(Project title)

LOCAL BILL OF QUANTITIES No. 2-1-1 Repairs and development of road infrastructure

					Estimate	ed cost, \$
N⁰	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 0.63 kg/m2 (40% of	t	0.168		
		the stoning surface)				
13		Mechanically laid hot, large				
10	DB19G	aggregate asphalt concrete, SKPg-	m2	264,400		
	DDI)G	II coating, 6.0 cm thick	1112	201,100		
14		Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	0,205		
	DIIO/	concrete of 0.31 kg/m2	L	0,205		
15		Mechanically laid hot asphalt				
15	DB16H	concrete coating with small	m2	661 000		
	DBIOII	aggregates, 4.0 cm thick,	1112	001 000		
16	TsC54B	Broken stone foundation layer	m3	4.000		
10	13CJ4D	Precast concrete kerbs, 30x15 cm,	1115	4.000		
1/	DE10A	on concrete foundation	m	100,000		
18		Planting industrially				
10	DF18A	manufactured poles for road	BUC	6.000		
	DITIOA	traffic signs made of metal	BUC	0.000		
19		Installation of road traffic signs				
19	DF19A	made of steel or aluminum sheet	BUC	15,000		
	DF19A		DUC	13,000		
20		on already planted poles				
20		Longitudinal, transversal and miscellaneous markings,				
	DF17A	-	m2	24,500		
		mechanically executed, with				
21		paint, on road surfaces Mechanical excavation of 0.40-				
21		0.70 cm, with an excavator with				
		internal combustion engine and	100			
	TsC03F1	hydraulic control, in soil with	m3	0,200		
		natural humidity, unloading in	111.5			
		vehicles, land cat. II embankment				
22		Transportation of soil by 10 t				
	TsI51A5	dumper at a distance of: 5 km of	t	32,600		
	1515175	embankment	L	52,000		
23		Compaction of the cat.II earth				
2.5		embankment, with a compactor on	100			
	DI96	25 t tires, 8 routes on an	m3	0,190		
		embankment trace	1115			
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		
	I SEUJD	and moving the excavated soil	1001112	1,000		
		into the voids in the field cat. II				
		embankment				
25		Strengthening the embankments				
23	DI115	with a 10 cm crushed stone layer	m2	100,000		
		Total	\$	I		
L	l	1 U V WV	Ψ			I

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				
20		areas with bushes and shrubs with				
		a diameter of up to 10 cm,				
	T G A A	including transportation of wood	100 0	a (a co		
	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		Planting industrially				
	DF18A	manufactured poles for road	BUC	5,000		
		traffic signs made of metal				
29	DEIGA	Installation of road traffic signs	DUC	5 000		
	DF19A	made of steel or aluminum sheet	BUC	5,000		
30		on already planted poles Longitudinal, transversal and				
50		miscellaneous markings,				
	DF17A	mechanically executed, with	m2	65,000		
		paint, on road surfaces				
		Total	\$	I	I	
		Total Road Sector repaired				
		(PC0+29 PC4+ 35)				
		Including wages		r	r	
21		3. Sector PC 4+85PC 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.				
	T-COOD 1	TsC18B1, for transportation of	100	10.700		
	TsC22B1	land for every 10 m in addition, to	m3	19.700		
		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		
	1.00011	hydraulic control, in soil with	m3	-27.700		
		natural humidity, unloading in				
24		vehicles, land cat. II				
34	TsI51A5	Transportation of soil with a 5 ton	t	3 250,500		
35		dump truck to a distance of 13 km Unloading of soil to the	100			
55	TsC51B	warehouse, land cat. II	100 m3	19.700		
36		Manual felling of resinous trees			 	
	TsG05A	having a diameter of 1030 cm,	BUC	13,000		
	1	i maning a diminister of 10	1	1	1	

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		
	ISOU8A	manual transportation of timber in	DUC	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		
	15151745	with a 10 t dumper at a distance	ι	037,000		
		of: 5 km				
40	TsC51B	Unloading of soil to the	100	3,040		
	130010	warehouse, land cat. II	m3	3,010		
41	_	Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	3.836		
		concrete of 0,63kg/m2				
42		Laying the levelling layer of				
	DI133	SMBG-II 2/3 asphalt concrete,	t	85,000		
		selectively using the asphalt				
10		mixes spreader				
43		Mechanically laid hot asphalt		a fa (and		
	DB19G	concrete coating with large	m2	3 524,000		
4.4		aggregate, 6.0 cm thick,				
44	DI107	Priming the surfaces of the base		1.000		
	DI107	layers to apply a layer of asphalt $a = \frac{1}{2} \frac{1}{$	t	1,890		
45		concrete of 0,31kg/m2				
43		Mechanically laid hot asphalt concrete coating with small				
	DB16H	e	m2	6 090,000		
		aggregates SMBg-II/2.3, 4.0 cm thick				
46		Planting of industrially				
-0	DF18A	manufactured poles for road	BUC	5,000		
	DITOA	traffic signs made of metal	D UC	5,000		
47		Installation of road traffic signs				
	DF19A	made of steel or aluminum sheet	BUC	5,000		
	211/11	on already planted poles		2,000		
48		Longitudinal, transversal and				
		miscellaneous markings,				
	DF17A	mechanically executed, with	m2	130,000		
		paint, on road surfaces				
49		Mechanical excavation of 0.40-				
		0.70 cm with an excavator, with				
	T-00271	internal combustion engine and	100	1 7 40		
	TsC03F1	hydraulic control, in soil with	m3	1,740		
		natural humidity, unloading in				
		vehicles, land cat. II Embankment				

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				
		embankment, with a compactor on	100			
	DI96	25 t tires, 8 tracks on an	m3	1,740		
		embankment trace	1115			
52		Leveling with motor grader up to				
52		175 HP of the surface of the				
		natural soil and of the earthworks				
	TsE05B		100m2	17 400		
	ISEUSD	platforms, by cutting the bumps	1001112	17,400		
		and moving the excavated soil				
		into the voids in the field cat. II				
52		embankment				
53	DI115	Strengthening the embankments	m2	1 740,000		
ļ		with a 10 cm crushed stone layer				
		Total	\$			
		Total Sector PC 4+85 PC 13+33				
		Including wages				
54		4. Sector PC 13+33 PC 20+90				
54		Mechanical excavation with				
	T C21D1	motor grader up to 175 HP,	100	11.255		
	TsC21B1	including the spreading of the soil	m3	11.355		
		at 10 m, in the field cat. II				
		cleaning of embankments				
55		Accrual machine-hours at art.				
	TsC22B1	TsC18B1, for transportation of	100	11.355		
	1002221	land for every 10 m in addition to	m3	11000		
		the stipulated distance, land cat. II				
56		Mechanical excavation of 0.40-				
		0.70 cm with an excavator, with				
	TsC03F1	internal combustion engine and	100	11.355		
	1500511	hydraulic control, in soil with	m3	11.555		
		natural humidity, unloading in				
		vehicles, land cat. II				
57	TsI51A5	Transportation of soil with a 5 ton	t	1 873,500		
	13131713	dump truck to a distance of 13 km	L	1075,500		
58	TsC51B	Unloading of soil to the	100	11.355		
	130310	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,				
	T.CO2 4	including transportation of wood	100. 2	20.200		
	TsG03A	in piles, outside or within the	100m2	29,200		
		works area, without removing the				
		roots (2 m from the edge of the				
		road)				
60		Milling the layer of old asphalt				
	DI155A	concrete, with a 1000 mm width	m2	5 299,000		
		drum, layer depth of: 5 cm		. ,		
61		Transportation of the milled				
	TsI51A5	material to the processing hub	t	551,800		
L	1					I

1	2	3	4	5	6	7
		with 10 t dumper at a distance of:				
		5 km				
62	T-051D	Unloading of soil to the	100	2 (50		
	TsC51B	warehouse, land cat. II	m3	2.650		
63		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				
	DUIDO	SMBG-II 2/3 asphalt concrete,		0.5.000		
	DI133	selectively using the asphalt	t	85,000		
		mixes spreader				
65		Mechanically laid hot asphalt				
		concrete coating with small				
	DB16H	aggregates SMBg-II/2.3, 4.0 cm	m2	5 299,000		
		thick				
66		Planting industrially				
	DF18A	manufactured poles for road	BUC	5,000		
	2110/1	traffic signs made of metal	200	2,000		
67		Installation of road traffic signs				
0,	DF19A	made of steel or aluminum sheet	BUC	8,000		
		on already planted poles		3,000		
68		Longitudinal, transversal and				
00		miscellaneous markings,				
	DF17A	mechanically executed, with	m2	73,000		
		paint, on road surfaces				
69		Mechanical excavation of 0.40-				
07		0.70 cm with an excavator, with				
		internal combustion engine and	100			
	TsC03F1	hydraulic control, in soil with	m3	1,514		
		natural humidity, unloading in	mo			
		vehicles, land cat. II embankment				
70		Transportation of soil by 10 t				
70	TsI51A5	dumper at a distance of: 5 km of	t	249,800	249 800	
	13131713	embankment	L	249,000		
71		Compaction of the cat. II earth				
/ 1		embankment, with a compactor on	100			
	DI96	25 t tires, 8 tracks on an	m3	1,514		
		embankment trace	111.5			
72		Leveling with motor grader up to				
14		175 HP of the surface of the				
		natural land and of the earthworks				
	TsE05B	platforms, by cutting the bumps	100m2	15,140		
	ISEUSD		1001112	13,140		
		and moving the excavated soil into the voids in the field cat. II				
		embankment				
73						
15	DI115	Strengthening the embankments	m2	1 514,000		
		with a 10 cm crushed stone layer Total	\$			
			<u></u> Ф			
		Total Sector PC 13+33PC 20+90				
		20+90 Including wages				
		5. PC Sector 20+90PC 32+21				
		(Residential District Severnii)				
	I		I	I	I	I

1	2	3	4	5	6	7
74		Mechanical excavation with				
		motor grader up to 175 HP,				
	TsC21B1	including the spreading of the soil	100	22.620		
		at 10 m, in the field cat. II	m3			
		cleaning of the embankment				
75		Accrual of machine-hours from				
		art. TsC18B1, for the	100			
	TsC22B1	transportation of the land for	100	22.620		
		every 10 m in addition, over the	m3			
		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		
	ISCUSFI	hydraulic control, in soil with	m3	22.020		
		natural humidity, unloading in				
		vehicles, land cat. II				
77	TsI51A5	Transportation of soil with a 5 ton	t	3 732,000		
	18131A3	dump truck to a distance of 13 km	L	3732,000		
78	TsC51B	Unloading of soil to the	100	22.620		
	ISCOID	warehouse, land cat. II	m3	22.020		
79		Manual deforestation of forested				
		areas with bushes and shrubs with				
		a diameter of up to 10 cm,				
	TsG03A	including the transport of wood in	100m2	33,900		
		piles, outside or in the area of				
		works without removing roots (2				
		m from the edge of the road)				
80		Milling the layer of old asphalt		5 01 5 000		
	DI155A	concrete, with a 1000 mm width	m2	7 917,000		
0.1		drum, layer depth of: 5 cm				
81		Transportation of the milled				
	TsI51A5	material to the processing hub	t	867,300		
		with 10 t dumper at a distance of:				
82		5 km Unloading of soil to the	100			
02	TsC51B	warehouse, land cat. II	m3	4,130		
83		Priming the surfaces of the base	111.5			
0.5	DI107	layers to apply a layer of asphalt	t	2,560		
		concrete 0.31 kg/m2		2,500		
84		Laying the levelling layer of				
Ŭ.		SMBG-II 2/3 asphalt concrete,				
	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				
	DDICU	concrete coating with small		7.017.000		
	DB16H	aggregates SMBg-II/2.3, 4.0 cm	m2	7 917,000		
		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	Dee	10.000		
89		Longitudinal, transversal and				
07		miscellaneous markings,				
	DF17A	mechanically executed, with	m2	215,000		
		paint, on road surfaces				
90		Mechanical excavation of 0.40-				
20		0.70 cm with an excavator with				
		internal combustion engine and	100			
	TsC03F1	hydraulic control, in soil with	m3	2,260		
		natural humidity, unloading in	ms			
91		vehicles, land cat. II embankment Transportation of soil material by				
91	TaI5145	-	4	272 000		
	TsI51A5	10 t dumper at a distance of: 5 km of embankment	t	372,900		
92						
92	DIOC	Compaction of the cat. II earth	100	2 720		
	DI96	embankment, with a compactor on	m3	3,729		
93		25 t tires, 8 tracks on embankment				
95		Leveling with motor grader up to				
		175 HP of the surface of the				
	T-E05D	natural land and of the earthworks	100	22 (20)		
	TsE05B	platforms, by cutting the bumps	100m2	22,620		
		and moving the excavated soil				
		into the voids in the field cat. II				
0.4		embankment				
94	DI115	Strengthening the embankments	m2	2 262,000		
07	T. 054D	with a 10 cm crushed stone layer	2	100.000		
95	TsC54B	Broken stone foundation layer	m3	108,000		
96	DE10A	Precast concrete kerbs, 30x15 cm,	m	1 325,000		
		on concrete foundation	¢			
		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				
		internal combustion engine and	100			
	TsC03F1	hydraulic control, in soil with	m3	1,570		
		natural humidity, unloading in				
		vehicles, land cat. II embankment				
98		Transportation of soil with a 5 ton				
	TsI50A5	dump truck to a distance of 13 km	t	297,750		
99		Unloading of soil to the	100			
	TsC51B	warehouse, land cat. II	m3	1,570		
L	L			I	I	<u> </u>

1	2	3	4	5	6	7
100		Mechanized profiling of the				
	DI98	embankment slope at earthworks,	100m2	4,400		
		soil of category II				
101		Compaction of the cat. II earth	100			
	DI96	embankment, with a compactor on	100	0,450		
		25 t tires, 8 tracks on a trace	m3			
102		Mechanically laid layer of				
		cylindrical natural aggregates,				
		having the function of filtering				
	DA06B2	resistance, insulators, ventilation,	m3	43,850		
		anti-gel and anti-capillary, with				
		sand layer of h=10cm				
103		Mechanically laid foundation				
		layer or re-profiling of crushed				
	DA12B	stone, for roads, executed with	m3	65,800		
		panning without mudification				
		h=15cm				
104		Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	0.320		
		concrete 0.75 kg/m2				
105		Mechanically laid hot asphalt				
	DB19G	concrete coating with large	m2	450,000		
		aggregates, 6.0 cm thick,				
106		Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	0.150		
		concrete 0.35 kg/m2				
107		Mechanically laid hot asphalt				
	DB16H	concrete coating with small	m2	450,000		
		aggregates, 4.0 cm thick				
108	TsC54B	Broken stone foundation layer	m3	85,000		
109		Precast concrete kerbs, for				
	DE10A	sidewalks30x15 cm, on concrete	m	225,000		
		foundation				
110		Foundation layer or re-profiling of				
		broken stone, for roads with				
	DA12A	mechanical layers, executed with	m3	45,000		
		stamping and mudification				
		h=20cm				
111	DI110	Ballast levelling	m3	22,500		
112		Small prefabricated concrete				
		kerbs with a section of 100x20x10				
	DE11A	cm, for framing green spaces,	m	105,000		
		sidewalks, alleys, etc., placed on a				
112		concrete foundation of 10x20 cm				
113		Pavements made of precast				
		concrete pavements placed on a				
	DELC	layer of dry mixture of cement	_	005 000		
	DE18A	and sand, in a ratio of 1:6, joined	m2	225,000		
		with dry mixture of cement and				
		sand, layer thickness of 5 cm				
114		(concrete pavements h= 5 cm)				
114	CL17A	Various metal structures,	kg	1,500,000		
		apparently mounted: parapets and				

1	2	3	4	5	6	7
		partitions for the balcony. Ready-				
		made waiting stations according				
		to the model.				
		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				
		layers consisting of bituminous		1 669 000		
	RpDC06C	surfaces of cement concrete or	m2	1 668,000		
		bituminous stone pavements,				
		executed with the mechanical				
		broom fixed on the tractor				
116		Priming the surfaces of the base				
	DI107	layers to apply a layer of asphalt	t	1.017		
		concrete 0.61 kg/m2				
117		Mechanically laid hot asphalt				
	DB19G	concrete coating with large	m2	1 668,000		
	DDI)G	aggregate, 6.0 cm thick	1112	1 000,000		
118		Mechanically laid hot asphalt				
110		concrete coating with small				
	DB16H	aggregates SMBg-II/2.3, 4.0 cm	m2	1 668,000		
		thick				
		Total	\$			
		Total spatial development of	Ψ			
		adjacent access roads				
		Including wages				
		8. Severnii pedestrian alleys				
119		Mechanical excavation of 0.40-			-	
		0.70 cm, with an excavator with				
		internal combustion engine and	100			
	TsC03F1	hydraulic control, in soil with	m3	7,080		
		natural humidity, unloading in				
		vehicles, land cat. II				
120		Transportation of soil with a 5 ton		_		
	TsI50A5	dump truck to a distance of 13 km	t	865,000		
121		Unloading of soil to the	100			
1-1	TsC51B	warehouse, land cat. II	m3	7,080		
122		Mechanized profiling of the				
144	DI98	embankment slope at earthworks,	100m2	23,600		
	170	soil of category II	1001112	23,000		
123		Compaction of the cat. II earth				
123	DI96	embankment, with a compactor on	100	7,080		
	D190		m3	7,000		
124		25 t tires, 8 tracks on a trace				
124		Foundation layer or re-profiling of				
		broken stone, for roads with	2	226.000		
	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	24 %
Total	
Overhead	%
Total	
Budgeted return	%
Total estimated cost: Including wages	

Drafted by:

(position, signature, first name, last name)

Verified by

(position, signature, first name, last name)