## Repair of the road in Severnii district, Bender town

(Project title)

## LOCAL BILL OF QUANTITIES No. 2-1-1

## Repairs and development of road infrastructure

					Estimate	ed cost, \$
No	Standard code			Design	Unit cost	Total
crt.	and Resource code	Works and costs	M.U.	quantity	incl. wages	incl. wages
1	2	3	4	5	6	7
		1. The Return Circle (Peacekeepers' Post)				
1	TsC21B1	Mechanical excavation with moto grader of up to 175 HP, including scattering of the soil at 10 m, in the field of cat. II (40% of the area)	100 m3	0,793		
2	TsC22B1	Accrual machine-hours at art. TsC18B1, for transportation of land for every 10 m in addition, to the stipulated distance, land cat. II	100 m3	0,793		
3	TsC03F1	Mechanical excavation of 0.40-0.70 cm with an excavator, with internal combustion engine and hydraulic control, in soil with natural humidity, unloading in vehicles, land cat. II	100 m3	0,793		
4	TsI51A5	Transportation of soil with a 5 ton dump truck to a distance of 13 km	t	131, 000		
5	TsC51B	Unloading of soil to the warehouse, land cat. II	100 m3	0,790		
6	DH02B	Easy scarification of the stoning up to 5 cm deep with moto-grader, including reprofiling	100m2	2,650		
7	DA12B	Foundation layer or re-profiling of crushed stone, for roads with mechanical laying, executed with wedging without mudification h= 20cm	m3	52, 800		
8	DI155A	Cutting the layer of used asphalt concrete with a milling having a drum width of 1000 mm, depth of layer: 5 cm	m2	661, 000		
9	TsI51A5	Transportation of the milled material to the processing hub with 10 t dumper truck at a distance of: 5 km	t	76, 000		
10	TsC51B	Unloading of soil to the warehouse, land cat. II	100 m3	0.330		

1	2	3	4	5	6	7
11		Cleaning the pits from bituminous				
	DI141A	asphalt coating by blowing with	m2	661 000		
		manual compressor				
12		Priming the surfaces of the base				
		layers to apply a layer of asphalt				
	DI107	concrete of 0,63kg/m2 (40% of	t	0.168		
		the stoning surface)				
13		Mechanically laid hot, large				
13	DB19G	aggregate asphalt concrete, SKPg-	m2	264,400		
	DD17G	II coating, 6.0 cm thick	1112	201,100		
14		Priming the surfaces of the base				
1.	DI107	layers to apply a layer of asphalt	t	0,205		
	DITO	concrete of 0.31 kg/m2		0,203		
15		Mechanically laid hot asphalt				
13	DB16H	concrete coating with small	m2	661 000		
	рвтоп	aggregates, 4.0 cm thick,	1112	001 000		
16	T <sub>0</sub> C54D	<del>                                     </del>	m2	4.000		
17	TsC54B	Broken stone foundation layer	m3	4.000		
1 /	DE10A	Precast concrete kerbs, 30x15 cm,	m	100,000		
10		on concrete foundation				
18	DE10.4	Planting industrially	DITIC	6.000		
	DF18A	manufactured poles for road	BUC	6.000		
10		traffic signs made of metal				
19	<b>D</b> 7404	Installation of road traffic signs	DIVO	4 7 000		
	DF19A	made of steel or aluminum sheet	BUC	15,000		
20		on already planted poles				
20		Longitudinal, transversal and				
	DF17A	miscellaneous markings,	m2	24,500		
	-	mechanically executed, with		,		
		paint, on road surfaces				
21		Mechanical excavation of 0.40-				
		0.70 cm, with an excavator with				
	TsC03F1	internal combustion engine and	100	0,200		
		hydraulic control, in soil with	m3	-,		
		natural humidity, unloading in				
		vehicles, land cat. II embankment				
22	_	Transportation of soil by 10 t		_		
	TsI51A5	dumper at a distance of: 5 km of	t	32,600		
		embankment				
23		Compaction of the cat.II earth				
	DI96	embankment, with a compactor on	100	0,190		
		25 t tires, 8 routes on an	m3	2,220		
		embankment trace				
24		Leveling with motor grader up to				
		175 HP of the surface of the				
	_	natural land and of the earthworks				
	TsE05B	platforms, by cutting the bumps	100m2	1,000		
		and moving the excavated soil				
		into the voids in the field cat. II				
		embankment				
25	DI115	Strengthening the embankments	m2	100,000		
		with a 10 cm crushed stone layer		150,000		
		Total	\$			

1	2	3	4	5	6	7
		Total Return Circle (Peacekeeper				
		Station)				
		Including wages  2. Repaired road sector (PC0+29				
		PC4+ 35)				
26		Manual deforestation of forested				
		areas with bushes and shrubs with				
		a diameter of up to 10 cm,				
	T-C02 A	including transportation of wood	1002	24.260		
	TsG03A	in piles, outside or within the	100m2	24,360		
		works area, without removing the				
		roots (2 m from the edge of the				
		road)				
27		Mechanized profiling of the				
	DI98	embankment slope at earthworks,	100m2	24,360		
•		soil of category II				
28	<b>D</b> 7404	Planting industrially	D.110	<b>~</b> 000		
	DF18A	manufactured poles for road	BUC	5,000		
29		traffic signs made of metal				
29	DF19A	Installation of road traffic signs made of steel or aluminum sheet	BUC	5,000		
	DI19A	on already planted poles	ВОС	3,000		
30		Longitudinal, transversal and				
30		miscellaneous markings,				
	DF17A	mechanically executed, with	m2	65,000		
		paint, on road surfaces				
		Total	\$			
		Total Road Sector repaired				
		(PC0+29 PC4+ 35)				
		Including wages				
21		3. Sector PC 4+85 PC 13+33				
31		Mechanical excavation with motor grader of up to 175 HP,				
		including the spreading of the soil	100			
	TsC21B1	at 10 m, in the field cat. II	m3	19.700		
		cleaning the embankment and the				
		road				
32		Accrual machine-hours at art.				
	TsC22B1	TsC18B1, for transportation of	100	19.700		
	15C22D1	land for every 10 m in addition, to	m3	17./00		
		the stipulated distance, land cat. II				
33		Mechanical excavation of 0.40-				
		0.70 cm, with an excavator with				
	TsC03F1	internal combustion engine and	100	19.700		
		hydraulic control, in soil with	m3			
		natural humidity, unloading in				
34		vehicles, land cat. II				
34	TsI51A5	Transportation of soil with a 5 ton dump truck to a distance of 13 km	t	3 250,500		
35		Unloading of soil to the	100			
	TsC51B	warehouse, land cat. II	m3	19.700		
36		Manual felling of resinous trees		_		
	TsG05A	having a diameter of 1030 cm,	BUC	13,000		
	1		1			l

1	2	3	4	5	6	7
		including manual transportation of				
		timber in piles, outside or within				
		the works area				
37		The mechanical felling of the				
		resinous essence trees having a				
	TsG08A	diameter of 1030 cm, including	BUC	100,000		
	ISOUGA	manual transportation of timber in	ВОС	100,000		
		the warehouses, outside or within				
		the works area				
38		Milling of the old asphalt concrete				
	DI155A	layer, with a 1000 mm width	m2	6 090,000		
		drum, layer depth of: 5 cm				
39		Transportation of the milled				
	TsI51A5	material to the processing hub	t	639,000		
	15101110	with a 10 t dumper at a distance		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
40		of: 5 km	100			
40	TsC51B	Unloading of soil to the	100	3,040		
A 1		warehouse, land cat. II	m3			
41	DI107	Priming the surfaces of the base	4	3.836		
	DI107	layers to apply a layer of asphalt	t	3.830		
42		concrete of 0,63kg/m2 Laying the levelling layer of				
42		SMBG-II 2/3 asphalt concrete,				
	DI133	selectively using the asphalt	t	85,000		
		mixes spreader				
43		Mechanically laid hot asphalt				
	DB19G	concrete coating with large	m2	3 524,000		
		aggregate, 6.0 cm thick,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
44		Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	1,890		
		concrete of 0,31kg/m2				
45		Mechanically laid hot asphalt				
	DB16H	concrete coating with small	m2	6 090,000		
	DB1011	aggregates SMBg-II/2.3, 4.0 cm	1112	0 090,000		
		thick				
46		Planting of industrially				
	DF18A	manufactured poles for road	BUC	5,000		
		traffic signs made of metal				
47	DE10 :	Installation of road traffic signs	DII.	<b>7</b> 000		
	DF19A	made of steel or aluminum sheet	BUC	5,000		
40		on already planted poles				
48		Longitudinal, transversal and				
	DF17A	miscellaneous markings,	m2	130,000		
		mechanically executed, with paint, on road surfaces				
49		Mechanical excavation of 0.40-				
<del>"</del> 2		0.70 cm with an excavator, with				
		internal combustion engine and	100			
	TsC03F1	hydraulic control, in soil with	m3	1,740		
		natural humidity, unloading in	1110			
		vehicles, land cat. II Embankment				
<u> </u>		, omoros, rand out. It Embankment	l .	<u> </u>	<u> </u>	<u> </u>

1	2	3	4	5	6	7
50		Transportation of soil material by				
	TsI51A5	10 t dumper at a distance of: 5 km	t	287,000		
		of embankment				
51		Compaction of the cat. II earth				
	Dioc	embankment, with a compactor on	100	1.740		
	DI96	25 t tires, 8 tracks on an	m3	1,740		
		embankment trace				
52		Leveling with motor grader up to				
		175 HP of the surface of the				
		natural soil and of the earthworks				
	TsE05B	platforms, by cutting the bumps	100m2	17,400		
		and moving the excavated soil				
		into the voids in the field cat. II				
		embankment				
53	DI115	Strengthening the embankments	m2	1 740,000		
	לוווט	with a 10 cm crushed stone layer		1 /40,000		
		Total	\$			
		Total Sector PC 4+85 PC 13+33				
		Including wages		I		
54		4. Sector PC 13+33 PC 20+90  Mechanical excavation with				
34						
	TsC21B1	motor grader up to 175 HP, including the spreading of the soil	100	11.355		
	18C21B1	at 10 m, in the field cat. II	m3	11.555		
		cleaning of embankments				
55		Accrual machine-hours at art.				
		TsC18B1, for transportation of	100			
	TsC22B1	land for every 10 m in addition to	m3	11.355		
		the stipulated distance, land cat. II				
56		Mechanical excavation of 0.40-				
		0.70 cm with an excavator, with				
	<b></b>	internal combustion engine and	100	4		
	TsC03F1	hydraulic control, in soil with	m3	11.355		
		natural humidity, unloading in				
		vehicles, land cat. II				
57	ToI£1 4 £	Transportation of soil with a 5 ton	_	1 072 500		
	TsI51A5	dump truck to a distance of 13 km	t	1 873,500		
58	TsC51B	Unloading of soil to the	100	11.355		
	ISCOID	warehouse, land cat. II	m3	11.333		
59		Manual deforestation of forested				
		areas with bushes and shrubs with				
		a diameter of up to 10 cm,				
	TsG03A	including transportation of wood	100m2	29,200		
	15005/1	in piles, outside or within the	1001112	27,200		
		works area, without removing the				
		roots (2 m from the edge of the				
		road)				
60	D1155 4	Milling the layer of old asphalt		£ 200 000		
	DI155A	concrete, with a 1000 mm width	m2	5 299,000		
<i>C</i> 1		drum, layer depth of: 5 cm				
61	TsI51A5	Transportation of the milled	t	551,800		
		material to the processing hub				

1	2	3	4	5	6	7
		with 10 t dumper at a distance of:				
		5 km				
62	TsC51B	Unloading of soil to the	100	2.650		
	130,710	warehouse, land cat. II	m3	2.050		
63	3	Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	1.642		
		concrete 0.31 kg/m2				
64		Laying the levelling layer of				
	DI133	SMBG-II 2/3 asphalt concrete,	t	85,000		
		selectively using the asphalt		, , , , , ,		
		mixes spreader				
65		Mechanically laid hot asphalt				
	DB16H	concrete coating with small	m2	5 299,000		
		aggregates SMBg-II/2.3, 4.0 cm		,		
		thick				
66	DE104	Planting industrially	DIIC	£ 000		
	DF18A	manufactured poles for road	BUC	5,000		
67		traffic signs made of metal				
0/	DE104	Installation of road traffic signs made of steel or aluminum sheet	DIIC	0 000		
	DF19A		BUC	8,000		
68		on already planted poles  Longitudinal, transversal and				
00		miscellaneous markings,				
	DF17A	mechanically executed, with	m2	73,000		
		paint, on road surfaces				
69		Mechanical excavation of 0.40-				
37		0.70 cm with an excavator, with				
		internal combustion engine and	100	100		
	TsC03F1	hydraulic control, in soil with	m3	1,514		
		natural humidity, unloading in				
		vehicles, land cat. II embankment				
70		Transportation of soil by 10 t				
	TsI51A5	dumper at a distance of: 5 km of	t	249,800		
		embankment		•		
71		Compaction of the cat. II earth				
	DIOC	embankment, with a compactor on	100	1 5 1 4		
	DI96	25 t tires, 8 tracks on an	m3	1,514		
		embankment trace				
72		Leveling with motor grader up to				
		175 HP of the surface of the				
		natural land and of the earthworks				
	TsE05B	platforms, by cutting the bumps	100m2	15,140		
		and moving the excavated soil				
		into the voids in the field cat. II				
		embankment				
73	DI115	Strengthening the embankments	m2	1 514,000		
		with a 10 cm crushed stone layer		,500		
		Total	\$			
		Total Sector PC 13+33 PC				
		20+90 Including wages				
		5. PC Sector 20+90PC 32+21				
İ		(Residential District Severnii)				
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1	2	3	4	5	6	7
74		Mechanical excavation with				
		motor grader up to 175 HP,	100			
	TsC21B1	including the spreading of the soil	m3	22.620		
		at 10 m, in the field cat. II	1113			
		cleaning of the embankment				
75		Accrual of machine-hours from				
		art. TsC18B1, for the	100			
	TsC22B1	transportation of the land for	m3	22.620		
		every 10 m in addition, over the				
		stipulated distance, land cat. II				
76		Mechanical excavation of 0.40-				
		0.70 cm with an excavator, with				
	TsC03F1	internal combustion engine and	100	22.620		
		hydraulic control, in soil with	m3			
		natural humidity, unloading in				
77		vehicles, land cat. II				
77	TsI51A5	Transportation of soil with a 5 ton	t	3 732,000		
70		dump truck to a distance of 13 km	100			
78	TsC51B	Unloading of soil to the	100	22.620		
79		warehouse, land cat. II	m3			
/9		Manual deforestation of forested				
		areas with bushes and shrubs with				
	T-C02 A	a diameter of up to 10 cm,	1002	22,000		
	TsG03A	including the transport of wood in	100m2	33,900		
		piles, outside or in the area of				
		works without removing roots (2				
80		m from the edge of the road)  Milling the layer of old asphalt				
80	DI155A	concrete, with a 1000 mm width	m2	7 917,000		
	DIIJJA	drum, layer depth of: 5 cm	1112	7 917,000		
81		Transportation of the milled				
01		material to the processing hub				
	TsI51A5	with 10 t dumper at a distance of:	t	867,300		
		5 km				
82		Unloading of soil to the	100			
	TsC51B	warehouse, land cat. II	m3	4,130		
83		Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	2,560		
		concrete 0.31 kg/m2				
84		Laying the levelling layer of				
	DIICC	SMBG-II 2/3 asphalt concrete,		07.000		
	DI133	selectively using the asphalt	t	85,000		
		mixes spreader				
85		Repairing the degradations and				
		filling of pits in asphalt coating				
	DI04A	with stockable mixture with a	t	98,870		
		high degree of dispersion, poured				
		halftime, on small surfaces,				
86		Mechanically laid hot asphalt				
	DR16U	concrete coating with small	m2	7 917,000		
	DB16H	aggregates SMBg-II/2.3, 4.0 cm	m2	/ 71/,000		
		thick,				

1	2	3	4	5	6	7
87		Planting industrially				
	DF18A	manufactured poles for road	BUC	9.000		
		traffic signs made of metal				
88		Installation of road traffic signs				
	DF19A	made of steel or aluminum sheet	BUC	18.000		
		on already planted poles				
89		Longitudinal, transversal and				
	DF17A	miscellaneous markings,	m2	215 000		
	DF1/A	mechanically executed, with	1112	215,000		
		paint, on road surfaces				
90		Mechanical excavation of 0.40-				
		0.70 cm with an excavator with				
	TsC03F1	internal combustion engine and	100	2,260		
	ISCUSFI	hydraulic control, in soil with	m3	2,260		
		natural humidity, unloading in				
		vehicles, land cat. II embankment				
91		Transportation of soil material by				
	TsI51A5	10 t dumper at a distance of: 5 km	t	372,900		
		of embankment				
92		Compaction of the cat. II earth	100			
	DI96	embankment, with a compactor on	m3	3,729		
		25 t tires, 8 tracks on embankment	1113			
93		Leveling with motor grader up to				
		175 HP of the surface of the				
		natural land and of the earthworks				
	TsE05B	platforms, by cutting the bumps	100m2	22,620		
		and moving the excavated soil				
		into the voids in the field cat. II				
		embankment				
94	DI115	Strengthening the embankments	m2	2 262,000		
		with a 10 cm crushed stone layer		-		
95	TsC54B	Broken stone foundation layer	m3	108,000		
96	DE10A	Precast concrete kerbs, 30x15 cm,	m	1 325,000		
	221011	on concrete foundation		1 222,000		
		Total Total	\$			
		Total PC Sector 20+90PC				
		32+21 (Residential District Severnii)				
		Including wages				
		6. Construction of trolley stations				
		platforms (5 stations)				
97		Mechanical excavation of 0.40-				
		0.70 cm with an excavator with				
	T-C02F1	internal combustion engine and	100	1.570		
	TsC03F1	hydraulic control, in soil with	m3	1,570		
		natural humidity, unloading in				
		vehicles, land cat. II embankment				
98	Tal50 4 5	Transportation of soil with a 5 ton	_	207.750		
	TsI50A5	dump truck to a distance of 13 km	t	297,750		
99	T <sub>c</sub> C51D	Unloading of soil to the	100	1 570		
	TsC51B	warehouse, land cat. II	m3	1,570		<u> </u>
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1	2	3	4	5	6	7
100		Mechanized profiling of the				
	DI98	embankment slope at earthworks, soil of category II	100m2	4,400		
101	DI96	Compaction of the cat. II earth embankment, with a compactor on 25 t tires, 8 tracks on a trace	100 m3	0,450		
102	DA06B2	Mechanically laid layer of cylindrical natural aggregates, having the function of filtering resistance, insulators, ventilation, anti-gel and anti-capillary, with sand layer of h=10cm	m3	43,850		
103	DA12B	Mechanically laid foundation layer or re-profiling of crushed stone, for roads, executed with panning without mudification h=15cm	m3	65,800		
104	DI107	Priming the surfaces of the base layers to apply a layer of asphalt concrete 0.75 kg/m2	t	0.320		
105	DB19G	Mechanically laid hot asphalt concrete coating with large aggregates, 6.0 cm thick,	m2	450,000		
106	DI107	Priming the surfaces of the base layers to apply a layer of asphalt concrete 0.35 kg/m2	t	0.150		
107	DB16H	Mechanically laid hot asphalt concrete coating with small aggregates, 4.0 cm thick	m2	450,000		
108	TsC54B	Broken stone foundation layer	m3	85,000		
109	DE10A	Precast concrete kerbs, for sidewalks30x15 cm, on concrete foundation	m	225,000		
110	DA12A	Foundation layer or re-profiling of broken stone, for roads with mechanical layers, executed with stamping and mudification h=20cm	m3	45,000		
111	DI110	Ballast levelling	m3	22,500		
112	DE11A	Small prefabricated concrete kerbs with a section of 100x20x10 cm, for framing green spaces, sidewalks, alleys, etc., placed on a concrete foundation of 10x20 cm	m	105,000		
113	DE18A	Pavements made of precast concrete pavements placed on a layer of dry mixture of cement and sand, in a ratio of 1:6, joined with dry mixture of cement and sand, layer thickness of 5 cm (concrete pavements h= 5 cm)	m2	225,000		
114	CL17A	Various metal structures, apparently mounted: parapets and	kg	1,500,000		

1	2	3	4	5	6	7
		partitions for the balcony. Ready-				
		made waiting stations according				
		to the model.	Φ.			
		Total Total	\$			
		Total Construction of trolleybus				
		stations platforms (5 stations) Including wages				
		7. Spatial development of adjacent				
		access ways				
115		Mechanical cleaning for the				
		application of coatings or				
		bituminous treatments of support				
	RpDC06C	layers consisting of bituminous	m2	1 668,000		
	КрВсоос	surfaces of cement concrete or	1112	1 000,000		
		bituminous stone pavements,				
		executed with the mechanical				
116		broom fixed on the tractor				
116	DI107	Priming the surfaces of the base	4	1.017		
	DI107	layers to apply a layer of asphalt concrete 0.61 kg/m2	t	1.017		
117		Mechanically laid hot asphalt				
	DB19G	concrete coating with large	m2	1 668,000		
	DD17G	aggregate, 6.0 cm thick	1112	1 000,000		
118		Mechanically laid hot asphalt				
	DD1 (II	concrete coating with small		1 660 000		
	DB16H	aggregates SMBg-II/2.3, 4.0 cm	m2	1 668,000		
		thick				
		Total	\$			
		Total spatial development of				
		adjacent access roads				
		Including wages 8. Severnii pedestrian alleys				
119		Mechanical excavation of 0.40-				
		0.70 cm, with an excavator with				
	m coc=1	internal combustion engine and	100	<b>7</b> 000		
	TsC03F1	hydraulic control, in soil with	m3	7,080		
		natural humidity, unloading in				
		vehicles, land cat. II				
120	TsI50A5	Transportation of soil with a 5 ton	t	865,000		
	10100110	dump truck to a distance of 13 km		005,000		
121	TsC51B	Unloading of soil to the	100	7,080		
100		warehouse, land cat. II	m3	, -		
122	DIOC	Mechanized profiling of the	100 2	22.600		
	DI98	embankment slope at earthworks,	100m2	23,600		
123		soil of category II  Compaction of the cat. II earth				
123	DI96	embankment, with a compactor on	100	7,080		
	D170	25 t tires, 8 tracks on a trace	m3	7,000		
124		Foundation layer or re-profiling of				
		broken stone, for roads with				
	DA12A	mechanical layers, executed with	m3	236,000		
		stamping and mudification		·		
		h=20cm				

1	2	3	4	5	6	7
125	DE11A	Small prefabricated concrete kerbs with a section of 100x20x10 cm, for framing green spaces, sidewalks, alleys, etc., placed on a concrete foundation of 10x20 cm	m	1 325,000		
126	DI110	Ballast levelling	m3	236,000		
127	DE18A	Pavements made of precast concrete pavements placed on a layer of dry mixture of cement and sand, in a ratio of 1:6, joined with dry mixture of cement and sand, layer thickness of 5 cm (concrete pavements h= 5 cm)	m2	2 360,000		
		Total	\$			
		Total Severnii Pedestrian Alleys Including wages	·			
		Total Social and health insurances Total Overhead Total Budgeted return	\$ 24 % %			
		Total estimated cost: Including wages				

Drafted by:	
	(position, signature, first name, last name)
Verified by	
	(position, signature, first name, last name)