

APPENDIX 2: IMPROVEMENT PLAN

Quantity Assessment		#	#	#	-	MARSABIT										#	-	#	-	-									
Chainage:		0+000			0+200			0+400			0+600			0+800			1+000												
Input Measurements:	Aver. (m) 1 to 4 readings¹⁾ Free Clearance Width for Calculating areas Aver. (m) 1 to 4 readings¹⁾																												
Bush Clearing	9.5	10		9		m	9	9		9		m	9	9		9		m	8.5	9		8		m					
Grass Cutting						m						m						m						m					
Grubbing	5.95	6.5		5		m	6	6		6		m	6	6		6		m	6.25	6.5		6		m					
Tree and stump removal	0					m	5			1	4	m	16			1	15	m	35		18		17	m					
¹⁾ 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				2.00			2.00						3.00																
Measurements for small cut to fill:	Aver. (m) 1 to 4 readings¹⁾ Height of Cut / Differences in Levels for calculating volumes Aver. (m) 1 to 4 readings¹⁾																												
Height of cut < 0.25m	0					cm	65	90		40		cm	60	70		50		cm	40		40		40	cm	90		70	110	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
¹⁾ 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	700	m2	800		m2	800		m2	800		m2	800		m2	900		4,000												
Grass Cutting		m2			m2			m2			m2			m2															
Grubbing	1,010	m2	1,000		m2	1,000		m2	1,000		m2	1,000		m2	1,350		5,360												
Tree and stump removal	0	No.	5		No.	6		No.	35		No.	27		73															
	Quantities																		Total this page										
Height of cut < 0.25m		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)															
Height of cut > 0.25m	0	m3 (insitu)	60		m3 (insitu)	40		m3 (insitu)	0		m3 (insitu)	270		370															
Embankment		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)																		
Drains full re-construction	203	m3 (insitu)	203		m3 (insitu)	203		m3 (insitu)	203		m3 (insitu)	203		1,015															
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:																													

Quantity Assessment	#	#	#	#	MARSABIT	#	#	#	#	-																				
Chainage:	1+000		1+200		1+400		1+600		1+800		2+00																			
Input Measurements:	Aver. (m) 1 to 4 readings¹⁾ Free Clearance Width for Calculating areas Aver. (m) 1 to 4 readings¹⁾																													
Bush Clearing	7	7		7		m	6	6		6		m	7	7		7		m	7	5		9		m						
Grass Cutting						m						m						m						m						
Grubbing	5.5	6		5		m	5.5	5		6		m	5	5		5		m	5.75	5.5		6		m						
Tree and stump removal	57	14	15	13	15	m	120	30	30	30	30	m	22	0	10	0	12	m	46	16		30		m						
¹⁾ 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	4.00		5.00		5.00		5.00		5.00		5.00																			
6 5																														
Measurements for small cut to fill:	Aver. (m) 1 to 4 readings¹⁾ Height of Cut / Differences in Levels for calculating volumes Aver. (m) 1 to 4 readings¹⁾																													
Height of cut < 0.25m	75	80		70		cm	100	110		90		cm	55	60		50		cm	75	90	60			cm	75	70		80		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
¹⁾ 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	1,400	m2	1,200	m2	1,200	m2	1,200	6,200																				
Grass Cutting		m2		m2		m2		m2																						
Grubbing	1,100	m2	1,100	m2	1,200	m2	1,050	m2	1,100	5,550																				
Tree and stump removal	57	No.	120	No.	22	No.	46	No.	44	289																				
Quantities											Total this page																			
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)																						
Height of cut > 0.25m	380	m3 (insitu)	780	m3 (insitu)	310	m3 (insitu)	540	m3 (insitu)	530	2,540																				
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)																						
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	1,015																				
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:																														

[illegible]

Quantity Assessment	#	#	#	#	MARSABIT	#	#	#	#	-
---------------------	---	---	---	---	----------	---	---	---	---	---

Chainage:	2.0	2.2	2.4	2.6	2.8	3.0
-----------	-----	-----	-----	-----	-----	-----

Input Measurements:	Aver. (m)	Free Clearance Width for Calculating areas																Aver. (m)									
		1 to 4 readings ^{*)}																									
Bush Clearing	8	8	8		m	7	8	6		m	6.5	6		7		m	7	7	7		m	7.5	8	7		m	
Grass Cutting					m					m						m					m					m	
Grubbing	6	6	6		m	5.5	6	5		m	6	6		6		m	5	5	5		m	6	6	6		m	
Tree and stump removal	4	4			m	42	12	30		m	33		15	18		m	25		3	22		m	65	30	15	20	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	4.00				
----------------------	------	--	--	--	--

Measurements for small cut to fill:	Aver. (m)	Height of Cut / Differences in Levels for calculating volumes																Aver. (m)							
		1 to 4 readings ^{*)}																							
Height of cut < 0.25m	50	40	60		cm	0				cm	0				cm	0	0	0		cm	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

^{*)} 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	1,200	m2	1,300	m2	1,200	m2	1,100	5,800	
Grass Cutting		m2		m2		m2		m2			
Grubbing	1,000	m2	1,100	m2	1,000	m2	1,200	m2	1,000	5,300	
Tree and stump removal	4	No.	42	No.	33	No.	25	No.	65	169	

	Quantities										Total this page
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		0	
Height of cut > 0.25m	200	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	200	
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)			
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	1,015	
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:
--------------------	-------------	-------------	------------------

Quantity Assessment	#	#	#	#	MARSABIT	#	#	#	#	-									
Chainage:	3+000	3+200			3+400			3+600			3+800	4+000							
Input Measurements:	Free Clearance Width for Calculating areas																		
	Aver. (m)	1 to 4 readings ^{*)}									Aver. (m)	1 to 4 readings ^{*)}							
Bush Clearing	6.5	6		7		m	7	7		7		m	7	7		7		m	
Grass Cutting						m					m							m	
Grubbing	5.5	6		5		m	5	5		5		m	6	6		6		m	
Tree and stump removal	105	32	25	28	20	m	83	25		27	31	m	8		8			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	3.00					3.00					4.00					4.00			
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	55	60		50		cm	45	50		40		cm	60	60				cm	
For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																		
Existing Roads	0					cm	0					cm	0					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	1,300	m2	1,200	m2	1,200	m2	1,200	m2	1,200	m2	6,100								
Grass Cutting		m2		m2		m2		m2		m2									
Grubbing	1,100	m2	1,200	m2	1,200	m2	1,000	m2	1,000	m2	5,500								
Tree and stump removal	105	No.	83	No.	8	No.	4	No.	28	No.	228								
	Quantities										Total this page								
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)									
Height of cut > 0.25m	110	m3 (insitu)	30	m3 (insitu)	240	m3 (insitu)	0	m3 (insitu)	80	m3 (insitu)	460								
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)									
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	1,015								
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:																			

Quantity Assessment	#	#	#	#	MARSABIT	#	#	#	#	-										
Chainage:	4.0	4.2				4.4	4.6		4.8	5.0										
Input Measurements:	Aver. (m) 1 to 4 readings^{*)} Free Clearance Width for Calculating areas Aver. (m) 1 to 4 readings^{*)}																			
Bush Clearing	7	8	6		m	6	6	6		m	6.5	6	7		m	6	6	6		m
Grass Cutting					m					m					m					m
Grubbing	5	5	5		m	5	5	5		m	5	5	5		m	5	5	5		m
Tree and stump removal	41	5	36		m	4	0	4	0	m	8	0	8	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	3.00				4.00				4.00				4.00				5.00			
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	40	40	40		cm	30	30	30		cm	35	30	40		cm	35	40	30		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
^{*)} 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	1,400	m2	1,400	m2	1,300	m2	1,400	6,700										
Grass Cutting		m2		m2		m2		m2												
Grubbing	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	6,000										
Tree and stump removal	41	No.	4	No.	8	No.	0	No.	0	53										
	Quantities									Total this page										
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)												
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	40	m3 (insitu)	40	m3 (insitu)	60	140										
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)												
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	1,015										
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: 6

Road Name: JCN A2 MANYATTA JILLO- GORORUKESA

County

MARSABIT

From:

5+000

To:

6+000

[illegible]

Quantity Assessment	#	#	#	#	MARSABIT	#	#	#	#	-										
Chainage:	5.0	5.2	5.4	5.6	5.8	6.0														
Input Measurements:	Aver. (m) 1 to 4 readings^{*)} Free Clearance Width for Calculating areas Aver. (m) 1 to 4 readings^{*)}																			
Bush Clearing	6	6	6		m	6.5	6	7		m	6	6	6		m	6	6	6		m
Grass Cutting					m					m					m					m
Grubbing	5	5	5		m	5.5	5	6		m	5	5	5		m	5	5	5		m
Tree and stump removal	7	7	0		m	0		0		m	0		0		m	8		8		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	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
^{*)} 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	1,300	m2	1,400	m2	1,400	m2	1,200	6,700										
Grass Cutting		m2		m2		m2		m2												
Grubbing	1,200	m2	1,100	m2	1,200	m2	1,200	m2	1,000	5,700										
Tree and stump removal	7	No.	0	No.	0	No.	8	No.	0	15										
	Quantities										Total this page									
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)												
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	0										
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)												
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	1,015										
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:																				

Quantity Assessment	#	#	#	#	MARSABIT										#	#	#	#	-					
Chainage:	6.0				6.2				6.4				6.6				6.8				7.0			
Input Measurements:	Aver. (m)		1 to 4 readings ^{*)}		Free Clearance Width for Calculating areas																Aver. (m)		1 to 4 readings ^{*)}	
Bush Clearing	6	6	6	m	6	6	6	m	6	6	6	m	6	6	6	m	6	6	6	m				
Grass Cutting				m				m				m				m				m				
Grubbing	5	5	5	m	5	5	5	m	5	5	5	m	5	5	5	m	5	5	5	m				
Tree and stump removal	40	40	0	m	36	0	36	0	m	40	0	40	m	53	30	23	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	4.00				4.00																			
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	45	40	50	cm	45	50	40	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				
*) 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	m2	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	7,000				
Grass Cutting		m2		m2		m2		m2		m2		m2		m2		m2		m2						
Grubbing	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	m2	1,200	6,000				
Tree and stump removal	40	No.	36	No.	40	No.	40	No.	40	No.	40	No.	53	No.	53	No.	0	No.	0	169				
	Quantities										Total this page													
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)						
Height of cut > 0.25m	120	m3 (insitu)	120	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	240				
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)						
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	1,015				
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)						
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)						
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)						
Data Collected by: Name: Date: Signature:																								

DETAILED IMPROVEMENT PLAN

Page: 8

Road Name: JCN A2 MANYATTA JILLO- GORORUKESA

County

MARSABIT

From: 7+000

To: 8+000

[illegible]

Quantity Assessment	#	#	#	#	MARSABIT	#	#	#	#	-											
Chainage:	7.0	7.2				7.4	7.6				7.8	8.0									
Input Measurements:	Aver. (m) 1 to 4 readings^{*)} Free Clearance Width for Calculating areas Aver. (m) 1 to 4 readings^{*)}																				
Bush Clearing	3	3	3	m	3	3	3	m	3.5	4	3.5	m	4.25	3.5	5	m	5	5	5	m	
Grass Cutting				m				m				m				m				m	
Grubbing	6.75	3	3	8	m	3	3	3	m	3.5	4	3.5	m	4.25	3.5	5	m	4	4	4	m
Tree and stump removal	0	0	0	m	0	0	0	m	8	0	8	0	m	0	0	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					4.00				4.00				5.00				5.00				
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	0	cm	40	40	40	cm	45	50	40	cm	80	120	40	cm	50	40	60	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	
*) 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	2,000	m2	2,000	m2	1,900	m2	1,750	m2	1,600	9,250											
Grass Cutting		m2		m2		m2		m2													
Grubbing	850	m2	1,600	m2	1,500	m2	1,350	m2	1,400	6,700											
Tree and stump removal	0	No.	0	No.	8	No.	0	No.	0	8											
Quantities											Total this page										
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	60	m3 (insitu)	530	m3 (insitu)	220	810											
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	1,015											
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:																					