DETAILED IMPROVEMENT PLAN

Road Name: LOGLOGO-KORR **County:** MARSABIT **From:** 10+000 **To:** 11+000

Chain-age	(kilometres)	10 + 0				10 + 100				10 + 200				10 + 300				10 + 400				10 + 500				10 + 600				10 + 700				10 + 800				10 + 900			11 + 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	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	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	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	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 10 Number left =	1								1								1								1								1							
	Number right =					1								1								1								1								1			
Catch water	Total 2,000 Length of drain left =	100				100				100				100				100				100				100				100				100				100			
	Length of drain right =	100				100				100				100				100				100				100				100				100				100			
Culverts	N Ex Chainage (m) = New line = Existing line																	10+400 N					10+520 N					10+650 N											10+950 N	
	CD = Cross drainage																	CD					CD					CD											CD	
	AC/D L/R = Access culvert/ drift																																								
	= Left/ right																																								
	Length (m) Ø 450mm																																								
	Ø 600mm																																								
	Ø 900mm																	8					8					8											8	
	Ramp Earth fill (m3)																																								
	H. Concrete (m3)																	IV					IV					IV											IV	
Head-walls	Inlet (Material/Type)																	I					I					I											I	
	Outlet (Material/Type)																	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																																								

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	10+000	To:	11+000	pg	2

Chainage:	10+000						10+200						10+400						10+600						10+800						11+000
Input Measurements:	Aver. (m)	1 to 4 readings*)					**Free Clearance Width for Calculating areas**																		Aver. (m)	1 to 4 readings					
Bush Clearing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	
Grass Cutting						m						m						m						m						m	
Grubbing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	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:	Aver. (m)	1 to 4 readings*)					**Height of Cut / Differences in Levels for calculating volumes**																		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	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	**7,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
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)		m3 (insitu)	162	m3 (insitu)	162	**324**
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:** 11+000 **To:** 12+000

Chain-age		(kilometres)	11 +				11 +				11 +				11 +				11 +				11 +				11 +				11 +				11 +				11 +				11 +			12 +
		(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	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	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	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	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																																												

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	11+000	To:	12+000	pg	3

Chainage:	11+000						11+200						11+400						11+600						11+800						12+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	1 to 4 readings					
Bush Clearing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	
Grass Cutting						m						m						m						m						m	
Grubbing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	**7,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
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)		m3 (insitu)		m3 (insitu)		
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:** 12+000 **To:** 13+000

Chain-age		(kilometres)	12 + 0				12 + 100				12 + 200				12 + 300				12 + 400				12 + 500				12 + 600				12 + 700				12 + 800				12 + 900				13 + 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	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	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	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	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 10	Number left =	1								1								1								1								1								
		Number right =					1								1								1								1								1				
Catch water	Total 2,000	Length of drain left =	100				100				100				100				100				100				100				100				100				100				
		Length of drain right =	100				100				100				100				100				100				100				100				100				100				
Culverts	N Ex	Chainage (m) = New line = Existing line											12+280 N						12+450 N										12+650 N														
	CD	= Cross drainage											CD						CD										CD														
	AC/D	= Access culvert/ drift																																									
	L/R	= Left/ right																																									
	Length (m)	Ø 450mm																																									
		Ø 600mm																																									
		Ø 900mm											8						16										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																																											

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	12+000	To:	13+000	pg	4

Chainage:	12+000						12+200						12+400						12+600						12+800						13+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	1 to 4 readings					
Bush Clearing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	
Grass Cutting						m						m						m						m						m	
Grubbing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	
Tree and stump removal	0					m	1	1				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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	**7,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
Tree and stump removal	0	No.	1	No.	0	No.	0	No.	0	**1**

	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)	567	m3 (insitu)		m3 (insitu)		**567**
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:** 13+000 **To:** 14+000

Chain-age		(kilometres)	13 +				13 +				13 +				13 +				13 +				13 +				13 +				13 +				13 +				13 +				14 +
		(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	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	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	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	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																																											

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	13+000	To:	14+000	pg	5

Chainage:	13+000						13+200						13+400						13+600						13+800						14+000
Input Measurements:	Aver. (m)	1 to 4 readings*)					**Free Clearance Width for Calculating areas**																		Aver. (m)	1 to 4 readings					
Bush Clearing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	
Grass Cutting						m						m						m						m						m	
Grubbing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	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:	Aver. (m)	1 to 4 readings*)					**Height of Cut / Differences in Levels for calculating volumes**																		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	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	**7,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
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)		m3 (insitu)		m3 (insitu)		
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:** 14+000 **To:** 15+000

Chain-age		(kilometres)	14 +				14 +				14 +				14 +				14 +				14 +				14 +				14 +				14 +				14 +				15 +
		(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	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	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	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	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																																												

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	14+000	To:	15+000	pg	6

Chainage:	14+000						14+200						14+400						14+600						14+800						15+000
Input Measurements:	Aver. (m)	1 to 4 readings*)					**Free Clearance Width for Calculating areas**																		Aver. (m)	1 to 4 readings					
Bush Clearing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	
Grass Cutting						m						m						m						m						m	
Grubbing	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	0	0	0	m	6	6	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:	Aver. (m)	1 to 4 readings*)					**Height of Cut / Differences in Levels for calculating volumes**																		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	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	**7,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
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)		m3 (insitu)		m3 (insitu)		
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:** 15+000 **To:** 16+000

Chain-age	(kilometres)		15 +				15 +				15 +				15 +				15 +				15 +				15 +				15 +				15 +				15 +				16 +
	(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	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	A	A
Earth-works	Method: RES, ETL or FILL		RES	RES	RES	RES	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	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				15+100 N																																						
	Ex	= Existing line																																										
	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																																												

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	15+000	To:	16+000	pg	7

Chainage:	15+000						15+200						15+400						15+600						15+800						16+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	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	7	7	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	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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	**6,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	800	m2	800	m2	800	m2	800	**4,000**
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	81	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	**729**
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:** 16+000 **To:** 17+000

Chain-age		(kilometres)	16 + 0				16 + 100				16 + 200				16 + 300				16 + 400				16 + 500				16 + 600				16 + 700				16 + 800				16 + 900			17 + 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	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	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				1				1				1				1				1			
Mitre drains	Total 10	Number left =	1								1								1								1								1							
		Number right =					1								1								1								1								1			
Catch water	Total 2,000	Length of drain left =	100				100				100				100				100				100				100				100				100				100			
		Length of drain right =	100				100				100				100				100				100				100				100				100				100			
Culverts	N	Chainage (m) = New line																									16+600 N															
	Ex	= Existing line																																								
	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:	16+000	To:	17+000	pg	8

Chainage:	16+000						16+200						16+400						16+600						16+800						17+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	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	7	7	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	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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	**6,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	800	m2	800	m2	800	m2	800	**4,000**
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	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	**810**
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:** 17+000 **To:** 18+000

Chain-age	(kilometres)		17 + 0				17 + 100				17 + 200				17 + 300				17 + 400				17 + 500				17 + 600				17 + 700				17 + 800				17 + 900			18 + 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		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				1				1				1				1				1			
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	17+000 N																																							
	Ex	= Existing line																																								
	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:	17+000	To:	18+000	pg	9

Chainage:	17+000						17+200						17+400						17+600						17+800						18+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	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	7	7	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	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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	**6,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	800	m2	800	m2	800	m2	800	**4,000**
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	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	**810**
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:** 18+000 **To:** 19+000

Chain-age		(kilometres)	18 +				18 +				18 +				18 +				18 +				18 +				18 +				18 +				18 +				18 +				19 +
		(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	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	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	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	E	E
		Volume of ETL or Fill (m3/m)																																										
Gra-vel	Total	Thickness (cm,comp.)																																										
		Source (quarry No.)																																										
		Longitudinal gradient (in %)	1				1				1				1				1				1				1				1				1				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	18+000 N								18+200 N								18+400 N								18+600 N				18+700 N				18+800 N								
	Ex	= Existing line																																										
	CD	= Cross drainage	CD								CD								CD								CD				CD				CD								
	AC/D	= Access culvert/ drift																																										
	L/R	= Left/ right																																										
	Length (m)	Ø 450mm																																										
		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																																										

Quantity Assessment	LOGLOGO-KORR	-	-	County:	MARSABIT	From:	18+000	To:	19+000	pg	10

Chainage:	18+000						18+200						18+400						18+600						18+800						19+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	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	7	7	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	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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	**6,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	800	m2	800	m2	800	m2	800	**4,000**
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	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	m3 (insitu)	162	**810**
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:** 19+000 **To:** 20+000

Chain-age		(kilometres)	19 +				19 +				19 +				19 +				19 +				19 +				19 +				19 +				19 +				19 +				19 +			20 +
		(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	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	A	A
Earth-works		Method: RES, ETL or 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	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	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																									19+600 N																		
	Ex	= Existing line																																										
	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:	19+000	To:	20+000	pg	11

Chainage:	19+000						19+200						19+400						19+600						19+800						20+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	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	7	7	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	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:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												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	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	**6,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	800	m2	800	m2	800	m2	800	**4,000**
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	81	m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		**81**
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:** …….....