



PROJECT APPRAISAL DOCUMENT

***Construction of local roads in Rankovce
municipality***

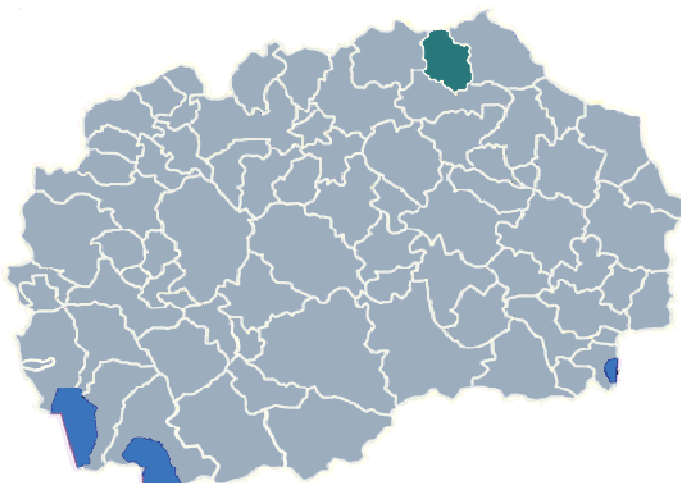
December 2012

RANKOVCE MUNICIPALITY

I. PROJECT DESCRIPTION

A. GENERAL INFORMATION ON THE MUNICIPALITY

1. Location map



2. Information

Rankovce is municipality in northeastern part of Macedonia. The municipality borders Serbia to the north, Kriva Palanka municipality to the east, Kratovo municipality to the south, and Staro Nagoricane municipality to the west. The distance to Macedonia-Bulgaria border is only 30 km (via Kriva Palanka). The road passing by Rankovce municipality and leading to the border with Bulgaria continues to Istanbul and is one of the main roads in the Balkans. Rankovce is also the name of the town where the municipal seat is found. Municipality is part of the northeastern statistical region.

According to the 2002 Census, the municipality has 4,144 residents living in 18 rural settlements located on a territory of 241 km². By municipal data the number of population is growing due to return of pension age population from Skopje and other big cities, where they moved for work. Municipality estimates the number of population at about 5,000.

Table 1: Main characteristics of settlements

	Settlement	Population	Households
1.	Rankovce	1192	373
2.	Baratlija	39	13
3.	Vetunica	57	28
4.	Vrzogrnici	29	8
5.	German	311	91
6.	Ginovci	315	101
7.	Gulinci	19	10
8.	Krivi Kamen	23	9
9.	Ljubinci	164	44
10.	Milutince	72	27
11.	Odreno	131	46
12.	Opila	269	97

13.	Otosnica	105	46
14.	P'kliste	30	9
15.	Petralica	669	214
16.	Psaca	539	192
17.	Radibus	157	56
18.	Stanca	23	7
	Total:	4,144	1,371

Source: Rankovce municipality, SSO 2002 Census – book XI

There is one primary school located in Rankovce village operating since 1956. The building was reconstructed in 2000. The school with its branches provides services to 498 pupils and employs 52 persons, including 42 teachers.

In 2006 the CSE “Cist den” was set up by decision of the municipal council. Main responsibilities are: water supply, sewage, horticultural and funeral services.

B. DEMOGRAPHIC AND ECONOMIC PROFILE

1. Gender and age repartition

The age structure shows that 18.3% of the total Rankovce population is more than 65 years old, which is far above the average in Macedonia (11%). Male population is more numerous: 52.5% to 47.5% of female share.

Table 2: Age distribution

	Total	Structure
0-14	818	19.7
15-64	2568	62.0
over 65	758	18.3
Total	4144	100

Source: SSO, 2002 Census, book XI

2. Minorities repartition

According to the ethnic affiliation most of the population is Macedonian (97.9%). Other ethnicities comprise only 2.1% including Romas and Serbs.

Table 3: Population by ethnic groups

	Number	Share
Macedonians	4058	97.9
Albanians	0	
Turks	0	
Romas	57	1.4
Vlachs	0	
Serbs	18	0.4
Bosniacs	0	
Other	11	0.3
Total:	4144	100

Source: Rankovce municipality

3. Employment repartition

By 2002 Census data the unemployment rate in Macedonia was 38% and in Rankovce municipality was 56%. The situation was even more difficult among the female population with 70% of unemployment rate. High unemployment rate creates the need for social assistance – 287 persons get social benefits, out of which 20% represent Roma population.

Table 4: Main employment indicators

	Total	Male	Female
Population over 15y	3312	1725	1587
Labor force (active population)	1127	826	301
Employed	498	409	89
Unemployed	629	417	212
Nonactive	2185	899	1286
Employment rate	15%	24%	6%
Unemployment rate	56%	50%	70%
Activity rate	34%	48%	19%

Source: SSO, 2002 Census, book VI and XII

4. Economy

In 2011 there were 41 active business entities including 23 micro and 18 small enterprises. Out of this number 18 deal with trade, 5 with agriculture and 4 with construction. Population is mostly occupied with agriculture. The biggest employers are the following companies:

- Bosut konfekcija – textile, employment about 100,
- Bentomak Nova – mine for non-metals, employment 85,
- Miva Gradba – construction, employment about 80.

At the municipal territory the state Technological Industrial Development Zone is located. It encompasses territory of 40ha. The government has signed preliminary agreements with investors. If the plans fulfill, about 1000 working places will be created.

C. GENERAL DESCRIPTION OF THE PROJECT

The project envisages construction of 7 local roads in 3 rural settlements: Rankovce, Ginovce and Petralica. Total length of roads covered within this sub-project is equal to 1574m. In Rankovce the project assumes construction of 5 local roads, which are inter-connected, whereas in Ginovce and Petralica there is one local road in each settlement.

1. Current situation

Rankovce is rural municipality in which all settlements are connected with local roads. The total length of local roads in the municipality is 78km, out of which 35km are already asphalted. None of local streets has storm water management system. The streets covered with this project have already water supply and sewage system constructed.

Sewage system is constructed in 3 rural settlements: Rankovce (without filter station), Ginovci and Petralica (with filter station). There are 2172 persons living in those villages, which mean that about 50% of population has access to the sewage services. Technical documentation for sewage network is prepared for Opila and Ljubince.

Water supply network exists in the following rural settlement: Psaca, Odreno, Opila, Petralica, Ginovci, Qubinci, Rankovce, Radibus, Otoshnica and Vetunica. There are 3594 persons living in those villages, which mean that 86% of the population has access to the water supply services.

All roads included in this project are not asphalted. In the past all these local roads have been maintained only with some crushed stone layers. Municipality is making systematic efforts to improve the road infrastructure and provide asphaltting of new local roads, but its financial capacity is limited. For last 4 years it managed to construct/reconstruct 12.3 km of local roads mostly with funds achieved from the World Bank or European Investment Bank (see Table below).

Table 5. Implemented infrastructure projects in Rankovce municipality

	Project name	Financing source
2009		
1.	Construction of football playground in v.Rankovce	AYS
2.	Installation of water heating system in primary school in v.Pcacha	MTC
3.	Construction of water supply section in v.Otoshnica and v.Radibush	MTC
4.	Construction of bridge on Kriva Reka in v.Opila	MTC
5.	Cleaning of river bed and regulation of Rankovacka river	MAFWE
6.	Firefighting vehicle	Donation ¹
7.	Construction of public toilets in v.Rankovce	MTC
8.	20 computers for primary school "H.T.Karpos"	Donation
9.	Preparation of Strategic Plan on Local Economic Development and municipal profile	
10.	Creation of local firefighting station	
2010		
1.	Asphaltting of street Police station- Krajcina Maala, v.Rankovce, 870m	WB/ASR
2.	Asphaltting of local road Petralica-church St.Georgji, 800m	WB/ASR
3.	Asphaltting of local road Opila-Odreno-Pcacha, 1530m	WB/ASR
4.	Construction of bridge no Radibushka river	BRD
5.	Construction of water supply section v.Opila-Ljubince (700m)	OF
6.	Construction of water supply section v.Otoshnica-Radibus (800m)	OF
7.	Sanitation of damages after flooding in V.Rankovce and v.Psacha	
8.	Regulation of river bed of Rankovachka river towards Roma settlement, 300m	MAFWE
9.	Reconstruction of primary school "H.T.Karpos" in Rankovce	OF
2011		
1.	Construction of water supply section (1200m) in v.Opila and v.Ljubinci	OF
2.	Construction of water supply section (1200m) in v.Otoshnica and v.Radibus	OF
3.	Construction of 8 bus stops on regional road Kumanovo-Kriva Palanka	
4.	Launching of construction of the sport facility in the primary school "H.T.Karpos" v. Rankovce	MES
5.	Engagement of unemployed in cleaning of public areas	
6.	Cleaning of the river bed of Kriva Reka (8km)	Gov
7.	Inter-municipal cooperation in the area of environmental protection	OF

8.	Construction of water supply section in v.Rankovce	OF
9.	Construction and adaptation of firefighting station	IPA ²
10.	Construction of bridge in v.Radibus (2 nd phase)	OF
11.	Adoption of program and action plan on Roma decade for 2011-13	
12.	Bus for municipal needs	Donation ³
13.	Completion of construction of football playground in primary school "H.T.Karpos", v. Rankovce	OF
14.	Construction of sewage network (870m) in v.Ginovci	OF
15.	Construction of school fence in primary school "H.T.Karpos" in v.Odreno	OF
16.	Creation and setting a new road base layer v.Vetunica- landfill	OF
17.	Procurement of software for municipal needs	OF
18.	Reconstruction and widening of upper-layer from regional road Rankovce-German (1km)	ASR
19.	Facade on church St.Troica in v.German	OF+ donation
20.	New road base layer of road to Dikina Maala in v.Petralinca (4km)	OF
21.	Green market arrangement in v.Rankovce	OF
2012		
1.	Bus for municipal needs	Donation ⁴
2.	Asphalting of road Otoshnica-Brana, 1570m	EIB
3.	Asphalting of road Ginovci-Milutince, 1500m	EIB
4.	Construction of two tennis playgrounds in v.Rankovce	AYS
5.	Construction of sewage in v.Opila and Ljubinci (funds approved)	EIB/MTC
6.	Construction of water supply in v. Pcacha (funds approved)	EIB/MTC
7.	Asphalting of local road in v.Otoshnica, 1km (fund approved)	AFSARD
8.	Provided funds for co-financing of medical services in v.German	

Abbreviations: AYS – Agency for Youth and Sport, MTC – Ministry of Transport and Communications, MAFWE – Ministry of Agriculture, Forestry and Water Economy, WB/ASR – the World Bank, Agency on State Roads, BRD – Bureau for Regional Development, OF – own funds, MES – Ministry of Education and Science, G – Government, EIB – European Investment Bank, AFSARD – Agency for financial support of agriculture and rural development.

¹Donation from UK Embassy, ²Cross-border cooperation with Bulgaria, ³Donation from City of Skopje and ZELS, ⁴Donation from China

On those streets selected for this project, there are living 460 persons: in Rankovce – 200, in Ginovci – 120 and in Petralica -140. Local roads in Ginovce and Petralica have transit character, and will be also used by inhabitants of other small rural settlements, to which road is passing by the streets selected for this sub-project. Most of the buildings on selected streets are private houses. Moreover, on the street in Ginovci there is also butchers shop. Most of the private houses constructed on selected streets are build according to the legal procedures, which means with "construction permits". Their number is estimated at 80%, whereas in case of the remaining 20% the procedure of ex-post legalization is in the progress.

There are 307 light vehicles registered in the municipality and 26 heavy vehicles. The average age of registered vehicles in 13 years.

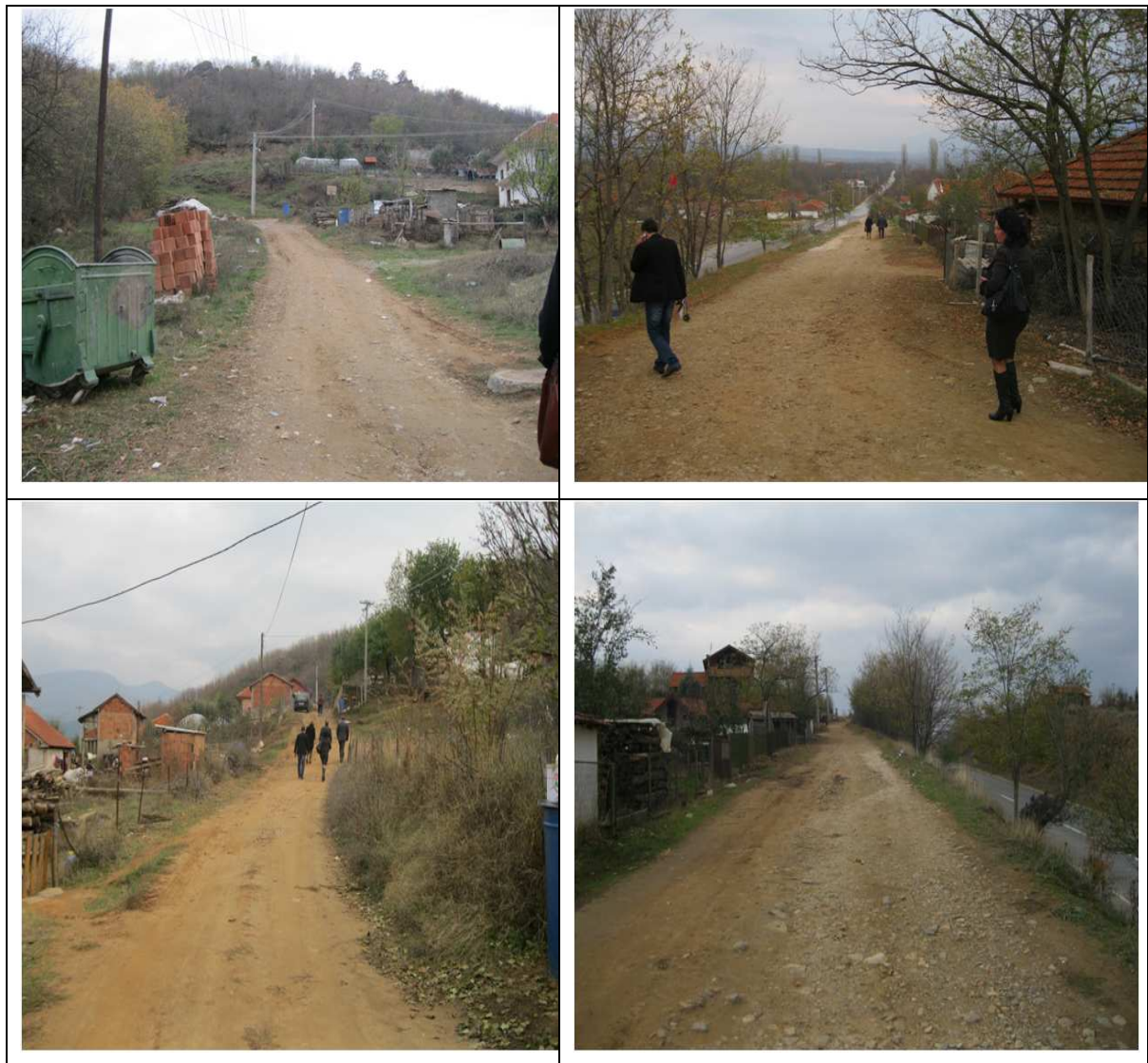
Figure 1: The present condition of the local roads subject to this appraisal – local road in Ginovci



Figure 2: The present condition of the local roads subject to this appraisal – local road in Petralica



Figure 3: The present condition of the local roads subject to this appraisal – local roads (5 sections) in Rankovce



2. Future situation

The population in three villages (Rankovce, Ginovci and Petralica) will have access to improved road infrastructure and will be able to use in every day live asphalted roads. Direct beneficiaries of the project are 460 persons living on selected streets (200 in Rankovce, 120 in Ginovci and 140 in Petralica), which is 11% of the municipal population. The number of indirect beneficiaries will be higher as local roads in Ginovce and Petralica have transit character and will be also used by inhabitants of other small rural settlements, to which road is passing by the streets selected for this sub-project.

3. Strategic goals

In 2009 the municipality with assistance of USAID financed MLGA project has prepared the Strategic Plan on Local Economic Development of Rankovce municipality. In the process of strategic planning the municipality identified 8 areas. One of them was development of

infrastructure, with defined specific goal concerning local roads. Therefore, one might claim that the project meets long run development objectives of the municipality.

Strategic area: INFRASTRUCTURE

Specific goals:

- | |
|---|
| <ul style="list-style-type: none">– Provision of healthy environment (decrease in pollution of Kriva river)– Provision of cheap energy– Construction and proper maintenance of local roads– Construction of sewage network– Construction of water supply system in smaller rural settlements |
|---|

Based on its legal obligations the municipal Council approved the “Program on arranging/regulating on undeveloped construction land and maintenance of communal infrastructure in Rankovce municipality in 2012”. The program assumes preparation of basic documents for road included in this project and their construction.

The core objectives of the projects are as follows:

- Facilitate local communication in the municipality – provide traffic comfort, convenience and safety for the pedestrians and traffic by improving the surface of the road/streets as well as their carrying characteristics,
- Decrease transport costs,
- Increase in productivity of work,
- Improve quality of live – satisfy various social, recreational and residential needs of citizens in the local communities.

II. SOCIAL IMPACT

The sociological study refers to five areas: social diversity and gender, institutions, rules and behavior, stakeholders, participation, social risk. It is based on meetings with relevant stakeholders. Face-to-face interviews were conducted with top municipal officials including mayor, president of the Council, representatives of the urban and financial department. Hence, the project idea was presented to the public in an open debate. Second, the project was presented to the Council and got its approval.

Demographic analysis presented in chapter I allow formulating the following conclusions:

- The municipality is relatively small by the number of inhabitants and widely distributed among 18 settlements,
- This is rural municipality,
- The number of population is growing due to returns of people in pension age. As a result, the share of population in age of over 65 years old is 18.3%, which is far above the average in Macedonia (11%),
- Male population is dominant with its share of 52.5%,
- By ethnic grounds population is homogenous with dominance of Macedonian population (97.9%). Second ethnic group is Roma population (1.4%),
- The unemployment rate is much higher than the country average (56% vs. 38%), and the situation is even more difficult among the female population with 70% unemployment rate,
- The number of businesses is very limited. There is a hope the situation will change with creation of Technological Industrial Development Zone created by the state at municipal territory.

The municipal needs in infrastructure are high, especially in investment in rural roads as less than half of local roads is asphalted. On the other hand the municipal capacity to finance such projects is limited by its financial capacity. For last 4 years it managed to construct/reconstruct 12.3 km of local roads mostly with funds achieved from the World Bank or European Investment Bank.

Analyzing the social impact of this project it is necessary to identify main stakeholders – organizations, groups or individuals who might have interest in success of the project, can contribute/ affect project implementation, or can directly or indirectly influence the design and implementation. The following stakeholders were identified: mayor, municipal administration, inhabitants, political parties, local social organizations like NGOs or media. The legal framework requires organization of consultations on any infrastructure projects proposed by the municipality. In line with those legal requirements the municipality organized public debate on the proposed project on 28 November 2012. The entrance was free to anyone interested, but invitations were sent via the local communities. There were 18 persons present including those representing communities covered by this sub-project, namely Rankovce, Ginovce and Petralica. Technical solution at each location was presented, as well as financial condition of the sub-loan. The perception of the project was positive, and it was stated that construction of these streets were included in the municipal investment program for a long time. The questions referred to the planned drainage system and to the width of the street and treatment of fences. Representative of the municipality Mome Krstevski (responsible for the urban works, communal works, environmental protection and local economic development) explained that the wide of streets is

adjusted to the real conditions in the field and no destroying of fences will be necessary. The citizens expressed their support for the project.

Based on the public debate on November 30, 2012 the municipal Council approved the projects and the way of its financing. The municipal Council comprises of councilors representing different political parties (6 are from VMRO-DPMNE and 3 are from SDSM). All Councilors voted for the project. Based on this public consultation one may conclude that there is no resistance to the project and it has support of all citizens and their representatives.

Based on this public consultation one may conclude that citizens are fully informed of the project, its goals, costs and consequences. All stakeholders had access to information and could influence scope of the project. There are no NGOs active at the municipal territory. Citizens' interests are mostly expressed by political parties, which are present in the municipal Council. Voting results indicate that in a democratic procedure the majority of Council members supported project implementation. Based on this support expressed by citizens in public debate and their representatives in Council voting one might conclude that there is no resistance to the project.

The project will not cause a feeling of inequality among the citizens. All the municipal inhabitants are the beneficiaries of the project as streets/roads selected have transit character. The project does not favor any social or ethnic group. The project was publicly consulted and approved by the majority of Councilors, therefore it is not expected that some group, organization or institution might cause some problems during implementation.

Citizens are not expected to participate directly in the project as all the costs will be covered with the loan.

This Project is not a subject to resettlement issues because the project involves construction of already existing local streets/road located on a municipal territory. Technical design was prepared in accordance with urban plan, but also in line with local conditions. As a result, there are no property issues in this sub-project.

Concluding, the project does not carry any social risks. It is considered cost-effective over a long run and will contribute to improvement in community standards of living in Rankovce municipality. The project is priority for the public administration and citizens. The population is not expected to contribute financially. The project is not subject to resettlement issues. No expropriation is expected to be raised during the implementation of the project.

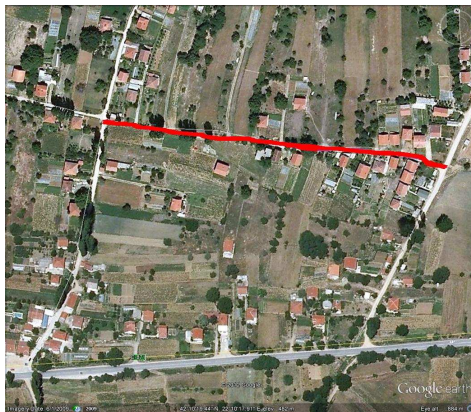
Potential success of the project depends on its efficient implementation. The quality of constructed roads is of the highest importance. The citizens will pay special attention to quality as the loan will have to be paid off during the next 13 years from the municipal budget. The project is designed in such a way that during the loan repayment there should not be incurred any additional maintenance costs, except regular ex-ante predicted. The quality of project implementation will be provided by supervision on the selected company employed by the municipality. However, to achieve high quality of provided works citizens involvement is necessary.

III. ENVIRONMENTAL IMPACT

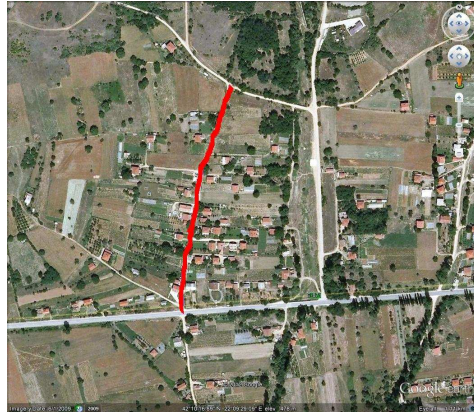
The project comprises construction of local roads located within the three settlements in Municipality of Rankovce (Ginovci, Rankovce and Petralica):

- a) The local road in Ginovci with the length of 363.33m starts from the central part – industrial zone, continuous through the settlement up to the point where it is connecting with the national road M2 : DeveBair (boarder with Bulgaria - Kriva Palanka - Kumanovo). Construction of the local road is planned on the existing road alignment with minimal discrepancies in accordance with the existing condition on site, with carriageway width of 4m.
- b) The local road in Petralica with the length of 338.25m is road section that connects two other roads, which are leading to the same national road M2. Construction of the local road is planned on the existing road alignment with minimal discrepancies in accordance with the existing condition on site, with carriageway width of 4m.
- c) Five small roads connected circularly in settlement Rankovce with total length of 861.71m located near by the health care center approaching the national road-M2. The projected width of the carriageway is 4.5m.

Dewatering of the surface water on all local roads is treated by the carriageway's geometrical elements longitudinal and cross falls.



Local road in settlement Petralica



Local road in settlement Ginovci



Local roads in settlement Rankovce

The construction envisages: a) removal and replacement of 30cm organic layer (humus) with soil material that reaches required geo-mechanical characteristic, b) setting of a new road base (tampon) layer of crushed stone with 30cm thickness compacted in two steps, c) setting of a base course bituminous asphalt layer BNS 22 with 7cm thickness and d) wearing course bituminous asphalt layer AB 11s with 5cm thickness.

All streets are dispersed through the urban living part in the settlements. In Rankovce, the project location is near by the main administrative district (Municipal building, Post office, Elementary school building, Health care Center building and family houses). In Ginovci the project is near by the commercial building, chicken farm and family houses. In Petralica the project area is near the family houses.

The sensitive receptors of the planned project activities are citizens living near the project locations. According the Law on noise protection (Official Gazette No. 79/07, 124/10, 47/11) all these areas (living area, areas near hospitals, schools) have been identified at different noise sensitive areas. The living area (project in Petralica) belongs to the area with second degree of noise protection and the max. allowed noise level should be 45dB for night and 55 dB for evening and day and stricter noise levels are proposed for areas near hospitals and schools (projects in Rankovce and Ginovci) with 40dB for night period and 50dB during the day and evenings.

In Rankovce Municipality the river Kriva Reka is passing near the location of project with construction of five small roads. The quality of the river is II class (I-V classes are defined according the national legislation and the II class means very clean, mesotrophic water, which in its natural state can be used for bathing and recreation, water sports and it ensure fish growing).

The Public Communal Enterprise “Cist den” is operating with collection and transportation of the municipal waste from settlements Rankovce, Ginovce and Petralica. The municipal landfill is located in village Vetunica , 3km west from settlement Rankovce.

The main impact on the air quality within the Rankovce Municipality comes from the national road M2: Deve Bair (Macedonia – Bulgaria) passing across the municipal territory and through the settlement Rankovce. There are no industrial capacities near the project locations.

No natural protected areas or cultural heritage sites are located in the vicinity of the projects.

Referring to the type of projects and duration of the project activities related to the length of the roads, the short-term environmental impacts are expected and the impacts will be with minor local significance. The good construction practice could cover almost all mitigation measures proposed mainly to overcome the OH&S risks and community risks (children and adults in the vicinity of settlement Rankovce project). The main impacts are expected as a result of improper waste management with different waste streams and possible water pollution (River Kriva Reka), noise disturbance from the outdoor equipment (especially important for settlement Rankovce and Petralica) and pollution of ambient air. The impacts are minor and with very local significance.

In order to prevent the adverse environmental impacts and to ensure regular transportation of goods and people across the settlements in the municipality, the preparation of the Traffic Management Plan is needed to be adopted prior the start of the activities. The Plan should include the re-routing directions and time schedule. The Information note/Press release about the project activities (start, timeframe and re-routes) need to be prepared by the Municipality staff and announced via local radio or on the notice board in the municipality building.

Other mitigation measures that need to be applied before and during construction activities are included in the following Environmental Mitigation Plan. The main responsibility for implementation of the mitigation measures lay to the Sub-contractor and Supervisor (nominated by the Municipality) on daily basis. Some of the measures should be applied by the municipal staff

(announcement of the traffic regime, recording the waste quantities and regular communal inspection).

The monitoring tasks are mainly dedicated to the Supervisor and Communal inspector who needs to control the implementation of the mitigation measures. The important role with proper waste management lay on the Public Communal Enterprise "Cist den".

According the national legislation, The Environmental Impact Assessment Report was prepared in November 2012 (Company "Krafting" – Skopje) and adopted by the Mayor of the Municipality of Rankovce with the Decision no. 22-143/2 dated 13.12.2012.

The Report contains the main project goals, project activities, photos of the locations where the construction of local roads within the Municipality of Rankovce. The Report provides general environmental mitigation measures and presents Monitoring Plan.

A. ENVIRONMENTAL MITIGATION PLAN

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
Preparation activities before construction works start Marking out the route for construction of the different local roads in three settlements (Rankovce, Ginovci and Petralica)	Possible adverse social and health impacts to the population, drivers and workers due to: <ul style="list-style-type: none"> - Lack of ensured safety measures at the start of reconstruction works - Injury passing near by the construction sites - Not compliance with strict OH&S standards and work procedure - Inappropriate public access within the district 	Local/within the districts: Rankovce, Petralica and Ginovci Short term during the construction period (different lengths – from 332 m up to 862 m) Significance - Major	<ul style="list-style-type: none"> • Preparation of the Traffic Management Plan together with the municipal staff • Provide the information via local radio or notice boards in the municipality building about the construction activities – start and finish of daily basis work, duration of activities and traffic access on other streets 	<ul style="list-style-type: none"> • Contractor – Bidder • Supervisor • Municipality staff (Communal Inspector and Urban planner)
			<ul style="list-style-type: none"> • Ensure the appropriate marking out the construction sites in each settlement • Marking out the construction material near the roads • Warning tapes and signage need to be provided • Forbidden of entrance of unemployed persons within the warning tapes • Community and Worker's OH&S measures should be applied (first aid, protective clothes for the workers, appropriate machines and tools) • The roads and surrounding area near the houses should be kept clean • Machines should be handled only by experienced and trained personnel, thus reducing the risk of accidents • Constant presence of firefighting devices should be ensured in case of fire or other damage 	<ul style="list-style-type: none"> • Contractor – Bidder • Supervisor

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
			<ul style="list-style-type: none"> Flammable liquids may be placed and kept exclusively in vessels constructed for that purpose Larger quantities of flammable liquids should not be kept on the site along the construct street All workers must be familiar with the fire hazards and fire protection measures and must be trained to handle fire extinguishers, hydrants and other devices used for extinguishing fires Devices, equipment and fire extinguishers should be always functional, so in case of need they could be used rapidly and efficiently The portable toilet should be placed on the construction sites 	
	Possible impacts on landscape and visual aspects	Local/within the districts short term /minor	<ul style="list-style-type: none"> Minimization of the construction area as much as possible (carefully planning and design of the project activity according the Traffic Management Plan for a certain period of time) Fully clean up of the construction sites immediately after accomplishment of reconstruction activities (section by section) Collection of the generated waste on daily basis, selection of waste, transportation and final disposal on appropriate places (according the type of waste – more details under Waste management issue) 	<ul style="list-style-type: none"> Contractor – Bidder Supervisor
	Possible emissions by transportation vehicles and impact on air quality in the Municipality of Rankovce due to: - gases emissions	Local/within the districts Regional as the national road M2 is near by the project locations	<ul style="list-style-type: none"> Reconstruction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days Construction materials should be stored in appropriate places covered to minimize dust Vehicle loads likely to emit dust need to be covered Usage of protective masks for the workers if the dust seems to be 	<ul style="list-style-type: none"> Contractor – Bidder Supervisor

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
	<p>of dust-suspended particulates</p> <p>- traffic congestion will be caused as well causing changes in existing traffic circulation</p>	short term /major	<p>appeared</p> <ul style="list-style-type: none"> Restriction of the vehicle speed within the construction location 	
	<p>Possible noise disturbance as a result of outdoor equipment usage and transportation vehicles driving around the sites</p>	<p>Local/within the districts</p> <p>short term /minor</p>	<ul style="list-style-type: none"> Two noise protection areas are relevant: a) Rankovce - first level of protection (the noise should be 50 dB per day and evening and 40 dB during the nights), b) Petralica and Ginovce - urban residential areas - the level of noise should not exceed more than 55 dB during the day and evening and below 45 dB during the nights The control of noise level should be performed during work peaks in the vicinity of the school and hospital The temporary noise protection barriers should be installed around the hospital and school near the construction sites The construction work should be not permitted during the nights, the operations on site shall be restricted to the hours 7.00 -19.00 	<ul style="list-style-type: none"> Contractor – Bidder Supervisor
	<p>Possible impact on water course – River Kriva Reka near the project site in Rankovce settlement due to improper waste</p>	<p>Local/ short term/minor due to the distance from the project site</p>	<ul style="list-style-type: none"> Minimize storage or disposal of substances harmful to water – River Kriva Reka s (e.g. fuels for construction machinery) on the construction site. Organize proper handling and storage. The road should be kept clean and tidy to prevent the build-up of oil and dirt that may be washed into a watercourse or drain during heavy rainfall; 	<ul style="list-style-type: none"> Contractor – Bidder Supervisor

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
	management			
	<p>Possible adverse environmental impact and health effects could be occurred as a result of generation of the different waste streams</p> <p>The inappropriate waste management and not in time collection and transportation of waste streams</p>	<p>Local within the districts</p> <p>short term/major</p>	<ul style="list-style-type: none"> • Identification of the different waste types at the reconstruction site (soil, sand, asphalt, bottles, food, etc.) • Classification of waste according the national List of Waste (Official Gazette no.100/05) • The main waste would be classified under the Waste Chapter 17 "Construction and demolition wastes (including excavated soil from contaminated sites)" with the waste code 17 01 – Waste from concrete, bricks, 17 05 04 – Excavated soil, 17 09 04 – Mixed waste from construction site • Small amount of solid municipal waste could be found (food, beverages), as well as packaging waste (paper, bottles, glass, etc.) 	<ul style="list-style-type: none"> • Contractor – Bidder • Supervisor
			<ul style="list-style-type: none"> • Transportation and final disposal of the inert and communal waste by the Public Communal Enterprise "Cist den" • Fulfillment of the Annual Report for non-hazardous waste management by the Mayor of Municipality of Rankovce and reporting to the Ministry of Environment and Physical Planning • The construction waste should be promptly removed from the sites, should be re-used if it is possible • Possible hazardous waste (motor oils, vehicle fuels) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose the hazardous waste 	<ul style="list-style-type: none"> • Municipality staff (Communal Inspector) • Mayor of the Municipality of Rankovce • JKP "Cist den"
<ul style="list-style-type: none"> • No environmental impacts are expected during the Operational phase 				

B. MONITORING PLAN

What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Why is the parameter to be monitored?	Cost		Responsibility	
					Const ruct ion	Ope rati ons	Construction of local roads	Operat ions of the local roads
Project stage: Preparation activities/ Start up of the construction work (site cleanup, and marking out the route and construction sites along the settlements)								
The safety protection measures applied for the workers	On the construction sites	Visual checks	During the clean-up activities At the beginning of each working day during the project activities	To prevent health and safety risks – mechanical injuries To be in compliance with national communal health regulation and OH&S standards			Contractor - Bidder Supervisor Communal Inspector at the Municipality of Rankovce	
Project stage: Construction of local roads in Municipality of Rankovce								
Safety traffic flow through the villages	On the site	Visual monitoring	During the working day	To ensure the coordinated traffic flow through the settlements in Municipality of Rankovce			Contractor - Bidder Supervisor Communal Inspector at the Municipality of Rankovce	
Disposal of the waste streams (solid and liquid) near the River Kriva Reka as potential pollution of good ecological status of water course	In Rankovce near the project areas	Visual check if the waste is disposed near river banks	During the construction period (once per week)	To ensure good status of water quality			Contractor - Bidder Supervisor	
Primary selection of the waste streams as they are generated at the spots	On the site	Review the documentatio n – identification	At the beginning of work with new material/s	To separate hazardous from the non- hazardous waste as well as inert from biodegradable waste			Contractor – Bidder Supervisor	

What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Why is the parameter to be monitored?	Cost		Responsibility	
					Cons truct ion	Ope rati ons	Construction of local roads	Operat ions of the local roads
		of the waste type according the List of waste						
Collection and transport as well storage of hazardous waste (if any occur).	On safety temporary storage	Review the transportation list and conditions at the storage facility	Before the transportation of the hazardous waste (if there is any)	To improve the waste management practice on municipality and national level/ Not to dispose the hazardous waste on the waste disposal spots			Authorized Contractor for collection and transportation of hazardous waste (if there is any occur) subcontracted by the Contractor-Bidder Communal inspector from Municipality of Rankovce and Public Communal Enterprise “Cist den”	
Collection transportation and final disposal of the solid waste	On the sites and around the sites in all three districts	Visual monitoring and reviewing the transportation and disposal lists from the sub-contractor	After the collection and transportation of the solid waste on regular base each day	Not to leave the waste on the spot to avoid the environmental and health impact on residents To have the real data for generated waste streams and to improve the waste management			Contractor – Bidder who need to sign the contract with licensed company for collection, transportation and disposal of the solid waste Public Communal Enterprise “Cist den”	

What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored (frequency of measurement)?	Why is the parameter to be monitored?	Cost		Responsibility	
					Con- struc- tion	Ope- ra- tions	Construction of local roads	Operations of the local roads
Fulfilled Annual Report for collection, transportation and disposal of waste	Local self- government administration	Review of documentatio n – Identification waste List	After the accomplishment the task of collection, transportation, temporary disposal and final disposal of waste	To improve the waste management on local and national level To be in compliance with national legal requirements			Mayor of Municipality of Rankovce/ Ministry of Environment and Physical Planning	
Temporary noise protection barriers installed around the hospital and school	Around the hospital and school	Visual check	Before the construction work start at the site near the hospital and school	To minimize the noise disturbance of the sensitive group of people			Supervisor/Communal inspector	
Noise measurements	Near the hospital and school	Noise measurements	During the work peaks	To ensure noise level limits according regulation			Sub-Contractor	