

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

<b>ite m Nr.</b>	<b>Cod</b>	<b>Type of Structure, photo No, (File)</b>	<b>Location chainage +</b>	<b>Culvert Hatchway</b>	<b>Length, m</b>	<b>Technical Condition</b>	<b>Proposed Solutions</b>	<b>Rehabilitat ion Cost, thousand lei</b>
1	21003	R/C(reinforced concrete) Culvert Cattle Creep 104-105 (VI)	3+395	4×2,5	33,9	The outlet portal is partially destroyed	To plaster the outlet	5
2	21006	R/C Culvert Cattle Creep 147 148 (I)	5+767	4×2,5	27,72	Silty inlet 10%, silty outlet 32%.The joints are partially deteriorated, leaking, leaching. The charging chute is destroyed on a 25M-section.	To seal the joints 15%, to clean the inlet15m, the outlet 100m, to restore the charging chute with a width at the bottom of 1,0m.To eliminate the leaching.	168
3	21007	R/C Culvert 149-153 (I) 106-108 (VI)	6+620	2,5×2,0	29,54	The charging concrete chute at the inlet is deteriorated. Cracked Pavement of the carriageway. Silty outlet 0,5m.Disturbed waterproof of joints.	The carrying capacity is enough.To restore the charging chute.To clean the culvert and the discharging channel on a 100m-section towards Chisinau.	59
4	21008	R/C Pipe Culvert 109 -111 (VI)	9+406	Ø 1,5 m (conic inlet)	35,32	Silty outlet 10%. The outlet collar cracked-photo 111(VI)	To plaster the outlet. To clean the pipe and the discharging channel- 20m.	3
5	21009	R/C Pipe Culvert 154-160 (I)	11+095	Ø 1,5 m (conic inlet)	29,38	The cone section at the inlet is displaced and settled by 20cm.The reinforcing bars of the ring edges are exposed. Deteriorated joints.The consolidation at the inlet, outlet is intact.	To seal the joints 15%, To dismantle the inlet together with the cone linking section and to newly construct them.	72
6	21010	R/C Pipe Culvert 161-165 (I)	12+603	Ø 1,5 m (conic inlet)	31,01	The trird section from the inlet settled by 5cm, the rest of the sections are unevenly placed.The joints are not treated.	To seal the joints 100%	2

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7	21013	R/C Culvert 2-10(VII)	17+370	2,5×2M	30,1	The waterproof of joints is partially disturbed. At the inlet the waterproof of the linking elements is disturbed and the reinforcing bars is exposed to corrosion, being destroyed. The consolidation of the inlet is destroyed. By the edges of the inlet on the slope of the emnakment there appeared two ravines due to lack of drainage.	To seal the joints 100%. To renew the waterproof. To provide for the consolidation of the inlet. To provide two drainage systems.	150
8	21014	R/C Culvert 112+117 (VI)	18+580	2×2M	37,69	The waterproof of joints is partially disturbed.Silty outlet 10%.The comsolidation at the outlet is deteriorated. The outlet collar is destroyed.	To seal the joints 70%. To restore the portal. To clean the pipe and the discharging channel on a sector of 70m.	41
9	21016	R/C Culvert, Cattle Creep 310+320 (I)	22+336	4×2,5	27,2	The waterproof of joints is partially disturbed 90%. Silting up- 30% due to silt from the RHS chute. The chute before the cattle creep is silty. Unautorised side road on the RHS.	To seal the joints 90%. To clean the culvert an the chute before the cattle creep 60m.To profide an side road.	90
10	21019	R/C Culvert, Cattle Creep 310+320 (I)	23+885	4×2,5	53,45	The LHS wingwall at the outlet is cracked.During the road there were not provided drainage systems 5m and 25m before the inlet, this leading to ravines on the slopes of the road.	To seal the joints 70% of the total quantitative volume.To plaster the cracks of the inlet, outlet and of the winwall.To provide 2 drainage systems: - 5m and 25m before the inlet (LHS in the direction of the road alignment).	28
11	21020	R/C Culvert 321+328 (I)	24+ 685	2,0×2,0	39,3	Fair condition except the inlet section, which has a transverse crack (photo 328)	To replace the inlet section	91

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12	21021	R/C Culvert 118+122 (VI)	24+945	2,0×2,0	43,13	At the inlet, at the joint of "the collar" with the LHS wingwall, there appeared a gap. The joints between the sections are plastered 20%.	To seal the joints 20%. To fill the gap casting concrete.	18
13	21022	R/C Culvert 333+335 (I)	29+849	2,0×2,0M wit a raised inlet section	44,28	The joints between the linking sections are poorly plastered. There inlet consolidation is cracked.	To seal the joints 100% of the total quantitative volume. To plaster the cracks of the inlet.	25
14	21024	R/C Culvert 382+392(I)	32+126	2×2M	106,5	Fair condition, except the suspicious deflection in the center part of the pipe. Silty inlet 0,6m, silty outlet 1,40m. The reason of silting up- the considerable quantity of soil washed off from the embankment as a result of deteriorated drainage systems.	The carrying capacity is enough. Silty inlet 0,6m, silty outlet 1,40m. The reason of silting up- the considerable quantity of soil washed off from the embankment as a result of deteriorated drainage systems. It is necessary to clean the culvert and 160m of the outlet channel	146
15	21025	R/C Culvert, Cattle Creep 63-65 (VIII)	34 + 095	4×2,5	37,4	The joints are not sealed. Silting up 10%	To seal the joints 100% of the total quantitative volume. To seal the joints.	
16	21026	Box Culvert 20-21(VII)	35+442	1 × 0,6	12,14	The R/C chute is 60% silty. The inlet, outlet are of boulder stone.	To be replaced by a DP Ø 1,2m	250
17	21027	R/C Pipe Culvert 1-4 (II)	36+551	1,2 m with a reception chamber	25,33	Fair condition. the foundation of the reception chamber at the inlet is deteriorated. Silty outlet 60%	To provide a new reception chamber. To clean the culvert and the discharging channel on a 25m-section.	100

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18	21028	R/C Pipe Culvert 124-126 (VI)	37+240	Ø 1,0 m with a reception chamber	18,8	Destroyed reception chamber. The plaster of the outlet is gone off. Silting up 50%.	To provide a reception chamber. To plaster the outlet. To provide the cleaning of the pipe and of the discharging channel on a 20m-section.	100
19	21029	R/C Pipe Culvert 397-400 (I)	38+235	Ø 2,0m 2 sections on each side: at the inlet and at the outlet 2x2,5m	20	Fair condition. Silting up 10%.	The carrying capacity is not enough. It is necessary to provide a second pipe d -2,0m with a cylindrical inlet section. To provide the cleaning of the structure and of the discharging channel on a 100m section.	437
20	21030	R/C Pipe Culvert 401- 402 (I)	39+251	Ø 1,5 m	13,68	The inlet, outlet are getting destroyed due to poor concrete.	To replace the inlet, outlet	20
21	210331	R/C Culvert 403-406 (I)	40+774	2,5x2M	19,21	No consolidation at the inlet, outlet. Disturbed waterproof of joints.	To provide the consolidation and to seal the joints 100%	80
22	21032	R/C Pipe Culvert 407-408 (I)	40+796	5 Ø 2,0m	11,55	No consolidation at the inlet, outlet. Disturbed waterproof of joints.	To provide the consolidation and to seal the joints 50%	80
23	21033	R/C Culvert 5-7(II)	42+421	0,8x1,02	13,43	Rectangular cross-section of boulder stone. The overlay: a R/C slab of 10cm thickness. The structure serves as a sewage for the dairy farm( MTΦ).	To be replaced by a pipe Ø 1,2m	183
24	21034	R/C Culvert	42+537	0,8x1,02	14,68	Rectangular cross-section of boulder stone. The overlay: a R/C slab of 10cm thickness. The structure serves as a sewage for the dairy farm( MTΦ).	To be replaced by a pipe Ø 1,2m	183
25	21035	R/C Pipe Culvert 8 (II)	42+691	Ø 1,0 m	15,3	Silting up 100%. Unknown technical condition.	To be replaced by a pipe Ø 1,2m	183

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26	21036	R/C Pipe Culvert 409-412 (I)	43+370	Ø 1,0 m	11,9	The joints between the linking sections are poorly plastered. The soil is falling down from the embankment body. At the inlet bottom the reinforcing bars are exposed. The consolidation at the outlet is destroyed.	To seal 100% of the total quantitative volume. To plaster the inlet, outlet. To provide a new consolidation at the outlet.	80
27	21037	R/C Pipe Culvert 9-10(II)	43+771	Ø 1,0 m	12,92	The joints between the linking sections are poorly plastered	To seal the joints- 100% of the volume .	20
28	21038	R/C Pipe Culvert 413-418(I)	44+764	Ø 1,0 m	13,1	The first inlet section is cracked. No berm (consolidation of stone) at the outlet. The joints between the linking sections are poorly plastered.	Заменить звено.Заделать швы в объёме 100%.Предусмотреть рисберму.	80
29	21039	R/C Pipe Culvert 419-425(I)	45+843	Ø 1,0 m	12,95	The inlet is broken. There is a hole in the 5-th linking section and the cables are hanging. The soil is falling down from the embankment body.	To seal the hole or to replace the section. To seal the joints 50%.	50
30	21040	R/C Pipe Culvert 426-430(I)	46+326	Ø 1,0 m	11,7	The consolidation at the outlet is destroyed. The joints between the linking sections are poorly plastered. The outlet is destroyed.	To provide a new consolidation. To replace the outlet	80
31	21041	R/C Pipe Culvert 431-433(I)	47+290	Ø 1,2m	15	A DP with a reception chamber. At the outlet it was provided a spillway chute without a berm (consolidation of stone).	To provide the berm (consolidation of stone).	80
32	21043	R/C Pipe Culvert 31-35(II)	49+445	Ø 1,0 m	12,45	Deteriorated inlet, outlet. The structure is lowly placed.The width of the embankment of 14,0m is greater than the length of the pipe.Silting up 90%.	To provide a new pipe 2 Ø 1,2m .	317

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33	21045	R/C Pipe Culvert 54-58 (II)	51+ 947	3 Ø 1,2M	15,32	A DP pipe. Cracked outlet.	To plaster the outlet	20
34	21046	R/C Pipe Culvert 61-64(II)	52+797	2 Ø1,0M	14,93	Silty inlet 50% silty outlet 80%.	To provide the cleaning of the culvert and the channel 70m upwards, 200m downwards.	20
35	21047	R/C Pipe Culvert 59-60 (II)	53+904	Ø 1,0 M	15,1	In a good condition.	-	
36	21048	R/C Pipe Culvert 65-68(II)	54+780	2 Ø 0,9+0,8M	12,5	The joints between the sections are poorly plastered.The inlet, outlet are destroyed.	To replace the inlet, outlet. Sealing of joints 100%	317
37	21049	R/C Pipe Culvert 69-72(II)	55+330	2 Ø 1,0M	16,8	The R/C culvertis extended by DP sections. Silting up 5%.The joints between the sections are poorly plastered.	The culvert needs to be cleaned and the joints need to be sealed 100%	20
38	21050	R/C Pipe Culvert 73-74(II)	56+011	Ø 0,8 m	15,8	The R/C culvertis extended by DP sections d=0,8m. The joints between the sections are poorly plastered	To be replaced by a pipe of a diameter 1,2m.	183
39	21051	R/C Pipe Culvert 75-76(II)	56+350	Ø 0,8 m	16,2	The R/C culvertis extended by DP sections d=0,8m. The joints between the sections are poorly plastered. The inlet broke. The plaster of the outlet is gone off.	To be replaced by a pipe of a diameter 1,2m.	183

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40	21052	R/C Pipe Culvert 77-79 (II)	57+065	2 Ø 1,2M	14,44	The culvert with a reception chamber and a grid on it is on the territory of the fuel station PETROM. The reception chamber is surrounded by kerbs and the water from station area can't get to the chamber. Another pipe, a DP one d-1,0M, placed underneath the fuel station is falling down into the chamber and it takes the water from the slope. The pipes 2 Ø 1,2M are lowly placed. Silty outlet-50%	To clean 100 m-section from the pipe outlet alongside the road.	20
41	21054	R/C Pipe Culvert 112-115(II)	58+404	Ø 1,5 m	15,9	At the inlet there is a small bridge of espalliere posts. Silty outlet 50%	To replace the espalliere posts by a R/C slab L =3m. To clean the pipe and the discharging channel on a 100m-section.	80
42	21055	R/C Pipe Culvert 116-118(II)	58+723	Ø 1,0 m	16,08	At the inlet there is a walkway of a R/C slab, laying over the chute. Silty outlet 80%.	To clean the pipe and the discharging channel on a 200m-section.	183
43	21056	R/C Pipe Culvert	58+915	Ø 1,0 m	16	At the inlet there is a walkway of a R/C slab, laying over the chute. The silty outlet 30%.	It is necessary to clean the pipe and the discharging channel on a 100m-section.	20
44	21057	R/C Pipe Culvert 121-124 (II)	59+214	3 Ø 0,8 m	18,8	The carrying capacity is not enough. Silting up. Difficult to maintain. Low height of the embankment.	Due to low height of the embankment to provide a bridge passage of 6m length. To clean the channel 1,0m-deep on a sector of 150m.	See Table 9-5

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45	21058	R/C Pipe Culvert 125+133(II)	59+868	Ø 1,2M	19,8	Silting up of the culvert 80%. 30M from the outlet there is another pipe d = 1,25M, which is placed higher, this leading to silting up of the pipe under the road. The second pipe is also silty because of the silty channel that falls into the river Cogilnic	To replace the pipe by another one of 1,5M. To clean the pipes and the discharging channel on a 500M-section up to river Cogilnic.	270
46	21059	R/C Pipe Culvert 134-136(II)	60+083	Ø 0,8M	25,8	The culvert is in a good condition. Silty inlet 20%. The discharging concrete chute is silty 20%.	To perform the cleaning of the discharging chute on a 300M-section and to replace the pipe by a chute.	109
47	21060	R/C Pipe Culvert 138-140(VI)	60+550	Ø 1,0 M	19	No outlet. Silting up of the pipe 70 %.	To construct an outlet. To perform the cleaning of the structure.	80
48	21062	R/C Pipe Culvert 1-3(III)	62+953	Ø 1,0 M	19,67	The inlet, outlet of the pipe are widened by a DP d =1,0m. The center part remained to be of R/C d= 0,75m	Road Rehabilitation Area.	
49	21063	R/C Pipe Culvert 4-5 (III)	63+166	3 Ø 1,2M ⇒1,0M	19,62	The inlet, outlet of the pipe are widened by a DP d =1,0m. The center part remained to be of R/C d= 0,75m	Road Rehabilitation Area.	
50	21064	R/C Pipe Culvert 6-7 (III)	67+764	Ø 1,0M	19,41	A pipe with a reception chamber. Silting up 50% The center section - a rectangular cross-section of boulder stone.	Road Rehabilitation Area. It will be performed the cleaning	
51	21065	R/C Culvert 8-15 (III)	69+514	2×2M with a raised section	35,05	Between the linking sections 12-16 from the outlet there is an ingress of water.	Waterproofing of the body of the pipe.	70
52	21066	R/C Pipe Culvert 16-17 (III) 141-142(VI)	70+686	Ø 1,0M ⇒0,75M	13,9	At the inlet R/C d= 1,0m at the outlet R/C d= 0,8m	Road Rehabilitation Area.	



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53	21067	R/C Pipe Culvert 18-19 (III)	72+536	Ø 1,2M	21,74	There is small bridge at the inlet 1,2x1,0m. Silting up 50%	Road Rehabilitation Area. It is necessary to clean the pipe	20
54	21068	R/C Pipe Culvert 20-22(III) 143(VI)	72+886	2 Ø1,6M	24,35	In a good condition. The center part - a R/C pipe Ø 1,5m	Road Rehabilitation Area.	
55	21069	R/C Pipe Culvert 23-26 (III) 144(VI)	74+238	Ø 1,0M ⇒1,0x1,5M	12,72	In a good condition. The inlet d= 1,0m, further a rectangular cross-section 1,0x1,5m of boulder stone. Silting up 40%.	Road Rehabilitation Area.	
56	21072	R/C Pipe Culvert 97-98(III)	85+064	Ø 1,0 m	27,23	In a good condition. No inlet.	To provide an inlet.	80
57	21073	R/C Culvert⇒Bridge ⇒Culvert 99-105(III)	88+236	2(2x2) ⇒ 4,9m⇒2(2x2)	25,4	In a good condition, except the abutment of the bridge, the concrete they are made of is getting degrading at the level of 1,0m from the bottom	To plaster the abutment.	57
58	21074	R/C Pipe Culvert 106-107 (III)	88+629	Ø 1,0 m	23,57	The joints between the linking joints are poorly plastered.	To seal the joints 100%	2
59	21075	R/C Culvert⇒Bridge 108-114(III)	89+706	2(4x2,5) ⇒ 5,0m⇒2(4x2,5)	26,45	The arched stone bridge is widened by a R/C pipe 2(4x2,5) The structure is in a good condition. Silting up 10%.	To clean the structure and the discharging channel on a sector of 100m, 15m at the outlet.	20
60	21076	R/C Pipe Culvert 159(VI)	91+123	Ø 1,0 m	23	Silting up 90%.	To clean the structure and the 200 m of the discharging channel up to river lal pug	20
61	21077	R/C Culvert DP (Delivery Pipe) Culvert	91+345	2(25x2)+Ø 1,2	11,65	The R/C culvert was constructed up to the cha	To be replaced by a bridge 3 by 12m each.	See Table 9-5

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62	21078	R/C Pipe Culvert 129-130 (III)	91+873	Ø 0,8 m	34,89	Silting up 50%.	To clean 50m upwards and 100m downwards the pipe. To be replaced by another pipe of 1,2m	183
63	21080	R/C Pipe Culvert 139 -141 (III)	92+248	Ø 0,7 m	12,01	The inlet broke. No berm (consolidation of stone) at the outlet.	To replace the pipe by another one of Ø 1,2 m.	183
64	21081	R/C Pipe Culvert 142-145 (III)	92+438	Ø 1,0 m	12,25	The inlet, outlet are getting destroyed. Silting up 15%.	To replace the inlet, outlet. To clean 70m on each side.	80
65	21082	R/C Pipe Culvert 146-147 (III)	92+681	Ø 1,0 m	12,62	The inlet, outlet are getting destroyed. Silty inlet 60%, silty outlet 100%.	The carrying capacity is not enough to take the design debit of water. To be replaced by a pipe Ø 1,2m	183
66	21083	R/C Pipe Culvert 148-149 (III)	92+925	Ø 1,0 m	17,25	No inlet, deteriorated outlet. Silting up 10%.	The carrying capacity is not enough to take the design debit of water. To be replaced by a pipe Ø 1,2m	183
67	21085	Vaulted Culvert 172-177 (III)	94+797	3 × 2,90	15,01	The vaulted pipe is in a good condition.	To be widened if necessary by a pipe 3x2,5m.	200
68	21086	Asbestos/cement Culvert 168-169(VI)	95+119	Ø 0,2 m	12	An asbestos/cement pipe to take the waters of a spring.	To provide a ford chute with orifices.	196
69	21087	R/C Pipe Culvert 178-183(III)	95+335	2 Ø1,0M	16,81	Silting up of the pipe 60%. Overflow on the road.	To provide a ford chute.	162
70	21088	R/C Pipe Culvert 184-187(III)	95+505	Ø 1,0 m	20,26	Silty inlet 70%, silty outlet 10%.	To provide a ford chute.	162

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71	21089	R/C Culvert_Bridge 188-193(III)	96+312	2(2x2)	20,25	It was only a culvert, which was widened by pipe sections 2x2m. Disturbed waterproof of joints between linking sections 4 and 5.	To eliminate the leaking.	70
72	21090	R/C Pipe Culvert 194-196 (III)	96+976	Ø 1,0 m	13,22	It was only a pipe d= 0,8m, which was widened by pipe sections of 1,0m. The joints between the linking sections are poorly plastered.	The carrying capacity is not enough to take the design debit of water. To be replaced by a pipe O 1,2m	183
73	21093	Vaulted Culvert 237-260 (III)	98+741	3,03 x 2,3	11,84	An ovoidal pipe with collar type inlet, outlet. At the outlet there was not provided for a spillway chute. The underneath part of the structure was greatly washed off and the outlet is hanging in the air. As a result the body of the pipe broke. There are longitudinal and transverse cracks on the arch.	To replace the structure by a pipe 2,5x2m	803
74	21094	R/C Pipe Culvert 261-264 (III)	99+392	2 Ø 1,2 m	18,26	Silting up 10% .	To clean the structure and the discharging channel 50m upwards and 100m downwards	20
75	21095	R/C Pipe Culvert 265-268 (III)	99+755	Ø 1,0 m	12,63	Silting up 100%. Overflow on the road	To clean 50m upwards and 100m downwards and to provide for a ford chute	162
76	21096	Vaulted Culvert river Bazac 269-280 (III)	100+252	3,58 x 2,75	27,3	The plaster of the walls was flaking off. A metal bridge with a wood deck was constructed for pedestrians	To plaster the walls and the gaps between the body of the pipe and the wingwalls.	8
77	21097	Culvert 281-285 (III)	100+675	3,2 x 0,6 (mud)	11	The structure is silty 90 %. In a good condition	To clean 100m upwards and 300 m downwards	44

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78	21098	Culvert 286-291(III)	100 + 892	4x1	11,75	Silting up 80%. There are unsealed joints between the slabs on the widened part of the structure	To clean 50m upwards and 200m downwards. To provide waterproofing.	43
79	21099	Culvert 292-301 (III)	101+311	2,95 x0,8	12,85	Silting up 80%. At the outlet there comes a water-supply pipe, - 2 mettal pipes, that make the roots hard to get out of the way.	To clean 50m upwards and 100m downwards and to provide the diversion of communication services	19
80	21100	Culvert 302-307 (III)	101+742	3 x 0,5(mud)	10,47	Silting up 80%.	To clean 50m upwards and 100m downwards	14
81	21101	Culvert 308-310 (III) 172-173(VI)	101+955	1,65 x 0,4	12,3	Silting up 99%.	To clean 200m downwards	8
82	21102	R/C Pipe Culvert 311-315 (III)	102+115	Ø 1,0	11,88	Silting up 80%. Overflow on the road	To provide for a ford chute. To clean the discharging channel 100m.	166
83	21103	Arched Culvert 316-330 (III)	103+080	3 x 1,46	17,42	An arched culvert with collar type inlet, outlet, which was widened by in-situ casting of concrete and constructing a socket inlet, outlet. There are cracks on the arch	To replace the structure by a pipe 2x2m	435
84	21104	Arched Culvert 331-337 (III)	103+409	3,05 x 1,74 inlet, outlet Ø 1,5m	14,56	An arched culvert with collar type inlet, outlet, which was widened by in-situ casting of concrete. A socket inlet, outlet of d =1,5 m. There are cracks on the arch	The carrying capacity is enough to take the design debit of water.	435
85	21105	Vaulted Culvert 337-340 (III)	103+741	3,01x0,6	22,46	Заилнение 98%. Техн. Состояние неизвестное.	Расчистить 50м вверх и 100м вниз	20

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86	21106	R/C Pipe Culvert (III)	104+076	Ø 1,0	11,2	The inlet, outlet are partially destroyed. Silting up 50%. The waterproof of joints is partially disturbed.	To plaster the inlet, outlet. Sealing of the joints 40%. To clean the structure and the discharging channel 30m.	20
87	21107	R/C Pipe Culvert 341-343	104+495	Ø 1,0	11,13	In a good condition	To clean 50 m each side, upwards and downwards	1
88	21108	R/C Pipe Culvert 344-347 (III)	105+094	Ø 1,0	11,39	In a good condition	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe O 1,2m with areception chamber.	183
89	21109	R/C Pipe Culvert	105+571	2 Ø 1,0	12,2	The consolidation at the inlet is deteriorated. There is a small pit, the sides of which are being washed off.	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe 2 O 1,2m with a reception chamber.	317
90	21110	R/C Pipe Culvert 348-351(III)	105+637	Ø 1,0	10,25	Silty outlet 50%	To clean 30 m from the outlet on	1
91	21111	R/C Pipe Culvert 352-356(III)	106+ 089	2 Ø 1,0	12,09	Portal inlet (outlet). The consolidation at the inlet is deteriorated. There is a small pit, the sides of which are being washed off.	To provide for a reception chamber and a new inlet.	80
92	21112	R/C Pipe Culvert 357-360(III)	106+880	Ø 1,0	12,39	No inlet. Disturbed waterproof of joints. At the inlet there is a small pit, the sides of which are being washed off developing into a ravine. The plaster of the joints flakes off	To provide for an inlet together with a reception chamber . To seal the joints 50%. To plaster the inlet, outlet.	80
93	21113	R/C Culvert 361-365(III)	107+185	Ø 1,0	12,49	At the inlet there is a small pit. The joints are poorly plastered, as well as the inlet, outlet	To provide a reception chamber and to seal the jopints 50%. To plaster the inlet, outlet. To have the outlet cledned 30 m.	80

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

item Nr.	Cod	Type of Structure, photo No, (File)	Location chainage +	Culvert Hatchway	Length, m	Technical Condition	Proposed Solutions	Rehabilitation Cost, thousand lei
94	21114	R/C Pipe Culvert 366-371(III)	107+ 509	Ø 1,2 + Ø 0,9	13,7	The structure consists of 2 way pipes d =1,2 and 1,0. The one of d =1,0 m was widened by a DP sections d =1,2 and 1,0 m. The inlet, outlet are partially destroyed. at the inlet there is a small pit	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe 2 O 1,2m with a reception chamber.	317
95	21115	R/C Pipe Culvert 372-375(III)	107+813	Ø 1,0	12,87	There is a pit at the inlet. The walls of the pit are developing into a ravine. Silty outlet 30%.	To provide a reception chamber and a new inlet. To clean the pipe and the channel on a 25 m-section.	80
96	21116	R/C Pipe Culvert 376-380(III)	108+116	Ø 1,0	12,42	There is a small pit at the inlet. The inlet, outlet are destroyed. The walls and the reinforcing bars of the linking sections are exposed.	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe Ø 1,2m with a reception chamber.	183
97	21117	R/C Culvert 381-384 (III)	108 + 428	Ø 1,0	12,68	The pipe is lowly placed, there is pot hole at the outlet. The cleaning is impossible. Silting up 50%	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe Ø 1,2m raising the inlet bottom.	183
98	21118	R/C Pipe Culvert 385-390(III)	108+564	2 Ø 1,0m, at the inlet Ø 1,2m	13,8	One way is silty 50%. The inlet, outlet are poorly plastered 20%	To clean the structure. To plaster the inlet, outlet, especially at the joint with the pipe	20
99	21119	R/C Pipe Culvert 391-398(III)	109 +127	Ø 1,0(0,75)	13,04	On the inlet side it is extended by sections of a DP =1,0 m. At the joint the soil is falling down from the embankment body. The center part of the pipe d =0,75 m, on the outlet side it was also extended by sections of a DP of 1,0 m	To seal the joints. To plaster the outlet.	2
100	21120	R/C Pipe Culvert 399-403(III)	109+527	Ø 0,8(1,0)	12,46	The pipe d =0,8, is extended by sections d =1,0 DP	To plaster the joint between the outlet with the linking section.	2

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

item Nr.	Cod	Type of Structure, photo No, (File)	Location chainage +	Culvert Hatchway	Length, m	Technical Condition	Proposed Solutions	Rehabilitation Cost, thousand lei
101	21121	R/C Pipe Culvert 404-407(III)	109+ 644	Ø 1,0	13,47	A pipe with a reception chamber. The reinforcing bars of the outlet are exposed. The waterproof of jopints is partially disturbed	To seal the joints 20%. To plaster the outlet and the places with the exposed reinforcing bars.	2
102	21122	R/C Pipe Culvert 408-415(III)	109+964	Ø 1,0 Ø 1,2	16,56	A pipe with a reception chamber without a grid of 3,10 m deep. The clearances of the chamber 1,3 x 1,70 m. The whole pipe consists of rings of 1,2 m, at the outlet d=1,0 m. At the carriageway there is deflection. photo -415(III)	To provide a grid for the chamber	20
103	21123	R/C Pipe Culvert 416-421(III)	110+ 960	Ø 1,0	13,55	Disturbed waterproof of joints 20%	To seal the joints	1
104	21124	R/C Pipe Culvert	111+ 798	Ø 1,0	12,31	There is a small pit at the inlet.The sides of the pit are developing into a ravine. Silty outlet 40%.	To provide a reception chamber and a new inlet. To clean the pipe and the channel on a 25 m-section	80
105	21125	R/C Pipe Culvert 422-426(III)	112+740	Ø 1,0	12,5	At the inlet d=1,0 m inside 0,8 m. A pit at the outlet. During rainfalls there appears a lake (pond) and the water stays in the pipe.	To replace the pipe by a chute, raising the bottom higher than the level of the terrain	109
106	21126	R/C Pipe Culvert 427-431(III)	113 + 415	Ø 0,8 Ø 1,0	12,54	The pipe d=0,8 is widened d- 1,0. The plaster on the joints partially flakes off	To seal the joints 30%	2
107	21128	R/C Pipe Culvert 28-30 (IV)	114+ 937	Ø 1,0	16	Silting up 100 %.Overflow on the road	To provide a ford chute and to clean the channel 200 m on each side upwards and downwards	109
108	21129	R/C Pipe Culvert 31-35(IV)	115+450	Ø 0,75	11,67	Silting up 100 %. Overflow on the road	To clean 30 m upwards, and 200 m downwards. To arrange the drainage from the carriageway, constructing a	109
109	21130	R/C Pipe Culvert 36-39(IV)	115+ 630	Ø = 0,5	11	Silting up 100 %.Overflow on the road	To provide a ford chute	109

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

item Nr.	Cod	Type of Structure, photo No, (File)	Location chainage +	Culvert Hatchway	Length, m	Technical Condition	Proposed Solutions	Rehabilitation Cost, thousand lei
110	21131	R/C Pipe Culvert 39-50(IV)	115+ 836	2 Ø 1,5	23,06	The RHS section is 50% silty at the inlet. The outlet of a section --100%, of the other - 80%. There is a pedestrian metall bridge aside, the abutment of which are getting destroyed	To clean 100 m upwards, 300 m downwards. To provide for a wall of piles against the moving roots. To reconstruct the pedestrian bridge	109
111	21132	R/C Pipe Culvert 51-55(IV)	116+ 031	Ø 0,75	11,32	Silting up 60 %	To replace the pipe by a ford chute. To clean 100 m upwards, 150 m downwards	109
112	21133	R/C Pipe Culvert 56-59(IV)	116+ 981	2 Ø 1,0	12,69	Silting up 30 %	Pipe cleaning.Channel cleaning 30m-upwards, 300 m at the outlet	11
113	21134	R/C Pipe Culvert 60-64(IV)	117+278	2 Ø 1,0	12,00	Silting up 80 %. Available Inlet, outlet.	Cleaning upwards - 50m, downwards 200 m. To replace the pipe by a ford chute.	109
114	21135	R/C Pipe Culvert 65-66(IV)	117+ 676	Ø 0,8	15,00	In a good condition	The carrying capacity is <b>not</b> enough to take design debit of water. To add some pipe 2 d = 1,2m	317
115	21137	R/C Pipe Culvert 85-90(IV)	118+812	Ø 1,0	14,53	The first linking section at the inlet is cracked. Unsealed joints 100%.	The carrying capacity is <b>not</b> enough to take design debit of water. To be replaced by a pipe 2 d = 1,2m.	317
116	21138	R/C Pipe Culvert 91-93(IV)	119+021	2 Ø 0,8	15,00	The plaster of the inlet, outlet flakes off in places	To plaster the inlet, outlet	20
117	21139	R/C Pipe Culvert 94-97(IV)	120+335	2 Ø 0,8	13,19	The R/C pipe is widened by sections of DP. Silty inlet 20% silty outlet 80%. The RHS wingwall is deteriorated. The Plaster of the outlet is gone off	To construct the wingwall at the inlet, outlet. To clean the pipe. To expand the pit at the outlet. To clean the channel 20 m from the outlet. To plaster the inlet, outlet.	50



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118	21140	R/C Pipe Culvert 98-101(IV)	120+726	Ø 1,0	15,10	Заилена вход 10% выход 60 %. Отпала штукатурка оголовков 20%	To clean the structure and the discharging chute by 50 м. To plaster the inlet, outlet 20%	20
119	21142	Ovoidal Culvert 144-147(IV)	122+ 626	3x2,3	10,6 (15,5)	An ovoidal pipe with collar type inlet, outlet. There is a fissure along the whole arch	To replace the pipe by another one according to the design (d =1,2м). An overflow pipe.	183
120	21143	R/C Pipe Culvert 148-151(IV)	123+ 802	Ø 1,2	15,93	A culvert with a reception chamber.Silting up 30%. The plaster of the inlet, outlet partially flakes off	To clean the structure, to plaster the inlet, outlet	20
121	21144	Ovoidal Culvert 152-158(IV) r. M.Cunduc	124+542	3,0x2,5	13,9 (18,5)	Poor condition. Therea cracks on the arch.	To be replaced by a pipe d =1,2м	183
122	21145	R/C Pipe Culvert 159-160(IV)	125+524	Ø 1,0	22,2	Silting up 70%. Unknown technical condition inside. Overflow on the road. The inlet, outlet are cracked. The pipe is widened by sections =1,0м.A water-supply pipe is placed there inside	To be replaced by a ford chute. To clean the channel 50m upwards and 200 m downwards.	166
123	21146	R/C Pipe Culvert 161-163(IV)	126+324	Ø1,0 (d =0,75)	10,8	Portal inlet, outlet Silting up 30% Cracked inlet, outlet. The pipe is widened by sections of 1,0 м. A mettal pipe of d =10 cm comes there inside	To clean the channel 50m upwards and 200 m downwards.	150
124	21147	R/C Pipe Culvert 164-165(IV)	126+333	Ø 1,0	10,72	Portal inlet, outlet.Silting up 40%.There are cracks on the inlet, outlet	The carrying capacity is enough. To clean the channel 50m upwards and 200 m downwards. To clean the road sector of the alluviam silt 1,5km (shoulders) running through village Svetlii	170

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125	21148	R/C Pipe Culvert 166-169(IV)	126+841	Ø 1,0	10,46	The waterproof of joints is partially disturbed	The carrying capacity is not enough to take the design debit of water.To be replaced by another pipe of 1,2m.	183
126	21149	R/C Pipe Culvert 170-171(IV)	127+131	Ø 1,0	8,15	Silting up 60%	To clean the pipe and 20 m upwards and 50 m downwards	20
127	21151	R/C Pipe Culvert 186-188(IV)	128+971	2 Ø 1,0	13,11	Destroyed inlet	To provide for an inlet and the consolidation of the bottom	80
128	21153	R/C Pipe Culvert 205-210(IV)	131+543	Ø1,2 (d =1,0)	12,58	The pipe 1,0 m is widened by a DP d =1,2. The inlet is partially destroyed. The outlet is all over cracked. A part of the structure is built of stone blocks. Disturbed waterproof of joints. The margins allowed over the pipe up to the carriageway are not compliant.	To be replaced by a new structure. Of a chute type 1,6x0,6m	168
129	21154	R/C Culvert 211-212(IV)	132+103	Ø 1,0	12,85	Silting up 50%. Disturbed waterproof of joints.Destroyed inlet, outlet	To replace the inlet, outlet.Sealing of the joints 50%	80
130	21155	R/C Pipe Culvert 213-216(IV)	133+487	Ø 0,75 Ø 1,0	12,55	The R/C pipe d =0,75 is widened by sections of a DP d =1,0 . Unsealed joints and the soil coming though the gap	To be replaced by a new structure , a pipe d =1,2m.	183
131	21157	R/C Pipe Culvert 236-237(IV)	135+766	Ø 1,0	11,56	Silting up 40% at the inlet the parapet crashed down into the reception chamber as a result of a shock	To provide for thy cleaning of the pipe and 20m downwards.	20
132	21158	R/C Pipe Culvert 208-209(VI)	135+795	Ø 0,8	11,56	Silty inlet 100% silty outlet -80%	It is not recommended to be rehabilitated.	

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133	21159	R/C Pipe Culvert 238-240(IV)	135+911	2 Ø 1,0	12,9	One way is silty	The carrying capacity is enough to take the design debit of water, provided the second way is cleaned	20
134	21160	R/C Pipe Culvert 241-252(IV)	136+480	2 Ø 1,0	11,91	The sections are squashed. There are a lot of cracks.	To replace the pipe by another one 2 d =1,2m	317
135	21161	R/C Pipe Culvert 253-256(IV)	139+873	Ø 1,0	13,02	The pipe of 1,0 m is widened by another one of d =1,2 and a DP =1,0. The inlet and outlet made of stone blocks are 50% destroyed. Disturbed waterproof of joints	To replace the inlet, outlet and to seal the joints	70
136	21162	R/C Pipe Culvert 257-264(IV)	140+253	Ø 1,0	12,94	The R/C pipe 1,0 m is widened by a DP d =1,0. The arch and the bottom of the linking sections are cracked. The inlet, outlet are made of stone blocks	The carrying capacity is not enough to take the design debit of water and due to technical problems to be replaced by another pipe of d =1,2m.	183
137	21163	R/C Pipe Culvert 265-274(IV)	140+500	2 Ø 1,0 средняя часть Ø 0,75	11,85	The inlet, outlet are made of stone blocks and the arch and the bottom are cracked	The carrying capacity is not enough to take the design debit of water and due to technical problems to be replaced by another pipe of d =1,2m. To provide the consolidation and the inlet and a reception chamber.	183
138	21164	R/C Pipe Culvert 275-277(IV)	141+000	Ø 1,0	13,29	Silting up 40% no reception chamber and a developing ravine. The pipe d =1,0 m is widened by a DP	To have a reception chamber. To clean 20 m from the outlet on. To seal the joints 100%. To clean the structure. To replace the inlet, outlet.	70
139	21165	R/C Pipe Culvert 278-284(IV)	141+328	Ø 1,0	14,06	Disturbed waterproof of joints	To have a reception chamber. To seal the joints 50%	70

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140	21166	R/C Pipe Culvert 285-289(IV)	141+940	Ø 1,5	13,86	Silting up 100% It is lowly placed. Unknown technical condition. The inlet, outlet are made of espaliere posts and red bricks. Overflow on the road. Much silt on the road	To be replaced by a new pipe d =1,5m raising the bottom by app. 1,0 m. Cleaning of the discharging channel 50 M.	270
141	21167	R/C Pipe Culvert 290-292(IV)	142+379	Ø 1,0	15,0 m	Disturbed waterproof of joints. No inlet. No consolidation at the outlet.	To seal the joints To provide for an inlet, to have a consolidation at the outlet. To have a reception chamber. To plaster the available outlet	70
142	21168	R/C Pipe Culvert 293-295(IV)	142+628	Ø 1,0	15,9	Disturbed waterproof of joints. The inlet, outlet are made of a poor concrete and are getting deteriorated. At the inlet there appears a ravine	To seal the joints. To replace the inlet, outlet. To have a reception chamber	80
143	21169	R/C Pipe Culvert 296-299(IV)	142+812	Ø 1,0	13,96	Fair condition. Disturbed waterproof of joints. inside the culvert there comes a metall pipe d=10cm for the waters of a spring.	To seal the joints	20
144	21170	R/C Culvert 300-307(IV)	143+649	2,5 x 2	40,5	A new pipe with a stepped foundation. No outlet and the edge section is displaced from the adjacent one by 5 mm. The drainage system on the slopes of the embankment are destroyed.	To dismantle the edge section and to provide a new outlet. To urgently restore the drainage systems.	226
145	21171	R/C Pipe Culvert 308-311(IV)	144+ 571	d =1,0	14,11	A portal inlet. No reception chamber at the inlet. Disturbed waterproof of joints.	To seal the joints. To provide for a reception chamber. To have the consolidation at the outlet (the berm- consolidation of stone)	70

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146	21173	R/C Pipe Culvert 319-322(IV) r. Ciocrac	146+719	2 Ø 1,0	14,48	Disturbed waterproof of joints 100%.The inlet, outlet are destroyed, no reception chamber at the inlet.	The carrying capacity is not enough to take the design debit a water.To be replace4d by another pipe of 2d =1,2m.	317
147	21174	R/C Pipe Culvert 323-326(IV)	146+829	Ø 1,0	13,53	The pipe is lowly placed. No reception chamber. A ravine is developping Disturbed waterproof of joints. Atb the outlet there is a pit, collecting the water, which stays in the pipe too.	To provide a new pipe d =1,2m, with a reception chamber raising the level of the pipe bottom.	183
148	21175	R/C Pipe Culvert 327-329(IV)	147+349	Ø 1,0	13,46	The pipe is clean. Disturbed waterproof of joints.It is widened by a DP section at the outlet. No receptrion chamber. Silty outlet 40 %. Silty inlet 30 %.	To seal the joints. To construct a reception chamber. To clean 50 m at the outlet.	70
149	21176	R/C Pipe Culvert 330-333(IV)	147+833	Ø 1,0	13,77	The R/C pipe=1.0m is widened by a DP d=1.0m. No reception chamber. Silty channel at the outlet. Disturbed waterproof of joints. Cracked outlet. The outlet plaster is partially gone off.	To provide a reception chamber together with the inlet. To plaster the outlet. To seal the joints.	70
150	21177	R/C Pipe Culvert 334-336(IV)	148+209	Ø 1,0	11,46	Silting up 100%. Unknown technocal condition.	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe d = 1,2m	183

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151	21178	R/C Pipe Culvert 337-339(IV)	148+395	Ø 1,0	11,93	Silty inlet 30 %, silty outlet -70 %. Disturbed waterproof of joints.	The carrying capacity is <b>not</b> enough to take the design debit of water. To be replaced by a pipe d = 1,2m	183
152	21179	R/C Pipe Culvert 340-345(IV)	148+558	Ø 1,0	13,71	Silting up 90 %.	To seal the joints.To clean 120m of the bed from the outlet on to have a channel.	183
153	21180	R/C Pipe Culvert 346-347(IV)	148+746	Ø 1,0	12,00	No technical tolerances (margins) between road pavement and the body of the pipe. The pipe is silty 100 %. Overflow on the road.	To replace the pipe by a ford chute. To provide the cleaning of 120m of the discharging bed to have a channel	183
154	21181	R/C Pipe Culvert 348-350(IV)	149+227	Ø 1,0	10,97	Silting up 20 % - 50 %. Disturbed waterproof of joints. the outlet is cracked and the plaster flakes off.The discharging channel is silty.	To seal the joints.To replace the outlet.To clean 100 m of the bed to have a channel	70
155	21182	R/C Pipe Culvert 351-353(IV)	149+882	Ø 1,0	15,20	Silty inlet - 50 %,silty outlet - 80 %. It is widened by DP sections at the outlet. The inlet is made of poor concrete and is getting deteorating. A vertical fissure through the pipe.Disturbed waterproof of joints.	To replace the inlet. To seal the joints. To clean the structure and 70 m of the discharging bed to have a channel.	70
156	21183	R/C Pipe Culvert 354-356(IV)	150+121	Ø 1,0	14,48	The R/C pipe is widened by DP sections. No reception chamber. Vertically broken outlet.	To replace the outlet. To clean 70 m from the outlet to have a channel	70
157	21184	R/C Pipe Culvert 357-359(IV)	150+521	Ø 1,0	15,37	Disturbed waterproof of joints.The inlet, outlet plaster flakes off.	To seal the joints. To clean 70 m at the outlet	20

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<b>ite m Nr.</b>	<b>Cod</b>	<b>Type of Structure, photo No, (File)</b>	<b>Location chainage +</b>	<b>Culvert Hatchway</b>	<b>Length, m</b>	<b>Technical Condition</b>	<b>Proposed Solutions</b>	<b>Rehabilitat ion Cost, thousand lei</b>
158	21185	R/C Pipe Culvert 360-362(IV)	150+964	Ø 1,0	14,20	Cracked inlet, outlet. No reception chamber at the inlet. The pipe is widened by a DP.	To replace the inlet, outlet and to have a reception chamber at the inlet. To seal the joints 100%	80
159	21188	R/C Pipe Culvert 384-385(IV)	151+903	Ø 1,0	12,93	Silting up 100 %. It is lowly placed, lower than the food-lands.	To be replaced by a new one d=1,2m	183
160	21189	R/C Pipe Culvert 217(VI)	152+222	Ø 1,0	12,51	Silting up - 50 %.	To provide for the cleaning of the pipe and of 50m. the discharging channel	20
161	21190	R/C Pipe Culvert 386-387(IV)	152+374	Ø 1,0	12,26	Clean inlet. Silty outlet 50 %.	Sealing of the joints 50 %.To clean the pipe and the channel -100 m.	20
162	21191	R/C Pipe Culvert 388-389(IV)	154+549	Ø 1,0	15m	A DP without inlet, outlet. It is not built on a foundation. The underground waters are close.	To dismantle the pipe and to construct a new one on the same place, raising the bottom.	152
163	21192	Irrigation Chute 390-391(IV)	156+465	Ø 0,6	12,2	A R/C chute for irrigation	The carrying capacity is not enough to take the design debit of water.To be replaced by a pipe d =1,2m.	183
164	21194	R/C Pipe Culvert 403-405(IV)	161+040	Ø 0,75	8,47	The pipe d =0,75 is widened by d =1,0. Silting up 50%.The embankment is low	To be replaced by a chute 1 x 1 m	168
165	21195	R/C Pipe Culvert 406-411(IV)	162+420	Ø 1,0	19,35	The pipe is oblique. Cracked inlet, outlet. The outlet has holes in the arch. Disturbed waterproof off joints	To be replaced by a pipe according to the design	152
166	21196	R/C Pipe Culvert 412-417(IV) 6.Curcinju	167+932	3 Ø 2,0	20,68	A petticoat pipe d =2,0 with a cone inlet section. The inlet, outlet are are all over cracked	To plaster the inlet, outlet	20

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167	21197	R/C Pipe Culvert 418-425(IV) 6.Malaiului	169+320	3 Ø 2,0	27,84	The waterproof of joints is partially disturbed. The inlet, outlet are all over cracked and in places the plaster is gone off. Silting up 10%	To seal the joints 10%. To plaster the inlet, outlet 20%. To clean 60m at the outlet	20
168	21198	R/C Pipe Culvert 426-432(IV)	171+043	2 Ø 1,0	12,31	No reception chamber at the inlet and there appeared a ravine. The portal inlet is inlined against the road. There exists the danger for it to crash down.	To dismantle the inlet and to construct a reception chamber together with the inlet	90
169	21200	R/C Pipe Culvert 453-455(IV)	173+155	2 (Ø1,2 и Ø1,0)	20	2-way DP pipe of different diameters. Silty outlet 50%. The inlet, outlet are all over cracked and their deterioration is imminent	To replace the inlet, outlet. To clean 20m	80
170	21204	R/C Pipe Culvert 510-512 (IV)	177+ 303	2 Ø 0,8	13,16	In a good condition. There exists a charging concrete chute. At the outlet there is a spillway chute of a cascade (overfall) type. The pipe inside is of R/C. d=0,75	The carrying capacity is not enough to take the design debit of water. To be replaced by a pipe d =1,2m.	183
171	21205	R/C Pipe Culvert 513-514(IV)	179+303	Ø 1,0	15,11	An inlet. The arch has a fissure.	To plaster the inlet. To seal the joints 50%	20
172	21207	Ovoidal Culvert 535-541(IV)	181+ 854	1,5x1,0	15,7	An ovoidal pipe, extended by an inlet of an ovoidal shape. At the widening (L=1,2m) from the inlet and outlet side the bottom consolidated with loosely spread concrete is deteriorated. The joint between the pipe and the inlet, outlet is not plastered.	To seal the joints. To have a new capital consolidation of the bottom at the inlet, outlet.	70
173	21208	Ovoidal Culvert 542-545(IV)	182+694	1,2x0,9	15,29	An ovoidal pipe, extended by an inlet, outlet. The bottom is deteriorated in area of the inlet (L=1,6m)	To dismantle the inclined inlet (outlet) and to construct a new one. To provide for a new consolidation of the bottom. To clean 15 m.	80



**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

item Nr.	Cod	Type of Structure, photo No, (File)	Location chainage +	Culvert Hatchway	Length, m	Technical Condition	Proposed Solutions	Rehabilitation Cost, thousand lei
174	21209	Ovoidal Culvert 546-550(IV)	183+169	1,0x0,65	15,09	The ovoidal pipe is extended by an inlet (outlet). On the RHS the inlet is inclined and its fall is imminent. At the widenings at the inlet and at the outlet ( 1,5m on each side) the bottom is destroyed.	To provide for a new inlet. To consolidate the bottom at the inlet and at the outlet, kerbing it with concrete. To plaster the joint of the widening.	80
175	21210	Ovoidal Culvert 551-555(IV)	183+670	1,2x0,95	16,05	The ovoidal pipe is extended by an inlet and an outlet 1,7m each. The bottom of the extensions is deteriorated.	To restore the bottom on the widenings. To plaster the arch and the widening walls.	80
176	21211	Ovoidal Culvert 556-557(IV)	184+343	1,2x0,98	15,64	An ovoidal pipe extended by in-situ casting of concrete 1,65m on each side at the inlet and at the outlet. The bottom is destroyed. Unsealed joints at the extensions.	To restore the consolidation of the bottom. To seal the joints.	80
177	21212	R/C Pipe Culvert 558-564(IV)	189+294	Ø 1,0	14,29	Disturbed waterproof of joints. The consolidation is deteriorated at the outlet.	To seal the joints 50 %. To restore the consolidation at the outlet.	80
178	21213	R/C Pipe Culvert 565-573 (III)	190+131	Ø 1,0	14,34	The inlet is destroyed, the consolidation is deteriorated. Destroyed inlet. Disturbed waterproof of joints. The first section at the inlet has a fissure	To replace the inlet, outlet, and to provide for a reception chamber. To seal the joints 50 %. To clean 15 m.	100
179	21214	Cast-in-situ Culvert 11 (V) r Bujorului	191+133	2x2,11 with a raised inlet 2,8m	17,38	The wingwalls are performed of loose concrete. The consolidation at the outlet is deteriorated. The pipe is lowly placed, 1,5m lower than the flood-lands. During high waters half of the pipe is full of water.	To replace the existing pipe by a new one 2x2m raising the bottom of the pipe up to the level of the flood-land.	551

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

item Nr.	Cod	Type of Structure, photo No, (File)	Location chainage +	Culvert Hatchway	Length, m	Technical Condition	Proposed Solutions	Rehabilitation Cost, thousand lei
180	21215	R/C Pipe Culvert 12-17 (V)	192 + 383	Ø 1,0	14,41	No reception chamber at the inlet. The consolidation at the outlet is deteriorated. The plaster is gone off. Disturbed waterproof of joints.	To have a reception chamber at the inlet. To seal the joints 50 %. To provide for a consolidation at the outlet.	100
181	21216	R/C Pipe Culvert 18-26 (V) r. Rosilor	193 + 533	2 d =1,5	18,22	The inlet is destroyed. The linking sections are all over cracked. The outlet of pipe is placed lower than the flood-lands.	To be replaced by a pipe 2x2M with a raised inlet section and raising the bottom by 1,5m at the level of the flood-lands	462
182	21217	Cast-in-situ Culvert 27-44 (V) r. Unturii	194+157	2,04x2,45	22	Poor technical condition. The structure is all over cracked. Lack of consolidation at the outlet. Traces of overflow.	<b>To replace the structure by a bridge passage 2 by 12m each with fencing walls</b>	<b>See Table 9-5</b>
183	21218	R/C Pipe Culvert 45-49(V)	195+504	Ø 1,5	18,79	The sections are sqashed taking an oval shape	The carrying capacity is enough to take the design debit of water, but due to technical problems to be replaced by a pipe d =1,6m.	271
184	21219	R/C Pipe Culvert 50-60(V)	195+923	2 Ø 1,5	26,1	The sections are sqashed taking an oval shape	The carrying capacity is not enough to take the design debit of water, traces of an overflow. To replace the structure by a pipe 2,5x2M with a raised section	909
185	21220	R/C Pipe Culvert 61-67(V)	197+217	Ø 1,5	13,34	The inlet, outlet are all over cracked and no plaster. Most of the linking sections are cracked. Disturbed waterproof of joints.	The carrying capacity is enough to take the design debit of water, but due to technical problems to be replaced by a pipe d =1,6m.	271

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

item Nr.	Cod	Type of Structure, photo No, (File)	Location chainage +	Culvert Hatchway	Length, m	Technical Condition	Proposed Solutions	Rehabilitation Cost, thousand lei
186	21221	R/C Pipe Culvert 68-69(V)	198+004	Ø 1,0	13,54	There exists a fissure of the outlet.	To plaster the fissure.	20
187	21222	Cast-in-situ Culvert 70-83(V)	199+988	2,97 x 2,80	18,23	The pipe has an oblique inclination of 45 grades. The constructional joints are not sealed. There exist cracks on the wingwalls, in places the plaster is gone off.	To seal the joints. To plaster the inlet, outlet.	80
188	21223	Culvert 84+85(V)	201+621	3,74x0,6	9,58	Siting up of the bridge 60 %.	To clean the structure 100m from the outlet 1,0m-deep.	80
189	21225	R/C Pipe Culvert	206+974	Ø 0,75	7,5	Silting up 100%	It was a pipe Currently there is no need of this pipe.	
190	21227	R/C Pipe Culvert 122-123(V)	207+236	2 Ø 0,75	15,42	One way is silty. Unknown technical condition. It is lowly placed. There is an extension of DP 0,8	To be replaced by a pipe d =1,2m	183
191	31228	Ford Chute 124-125(V)	207+351			It proved to be a good one.No washing off.	To provide for a ford chute according to the design	163
192	31229	Ford Chute	207+510			«-«-«-«	To provide for a ford chute according to the design	163
193	31230	Ford Chute	207+829			«-«-«-«	To provide for a ford chute according to the design	163
194	31231	Ford Chute	208+029			«-«-«-«	To provide for a ford chute according to the design	163
194	31232	Ford Chute	208+145			«-«-«-«	To provide for a ford chute according to the design	163
196	21233	R/C Pipe Culvert 130 -132(V)	209+ 600	Ø 1,0	12,88	The pipe d=0,75 is extended by a pipe d=1,0 M. In places the plaster of the inlet, outlet is gone off.	The carrying capacity is not enough to take the design debit of water.To be replaced by a pipe d =1,2m.	183

**Technical Condition of the Existing Culverts on Chisinau - Giurgiulesti, M - 3 Road, km 0 - 214**

<b>item Nr.</b>	<b>Cod</b>	<b>Type of Structure, photo No, (File)</b>	<b>Location chainage +</b>	<b>Culvert Hatchway</b>	<b>Length, m</b>	<b>Technical Condition</b>	<b>Proposed Solutions</b>	<b>Rehabilitation Cost, thousand lei</b>
197	21234	R/C Pipe Culvert 133-136(V)	210+578	Ø 0,8	12,15	It is lowly placed	The carrying capacity is not enough to take the design debit of water. To be replaced by a pipe d =1,2m.	185
198	21236	Culvert 148-150(V)	213+862	1,54x0,4	9,6	Silting up 60%. Overflow on the road.	To clean 100m downwards the outlet 1,1m deep.	20
199	21237	R/C Culvert 151(V)	214+176	Ø 0,8	9,59	Silting up 100%. Overflow on the road.	To be replaced by a ford chute	163