

**ENGINEER'S RATES FOR ROAD/PAVEMENTS OPENING/CUTTING,  
DUCTING AND REINSTATEMENT WORKS AND SERVICES**

<b>EXCAVATION</b>			
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>UNIT</b>	<b>UNIT COST KSH (VAT exclusive)</b>
1	Micro Tunneling under the tarmac rd, including installation of 150mm diameter PVC cable duct as required and concrete surround at the edges.	LM	<b>6,980</b>
1b	Micro Tunneling under the tarmac rd, including installation of 100mm PVC cable duct as required	LM	<b>6000</b>
1c	Micro Tunneling under the tarmac rd, including installation of 50mm PVC cable duct as required	LM	<b>4,900</b>
1d	Wall drilling, including installation of 150mm cable duct as required	No	<b>5,700</b>
2	Excavate and construct manhole complete with cover as per appropriate KPLC standard of finishing	M <sup>3</sup>	<b>18,900</b>
3	Excavate and construct turret/distribution board plinth as per KPLC standard.	No	<b>3,650</b>
4	Clear the 0.6m TO 0.75m wide cable trench site of all bushes, shrubs, undergrowth and the like and load and cart away from site	M <sup>2</sup>	<b>20.00</b>
5	Excavate 0.6m to 0.75m wide cable trench in soil (cotton, murrum, red soil, clay, loam etc) commencing from ground level and not exceeding 3.0m deep and load and cart away from site the excess excavated material unless instructed otherwise by the K.P.L.C. supervisor	M <sup>3</sup>	<b>680</b>
6	Excavate 0.6 to 0.75m wide cable trench in tarmac footpath or pavement (precast concrete, Insitu concrete, Terrazzo, reinforced concrete, cabroworks etc) Commencing from finished pavement level and not exceeding 3.0m deep and load and cart away the excess excavated material unless instructed otherwise by the KPLC Supervisor	M <sup>3</sup>	<b>1,200</b>
7	Excavate a 0.6m to 0.75m wide cable trench in tarmac road commencing from finished road level and not exceeding 3.0m deep and cart away the excess excavated material unless otherwise directed by the KPLC supervisor on site	M <sup>3</sup>	<b>1,560</b>
8	Excavate a 0.6m to 0.75m wide cable trench in rock of all classes A,B,C, etc. (The unit rate should cover all the classes of rock) and cart away the excess excavated material unless otherwise directed by the KPLC supervisor on site	M <sup>3</sup>	<b>1,800</b>
	NOTE: The cost of all the necessary planking and strutting to sides of this cable trenches and dewatering to keep this excavations free from general water is deemed to be included in the quoted unit rates. The abbreviations stand for:- M <sup>2</sup> – square meter, LM – Linear meter, M <sup>3</sup> – meter cubed	<b>POINTS TO NOTE</b>	

*[Handwritten signatures and marks in blue ink]*

<b>REINSTATEMENT</b>			
ITEM NO	ITEM DESCRIPTION	UNIT	UNIT COST KSH (VAT Exclusive)
1	Reinstate the excavated trench to the standards specified in (KPLC Drg No. 02A) using the excavated material	M <sup>3</sup>	<b>360</b>
2	Reinstate the excavated trench to the specified standards in KPLC Drg No.02A using imported (not the excavated material) red soil	M <sup>3</sup>	<b>1,200</b>
3	Reinstate the excavated trench to the specified standards in KPLC Drg No.02A using imported (not the excavated material) Murram	M <sup>3</sup>	<b>1,300</b>
4	Reinstate the excavated trench to the specified standards in KPLC Drg No.02A using imported (not the excavated material) River sand	M <sup>3</sup>	<b>1,800</b>
5	Reinstate the excavated trench in pavement to the standards specified for a pavement in KPLC Drg No. 02A.	M <sup>3</sup>	<b>1,580</b>
6	Reinstate the excavated trench in tarmac road to the specified standards for a tarmac road as per KPLC Drg No. 01 and as required by N.C.C or M.O.P.W.	M <sup>3</sup>	<b>4,200</b>
7	Reinstate the excavated trench using (1:2:4) concrete reinforced with BRC No. A142	M <sup>3</sup>	<b>7,400</b>
8	Reinstate the excavated trench using murram compacted to 95% maximum dry density at 80-105% optimum moisture content (AASHTO T 180)	M <sup>3</sup>	<b>1,180</b>
9	Reinstate the excavated trench using approved hardcore compacted to 96% maximum dry density at 80 – 100% optimum moisture content (BS 1377 Test 14)	M <sup>3</sup>	<b>1,300</b>
10	Reinstate the excavated trench in cabro works or tarmac footpath to the standard that was in place before the site was disturbed	M <sup>3</sup>	<b>1,400</b>
11	Reinstate grassed areas by backfilling the trench with the excavated material. The upper 150mm will be imported red soil mixed with manure. The type of grass to be planted will be the one approved by the Nairobi City Council parks Superintendent	M <sup>3</sup>	<b>850</b>
12	Reinstate standing Bougainvillea by excavating a hole 120cm diameter by 120cm deep. Fill with red soil mixed with manure. A 100cm tall support pole will be planted next to the bougainvillea of a type approved by the Nairobi City Council parks superintendent	M <sup>3</sup>	<b>840</b>
13	Reinstate shrub bougainvillea by excavating holes, 120cm diameter by 120cm deep. Fill with red soil mixed with manure. The holes would be at 300cm spacing in a triangular network (hexagon corner diagonally interlinked). Erect 200mm diameter cedar poles midway between holes in the same format. External poles (of the hexagon) to be 600mm deep and 300mm above the ground. The pole at the middle (of the hexagon) to be 600mm deep and 300mm above the ground. Areas between holes to be filled with 150mm murram. Fix barbed wire between the poles in	M <sup>2</sup>	<b>900</b>

	a hexagonal shape. The type of bougainvillea is to be approved by the parks superintendent, Nairobi City Council		
	<b>OTHERS</b>		
14	Provide and lay 150mm diameter precast concrete cable ducts covered with a 150mm concrete surround as specified in KPLC drawing.	LM	<b>1,700</b>
15	Provide and lay 150mm diameter Heavy Gauge PVC ducts covered with a 150mm concrete surround as specified in KPLC Dr.	LM	<b>1,700</b>
16	Provide and lay 100mm diameter Heavy Gauge PVC ducts covered with a 150mm concrete surround	LM	<b>1,500</b>
17	Provide and lay 50mm diameter Heavy Gauge PVC ducts covered with a 150mm concrete surround	LM	<b>1,400</b>
18	Cable (185sqmm to 400sqmm) installation in trenches and ducts including its security until trench is reinstated.	LM	<b>370</b>
19	Cable (25sqmm to 120sqmm) installation in trenches and ducts including its security until trench is reinstated.	LM	<b>200</b>
20	Cable (10 sqmm, 16 sqmm and fibre optic) installation in trenches and ducts including its security until trench is reinstated.	LM	<b>50</b>
21	Construct turret enclosure wall as per appropriate KPLC standard of finishing specified in KPLC Drawing.	M <sup>2</sup>	<b>2,800</b>
22	Transportation of materials from stores to site in a lorry (7 tons)	KM	<b>300</b>
23	Transportation of materials from stores to site in a pick up	KM	<b>75</b>
24	Rock drilling under tarmac road, including installation of 150mm diameter PVC heavy gauge cable duct as required and concrete surround at the edges	LM	<b>26,000</b>
25	Provision of service tunnel under tarmac road measuring 0.8M wide by 0.4M height with concrete lining	LM	<b>80,000</b>
26	Provide a water pump and pump out water from cable trenches and if need be maintaining the trenches dry (or consider hiring per hr also)	Ksh/M3 or Ksh/hr	<b>500 or 1,200</b>
27	Construct cable joint manhole of 2mt X 2mt X 2mt using (C/W covers.):- 1 Quarry stones	M3	<b>50,000</b>
28	2 BRC reinforced concrete	M3	<b>70,000</b>
29	Back fill cable manholes (above )with 1 Marram soil	M3	<b>30,000</b>
30	2 Pure River sand	M3	<b>35,000</b>
31	Install Cable route markers at a distance of 10 meters apart when required.	Units	<b>20</b>

\* **NOTE:** These Engineer's rates are **16% VAT** exclusive. They remain constant during the contract period.

