Practical Training

Material

Performance Based Road
Maintenance Contract

Project for the strengthening of capacity on road maintenance management through contracting (Phase 2)

EI	
JR	
16-072	

Practical Training

Material

Performance Based Road Maintenance Contract

Project for the strengthening of capacity
on road maintenance management
through contracting

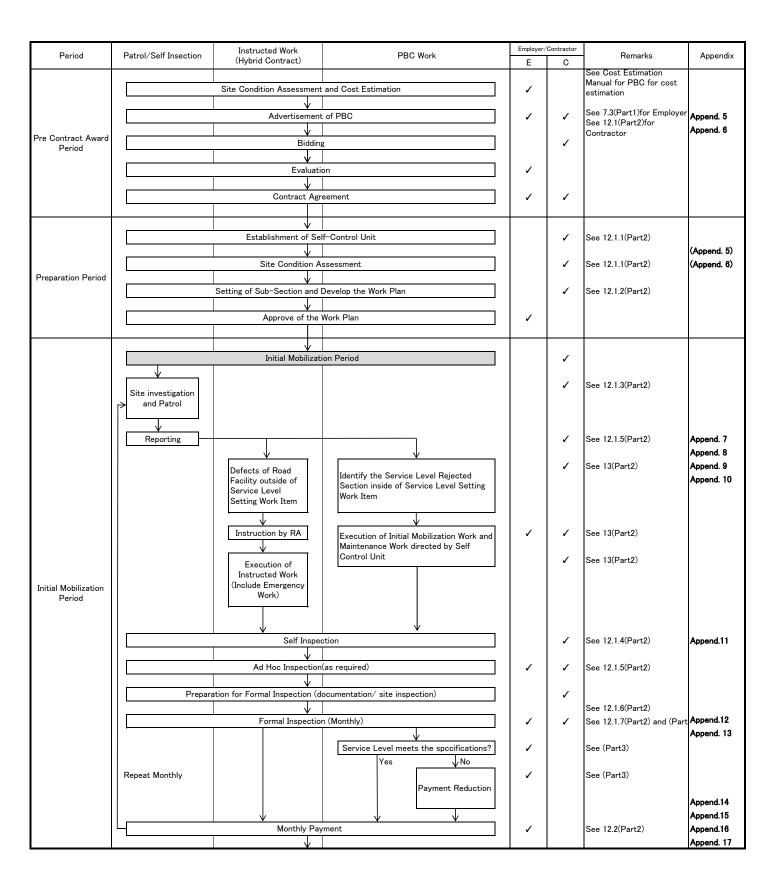
Practice Training Material of PBC Guideline

1. Training Materials

Material	Topic	Remark
Material A	-Road asset and condition survey (Appendix 5)	Field training
Material A	-Service Level Setting (Appendix 6)	
	-Preparation of inspection result report form (Appendix	Class room
Motorial D	12 and Appendix 13)	training
Material B	- Road asset survey (using drawings) (Appendix 5)	
	- Daily Reports (Appendix 7,8,9,10)	
	-Self inspection (Appendix 11)	Field training
Material C	-Formal inspection (Appendix 11)	
	- Monthly Evaluation (Appendix 17)	
Material D	-Inspection result report form (Appendix 12, 13)	Class room
Material D	-Payment Reduction form (Appendix 14,16)	training
Material E	Contractor's Evaluation (Appendix 17, Appendix 18)	Class room
iviaterial E	Contractor's Evaluation (Appendix 17, Appendix 18)	training
Material F	-Cost survey	(optional)

2. Blank forms

3. Sample forms



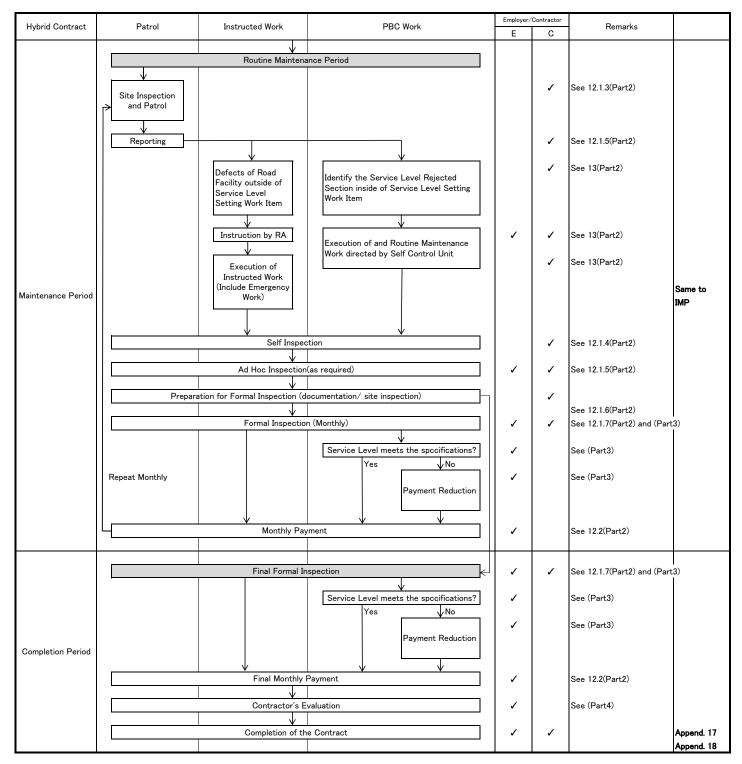


Figure 2.2-1 Standard Procedure of PBC Work

Material A

1) General observation of PBC road

Contract KURA/RMLF/SR/267/2014-2015

Performance Based Routine Maintenance of Lot 24

Oginga Odinga Rd 6.7km
Section 58 Loop 1.2 km
General Kariba Rd 1.3km
West Rd 1.6km
Government Rd 1.2km
Total 12.0km

2) Road Asset Survey

2) Road Asset Survey (Field)

- 1. Set sub-section
 - ✓ Start point, end point
 - ✓ 1.0km Sub-Section
 - ✓ 0.2km Sub-Section
- 2. Select standard section for Road Asset/Condition Survey
- 3. Survey road asset (Appendix 5) Simple Quantity
- 4. Asset condition (Appendix 5) --Actual Quantity
- 5. Select Service Level to be applied in your contract (Appendix 6)

Appendix 5-1 Road Asset Survey Sheet (1/2) for Paved Road

	d Name:				AADT:	
	ne of Surveyor		_		Road Length:	
Surv	vey Date:		<u>-</u>		ROW width:	
Das	d Condition			Typical Cros	ss Section	
Roa	d Condition	l	g: 1	A . 1	I	Damada
	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
1	Carriage way witdth	m				
2	Shoulder width (L)	m				
3	Shoulder width (R)	m				
4	Sidewalk width (L)	m				
5	Sidewalk width (R)	m				
	Pavement thickness	cm				
Roa	d Usability	l	1	l		
1	A) Road Usability Average Roughness	ensen /ens				
1	Average Rougilliess	mm/m				
Roa	d User Confort					
	3) Pavement, Shoulders and ROW					
1	Road Cleanliness	m2			ex. Heaviliy silted road edge area	
2	Potholes	nos			ex. Dia>30cm : 30cm >Dia>15cm : Dia<15cm :	
3	Cracking in flexible Pavement	m			ex. Cracks more than 3mm	
4	Multiple cracks in the pavement	m2			ex. Arrigator cracks	
	Rutting	m2				
	Ravelling	m2				
7	Loose pavement edges	m				
8	Height of shoulders vs. height of pavement	m				
9	Damaged Paved shoulders	m				
10	Cracks in Concrete Pavement	m			ex. Cracks more than 3mm	
11	Damaged Interlocking Block Pavement	m2				
12	Medians	m				

Appendix 5-1 Road Asset Survey Sheet (2/2) for Paved Road

	Road Name:
Name of Surveyor	Road Length:
Survey Date:	ROW width:

	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
Road	l Durability					
	C) Drainage					
1	Side Drains (lined)	m				
2	Side Drains (unlined)	m				
3	Cross Culverts/Access Culverts	m				
4	Catch Basin	nos				
5	Scour Checks	nos				
6	Manholes and Gulleys	nos				
7						
	D)Vegetation					
1	Vegetation free zone	m2				Carriage way +sidewalks
2	Outer/inner vegetation	m2				
3	Growth encroaching into vegetation free zone from the side or top	m2				
4	Trees within ROW	nos				
	E) Structures					
1	Concrete structures	nos				Concrete br. Box culverts
2	Steel Structure	nos				Stell bridge/pedestrian br.
3	Expansion joints	nos				
4	River beds	nos				
	F) Road furniture					
1	Information signs	nos				
2	Warning signs	nos				
3	Traffic rule signs	nos				
4	Guide post	nos				
5	kilometer posts	nos				
6	Road markings	m				
7	Street Lighting	nos				
8	Guard rail and pedestrian rail	m				
	G) Profile and Road Width					
	H) Embankment and Slopes					
1	Embankment slopes	m				
2	Slopes in cuts	m				

Appendix 6-1 Service Level Selection Form (Paved Road)

Road Authority			
Contractor			
Project			
Road Name/Chainage			
Road Class	Standard Service Level	PH / PS	
Inspected By			

Category	Service Scope		Service Criteria (PAVED ROAD)	Items to apply	Remark 1. Selection of Service Criteria :In case there is no road asset to apply, the service criteria shall not be applied 2. Time allowance and Permissible Tolerance: modify according to site condition requirement
		1	Passability		
		2	Road Works Advance Warning Sign		
	A) Road Usability	3	(Roughness)		
	Road Csabinty				
		1	Road Cleanliness		
	Ī	2	Potholes		
		3	Cracking in flexible Pavement		
Road User Comfort		4	Multiple cracks in the pavement		
		5	Rutting		
	B) Pavement, Shoulders and	6	Ravelling		
	ROW for Paved Roads	7	Loose pavement edges		
		8	Height of shoulders vs. height of pavement		
		9	Paved shoulders		
		10	Cracks in Concrete Pavement		
		11	Interlocking Block Pavement		
		12	Medians		
		1	Side Drains, Mitre Drains and cut off drains (lined)		
	C) Drainage	2	Side Drains, Mitre Drains and cut off drains (unlined)		
		3	Culverts and Access Drifts		
		4	Scour Checks, Gabions and other erosion protection structures		
		5	Manholes and Gulleys		
		1	Vegetation free zone		
		2	Outer/inner vegetation		
	D) Vegetation	3	Growth encroaching into vegetation free zone from the side or top		
		4	Trees within ROW		
		1	Concrete structures		
	E) C	2	Steel Structures		
	E) Structures	3	Expansion joints		
Road Durability		4	Riverbeds		
		1	Warning signs/Mandatory signs		
		2	Information signs, Edge marker posts, Guide posts, Kilometer Post		
	D.D. 15. '.	3	Traffic Signals		
	F) Road Furniture	4	Street Lighting		
		5	Road Marking/Road Studs		
		6	Guard rails and pedestrian rails		
	G) Profile and Road width				
		1	Embankment slopes		
	H) Embankment and Slopes	2	Slopes in Cuts		
	F				
			i .		ı

Material B

- 1) Preparation of inspection result form
 - Appendix 12
 - Appendix 13
- 2) Road Asset Survey and Service Level Setting (by drawings)

1) Preparation of inspection result form

- 1. Fill contract information
 - Appendix 12
 - Appendix 13
- 2. Select service level to be applied. Put "1".

2) Road Asset Survey (Drawings)

Case 1: Urban Paved Road

Case 2: Rural Paved Road

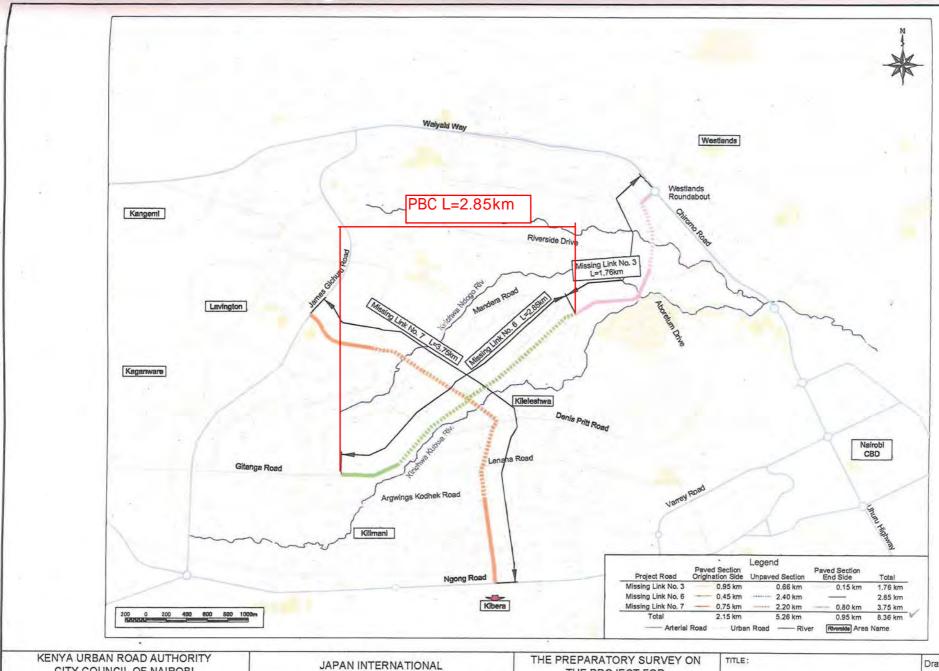
- 1. Set sub-section on drawing
- 2. Survey road asset (Appendix 5) from drawing or BoQ
- 3. Assess condition (Appendix 5)
- 4. Select Service Level (Appendix 6)
- 5. Verify on site

Appendix 12-	-1(a) D	Detail	Self Inspection Result Report Form	(Paved Road	l)				Sheet	1 of 5																		
Project			•			ır,Cont	ract Month					<u>[</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<mark>-</mark>	<mark>-</mark>			<u>1</u>	<u>1</u>	<u>1</u>				
Road Authority				Contra	ctor							1	ſ	ſ	Í			Í	Ī									
toad Name/Chainage				Road Cla	ISS							•		,														
standard Service Level	1				Inspected Chainage			Km 0+000-6+700 6.7		1																		
. Document Verificati				,	Number (of Sub	Sections		XIII 0+000-0	F700 0		l																
A. Document vernican	1	1	Work Program		0																							
	1	2	Defect/Retification List(Appendix 11) Self Inspection Result Form (Appendix 12 and 13)		0			$\Box\Box$																				
Document	1	4	Self Inspection Result Form (Appendix 12 and 13) 4 Payment Reduction Calculation Form (Appendix 14)		0			+			-																	
	1	5	5 Monthly Statement (Appendix 15)		0																							
		$\overline{}$	Compliance		0			\bot																				
3. Site Verification			Performance		1						_				Cb.C	Sub-Sestion of Co	Cut Costion of Compliance ("Do	Cub Custim of Cumplings ("Dun" 1 "Tull"	Sub Section of Compliance ("Pass"=1, "Fail"=0)	Col. Continue Compliance ("Door" 1 "Foil" ())	Cut Continue Compliance ("Door" 1 "Coll" ())	Cut Costina of Compliance ("Door" 1 "Cott" ()	Cut Costing of Compliance ("Door" 1 "Total" ())	Col. Continue Committees ("Door" 1 "Foil" ())	Cub Continue of Court lines ("Dough 1 White O)	Cub Station of Countilions ("Doug" 1 "Fail" ()	Sub-Section of Compilings (Phys. 1 Phys. 1)	Cuk Continue of Countinue ("Door" 1 Whill ()
			renormance		! .										Sub Sec	Sub section of Co	Sub-Section of Compilance (Par	Sub Section of Compitance (Pass =1, Pan =	Sub Section of Compinance (Pass =1, Pail =0)	Sub-Section of Computance (Pass =1, Pair =0)	Sub Section of Compilance (Pass =1, Fair =0)	Sub Section of Compnance (Pass =1, Pan =0)	Sub Section of Computance (Pass =1, Patt =0)	Sub Section of Compnance (Pass =1, Pail =0)	Suo secuno a Compiance (rass =1, ran =0)	Sub Section of Compinance (rass = 1, ran = 0)	Suo section of Compitance (rass =1, raii =0)	Suo section of Compitance (rass =1, rail =0)
Service Scope			Service criteria	km	1 2	2 3	4 5			10 11 12		13 14	13 14 15 16 1	13 14 15 16 17 18		13 14 15 16 17 18 19 20 21 22												
	0) 1	Passability																									
_ , A)	0	2	Passability Road Works Advance Warning Sign																									
	0	3	(Roughness)								Ι																	
Usability Road Usability								\perp			\perp																	
			g # 4.0			-	+	+			+	_																
	0) 1	Compliance of A) Road Cleanliness		++	_	+	+			+																	
	0	2	Potholes				+	+++			+																	
	0) 3	Potholes Cracking in flexible Pavement		+-+	-		+			+																	
) 4	Multiple cracks in the pavement					\Box			1																	
B) Paveme	0) 5	Multiple cracks in the pavement Rutting			1		\Box			1																	
Road Chauldone	0	6	Ravelling																									
User DOW for	0		Loose pavement edges								Ι																	
Confort Paved Roa	0		Height of shoulders vs. height of pavement																									
l aveu Koa	0		Paved shoulders								\perp																	
	0	10	0 Cracks in Concrete Pavement				$\bot\bot$	$\perp \perp \perp$			1																	
	0	1	1 Interlocking Block Pavement				+-+-	$\perp \perp \perp \perp$			4																	
	0	12	2 Medians		$\perp \perp$		\bot	+			-																	
	_		Compliance of B)		-	_	+	+			+	_																
		1	Side Drains, Mitre Drains and cut off drains (lined)		+		+	+			+																	
	0	2	Side Drains, Mitre Drains and cut off drains (unlined) Culverts and Access Drifts		+		+-+-	+			+																	
C) Drainag	ge 0		Scour Checks, Gabions and other erosion protection st	lana of trans o	+		+	+			+																	
	0		Manholes and Gulleys	iructures	+-+-			+			+																	
			Compliance of C)				+	+			1																	
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		2	Outer/inner vegetation								Ť																	
D) Vegetat	ation 0	3	Growth encroaching into vegetation free zone from the	e side or top							I																	
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			Compliance of D)		$\perp \perp$		$\bot\bot$	$\perp \perp \! \! \perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$																				
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E) Structur			Bicorbodo				+-+-	+		-	+																	
Ourabilit	0	4	Riverbeds Compliance of E)		++	-	++	+			+																	
, Juraollit	0) 1	Warning signs/Mandatory signs		++	-	+-	+		-	+																	
	0) 2	2 Information signs, Edge marker posts, Guide posts, Ki	ilometer Post	+	-	+	++++			+																	
P. P.	0		Traffic Signals		+	+	+	+++			1																	
F) Road	0) 4	Street Lighting								†																	
Furniture	0) 5	Road Marking/Road Studs																									
	0		Guard rails and pedestrian rails																									
			Compliance of F)																									
G) Profile											_																	
Road	0										_																	
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for Unpave	red.		Compliance of G)		$\perp \perp$		$\bot\bot$	للل	$\sqcup \sqcup \Box$	\perp																		
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Embankme	nent 0	2	2 Slopes in Cuts					$\perp \perp \perp $			_																	
and Slopes																												
and Stopes			Compliance of H)		1 [1 1 7	1 I T		1	_																

Note: In order for the service scope to be cosidered as pass, all the service criterias items under the service scope must be in compliance.

Apper	ndix 13-1	(a) St	ımr	nary Self Inspection Report Form (Paved	Road))							Sh	eet	3	of	5
Project					Mo	onth, Y	ear,C	Contra	act Mo	onth							
Road Auth	ority				Contra	ctor											
Road Nam	e/Chainage				Roae	d Clas	s										
Standard S	ervice Level					Insp	ected	Chai	nage			Π	V.v.	0.0	00-6+	700	6.7
	ent Verification				/.	Numb	er of	Sub S	Section	ns			KII	0+0	JU-UT	700	0.7
A. Docum	ent vermeation	1	1	Work Program													
		1	2	Defect/Retification List(Appendix 11)													
Document		1	3	Self Inspection Result Form (Appendix 12 and 13)													
		1	4	Payment Reduction Calculation Form (Appendix 14)													
		1	5	Monthly Statement (Appendix 15)		┡										Co	mpliance=1
B. Site Ver	rification			Compliance				<u> </u>					<u> </u>				0
				Performance		Su	b Sec	tion o	of Cor	nplia	nce ('	"Pass	"=1, '	'Fail"	=0)		Total Non-
Service	Service Scope	Selectio n*1		Service criteria		1	2	3	4	5	6	7	8	9	10	Total Complie d (km)	complied (km) to payment reduction calculation
					km												sneet
			1	Passability													
Road	A)		3	Road Works Advance Warning Sign (Roughness)		1					-						
Usability	Road Usability		Ĭ	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \													
	Submity			Compliance of A)		╀	<u> </u>	<u> </u>					<u> </u>			0.0	67
			1	Road Cleanliness		1										0.0	6.7
			2	Potholes													
			3	Cracking in flexible Pavement Multiple cracks in the pavement													
	B)		5	Rutting													
Road	Pavement, Shoulders		6	Ravelling													
User Confort	and ROW		7	Loose pavement edges Height of shoulders vs. height of pavement													
Comon	for Paved		9	Paved shoulders													
	Roads		10	Cracks in Concrete Pavement													
				Interlocking Block Pavement Medians		-											
			12	Compliance of B)												0.0	6.7
			1	Side Drains, Mitre Drains and cut off drains (lined)													
			3	Side Drains, Mitre Drains and cut off drains (unlined) Culverts and Access Drifts													
	C) Drainage		4	Scour Checks, Gabions and other erosion protection structures													
			5	Manholes and Gulleys		-										0.0	67
			1	Compliance of C) Vegetation free zone		┢										0.0	6.7
	D)		2	Outer/inner vegetation													
	Vegetation		3	Growth encroaching into vegetation free zone from the side or Trees within ROW	tor												
			Ė	Compliance of D)												0.0	6.7
			1	Concrete structures													
	E)			Steel Structures Expansion joints		1											
Road	Structures			Riverbeds													
Durabilit				Compliance of E)												0.0	6.7
у				Warning signs/Mandatory signs Information signs, Edge marker posts, Guide posts, Kilometer	Pos	1											
	F) Road		3	Traffic Signals													
	Furniture			Street Lighting Road Marking/Road Studs		1											
				Guard rails and pedestrian rails		1											
	C) P			Compliance of F)												0.0	6.7
	G) Profile and Road					1											
	width*only						L	L					L				
	for			9 10 10													
	Unpaved.		1	Compliance of G) Embankment slopes		+	 	 				-	 	-	-		
	H) Embankman			Slopes in Cuts		L											
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Note: In order for the service scope to be cosidered as pass, all the service criterias items under the service scope must be in compliance.



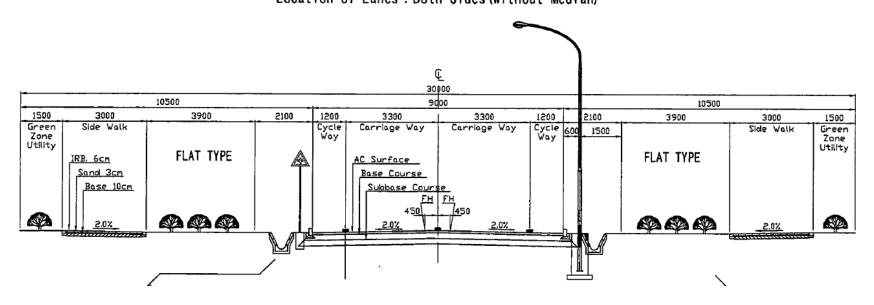
KENYA URBAN ROAD AUTHORITY
CITY COUNCIL OF NAIROBI
MINISTRY OF LOCAL GOVERNMENT
MINISTRY OF ROADS

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL THE PREPARATORY SURVEY ON
THE PROJECT FOR
THE CONSTRUCTION OF
NAIROBI WESTERN RING ROADS

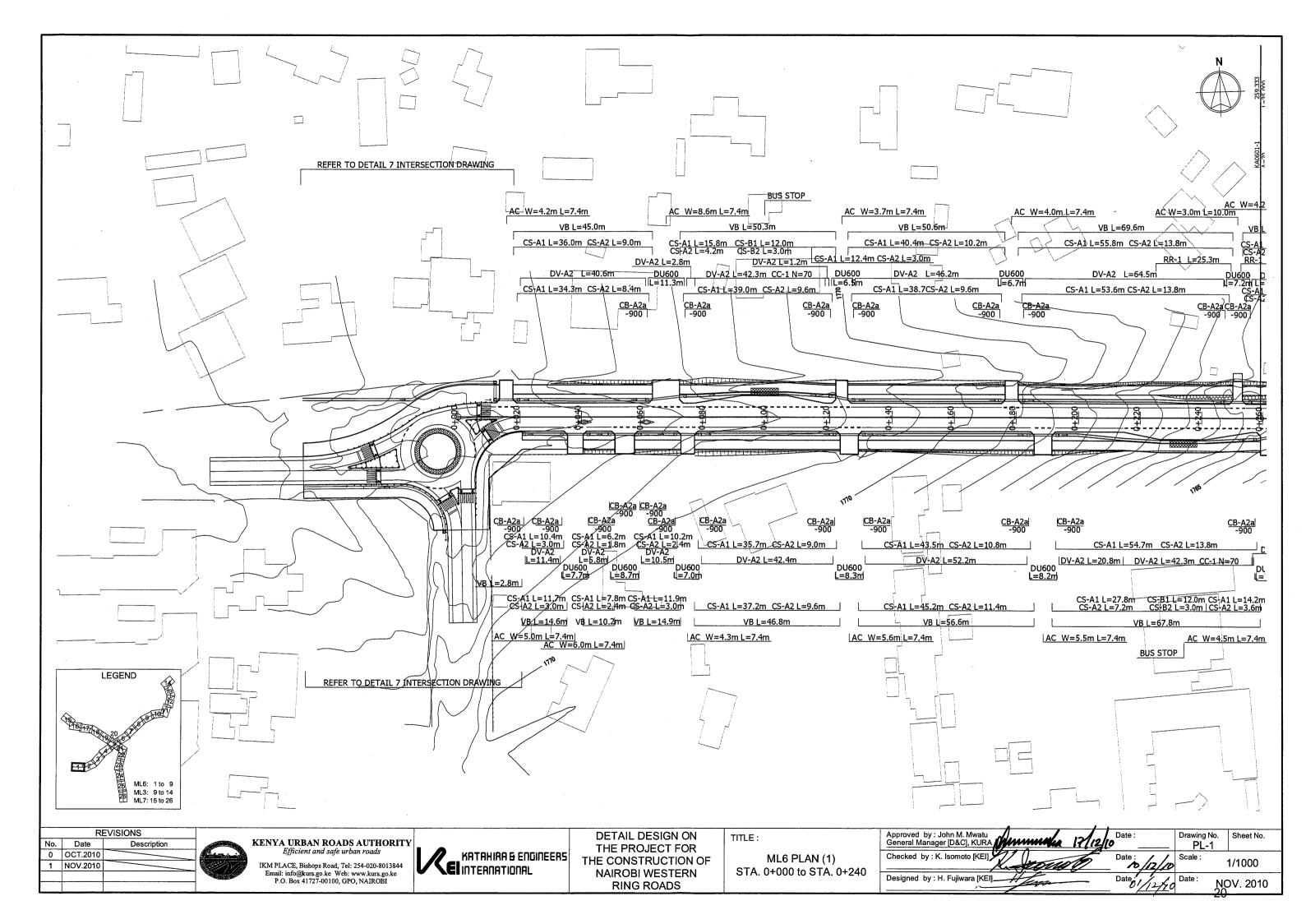
LOCATION MAP

Drawing No.	G-01
SCALE	1/2500
DATE 10	AUG. 2009

C-① M7 Radial Road Section (Standard Type) Row=30m, Nos. of Lane=2 Location of Lanes: Both Sides (without Median)



Typical Cross Section



ABBREVIATION LIST DRAWING NO. ABBREVIATION CLASSIFICATION(1) CLASSIFICATION(2) CLASSIFICATION(1) CLASSIFICATION(2) CLASSIFICATION(3) CLASSIFICATION(4) ACCESS WAY AC RAINAGE INVERT BLOCK DRAIN AC-1 CURBS CURB STONE H≃250 CT-1&3 CS-A1 CT-1 CS-A2 H=100 CS-B1 FOR INVERT BLOCK DRAIN H=250 CT-1 CONCRETE PIPE =100 CT-1 CS-B2 CT-1&3 CS-C FOR CROSS WALK FOR CROSS WALK, BOUNDARY BETWEEN CYCLE WAY AND SIDE WALK CT-1&3 CS-C1 WITH GUARD POST FOR CROSS WALK CT-183 CS-C2 VERGE BLOCK CT-1&2 VΒ CORNER BLOCK FOR TRAFFIC ISLAND CT-3 CNB TREE CIRCLE TC CT-2 RETAINING WALL RETAINING WALL GRAVITY TYPE FOR EMBANKMENT REVERSED T-TYPE FOR EMBANKMENT PR-1 RW-B RIPRAP RR-1 RR~1 WITH CRUSHED STONE BASE WITHOUT CRUSHED STONE BASE RR-1 RR-2 STONE FILTER DRAIN STONE MASONRY INSTALLATION AT SIDE OF ROAD, CONCRETE FACE WITHOUT SLOPE FOR EMBANKMENT, SLOPE GRADIENT=1:0.40 BACKFILLING CONCRETE t=100. SM-1 SM-A SM-1 SM-B CATCH BASIN 600*600*900 INSTALLATION AT SIDE OF ROAD, CONCRETE FACE WITH SLOPE FOR CUT, SLOPE GRADIENT=1:0.40,BACKFILLING CONCRETE t=100 INSTALLATION AT SIDE OF ROAD, CONCRETE FACE WITH SLOPE FOR CUT, SLOPE GRADIENT=1:0.40 BACKFILLING CONCRETE +=100, WITH DV-A2 SM-1 SM-C INSTALLATION AT SIDE OF ROAD, CONCRETE FACE WITH SLOPE FOR CUT, SLOPE GRADIENT=1:0.50,BACKFILLING CONCRETE t=100 SM-1 SM-D INSTALLATION AT SIDE OF ROAD, CONCRETE FACE WITH SLOPE FOR CUT, SLOPE GRADIENT=1:0.50.BACKFILLING CONCRETE t=150 SM-1 SM-E 600*600*1050 FOR EMBANKMENT, SLOPE GRADIENT1:0.50,BACKFILLING CONCRETE t=150, WITH INSTALLATION AT SIDE OF ROAD, CONCRETE FACE WITHOUT SLOPE SM-1 SM-F GUARD RAIL ON THE GROUND GR-1 Gr-E 900*900*1200 ON THE STRUCTURE GR-2 Gr-B GUARD FENCE GF GUARD POSTE GP-1 GP CUSHION DRUM PL CD HH-I нн PEDESTRIAN STEPS PS-1 PS-1 H=1850mm W=3000mm H=1400mm,H=3000mm H=1100mm,W=3000mn PS-1 PS-3 CONCRETE COVER DR-3 CC-1 600*1100.t=150mm 600*1400,t=150mm DR-3 CC-2 000-000-1050 GREEN AREA GREEN ZONE GREEN BELT STREET LIGHTNING SINGLE LAMP

	PL	GZ	900*900*1350	NOS. OF CONNECTING PIPE N=2	DP-600,DP-600	DR-2	CB-B2a-1350
	PL	GB		NOS. OF CONNECTING PIPE N=3	DP-300,DP-600,DP-600	DR-2	CB-B3a-1350
	ST-1	ST		NOS. OF CONNECTING PIPE N=3	DP-600,DP-600,DP-600	DR-2	CB-B3b-1350
			900*900*1500	NOS. OF CONNECTING PIPE N=2	DP-600,DP-600	DR-2	CB-B2a-1500
				NOS. OF CONNECTING PIPE N=2	DP-600,DP-800	DR-2	CB-B2b-1500
				NOS. OF CONNECTING PIPE N=2	DP-800,DP-800	DR-2	CB-B2c-1500
				NOS. OF CONNECTING PIPE N=3	DP-300,DP-600,DP-800	DR-2	CB-B3a-1500
				NOS. OF CONNECTING PIPE N=3	DP-600,DP-600,DP-600	DR-2	CB-B3b-1500
		:	900*900*1650	NOS. OF CONNECTING PIPE N=2	DP-600,DP-600	DR-2	CB-B2a-1650
		:		NOS. OF CONNECTING PIPE N=3	DP-300,DP-600,DP-600	DR-2	CB-B3a-1650
				NOS. OF CONNECTING PIPE N=4	DP-300,DP-300,DP-600,DP-600	DR-2	CB-B4a-1650
DETAIL DESIGN O	N TI	TLE:	Approved	by : John M. Mwatu	Date	Drawing No.	Sheet No.

CLASSIFICATION(3)

φ300 · FIX BASE, CROSSING TYPE

Φ450 · FIX BASE, CROSSING TYPE

φ600 · FIX BASE, CROSSING TYPE

₫600 · FIX BASE CROSSING TYPE

Φ800 • FIX BASE, CROSSING TYPE

NOS. OF CONNECTING PIPE N=1

NOS. OF CONNECTING PIPE N=2

NOS. OF CONNECTING PIPE N=3

NOS OF CONNECTING PIPE N=2

NOS. OF CONNECTING PIPE N=2

NOS. OF CONNECTING PIPE N=3

NOS. OF CONNECTING PIPE N=1

NOS. OF CONNECTING PIPE N=2

NOS OF CONNECTING PIPE N=2

NOS. OF CONNECTING PIPE N=3

NOS OF CONNECTING PIPE N=4

NOS. OF CONNECTING PIPE N=4

NOS OF CONNECTING PIPE N=4

 ϕ 800 · FIX BASE, LONGITUDINAL TYPE

CLASSIFICATION(4)

1=900mm, W=1350mm

4=600mm, W=750mm

4=825mm, W=975mm

H=300mm, W=1200mm

WITH CRUSHED STONE BASE

WITH DV-A2,DP-600

P-300,DP-300,DP-300

DP-300.DP-450.DP-450

DP-300,DP-300,DP-600

DP-300.DP-450.DP-600

DP-300,DP-600,DP-600

DP-600,DP-600,DP-600

DP-300 DP-300 DP-450 DP-600

DP-300.DP-300.DP-600.DP-600

DP-300 DP-600 DP-600 DP-600

DP-300.DP-300

DP-300 DP-450

P-450.DP-450

DP-300,DP-600

DP-600 DP-600

DP-600

DP-300

WITHOUT CRUSHED STONE BASE

Ø300 FIX BASE, LONGITUDINAL TYPE WITH CRUSHED STONE BASE

φ 450 · FIX BASE, LONGITUDINAL TYPE WITH CRUSHED STONE BASE

Ø600 FIX BASE, LONGITUDINAL TYPE WITHOUT CRUSHED STONE BASE

\$\phi_300.FIX BASE, LONGITUDINAL TYPE WITHOUT CRUSHED STONE BASE

DRAWING NO. ABBREVIATION

DV-A2

DV-A3

DV-B

DP-300A1

DP-300A2

DP-300B1

DP-450A1

DP-450B1

DP-600A1

DP-600A2

DP-600B1

DP-600B2

DP-800A1

DP~800B1

SFD

CB-A1a-900

CB-A2a-900

CB-A3a-900

CB-A2a-1050

CB-A2b-1050

CB-A3a-1050

CB-B1a-1200

CB-B2a-1200

CB-B2b-1200

CB-B3a-1200

CB-B3b-1200

CB-B3c-1200

CB-B3d-1200

CB-B4a-1200

CB-B4b-1200

CB-B4c-120

NON SCALE

JUL.2010

DR-1

DR~1

DR-1

DR-2

DR-2

DR-2

DR~2

DR-2

DR-2

DR-2

DR-2

DR-2

DR-2

DR-2

DR-2

DR-2

1. Concrete class is 24N unless otherwise stated in the drawing.

	REVISIONS					
No.	Date	Description				
	1		- 1			

DEVICIONS

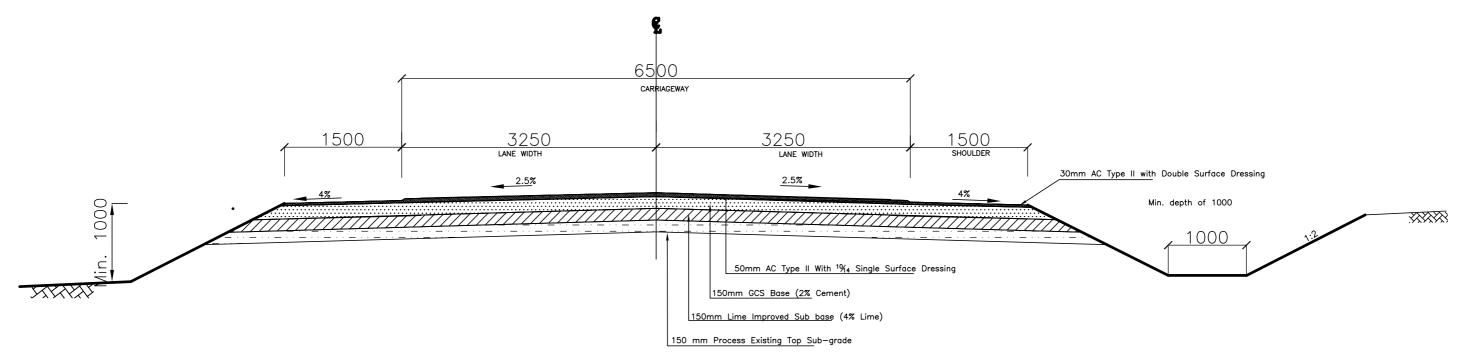
KENYA URBAN ROADS AUTHORITY Efficient and safe urban roads

RATAHIRA & END KATAHIRA & ENGINEERS IKM PLACE, Bishops Road, Tel: 254-020-8013844 Email: info@kura.go.ke Web: www.kura.go.ke P.O. Box 41727-00100, GPO, NAIROBI

THE PROJECT FOR THE CONSTRUCTION OF NAIROBI WESTERN RING ROADS

ABBREVIATION LIST

Approved by: John M. Mwatu General Manager [D&C], KURA	mha Date	Jo Dra	a
Checked by : K. Isomoto [KEI]	Date: 5-Ad	so Sc	a
Designed by : K. Fujiwara [KEI]	Date : 22 10	1/10 Da	ite



PROPOSED CROSSECTION AND PAVEMENT DETAILS

Chainage Km 0+000 to 1+000, 2+000- 4+000, 5+000-7+000 & 9+500 - 12+000

SCALE 1:50

NOTES

- 1. The proposed carriageway is 6.5m, with 1.5m shoulders on each side
- 2. Shoulders will be constructed from the sub grade level.
- 3. All dimensions are in mm

Kenya Rural Roads Authority Blue Shield Towers, Hospital Road, Upper Hill P.O. Box 48151 - 00100 Nairobi Tel +(254)020 - 2710464 Email kerra@kerra.go.ke Website www.kerra.go.ke

REVISIONS GENERAL MANAGER (DESIGN & CONSTRUCTION) : DIRECTOR GENERAL (DESIGN & CONSTRUCTION) :



in association with MECE

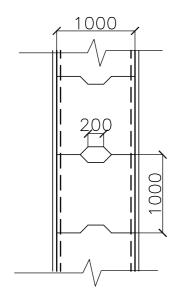
PROJECT: DESIGN OF MASENO-KOMBEWA-KALANDINI (D245) ROAD & MASENO LOOP ROADS TYPICAL CROSS SECTION: D245 MASENO - KOMBEWA SECTION

DWG No : ITEC SHEET: 2 of 8 **2**2scale: 1:50

DATE: APRIL 2014

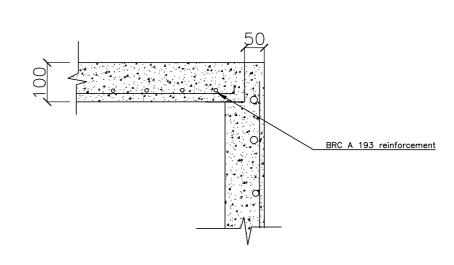
PROPOSED CROSSECTION AND PAVEMENT DETAILS

SCALE 1:50



PLAN VIEW OF THE SIDE DRAINS

SCALE 1:50



DETAIL A

SCALE 1:25

1. The pedestrian walk way consist of the following:

60mm thick concrete paving blocks 30mm thick selected sand 125mm cement improved gravel base 300mm sub grade S3 class

2. All dimensions are in mm

NOTES

LIENT ROAD KORRA

Kenya Rural Roads Authority

Blue Shield Towers, Hospital Road, Upper Hill P.O. Box 48151 - 00100 Nairobi
Tel +(254)020 - 2710464 Email kerra@kerra.go.ke Website www.kerra.go.ke

GENERAL MANAGER
(DESIGN & CONSTRUCTION):

DIRECTOR GENERAL
(DESIGN & CONSTRUCTION):



in association with MECE

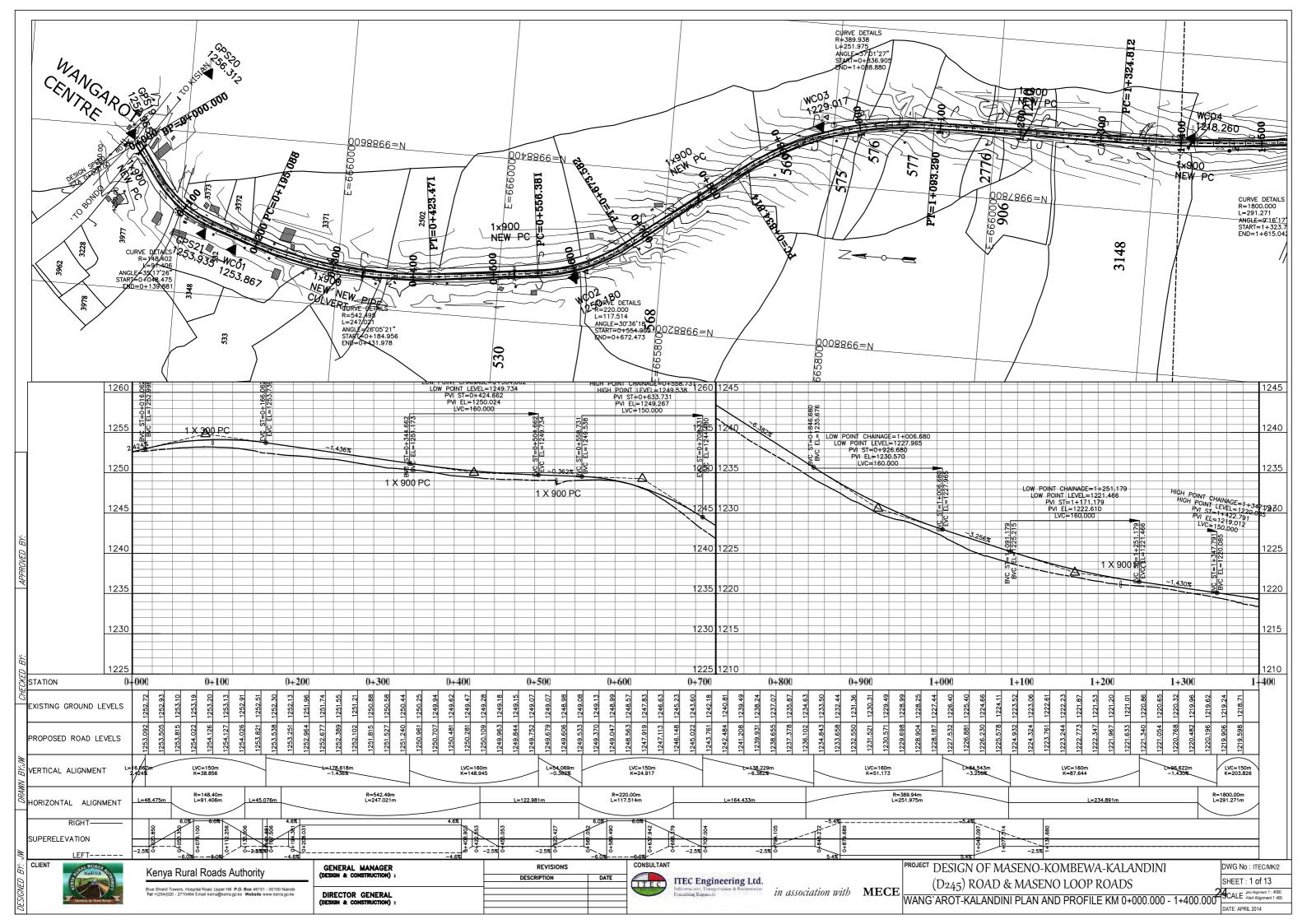
PROJECT: DESIGN OF MASENO-KOMBEWA-KALANDINI
(D245) ROAD & MASENO LOOP ROADS

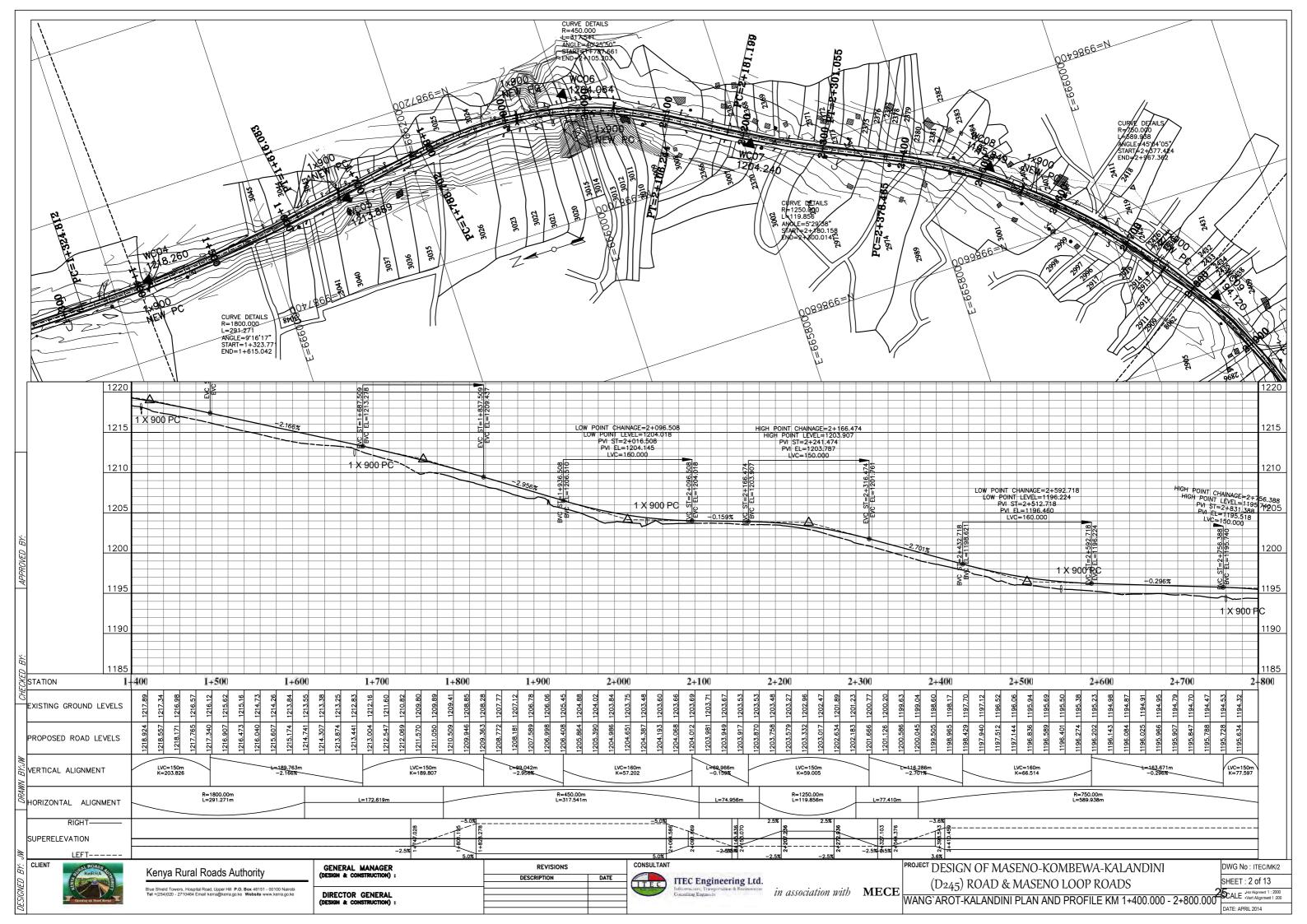
SHEET: 5 of 8 23 SCALE: 1:50

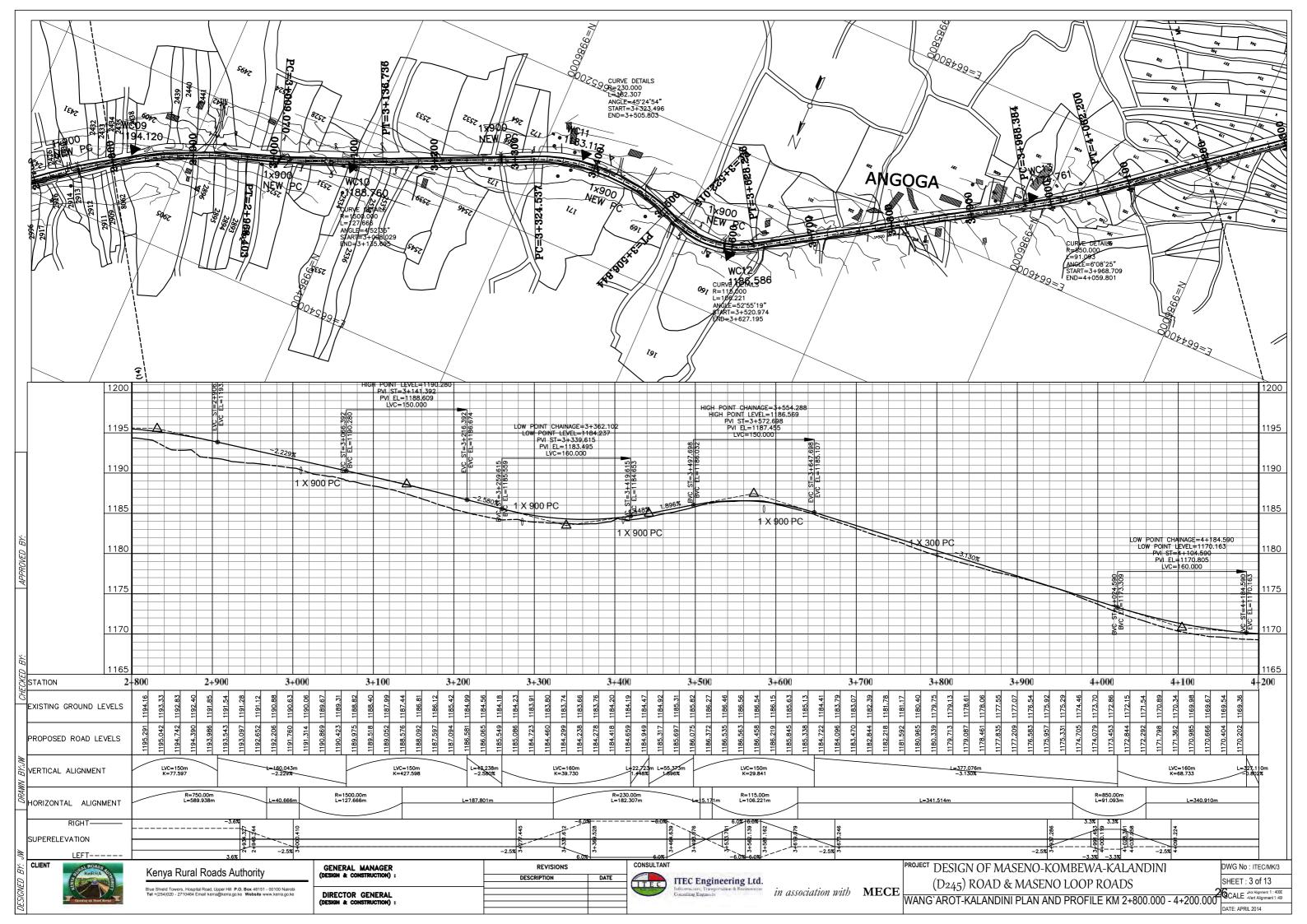
TYPICAL CROSS SECTION OF MASENO LOOP ROADS 3,&4

DATE: APRIL 2014

DWG No : ITEC







Appendix 5-1 Road Asset Survey Sheet (1/2) for Paved Road

Road Name:					AADT:	
	ne of Surveyor				Road Length:	
Surv	rey Date:		<u>-</u>		ROW width:	
				Typical Cros	s Section	
Roa	d Condition			Тургеат Стоз	3 Dection	
	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
1	Carriage way witdth	m				
2	Shoulder width (L)	m				
3	Shoulder width (R)	m				
4	Sidewalk width (L)	m				
5	Sidewalk width (R)	m				
6	Pavement thickness	cm				
Roa	d Usability					
	A) Road Usability					
1	Average Roughness	mm/m				
	d User Confort					
Е	Pavement, Shoulders and ROW				ex. Heaviliy silted road edge area	
1	Road Cleanliness	m2				
2	Potholes	nos			ex. Dia>30cm : 30cm >Dia>15cm : Dia<15cm :	
3	Cracking in flexible Pavement	m			ex. Cracks more than 3mm	
4	Multiple cracks in the pavement	m2			ex. Arrigator cracks	
5	Rutting	m2				
6	Ravelling	m2				
7	Loose pavement edges	m				
8	Height of shoulders vs. height of pavement	m				
9	Damaged Paved shoulders	m				
10	Cracks in Concrete Pavement	m			ex. Cracks more than 3mm	
11	Damaged Interlocking Block Pavement	m2				
12	Medians	m				

Appendix 5-1 Road Asset Survey Sheet (2/2) for Paved Road

	Road Name:
Name of Surveyor	Road Length:
Survey Date:	ROW width:

	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
Road	l Durability					
	C) Drainage					
1	Side Drains (lined)	m				
2	Side Drains (unlined)	m				
3	Cross Culverts/Access Culverts	m				
4	Catch Basin	nos				
5	Scour Checks	nos				
6	Manholes and Gulleys	nos				
7						
	D)Vegetation					
1	Vegetation free zone	m2				Carriage way +sidewalks
2	Outer/inner vegetation	m2				
3	Growth encroaching into vegetation free zone from the side or top	m2				
4	Trees within ROW	nos				
	E) Structures					
1	Concrete structures	nos				Concrete br. Box culverts
2	Steel Structure	nos				Stell bridge/pedestrian br.
3	Expansion joints	nos				
4	River beds	nos				
	F) Road furniture					
1	Information signs	nos				
2	Warning signs	nos				
3	Traffic rule signs	nos				
4	Guide post	nos				
5	kilometer posts	nos				
6	Road markings	m				
7	Street Lighting	nos				
8	Guard rail and pedestrian rail	m				
	G) Profile and Road Width					
	H) Embankment and Slopes					
1	Embankment slopes	m				
2	Slopes in cuts	m				

Appendix 5-1 Road Asset Survey Sheet (1/2) for Paved Road

Road Name:					AADT:			
Name of Surveyor			-		Road Length:			
Surv	ey Date:		=		ROW width:			
Dag	d Condition			Typical Cros	ss Section			
Koa	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)		
1	Carriage way witdth	m						
2	Shoulder width (L)	m						
	Shoulder width (R)	m						
4	Sidewalk width (L)	m						
5	Sidewalk width (R)	m						
6	Pavement thickness	cm						
Roa	d Usability			1				
	A) Road Usability							
1	Average Roughness	mm/m						
n								
	1 User Confort) Pavement, Shoulders and ROW				I			
					ex. Heaviliy silted road edge area			
1	Road Cleanliness	m2						
2	Potholes	nos			ex. Dia>30cm : 30cm >Dia>15cm : Dia<15cm :			
3	Cracking in flexible Pavement	m			ex. Cracks more than 3mm			
4	Multiple cracks in the pavement	m2			ex. Arrigator cracks			
5	Rutting	m2						
6	Ravelling	m2						
7	Loose pavement edges	m						
8	Height of shoulders vs. height of pavement	m						
9	Damaged Paved shoulders	m						
10	Cracks in Concrete Pavement	m			ex. Cracks more than 3mm			
11	Damaged Interlocking Block Pavement	m2						
12	Medians	m						

Appendix 5-1 Road Asset Survey Sheet (2/2) for Paved Road

	Road Name:	
Name of Surveyor	Road Length:	
Survey Date:	ROW width:	

	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
Road	l Durability					
	C) Drainage					
1	Side Drains (lined)	m				
2	Side Drains (unlined)	m				
3	Cross Culverts/Access Culverts	m				
4	Catch Basin	nos				
5	Scour Checks	nos				
6	Manholes and Gulleys	nos				
7						
	D)Vegetation					
1	Vegetation free zone	m2				Carriage way +sidewalks
2	Outer/inner vegetation	m2				
3	Growth encroaching into vegetation free zone from the side or top	m2				
4	Trees within ROW	nos				
	E) Structures					
1	Concrete structures	nos				Concrete br. Box culverts
2	Steel Structure	nos				Stell bridge/pedestrian br.
3	Expansion joints	nos				
4	River beds	nos				
	F) Road furniture					
1	Information signs	nos				
2	Warning signs	nos				
3	Traffic rule signs	nos				
4	Guide post	nos				
5	kilometer posts	nos				
6	Road markings	m				
7	Street Lighting	nos				
8	Guard rail and pedestrian rail	m				
	G) Profile and Road Width					
	H) Embankment and Slopes					
1	Embankment slopes	m				
2	Slopes in cuts	m				

Appendix 6-1 Service Level Selection Form (Paved Road)

Road Authority		
Contractor		
Project		
Road Name/Chainage		
Road Class	Standard Service Level	PH / PS
Road Class Inspected By		

Category	Service Scope		Service Criteria (PAVED ROAD)	Items to apply	Remark 1. Selection of Service Criteria :In case there is no road asset to apply, the service criteria shall not be applied 2. Time allowance and Permissible Tolerance: modify according to site condition requirement
		1	Passability		
		2	Road Works Advance Warning Sign		
Road Usability	A) Road Usability	3	(Roughness)		
	Road Csability				
		1	Road Cleanliness		
		2	Potholes		
		3	Cracking in flexible Pavement		
		4	Multiple cracks in the pavement		
		5	Rutting		
Road User Comfort	B) Pavement, Shoulders and	6	Ravelling		
	ROW for Paved Roads	7	Loose pavement edges		
	Roaus	8	Height of shoulders vs. height of pavement		
		9	Paved shoulders		
		10	Cracks in Concrete Pavement		
		11	Interlocking Block Pavement		
		12	Medians		
		1	Side Drains, Mitre Drains and cut off drains		
	C) Drainage	2	(lined) Side Drains, Mitre Drains and cut off drains		
		3	(unlined) Culverts and Access Drifts		
		4	Scour Checks, Gabions and other erosion		
		5	protection structures Manholes and Gulleys		
		1	Vegetation free zone		
		2	Outer/inner vegetation		
	D) Vegetation	3	Growth encroaching into vegetation free zone		
		4	from the side or top Trees within ROW		
		1	Concrete structures		
		2	Steel Structures		
	E) Structures	3	Expansion joints		
Road Durability		4	Riverbeds		
		1	Warning signs/Mandatory signs		
		2	Information signs, Edge marker posts, Guide posts, Kilometer Post		
		3	Traffic Signals		
	F) Road Furniture	4	Street Lighting		
		5	Road Marking/Road Studs		
		6	Guard rails and pedestrian rails		
	G) Profile and				
	Road width				
		1	Embankment slopes		
	H) Embankment	2	Slopes in Cuts		
	and Slopes				
	l		l .	J	I

Appendix 6-1 Service Level Selection Form (Paved Road)

Road Authority			
Contractor			
Project			
Road Name/Chainage			
Road Class	Standard Service Level	PH / PS	
Inspected By			

Category	Service Scope		Service Criteria (PAVED ROAD)	Items to apply	Remark 1. Selection of Service Criteria :In case there is no road asset to apply, the service criteria shall not be applied 2. Time allowance and Permissible Tolerance: modify according to site condition requirement
	A) Road Usability	1	Passability		
		2	Road Works Advance Warning Sign		
		3	(Roughness)		
Road User Comfort		1	Road Cleanliness		
	B) Pavement, Shoulders and ROW for Paved Roads	2	Potholes		
		3	Cracking in flexible Pavement		
		4	Multiple cracks in the pavement		
		5	Rutting		
		6	Ravelling		
		7	Loose pavement edges		
		8	Height of shoulders vs. height of pavement		
		9	Paved shoulders		
		10	Cracks in Concrete Pavement		
		11	Interlocking Block Pavement		
			Medians		
		12	Side Drains, Mitre Drains and cut off drains		
Road Durability	C) Drainage		(lined) Side Drains, Mitre Drains and cut off drains		
		2	(unlined)		
		3	Culverts and Access Drifts Scour Checks, Gabions and other erosion		
		4	protection structures		
		5	Manholes and Gulleys		
	D) Vegetation	1	Vegetation free zone		
		2	Outer/inner vegetation Growth encroaching into vegetation free zone		
		3	from the side or top		
		4	Trees within ROW		
	E) Structures	1	Concrete structures		
		2	Steel Structures		
		3	Expansion joints		
		4	Riverbeds		
	F) Road Furniture	1	Warning signs/Mandatory signs		
		2	Information signs, Edge marker posts, Guide posts, Kilometer Post		
		3	Traffic Signals		
		4	Street Lighting		
		5	Road Marking/Road Studs		
		6	Guard rails and pedestrian rails		
	G) Profile and Road width				
	H) Embankment and Slopes	1	Embankment slopes		
		2	Slopes in Cuts		

Road A	Authority						
Con	tractor						
Pr	roject						
Road Nar	me/Chainage						
Roa	d Class			Standa	ard Service Level		
te							
Date			Weather				
C Work Op	erations						
	ainage			A =			Photo
From To				Activity I	Description		No,
achinery, Tr	nick			Labor			
		Dlota No	Photo		Catagory	numban	Photo
Desc	cription	Plate No,	No,		Category	number	No,
terials Deli	vered to Site			Materials	Removed from Site		
Desc	cription	Quantity	Photo	I	Description	Quantity	Photo No,
			No,				NO,
mission							
	rsonal		Name		Sign	Da	te
	ontrol Unit		1 (01110		51511	Du	
Road	Manager						

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Road Authority		
Contractor		
Project		
Road Name/Chainage		
Road Class	Standard Service Level	

Patrol

Date	Weather	
Bate	· · · catifici	

Cleanliness/Obstacles

Chainage	Time		Remarks	Photo
Chamage	Detection	Removal	Remarks	No,

Any other activities undertaken

Chainage	Objects, Condition, other information	Photo No,
		·

Admission

Personal	Name	Sign	Date
Self Control Unit			
Road Manager			

Appendix 9 Photo Record					Sheet of
	Road Authority				
	Contractor				
	Project				
Roa	nd Name and Chainage				
	Road Class		Standard Servic	e Level	
No,	DATE			DATE	
Photo	Photo file size : l	ess than 300kB	Photo f	ile size : l	ess than 300kB

Remarks

No,

Photo

Remarks

No,

Photo

Remarks

DATE

Photo file size: less than 300kB

DATE

Photo file size: less than 300kB

DATE

Appendix 10 Incident Condition and Activity Report

Sheet of

Basic Information						
Road Authority						
Contractor						
Project						
Road Name/Chainage						
Road Class			Standard S	Service Level		
Incident Notification	Caller			Phone No,	;	
Date/Time /Chainage or Location						
Information Resource	Road Autori	ty, Police,	Engineer,	Road Users,	Others()
Nature of Incident						
Location of Incident						
Condition of Accident Vehicles						
Number/Conditions of injured People						
Description						
Site Condition (Any road asset damaged	by the accident)					Photo No,
Assets			Damage co	ondition		

Material C

1) Self Inspection

Appendix 11 Defect Detection and Rectification List

2) Formal Inspection

Appendix 11 Defect Detection and Rectification List

3) Monthly Contractor's Evaluation

Appendix 17 Monthly Evaluation Form

1) Self Inspection

- 1. Self Inspection is the most important work of SCU.
- SCU inspect road every day.
 (4-5km/day)
 20km road --- 1 week interval
 50km road --- 2 week interval
- 3. SCU inspect service level of whole stretch of the road and note non-complied location by sub section.t (Appendix 11)
- 4. Use one sheet per Service Category
- 5. The list is submitted to RM. RM give instruction to Execution Unit to rectify the identified location immediately.
- 6. Respect work of SCU

2) Formal Inspection

- 1. Before go to the site, PM check documents from RM.
- 2. PM make plan of inspection.
- 3. Check if the SCU works because SCU is your eye.
- 4. Check Appendix 11, how SCU inspected and reported to RM.
- 5. Check randomly 1) complied section, then 2) non-complied section.
- 6. Use Appendix 11
- 7. If the report from the contractor is not sufficient, make corrective order using above appendix and supplemental inspection.

3) Monthly Evaluation

- 1. Evaluate following items on site at formal inspection
 - 2. Self-control unit performance
 - 3. Work safety management
 - 4. Environmental and social managment

Appendix 11 Defect Detection/ Rectification Record Form Road Authority Contractor Project Road Name Category Service Scope Service Level Servie Criteria Detection Rectification (to be filled by SCU or PM) (to be filled by EXU) No Remark Description Compliance (Yes/No) Date Location 1 2 5 6 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 43 30

Appendix 11 Defect Detection/ Rectification Record Form Road Authority Contractor Project Road Name Category Service Scope Service Level Servie Criteria Detection Rectification (to be filled by SCU or PM) (to be filled by EXU) No Remark Description Compliance (Yes/No) Date Location 1 2 5 6 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 44 30

Appendix 11 Defect Detection/ Rectification Record Form Road Authority Contractor Project Road Name Category Service Scope Service Level Servie Criteria Detection Rectification (to be filled by SCU or PM) (to be filled by EXU) No Remark Description Compliance (Yes/No) Date Location 1 2 5 6 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 45 30

Appendix 17 Monthly Evaluation Form

Number of elapsed month =	6
Number of etapsed monut –	O

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality	
Road Authority	KURA	
Contractor	VESCOM Enterprise	
Date of checking	2-Feb-16	

	Name
Project manager	
Assistants	

This form is used by Project manager to verify monthly performance for contract evaluation.

	Scope		Requirement	Pass or Fail*1
1	Service revel compliance	1	Reduction rate for service level non-compliance is less than 5.0%	
	Self-control unit	1	Self-control unit is organized by proper contractor's member	
2		2	Self-control unit operates properly	
	performance	Pass	or fail in total*2	
		1	Workers and operators wear proper safety gear	
		2	Traffic control is conducted properly	
3	Work Safety Management	3	No accident of workers, operators attributable to the contractor	
		4	No accident of third-parties attributable to the contractor	
		Pass	or fail in total*2	
		1	Environmental consideration is properly conducted	
4	Environment and social	2	Waste material generated from the site is properly disposed	
'	management	3	Transportation by vehicles is properly controlled	
		Pass	or fail in total*2	
5	Corrective order	1	No corrective order is made by authority	
6	Statutory compliance	1	Contractor complied with relevant statutory regulations	

^{*1} Filling Example: "Pass"="1" "Fail" = "0" "Not applicable" = "N/A"

In case of having more than one requirement in each evaluation scope, all the requirements except not applicable case shall be passed for pass evaluation in tota

A17-1 46

^{*2} Scoring criteria:

Material D

1) Inspection Result

Appendix 12-1,13-1 Inspection result

2) Payment reduction

Appendix 14, 15 Payment reduction calculation

Appendix 16 Summary statement for payment

account

1) Inspection result

- 1. Note inspection result in Appendix 12 and 13
- 2. Judge compliance of the section

2) Payment Reduction

- (1) Preparation of Self Inspection Result Report Form (Appendix 12-1) and Summary Self Inspection Report Form (Appendix 13-1)
 - 1) Select the service criteria to be applied (1 for apply, 0 for not apply)
 - 2) Delete "0" from sub section evaluation
 - 3) Put evaluation
- (2) Adjustment of Reduction Weight (in case there is Service Scope not to be applied) (Appendix 13)
 - 1) Adjust reduction weight to be the total weight to be 200%
- (3) Calculation of Payment reduction by Appendix 13.

oject	N.	JRA/RMLF/SR/267/2014-2015	Month	h, Yea	,Contra	ct Mon	th	Janua	aru		2016	7																																
oad Authority	KI	JRA	Contractor	r <mark>Ve</mark>	scom E	nterpris	es						Ī																															
oad Name/Chainage	Og	ginda- Odinga Rd	Road Class	<u> </u>				Urban	n Road	ı			1																															
ndard Service Level	Pa	ved Standard	I	nspect	ed Chai	nage		ŀ	Km 0+	-000-6+	700	6.7	,																															
Document Verification	1		/Nu	mber o	f Sub S	ections		1																																				
Document vernication	1	Work Program		1																							\neg	\Box		\top	\neg	\neg		Т	T		П		\neg		\top	\top	\top	-
	1 :	2 Defect/Rctification List(Appendix 11)		1																																	=		J				7	
ocument	1 3	Self Inspection Result Form (Appendix 12 and 13) Payment Reduction Calculation Form (Appendix 14)		1									-				-			_				-		-				-				+	-		-		\vdash	+	-	-	4	
		Monthly Statement (Appendix 15)		1								+					+				+					-	-			-							-		\dashv	-		+-	-	
		Compliance		1																																			ا				I	Ξ
Site Verification																																											_	Ξ
		Performance																Sub	Section	on of C	omplia	nce ("P	ass"=1,	"Fail"	=0)																			
Service Scope	Selectio n*1	Service criteria		1 2	3	4	5 6	7	8	9 1	0 11	12	13	14	15 1	6 17	18	19	20	21 22	23	24	25 26	27	28	29	30	31	32 3	33 3	34 35	35 36	6 37	38	39	40	41	42	43	44	4 45	5 46	5 4	7
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		2 Road Works Advance Warning Sign		0 0	0	0	0 0	0	0	0 (0 0	0	0	0	0	0 0	0	0	0	0 0	0	0	0 0	0	0	0	0	0	0 (0	0	+	+	+-	1		-+	-	\vdash	+	+	+-	+	-
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	0 4	Compliance of D)				1		-		1 1		_	1	-				1	_		1	-		1	_	1	1	-	1	_	_	+	+	+	1		\rightarrow	-	\vdash	+	+	+	+	\dashv
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E) Structures	s 0	Expansion joints				0		0	0	0 (0 0	0	0	0	0	0 0	0	0	0	0 0	0	0	0 0	0	0	0		0		0 (J	I	I	L			寸		T	1		J	_
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F) Road		1 Street Lighting				0			0		0 0	0						0		0 0	_		0 0	-	0	0				0 0		+	+-	+	+-	-		+	\dashv	+	+	+	+	-
Furniture		Road Marking/Road Studs			0					0 0	0 0	0						0		0 0			0 0			0			-	0 0		+	+-	+	+-			-	\vdash	+	+	+-	+	
		Guard rails and pedestrian rails			0			0	0	0 (0						0		0 0	_		0 0			0				0 (+	+	1	1		-	\dashv	\vdash	T	+	+	+	-
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G) Profile an																												J		I	I	I	I				一			L	I	I	I	J
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Appen	dix 13-1	(a) Su	ımr	nary Self Inspection Report Form (Paved	Road))							Sh	eet	1	of	1
Project			KUR	A/RMLF/SR/267/2014-2015	Mo	onth, Y	ear,C	Contra	ict M	onth		J	anuar	u		2016	7
Road Auth	ority		KUR	A	Contra	ctor	Vesc	om E	nterp	rises							
Road Nam	e/Chainage		Ogin	da- Odinga Rd	Road	d Clas	s	Urba	ın Ro	ad							
Standard S	ervice Level		Davo	d Standard		Insp	ected	Chai	nage			l l	Vm	0.00	00-6+	700	6.7
	ent Verification	2	1 ave	u Stanuaru	/1	Numb	er of	Sub S	ectio	ns			Kili	0+00	JU-UT	700	0.7
A. Docum	cht vernication	1	1	Work Program		1											1
		1	2	Defect/Rctification List(Appendix 11)		1											
Document		1	3	Self Inspection Result Form (Appendix 12 and 13)		1											
Bocument		1	4	Payment Reduction Calculation Form (Appendix 14)		1											
		1	5	Monthly Statement (Appendix 15)		1										Co	mpliance=1
B. Site Ver	rification		<u> </u>	Compliance		1											1
B. Bite ve				Performance		Su	b Sec	tion o	of Co	nplia	nce ("Pass	"=1, "	'Fail"	=0)		Total Non-
Service	Service Scope	Selectio n*1		Service criteria		1	2	3	4	5	6	7	8	9	10	Total Complie d (km)	complied (km) to payment reduction calculation
					km	1											sheet
		1	1	Passability		1	1	1	1	1	1	1					
Road	A)	0	3	Road Works Advance Warning Sign (Roughness)		0	0	0	0	0	0	0					
Usability	Road Usability	0	Ľ	(Accordances)		Ľ			-			Ľ					
	Osability	0															
		0	1	Compliance of A) Cleanliness of the road		0	0	0	0	0	0	0.7				6.7	0.0
		0	2	Potholes		0	0	0	0	0	0	0					
		0	3	Cracking in flexible Pavement		0	0	0	0	0	0	0					
	B)	0	4	Multiple cracks in the pavement		0	0	0	0	0	0	0					
Road	Pavement,	0	5 6	Rutting Ravelling		0	0	0	0	0	0	0					
User	Shoulders	0	7	Loose pavement edges		0	0	0	0	0	0	0					
Confort	and ROW for Paved	0	8	Height of shoulders vs. height of pavement		0	0	0	0	0	0	0					
	Roads	0	9	Paved shoulders Cracks in Concrete Pavement		0	0	0	0	0	0	0					
		0	11	Interlocking Block Pavement		0	0	0	0	0	0	0					
		0	12	Medians		0	0	0	0	0	0	0					
		0		Compliance of B)		0	0	0	0	0	0	0				0.0	6.7
		0	2	Side Drains, Mitre Drains and cut off drains (lined) Side Drains, Mitre Drains and cut off drains (unlined)		0	0	0	0	0	0	0					
	C) Duoimo co	0	3	Culverts and Access Drifts		0	0	0	0	0	0	0					
	C) Drainage	0	4	Scour Checks, Gabions and other erosion protection structures		0	0	0	0	0	0	0					
		0	5	Manholes and Gulleys Compliance of C)		0	0	0	0	0	0	0.7				6.7	0.0
		1	1	Vegetation free zone		1	1	1	1	1	1	1				0.7	0.0
	D)	0	2	Outer/inner vegetation		0	0	0	0	0	0	0					
	Vegetation	0	3	Growth encroaching into vegetation free zone from the side or t	ot	0	0	0	0	0	0	0					
		0	4	Trees within ROW Compliance of D)		0	0	0	0	1	0	0.7				6.7	0.0
		0	1	Concrete structures		0	0	0	0	0	0	0					
	E)	0	2	Steel Structures		0	0	0	0	0	0	0					
Road	Structures	0	3	Expansion joints Riverbeds		0	0	0	0	0	0	0					
Durabilit		0		Compliance of E)		1	1	1	1	1	1	0.7				6.7	0.0
у		1	1	Warning signs/Mandatory signs		1	1	1	1	1	1	1					
		0	3	Information signs, Edge marker posts, Guide posts, Kilometer P Traffic Signals	os	0	0	0	0	0	0	0					
	F) Road	0	4	Street Lighting		0	0	0	0	0	0	0					
	Furniture	0	5	Road Marking/Road Studs		0	0	0	0	0	0	0					
		0	6	Guard rails and pedestrian rails Compliance of F)		0	0	0	0	0	0	0.7				67	0.0
	G) Profile	0		Computance of F)		1	1	1	1	1	1	0.7				6.7	0.0
	and Road	0															
	width*only	0		9 11 99													
	for	0	1	Compliance of G) Embankment slopes		0	0	0	0	0	0	0		_			
	H)	0	2	Slopes in Cuts		0	0	0	0	0	0	0					
	Embankmen t and Slopes	0		•													
	l and biopes	0		Compliance of H)		1	1	1	1	1	1	0.7				6.7	0.0

Seconda Paris Pa	See Propose Pr		Į.	KURA	/RMLF/SR/267/2014-2015	Mo	onth, Yo	ear,Conti	ract Mon	th	Januar	u	2016	7																										
Part	Selection of the proper in a p			KURA		Contra	ctor	Vescom l	Enterpris	ies					1																									
1	Series - No. 1985 - No	ad Name/Chainage		Oginda	a- Odinga Rd	Road Cla	ss			1	Urban F	Road			Ī																									
STONE NOR	Progress From Very Region 1973 1971 1971 1971 1971 1971 1971 1971	ndard Service Level					Inspe	cted Cha	inage		Kn	m 0+000	6+700	6.7	,																									
1 1 March September 1 2 March September 1 2 2 3 4 5 5 5 5 5 5 5 5 5	Series contains			I aved .	Standard	/	Numbe	r of Sub	Sections		Ki	III 0 + 000	-0+700	0.7	1																									
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Primate Primat	Priemone Service ditris Serv		_1	5 N	Monthly Statement (Appendix 15)		1																										_							4
Section Sect	Service criteria	City Visiting	$\overline{}$		Compliance		ı																		1 1								—							۷
Series Se	Service criteria	Site verification			Performance														Sub Se	ection of	Complia	nce ("Pas	s"=1. "Fa	il"=0)																-
Series Se	Selection				1 Cristinate		1		Т					1	1 1			1	1 1	1	Compile	linee (Tus	, -1, Tu	11 -0,									\top				-	1		Т
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Capillary Capi	maillance of A	ad I						- 1	+				· ·	-	+	-		- 1		-			1		+ 1			-		+-	-	+	+	+	\vdash	\dashv	+	+		+
Compliance of A)	authenes of the road flow	Road			/		+		++	-1	+	\neg	 	+	+-+	+				-	+		+		+		+	-	-	+-	\vdash	+	+	+		\dashv	+	+		+
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Complement of the manth	authenes of the road flow			(Compliance of A)		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1	+		_	+	1	H	-	_	+		†
Part	holes 1		1	1 (Cleanliness of the road		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1				+	1		-	_	+		†
Conference Con	sking in Robble Personned		1	2 F	Potholes		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1	+-	\vdash	+	_	+		\dashv	+	+		t
And Mulphy cracks in the preventer 1 1 1 1 1 1 1 1 1	Subject cases in the powerment		1	3 (Cracking in flexible Pavement		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1	+-	\vdash	+	+	+	\vdash	\dashv	-	+	\vdash	t
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Part	sks in Concrete Persement	Paved Roads	1	9 F	Paved shoulders		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1			_				$\neg \uparrow$		_		1
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1 Side Drains, Mire Praiss and cut off drains (lined)	Definis Mine Drains and cut off drains (unlined) 1			(Compliance of B)		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1				\top							T
C) Drainage 0 4 Source Access Drifts 0 4 Source Access Drifts 0 5 Manholes and other crossion protection structures 0 1 Source Access Drifts 0 2 Source Access Drifts 0 4 Source Access Drifts 0 5 Manholes and Galleys 0 Compliance of C) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Neers and Access Drifts		0	1 S	Side Drains, Mitre Drains and cut off drains (lined)																												\top							T
C) Drainage C) Drainage O	Neers and Access Drifts		1	2 S	Side Drains, Mitre Drains and cut off drains (unlined)		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1	Π.		П								Τ
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1 Vegetation fee zone	getation free zone from the side or top		0																																					
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D) Vegetation 1	with encroaching into vegetation free zone from the side or top I I I I I I I I I I I I I I I I I I I		1	1 \	Vegetation free zone		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	_							1	1 1	1			-			\perp							1
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E Structures Structures Compliance of F) Compliance of G) Com	el Structures Commission joints Commission Signals Commission Sig						1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1 1	1	1	I		\vdash	\perp	+	-	\vdash	-		-		+
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F) Road Furniture 0	ffic Signals					Poet			1	1 1	1	1 1	1 1	1	1	1 1		_												+			+	+	-	+		+-		+
Fy Road Furniture 1	per Lighting 1					ost		1 1	1		-	1 1	1	1	-		. 1	0	0 1	-	- 1	1 1	-	- 1	1	4 1	1	-	-	+	\vdash		+	+	\vdash	+	+	+	\vdash	+
Furniture 1	ad Marking/Road Studs 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1	+	-		+	+	\vdash	\dashv	-	+-		+
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G) Profile and 0	mpliance of G) bankment slopes pes in Cuts						1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1 1	1	1	1	+	\vdash		+	+	H	\dashv	-	+	\vdash	†
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width*only	bankment slopes pes in Cuts						\vdash			_				+							_			_	+			$\neg +$						+		\neg		+-		t
for Unpaved. Compliance of G) H)	bankment slopes pes in Cuts						\Box		+					+							-			_							\vdash			+		\neg	-	+		T
H)	bankment slopes pes in Cuts			(Compliance of G)																												\top							T
Embarkment 0 2 Slopes in Cuts			0	1 E	Embankment slopes																												\top							T
			0	2 S	Slopes in Cuts									\Box																								I		Ι
		and Slopes												T		T								T		Т			T				T				T	Т		Τ

Apper	ndix 13-1	(a) Su	ımr	mary Self Inspection Report Form (Paved	Road))							Sh	eet	1	of	1
Project			KUR	A/RMLF/SR/267/2014-2015	Mo	onth, Y	ear,C	Contra	ict Mo	onth		J	anuai	ru		2016	7
Road Auth	ority		KUR	A	Contra	ctor	Ves	com E	nterp	rises							
Road Nam	e/Chainage		Ogin	da- Odinga Rd	Roa	d Clas	s	Urba	n Roa	ad							
Standard S	ervice Level		Pave	d Standard		Insp	ected	Chai	nage			Π	Km	0+0	00-6+	700	6.7
	ent Verification	n	rave	a Standard	/	Numb	er of	Sub S	ectio	ns			1111	1010	00 01	700	0.7
71. Docum	ent verification	1	1	Work Program		1											
		1	2	Defect/Rctification List(Appendix 11)		1											
Document		1	3	Self Inspection Result Form (Appendix 12 and 13)		1											
		1	4	Payment Reduction Calculation Form (Appendix 14)		1											
		1	5	Monthly Statement (Appendix 15) Compliance		1										Co	mpliance=1
B. Site Ver	rification		J	сопривис		1							<u> </u>				1
				Performance		Su	b Sec	tion c	f Cor	nplia	nce ("Pass	"=1, '	'Fail"	=0)	Total	Total Non- complied
Service	Service Scope	Selectio n*1		Service criteria		1	2	3	4	5	6	7	8	9	10	Total Complie d (km)	(km) to payment reduction calculation
					1												sheet
		1	1	Passability	km	1	1	1	1	1	1	1					
	A)	1	2	Road Works Advance Warning Sign		1	1	1	1	1	1	1					
Road Usability	Road	0	3	(Roughness)		1											
Osability	Usability	0															
		0		Compliance of A)		1	1	1	1	1	1	0.7				6.7	0.0
		1	2	Cleanliness of the road Potholes		1	1	1	1	1	1	1					
		1	3	Cracking in flexible Pavement		1	1	1	1	1	1	1					
	B)	1	4	Multiple cracks in the pavement		1	1	1	1	1	1	1					
Road	Pavement,	1	5 6	Rutting Ravelling		1	1	1	1	1	1	1					
User	Shoulders	1	7	Loose pavement edges		1	1	1	1	1	1	1					
Confort	and ROW for Paved	1	8	Height of shoulders vs. height of pavement		1	1	1	1	1	1	1					
	Roads	0	9	Paved shoulders Cracks in Concrete Pavement		1	1	1	1	1	1	1					
		0	_	Interlocking Block Pavement													
		0	12	Medians													
		0	1	Compliance of B) Side Drains, Mitre Drains and cut off drains (lined)		1	1	1	1	1	1	0.7				6.7	0.0
		1	2	Side Drains, Mitre Drains and cut off drains (unlined)		1	1	1	0	1	1	1					
	C) Drainage	1	3	Culverts and Access Drifts		1	1	1	0	1	1	1					
		0	5	Scour Checks, Gabions and other erosion protection structures Manholes and Gulleys													
		0	Ť	Compliance of C)		1	1	1	0	1	1	0.7				5.7	1.0
		1	1	Vegetation free zone		1	1	1	1	1	1	1					
	D)	1	3	Outer/inner vegetation Growth encroaching into vegetation free zone from the side or t	or	1	1	1	0	1	1	1					
	Vegetation	1	4	Trees within ROW	•	1	1	1	1	1	1	1					•
		0	1	Compliance of D) Concrete structures		1	1	1	0	1	1	0.7				5.7	1.0
	E)	0	2	Steel Structures													
	E) Structures	0	3	Expansion joints													
Road Durabilit		0	4	Riverbeds Compliance of E)		-											
у		1	1	Warning signs/Mandatory signs		1	1	1	1	1	1	1					
		1	2	Information signs, Edge marker posts, Guide posts, Kilometer F	os	1	1	1	0	1	1	1					
	F) Road	0	3	Traffic Signals Street Lighting		1	1	1	1	1	1	1					
	Furniture	1	5	Road Marking/Road Studs		1	1	1	1	1	1	1					
		0	6	Guard rails and pedestrian rails		1	1	1	0	1	1	0.7				57	1.0
	G) Profile	0		Compliance of F)		1	1	1	U	1	1	0.7				5.7	1.0
	and Road	0															
	width*only	0		Compliance of C		+	<u> </u>	<u> </u>			-	<u> </u>		-	-		
	for	0	1	Compliance of G) Embankment slopes		f							-				
	H) Embankmen	0	2	Slopes in Cuts													
	t and Slopes	0	<u> </u>	Complement of III		1	<u> </u>	<u> </u>				<u> </u>	-				
		0		Compliance of H)		1	<u> </u>	1									

Appendix 14 Payment Reduction Calculation Table (Paved Road)

Project KUR	RA/RMLF/SR/267/2014-2	2015						Contract	t Period	12
Road Authority KUR	RA			Contractor	VESCOM En	terprise				
Road Name/ Class/	/ Chainage/ (j)Length	Goinga - Odinga Road	d			Road Class	Urban			6.7km
Statement Month/ Yea	ear and Elapse of Month	<mark>January</mark>	2016	7	Star	ndard Service	e Level		Paved Stan	ndard
Contract Due Amount of	f the Month (x)	134	,000	KSH						
Service Le	evel Criteria		Compliance				Red	luction		
		(a)	(b)	(c)=(a)*(b)	(d)=(a)-(c)	(e) Non-	(f)=(e)-(d) (>=0) Adjusted	(g)=(f)/(c)	(h)	(i)=(g)*(h)

Service	Service Scope	(a) Contract Road Length (km)	(b) Required Target	(c)=(a)*(b) Target Length (km)	(d)=(a)-(c) Exemption Length (km)	(e) Non- Compliant Length (km)	(f)=(e)-(d) (>=0) Adjusted Non- Compliant Length (km)	(g)=(f)/(c) NON- Compliant Rate	(h) Reduction Weight	(i)=(g)*(h) Reduction Rate (%)	(j)=(c)x(i) Reduction Length (km)
Documentation		6.7	100%	6.7	-		-	0%		0.0%	0.00
1. Road Usability	A) Road Usability	6.7	100%	6.7	0.0		0.0	0%		0.0%	0.00
2.Road User Confort	B)Pavement, Shoulders	6.7	100%	6.7	0.0		0.0	0%		0.0%	0.00
	C)Drainage	6.7	100%	6.7	0.0		0.0	0%		0.0%	0.00
	D)Vegetation	6.7	100%	6.7	0.0		0.0	0%		0.0%	0.00
	E) Structures				Not Ap	plied					0.00
3. Road Durability	F) Road Furniture	6.7	100%	6.7	0.0		0.0	0%		0.0%	0.00
	G) Profile and Road Width (unpaved)			•	Not Ap	pplied					
	H) Embankment and Slopes				Not Ap	pplied				·	0.00
							_		(k) Total =	0.0%	0.00

0% <--Adjust Reduction weight to be 2009

Sheet 5 of 5

Required Target			
Elapse of Month	1. Road Usability	2. Road User Comfort	3. Road Durability
1	50%	50%	50%
2	100%	75%	75%
3	100%	100%	100%
4	100%	100%	100%
5	100%	100%	100%
6	100%	100%	100%
7~	100%	100%	100%

Calculation of the Paym	ent Amount	of the Mont	h
Contract Due Amount of the Month	KSH	134,000	(x)
Reduction Rate	%	0.0%	(k)
Reduction Amount	KSH	0	(z)=(x)x(k)
Payment Amount of the Month	KSH	134,000	(y)=(x)-(z)

Appendix 14 Payment Reduction Calculation Table (Paved Road)

Project	KURA/RMLF/SR/267/2014-2	2015				Contract Period	12
Road Authority	KURA			Contractor	VESCOM Enterprise		
Road Name/	Class/ Chainage/ (j)Length	Goinga - Odinga Road	i		Road Class Urban		6.7km
Statement Mont	h/ Year and Elapse of Month	<mark>January</mark>	2016	7	Standard Service Level	Paved Stan	dard
Contract Due Amo	unt of the Month (x)	134,	,000	KSH			

Serv	ice Level Criteria		Compliance				Red	uction			
Service	Service Scope	(a) Contract Road Length (km)	(b) Required Target	(c)=(a)*(b) Target Length (km)	(d)=(a)-(c) Exemption Length (km)	(e) Non- Compliant Length (km)	(f)=(e)-(d) (>=0) Adjusted Non- Compliant Length (km)	(g)=(f)/(c) NON- Compliant Rate	(h) Reduction Weight	(i)=(g)*(h) Reduction Rate (%)	(j)=(c)x(i) Reduction Length (km)
Documentation		6.7	100%	6.7	-	-	-	0%	4.6%	0.0%	0.00
1. Road Usability	A) Road Usability	6.7	100%	6.7	0.0	0.0	0.0	0%	46.0%	0.0%	0.00
2.Road User Confort	B)Pavement, Shoulders	6.7	100%	6.7	0.0	0.0	0.0	0%	57.5%	0.0%	0.00
	C)Drainage	6.7	100%	6.7	0.0	1.0	1.0	15%	34.5%	5.1%	0.34
	D)Vegetation	6.7	100%	6.7	0.0	1.0	1.0	15%	34.5%	5.1%	0.34
	E) Structures				Not Ap	plied					0.00
3. Road Durability	F) Road Furniture	6.7	100%	6.7	0.0	1.0	1.0	15%	23.0%	3.4%	0.23
	G) Profile and Road Width (unpaved)				Not Ap	plied					
	H) Embankment and Slopes				Not Ap	plied					0.00
									(k) Total =	13.7%	0.92

200%

Sheet 5 of 5

Calculation of the Payment Amount of the Month

Contract Due Amount of the Month	KSH	134,000	(x)
Reduction Rate	%	13.7%	(k)
Reduction Amount	KSH	18,358	(z)=(x)x(k)
Payment Amount of the Month	KSH	115,642	(y)=(x)-(z)

Required Target				
Elapse of Month	1. Road Usability	2. Road User Comfort	3. Road Durability	
1	50%	50%	50%	
2	100%	75%	75%	
3	100%	100%	100%	
4	100%	100%	100%	
5	100%	100%	100%	
6	100%	100%	100%	
7~	100%	100%	100%	

Material E

1) Monthly Evaluation and Contractor's Evaluation

Appendix 17 Monthly Evaluation

Appendix 18 Contractor's Evaluation

Contractor's Evaluation

(1)	Use your result of Monthly Inspection in the field training (Appendix 17), Fill Monthly evaluation result of January 2016 into Contract Evaluation Tally Sheet and calculate the total score. (Appendix- 18).
	Ans. Total evaluation score is
(2)	Calculate the score of Contractor's Evaluation in case of statutory penalty (Appendix 17 and 18)
	Ans. Total evaluation score is

Table 23-1 Evaluation Items and Pass/Fail Criteria

Scope		Requirement (Pass Criteria)	Fail Criteria
Service revel compliance	1	Service revel compliance is confirmed according to formal inspection	Reduction rate for service level non- compliance is equal or more than 5%
Solf control unit performance	1	Self-control unit is managed by qualified and experienced contractor's staff member	Registered self-control unit member does not inspect their roads
Self-control unit performance	2	Self-control unit operates properly	Inspection record is not submitted to the client before formal inspection
		Workers and operators wear proper safety gear	Workers and operators don't wear reflective jackets. Helmet is also needed in case of work using machinery.
Work Safety Management	2	Traffic control is conducted properly	No traffic control (in case of work affecting traffic or without proper safety devices (e.g. sign board, cone, flag man)) and no tapered edge at the approach
	3	and other staff attributable to the	Worker or operator or other staff is injured and have to be hospitalized for more than or equal to 3 days
	4	No accidents to third-parties attributable to contractor	Third-party person is injured or their property is damaged (any level of the accident is not allowed)
	1		Mitigation measures against noise, emission, or dust at residential area is not taken and while complaints are received
Environment and social management	2	Waste material generated from the site is properly disposed	Waste material is left at the site
	3	Transportation by vehicles is properly controlled	Overloading , material falling, leakage, or spillage is found
Corrective order	1	No corrective order is issued by authority	No remedy is made for instruction by the client so that corrective order is issued
Statutory compliance	1	Contractor complies with the relevant statutory regulations	Contractor violates relevant statutory regulations and sanction is enforced

Appendix 17 Monthly Evaluation Form

Number of elapsed month =	6
ramber of chapsed month –	U

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality
Road Authority	KURA
Contractor	VESCOM Enterprise
Date of checking	2-Feb-16

	Name
Project manager	
Assistants	

This form is used by Project manager to verify monthly performance for contract evaluation.

	Scope		Requirement Pass or 1			
1	Service revel compliance	1	1 Reduction rate for service level non-compliance is less than 5.0%			
	Self-control unit	1	Self-control unit is organized by proper contractor's member			
2	\angle		Self-control unit operates properly			
performance		Pass	or fail in total*2			
		1	Workers and operators wear proper safety gear			
	Work Safety Management	2	Traffic control is conducted properly			
3		3	No accident of workers, operators attributable to the contractor			
			No accident of third-parties attributable to the contractor			
		Pass	or fail in total*2			
		1	Environmental consideration is properly conducted			
4	Environment and social	2	Waste material generated from the site is properly disposed			
'	management		Transportation by vehicles is properly controlled			
		Pass	or fail in total*2			
5	Corrective order	1	No corrective order is made by authority			
6	Statutory compliance	1	Contractor complied with relevant statutory regulations			

*1 Filling Example: "Pass"="1" "Fail" = "0" "Not applicable" = "N/A"
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In case of having more than one requirement in each evaluation scope, all the requirements except not applicable case shall be passed for pass evaluation in tota

A17-1 58

^{*2} Scoring criteria:

Appendix 18 Contract Evaluation Tally Sheet for PBC (Draft Ver.3)

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality	
Road Authority	KURA	
Contractor	VESCOM Enterprise	
Date of Commencement	1-Jul-15	
Expected date of Completion 31 June 2016		
Number of elapsed months in the end of last year 6		6

	Date	Name	Signature
Project Manager	2-Feb-16		
Road Manager	2-Feb-16		

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

Item No. of month with "Pass=1" in past years Jan past years Total month with compliance No. of month with past years No. of month with pass=1" in total No. of month with	Penalty*1
Pass=1" in past years Jan past years I Service revel I Ser	Penalty*1
2 Self-control unit performance 10%	
3 Work safety management 20%	
4 Environment and social management 10%	
5 Corrective order issuance 10%	
6 Statutory compliance	-20
*1: Penalty of -20 point is given for non-compliance in equal or more than one month Total score	-20

Appendix 18 Contract Evaluation Tally Sheet for PBC (Draft Ver.3)

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality	
Road Authority	KURA	
Contractor	VESCOM Enterprise	
Date of Commencement	1-Jul-15	
Expected date of Completion 31 June 2016		
Number of elapsed months in the end of last year 0		

	Date	Name	Signature
Project Manager			
Road Manager			

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

					M	onthl	ly Ev	aluat	ion						(a)	(b)	(c)	(d)	(f)
	Item	No. of					3	Year ((2015	5)					No. of (a)/	(a)/	W 1 4 C	Score for	
	nem	month with "Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	month with "Pass=1" in total	Total month (%)	Weight for each item	each item (b)*(c)	Penalty*1
1	Service revel compliance								0	0	0	1	1	1	3	50	50%	25	
2	Self-control unit performance								1	1	1	1	1	1	6	100	10%	10	
3	Work safety management								1	1	1	1	1	1	6	100	20%	20	
4	Environment and social management								1	1	1	1	1	1	6	100	10%	10	
5	Corrective order issuance								1	1	1	1	1	1	6	100	10%	10	
6	Statutory compliance								1	1	1	1	1	1	6	100			0
	*1: Penalty of -20 point is given for	or non-compliance	e in eq	qual or	more t	han or	ne mon	ıth										75	0
																	Total score	7	5

Appendix 17 Monthly Evaluation Form

Number of elapsed month =	6
rumber of chapsed month	U

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality
Road Authority	KURA
Contractor	VESCOM Enterprise
Date of checking	31-Jan-16

	Name
Project manager	
Assistants	

This form is used by Project manager to verify monthly performance for contract evaluation.

	Scope		Requirement	Pass or Fail*1			
1	Service revel compliance	1	Reduction rate for service level non-compliance is less than 5.0%	0			
	Self-control unit	1	Self-control unit is organized by proper contractor's member	1			
2		2	Self-control unit operates properly	1			
	performance	Pass	or fail in total*2	1			
		1	Workers and operators wear proper safety gear	1			
	Work Safety Management	2	Traffic control is conducted properly	1			
3		3	No accident of workers, operators attributable to the contractor	1			
		4	No accident of third-parties attributable to the contractor	1			
		Pass	or fail in total*2	1			
		1	Environmental consideration is properly conducted	1			
1	Environment and social	2	Waste material generated from the site is properly disposed	1			
-	management	3	Transportation by vehicles is properly controlled	1			
		Pass or fail in total*2					
5	Corrective order	1	No corrective order is made by authority	1			
6	Statutory compliance	1	Contractor complied with relevant statutory regulations	0			

^{*1} Filling Example: "Pass"="1" "Fail" = "0" "Not applicable" = "N/A"

In case of having more than one requirement in each evaluation scope, all the requirements except not applicable case shall be passed for pass evaluation in tota

A17-2

^{*2} Scoring criteria:

Appendix 18 Contract Evaluation Tally Sheet for PBC (Draft Ver.3)

Project Title	PERFORMANCE-BASED ROAD MAINT 24 Oginga Odinga including Section 58 loop Road and Government Road in Nakuru Mun	roads, General Kariba Road, West					
Road Authority	KURA						
Contractor	VESCOM Enterprise						
Date of Commencement	1-Feb-15						
Expected date of Completion	31 June 2016						
Number of elapsed month	hs in the end of last year	11					

	Date	Name	Signature
Project Manager	31-Jan-16		
Road Manager	31-Jan-16		

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

					Me	onthl	y Eva	aluati	ion						(a)	(b)	(c)	(d)	(f)
	Item	No. of					Y	ear (2016	5)					No. of month with "Pass=1" in total	(a)/ Total month (%)	XXX	Score for	
	rem	month with "Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			Weight for each item	each item (b)*(c)	Penalty*1
1	Service revel compliance																50%		
2	Self-control unit performance																10%		
3	Work safety management																20%		
4	Environment and social management																10%		
5	Corrective order issuance																10%		
6	Statutory compliance																		
	*1: Penalty of -20 point is given f	or non-complianc	e in eq	ual or	more t	han on	e mont	th									Total score		

Appendix 18 Contract Evaluation Tally Sheet for PBC (Draft Ver.3)

Project Title	PERFORMANCE-BASED ROAD MAINT. 24 Oginga Odinga including Section 58 loop Road and Government Road in Nakuru Mun	roads, General Kariba Road, West					
Road Authority	KURA	KURA					
Contractor	VESCOM Enterprise						
Date of Commencement	1-Feb-15						
Expected date of Completion	31 June 2016						
Number of elapsed month	hs in the end of last year	0					

	Date	Name	Signature
Project Manager			
Road Manager			

Total score

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

					M	onthl	ly Ev	aluat	ion						(a)	(b)	(c)	(d)	(f)
	Item	No. of month with					<u> </u>	Year ((2015	5)					No. of (a)/	(a)/ Total month	Weight for	Score for each item	Penalty*1
		"Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	"Pass=1" in total	(%)	each item	(b)*(c)	1 charty 1
1	Service revel compliance			0	1	1	1	1	1	1	1	1	1	1	10	90.9	50%	45	
2	Self-control unit performance			1	1	1	1	1	1	1	1	1	1	1	11	100	10%	10	
3	Work safety management			1	1	1	1	1	1	1	1	1	1	1	11	100	20%	20	
4	Environment and social management			1	1	1	1	1	1	1	1	1	1	1	11	100	10%	10	
5	Corrective order issuance			1	1	1	1	1	1	1	1	1	1	1	11	100	10%	10	
6	Statutory compliance			1	1	1	1	1	1	0	1	1	1	1	10	90.9			-20
	*1: Penalty of -20 point is given for	or non-compliance	e in eq	ual or	more t	than or	ne mon	ıth										95	-20

75

Material F

1) Cost Survey and Computation of Productivity (Demonstration)

Form 1 Site layout

Form 2 Work Record

Form 3 Productivity calculation

Samples

Form 1 Site Layout

Date:	Start Time:	End Time:
Location:	Weather:	

Form 2 Work Record Form

DateWeatherInspected byLocationContractors Name

Work Item	Number of workers	Start time	End time	workin hours	Work measurement	Work volume	Unit	Remark

Form-3 **Productivity Survey Summary Form**

Labor Based Works

Location		Client		Site			Weather		Initial Mobilization Period / Routine Maintenance						
Width of Road Reserve (Wr)	Width of Carr (Wc)		Left Lined Ditch (LL)		Right Lined Ditch (RL)			0	0.00 m	Total Length		Number of Labors		men	

				A	sset Quantity				Labour Input						SRUQ		
Worked Items		Simple Quantity			Actual Quantity Work		Work E	Difficulty	Foreman	Supervisor	Labors				(4) Simple	(5) Actual	
		Q'ty	Unit	, .	Q'ty (Vol)	Unit	-Heavy	ıl Remark	nos	nos	nos	working hours			SRUQ (man day/Qty)	SRUQ (man day/Qty)	Remarks (Equipment)
		8	a	Remarks	ŀ	0	-Normal -Light		С	d	e	f	j=e×f	Man day	ps = j / 7a	pa= j / 7b	
1)	Grass Cutting(1) / Left		m2	GW x L		m2	Normal						0	0			
1)	Grass Cutting(2) / Right		m2	GW x L		m2	Normal						0	0			
	Cross Culvert(1)		Pcs			Pcs							0	0			
2)	Closs Curven(1)		m			m							0	0			
2)	Cross Culvert(2)		Pcs			Pcs							0	0			
	Closs Curvit(2)		m			m							0	0			
	Catch Basin / Cover(1)		Pcs			Pcs							0	0			
3)	Catch Basin / Cover(2)		Pcs			Pcs							0	0			
	Catch Basin / No cover(1)		Pcs			Pcs							0	0			
	Catch Basin / No cover(2)		Pcs			Pcs							0	0			
4)	Lined Side Ditch(1)		m	L		m	Light						0	0			
	Lined Side Ditch(2)		m	L		m	Light						0	0			
5)	Unlined Side ditch(1)		m	L		m							0	0			
	Unlined Side ditch(2)		m	L		m							0	0			
6)	Carriage De-sliting(1)		m2	Lx1.0 (m)		m2	Light						0	0			
	Carriage De-sliting(2)		m2	Lx1.0 (m)		m2	Light						0	0			
	Total										0	0	0				
Note) To use one sheet per day											0.0	1day = 7 working hours					

To fill only the number of workers who are engaged in PBC works

Total number of workers or equipment shall tally the number of workers or equipment for PBC works on site.

To specify structures to be maintained

To fill the maintained Q'ty which includes places/areas that don't require any actual maintenance works

68

Man Day

Cost Survey



Productivity Survey

- The aim of the survey is to establish productivity rates via collection of data which will be used for cost estimation purposes for PBC projects.
- Productivity rate (P/R) is the quantity/volume of work that can be done in a person-day (ex. grass cutting 2,000m2/person-day)
- Standard Resource Usage per (Unit) Quantity (SRUQ) is the ratio of the number of person-days per volume of work completed (ex. Grass cutting: 5 persondays/10,000m2). SRUQ is the inverse of P/R.

Productivity Survey



Ex.

Grass cutting of 10,000m2 completed in 5 man-days. This means each person completes 2,000m2 in a day

P/R = 2,000m2/man-day

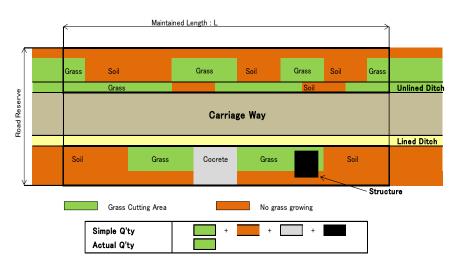
SRUQ = 5 man-days/10,000m2 = 0.0005 man-days/m2

Productivity surveys can be used to collect:

- Simple quantities
- Actual quantities
- Km. Standardized quantities

jica

Ex. Grass Cutting: Simple Vs. Actual Q'ty



<u>Productivity Survey – Ralph Bunches Rd.</u>



Procedures:

Form 1: Site layout sheet:

- 1. Indicate the date, start end time of activities, weather condition and location.
- 2. In the sketch draw the cross section of the road, measure the features of the road within the right of way like the width of the carriageway, side walks, grass area on either sides, width of drains etc...
- 3. The inspector is to monitor work progress of each activity on a 1hr interval. If the activity takes a shorter time, then the inspector will indicate time accordingly.

Productivity Survey – Ralph Bunches Rd.



Procedures Cont'd - 1

- 4. The inspector is also to monitor and record the movement of workers from one activity to another. They are to record the quantity of work done and the time it took to finish the activity
- 5. As each activity is completed, indicate it's linear length.
 Also measure and indicate the start to end point of
 activities at the end of the day.
- 6. Productivity is based on statistical surveys.

Procedures Cont'd - 2



Form 2: Productivity Survey Form:

- 1. In the productivity survey form, indicate the date, weather, location, contractor's name, and the inspector.
- 2. For each work item, you must indicate the number of workers, start-end time, working hours for that activity, work measurement, work volume, unit of measurement and any remarks. Remarks can include indicating the level of work being heavy, normal or light.

Procedures Cont'd - 3



Form 3: Productivity Survey Summary Form:

- 1. Data from the "Site Layout Sheet" can now be transferred to the "Productivity Survey Summary Form".
- 2. Data to be transferred includes width of the road reserve, width of the carriageway, No. of kerb stones, total maintained length, total working hours, total no. of workers. You should also indicate the "Road Condition"
- 3. Under "Actual measurements", fill in the "Work Volume" data from form-2 for work done on site.
- 4. Under "Labor", fill in the number of workers and their working hours.
- 5. Under "Productivity" the excel sheet will calculate "Actual Productivity" in item No. 5

Procedures Cont'd - 4



Form 3: Productivity Survey Summary Form:

- 6. For each activity, the inspector should indicate the level of work difficulty (heavy, normal or light) under "Measurements" in the "Remarks(1)" column.
- 7. Heavy work loads are usually experienced during IMP, normal work load during wet season and light work loads during the dry season.

Procedures Cont'd - 5

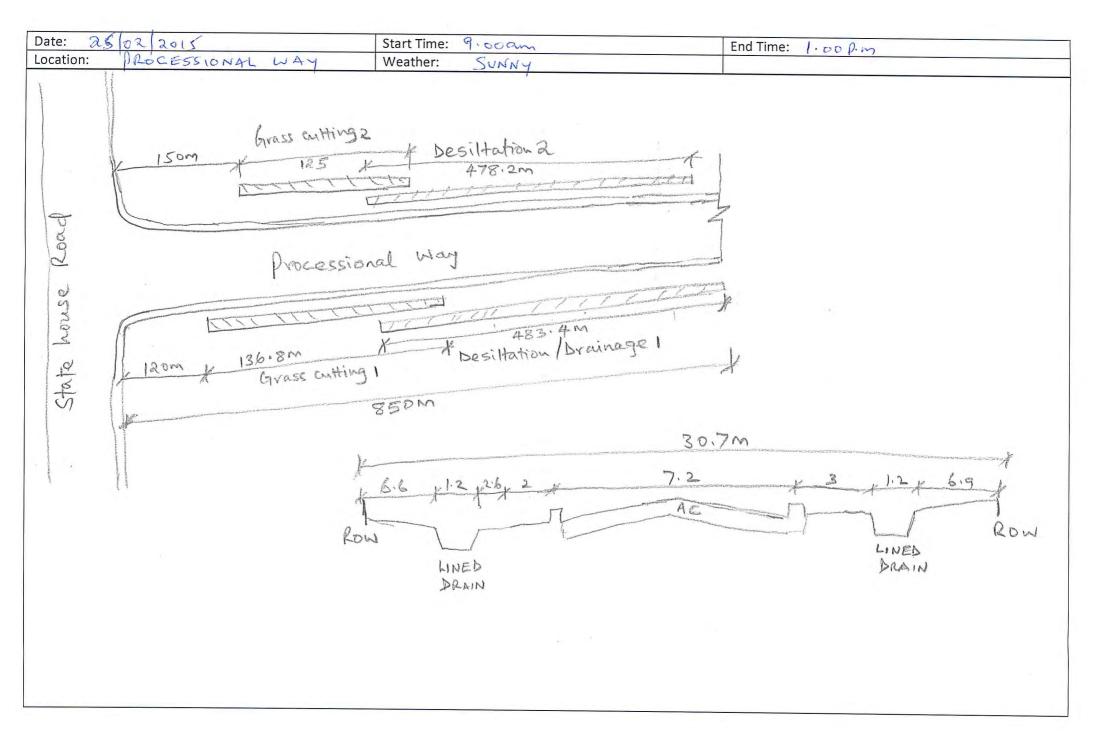


Form 3: Productivity Survey Summary Form:

- 1. Under "Labor", fill in the number of workers and their working hours.
- 2. Under "Productivity" the excel sheet will calculate "Simple/Actual Productivity" SRUQ's in item No. 5

PR Survey Result Summary Form

1. The simple/actual SRUQ's are transferred to the "PR survey results summary" excel sheet, classified and averaged into 3 work level categories of SRUQ's: heavy, normal & light.



PBC Contract Work Producutivity Survey Form

Date

5UNNY Weather Inspected by Location PROCESSIDAGI WAY Contractors Name Hands Work Item Number of workers Start time End time workin hours Work measurement Work volume Unit Remark 9am M3 1 Drainage 1 10am 1=164.6 W= 55 d= 01 .9053 very little soft 10dm Man L= 122.6 W= . 55 d= .01 m3 6743 . 3/46 llam 128 m3 L=139 W= . 55 d= 01 12 pm 7 PM =57.2 W=.55 d=.01 :3146 m3 4 hrs L= 483.4 2.659 120 85 m/h, = 7 0665 m3 lax 9 am MZ Siltation 1 10 am 41.15 = 164.6 W= .25 silt is very minimal L=114 W= .25 11 am 10 am 28.5 right Mam L=45 w=.25 12 Pm 11-25 mZ MZ = 138.7 W=,25 34. 675 4hr 462.3 m 115.58m2 115.38 m/17.4p 28.90 m2/hr. 2 P 10 MZ L=42.5 W= 6.3 267.75 L=36.1 w=6.3 227.43 MZ 12 Pru m = 21.5 w= 6.5 139 . 75 m² 12 IP L=36.7 W= 6.5 238,55 4/1 873.5 m2 136.8M 34.2 m2/hv. 29 218.4 m2/hr.2P 73

PBC Contract Work Producutivity Survey Form

DateWeatherInspected byLocationContractors Name

Work Item	Number of workers	Start time	End time	workin hours	Work measurement	Work volume	Unit	Remark
	2	gan	10		1=38.5 W=5.5	211:75	T M	Romark
Jeass 2		10			L=21.5 W=6.5	139.75	M2	
left)\	129m	1	L=38 w=7.9	300-2	W	-
		12_	1 P		L= 27 W=17	297	m²	
			,	401	125 m	948.7m2		
					31.25 M/hr :2P	237.2 m2/hv	+ 2 ?	
			*					
Siltation 2	1	Q .	10	1	LE 194.5 W= .25	48.75	m ²	
Siltation 2 Left		10)]	(L=.83.7 W= .25	20.93	2	
Left) (127	1	L=100 W=. 25	25	MZ	
		12	12m		=100 W=. 25	25	MZ	
				Llhr	478.2 M	119.68 m²		
					119.55 m/hr.19	29.92m2/h	(·)	P
						· ·		,
		- 1						
								10
			7					
								-
								74

Project Lot No.10										25/02/2015			
ocation/Region Nairobi	Client Kura	Site Processional Way		Weather	Weather Sunny					Caluc	ulation of total Ma	n Day	
Width of Road reserve (Wr) 30,7	Width of Carriage Way (We)	7.2	No of Curve stones	2.	Maintained Width		25.5	Total Length	1	483.4	Total working	hours	4
(111)	The road was previously under	PRC maintenance	(Nc)	Initial makilimatina Pari	(Wm = Wr - Wc + Nc)			(0)		1000	time	day	0,6
nstruction made by Site Agent or Supervisor	The fold was previously under	The maintenance.	Road Condition	intual mobilization Peri	iod, the road is asphalt paved	Total Work Area (m2) =Wmx(o)	12,327	Total number of wokers (p)	1st day:6 2nd Day: 3rd Day	6	Total number of Man Day (p)		3.4

Result Measurement Input Productivity Site Skilled (1)Actual Simple measurement Actual measurement (2)Actual (4) Actual Productivity by Supervisor Labor (3) Average Productivity Agent Labor Productivity/hr/Group Productivity/hr/worker working working Length Length Q'ty Q'ty nos nos nos nos hour length Volume unit Qty=10000m2 length volume Man day/Q'ty hours hours Worked Items Remark(1) Remarks(2) P/RI equipment P/R2 a=(o) d (=10,000/(P) f c ixj k=c/j l=d/j m=k/(g+i) n=1/(g+i)=1/(PR1)p=(g+i)xj/d/7Man M day/m2 day/10,000m2 1 Grass Cutting(1) 483.4 6,163 m² 136.8 873.5 m² m 34.200 218.375 17.100 109.188 0.0013 2 Grass Cutting(2) 483.4 6,163 m2 125.0 948.7 m2 Grass was short m 31.250 237.175 15.625 118.588 0.0012 3 Cross Culvert(1) 483.4 m m pcs 4 Cross Culvert(2) 483.4 pcs 5 Catch Basin / Cover(1) 483.4 m3 m3 6 Catch Basin / Cover(2) 483.4 m3 m m3 7 Catch Basin / No cover(1) 483.4 nos m 2.8 0.360 8 Catch Basin / No cover(2) 483.4 nos m 9 Lined Side Ditch(1) 483.4 m m3 483.4 m 2.659 m3 very little silt 120.850 0.665 241.700 1.330 /de-silted volume 0.1075 Lined Side Ditch(2) 483.4 m m3 m3 /de-silted volume Unlined Side ditch(1) 483.4 / de-silted volume Unlined Side ditch(2) 12 de-silted volume 483.4 m3 m m3 Carriage De-sliting(1) 115.58 m2 very little silt 483.4 m2 462.3 m 0.5 115.575 28.895 231.150 57.790 / de-silted area 0.0025 12 Carriage De-sliting(2) 483.4 m2 478.2 119.68 m2 very little silt m 119.550 29.920 119.550 29.920 / de-silted area 0.0048

20

Man Day

Note) To use one sheet per day

Total

To fill only the number of workers who are engaged in PBC works

75

1day = 7 working hours

Average productivity

(P) (m2/M day)

3,595.3

Total number of workers or equipment shall tally the number of workers or equipment for PBC works on site.

To specify structures to be maintained

To fill the maintained Q'ty which includes places/areas that don't require any actual maintenance works

Blank Forms

Appendix 5-1 Road Asset Survey Sheet (1/2) for Paved Road

Roa	d Name:				AADT:	
	ne of Surveyor		<u>=</u>		Road Length:	
Surv	ey Date:		<u>=</u>		ROW width:	
				Typical Cros	s Section	
Roa	d Condition				T	
	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
1	Carriage way witdth	m				
2	Shoulder width (L)	m				
3	Shoulder width (R)	m				
4	Sidewalk width (L)	m				
5	Sidewalk width (R)	m				
6	Pavement thickness	cm				
Roa	d Usability		T		T	
	A) Road Usability					
1	Average Roughness	mm/m				
D.	l User Confort					
) Pavement, Shoulders and ROW					
- 1) ravement, Shoulders and ROW				ex. Heaviliy silted road edge area	
1	Road Cleanliness	m2				
2	Potholes	nos			ex. Dia>30cm : 30cm >Dia>15cm : Dia<15cm :	
3	Cracking in flexible Pavement	m			ex. Cracks more than 3mm	
4	Multiple cracks in the pavement	m2			ex. Arrigator cracks	
5	Rutting	m2				
6	Ravelling	m2				
7	Loose pavement edges	m				
8	Height of shoulders vs. height of pavement	m				
9	Damaged Paved shoulders	m				
10	Cracks in Concrete Pavement	m			ex. Cracks more than 3mm	
11	Damaged Interlocking Block Pavement	m2				
12	Medians	m				
_						

Appendix 5-1 Road Asset Survey Sheet (2/2) for Paved Road

	Road Name:
Name of Surveyor	Road Length:
Survey Date:	ROW width:

	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
Road	l Durability					
	C) Drainage					
1	Side Drains (lined)	m				
2	Side Drains (unlined)	m				
3	Cross Culverts/Access Culverts	m				
4	Catch Basin	nos				
5	Scour Checks	nos				
6	Manholes and Gulleys	nos				
7						
	D)Vegetation					
1	Vegetation free zone	m2				Carriage way +sidewalks
2	Outer/inner vegetation	m2				
3	Growth encroaching into vegetation free zone from the side or top	m2				
4	Trees within ROW	nos				
	E) Structures					
1	Concrete structures	nos				Concrete br. Box culverts
2	Steel Structure	nos				Stell bridge/pedestrian br.
3	Expansion joints	nos				
4	River beds	nos				
	F) Road furniture					
1	Information signs	nos				
2	Warning signs	nos				
3	Traffic rule signs	nos				
4	Guide post	nos				
5	kilometer posts	nos				
6	Road markings	m				
7	Street Lighting	nos				
8	Guard rail and pedestrian rail	m				
	G) Profile and Road Width					
	H) Embankment and Slopes					
1	Embankment slopes	m				
2	Slopes in cuts	m				

Appendix 5-2 Road Asset Survey Sheet (1/2) for Unpaved Road

Roa	nd Name:				AADT:	
Nar	ne of Surveyor		_		Road Length:	
Sur	vey Date:		_		ROW width:	
				Typical Cros	ss Section	
Roa	nd Condition					
	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
1	Carriage way witdth	m				
2	Shoulder width (L)	m				
3	Shoulder width (R)	m				
4	Sidewalk width (L)	m				
5	Sidewalk width (R)	m				
6	Pavement thickness	cm				
Roa	d Usability	Ī	I	I	T T T T T T T T T T T T T T T T T T T	
	A) Road Usability					
1	Average Roughness	mm/m				
2	Average Traffic Speed					
	d User Confort) Pavement, Shoulders and ROW					
1	Road Cleanliness	km				
	Corrugation Amplitude	nos				
	Rut Depth	1103				
4	Potholes					
	Tomores					

Appendix 5-2 Road Asset Survey Sheet (2/2) for Unpaved Road

	Road Name:
Road Name:	Road Length:
Survey Date:	ROW width:

	Item	Unit	Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
Roa	d Durability					
	C) Drainage					
1	Side Drains (lined)	m				
2	Side Drains (unlined)	m				
3	Cross Culverts	m				
4	Catch Basin	nos				
5	Scour Checks	nos				
6		nos				
7						
	D)Vegetation					
1	Vegetation free zone	m2				
2	Outer/inner vegetation	m2				
3	Growth encroaching into	m2				
	vegetation free zone from the side trees within ROW	nos				
	E) Structures	1103				
1	Concrete structures	nos				
	Expansion joints					
		nos				
3	River beds	nos				
	F) D = 1 C = '(= =					
<u> </u>	F) Road furniture					
	Information signs	nos				
2	Warning signs	nos				
3	Traffic rule signs	nos				
	Guide post	nos				
5	kilometer posts	nos				
	G) Profile and Road Width					
	Gravel Thickness					
	Camber					
3	Usable Road Surface Width					
	H) Embankment and Slopes					
1	Embankment slopes	m				
2	Slopes in cuts	m				

Appendix 6-1 Service Level Selection Form (Paved Road)

Road Authority			
Contractor			
Project			
Road Name/Chainage			
Road Class	Standard Service Level	PH / PS	
Inspected By			

Category	Service Scope		Service Criteria (PAVED ROAD)	Items to apply	Remark 1. Selection of Service Criteria :In case there is no road asset to apply, the service criteria shall not be applied 2. Time allowance and Permissible Tolerance: modify according to site condition requirement
		1	Passability		
		2	Road Works Advance Warning Sign		
	A) Road Usability	3	(Roughness)		
	roud Coucinty				
		1	Road Cleanliness		
		2	Potholes		
		3	Cracking in flexible Pavement		
		4	Multiple cracks in the pavement		
		5	Rutting		
	B) Pavement,	6	Ravelling		
Road User Comfort	Shoulders and ROW for Paved	7	Loose pavement edges		
	Roads	8	Height of shoulders vs. height of pavement		
		9	Paved shoulders		
		10	Cracks in Concrete Pavement		
		11	Interlocking Block Pavement		
		12	Medians		
		1	Side Drains, Mitre Drains and cut off drains		
	C) Drainage	2	(lined) Side Drains, Mitre Drains and cut off drains		
		3	(unlined) Culverts and Access Drifts		
		4	Scour Checks, Gabions and other erosion		
			protection structures		
		5	Manholes and Gulleys		
		1	Vegetation free zone		
	D) Vegetation	2	Outer/inner vegetation Growth encroaching into vegetation free zone		
		3	from the side or top		
		4	Trees within ROW		
		1	Concrete structures		
	E) Structures	2	Steel Structures		
			Expansion joints		
Road Durability		4	Riverbeds		
		1	Warning signs/Mandatory signs Information signs, Edge marker posts, Guide		
		2	posts, Kilometer Post		
	F) Road Furniture	3	Traffic Signals		
		4	Street Lighting		
		5	Road Marking/Road Studs		
		6	Guard rails and pedestrian rails		
	C) Profile - 1				
	G) Profile and Road width				
	m F 1 .	1	Embankment slopes		
	H) Embankment and Slopes	2	Slopes in Cuts		

Appendix 6-2 Service Level Selection Form (Unpaved Road)

Road Authority		
Contractor		
Project		
Road Name/Chainage		
Road Class	Standard Service Level	UNH / UNS
Inspected By		

Inspected By					
Category	Service Scope		Service Criteria (UNPAVED ROAD)	Items to apply	Remark 1. Selection of Service Criteria :In case there is no road asset to apply, the service criteria shall not be applied 2. Time allowance and Permissible Tolerance: modify according to site condition requirement
		1	Passability		, , ,
		2	Traffic Regulatory Control Signs		
Road Usability	A) Road Usability	3	Road Works Advance Warning Sign		
		4	Average Traffic Speed or Roughness		
		5	Minimum Traffic Speed		
		1	Road Cleanliness		
		2	Corrugation Amplitude		
		3	Rut Depth		
		4	Potholes		
	B) Pavement, Shoulders and				
Road User Confort	ROW for Paved Roads				
	C) Drainage	1	Side Drains, Mitre Drains and cut off drains		
		2	Culverts and Access Drifts		
		3	Scour Checks, Gabions and other erosion protection structures		
			protection structures		
	D) Vegetation	1	Vegetation free zone		
		2	Outer/inner vegetation		
		3	Growth encroaching into vegetation free zone from the side or top	2	
		4	Trees within ROW		
		1	Concrete structures		
		2	Expansion joints		
	E) Structures	3	Riverbeds		
Road Durability					
		1	Warning signs/Mandatory signs		
		2	Information signs, Edge marker posts, Guide posts, Kilometre Post		
	F) Road Furniture	3	Guard rails and pedestrian rails		
		1	Gravel Thickness		
	G) Profile and Road width	2	Camber		
		3	Usable Road Surface Width		
		1	Embankment slopes		
	H) Embankment and Slopes	2	Slopes in Cuts		
					•

Road Manager

Road Au	ıthority						
Contra	actor						
Proje	ect						
Road Name	/Chainage						
Road (Class			Standa	ard Service Level		
e							
Date			Weather				
C Work Oper	eations						
Chair				A			Phot
From	То			Activity I	Description		No,
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Descri		Plate No,	Photo No,		Category	number	Phot No,
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Descri	ption	Quantity	No,]	Description	Quantity	No,
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Road Authority		
Contractor		
Project		
Road Name/Chainage		
Road Class	Standard Service Level	

Patrol

Date	Weather	

Cleanliness/Obstacles

Chainage	Ti	me	Remarks	Photo
Chamage	Detection	Removal	Remarks	No,

Any other activities undertaken

Chainage	Objects, Condition, other information	Photo No,

Admission

Personal	Name	Sign	Date
Self Control Unit			
Road Manager			

Road Authority		
Contractor		
Project		
Road Name and Chainage		
Road Class	Standard Service Le	evel
No DATE	D/	ΔTF

No,	DATE	DATE
Photo	Photo file size : less than 300kB	Photo file size : less than 300kB
Remarks		
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Remarks		
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Remarks		

Appendix 10 Incident Condition and Activity Report

Sheet of

Basic Information							
Road Authority							
Contractor							
Project							
Road Name/Chainage							
Road Class			Standard S	Service Level			
Incident Notification Date/Time	Caller		T	Phone No,	;		
/Chainage or Location							
Information Resource	Road Auto	cority, Police,	Engineer,	Road Users,	Others()	
Nature of Incident							
Location of Incident							
Condition of Accident Vehicles							
Number/Conditions of injured People							
Description							
Site Condition (Any road asset damaged	by the acciden	nt)				Pho No	
Assets			Damage co	ndition			

Appendix 11 Defect Detection/ Rectification Record Form Road Authority Contractor Project Road Name Category Service Scope Service Level Servie Criteria Detection Rectification (to be filled by SCU or PM) (to be filled by EXU) No Remark Description Compliance (Yes/No) Date Location 1 2 5 6 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 88 30

ppen	dix 12-16	a) Dets	nil Self Inspection Result Report Form (Paved	l Road))			She	eet 1 of	5																					
Project		, 200			nth, Year,Contra	act Mont	h				1	7			7	7	7	<mark>7</mark>	7	7	7	7	7								
Road Autho	rity			Contract	tor		1				1	<u>†</u>	<u>/</u>	<u>†</u>	<u>f</u>	<u>f</u>	<u>†</u>	<u>f</u>	<u>f</u>	†	†										
Road Name	Chainage			Road Class	s																										
Standard Se					Inspected Chai			Vm 0	-000-6+700	6.7																					
	t Verification			/N	Number of Sub S	Sections		Kili O	000-0+700	0.7																					
71. Documer	· · · · · · · · · · · · · · · · · · ·		1 Work Program																												
Dooumant		1	Defect/Retification List(Appendix 11) Self Inspection Result Form (Appendix 12 and 13)							-	H																				
Document		1	4 Payment Reduction Calculation Form (Appendix 14) 5 Monthly Statement (Appendix 15)							-	H																				
			Compliance																												
B. Site Veri	ication		Performance	- 1							_			Cub C	Sub Section of Co.	Sub Section of Compliance	Sub Section of Compliance ("Dece"-	Sub Section of Compliance ("Desc"-1 "Ecil"-6	Sub Section of Compliance ("Pass"=1, "Fail"=0)	Sub Section of Compliance ("Base"-1 "Eail"-(I)	Sub Section of Compliance ("Page" 1 "Egil" 1)	Sub Section of Compliance ("Base"-1 "Ecil"-(1)	Sub-Section of Compliance ("Dece"—1 "Egil"—(I)	Sub Section of Compliance ("Dece"-1 "Fail"-0)	Sub Section of Compliance ("Dece"-1 "Fail"-(1)	Sub Section of Compliance ("Dece"-1 "Egil"-(1)	Sub-Section of Compliance ("Dage"=1 "Egil"=())	Sub Section of Compliance ("Dece"-1 "Egil"-(I)	Sub-Section of Compliance ("Boos" at "Esti" (1)	Sub-Section of Compliance ("Been" of "Estil" ()	Sub-Section of Compliance ("Decs"-1 "Exit"-())
			renormance							1				3003	Sub Section of Con	Sub Section of Compitance	Sub Section of Computation (Pass =	Sub-Section of Compitance (rass =1, ran =0	Sub-Section of Compnance (rass =1, Pair =0)	Sub Section of Comphance (Pass =1, Pan =0)	Sub-Section of Compinance (rass =1, ran =0)	Sub-Section of Compitance (Pass = 1, Pan = 0)	Sub Section of Compinance (rass =1, ran =0)	Sub-Section of Compitance (rass =1, Pair =0)	Sub Section of Compinance (rass = 1, ran = 0)	Sub-Section of Computation (Fass -1, Fatt -0)	Sub-Section of Compinance (rass = 1, ran = 0)	Sub-Section of Companies (rais = 1, rain = 0)	Sur Section of Compinance (rass -1, ran -0)	Stu Section to Companie (rass -1, ran -0)	Sur Section of Compinance (Fass -1, Fair -0)
Service	Service Scope	Selectio n*1	Service criteria		1 2 3	4 5	5 6	7 8	9 10 11	12		13 14 15 16	13 14 15 16 17 18	13 14 15 16 17 18 19 20	13 14 15 16 17 18 19 20 21 22	13 14 15 16 17 18 19 20 21 22 23 24	13 14 15 16 17 18 19 20 21 22 23 24 25	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 3	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49
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Usability	Usability										٠		- 																		
			calculation			HΤ			-	H																					
			Compliance of A) 1 Cleanliness of the road		++			-		+																					
			2 Potholes																												
			Cracking in flexible Pavement Multiple cracks in the pavement							++																					
	n) n		4 Multiple cracks in the pavement 5 Rutting				+			+	_																				
Road	B) Pavement, Shoulders and	1	6 Ravelling																												
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			10 Cracks in Concrete Pavement								_																				
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			12 Medians Compliance of B)		++			-		+																					
			1 Side Drains, Mitre Drains and cut off drains (lined)																												
			2 Side Drains, Mitre Drains and cut off drains (unlined)								_																				
	C) Drainage		Culverts and Access Drifts Scour Checks, Gabions and other erosion protection structures				+	-		-	_																				
			Scour Checks, Gabions and other erosion protection structures Manholes and Gulleys				+			+	_																				
			Compliance of C)																												
			1 Vegetation free zone					-	-	++																					
	D) Vegetation		Outer/inner vegetation Growth encroaching into vegetation free zone from the side or to	ip		-	-			++																	╶┼╌╏┈┇═┇═┋ ┈┼╌┼╌╂╌┼╌┼╌╂╌╂╌┼╌┼╌╂╌╂╌┼┼┼┼┼┼┼	╶┤╌<mark>╏┈╬┈╬┈┩┈</mark>┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈			
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			2 Steel Structures			-	+	-		+	_																				-
	E) Structures		3 Expansion joints								L																				
Road Durabilit			4 Riverbeds Compliance of E)		++	\vdash	+		-																- 						
V V			Compliance of E) 1 Warning signs/Mandatory signs			+	+	+																							
			2 Information signs, Edge marker posts, Guide posts, Kilometer Po	ost			ш																								
	F) Road		3 Traffic Signals			+	+	$+$ \downarrow		+																					
	Furniture		4 Street Lighting 5 Road Marking/Road Studs			-	+	+		+	_																				
			6 Guard rails and pedestrian rails																												
	C) PC!	1	Compliance of F)					$-\Box$																							
	G) Profile and Road	1					-			+-																					
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	or Unpaved.		Compliance of G)																												
	H)		1 Embankment slopes							+																	╶┤╸╏╸<mark>┪╸┪╸┩╸</mark>┩╸╎╸┤╺┦╸╂╺┦╺┦╸┨╸┨╸┨╸╏╸┩╺┦╸┩╺┦╸╏╸╏╸╏╸				
	Embankment		2 Slopes in Cuts		++-					+																					
	and Slopes		Compliance of H)																												

Apper	dix 12-1(a) Detail	Self Inspection Result Report Form (Pave	ed Road)				Sh	ieet	of 5																								
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1. Docum	ant vernication	1 1	Work Program		1																_														
		1 2	Defect/Retification List(Appendix 11) Self Inspection Result Form (Appendix 12 and 13)		1								-					+-+																	
Document		1 4	Payment Reduction Calculation Form (Appendix 14)		1																L														
		1 5	Monthly Statement (Appendix 15)		1																														
B. Site Ve	ification		Compliance		1																	_	<u></u>												
J. DIC TO	meuton		Performance													Sub Se	ction of C	Complian	ce ("Pass	"=1, "Fail"	=0)														
Service	Service Scope	Selectio n*1	Service criteria		1 2	3	4 5	6	7 8	9 10	11 1	2 13 1	4 15	16 17	18	19 20	21 22	2 23	24 25	26 27	28 29	30		31 32	31 32 33 3	31 32 33 34 35	31 32 33 34 35 36 37	31 32 33 34 35 36 37 38	31 32 33 34 35 36 37 38 39 40	31 32 33 34 35 36 37 38 39 40 41	31 32 33 34 35 36 37 38 39 40 41 42	31 32 33 34 35 36 37 38 39 40 41 42 43 44	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
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	A)	1 2	Passability Road Works Advance Warning Sign (Roughness)			1		1	1 1	1 1	1 1	1 1 1	1	1 1	1	1 1	1 1	1	1 1	1 1		1			1 1 1										
Road	n' i	1 3	(Roughness)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1		1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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			Compliance of A)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1		1 1	1 1 1	1 1 1 1 1	 	 	 	 	 	 , , , , , , , , , ,			
		1 1	Road Cleanliness			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	7	1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1							
		1 2	Potholes Cracking in flexible Pavement			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1		1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1			1 1 1 1 1 1 1 1 1 1 1 1				
		1 3	Cracking in flexible Pavement		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1		1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		1 4	Multiple cracks in the pavement Rutting			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1	1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	B) Pavement.	1 5	Rutting			1	1 1	1	1 1	1 1	1 1	1 1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	4	1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Road	Shoulders and	, 1 6	Ravelling			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	Į.	1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
User Confort	ROW for	1 /	Loose pavement edges Height of shoulders vs. height of pavement			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1	1	1 1	1 1 1 1		1 1 1 1 1 1 1							
Contort	Paved Roads		Paved shoulders Paved shoulders		1 1		1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1	1	1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1		- 1	- 1 1 1 1 1 1 1 1 1 1 			
			Cracks in Concrete Pavement		1 1		1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	+	1	1	1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	<u>, , , , , , , , , , , , , , , , , , , </u>	 			
		i	Interlocking Block Pavement			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	i	1	1 1 1	1 1 1 1 1								
			2 Medians			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	Ť	1	1 1 1	1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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		1 1	Side Drains, Mitre Drains and cut off drains (lined)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	L	1 1	1 1 1 1	1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		1 2	Side Drains, Mitre Drains and cut off drains (unlined)			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1		1 1	1 1 1 1	1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	C) Drainage	1 3	Culverts and Access Drifts Scour Checks, Gabions and other erosion protection structures			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1		1 1	1 1 1 1	1 1 1 1 1							
			Manholes and Gulleys			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1 1	1 1	1	1	1 1	1 1 1	1 1 1 1							
		-	Compliance of C)			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1				
		1 1	Vegetation free zone			1	1 1	1	1 1	1 1	1 1	1 1	. 1	1 1	1	1 1	1 1	. 1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		1 2	Outer/inner vegetation Growth encroaching into vegetation free zone from the side or			1	1 1	1	1 1	1 1	1 1	1 1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	D) Vegetation	n 1 3	Growth encroaching into vegetation free zone from the side or	top	1 1	1	1 1	1	1 1	1 1	1 1	1 1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		1 4	Trees within ROW		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
			Compliance of D)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1							
		1	Concrete structures Steal Structures		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1						
	E) Structures	1 2	Steel Structures Expansion joints		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1							
Road	L) Structures	1 4	Riverbeds		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1
Durabilit			Compliance of E)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
у		1 1	Warning signs/Mandatory signs		1 1	- 1	1 1	1 .	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	- 1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		1 2	Information signs, Edge marker posts, Guide posts, Kilometer	Post	1 1	1	1 1	1	1 1	1 1	1 1	1 1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	F) Road	1 3	Information signs, Edge marker posts, Guide posts, Kilometer Traffic Signals Street Lighting			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Furniture	1 4	Street Lighting			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1						
		1 5				1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1			
		- (Guard rails and pedestrian rails Compliance of F)			1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	G) Profile and	1	Compnance of F)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1		+	1	1 1 1	1 1 1 1	1 1 1 1 1 1						
	Road				+	+	+	++	-							\top		++				T		++	+			- - - - 		- - - - -					
	width*only				$\Box \top$						\perp							\perp				1		$\Box \top$	_										
	for Unpaved.		Compliance of G)																																
	H)		Embankment slopes									1 1							1 1																
	Embankment	1 2	Slopes in Cuts		1 1	1	1 1	1	1 1	1 1	1 1	1 1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1 1		1 1	1 1 1	1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1
	and Slopes	——	Compliance of H)		1 1	1	1 1	1	1 1	1 1	1 .	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1 1	ı	1 1	1 1 1	1 1 1 1	1 1 1 1 1	1 1 1 1 1 1		1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1	1 1	(Comphanic of II)		1 1	1	1 1	1	1 1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1 1	1 1 1 1	1 1	4	1	1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1

Apper	<u>ıdix 13-1</u>	(a) Su	ımr	nary Self Inspection Report Form (Paved	Road)								Sh	neet	3	of	5
Project					Mo	nth, Y	ear,C	Contra	act M	onth							
Road Auth	nority				Contrac	ctor											
Road Nam	ne/Chainage				Road	l Clas	s										
			_			Insp	ected	Chai	inage			Г	**	0 0	00.6	700	
	Service Level				/1	Numb	er of	Sub S	Section	ns			Kn	n 0+0	00-6-	-700	6.7
A. Docum	ent Verification	n 1	1	Work Program													
		1		Defect/Rctification List(Appendix 11)		_											
		1	_	Self Inspection Result Form (Appendix 12 and 13)													
Document		1		Payment Reduction Calculation Form (Appendix 14)													
		1	5	Monthly Statement (Appendix 15)												Co	mpliance=1
				Compliance													0
B. Site Ve	rification			Performance		Ç.,	l. C	4:	- f C -	1:		"D	" 1	107-31	. 0)		Total Non-
				Performance		Su	b Sec	tion (or Co	прпа	ince (Pass	=1,	ran	=0)	Total	complied
C:	Service	Selectio		Committee and the contraction		١,	2	3	4	_		7	0	9	10	Complie d	(km) to payment
Service	Scope	n*1		Service criteria		1	2	3	4	5	6	7	8	9	10	(km)	reduction calculation
					1	-											sheet
			1	Passability	km	H		 		<u> </u>	-	 	 	 	-		
	A)		2	Road Works Advance Warning Sign													
Road Usability	Road		3	(Roughness)		1									<u> </u>		
Usability	Usability					1											
				Compliance of A)												0.0	6.7
			2	Cleanliness of the road Potholes		-									<u> </u>		
			3	Cracking in flexible Pavement													
	B)		4	Multiple cracks in the pavement													
D 1	Pavement,		5	Rutting													
User Confort	Shoulders		6 7	Ravelling Loose pavement edges													
	and ROW			Height of shoulders vs. height of pavement		l											
	for Paved Roads		9	Paved shoulders													
	Rouds			Cracks in Concrete Pavement Interlocking Block Pavement		-											
				Medians					-								
				Compliance of B)												0.0	6.7
			2	Side Drains, Mitre Drains and cut off drains (lined)					_								
			3	Side Drains, Mitre Drains and cut off drains (unlined) Culverts and Access Drifts													
	C) Drainage		4	Scour Checks, Gabions and other erosion protection structures													
			5	Manholes and Gulleys													
			1	Compliance of C) Vegetation free zone												0.0	6.7
	D)		2	Outer/inner vegetation													
	Vegetation			Growth encroaching into vegetation free zone from the side or	or												
	-		4	Trees within ROW Compliance of D)												0.0	6.7
			1	Concrete structures													
	E)		2	Steel Structures													
	Structures			Expansion joints Riverbeds													
Road			7	Compliance of E)												0.0	6.7
Durabilit v			1	Warning signs/Mandatory signs													
,			3	Information signs, Edge marker posts, Guide posts, Kilometer I Traffic Signals	os	1											
	F) Road		4	Street Lighting		H											
	Furniture		5	Road Marking/Road Studs													
			6	Guard rails and pedestrian rails Compliance of F)		<u> </u>		<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	0.0	6.7
	G) Profile			Compnance of F)		H		\vdash				\vdash	\vdash	\vdash	\vdash	0.0	0.7
	and Road																
	width*only					<u> </u>		<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
	for Unpaved.			Compliance of G)		H		\vdash			\vdash	\vdash	\vdash	\vdash	 	-	
	Н)		1	Embankment slopes													
	Embankmen		2	Slopes in Cuts		F		lacksquare			lacksquare	lacksquare	lacksquare	lacksquare	lacksquare		
	t and Slopes		<u> </u>	Compliance of H)		₽—	-	<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	0.0	6.7

Appen	Appendix 13-1 (a) Summary Self Inspection Report Form (Paved						Road)							neet	3	of	5
Project			ABC	Road PBC Maintenance Project	Mo	onth, `	Year,C	Contra	act M	onth		Se	ptem	ber		2014	3
Road Auth	ority		KeN	HA or KURA or KeRRA or KWS	Contra	ctor	XYZ	Z Con	tracto	or							
Road Nam	e/Chainage		ABC	Road	Road	l Clas	ss	A, B	, C, I), E,	Uncla	ssifie	d, Uı	ban F	Road		
Standard S	Service Level		High	or Standard			ected		_				Kı	n 0+0	0-10	+00	10
A. Docume	ent Verification	1	-		/1	Nume	er of	Sub S	sectio	ns							
		1	1	Work Program		1											
		1	2	Defect/Retification List(Appendix 11)		1											
Document		1	3	Self Inspection Result Form (Appendix 12 and 13)		1											
		1	4	Payment Reduction Calculation Form (Appendix 14)		1											
		1	5	Monthly Statement (Appendix 15)		1										Co	mpliance=1
B. Site Ver	rification			Compliance		1											1
b. Site ver	inication			Performance		Su	ıb Sec	tion o	of Co	mplia	ince ("Pass	"=1. ["]	"Fail"	(0=)		Total Non-
						-	1						-,		- <i>'</i>	Total	complied
g :	Service	Selectio		0		١,	2	2	١,	_		7	0		10	Complie d	(km) to payment
Service	Scope	n*1		Service criteria		1	2	3	4	5	6	7	8	9	10	(km)	reduction calculation
						_											sheet
		1	1	Passability	km	1	1	1_	1	1	1	1	1	1	1		
	.	1	2	Road Works Advance Warning Sign		1	1	1	1	1	1	1	1	1	1		
Road	A) Road	1	3	(Roughness)		1	1	1	1	1	1	1	1	1	1		
Usability	Usability														L		
	1	0		Compliance of A)		1	1	1_	1_	1	1	1	1	1	1	10.0	0.0
		1	1	Road Cleanliness		1	1	1	1	1	1	1	1	1	1	10.0	0.0
		1	2	Potholes		1	1	1	1	1	1	1	1	1	1		
		1	3	Cracking in flexible Pavement		1	1	1	1	1	1	1	1	1	1		
	B)	1	4	Multiple cracks in the pavement		1	1	1	1	1	1	1	1	1	1		
User Confort	Pavement,	1	5 6	Rutting Ravelling		1	1	1	1	1	1	1	1	1	1		
	Shoulders	1	7	Loose pavement edges		1	1	1	1	1	1	1	1	1	1		
	and ROW	1	8	Height of shoulders vs. height of pavement		1	1	1	1	1	1	1	1	1	1		
	for Paved Roads	1	9	Paved shoulders		1	1	1	1	1	1	1	1	1	1		
	Roaus	1	10	Cracks in Concrete Pavement		1	1	1	1	1	1	1	1	1	1		
		1	11	Interlocking Block Pavement Medians		1	1	1	1	1	1	1	1	1	1		
		0	12	Compliance of B)		1	1	1	1	1	1	1	1	1	1	10.0	0.0
		1	1	Side Drains, Mitre Drains and cut off drains (lined)		1	1	1	1	1	1	1	1	1	1		
		1	2	Side Drains, Mitre Drains and cut off drains (unlined)		1	1	1	1	1	1	1	1	1	1		
	C) Drainage	1	3	Culverts and Access Drifts		1	1	1	1	1	1	1	1	1	1		
		1	5	Scour Checks, Gabions and other erosion protection structures Manholes and Gulleys		1	1	1	1	1	1	1	1	1	1		
		0		Compliance of C)		1	1	1	1	1	1	1	1	1	1	10.0	0.0
		1	1	Vegetation free zone		1	1	1	1	1	1	1	1	1	1		
	D)	1	2	Outer/inner vegetation		1	1	1	1	1	1	1	1	1	1		
	Vegetation	1	3	Growth encroaching into vegetation free zone from the side or to Trees within ROW	ot	1	1	1	1	1	1	1	1	1	1		
		0		Compliance of D)		1	1	1	1	1	1	1	1	1	1	10.0	0.0
		1	1	Concrete structures		1	1	1	1	1	1	1	1	1	1		
	E)	1	2	Steel Structures		1	1	1	1	1	1	1	1	1	1		
	Structures	1	4	Expansion joints Riverbeds		1	1	1	1	1	1	1	1	1	1		
Road		1	4	Compliance of E)		1	1	1	1	1	1	1	1	1	1	10.0	0.0
Durabilit		1	1	Warning signs/Mandatory signs		1	1	1	1	1	1	1	1	1	1		
У		1	2	Information signs, Edge marker posts, Guide posts, Kilometer P	os	1	1	1	1	1	1	1	1	1	1		
	F) Road	1	3	Traffic Signals		1	1	1	1	1	1	1	1	1	1		
	Furniture	1	5	Street Lighting Road Marking/Road Studs		1	1	1	1	1	1	1	1	1	1		
		1	6	Guard rails and pedestrian rails		1	1	1	1	1	1	1	1	1	1		
		0		Compliance of F)		1	1	1	1	1	1	1	1	1	1	10.0	0.0
	G) Profile	0															
	and Road	0	-			1			<u> </u>		-			-	<u> </u>	-	
	width*only for	0	<u> </u>			1	1			-					1	1	
	Unpaved.			Compliance of G)		t											
	Н)	1	1	Embankment slopes		1	1	1	1	1	1	1	1	1	1		
	H) Embankmen	1	2	Slopes in Cuts		1	1	1	1	1	1	1	1	1	1		
	t and Slopes			lo " em				4								10.0	0.0
	I	0		Compliance of H)		1	1	1	1	1	1	1	1	1	1	10.0	0.0

Appendix 14 Payment Reduction Calculation Table (Paved Road)

Project									
Road Authority				Contractor					
Road Name/ C	class/ Chainage/ (j)Length					Road Class			10.0km
Statement Month/ Year and Elapse of Month					Sta	ndard Service	Level	High or Star	ndard

Contract Due Amount of the Month (x) KSH

Serv	ice Level Criteria		Compliance				Red	uction			
Service	Service Scope	(a) Contract Road Length (km)	(b) Required Target	(c)=(a)*(b) Target Length (km)	(d)=(a)-(c) Exemption Length (km)	(e) Non- Compliant Length (km)	(f)=(e)-(d) (>=0) Adjusted Non- Compliant Length (km)	(g)=(f)/(c) NON- Compliant Rate	(h) Reduction Weight	(i)=(g)*(h) Reduction Rate (%)	(j)=(c)x(i) Reduction Length (km)
Documentation		10.0	100%	10.0	=	-	=	0%	4%	0.0%	0.00
1. Road Usability	A) Road Usability	10.0	100%	10.0	0.0		0.0	0%	40%	0.0%	0.00
2.Road User Confort	B)Pavement, Shoulders	10.0	100%	10.0	0.0		0.0	0%	50%	0.0%	0.00
	C)Drainage	10.0	100%	10.0	0.0		0.0	0%	30%	0.0%	0.00
	D)Vegetation	10.0	100%	10.0	0.0		0.0	0%	30%	0.0%	0.00
	E) Structures	10.0	100%	10.0	0.0		0.0	0%	20%	0.0%	0.00
3. Road Durability	F) Road Furniture	10.0	100%	10.0	0.0		0.0	0%	20%	0.0%	0.00
	G) Profile and Road Width (unpaved)				Not Ap	plied					
	H) Embankment and Slopes	10.0	100%	10.0	0.0		0.0	0%	6%	0.0%	0.00
	(k) Total = 0.0%							0.00			

200%

Sheet 5 of 5

Required Target			
Elapse of Month	1. Road Usability	2. Road User Comfort	3. Road Durability
1	50%	50%	50%
2	100%	75%	75%
3	100%	100%	100%
4	100%	100%	100%
5	100%	100%	100%
6	100%	100%	100%
7~	100%	100%	100%

Calculation of the Payment Amount of the Month									
Contract Due Amount of the Month KSH 0 (x)									
Reduction Rate	%	0.0%	(k)						
Reduction Amount	KSH	0	(z)=(x)x(k)						
Payment Amount of the Month	KSH	0	(y)=(x)-(z)						

Appendix 15 Payment Reduction Calculation Table (Unpaved Road)

Project	ABC Road PBC Maintenance	C Road PBC Maintenance Project							
Road Authority	KeNHA or KURA or KeRRA	or KWS	WS Contractor XYZ Contractor						
Road Name/ C	Class/ Chainage/ (j)Length	ABC Road				Road Class	A, B, C, D, E,	Unclassified, Urban Road	15.0km
Statement Month	n/ Year and Elapse of Month	September	2014	1	Star	ndard Service	Level	High or Standard	

Contract Due Amount of the Month (x) 500,000 KSH

Serv	ice Level Criteria		Compliance				Red	luction			
Service	Service Scope	(a) Contract Road Length (km)	(b) Required Target	(c)=(a)*(b) Target Length (km)	(d)=(a)-(c) Exemption Length (km)	(e) Non- Compliant Length (km)	(f)=(e)-(d) (>=0) Adjusted Non- Compliant Length (km)	(g)=(f)/(c) NON- Compliant Rate	(h) Reduction Weight	(i)=(g)*(h) Reduction Rate (%)	(j)=(c)x(i) Reduction Length (km)
Documentation		15.0	100%	15.0	-	-	-	0%	4%	0.0%	0.00
1. Road Usability	A) Road Usability	15.0	50%	7.5	7.5	0.0	0.0	0%	40%	0.0%	0.00
2.Road User Confort	B)Pavement, Shoulders	15.0	50%	7.5	7.5	0.0	0.0	0%	40%	0.0%	0.00
	C)Drainage	15.0	50%	7.5	7.5	0.0	0.0	0%	30%	0.0%	0.00
	D)Vegetation	15.0	50%	7.5	7.5	0.0	0.0	0%	30%	0.0%	0.00
	E) Structures	15.0	50%	7.5	7.5	0.0	0.0	0%	20%	0.0%	0.00
3. Road Durability	F) Road Furniture	15.0	50%	7.5	7.5	0.0	0.0	0%	20%	0.0%	0.00
	G) Profile and Road Width (unpaved)	15.0	50%	7.5	7.5	0.0	0.0	0%	10%	0.0%	0.00
	H) Embankment and Slopes	15.0	50%	7.5	7.5	0.0	0.0	0%	6%	0.0%	0.00
									(k) Total =	0.0%	0.00

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Calculation of the Payment Amount of the Month

Contract Due Amount of the Month	KSH	500,000	(x)
Reduction Rate	%	0%	(k)
Reduction Amount	KSH	0	(z)=(x)x(k)
Payment Amount of the Month	KSH	500,000	(y)=(x)-(z)

Required Target			
Elapse of Month	1. Road Usability	2. Road User Comfort	3. Road Durability
1	50%	50%	50%
2	100%	75%	75%
3	100%	100%	100%
4	100%	100%	100%
5	100%	100%	100%
6	100%	100%	100%
7~	100%	100%	100%

Appendix 16 Summary o	f Statement for Payment Accor	unt (Monthl	y Statement)		
Contract No.					
	BASED ROAD MAINTENANCE CONTRACT F	-OR			CERTIFICATE NO.
Contractor:					VALUATION AS AT
CONTRACT SUM:		Region		Fin. Year	
		Administrative		Month	
		Previous	Certificate (Kshs)	This Certificate (Kshs)	Total (Kshs)
	ction Calculation Table(Appendix 14 or 15)				-
3. Instructed Works *if included in the	e contract		-	-	-
C. Sub-total of (A+B)	ANOF		-	-	-
D. REDUCTION FOR NON-COMPLIA					-
*(z) of Payment Reduction Calculation	on Table(Appendix 14 or 15)				
E. Sub-total of (C+D)	NDV (F)		-	-	-
TOTAL VALUE OF WO			-	-	-
F. ADD II	6% VAT (16% of E) 5 % RETENTION		-	-	-
	3% WITHHOLDING TAX		-	-	-
	JLATIVE DEDUCTIONS (G+H)		-	-	-
	PAYMENT (E+F-I)		-	<u>-</u>	_
	NCE PAYMENT				
	VERY OF ADVANCE				
	REST ON LATE PAYMENTS		-	-	_
	IQUIDATED DAMAGES		_	_	-
	PAYMENT		_	-	-
		LESS PREVIO	US CERTIFICATES		-
			CONTRACTOR		-
Submitted by					
	Date			_ Date	
Contractor			TEAM LEADER		
hereby confirm the above rates & quantities are correct					
Checked by					
0110000	Date			_ Date	
SUPERVISOR			FNGINFFR (GM(M))		

Appendix 17 Monthly Evaluation Form

		Numb	er of elapsed month =	
Project Title				
Road Authority			Name	
Contractor		Project manager		
Date of checking		Assistants		

This form is used by Project manager to verify monthly performance for contract evaluation.

	Scope	Requirement	Pass or Fail*1
1	Service revel compliance		
	Self-control unit	1 Self-control unit is organized by proper contractor's member	
2		2 Self-control unit operates properly	
	performance	2 Self-control unit operates properly Pass or fail in total*2 1 Workers and operators wear proper safety gear 2 Traffic control is conducted properly 3 No accident of workers, operators attributable to the contractor 4 No accident of third-parties attributable to the contractor Pass or fail in total*2 1 Environmental consideration is properly conducted	
		1 Workers and operators wear proper safety gear	
	Work Safety Management		
3			
		Pass or fail in total*2	
		1 1 7	
4	Environment and social	2 Waste material generated from the site is properly disposed	
1	management	3 Transportation by vehicles is properly controlled	
		Pass or fail in total*2	
5	Corrective order	1 No corrective order is made by authority	
6	Statutory compliance	1 Contractor complied with relevant statutory regulations	

*1 Filling Example: "Pass"="1" "Fail" = "0" "Not applicable" = "N/A"	
--	--

In case of having more than one requirement in each evaluation scope, all the requirements except not applicable case shall be passed for pass evaluation in tota

A17-1 96

^{*2} Scoring criteria:

Appendix 18 Contract Evaluation Tally Sheet for PBC

Project Title	
Road Authority	
Contractor	
Date of Commencement	
Expected date of Completion	
Number of elapsed month	ns in the end of last year

	Date	Name	Signature
Project Manager			
Road Manager			

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

				Me	onthl	y Ev	aluat	ion						(a)	(b)	(c)	(d)	(f)
Item	No. of					Ŋ	ear ((2015	5)					No. of	(a)/	W : 1 . C	Score for	
Tools.	month with "Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	month with "Pass=1" in total	Total month (%)	Weight for each item	each item (b)*(c)	Penalty*1
1 Service revel compliance														0		50%	0	
2 Self-control unit performance														0		10%	0	
Work safety management														0		20%	0	
4 Environment and social management														0		10%	0	
5 Corrective order issuance														0		10%	0	
6 Statutory compliance														0				0
*1: Penalty of -20 point is given	for non-complianc	e in equ	ual or i	more t	han on	e mon	ıth										0	0

Sample Forms

Appendix 5-1 Road Asset Survey Sheet (1/2) for Paved Road

Road Name: Oging a - Odinga Name of Surveyor Robert Road Length: 6.7 Em Survey Date: 27/0/12016 ROW width: 20 m fonce 20.0 (R) (L) unlined 3+136~3+6Applical Cross Section Standard Seet. En (00 m Road Condition Simple Remark Actual Unit Dimension and Condition Quantity Quantity (ex.Qty to be Instructed Works) 1 Carriage way witdth m 6.0 Shoulder width (L) m 1.0 Shoulder width (R) m 1.0 Sidewalk width (L) 111 Sidewalk width (R) m 2.0 Pavement thickness 6 cm 10 Roa d Usability A) Road Usability 1 Average Roughness mm/m <3.0 Fisual inspection Road User Confort B) Pavement, Shoulders and ROW ex. Heavilly silted road edge area // Dm X 100 m X 2 sides = 200m² Road Cleanliness m2 200 ex. Dia>30cm : 30cm >Dia>15cm: 3 2 Potholes nos 8 Dia<15cm : 5 ex. Cracks more than 3mm Cracking in flexible Pavement m Multiple cracks in the ex. Arrigator cracks m2 pavement Rutting m2 6 Ravelling m2 Loose pavement edges m Height of shoulders vs. height 8 m of pavement Damaged Paved shoulders m ex. Cracks more than 3mm 10 Cracks in Concrete Pavement m Damaged Interlocking Block 11 m2 Pavement Medians 12 m

Appendix 5-1 Road Asset Survey Sheet (2/2) for Paved Road

	Road Name:	Ddinga - odinga RD
Name of Surveyor Pobert	Road Length:	6.7 tm
Survey Date: 27/0/12016	ROW width:	20 m

	Item	Unit	Simple Quantity	Actual Quantity	Dimension and Condition	Remark (ex.Qty to be Instructed Works)
Road	l Durability					
	C) Drainage					
1	Side Drains (lined)	m			C. H. malar I. I. T. C.	
	Side Drains (unlined)	m	200	100	100 m x 2 = 200 m	
8 1	Cross Culverts/Access Culverts	m	8.0			
	Catch Basin	nos	The second secon			The state of the s
5	Scour Checks	nos	Name (Control of the Control of the	to be and in the season of the		The state of the s
6	Manholes and Gulleys	nos	***************************************	AND THE PROPERTY OF THE PROPER		
7	TOTAL F PAR ARTHUR AND A APPEAR OF THE STREET AND ARTHUR ARTHUR AND ARTHUR AND ARTHUR AND ARTHUR ART			The state of the s		
	D)Vegetation					
1	Vegetation Free Zone	m2	(000		10 x 100 = 1000	Carriage way +sidewalks
2	Inner Vegetation Zone	m2	100		110×100 = 100	THE RESERVE OF THE PROPERTY OF
3	Outer Vegetation Zone	m2	600		(2.513.5) x 100 = 600	
4	Trees within ROW	nos	The second secon			and difficult and an observation about the first term of property of the property of the anti-anti-anti-anti-anti-anti-anti-anti-
	E) Structures		<u> </u>			
1	Concrete structures	nos				Concrete br. Box culverts
2	Steel Structure	nos				Stell bridge/pedestrian br.
3 1	Expansion joints	nos				
	River beds	nos				THE PROPERTY OF THE PROPERTY O
	F) Road furniture					
1 1	Information signs	nos	Parket and the second			
2	Warning signs	nos	ga printing.			
3	Fraffic rule signs	nos				
4 (Guide post	nos	Aller Chairmann Anna ann ann ann ann ann ann ann ann			
5 k	ilometer posts	nos		***************************************		
6 I	Road markings	m	300		100 x 3 = 300	
7 5	Street Lighting	nos		and the control of th		CONTROL CONTROL OF THE CONTROL OF TH
8 (Guard rail and pedestrian rail	m				
G) Profile and Road Width		······································			**************************************
T						
				Think CTV THE INCOMES WINNESS BEING MANNESS TERRACIONALE TO SEA		
			PER TEN TE EN TENTE PER EN			
H)) Embankment and Slopes					
1 E	Embankment slopes	m				
2 S	lopes in cuts	m		arte capan, a ma amp para a samuja mana ana ma a samu simun spipa gar		ta en 1900 fan 1800 (190) (1900 (190) (1900 (190) (1900)(190)(1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900

Appendix 6-1 Service Level Selection Form (Paved Road)

Road Authority	KURA		
Contractor			
Project	KURA/RMLF/SE/267/2014-2015		
Road Name/Chainage	Oginga- Odinga Road		
Road Class	Urban	Standard Service Level PH	I (/ PS)
Inspected By	Robert		

Inspected By	ı	1		1	P
Category	Service Scope		Service Criteria (PAVED ROAD)	Items to apply	Remark 1. Selection of Service Criteria :In case there is no road asset to apply, the service criteria shall not be applied 2. Time allowance and Permissible Tolerance: modify according to site condition requirement
		1	Passability	1	
		2	Road Works Advance Warning Sign	✓	
Road Usability	A) Road Usability	3	(Roughness)	_	
		1	Road Cleanliness	/	
		2	Potholes	1	
		3	Cracking in flexible Pavement	/	
		4	Multiple cracks in the pavement	/	
		5	Rutting	1	
	B) Pavement,	6	Ravelling	1	
Road User Comfort	Shoulders and ROW for Paved	7	Loose pavement edges	/	
	Roads	8	Height of shoulders vs. height of pavement	/	
		9			
			Paved shoulders	✓ _	no concrete pavement
		10	Cracks in Concrete Pavement		no interlocking pavement
		11	Interlocking Block Pavement	_	no median
		12	Medians Side Drains, Mitre Drains and cut off drains	_	
	C) Drainage	1	(lined) Side Drains, Mitre Drains and cut off drains	1	
		2	(unlined)	1	
		3	Culverts and Access Drifts	1	
		4	Scour Checks, Gabions and other erosion protection structures	_	no scour checks
		5	Manholes and Gulleys	_	no manholes and gulleys
	_	1	Vegetation free zone	1	
	D) Vegetation	2	Outer/inner vegetation	1	
	D) vegetation	3	Growth encroaching into vegetation free zone from the side or top	1	
		4	Trees within ROW	1	
		1	Concrete structures	_	No bridge
	T) ()	2	Steel Structures	_	No steel structures
	E) Structures	3	Expansion joints	_	no brides
Road Durability		4	Riverbeds	_	No crossing rivers
		1	Warning signs/Mandatory signs	1	
		2	Information signs, Edge marker posts, Guide posts, Kilometer Post	1	
		3	Traffic Signals	_	No traffic signals
	F) Road Furniture	4	Street Lighting	1	
		5	Road Marking/Road Studs	1	
		6	Guard rails and pedestrian rails	_	No guard rails
	G) Profile and				
	Road width				
		1	Embankment slopes	_	No embankemnt slopes
	H) Embankment	2	Slopes in Cuts	_	No slides in cuts
	and Slopes		Stopes in Cuts	_	
]	

Appendix 11 Defect Detection/ Rectification Record Form

Road Authority	KURA			
Contractor	VESCOM E	UTERPRISES		N. STATE AND A STATE OF
Project	KURA/ RMLF	-1 SR/ 267/2014-2015	Road Name	Oginga- Odinga PD
	Category	ROAD DURABILITY		5 9 1 1 1 1 1 1 1
Service Level	Service Scope			
	Servie Criteria			

No			Rectifi (to be filled	Remark		
	Date	Location	Description	Date	Compliance (Yes/No)	
1	27/01/2016	3+500 × 3+600	Drainage			
2			- side drain (P) ? a-leal	1/02/2016	TES	
3			- side drain (P) } silted	1/02/2016	485	
4			Vesetation	1.		
5			- outer Vegetation (1)	1/02/2016	YES	
6						
7		3+600 N 3+700	Drainage			
8			-side drain (P) -5:17ed	1/02/2016	YES	
9						
10		3+700~ 3+800	Drainage			
11			- side dram (L)(R)	1/02/2016	765	
12			- rulvert situation	1/02/2016	YES	
13			Vegetation			
14		,	- inner/outer (R)	1/02/2016	YES	
15				1 - 1		
16			1-00			
17			aect in			
18			at Inspection			
19		/ 1				
20		Tormo				
21						
22		//				
23						
24						
25						
26						
27						
28						
29						
30						103

Appendix 7 Daily Work Record Form

Sheet of

Road A	Authority	KURA									
	tractor		Vescom Enterplises								
		V 62 CON	LATER	1 /		The second second					
Pr	oject	KURA	RWLF	SR/267/2014-	2015						
Road Nan	ne/Chainage			/	Λ	1					
Road	d Class	urban		Standard Service Level	Paved S	tandar					
ate					1						
Date	26/1/16		Weather	SUNNY							
PC Words On	aua4:aua			1							
BC Work Op	ninage		- Chin Colta - Table College (1981)		· · · · · · · · · · · · · · · · · · ·	Photo					
From	To			Activity Description		No,					
0100	0+100	Cutting 6	Y zone	etation / de-silting	lined drain	1					
0100	07.100	Coming	Deter Veg	dation fax-siling	HARA CIVILIVE	2					
		decitine	· un line	· drains		No.3					
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					- ,						
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Desc	ription	Plate No,	Photo	Category	number	Photo					
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				,	-						
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laterials Deliv	ered to Site		AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	aterials Removed from Sit	e						
Desc	ription	Quantity	Photo	Description	Quantity	Photo					
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						-					
102000000000000000000000000000000000000											
dmission	1			~.	Da						
Olivis - The Company Nation of the	sonal	Name Sign I									
Self Cor	ntrol Unit	sand	.0	*	26/1/	16					
Pond N	Manager	0		4							

Basic Informat	tion					
Road Authority		KURA				
Contractor		Vescom Entreritises				
Project		KURIA / RIMLE / SR /207 / 2014-2015				
Road Name/Chainage						
Road Class		Urban Standard Service Level Paved S				tandovo
Patrol						
Date	26/1/16		Weather SUNN			
GI 11 101	1.7					
Cleanliness/Ob	OF COLUMN ACIDS AND DESCRIPTION OF THE PERSONS ASSESSMENT OF THE PERSO				Broken estatuen mann etakan enken en erken	-
Chainage	Time Detection Removal		Remarks			Photo No,
	THE RESIDENCE ASSESSMENT OF THE PARTY.	Removal				140,
0100-0100	10 am		siltation obstruction in drain (R)			- 1
	10 am		inner vegetation along			2
	7		section 58			
	10:45 Hm	unlined draw Silted				3
						- 4
Any other activ	rities underta	ıken				
Chainage		Objects, Condition, other information				Photo No,
Admission	CONTROL OF THE PROPERTY OF THE					
Personal		Nai	me	Sion	Sign Date	
Self Control Unit		inver		2.51	26/1/1	6
Dood Managan		Janco	0	0	1	

Road Authority	KURA									
Contractor	Vescom Enterprises									
Project	KURA/RMLF/SR/267/2	KURA/RMLF/SR/267/2014-2015								
Road Name and Chainage										
Road Class	Urban	Standard Service Level	P.S							

No,	1 DATE	2016/1/26	2	DATE	2016/1/26
10:00 AM					
Remarks	desiltint lined drain, remova	al of obstructions	Cutting inner zon	e vegetation	
No,	3 DATE	2016/1/26		DATE	
10:45 AM			Photo	file size : les	ss than 300kB
Remarks	desiltint un-lined drain				
No,	DATE			DATE	
Photo	Photo file size : les	s than 300kB	Photo		ss than 300kB
Remarks					

Th.		w					
Ba	SIC	11	110	rm	a	tio	n

Road Authority	KURA			
Contractor	Vescom F	nterprises		7-50
Project	KURA/ RMI	F/SR/267	2014-2015	
Road Name/Chainage		1/		1
Road Class	whan	Standard Ser	vice Level Paver	Stanlord

Incident Notification	Caller Robert	Phone No, 072299 43 9 8
Date/Time /Chainage or Location	26/1/16 11am	ot400 - 01500 novernment vocal
Information Resource	Road Autority, Poli	ce, Engineer, Road Users, Others()
Mature of Incident	An out of Control	car hits a light role
Location of Incident	government voa	1 at400 of500
Condition of	J ,	
Accident Vehicles	Prive + saloon	Car
Number/Conditions		
of injured People	NO musies, b	ne Person Involved (diver)

Description

A privet saloon car lost control and hit a light pole, the Pole fell to the ground and was damaged but the light is in good condition. The car has light front bumper damage and the driver is ok. No other person was injuried

Site Condition (Any road asset damage	d by the accident)	Photo No,
Assets	Damage condition	
light pole	- The Pole fell on the ground, it's deformed and will need to be replaced.	

roject		KUR	A/RMLF/SR/267/2014-2015	Mo	onth, Ye	ear,Contr	act Mon	ıth	Januar	u	2016	7																										
oad Authority		KUR	A	Contrac	ctor V	Vescom I	Enterpris	ses					1																									
d Name/Chainage		Ogino	da- Odinga Rd	Road Clas	ss			1	Urban F	Road			1																									
dard Service Level		_	1 Standard		Inspe	cted Cha	iinage		1	m 0+000	-6+700	6.7	,																									
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	1	2	Defect/Retification List(Appendix 11)		1																										\equiv	\blacksquare			\blacksquare			ļ
ocument	1	3	Self Inspection Result Form (Appendix 12 and 13)		1		-									-	-	-	_						-			_				+	\leftarrow					I
	1	5	Payment Reduction Calculation Form (Appendix 14) Monthly Statement (Appendix 15)		1													++	\dashv				+			-						+			+	-		l
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Site Verification					1																																	
		-	Performance		<u> </u>												Sub Se	ection of	Compli	ance ("Pas	ss"=1, "F	ail"=0)																,
						İ																					- 1											I
Service Scope	Select n*1		Service criteria		1	2 3	4	5 6	7	8 9	10 1	1 12	13 1	4 15	16 17	18	19 20	21	22 23	24 25	5 26	27 2	8 29	30 3	1 32	33	34 3	5 36	37	38 3	9 40	41	42 4	43 44	45	46	47	
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, A)	1	2	Road Works Advance Warning Sign		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1					I	\equiv	I				j
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	-		Compliance of A) Road Cleanliness		1	1 1	1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1		\vdash	+	+	+	-	+	+	+	_	
			Potholes		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1		-	-	+	+	+	-	+	+	-+	\dashv	ĺ
	1		Cracking in flexible Pavement		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1					+	+	-	+	+	\dashv	\dashv	ĺ
	1		Multiple cracks in the pavement		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1											ĺ
B) Pavemen	nt I		Rutting		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1											ĺ
Road Chauldene			Ravelling		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1						ш			\perp			
User POW for		7	Loose pavement edges		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1					-	4-4		+	+	-		
Confort Paved Road	is I		Height of shoulders vs. height of pavement Paved shoulders		1		1	1 1	1	1 1	1 1	1	1 1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1		-		-	+	-	+	+			J
	0		Cracks in Concrete Pavement		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1		-	-	+	+	-	+	+	\rightarrow	_	
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	0		Side Drains, Mitre Drains and cut off drains (lined)																															I				ĺ
	1	2	Side Drains, Mitre Drains and cut off drains (unlined)		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1		0 1		1 1	1 1	1	1 1	1	1	1 1	1	1				-			4	$\downarrow \rightarrow$			ļ
C) Drainage	e 1	3	Culverts and Access Drifts		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	0 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1		-		-	44		+	+			ļ
_	0		Scour Checks, Gabions and other erosion protection structures Manholes and Gulleys		-		-			-+			+-+	+-		-		-	-				+			\vdash			-	+	+	+	-+	+	+	-+	\dashv	ŀ
	0		Compliance of C)		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1	+		+	+	+	-	+	+	-	\dashv	r
	1	1	Vegetation free zone		1		1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1			_	+	+		+	+		\dashv	ĺ
	1	2	Outer/inner vegetation		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1											ı
D) Vegetati	ion 1	3	Growth encroaching into vegetation free zone from the side or	top	1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1								\perp				ĺ
	1		Trees within ROW		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1				\bot	$\perp \! \! \perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	\vdash	\bot	\perp		_	+
	0		Compliance of D)		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1		\vdash	+	+	+	-	+	+	+	\dashv	t
	0		Concrete structures Steel Structures		++		+-+					+-	+-+	+-		-		-	-+	+	++		+			\vdash	-+		-	+	+	+-	-+	+	+	-+	\dashv	ľ
E) Structure		3	Expansion joints		+		+-+	+-	++	+	_	+	+	+-	-			+-+	\dashv	+	++		+		+-	\vdash	+	-	-	-	+	+	-+	+	+	+	\dashv	ĺ
oad	0	4	Riverbeds		T^{\dagger}		TT	1	\Box			+		\top							11		+		1		_	1			\top	+		\top	T	$\neg \dagger$	\exists	i
ırabilit			Compliance of E)																												I			I				i
	1	1	Warning signs/Mandatory signs		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1				丰	\Box	II.	丰	$\perp \Box$	\bot		+
	1	2	Information signs, Edge marker posts, Guide posts, Kilometer	Post	1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1		\vdash		+	\perp	-	+	\perp	\dashv		ł
F) Road	0		Traffic Signals Street Lighting		1	1 1	1	1 1	1	1 1	1 1	1	1	1	1 1	1	1 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1	-	\vdash		+	+	+	+	+	-+	\dashv	ł
Furniture		5	Road Marking/Road Studs			1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	1	1 1		1 1			1 1	1	1	1 1	1			\vdash		+	+-	-+	+	+	-+	\dashv	ſ
	0		Guard rails and pedestrian rails					- 1			1	1		1		-	1		- 1	- '	1		1					-	\vdash		+	+	-	+	+	+	\dashv	ĺ
			Compliance of F)		1	1 1	1	1 1	1	1 1	1 1	1	1	1 1	1 1	0	0 1	1	1 1	1 1	1	1 1	1	1	1 1	1	1				\top	+	-	\top	+	_		i
G) Profile a																															I			I				ļ
Road	0											\perp		\perp													\perp			\perp	T	\perp	L.	T	\bot		\Box	ļ.
width*only					ш		\perp				\vdash	_	\perp							\perp	\perp	_	\perp		_		_	_	\perp	\perp	\bot	$\perp \!\!\! \perp \!\!\! \perp$	\perp	\perp	\perp	_	_	H
for Unpaveo			Compliance of G) Embankment slopes		\vdash	-	++		\vdash	_	-	+	++	_				-	-	++	++	-	+			\vdash	+		\vdash	+	+	+	+	+	+	\dashv	\dashv	H
H)	0		Slopes in Cuts		++		++		+		+-+-	+-	+++	+-	-				+	+	+-+		+-			+	-+-		-	-	+	+	-+	+	+	-+	+	Г
Embankmer	nt		оторы ш сию		++		++		+			+-	+-+	+-		-	_	+-+	+	+-+	+-+		+	-+	+-	\vdash	-+-	+-	-	-	+	+	+	+	+	-+	-	٢
and Slopes			Compliance of H)		-	_	+ +	_	-	_	+	-	+	_						-	\rightarrow		+	-+	-	-	_		-	-	+	+	-	+	+	-	-+	г

Note: In order for the service scope to be cosidered as pass, all the service criterias items under the service scope must be in compliance.

Appen	dix 13-1	(a) Sı	ımr	nary Self Inspection Report Form (Paved 1	Road)	1							Sh	eet	1	of	1
Project			KUR	A/RMLF/SR/267/2014-2015	Mo	nth, Y	ear,C	Contra	ict M	onth		J	anuar	u		2016	7
Road Auth	ority		KUR	A	Contrac	ctor	Vesc	om E	nterp	rises							
Road Nam	e/Chainage		Ogin	da- Odinga Rd	Road	l Clas	s	Urba	ın Ro	ad							
Standard S	ervice Level		Davo	d Standard		Insp	ected	Chai	nage				Vm	0.00)0-6+	700	6.7
	ent Verification	,	1 ave	u Stanuaru	/1	Numb	er of	Sub S	ectio	ns			Kili	0+00	JU-U+	700	0.7
A. Docume	cht vermeation	1	1	Work Program		1											
		1	2	Defect/Rctification List(Appendix 11)		1											
Document		1	3	Self Inspection Result Form (Appendix 12 and 13)		1											
Document		1	4	Payment Reduction Calculation Form (Appendix 14)		1											
		1	5	Monthly Statement (Appendix 15)		1										Co	mpliance=1
B. Site Ver	rification		<u> </u>	Compliance		1											1
B. Bite ver				Performance		Su	b Sec	tion o	of Co	nplia	nce ('Pass'	"=1, "	'Fail"	=0)		Total Non-
Service	Service Scope	Selectio n*1		Service criteria		1	2	3	4	5	6	7	8	9	10	Total Complie d (km)	(km) to payment reduction calculation sheet
					km												
	l.,	1	2	Passability Road Works Advance Warning Sign		1	1	1	1	1	1	1					
Road	A) Road	0	3	(Roughness)													
Usability	Usability	0															
		0		Compliance of A)		1	1	1	1	1	1	0.7				6.7	0.0
		1	1	Road Cleanliness		1	1	1	1	1	1	1					
		1	2	Potholes		1	1	1	1	1	1	1					
		1	3	Cracking in flexible Pavement Multiple cracks in the pavement		1	1	1	1	1	1	1					
	B)	1	5	Rutting		1	1	1	1	1	1	1					
Road	Pavement, Shoulders	1	6	Ravelling		1	1	1	1	1	1	1					
User	and ROW	1	7	Loose pavement edges		1	1	1	1	1	1	1					
Confort	for Paved	1	9	Height of shoulders vs. height of pavement Paved shoulders		1	1	1	1	1	1	1					
	Roads	0	10	Cracks in Concrete Pavement													
		0	11	Interlocking Block Pavement													
		0	12	Medians Compliance of B)		1	1	1	1	1	1	0.7				6.7	0.0
		0	1	Side Drains, Mitre Drains and cut off drains (lined)			-	-	-	-	-	0.7				0.7	0.0
		1	2	Side Drains, Mitre Drains and cut off drains (unlined)		1	1	1	0	1	1	1					
	C) Drainage	0	3	Culverts and Access Drifts Scour Checks, Gabions and other erosion protection structures		1	1	1	0	1	1	1					
		0	5	Manholes and Gulleys													
		0		Compliance of C)		1	1	1	0	1	1	0.7				5.7	1.0
		1	2	Vegetation free zone Outer/inner vegetation		1	1	1	0	1	1	1					
	D)	1	3	Growth encroaching into vegetation free zone from the side or to	ot	1	1	1	1	1	1	1					
	Vegetation	1	4	Trees within ROW	•	1	1	1	1	1	1	1					
		0	1	Compliance of D) Concrete structures		1	1	1	0	1	1	0.7				5.7	1.0
	E.	0	2	Steel Structures													
	E) Structures	0	3	Expansion joints													
Road	Structures	0	4	Riverbeds													
Durabilit y		0	1	Compliance of E) Warning signs/Mandatory signs		1	1	1	1	1	1	1					
Ĭ		1	2	Information signs, Edge marker posts, Guide posts, Kilometer Po	osi	1	1	1	0	1	1	1					
	F) Road	0	3	Traffic Signals		1	1	1	1	1	1	1					
	Furniture	1	5	Street Lighting Road Marking/Road Studs		1	1	1	1	1	1	1					
		0	6	Guard rails and pedestrian rails													
	C) Pro£1a	0		Compliance of F)		1	1	1	0	1	1	0.7				5.7	1.0
	G) Profile and Road	0				1											
	width*only	0															
	for	0		Compliance of G)													
	H)	0	2	Embankment slopes Slopes in Cuts		1-											
	Embankmen	0		propes in cuts		1											
	t and Slopes	0		Compliance of H)													

Note: In order for the service scope to be cosidered as pass, all the service criterias items under the service scope must be in compliance.

Appendix 14 Payment Reduction Calculation Table (Paved Road)

Project	KURA/RMLF/SR/267/2014-2	2015						Contrac	t Period	12	
Road Authority	KURA			Contractor	VESCOM E	nterprise					
Road Name/	Class/ Chainage/ (j)Length	Goinga - Odinga Road	l			Road Class	Urban			6.7km	
Statement Mont	th/ Year and Elapse of Month	J anuary	2016	7	Sta	ndard Service	Level		Paved Stan	dard	
Contract Due Amo	ount of the Month (x)	134,	,000	KSH							
Serv	rice Level Criteria		Compliance				Red	uction			
Service	Service Scope	(a) Contract Road Length (km)	(b) Required Target	(c)=(a)*(b) Target Length (km)	(d)=(a)-(c) Exemption Length (km)	(e) Non- Compliant Length (km)	(f)=(e)-(d) (>=0) Adjusted Non- Compliant Length (km)	(g)=(f)/(c) NON- Compliant Rate	(h) Reduction Weight	(i)=(g)*(h) Reduction Rate (%)	(j)=(c)x(i) Reduction Length (km)
Documentation		6.7	100%	6.7	-	-	-	0%	4.6%	0.0%	0.00
1. Road Usability	A) Road Usability	6.7	100%	6.7	0.0	0.0	0.0	0%	46.0%	0.0%	0.00
2.Road User Confort	B)Pavement, Shoulders	6.7	100%	6.7	0.0	0.0	0.0	0%	57.5%	0.0%	0.00
	C)Drainage	6.7	100%	6.7	0.0	1.0	1.0	15%	34.5%	5.1%	0.34
	D)Vegetation	6.7	100%	6.7	0.0	1.0	1.0	15%	34.5%	5.1%	0.34
	E) Structures				Not Ap	oplied					0.00

6.7

0.0

Not Applied

Not Applied

1.0

(k)	Total	=
2	00%	

23.0%

3.4%

13.7%

Sheet 5 of 5

Required Target			
Elapse of Month	1. Road Usability	2. Road User Comfort	3. Road Durability
1	50%	50%	50%
2	100%	75%	75%
3	100%	100%	100%
4	100%	100%	100%
5	100%	100%	100%
6	100%	100%	100%
7~	100%	100%	100%

6.7

100%

3. Road Durability

F) Road Furniture

(unpaved)

G) Profile and Road Width

H) Embankment and Slopes

Calculation of the Payment Amount of the Month

15%

1.0

Contract Due Amount of the Month	KSH	134,000	(x)
Reduction Rate	%	13.7%	(k)
Reduction Amount	KSH	18,358	(z)=(x)x(k)
Payment Amount of the Month	KSH	115,642	(y)=(x)-(z)

0.23

0.00

0.92

Appendix 16 Summary of Statement for Payment Account (Monthly Statement) Contract No. KURA/RMLF/SR/267/2014-2015 CONTRACT NAME: PERFURMANCE-BASED ROAD MAINTENANCE CONTRACT FOR OF LOT 24 UGINGA UGINGA INCIUDING SECTION 58 100D FOAGS, General Kariba Road, West Road and Government Road in Nakuru Municipality CERTIFICATE NO. VALUATION AS AT Contractor: VESCOM Enterprise CONTRACT SUM: Region Fin. Year Administrative Boundary: 7 Month Previous Certificate (Kshs) Total (Kshs) This Certificate (Kshs) A. PBC Works *(x) of Payment Reduction Calculation Table(Appendix 14 or 15) 1,024,000.00 890.000.00 134.000.00 B. Instructed Works *if included in the contract C. Sub-total of (A+B) 890,000.00 134,000.00 1,024,000.00 D. REDUCTION FOR NON-COMPLIANCE (18,358.00)(578, 358.00)(560,000.00)*(z) of Payment Reduction Calculation Table(Appendix 14 or 15) E. Sub-total of (C+D) 330,000.00 445,642.00 115,642.00 TOTAL VALUE OF WORK (E) 330,000.00 115,642.00 445,642.00 F. ADD 16% VAT (16% of E) G. LESS 5 % RETENTION H. LESS 3% WITHHOLDING TAX (26,700,00) (4.020.00)(30,720.00)I. CUMMULATIVE DEDUCTIONS (G+H) (26,700.00) (4,020.00) (30,720.00)J. TOTAL PAYMENT (E+F-I) 303,300.00 111,622.00 414,922.00 K. ADVANCE PAYMENT .. RECOVERY OF ADVANCE M. INTEREST ON LATE PAYMENTS _ N.LESS LIQUIDATED DAMAGES O. NET PAYMENT 303,300.00 414,922.00 111,622.00 LESS PREVIOUS CERTIFICATES (303,300.00)NOW DUE TO CONTRACTOR 111,622.00 Submitted by Date..... Contractor **TEAM LEADER** I hereby confirm the above rates & quantities are correct Checked by Date..... Date..... SUPERVISOR ENGINEER (GM(M))

Appendix 17 Monthly Evaluation Form

Number of elapsed month =

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality
Road Authority	KURA
Contractor	VESCOM Enterprise
Date of checking	2-Feb-16

	Name
Project manager	
Assistants	

This form is used by Project manager to verify monthly performance for contract evaluation.

	Scope		Requirement								
1	Service revel compliance	1	1 Reduction rate for service level non-compliance is less than 5.0%								
	Self-control unit	1	Self-control unit is organized by proper contractor's member	1							
2		2	Self-control unit operates properly	1							
	performance	Pass	or fail in total*2	1							
		1	Workers and operators wear proper safety gear	1							
		2	Traffic control is conducted properly	1							
3	Work Safety Management	3	No accident of workers, operators attributable to the contractor	1							
		4	No accident of third-parties attributable to the contractor	1							
		Pass	or fail in total*2	1							
		1	Environmental consideration is properly conducted	1							
4	Environment and social	2	Waste material generated from the site is properly disposed	1							
'	management		Transportation by vehicles is properly controlled	1							
		Pass	or fail in total*2	1							
5	Corrective order 1 No corrective order is made by authority										
6	6 Statutory compliance 1 Contractor complied with relevant statutory regulations										

^{*1} Filling Example: "Pass"="1" "Fail" = "0" "Not applicable" = "N/A"

In case of having more than one requirement in each evaluation scope, all the requirements except not applicable case shall be passed for pass evaluation in tota

A17-5

^{*2} Scoring criteria:

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality					
Road Authority	KURA					
Contractor	VESCOM Enterprise					
Date of Commencement	1-Jul-15					
Expected date of Completion	31 June 2016					
Number of elapsed months in the end of last year 6						

	Date	Name	Signature
Project Manager	2-Feb-16		
Road Manager	2-Feb-16		

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

		Monthly Evaluation								(a)	(b)	(c)	(d)	(f)				
Item	No. of	(a)/												***	Score for			
Tem	month with "Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	month with "Pass=1" in total	Total month (%)	Weight for each item	each item (b)*(c)	Penalty*1
1 Service revel compliance	3	0												3	42.9	50%	21	
2 Self-control unit performance	6	1												7	100	10%	10	
Work safety management	6	1												7	100	20%	20	
4 Environment and social management	6	1												7	100	10%	10	
5 Corrective order issuance	6	1												7	100	10%	10	
6 Statutory compliance	6	1												7	100			0
*1: Penalty of -20 point is given to	for non-compliance	e in eq	qual or	more t	than or	ne mon	ıth										71	0
																Total score	7	1

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality						
Road Authority	KURA						
Contractor	VESCOM Enterprise						
Date of Commencement	1-Jul-15						
Expected date of Completion	31 June 2016						
Number of elapsed months in the end of last year 0							

	Date	Name	Signature
Project Manager			
Road Manager			

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

			Monthly Evaluation								(a)	(b)	(c)	(d)	(f)				
	No. of month with						7	Year ((2015	5)					No. of	(a)/		Score for	
	month wi "Pass=1" past year		Jan	Feb	Feb Mar A		or May J		Jul	Aug	Sep	Oct	Nov	Dec	month with "Pass=1" in total	Total month (%)	Weight for each item	each item (b)*(c)	Penalty*1
1	Service revel compliance								0	0	0	1	1	1	3	50	50%	25	
2	Self-control unit performance								1	1	1	1	1	1	6	100	10%	10	
3	Work safety management								1	1	1	1	1	1	6	100	20%	20	
4	Environment and social management								1	1	1	1	1	1	6	100	10%	10	
5	Corrective order issuance								1	1	1	1	1	1	6	100	10%	10	
6	Statutory compliance								1	1	1	1	1	1	6	100			0
	*1: Penalty of -20 point is given f	or non-compliance	e in eq	qual or	more t	han or	ne mor	nth										75	0
																	Total score	7	5

Appendix 17 Monthly Evaluation Form

Number of elapsed month =	6
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Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality
Road Authority	KURA
Contractor	VESCOM Enterprise
Date of checking	31-Jan-16

	Name
Project manager	
Assistants	

This form is used by Project manager to verify monthly performance for contract evaluation.

	Scope	Requirement	Pass or Fail*1
1	Service revel compliance	1 Reduction rate for service level non-compliance is less than 5.0%	0
	Self-control unit	1 Self-control unit is organized by proper contractor's member	1
2		2 Self-control unit operates properly	1
	performance	Pass or fail in total*2	1
		1 Workers and operators wear proper safety gear	1
	Work Safety Management	2 Traffic control is conducted properly	1
3		3 No accident of workers, operators attributable to the contractor	1
		4 No accident of third-parties attributable to the contractor	1
		Pass or fail in total*2	1
		1 Environmental consideration is properly conducted	1
4	Environment and social management	2 Waste material generated from the site is properly disposed	1
		3 Transportation by vehicles is properly controlled	1
		Pass or fail in total*2	1
5	Corrective order	1 No corrective order is made by authority	1
6	Statutory compliance	1 Contractor complied with relevant statutory regulations	0

^{*1} Filling Example: "Pass"="1" "Fail" = "0" "Not applicable" = "N/A"

In case of having more than one requirement in each evaluation scope, all the requirements except not applicable case shall be passed for pass evaluation in tota

A17-1 115

^{*2} Scoring criteria:

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality						
Road Authority	KURA						
Contractor	VESCOM Enterprise						
Date of Commencement	1-Feb-15						
Expected date of Completion	31 June 2016						
Number of elapsed mont	hs in the end of last year	0					

	Date	Name	Signature
Project Manager			
Road Manager			

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

	Monthly Evaluation (a) (b)										(b)	(c)	(d)	(f)					
	Item	No. of					3	Year ((2015	5)	(a)/	(a)/	Score for						
	nem	month with "Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	month with "Pass=1" in total	Total month (%)	Weight for each item	each item (b)*(c)	Penalty*1
1	Service revel compliance			0	1	1	1	1	1	1	1	1	1	1	10	90.9	50%	45	
2	Self-control unit performance			1	1	1	1	1	1	1	1	1	1	1	11	100	10%	10	
3	Work safety management			1	1	1	1	1	1	1	1	1	1	1	11	100	20%	20	
4	Environment and social management			1	1	1	1	1	1	1	1	1	1	1	11	100	10%	10	
5	Corrective order issuance			1	1	1	1	1	1	1	1	1	1	1	11	100	10%	10	
6	Statutory compliance			1	1	1	1	1	1	0	1	1	1	1	10	90.9			-20
	*1: Penalty of -20 point is given for	or non-compliance	e in eq	ual or	more t	than or	ne mon	ıth										95	-20
																	Total score	7	5

Project Title	PERFORMANCE-BASED ROAD MAINTENANCE CONTRACT FOR of Lot 24 Oginga Odinga including Section 58 loop roads, General Kariba Road, West Road and Government Road in Nakuru Municipality						
Road Authority	KURA						
Contractor	VESCOM Enterprise						
Date of Commencement	1-Jul-15						
Expected date of Completion	31 June 2016						
Number of elapsed month	hs in the end of last year	11					

	Date	Name	Signature
Project Manager	31-Jan-16		
Road Manager	31-Jan-16		

- 1. This tally sheet is for Project Manager to evaluate performance of contractor by scoring at the end of contract. Use this form for evaluation in every year during contract period.
- 2. Fill "1" for "Pass" or "0" for "Fail" in column for each item and month according to monthly evaluation form. Fill "-" in column for non applicable.

Monthly Evaluation								Monthly Evaluation (a) (b)									(d)	(f)
Item	No. of					Y	ear ((2016	5)					No. of month	(a)/	***	Score for	
rem	month with "Pass=1" in past years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	with "Pass=1" in total	Total month (%)	Weight for each item	each item (b)*(c)	Penalty*1
1 Service revel compliance	10	0												10	83.3	50%	42	
2 Self-control unit performance	11	1												12	100	10%	10	
3 Work safety management	11	1												12	100	20%	20	
4 Environment and social management	11	1												12	100	10%	10	
5 Corrective order issuance	11	1												12	100	10%	10	
6 Statutory compliance	10	0												10	83.3			-20
*1: Penalty of -20 point is given for non-compliance in equal or more than one month									Total score	92 7	-20							