	FILL
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																				
Gra-vel	Total	Thickness (cm,comp.)																				
		Source (quarry No.)																				
Longitudinal gradient (in %)			0				0				0				0				0			
Mitre drains	Total	Number left =	1								1								1			
	10	Number right =					1								1							
Catch water	Total	Length of drain left =	100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100			
Culverts	N Ex	Chainage (m) = New line = Existing line										23+250 N								23+450 N		
	CD	= Cross drainage										CD								CD		
	AC/D	= Access culvert/ drift																				
	L/R	= Left/ right																				
	Length (m)	Ø 450mm																				
		Ø 600mm																				
		Ø 900mm										8								8		
	Ramp	Earth fill (m3)																				
		H. Concrete (m3)										IV								IV		
Head-walls		Inlet (Material/Type)										I								I		
		Outlet (Material/Type)										I								I		
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																				
	0	Spacing right (m) = =Total No. this sheet																				
Additional Instruction as per Reference																						

Chain-age		(kilometres) (metres)	23 + 500				23 + 600				23 + 700				23 + 800				23 + 900			24 + 0
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
		Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works		Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																				
Gra-vel	Total	Thickness (cm,comp.)																				
		Source (quarry No.)																				
Longitudinal gradient (in %)			0				0				0				0				0			
Mitre drains	Total	Number left =					1								1							
	10	Number right =	1								1								1			
Catch water	Total	Length of drain left =	100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100			
Culverts	N Ex	Chainage (m) = New line = Existing line													23+800 N							
	CD	= Cross drainage													CD							
	AC/D	= Access culvert/ drift																				
	L/R	= Left/ right																				
	Length (m)	Ø 450mm																				
		Ø 600mm																				
		Ø 900mm													8							
	Ramp	Earth fill (m3)																				
		H. Concrete (m3)													IV							
Head-walls		Inlet (Material/Type)													I							
		Outlet (Material/Type)													I							
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																				
	0	Spacing right (m) = =Total No. this sheet																				
Additional Instruction as per Reference																						

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	23+000	To:	24+000	pg	15

Chainage:	23+000	23+200	23+400	23+600	23+800	24+000

Input Measurements: — Free Clearance Width for Calculating areas

	23+000 Aver. (m)	23+000 1 to 4 readings*)	23+200	23+400	23+600	23+800 Aver. (m)	23+800 1 to 4 readings	24+000
Bush Clearing	8	8 0 0 0	8 8 0 0 0	8 8 0 0 0	8 8 0 0 0	8	8 0 0 0	m
Grass Cutting								m
Grubbing	8	8 0 0 0	8 8 0 0 0	8 8 0 0 0	8 8 0 0 0	8	8 0 0 0	m
Tree and stump removal	0		0	0	0	0		m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch			-	-	-

Measurements for small cut to fill: — Height of Cut / Differences in Levels for calculating volumes

	23+000 Aver. (m)	23+000 1 to 4 readings*)	23+200	23+400	23+600	23+800 Aver. (m)	23+800 1 to 4 readings*)	24+000
Height of cut < 0.25m	0	0	0	0 0 0	0 0 0	0	0 0	cm
Height of cut > 0.25m	0	0	0	0 0 0	0 0 0	0	0 0	cm

For Reshaping : Difference in Level between Exist. Camber and Side Drain for calculating volumes

Existing Roads	0	0	0	0	0	0		cm
Sloping								cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:

	Quantities									Total this page
Bush Clearing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	600	m2	600	m2	600	m2	600	m2	600	**3,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

	Quantities									Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment/Fill		m3 (insitu)		m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	**3,402**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 24+000 **To:** 25+000

Chain-age		(kilometres)	24 +				24 +				24 +				24 +				24 +			
		(metres)	0				100				200				300				400			
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
		Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works		Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																				
Gra-vel	Total	Thickness (cm,comp.)																				
		Source (quarry No.)																				
		Longitudinal gradient (in %)	0				0				0				0				0			
Mitre drains	Total	Number left =	1								1								1			
	10	Number right =					1								1							
Catch water	Total	Length of drain left =	100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100			
Culverts	N Ex	Chainage (m) = New line = Existing line	24+000 N																			
	CD	= Cross drainage	CD																			
	AC/D	= Access culvert/ drift																				
	L/R	= Left/ right																				
	Length (m)	Ø 450mm																				
		Ø 600mm																				
		Ø 900mm	16																			
	Ramp	Earth fill (m3)																				
		H. Concrete (m3)	IV																			
Head-walls		Inlet (Material/Type)	I																			
		Outlet (Material/Type)	I																			
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																				
	0	Spacing right (m) = =Total No. this sheet																				
Additional Instruction as per Reference																						

Chain-age		(kilometres)	24 +				24 +				24 +				24 +				24 +			25 +
		(metres)	500				600				700				800				900			0
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
		Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works		Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																				
Gra-vel	Total	Thickness (cm,comp.)																				
		Source (quarry No.)																				
		Longitudinal gradient (in %)	0				0				0				0				0			
Mitre drains	Total	Number left =					1								1							
	10	Number right =	1								1								1			
Catch water	Total	Length of drain left =	100				100				100				100				100			
	2,000	Length of drain right =	100				100				100				100				100			
Culverts	N Ex	Chainage (m) = New line = Existing line																		24+950 N		
	CD	= Cross drainage																		CD		
	AC/D	= Access culvert/ drift																				
	L/R	= Left/ right																				
	Length (m)	Ø 450mm																				
		Ø 600mm																				
		Ø 900mm																		8		
	Ramp	Earth fill (m3)																				
		H. Concrete (m3)																		IV		
Head-walls		Inlet (Material/Type)																		I		
		Outlet (Material/Type)																		I		
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																				
	0	Spacing right (m) = =Total No. this sheet																				
Additional Instruction as per Reference																						

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	24+000	To:	25+000	pg	16

Chainage:	24+000	24+200	24+400	24+600	24+800	24+000

Input Measurements: — Free Clearance Width for Calculating areas

	24+000 Aver. (m)	24+000 1 to 4 readings*)					24+200						24+400						24+600						24+800 Aver. (m)	24+800 1 to 4 readings				
Bush Clearing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Measurements for small cut to fill: — Height of Cut / Differences in Levels for calculating volumes

	24+000 Aver. (m)	24+000 1 to 4 readings*)					24+200						24+400						24+600						24+800 Aver. (m)	24+800 1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping : Difference in Level between Exist. Camber and Side Drain for calculating volumes																														
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:

	24+000		24+200		24+400		24+600		24+800	Total this page
Bush Clearing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	600	m2	600	m2	600	m2	600	m2	600	**3,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

	24+000		24+200		24+400		24+600		24+800	Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment/Fill	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	**5,670**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Page: 1

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 25+000 **To:** 26+000

Chain-age	(kilometres)	25 +				25 +				25 +				25 +				25 +				25 +				25 +				25 +				25 +				25 +				26 +
	(metres)	0				100				200				300				400				500				600				700				800				900				0
Road form.	Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
	Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works	Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
	Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	Volume of ETL or Fill (m3/m)																																							
Gra-vel	Total Thickness (cm,comp.)																																							
	Source (quarry No.)																																							
	Longitudinal gradient (in %)	0				0				0				0				0				0				0				0				0				0				
Mitre drains	Total Number left =	1								1								1								1								1								
	10 Number right =					1								1								1								1								1				
Catch water	Total Length of drain left =	100				100				100				100				100				100				100				100				100				100				
	2,000 Length of drain right =	100				100				100				100				100				100				100				100				100				100				
Culverts	N = New line																									25+600 N												25+900 N				
	Ex = Existing line																																								
	CD = Cross drainage																									CD												CD				
	AC/D = Access culvert/ drift																																								
	L/R = Left/ right																																								
	Length (m) Ø 450mm																																								
	Length (m) Ø 600mm																																								
	Length (m) Ø 900mm																									8												8				
	Ramp Earth fill (m3)																																								
	Ramp H. Concrete (m3)																									IV												IV				
Head-walls	Inlet (Material/Type)																									I												I				
	Outlet (Material/Type)																									I												I				
Scour Checks	HC = Material this sheet/ Spacing left (m) =																																								
	0 Spacing right (m) = =Total No. this sheet																																								
Additional Instruction as per Reference																																									

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	25+000	To:	26+000	pg	2

Chainage:	25+000	25+200	25+400	25+600	25+800	26+000

Free Clearance Width for Calculating areas

Input Measurements:	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings				
Bush Clearing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Height of Cut / Differences in Levels for calculating volumes

Measurements for small cut to fill:	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping :	**Difference in Level between Exist. Camber and Side Drain for calculating volumes**																													
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities

Quantities:										Total this page
Bush Clearing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	600	m2	600	m2	600	m2	600	m2	600	**3,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

										Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment/Fill	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	**5,670**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 26+000 **To:** 27+000

Chain-age	(kilometres)		26 +				26 +				26 +				26 +				26 +				26 +				26 +				26 +				26 +				27 +
	(metres)		0				100				200				300				400				500				600				700				800				900				0
Road form.	Subgrade		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
	Cross section		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works	Method: RES, ETL or FILL		FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
	Choice of reshaping: L, T or E		E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	Volume of ETL or Fill (m3/m)																																								
Gra-vel	Total	Thickness (cm,comp.)																																							
		Source (quarry No.)																																							
Longitudinal gradient (in %)			0				0				0				0				0				0				0				0				0				0			
Mitre drains	Total	Number left =	1								1								1								1								1							
	10	Number right =					1								1								1								1								1			
Catch water	Total	Length of drain left =	100				100				100				100				100				100				100				100				100				100			
	1,500	Length of drain right =	100				100				100				100				100																							
Culverts		Chainage (m) = New line													26+300 N								26+500 N				26+600 N				26+700 N				26+800 N				26+900 N			
	N	= Existing line																																							
	Ex	= Cross drainage													CD								CD				CD				CD				CD				CD			
	CD	= Access culvert/ drift																																							
	AC/D	= Left/ right																																							
	L/R	Ø 450mm																																							
	Length (m)	Ø 600mm																																							
		Ø 900mm													8								8				8				8				8				8			
	Ramp	Earth fill (m3)																																							
		H. Concrete (m3)													IV								IV				IV				IV				IV				IV			
Head-walls	Inlet (Material/Type)														I								I				I				I				I				I			
	Outlet (Material/Type)														I								I				I				I				I				I			
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																																							
	0	Spacing right (m) = =Total No. this sheet																																							
Additional Instruction as per Reference																			Realigned section to LHS KM 26+500 - 29+000																						

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	26+000	To:	27+000	pg	3

Chainage:	26+000	26+200	26+400	26+600	26+800	26+000

Input Measurements: — **Free Clearance Width for Calculating areas**

	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings				
Bush Clearing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Measurements for small cut to fill: — **Height of Cut / Differences in Levels for calculating volumes**

	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm

For Reshaping : — **Difference in Level between Exist. Camber and Side Drain for calculating volumes**

Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities: — **Quantities**

									Total this page
Bush Clearing	1,000	m2	1,000	m2	1,000	m2	2,600	m2	2,600	**8,200**
Grass Cutting		m2		m2		m2		m2		
Grubbing	600	m2	600	m2	600	m2	2,200	m2	2,200	**6,200**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

									Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	216	m3 (insitu)	216	m3 (insitu)	216	**648**
Embankment/Fill	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	**5,670**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 27+000 **To:** 28+000

Chain-age	(kilometres)	27 + 0				27 + 100				27 + 200				27 + 300				27 + 400				27 + 500				27 + 600				27 + 700				27 + 800				27 + 900				28 + 0
	(metres)																																								
Road form.	Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
	Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works	Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
	Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	Volume of ETL or Fill (m3/m)																																							
Gra-vel	Total Thickness (cm,comp.)																																							
	Source (quarry No.)																																							
	Longitudinal gradient (in %)	0				0				0				0				0				0				0				0				0				0				
Mitre drains	Total Number left =	1								1								1								1								1								
	10 Number right =					1								1								1								1								1				
Catch water	Total Length of drain left =	100				100				100				100				100				100				100				100				100				100				
	1,500 Length of drain right =	100				100				100				100				100																								
Culverts	Chainage (m) = New line	27+000 N				27+100 N				27+200 N				27+300 N				27+400 N				27+500 N				27+600 N				27+700 N				27+800 N				27+900 N				
	N Ex = Existing line																																								
	CD = Cross drainage	CD				CD				CD				CD				CD				CD				CD				CD				CD				CD				
	AC/D = Access culvert/ drift																																							
	L/R = Left/ right																																							
	Length (m) Ø 450mm																																							
	Length (m) Ø 600mm																																							
	Length (m) Ø 900mm	8				8				8				8				8				8				8				8				24				8				
	Ramp Earth fill (m3)																																							
	Ramp H. Concrete (m3)	IV				IV				IV				IV				IV				IV				IV				IV				IV				IV				
Head-walls	Inlet (Material/Type)	I				I				I				I				I				I				I				I				I				I				
	Outlet (Material/Type)	I				I				I				I				I				I				I				I				I				I				
Scour Checks	HC = Material this sheet/ Spacing left (m) =																																							
	0 Spacing right (m) = =Total No. this sheet																																							

Additional Instruction as per Reference Realigned section to LHS

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	27+000	To:	28+000	pg	4

Chainage:	27+000	27+200	27+400	27+600	27+800	28+000

Free Clearance Width for Calculating areas

Input Measurements:	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings				
Bush Clearing	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Height of Cut / Differences in Levels for calculating volumes

Measurements for small cut to fill:	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping :	**Difference in Level between Exist. Camber and Side Drain for calculating volumes**																													
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities

Quantities:									Total this page
Bush Clearing	2,600	m2	2,600	m2	2,600	m2	2,600	m2	2,600	**13,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	2,200	m2	2,200	m2	2,200	m2	2,200	m2	2,200	**11,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

									Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	216	m3 (insitu)	216	m3 (insitu)	216	m3 (insitu)	216	m3 (insitu)	216	**1,080**
Embankment/Fill	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	m3 (insitu)	1,134	**5,670**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 28+000 **To:** 29+000

Chain-age	(kilometres)	28 + 0				28 + 100				28 + 200				28 + 300				28 + 400				28 + 500				28 + 600				28 + 700				28 + 800				28 + 900			29 + 0
	(metres)																																								
Road form.	Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
	Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works	Method: RES, ETL or FILL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL	ETL
	Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	Volume of ETL or Fill (m3/m)																																								
Gra-vel	Total Thickness (cm,comp.)																																								
	Source (quarry No.)																																								
	Longitudinal gradient (in %)	0				0				0				0				0				0				0				0				0				0			
Mitre drains	Total Number left =	1								1								1								1								1							
	10 Number right =					1								1								1								1								1			
Catch water	Total Length of drain left =	100				100				100				100				100				100				100				100				100				100			
	1,000 Length of drain right =																																								
Culverts	N = New line									28+200 N																				28+700 N											
	Ex = Existing line																																								
	CD = Cross drainage									CD																				CD											
	AC/D = Access culvert/ drift																																								
	L/R = Left/ right																																								
	Length (m) Ø 450mm																																								
	Length (m) Ø 600mm																																								
	Length (m) Ø 900mm									8																				8											
	Ramp Earth fill (m3)																																								
	Ramp H. Concrete (m3)									IV																				IV											
Head-walls	Inlet (Material/Type)									I																				I											
	Outlet (Material/Type)									I																				I											
Scour Checks	HC = Material this sheet/ Spacing left (m) =																																								
	0 Spacing right (m) = =Total No. this sheet																																								
	Additional Instruction as per Reference	Realigned section to LHS																																				End of realigned section km 29+000			

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	28+000	To:	29+000	pg	5

Chainage:	28+000	28+200	28+400	28+600	28+800	29+000

Free Clearance Width for Calculating areas

Input Measurements:	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings				
Bush Clearing	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Height of Cut / Differences in Levels for calculating volumes

Measurements for small cut to fill:	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings					Aver. (m)	1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
For Reshaping :	**Difference in Level between Exist. Camber and Side Drain for calculating volumes**																													
Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities

Quantities:										Total this page
Bush Clearing	2,600	m2	2,600	m2	2,600	m2	2,600	m2	2,600	**13,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	2,200	m2	2,200	m2	2,200	m2	2,200	m2	2,200	**11,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

										Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	216	m3 (insitu)	216	m3 (insitu)	216	m3 (insitu)	216	m3 (insitu)	216	**1,080**
Embankment/Fill		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		**0**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....

DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 29+000 **To:** 30+000

Chain-age (kilometres) / (metres)	29+0				29+100				29+200				29+300				29+400				29+500				29+600				29+700				29+800				29+900			30+0
Road form. – Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
Road form. – Cross section	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Earth-works – Method: RES, ETL or FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
Earth-works – Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Earth-works – Volume of ETL or Fill (m3/m)																																								
Gra-vel – Total – Thickness (cm,comp.)																																								
Gra-vel – Source (quarry No.)																																								
Longitudinal gradient (in %)	0				0				0				0				0				0				0				0				0				0			
Mitre drains – Total – Number left =	1								1								1								1								1							
Mitre drains – 10 – Number right =					1								1								1								1								1			
Catch water – Total – Length of drain left =	100				100				100				100				100				100				100				100				100				100			
Catch water – 2,000 – Length of drain right =	100				100				100				100				100				100				100				100				100				100			
Culverts – N / Ex – Chainage (m) = New line / = Existing line	29+000 N												29+300 N				29+400 N																							
Culverts – CD – = Cross drainage	CD												CD				CD																							
Culverts – AC/D – = Access culvert/ drift																																								
Culverts – L/R – = Left/ right																																								
Culverts – Length (m) – Ø 450mm																																								
Culverts – Length (m) – Ø 600mm																																								
Culverts – Length (m) – Ø 900mm	8												8				8																							
Culverts – Ramp – Earth fill (m3)																																								
Culverts – Ramp – H. Concrete (m3)	IV												IV				IV																							
Head-walls – Inlet (Material/Type)	I												I				I																							
Head-walls – Outlet (Material/Type)	I												I				I																							
Scour Checks – HC – = Material this sheet/ Spacing left (m) =																																								
Scour Checks – 0 – Spacing right (m) = =Total No. this sheet																																								
Additional Instruction as per Reference																																								

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	29+000	To:	30+000	pg	6

Chainage:	29+000	29+200	29+400	29+600	29+800	30+000

Input Measurements: — **Free Clearance Width for Calculating areas**

	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings				
Bush Clearing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Grass Cutting						m						m						m						m						m
Grubbing	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m	8	8	0	0	0	m
Tree and stump removal	0					m	0					m	0					m	0					m	0					m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Cross Section Sketch	-	-	-	-	-

Measurements for small cut to fill: — **Height of Cut / Differences in Levels for calculating volumes**

	Aver. (m)	1 to 4 readings*)					Aver. (m)	1 to 4 readings*)				
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	0		0		0	cm

For Reshaping : — **Difference in Level between Exist. Camber and Side Drain for calculating volumes**

Existing Roads	0					cm	0					cm	0					cm	0					cm	0					cm
Sloping						cm						cm						cm						cm						cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities: — **Quantities**

									Total this page
Bush Clearing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	m2	**5,000**
Grass Cutting		m2		m2		m2		m2		m2	
Grubbing	600	m2	600	m2	600	m2	600	m2	600	m2	**3,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	No.	**0**

Quantities

									Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	**0**
Embankment/Fill	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	**810**
Drains full re-construction	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	242	m3 (insitu)	**1,208**
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	

Data Collected by: **Name:** ..... **Date:** ..... **Signature:** .....