ROAD REHABILITATION AND SAFETY PROJECT

MAIN DESIGN FOR HEAVY MAINTENANCE OF THE STATE ROAD IB 13

LOT 1: road section: Zrenjanin (Ecka) - Ecka, from km 122+260 to km 130+880, L= 8.620 km

Contract ID: RRSP/CS3-RRD3-1/2016-11

ENVIRONMENTAL MANAGEMENT PLAN

FINAL DRAFT

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March 2019

CONTENT

ABBREVIATIONS

AADT	Annual Average Daily Traffic
CEP	Contractor's Environmental Plan
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMP	Environmental Management Plan
HSE	Health, Safety and Environment
IFIs	International Financing Institutions
INCRS	Institute for Nature Conservation of Serbia
IPCM	Institute for the Protection of Cultural Monuments
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
OP	Operational Policy
PIT	Project Implementation Team
PERS	Public Enterprise "Roads of Serbia"
PSC	Project Supervision Consultant
RE	Resident Engineer
RRSP	Road Rehabilitation and Safety Project
SE	Site Engineer
SLMP	Safety Labour Management Plan
SSIP	Site Specific Implementation Plan
WB	The World Bank Group
WMP	Waste Management Plan

INTRODUCTION

The Environmental Management Plan has been prepared for the proposed Design for heavy road maintenance of the State Road IB class No. 13, road section: Zrenjanin (Ecka) – Ecka, in order to ensure application of good environmental practice and document compliance with the requirements of the International Financing Institutions (IFI's) which will finance this Project.

In accordance with the guidelines issued by IFIs, the project was classified as B Category of environmental risk, and it requires development of Environmental Management Plan (hereinafter referred to as EMP).

The Project Proponent is the Government of Serbia, acting through its Ministry of Construction, Transport and Infrastructure (MoCTI). Project implementing entity is Public Enterprise "Roads of Serbia" (PERS).

The aim of the EMP is to identify potential negative environmental impacts and management problems during the execution of construction works, as well as the necessary mitigation measures that the Contractor must apply. The key components of the EMP are: Environmental Mitigation Plan and Environmental Monitoring Plan. The EMP analyses the rehabilitation phase and operational phase of the relevant section thus defining measures which are the obligation of the Contractor during the execution of rehabilitation works.

Project elaboration will be compliant with Serbian legislation, rules, regulations and provisions, as well as with the international conventions and protection guidelines, issued by the IFIs. According to the Project Implementation Plan, the aim of the project is increasing the usability and durability of the road, promoting traffic safety, including the requirements of local community (social aspect) and complying with the environmental requirements to the greatest extent given the circumstances of spatial limitations and the constraints arising from types of allowed constructive and traffic measures.

For the suggested section, the Environmental Management Plan is focused on activities connected to scope of civil works related to urgent maintenance and eliminating negative environmental impacts and it will be a part of the civil works contract. The activities connected to the regular maintenance of the road section, even though they are not brought into focus of this plan, will be included in EMP for the sake of completeness. The preparation of this EMP was undertaken through theoretical studies and field investigations, including consultations with regional level representatives and local stakeholders. The EMP is based primarily on field investigations performed during April and May 2018.

EXECUTIVE SUMMARY

Project Description

Road Rehabilitation and Safety Project (RRSP) is the project in which IFIs (World Bank, European Investment Bank and European Bank for Reconstruction and Development) provide support to the Government of the Republic of Serbia in implementing the National Program for Rehabilitation of the State Road Network. This project represents the realization of the Government's program for the period from 2014 to 2019.

The main goal of the project is improving the conditions and traffic safety on the State Road IB class No. 13, road section: Zrenjanin (Ecka) - Ecka, from km 122+260 to km 130+880.

Location Description

The subject section belongs to the Central Banat Administrative District located in the north – eastern part of the Republic of Serbia. The road section Zrenjanin - Ecka in length of 8.545 km belongs to the State Road IB Class No. 13 (an old road mark M-24) ("Official Gazette of RS", No. 93/2015) and is a part of communications between the state border crossing with the Republic of Hungary (border crossing Horgos) and the territory of Belgrade. Moreover, the observed section is a part of the Project planned for heavy maintenance during the third year of its implementation. All chainages in the Terms of Reference are given in accordance with the new Reference System from December 2015.

Figure 1. The location of the subject section according to the state roads reference system map, December 2015

The works planned by this design will be implemented within the right-of-way of the existing road. The project **neither entails resettlement and land acquisition as defined by Operational Policy (OP) 4.12**, nor long lasting disruptions to the natural environment and human settlements and activities.

Rehabilitation Works Description

The planned construction works will primarily relate to the strengthening of the existing carriageway structure, rehabilitation of the existing drainage system for the carriageway and road base drainage, as well as designing all the elements which prolong the durability of works and promote the traffic safety system.

The type of works planned mainly involve the reinforcement of the existing carriageway structure (in some places up to a depth of 50-60 cm from the existing carriageway), within the boundaries of the road zone. Works on the improvement of the existing drainage system and all related elements are planned. The works include design of all elements that prolong the durability of done works and improve the system of traffic safety. They are completely regulated by the provision (Article 69) of the Law on Roads ("Official Gazette of RS", No. 41/2018).[1]

In accordance with the Terms of Reference and site visits, the design will specify the construction of appropriate solutions for rehabilitation and development of the structures in the road base. The width of the carriageway and bridge paths (traffic profile) will remain unchanged regarding their dimensions compared to the current state.

It is not anticipated to regulate river bed of melioration canal according to the Design. The flow profile of watercourse will not be reduced.

These types of works are described in detail in the following chapter - ***1. Project description; Rehabilitation works description.***

Policy, Legal and Administrative Framework

The Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for formulation and implementation of environmental policy matters.

The other aspects of environmental protection connected to road rehabilitation projects, have been dealt with several other institutions, among which are the Institute for Nature Conservation of Vojvodina Province, Institute for the Protection of Cultural Monuments of Zrenjanin, PWC Vode Vojvodine and Public Enterprise “Roads of Serbia” (PERS).

Environmental protection in the Republic of Serbia is regulated by various laws at the national and municipal levels as well as by statutes.

Environmental Impact Assessment is not required for road rehabilitation projects, except in cases where the road section passes through protected natural or cultural area.

[1] https://www.paragraf.rs/propisi/zakon-o-putevima.html

Based on the decision issued by the Provincial Secretariat for Urban Planning and Environmental Protection (140-501-379/2018-05 from March 6th, 2018), the observed road section is not located within the protected area for which the environmental protection procedure was conducted or initiated. Therefore, it **does not require making the Environmental Impact Assessment** (Appendix 6).

Lender requirements that are applied to this project of road rehabilitation include the following Environmental Policies:

- Operational Policy OP (4.01) of Environmental Impact Assessment,
- European Investment Bank (EIB): Statement of Environmental and Social Principles and Standards (2008).

The World Bank and EIB require that the design complies with the Republic of Serbia national laws, EU standards and IFI's guidelines as noted above.

Baseline Conditions Assessed During Route Survey

One slab culvert (a part of the melioration canal system) and one bridge (overpass) are identified on the road section.

Regarding the existing method of drainage system on the considered route of the road section, atmospheric water is discharged over the road shoulder into the perimeter canals. These canals are intake canals. That means that part of collected atmospheric water percolates into the underground, while the remaining part evaporates into the atmosphere.

The closed system of atmospheric sewage was recorded on the route of km 122+260 to km 123+675. Runoff from the carriageway is transported along the curb to the drains that are partly or somewhere even completely clogged.

As far as the historic monuments and protected resources on the observed section are concerned, according to the data from the requirements of the Institute for the Protection of Cultural Monuments of Zrenjanin (No. I-102-5/17 from August 31st, 2017), several archaeological resources have been determined:

- Popova humka[2] with archaeological remains from medieval period
- Vineyards of Ecka with archaeological remains from Sarmat period
- Zakup, the place where a medieval necropolis was found
- Romanies' (Gypsies') meadows with archaeological remains from Sarmat period
- German cemetery with archaeological remains from Sarmat period.

The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance

[2] Translator's note: Priest's barrow (a large pile of earth like a small hill that was put over a grave in ancient times)

with the requirements stated in the Decision. The Contractor is supposed to inform the competent institution about the date for the commencement of works.

Along the observed sections, the following facilities have been identified:

- Bust station,
- Bus stops,
- Petrol stations,
- Parking lots,
- Footways and bicycle paths.

Current traffic load (AADT) for the road section 01312 is 8151 vehicles per day in 2017.[3]

It is necessary to improve road safety, especially in the bus stop zone on this road section.

Summary of Environmental Impacts

The works concerning the road rehabilitation on the road section Zrenjanin (Ecka) - Ecka will have a smaller impact on the environment (B category of environmental protection). Most of the impacts are of a temporary character and they will disappear after the works on heavy maintenance, i.e. road rehabilitation has been completed.

Heavy maintenance of the road will be performed exclusively on public areas, with no interference with the private property. In accordance with the provisions of the World Bank OP 4.12 (forced resettlement), the project does not require land acquisition, resettlement or long-term disturbance of human activities.

The EMP refers to the phase of execution of works and its implementation is a future obligation of the Contractor. During the execution of construction activities, there may be disruption of current traffic flow, movement of the inhabitants of the neighbouring settlements, reduced roadway safety, damages to access roads, noise production, dust, waste and air pollution, impact on soil, water, plant and animal life. Off-site activities include quarries, asphalt bases and borrow pits which may cause localized adverse impacts. Therefore, it is necessary to manage those works properly.

Environmental Management Plan

Environmental impacts of the project for heavy maintenance on the road section Zrenjanin (Ecka) - Ecka will be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, road rehabilitation and operational phase, must be carried out appropriately. The EMP consists of the Environmental Mitigation Plan and Environmental Monitoring Plan. It is based on the types of environmental impact, their scope and duration.

[3] http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobracajnog-opterecenja-na-drzavnim-putevima-IB-reda.pdf

During the rehabilitation, the Contractor will work according to the Contractor's Environmental Plan (CEP) based on the EMP.

PERS is in charge of designing, supervision and execution of works applying the EMP.

Mitigation Plan

Impacts and proposed mitigation measures have been compiled into the Environmental Mitigation Plan (Appendix 1). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, rehabilitation and operational phases. It makes reference to the preliminary conditions issued by the authorized institutions (Institute for Nature Conservation of Vojvodina Province, Institute for the Protection of Cultural Monuments of Zrenjanin, PWC Vode Vojvodine), law and contract documents, approximate location, time frame and the responsibility for its implementation and supervision.

Monitoring Plan

A Monitoring Plan for the proposed Project (Appendix 2) has been prepared. The main components of the Monitoring Plan are the following:

- Defining the environmental issues that need to be followed and the means of verification;
- Specific areas, locations and parameters to be monitored;
- Applicable standards and criteria;
- Monitoring noise levels near populated areas;
- Monitoring material supply (verification of valid licenses);
- Duration, frequency and evaluation of monitoring costs, and
- Institutional responsibility for monitoring and supervision.

A monitoring control list is prepared on the basis of EMP and Monitoring Plan (Appendix 2). The list is used by the supervision engineer on the construction site. Signed control lists are submitted to PERS, which is responsible for monitoring and reporting.

Stakeholder Engagement – Information Disclosure, Consultation and Participation of Public

As requested by IFI's safeguard policy, public consultations will be held in the EMP preparation. The EMP and other project-related information will be disclosed to the public and made available to the local community. A detailed report on the public consultation process will be shown in Appendix 5 of this document and it will contain a list of identified participants. Consultation with users will be made during the road rehabilitation stage, while all records of environmental and social issues, complaints received during consultation, site visits, and informal discussions, formal reports etc. will be monitored, recorded and kept in PERS Project office.

All problems associated with the subject section are recorded, based on official contacts and memos, as well as on the meetings with the representatives of local authorities.

For the needs of the Design, the Designer has obtained the following documents and plans from the competent institutions:

- General Regulation Plan "Dolja"
- General Regulation Plan "Jugoistok" in Zrenjanin
- Spatial Plan of the city of Zrenjanin
- Urban Plan of Ecka Community
- Decision on determining the location of the bus stops in the city and the municipality of Zrenjanin.

On the route of the road that is the subject of this project, the following projects are independently planned:

1. Intersection of the State Road IB class No. 13 (part of Bul. Oslobodjenja, Nikola Pasic and Beogradska street) with the following streets: Mileticeva, Djurdja Smederevca, Nusiceva, Bircaninova, Dositej Obradovic, Pera Dobrinovic and Baranjska, with reinforcement of a part of the state road from km 122+390.13 to km 122+754.86 in Zrenjanin - Designer: GMP Gramont - NS Ltd.
2. Roundabout in a place where the bypass around Zrenjanin will be built in the future.

The Summary of Public Disclosure Process

During the preparation of EMP and before the commencement of works, public hearings will be organized. The EMP and other information connected to the project will be presented to public and available at the local level. The entire documentation will be delivered to the municipalities, published on the website, placed on the PERS internet presentation and published in media.

The public will be informed through the local media about the time and place for holding hearings in public. The consultations with the users will be organized throughout the period of the execution of construction works. The Contractor will solve problems in the area of environmental protection, social issues and grievances which were recorded during the consultations, site visits, unofficial discussions, official letters and keep records thereon.

The grievance mechanism will be established in order to properly consider all grievances of the local societies, apply the corrective measures and inform the party who lodged the grievance about the results. This is to be applied to all types of grievances. The grievance form is in Appendix 4, and the printed versions will be available in the local community centres.

1. PROJECT DESCRIPTION

Road Rehabilitation and Safety Project – RRSP is a project of support of the International Financial Institutions (World Bank, European Investment Bank and European Bank for Reconstruction and Development) to the Government of the Republic of Serbia in implementing the National Program for Rehabilitation of the State Road Network. This project represents the realization of the first phase of the Government program for the period from 2014 to 2019 and includes the following:

- improving the conditions of the state road network by rehabilitating around 1,100 km of the existing roads,
- raising the safety level on the roads by applying measures for enhancing the traffic safety in all phases of Project implementation, and
- strengthening capacities and improving institutional coordination in the area of traffic safety by implementing a greater number of different services.

The institution in charge of realization of the Project is Public Enterprise “Roads of Serbia” (hereinafter called PERS). Within PERS, a Project implementation team (PIT) was formed, which should conduct all the necessary activities for successfully management and completion of the Project, with the help of other professional departments in the company and in cooperation with the other interested institutions of the Government of the Republic of Serbia.

In addition to carrying out heavy road maintenance works, the Project includes activities, procedures and actions that precede the commencement of works.

The main goal of the project is increasing traffic safety on the State Road IB class No. 13, road section: Zrenjanin (Ecka) – Ecka from km 122+260 to km 130+880.

Section Description

The observed section belongs to the Central Banat Administrative District located in the north-eastern part of the Republic of Serbia. The road section Zrenjanin - Ecka in the length of 8.545 km belongs to the State Road IB Class No. 13 (an old road mark M-24) ("Official Gazette of RS", No. 93/2015) and is a part of communications between the state border crossing with the Republic of Hungary (border crossing Horgos) and the territory of Belgrade. Moreover, the observed section is a part of the Project planned for heavy maintenance during the third year of its implementation. All chainages in the Terms of Reference are given in accordance with the new Reference System from December 2015.

Table 1. The traffic sections and nodes according to the Reference System

No.	Previous label of the section*	Section label	Label of the initial node	Label of the final node	Name of the initial node	Name of the final node	Length of the road section (km)
1	0657	01312o1	1310.1	1311	Zrenjanin (Ecka) – secondary node	Ecka	8.545 (8.620**)
Total:							**8.545 (8.620**)**

** Label of the road section according to the old Reference System 2008/2009 (JV CPL- Nievelt)*
*** Length of the subsection which should be repaired*

Figure 2. represents the position of the subject section within the road Reference System of the Republic of Serbia in 2015.

Figure 2. The location of the observed section according to the road Reference System in 2015

Figure 1. The length of the road section intended for rehabilitation (heavy maintenance)

Figure 3. represents a scheme of the road section intended for rehabilitation (heavy maintenance).

The works planned by this design will be implemented within the right-of-way of the existing road. The project **neither entails resettlement and land acquisition as defined by Operational Policy (OP) 4.12**, nor long lasting disruptions to the natural environment and human settlements and activities.

The beginning of the road section is defined in relation to the secondary node 1310.1 Zrenjanin (Ecka) with additional length that is opposite to the direction of increasing chainage of 25 m, chainage at ~ km 122+260 (Figure 2.). The end of the same chainage is defined 50 m after the node 1311 Ecka, observed in the direction of increasing chainage, chainage at ~ km 130+880 (Figure 3.).

The altitude of the terrain ranges from 79.70 MASL at km (intersection of Nikola Pasic Street/Belgrade street/Bircaninova street/Nusiceva street) to 89.00 MASL at km 124+080 on the overpass across the railway and Opovacka street.

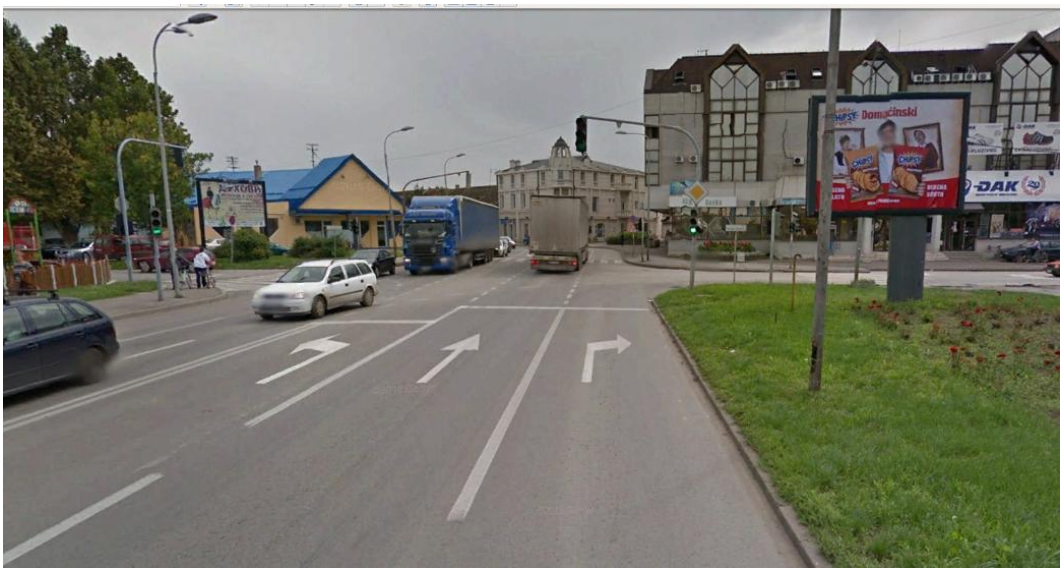


Figure 2. The beginning of the road section

Figure 3. The end of the road section

The first part of the route from km 122+260 to km 124+000 (the beginning of the overpass - overbridge) is located in a densely populated part of the city of Zrenjanin.

The road section can be conditionally divided into 4 sub-sections:

No.	Subsection	from (km)	to (km)	length (m)	Part of the road
1.	Densely populated part of the city of Zrenjanin	122+260.00	124+000.00	1740.00	20.19%
2.	Industrial zone	124+000.00	126+250.00	2250.00	26.10%
3.	Part of the road outside the settlement from Zrenjanin to the entrance to Ecka	126+250.00	128+850.00	2600.00	30.16%
4.	Road passes on the left side of the settlement Ecka (taking into account the direction from Zrenjanin towards Ecka)	128+850.00	130+880.00	2030.00	23.55%
			Total	8620.00	

Road signs for the populated place and end of the settlement of Zrenjanin are located at ~ km 125+365. The road sign with the name Zrenjanin is located at ~ km 126+985 on the left side of the road. The sign which shows the end of populated city of Zrenjanin is also located at ~ km 126+985 on the right side of the road.

According to road signs and traffic lights, the road section can be divided into two sub-sections in the following way:

No.	Subsection	from (km)	to (km)	length (m)	Part of the road
1	Zrenjanin	122+260.00	125+365.00	3105.00	36.02%
2	Part of the road outside the settlement	125+365.00	130+880.00	5515.00	63.98%
			Total	8620.00	

Rehabilitation Works Description

The project should include the integration into the existing project of the roundabout at the intersection of the observed section and bypass around Zrenjanin.

On the route of the road that is the subject of this project, the following projects are independently planned:

1. Intersection of the State Road IB class No. 13 (part of Bul. Oslobodjenja, Nikola Pasic and Beogradska street) with the following streets: Mileticeva, Djurdja Smederevca, Nusiceva, Bircaninova, Dositej Obradovic, Pera Dobrinovic and Baranjska, with reinforcement of a part of the state road from km 122+390.13 to km 122+754.86 in Zrenjanin - Designer: GMP Gramont - NS Ltd.
2. Roundabout in a place where the bypass around Zrenjanin will be built in the future.

There are not horizontal radii less than 250 m which is minimally allowed for measured speed of 80 km/h on the state road, out of the populated place on the observed route outside densely populated part of Zrenjanin. Regarding the densely populated part of the city of Zrenjanin at ~ km 122+303 radius is 50 m without transition curves, and at ~ km 122+920 radius is 150 m with transition curves. There is not real possibility of changing these elements, because it is about the city intersections with the borderline construction along the edge of the carriageway.

The width of the existing carriageway in case of one lane in each direction is 9 m on the route from km 122+260 to km 123+420. Regarding this route, one lane in width of 4.5 m in each direction with additional lanes in the intersection zone is planned. However, widening of the road is not planned.

The width of the carriageway is sufficient (9 m) in order to set up 2+1 lane in width of 3 m instead of the current one 1+1 lane in width of 4.5 m. This can be predicted by traffic equipment and signage without widening of the road, but in this case it would not be possible to turn to all facilities along the path from both directions, which is allowed in the existing state, as the manoeuvres of turning over two lanes would be dangerous. If these manoeuvres were banned, it would be difficult to respect them and in this case, the street would create more conflict points in comparison with the current state.

The Designer recommends maintaining the existing carriageway width, without narrowing it down in compliance with the ToR.

The solution of the carriageway structure on these access roads can be divided into three groups. At the intersections with categorized municipal roads, arrangement of access roads in the required length will be planned in accordance with the future solution of the intersection. Regarding district roads and their access roads, the

construction of an asphalt access roads[4] in length of 40 m and width of 5 m will be planned if there are any spatial conditions, while the arrangement of the vehicle approaches will be performed in accordance with the existing finished material in width of 3 m to 4 m depending on the available space.

As far as the bus stops are concerned, the proposal of the intervention is to retain the bus stop in Zrenjanin with the replacement of carriageway construction, traffic equipment and signage.

Local self-government requested setting up bus stops in the zone of Ecka cemetery. It's a dangerous place on the road, since the long routes ahead and behind it allows the development of high speeds of vehicles. One of the options is to set a footbridge, which is a rather expensive solution and probably a few passengers would use it. Therefore, there is the second solution where it is possible to form pairs of separate bus bays or half bays, outside the carriageway related to the state road with appropriate bus stops for pedestrians, appropriate pedestrian traffic communications from and to the bus stop and appropriate lighting (public lighting or solar power sign). As a variant, there is a possibility to predict bus bays on both sides without pedestrian crossings, which would give pedestrians fake security in this part because vehicles move with very high speed. The municipality should announce decision for this bus stop.

Drainage from the carriageway in the collision zone with registered watercourse will be solved by collecting and letting water flow along the curb. On the bridge with existing drains (gullies), a longitudinal pipeline will be introduced to improve the outflow from the bridge. The project will also include controlled drainage of water in front of and behind bridge, as well as the solution how to connect road shoulders to the bridge.

The width of the carriageway and paths on the bridge (traffic profile) remain unchanged in relation to the existing situation. It is necessary to take care and ensure that there is sufficient space for pedestrian traffic.

Traffic regulation in the zone of works will be performed:

- by using road signs;
- manually (a traffic control person);
- by using a traffic light.

Traffic signage that is not in accordance with the traffic conditions in the work zone will be adequately removed or covered by appropriate non-reflecting tape.

Traffic signage in the zone of works will be placed on the road and in a proper condition while works are taking place. The location on the road where the first traffic

[4] Translator's note: Roads constructed in a way that prevent mud and dirt from the tires from entering the main roads

sign I-19 „construction zone“ is placed depends on the length, sight distance and visibility of the warning zone.

Temporary traffic signage in the zone of works will be completely removed from the road immediately after the works have been executed and the latest within 24 hours after the completion of works and restoration of the initial traffic regime.

It is essential to have a traffic engineer on call on the construction site at every moment that will take care about traffic signage and traffic safety in the construction site zone. During the holidays, or at the time of the execution of works, it is necessary to hire a person who will control the signalization system (ensure that the wind will not knock over the vertical signs, that the horizontal signage is always visible...) and who will react appropriately in case of any irregularities.

2. THE ASSESSMENT OF THE BASIC CONDITIONS OF THE ROUTE DURING THE RESEARCH

Based on the geodetic record and site survey, it is concluded that there is one slab culvert (a part of the melioration canal system) and one bridge (overpass) on the section.

The first part of the route from km 122+260 to km 124+000 (the beginning of the overpass) is located in densely populated part of Zrenjanin, where increased flows of pedestrians and cyclists are recorded, primarily in the zone of the city of Zrenjanin.

The altitude of the terrain ranges from 79.70 MASL at km (intersection of Nikola Pasic Street/Belgrade Street/Bircaninova Street/Nusiceva Street) to 89.00 MASL on the overpass across the railway and Opovacka Street.

Regarding the route from km 122+260 to km 123+420, the width of existing carriageway in case of one lane in each direction is 9 m.

Figure 4. Typical parts of the observed section

The route is located at grade-intersection of road and railroad at chainage of ~ km 124+060 (Bekov Overpass) (Figure 7.).

Figure 5. Bekov Overpass at ~ km 124+060

The drain grids of bridge drains are multi-leveled in relation to carriageway and partially clogged (Figure 6.).

Figure 6. Bridge drains

The new solution will propose the introduction of a longitudinal pipe which will receive the outflow and take it outside the construction of the overpass into the existing sewage system of atmospheric water in Opovacka Street. It is necessary to level the drain grids with carriageway.

Based on canals' condition, the assessment of the current condition is poor. Namely, canals are covered with high vegetation and have difficult water outflow, so their rehabilitation is required. Longitudinal culverts (below the access roads) that are part of intake canals are either partly or completely clogged.

There are canal closures on certain routes. It is assumed that due to the non-maintenance and accumulation of materials in canals over longer period of time, their function is completely lost, so it is proposed to clean and bring them into their original state (Figure 9. and Figure 10.).

Figure 9. Intake canals on the left side of the road on the subject road section

Figure 7. Intake canals on the right side of the road on the subject road section

Since the intake canals are basic drainage elements on certain parts of the road section from km 124+600 to km 130+800, based on the hydraulic calculation and relevant precipitation data, the proper cross section of canal is defined for more efficient drainage of the road section, as well as for ensuring the permanent drainage of the road grade.

Along the observed sections, the following industrial objects and facilities have been identified:

- Bus station (Figure 8.)
- Petrol station „OMV“ at ~ km 122+270 (Figure 9.)
- Parking lot in front of cemetery in Zrenjanin at ~ km 123+030 (Figure 10.)
- Petrol station „NIS“ at ~ km 123+125 (Figure 11.)
- Petrol station „OMV“ at ~ km 123+400 (Figure 12.)
- „Taxi petrol“ filling station at ~ km 124+955 (Figure 13.)
- Parking lot in front of a new cemetery at ~ km 125+250 (Figure 14.)
- Petrol station „NIS“ at ~ km 126+750 (Figure 15.)
- Airport at ~ km 129+420 (Figure 16.).

Schools, nursery schools, hospitals and health centres are not registered on the observed section.

Figure 8. Bus station

Figure 9. Petrol station „OMV" at ~ km 122+270

Figure 10. Parking lot in front of the cemetery in Zrenjanin at ~ km 123+030

Figure 11. Petrol station „NIS" at ~ km 123+125

Figure 12. Petrol station „OMV" at ~ km 123+400

Figure 13. „Taxi petrol" filling station at ~ km 124+955

Figure 14. Parking lot in front of a new cemetery at ~ km 125+250

Figure 15. Petrol station „NIS“ at ~ km 126+750

Figure 16. Airport at ~ km 129+420

Settlements

The Municipality of Zrenjanin is located in the AP Vojvodina and belongs to the Central Banat District. The city center is Zrenjanin. Zrenjanin is 75 km away from Belgrade, and 50 km far from Novi Sad, as far as the current EU borders (Romania) are. This position makes Zrenjanin very important transitional center and a potential resource in the north-south and east-west direction. The municipality of Zrenjanin consists of 22 settlements: Aradac, Banatski Despotovac, Belo Blato, Botos, Elemir, Ecka, Zrenjanin, Jankov Most, Klek, Knicanin, Lazarevo, Lukino Selo, Lukicevo, Melenci, Mihajlovo, Orlovat, Perlez, Stajicevo, Tomasevac, Farkazdin and Centa.

Ecka is a multiconfessional, multicultural and multiethnic, typical Banat village and the second largest village in the municipality of Zrenjanin. It is nine kilometers far from the city center. It extends along the northwest-southeast direction and is bounded on the right side by the main road Zrenjanin - Belgrade and on the left by the Begej River. It lies on the left bank of the river. Land transport and water transport network, passing through the village, makes its geographical position very important and connects it with Backa, Southern Banat and further along the Danube River - Serbia.

The subject section goes through the following cadastral municipalities:

- CM of Zrenjanin 1
- CM of Zrenjanin 3
- CM of Ecka.

The populated areas through which the observed section passes are Zrenjanin and Ecka.

Natural Resources and Cultural Heritage

As far as historic monuments and protected resources are concerned on the observed section, according to the data from the conditions of the Institute for Protection of Cultural Monuments of Zrenjanin (No. I-102-5/17 from August 31st, 2017), there are several archaeological resources such as:

- Popova humka[5] with archaeological remains from medieval period
- Vineyards of Ecka with archaeological remains from Sarmat period
- Zakup, the place where a medieval necropolis was found
- Romanies' (Gypsies') meadows with archaeological remains from Sarmat period
- German cemetery with archaeological remains from Sarmat period.

[5] Translator's note: Priest's barrow (a large pile of earth like a small hill that was put over a grave in ancient times)

According to the conditions of the Institute for the Protection of Cultural Monuments of Zrenjanin (No. I-102-5/17 from August 31st, 2017), neither the precise locations of archaeological sites, nor the general map of mentioned sites are available.

Works near archaeological sites are allowed, with the obligatory presence of an expert in archaeology, in compliance with the conditions stated in the Decision (APPENDIX 6).

The Institute for Nature Conservation of Vojvodina Province (No. 03-2033/2 from August 18th, 2017) points out that the subject section is neither located within the protected area, for which the protection procedure has been performed or initiated, nor it could be found in the scope of ecological network or in the area of registered natural resources (Appendix 6).

The Contractor must inform the competent institution about the date and time of the commencement of works.

Bicycle and Pedestrian Traffic

There are increased flows of pedestrians and cyclists on the observed route of the state road, primarily in the zone of the city of Zrenjanin from km 122+260 to km 123+800. The sidewalk is separated from the carriageway surface by a green belt of variable width.

From the overpass at ~ km 124+100 to the new cemetery at ~ km 125+225, there is sidewalk which passes from the right to the left side of the road at ~ km 124+810 in the zone of the access road for *Radijator*. The distance from sidewalk to the edge of carriageway varies from 5 m to 21 m.

From the intersection towards the industrial zone at ~ km 126+260 until the entrance to Ecka at ~ km 128+910 on the right side of the state road, there is a bicycle path about 15-20 m away from the right edge of the carriageway.

A possibility of setting up a bicycle path was analysed based on the request of the Municipality of Zrenjanin. The overall width of a bicycle path depends on the intensity of bicycle traffic. The base module (traffic profile) is 1.00 x 2.25 m.

From the beginning of the route at ~ km 122+260 to OMV petrol station at ~ km 123+410, the width of the existing carriageway is 9 m. Regarding this route, traffic moves in two lanes (one strip in each direction is 4.5 m wide). A variant of marking the bicycle path along the edge of carriageway might be at both sides in the width of 1.25 m. In this case, the width of the carriageway for traffic of vehicles would be reduced to 6.5 m or 3.25 m for each strip. However, the problem is encountered here because this is not allowed by the General Program Conditions defined by the Cyclists Guidelines in Case of Long-distance/Connecting Roads. If this section of the road through the city was categorized as an arterial road one day, it would be possible to think about this solution.

The general program conditions defined by the Cyclists Guidelines in Case of Bicycle Long-distance Paths and/or Footways are defined independently outside the road reserve and regulating flow cross-sections is in two levels. In case of connected roads, a separate path for cyclists/pedestrians with regulated lateral pedestrian motion over pedestrian crossings is permitted.

As far as bicycle paths are concerned, four routes can be defined:

- Route 1 - from km 122+290 (Zitni trg) to km 123+775 (rifle range)
- Route 2 - from km 123+890 (rifle range) to km 124+100 (overpass zone)
- Route 3 - from km 124+100 (overpass zone) to km 125+210 (New cemetery)
- Route 4 - from km 124+810 (Radijator) to km 126+240 (Pancevacka street).

Taking into account the Route 1, the bicycle path would be located in densely populated part of the city of Zrenjanin; the Route 2 is related to the part of road in the overpass zone; the Route 3 is in industrial zone and regarding the Route 4, there is sidewalk only on the left side of the road from km 124+810 (Radijator) to km 125+210 (New cemetery).

It would be possible to plan bicycle path that is mainly parallel to the existing sidewalk with certain paths that connect both sides of the road at the place where pedestrian crossings exist.

Railway Traffic

The road section Zrenjanin - Ecka at the chainage at ~ km 124+060 is at grade intersection (Bekov overpass) with the railroad Pancevo main station - Zrenjanin - Kikinda – country's border.

Figure 17. Bekov overpass at ~ km 124+060

The drain grids of bridge drains are multi-leveled in relation to carriageway and partially clogged.

The new solution will propose the introduction of a longitudinal pipe which will receive the outflow and take it outside the construction of the overpass into the

existing sewage system of atmospheric water in Opovacka Street. It is necessary to level the drain grids with carriageway.

Regarding works on the bridge, it is planned to replace the curbs, as well as find the solution for the passage from the road shoulder to the bridge.

Watercourses

The Begej River is registered on the observed section. The river flows through the town of Zrenjanin, while from chainage ~ km 126+350 to chainage ~ km 128+850, the watercourse of the river is parallel to the route. The riverbed is about 500 m far away from the route (observed for the part of the route where the watercourse is parallel to the route).

The reported culvert is a part of the system of melioration canal owned by PWC Vode Vojvodine at chainage at ~ km 125+190.

Table 2. The table of culverts

No	Chainage	Function	Shape	Cross section	Material
1 (New cemetery)	125+190	Part of the system of melioration canal	Slab	B = 3.0 m; H = 2.5 m	Concrete

According to the previous conditions of PWC Vode Vojvodine (No. I-325/4-18 from June 15th, 2018), if the collected outflow of water enters into Aleksandrovacki Canal (chainage at ~ km 125+190), it is necessary to purify accumulated outflow before letting it into canal. It is necessary to achieve the level of water purification. Furthermore, the outflow of water will belong to the second class of water, according to the Regulation on the Classification of Water and Categorization of Watercourses ("Official Gazette of RS", No. 5/68).

As far as interventions are concerned, it is proposed to mow vegetation as well as to purify surplus of material from canal in the zone of culvert, as well as to clean the culvert itself. There is a safety barrier. Watercourse is regulated.

Air

There are not additional sources of air pollution within the observed section of Zrenjanin (Ecka) – Ecka. The data on the values of air pollution which were measured on the observed corridor were not available.

Based on the experience and expected traffic intensity during and after planned rehabilitation works, on the corridor of the observed road section, a larger increase in traffic intensity is not expected, nor an increase in the level of air pollution as a product of exhaust gases. It is expected to have temporary increase in the concentration of pollutants in the air during the road rehabilitation phase.

Noise

Data on measured noise values on the observed corridor were not available. It is expected to have a temporary increase in the noise level during the rehabilitation phase of the road.

3. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for formulation and implementation of environmental policy matters.

The other aspects of environmental management related to road rehabilitation projects are dealt by several other institutions, among which are the Provincial Secretariat for Urban Planning and Environmental Protection, Institute for Nature Conservation of Vojvodina Province, Institute for Protection of Cultural Monuments of Zrenjanin and PERS.

For the needs of this design, the following opinions/conditions were obtained (see Appendix 6):

- Institute for Protection of Cultural Monuments of Zrenjanin No. I-102-5/17 from August 31st, 2017
- Institute for Nature Conservation of Vojvodina Province 03-2033/2 from August 18th, 2017
- Provincial Secretariat for Urban Planning and Environmental Protection 140-501-379/2018-05 from March 6th, 2018
- Previous conditions of PWC Vode Vojvodine No. I-325/4-18 from June 15th, 2018.

Existing Serbian Legislation

Environmental protection in the Republic of Serbia is regulated by various laws and by-laws at national and municipal level. The environmental legislation in force in Serbia is summarized in Appendix 3.

The Procedure of Environmental Impact Assessment in the Republic of Serbia

In the juridical system of the Republic of Serbia, the EIA procedure is regulated by the Law on Environmental Impact Assessment ("Official Gazette of RS" Nos. 135/2004, 36/2009), which is completely in accordance with the European EIA Directive - 85/337/EEC. Therefore, the EIA study is not necessary for road rehabilitation projects, except for those sections which are located within or in the vicinity of natural and cultural protected areas. In this case the proponent of the design needs to submit the request for making a decision about the need for making the Environmental Impact Assessment to the relevant ministry. Depending on the estimation and significance of potential environmental impacts, the decision is made about whether it is necessary to conduct the full procedure of Environmental Impact Assessment.

The request for decision on the need for EIA with other accompanying documentation has been submitted to The Ministry of Environmental Protection (MoEP).

The decision states that projects of urgent maintenance, rehabilitation and removing road damages **are not** on the List of projects for which the EIA is required or for which the EIA can be required ("Official Gazette of RS" No. 114/08).

The opinion was obtained from the Provincial Secretariat for Urban Planning and Environmental Protection (No. 140-501-379/2018-05 dated from March 6th, 2018) that **it is not necessary to conduct the EIA study.**

On the basis of the aforementioned criteria, this project does not require the EIA study. However, **the policy of the World Bank requires the development of a partial evaluation - EIA and a preparation of the specific EMP for the construction site.**

Relevant International Financial Institutions (IFIs) – policies and statements

IFIs request that the following requirements must be applied to any works:

- World Bank: Operational Policy OP 4.01, Environmental Impact Assessment, which requires a partial Environmental Impact Study and development of site specific EMPs for projects belonging to Category B;
- EIB: Statement of Environmental and Social Principles and Standards (2008).

EIB requires that the project complies with the Republic of Serbia national laws and EU standards. However, the regulations of the Republic of Serbia do not provide the design for EMP for this type of investment, while the World Bank policy requires a partial EIA and EMP for each section.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

The following table presents a short overview of environmental impacts foreseen by the design:

Impact	Significance	Comment
Impacts on land use/settlements	Does not exist	No land acquisition is planned within the project Implementation according to OP 4.12.
underground and surface water	Low	Due to low amount of water that can come to the recipient by drainage, the consequential impact is minimal to negligible
air quality	Low	Temporary impact during the execution of works
flora and fauna (protected areas and species)	Negligible	Temporary impact during the execution of works
noise	Low	Temporary impact during the execution of works
access to/intersections of the main road and local roads	Low	Rehabilitation will not have a negative impact on the existing intersections.
soil management	Low	With the application of appropriate measures of waste management
waste management	Low	According to the plan of waste and waste water management
cumulative impacts	Moderate / Low	Temporarily, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only

The works on road rehabilitation on the road section Zrenjanin (Ecka) – Ecka will have a smaller impact on the environment (B category of the environmental protection). Most impacts are temporary and will disappear after the completion of works on heavy maintenance i.e. road rehabilitation.

The road maintenance works will be performed entirely on public land, without any collision with private properties. In respect with the provisions of WB OP 4.12

(Involuntary Resettlement), the Design does not require any acquisition of land, resettlement or long-term disturbance of human activities.

The EMP relates to the road rehabilitation phase. It is a part of the relevant agreement for implementation and future commitment of the Contractor. The following problems may occur during the rehabilitation works: disturbance in traffic and movement of residents from local settlements, decreased road safety, damages on access roads, noise pollution, dust emission, inefficient waste disposal, air pollution, impact on the soil, water, flora and fauna. The works outside the construction site area, such as the works in a quarry, asphalt plant and borrow-pits may have local negative impact and must therefore be managed properly.

Overview of Key Impacts

The EMP focuses more on the heavy maintenance phase, while activities on the regular maintenance will not be explained in a detail in this EMP, but will only be presented in order to have an overall view of the situation.

Possible temporary impacts which may occur as a consequence of construction activities, among other things consist of:

- disturbance in the regular traffic flow;
- road safety;
- damages of the access roads;
- inconveniences caused by noise, waste and dust;
- emission of gases;
- potential impact on soil and water;
- short-term disturbance of flora and fauna;
- temporary disturbance of nearby settlements during the execution of construction and operative activities.

Noise and Air Pollution in Residential Areas

The quality of air on the site may cause temporary deterioration due to dust caused by traffic on the construction site, and the main pollutants are increased levels of nitrogen oxides (NOx) and Sulphur oxides (SOx), which are found in the exhaust fumes from the construction machinery. Dust can be collected on vegetation and surrounding structures and it can partially cause adverse impacts.

In the phase of the execution of works (in the period when the type of works is expected to have increased dust emission), the construction site needs to be wet with the aim of reducing dust emission. It is necessary to have at least two tanks of water on the construction site, one of which is a backup one. In this way the “idle time” will be avoided when the tanks are refilled with water.

It is obligatory to cover the truckloads.

Noise caused by rehabilitation works is temporary. Since there are no significant residential buildings near the road, it can be concluded that the noise prevention barriers will not be used in this project. The sound barriers can be placed only on places where it is “reasonable” and “useful”. This is not the case with this road rehabilitation project.

Restrict work site construction for the period from 07:00 am to 05:00 pm, especially during the execution of works in the inhabited part of the section.

Possible Water Contamination

Water pollution may occur on the construction site, on the locations where the equipment, vehicles and machinery are washed, as well as on parking lots. The contaminated water shall be filtered through a gravity oil-water separator. The Contractor shall use absorbent materials and remove the contaminated layer of soil, which is then transported to a location defined in the Law on Water ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 101/2016).

The Contractor is obliged to wash the vehicles in the registered vehicle washing place. The possible soil and watercourses pollution will be avoided near construction sites in this way.

Potential Cumulative Impacts

The execution of works on heavy maintenance on the road section Zrenjanin (Ecka) – Ecka can have some temporary cumulative impacts (noise, air pollution, water and soil pollution), and they will not cause a significant impact on the environmental conditions.

Other Impacts

- Social impacts: in the construction phase social-economic conflicts are taken into consideration, including health and safety. All temporary locations used for activities that have short-term impact are included, such as quarries and borrow-pits, locations for stockpiling surplus soil and asphalt plants are included here. Impact of these types of activities is expected to cease when the Project is ended and the Contractor leaves the subject location;
- Pollution: during the heavy maintenance works, a steady, but not significant emission of pollutants is expected. These include: air pollution, water pollution, soil pollution, noise and vibrations;
- Solid waste: activities on the heavy road maintenance are expected to generate a certain amount of solid waste, which is collected on the site and transported onto a landfill, outside the site construction zone.

In order to choose location, use the local waste management plan of the city of Zrenjanin for the period from 2010 to 2020[6], as well as the Regional Waste Management Plan for the city of Zrenjanin and the municipalities of Secanj, Titel and Kovacica.[7]

[6] http://www.sepa.gov.rs/download/UpravOtpad/ZrenjaninLPUO.pdf
[7] http://www.sepa.gov.rs/download/UpravOtpad/RPUO_ZrenjaninSecanjTitelKovacica.pdf

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the road section Zrenjanin (Ecka) – Ecka will be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, road rehabilitation and operational phase, must be implemented appropriately. The EMP consists of Mitigation Plan and Monitoring Plan. It is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and execution of works applying the EMP.

A. MITIGATION PLAN

Impacts and proposed mitigation measures have been compiled into the Environmental Mitigation Plan (Appendix 1). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, rehabilitation and operational phases. It makes reference to the preliminary conditions issued by the authorized institutions (Institute for Nature Conservation of Vojvodina Province, Institute for Protection of Cultural Monuments of Zrenjanin and PWC Vode Vojvodine), law and contract documents, approximate location, time frame and the responsibility for its implementation and supervision.

The Contractor's Management

The recommendations and proposed mitigation measures for the negative impact on environment, as shown in **Error! Reference source not found.**, represent the commitment of the Contractor. Mitigation measures will be incorporated as an integral part of the design and execution of works on heavy maintenance, and as such, their costs will be included in the rehabilitation price.

The EMP is a part of works program and the Contractor shall apply it through qualified and experienced staff that will be responsible for fulfilling the requests connected to the environmental protection from EMP. The Contractor and his subcontractors will work entirely in compliance with the laws of the Republic of Serbia, EU standards and the requests of the Creditor.

The Contractor will use this document to check its compliance with the EMP. It is the Contractor's obligation to calculate the implementation of environmental mitigation measures in his overall cost.

The Contractor is obliged to confirm that:

- The EMP conditions have been included into the bid price;
- The Contractor has a qualified and experienced person in a team who will be responsible for the environmental compliance requirements of the EMP;
- The Contractor and its sub-contractors will comply with Republic of Serbia national laws, EU standards and Lender requirements.

Site Organization Plan

Contractor shall carry out and follow the Site Organization Plan. Conditions issued by INCRS shall be included in the Site Organization Plan. Location of the facilities (warehouses, workshops, asphalt and concrete plant etc.) shall be approved by an engineer who is always present. The following conditions have to be met when selecting the location and organizing the site:

- Temporary locations for storing the construction and other material and equipment must be outside the area of rivers and area with high vegetation and limited only to the duration of the works;
  Temporary or permanent locations must be provided (the existing organized communal facilities/landfills) for disposal and deposing muck and other waste in any form, as well as communal waste produced during the works; In order to choose location, use the Local waste management plan of the city of Zrenjanin for the period from 2010 to 2020[8], as well as the Regional Waste Management Plan for the city of Zrenjanin and the municipalities of Secanj, Titel and Kovacica[9];
- Waste disposal/dumping in the river bank area and the river bank of smaller temporary watercourses, as well as on the agricultural land shall be prohibited;
- After the completion of the works, all areas, which were in any way degraded by construction and other works, should be remedied as soon as possible (levelling and resoiling degraded surfaces up to the level and condition in which this area was found before the beginning of works);
- During the execution of works should be strictly adhere to the corridor of the road so that when handling vehicles and machines, no consequences are left to the wider area;
- During the works on the road that is located in the immediate vicinity of the rivers or smaller temporary watercourses, the banks and river bank vegetation should be preserved as much as possible, in other words it is forbidden to destroy the wild species and disturb their habitats;
- During the execution of works, it is forbidden to dispose and leave any kind of waste especially construction waste in the zone of watercourse;
- In the zone of crossing the road across the watercourse, where it is necessary to make arrangements in accordance with the design; the use of stones and other natural materials should be anticipated thus largely avoiding the use of concrete on the banks and river beds watercourses;
- Vehicle and machinery servicing on the road section shall be prohibited. In case of a road traffic accident resulting in oil or service fluids spill (removing the contaminated soil layer, then levelling and topsoiling the surface), the road area must be cleaned, rehabiliated and reinstated;

[8] http://www.sepa.gov.rs/download/UpravOtpad/ZrenjaninLPUO.pdf
[9] http://www.sepa.gov.rs/download/UpravOtpad/RPUO_ZrenjaninSecanjTitelKovacica.pdf

- The works must be performed only during the day from 07:00 am to 05:00 pm on the parts where the road section is located in a populated area to minimize the impact of noise from local construction machines and vehicles;
- Envisage the setting up of the protective fences and pedestrian crossings and passages at the places where it is most appropriate, especially on the locations near settlements, on the basis of the Temporary Traffic Signalization Project;
- Maintain the maximum level of communal hygiene throughout the works along the entire route. Define the locations for placement of containers for temporary disposal of waste within the roadside area (to locate containers for the temporary disposal of municipal waste on road extensions on the roadway) and to ensure their emptying on a daily basis, at the end of the working day;
- The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation;
- All Contractor's facilities should be fenced appropriately;
- Appropriate drainage of the construction site must be provided. Asphalt areas including locations used for parking lot, workshops and fuel storages must be drained towards the oil-water separator;
- Sanitary waste water and polluted water must be treated before water is discharged into the recipient (surface water flow system), in compliance with the Law on Waters ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 101/2016);
- Fuel storage areas must not be located within 20 m of a water course;
- Where fuel in excess of 5,000 litres is stored on site, it will be stored in sealed tanks on a concrete base that is designed to hold 110% of the tank capacity;
- All workshops must have oil and water separators;
- The Contractor must have trained staff, which is competent to handle oil and remove the consequences of an accidental spill;
- Waste oil, oil filters and fuel must be stored on safe locations (in closed reservoirs on the concrete base). When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- Cleared material is to be piled into manageable sized heaps, according to disposal or re-use requirements;
- Limit the amount of excavation to reduce soil erosion. The Contractor should provide protection measures to prevent land erosion;
- Apply a methodology for the protection and conservation of soil from the areas susceptible to erosion, in order to reduce the runoff of atmospheric water carrying erosive material from the location;
- Excavations and machinery works must be avoided when the soil is damp;
- Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time;

- At the end of works, it is necessary to cultivate terrain in all endangered areas using appropriate flora and species that are biologically stable in given climatic conditions, more resistant to adverse effects (exhaust gases) and harmonized with the surrounding area and purpose.

In order to choose location for temporary waste and construction waste disposal, use the Local Waste Management Plan of the city of Zrenjanin for the period from 2010 to 2020[10], as well as the Regional Waste Management Plan for the city of Zrenjanin and the municipalities of Secanj, Titel and Kovacica.[11]

Environmental Management Plan During the Heavy Maintenance

Bearing in mind all the identified impacts, it is necessary for the Contractor to prepare and later consciously apply CEP during the project duration in order to ensure compliance with the requirements of the legislation and the Lender.

The Contractor is required to have a qualified and experienced person in Contractor's team, who will be responsible for coherence between the works, the environment and the Environmental Management Plan. For this part of the work on the construction site, the presence of a responsible person is mandatory on a daily basis.

PERS will independently monitor the works, and if any irregularity is noticed, it will be transmitted to continuously present Supervision, and then to the Contractor.

Contractor's Environmental Plan (CEP) includes the following:

- Site Management Plan. CEP should consist of the procedures for setting up and functioning of a construction site with a view in order to preserve the local community and natural resources;
- Construction Site Organization Plan and the details about proposed measures should indicate the environmental impact caused by their placement. Description and arrangement of areas, with maintenance equipment and oil and lubricant storage facilities, including the distance from water areas;
- Oil and Fuel Storage Management Plan. CEP should cover all the procedures for storing, transporting and using oil and fuel, refueling the facilities and machines, procedures for decreasing the risk of water and soil pollution. All kinds of oil and fuel should be stored in the secondary storages whose capacity is at least 110 % and each spill should be cleaned immediately. Fuel tanks will have the equipment for the treatment of spillage in order to have it cleaned as soon as possible in the case of spillage. All types of spills will be reported in compliance with the Plan

[10] http://www.sepa.gov.rs/download/UpravOtpad/ZrenjaninLPUO.pdf
[11] http://www.sepa.gov.rs/download/UpravOtpad/RPUO_ZrenjaninSecanjTitelKovacica.pdf

which should be made by the Contractor. A short training of workers should be organized as a 'continuous training' as well as after each accident;

- Waste and Wastewater Management Plan. Disposal of waste materials: All the waste materials from the construction site, including barrels, wood, sand and gravel, cement bags, etc. are to be disposed in an appropriate manner. If there is no possibility for recycling, incurring some reasonable costs, these materials should be transported to the approved landfill and deposited there. In order to choose location for temporary waste and construction waste disposal, use the Local Waste Management Plan of the city of Zrenjanin for the period from 2010 to 2020[12], as well as the Regional Waste Management Plan for the city of Zrenjanin and the municipalities of Secanj, Titel and Kovacica.13 Hazardous waste will be stored and removed from the site after demobilization, in accordance with the Law on Waste Management ("Official Gazette of RS", Nos. 36/2009, 88/2010 and 14/2016). CEP should cover the aspects of waste management, including the application of practical standards, such as reduction, re-usage and recycling. CEP is to define the final location for disposing all types of waste and show that it has been done in accordance with the law and good waste management practice. The Waste Management Plan will include, at least, details of temporary waste disposal, waste transportation and pre-treatment process that precede the final disposal or recycling. Licensed/approved organizations must be used for collecting and storing solid and liquid waste. All types of waste leaving the site must be controlled and recorded. As part of the Plan, the Contractor shall provide chain-of-responsibility forms for the waste that leaves the site. Therefore, waste controller shall keep one copy of the form, and the driver shall have a copy, to make sure and get the signature on the final landfill. The Contractor shall keep all records for audit purposes and as a proof that this project applies the best practice and complies with the legal regulations;
- Sewage and Waste Water Management Plan in other words, for provision of sanitary latrines and proper sewage collection and disposal system to prevent pollution of watercourses;
- Soil Management Plan must define measures to be undertaken to minimize effects of wind and water erosion, measures to minimize loss of fertility of topsoil, time frames, haul routes and landfills;
- Noise. All equipment is to be licenced and approved in accordance with the EU standards. This applies to all machinery, vehicles and sites where noise and vibrations may affect susceptible receptors. In accordance with the Law on Protection against Environmental Noise (“Official Gazette of RS” Nos. 36/2009 and 88/2010), the Contractor is responsible for ensuring the noise and vibrations do not affect the local community. Even though there is no possibility that the noise and vibrations represent a problem due to a

[12] http://www.sepa.gov.rs/download/UpravOtpad/ZrenjaninLPUO.pdf
[13] http://www.sepa.gov.rs/download/UpravOtpad/RPUO_ZrenjaninSecanjTitelKovacica.pdf

large distance between the construction site and the communities, the Contractor shall limit his works to a period of daylight (from 07:00 am to 05:00 pm), so that there is no reason for the people from the local community to report any kind of night activities as disturbances;

- Dust Emission Reduction Plan should have the water wetting schedule for the access roads and the settlements nearby, which are located along the road that is being rehabilitated, as well as a list of machinery that is to be used. This applies to all of construction sites and haul roads. During rehabilitation, when dust may be generated, the Contractor will monitor the worksite conditions and apply dust control measures, which include reducing construction traffic movements and spraying water on exposed areas. It is necessary to have at least two tanks of water on the construction site, one of which is a backup one. In such a way the "idle time" will be avoided when the tanks are refilled with water;
- Material Excavation and Extraction Location Plan as well as the reparation measures to be implemented for the areas of borrow-pits and access roads when the project is finished;
- Emergency Response Plan. CEP sets out the procedures for emergency response in the event of accidents or major incidents, in order to safeguard people, property and environmental resources. Details of the spill response equipment to be provided on site are to be specified;
- Recultivation Plan. Cleaning and recultivation of construction sites and removal of Contractor's facilities. It is the Contractor's responsibility to address site clean-up. This includes the removal of all waste materials, machinery and any contaminated soil. The Contractor will develop a plan for handover, sale or removal of all plant, vehicles and machinery to ensure that no unserviceable items are left on the construction site, in accordance with the Law on Waste Management ("Official Gazette of RS" Nos. 36/2009, 88/2010 and 14/2016). All construction sites and work areas will be rehabilitated so that these can be returned as close as possible to their previous state and uses. This includes the stabilization and landscaping of all construction sites. In accordance with the Law on Environmental Protection ("Official Gazette of RS" Nos. 135/2004, 36/2009 – state law, 72/2009 – state law, 43/2011 - CC decision and 14/2016) after the end of the work, the waste will not remain on-site. Should the Contractor fail to remove the waste, the PERS is entitled to withhold payment, arrange the clean-up and deduct the cost of the clean-up and administrative charges from the final payment;
- Plan of Environmental Grievances (grievance mechanisms and organization) which will show how local community and third parties affected by the project define complaints which are the consequence of rehabilitation and to whom these complaints should be addressed (e.g. through conversations, consultations etc.) (see Appendix 4, Project Grievance Mechanism).

Safety

The Contractor should identify potential risks before the commencement of works. Provisions for emergency responses are to be included in the Construction Site Safety Plan, which shall include nomination of a person who will be immediately contacted if an accident occurs. The Site Safety Plan is submitted to the Project Supervision Consultant for approval one week before the commencement of the works.

- The Contractor will be required to keep the site free of drugs and alcohol;
- The Contractor‘s Site Safety Plan will include provision for a safe work environment and provide safety measures and protective equipment to all workers including hand, head, eye and ear protection and safety footwear;
- The Site Safety Plan will include provision for first aid facilities on-site and employ a trained first aid person, in accordance with the Law on Safety and Health at Work (“Official Gazette of RS” Nos. 101/2005, 91/2015 and 113/2017 - state law);
- The Contractor shall provide potable water supply, toilets and water supply for bathing to the workers;
- Safety Labour Management Plan (SLMP) prepared by PERS, is required to ensure health and safety provisions during the works on heavy maintenance;
- The Contractor shall perform all project activities by respecting the SLMP, all Serbian laws and by-laws regarding health and safety issues.

PERS and the Contractor are responsible for reporting and investigating incidents.

Due to the increased number of vehicles on the roads through populated places, safety of local residents must be considered. The Contractor shall ensure that traffic passing through populated places is managed safely.

The Contractor is to ensure that:

- all trucks and equipment is maintained in a safe operating condition,
- all drivers and machinery operators are trained and act responsibly (to be stipulated in the Contractor‘s Site Safety Plan and health and occupational safety on site),
- all loads are secured and all loads with potential dust generating materials (e.g. excavated soil and sand) will be covered with tarpaulins,
- safety and immediate removal of any driver that ignore any of the community safety requirements,
- speed limits are respected.

Prior to commencement of construction activities/site works, all of the above plans will be submitted by the Contractor to the Sector for Investments within the PERS for

approval. Site restoration will follow the completion of works. It is Contractor's obligation to restore location of the project as it was at beginning of the project.

Operational Phase

In the road operational phase, special attention must be paid to safety of pedestrians, by using measures for traffic deceleration in the vicinity of populated areas, improving road signs and markings, paying attention to traffic accidents that are repeated in the same places by placing a "black spot" signs. Regular road maintenance consists of the following: grass cutting, clearing of drainage systems, pothole patching and various repairs, together with regular controls and maintenance of drainage structures. Seasonal maintenance, regular maintenance of safety features and road signs will be undertaken as necessary. Major maintenance, that include resurfacing and bigger repairs are typically scheduled over periods of several years.

B. MONITORING PLAN

Monitoring plan is prepared in relation to the proposed Design (Appendix 2).

The main components include:

- Environmental issue to be monitored and the means of verification;
- Specific areas, locations and parameters to be monitored;
- Applicable standards and criteria;
- Monitoring of noise levels near residential areas;
- Monitoring of the procurement of materials (checks that valid permits are in place);
- Duration, frequency and estimated monitoring costs;
- Institutional responsibilities for monitoring and supervision.

A field monitoring checklist has been prepared based on the EMP and Monitoring Plan (Appendix 2). The field monitoring checklist will be used by the supervising field engineer. The signed checklists will be provided to the PERS, who will be responsible for the follow-up and compliance reporting.

The PERS will maintain a Complaints Database, which will contain all the information on complaints or grievances received from the communities or other stakeholders. This includes: the type of complaint, location, time, actions to address these complaints and final outcome.

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS

Project Implementation

PERS is the Implementing Agency for the Project and will be responsible for the implementation and compliance with the EMP and Monitoring Plan. Day-to-day implementation of the Project and monitoring its compliance will be the task of the Project Supervision Consultant.

Prior to the commencement of works, PERS will submit to the Bank for its approval this part of a specific EMP.

The Contractor will provide the results of “zero monitoring” prior to commencement of earth works, during its own mobilization phase.

The Project Proponent shall do the following to ensure that the Contractor implements the proposed mitigation measures in the construction phase:

I. Clearly set out in the tender and contract documents the Contractor’s obligation to prepare the CEP and undertake environmental mitigation measures as specified in the Environmental Mitigation Plan in (Appendix 1) (Appendix to Contract specifications).
II. No compensation for the costs of the required environmental mitigation measures and monitoring activities in the form of the particular item in the Bill of Quantity (BoQ) shall be given to the Contractor, except for the water quality analysis and noise measurement. It shall be regarded as if the Contractor has included these costs in the other items of the BoQ. The actual costs of analysing water quality and noise measurement within the defined Contract will be reimbursed to the Contractor in the form of a specific item in the total price. For non-compliance with the requested measures for mitigating the environmental impact and monitoring activities, the Contractor will receive a specific penalty in the form of demerit points. Demerit points are provided as a measure that should stimulate the Contractor to carry out his obligations in an organized and timely way and to perform his duty in a quality manner. Demerit points have in the same time two meanings - numeric and monetary. Each demerit point has associated monetary value which represents permanent payments reduction for determined noncompliance of the contracted obligations. The number of demerit points received will have a cumulative effect. If during the contract the Contractor receives more than certain number of demerit points specified in the Contract, the Contractor will not be allowed, for a period of 2 years, to compete for any other PERS works contract. Also, if the Contractor is awarded over a specified number of demerit points, the Employer has a right to terminate the Contract. The monetary value of each demerit point, as well

as the deadlines for other possible actions by the Employer must be clearly stated in the Contract. The explanation for the application of these two measures - compensation for specific costs and penalties for non-compliance, should ensure the implementation of all required measures to mitigation of environmental impact and monitoring activities.

III. Explicitly require the Contractor to recruit an environmental specialist. The Contractor will be responsible for the implementation of environmental mitigation measures during construction and shall employ an environmental specialist who will supervise implementation of the Contractor's environmental responsibilities. He will coordinate between the Contractor, PERS and the competent Ministry, and will address any complaints during project implementation in cooperation with PERS. During project implementation, the PERS shall monitor the compliance of the Contractor with the EMP provisions. It is proposed that the PSC employs an environment specialist (with civil engineering/environmental management background) to assist the environmental supervision.

Upon project completion, the PERS will be in charge of the operation and maintenance of the road project. Routine and random monitoring will be undertaken as scheduled in the Monitoring Plan.

PERS shall also be responsible for the following:

- Implementation of the requests for environmental protection provided by: Government environmental authorities, IFIs and other institutions, Law on Environmental Protection (''Official Gazette of RS'' Nos. 135/2004, 36/2009 – state law, 72/2009 – state law, 43/2011 – CC decision and 14/2016);
- Implementation of requests for environmental protection through Contractor's specifications;
- Supervision of the project through the consulting services for supervision and implementation of the project;
- Supervision of environmental monitoring through the consulting services for environmental monitoring;
- Preparation of the final environmental reports.

The Contractor, during a pre-construction period, will make a proposal for environmental protection, including safety of persons associated with the works and the public, within the EMP. This proposal will be reviewed by PERS in order to obtain its acceptance.

In this regard, attention will be given to:

- taking all reasonable steps to protect the environment on and off site and avoid damage or nuisance to persons or property arising from its operations;
- maintaining conditions of safety for all persons entitled to be on site;

- provision of all lights, guards, fencing, warning signs, traffic control, looking to protect the works and other property as well as the safety and public interests.

The Competent Ministry, MoEP, will have the authority for immediate suspension of works, if performance is not in accordance with environmental standards and regulations. Inspection will then inform the PERS about suspension and order to proceed according to its directive.

Reporting Procedures

Public disclosure and the presentation of EMP will be held and the report shall be submitted within EMP.

The Contractor will prepare, as quarterly progress reports, the reports for PERS, which would present all the mitigation measures and measures for environmental protection along with the anticipated activities for monitoring, which were performed during the reporting period. The Contractor will take care of the quality of the environment, in accordance with Mitigation Plan and Monitoring Plan, which form an integral part of the EMP and will provide reports to PERS.

In case of any accidents or environmental threats, there will be immediate reporting about these events. The Contractor shall inform the project manager and local authorities immediately after the accident. If the project manager is not available, the Contractor shall inform PERS about the accident.

The grievance mechanism will be implemented to ensure that the complaints from local communities are appropriately addressed, corrective measures taken and complainants informed about the outcome. This applies to the complaints of all interested parties. The grievance form is shown in the Appendix 4, while hard copies will be available local community centre.

6. STAKEHOLDERENGAGEMENT–INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

As required by the IFIs Safeguards Policies, public consultations will be held during the preparation of EMP. The EMP and other project information will be disclosed to the public and available to the local community.

Detailed Report on Public Consultation process will be presented within the Appendix 5 of this EMP and will include a list of identified stakeholders, which shall be updated as necessary. Beneficiary consultations will be conducted during the construction phase, and records of environmental and social issues raised and complaints received during consultations, field visits, informal discussions, formal letters, etc. will be followed up and the records will be kept in the project office at PERS.

Before the commencement of works, PERS will provide information using the following:

- Newspaper articles in one national and also in one local media,
- Posters on main notice board at all community centres of potential affected Communities,
- Radio announcements about road diversions,
- Provide contact details of community liaison officer who is appointed to work with local communities.

A Grievance Mechanism will be implemented to ensure that all complaints from local communities are dealt with appropriately, with corrective actions being implemented, and the complainant being informed of the outcome. It will be applied to all complaints from affected parties. A grievance form is attached in Appendix 4, and hard copies will be made available at community centres. The Report on Public Consultation will be presented in Appendix**Error! Reference source not found.** to this EMP.

7. REFERENCES

- Environmental Assessment Sourcebook No. 25, Environmental Management Plans, World Bank Environment Department, January 1999
- Roads and the Environment: Handbook, World Bank Environment Department
- EIB, Environmental and Social Practices Handbook, Environmental and Social Office, Version 2 24/02/2010
- EIB, Statement of Environmental and Social Principles and Standards (2008)
- EMP for the rehabilitation of roads, bridges and tunnels, under the World Bank project, Road Management and Traffic Safety Project, Republic of Srpska, Roads Directorate, Banja Luka, 2001
- Environmental Assessment Report and EMP for Serbian Transport Rehabilitation Project, report No.: E866, project name/ID: YF – Transport Rehabilitation Project – No. P075207, document date November 30th, 2003

APPENDIX 1

MITIGATION PLAN

Phase	Issue	Mitigation Measures	Responsibility		Comments
			Implementation	Supervision	
Pre-construction	**Main Design Phase**				
	The respect for the procedures related to the protection of the environment	The Designer obtained and implemented the conditions from the relevant institutions regarding the environmental protection (Provincial Secretariat for Urban Planning and Environmental Protection, Institute for Nature Conservation of Vojvodina Province, Institute for Cultural Monuments Protection of Zrenjanin) in order to avoid environmental risks during the heavy maintenance.	PERS / Main Design Consultant	Technical control / PERS	
	The choice of the location for the Contractor facilities and a construction site organization	The location must be approved by PERS. • It is forbidden to form the location (construction site) for temporary disposal i.e. storage of required construction and other material and storage, as well as the space with high vegetation. The locations will be chosen in a way that has no impact on the environment and the local community (noise, dust, vibrations). • To minimize the size of the facilities to minimize the unnecessary removal of vegetation • Have the sanitary waste water treated before the water is discharged into the surface water system • Paved areas, including parking areas, workshops and fuel storages must be drained toward an oil-water separator and the areas for fuel storage must be located at a distance larger than 20 m away from the watercourse. • To avoid mechanical topsoil degradation. • To prevent soil erosion on site. • To limit the scope of the excavations to mitigate possible soil erosion. • To avoid excavation and machine operations in damp site conditions.	PERS / Contractor	Supervising authority / PERS	
	Site selection for construction camps, near or within existing settlements. Impact on public health and sociological setting.	• minimum distance must be kept (buffer zone) between the site and the nearest populated area • influence of the local conditions must be taken into account (wind) to avoid or minimize harmful effects • the Contractor's EMP defines health and safety and environmental measures • independent water and electricity supply, in addition to a medical service station with a trained employee on the construction site must be planned	Contractor	PERS	
	Road safety issues associated with pedestrian crossing	Plan for safe and adequate pedestrian crossing facilities that will be equipped with ramps and structures that allow the use of wheelchairs, pushcarts, bicycles and prams.	Main Design Consultant	Technical control / PERS	
	Stakeholder engagement	Details of the proposed road alignment, access points and safety features will be disclosed in the locality of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered in the final design will be recorded.	PERS / Main Design Consultant	Technical control / PERS	

Construction	**Management Plans**				
	Contractor shall prepare the implementation of the Plans described in the EMP, to ensure that the legislation and Creditor's requirements have been met: – Site Organization Plan – Sewerage and Wastewater Management Plan, – Grievance mechanism – Soil Management Plan – Dust Management Plan – Location of the proposed material extraction site, as well as rehabilitation measures to be implemented for the borrow areas and access roads upon project completion; – Waste and Wastewater Management Plan, in line with the Law on Waste Management (''Official Gazette of RS" Nos. 36/2009, 88/2010 and 14/2016) – Oil and Fuel Storage Management Plan – In-river Works Management Plan – Site Management Plan – Emergency Response Plan – Recultivation Plan – Safety and Hazard Assessment – Safety and Labour Management Plan.		Contractor	Supervising authority / PERS	
Construction	**Construction Site Induction**				
	Construction site safety	All workers and visitors to the site shall be given a health and safety induction and instructed on the need to use PPE.	The Contractor's expert for H&S and environmental issues	Supervising authority	
Construction	**Material Supply**				
	Asphalt plant dust, fumes, health and safety effects, ecosystem disturbance	Use the existing asphalt plants, requirement for official approval or valid operating license	Asphalt plant	Asphalt plant / Supervising Authority	Bid supplier / Approved supplier
	Quarry: dust, health and safety of workers, ecosystem disturbance	Use the existing quarries, requirement for official approval or valid operating license	Quarry	Quarry / Supervising Authority	
	Sand and gravel borrow-pits: river bed disturbance, quality of water, ecosystem disturbance	Use the existing borrow pits or buy material from licensed separation facilities, requirement for official approval or valid operating license	Contractor or gravel and sand separation facility	Contractor or gravel and sand separation facility / Supervising Authority	
	Concrete plant Dust, fumes, health and safety effects, ecosystem disturbance	Use the existing concrete plants or buy concrete from licensed suppliers. The material should have appropriate quality attestations.	Concrete plant	Concrete plant / Supervising authority	

Construction	**Material Transportation**				
	Dust, asphalt, fumes	All trucks need to be covered	Truck operator	Truck operator / Supervising Authority	
	Stone/Dust	Wet/covered truck load	Truck operator	Truck operator / Supervising Authority	
	Sand, Gravel, dust	Wet/covered truck load	Truck operator	Truck operator / Supervising Authority	
	Cement, concrete	Remove the fresh concrete which was negligently spilled from the mixer from the transport roads within 6 hours.	Truck operator	Truck operator / Supervising Authority	
	Traffic noise exhaust fumes and road congestion	Obeying the working hours (desirable from 09:00 am to 02:00 pm); the use of alternative routes to reduce the usage of the main roads to the minimum. Adequate temporary road signalization	Person in charge of transportation / truck operator	Person in charge of transportation / truck operator / Supervising Authority	
Construction	**Construction Site**				
	Negative impact of noise on workers and local community and fauna	– To limit the activities to daylight working hours (without works between 08:00 pm and 07:00 am) or work during the specified period, but with the approval of the population and management; – Use of construction machines with equipment that reduces sound; ensure the maximum functionality of machines by regular inspections (periodic) or an exceptional technical inspection of vehicles and equipment; – To use equipment with noise mufflers, licensed and approved in accordance with the EU standards; – To use noise barriers for noisy works for those longer than one day in the same location/area.	Contractor	Supervising Authority	
	Dust	Measures to be introduces: – avoiding/reducing to a minimum dust emission, – wetting/spraying the construction site – construction site access, – material landfills during loading/discharging activities – covering the vehicles which carry dusty materials; – spraying/cleaning wheels on the vehicles; – limiting the speed of movement for vehicles, – cleaning the construction site.	Contractor	Supervising Authority	
	Vibrations	To limit activities to daylight working hours (without works between 08:00 pm and 07:00 am) or work during the aforementioned period, upon obtaining the permission from the inhabitants and management. Locate the equipment for earthworks as far away as possible from the vibration-sensitive receptors.	Contractor	Supervising Authority	

	Traffic disruption during construction activities	– Traffic Management Plan with measures to redirect traffic, that are easily seen or easy to follow – Including traffic police assistance if needed – Preparation of Traffic Management Plan that establishes a speed limit for construction vehicles and organizes traffic so that it is mostly performed outside the populated areas. – During work execution, maximize the existing network of roads and avoid the construction of new roads for temporary use, which would further increase the fragmentation of space and existing habitats. – To inform the local community about the works planned	Contractor	Supervising Authority / PERS	
	Reduced access to roadside activities	Provide an alternative access to roadside activities at all times.	Contractor	Supervising Authority / PERS	
	Safety of vehicles and pedestrians when/ where there are no construction activities	Lighting and well-defined safety signs and protection measures.	Contractor	Supervising Authority / PERS	
	Soil and water pollution from improper material storage, management and use	– To organize and cover material storage areas; – To isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers; – Washing the trucks for concrete and asphalt, as well as washing other machinery is to be done exclusively in registered car washes – To organize the construction site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water (consider situations such as drainage for atmospheric water, waste water collected from the structures on the construction site such as the structure for washing the wheels). – The Soil Management Plan must be prepared to control removal, storage and re-use of humus. – To use local controlled measures to prevent sediment flowing into surface water and drainage canals. Some of the measures include physical obstacles such as fences for sediments, checking barriers, mulch barriers, e.g. protective leaves cover, geotextile, rock groynes, and sediment basin), marking them in order to make the embankment slope optimal and the slope edges sharp (steep), – To prevent sediment flowing into surface water, slope of the soil and protection form wind erosion must also be considered, by installing fences, covers etc.	Contractor	Supervising Authority	

	Soil and water pollution from improper material storage, management and use	– To dispose waste material at a location protected from washing out, on a marked location, if not on the site, then on an authorized landfill. In order to choose location, use the local waste management plan of the city of Zrenjanin for the period from 2010 to 2020[14], as well as the Regional Waste Management Plan for the city of Zrenjanin and the municipalities of Secanj, Titel and Kovacica.[15] – Storage of waste according to international best practice (IFC, EHS – General Guidelines). – Apply additional measures for storing hazardous waste (such as secondary containment, limiting the access, providing PPE equipment etc.) to prevent negative effects on the workers, construction site staff, environment or the public. – Using and labelling the containers planned for waste collection, as well as the areas for disposing different types of waste (hazardous and non-hazardous). – Transport the waste in marked vehicles designed for waste transport, to minimize the risk of releasing substances (hazardous and non-hazardous substances) as well as remains that can be carried by the wind. – To train the drivers in handling and disposal of the load they transport and transport documents describing the nature of the load (waste) and its degree of hazard.	Contractor	Supervising Authority	
	Potential contamination of soil and water from improper maintenance and fueling of equipment	– Disposing of and handling lubricants, fuel and solvents is to be performed exclusively in the secured area and storage with concrete base; – To ensure proper loading of fuel and equipment maintenance; – To collect all waste and dispose it on authorized recycling locations	Contractor	Supervising Authority	
	Safety of workers	– provide workers with safety instructions and PPE – provide safe organization of bypassing traffic	Contractor	Supervising Authority	
	Soft/hard landscaping	– Take measures to gradually establish vegetation again by covering crops and natural endemic species and monitoring their effectiveness. – In places where the initial planting failed, plant replacements will be made. – Avoid invasive and allergenic species	Contractor	Supervising Authority	
	Possibility of an archaeological site existence	In case the Contractor comes across an archaeological site, he is obliged to stop the works immediately and inform the relevant Institute for Protection of Cultural Monuments of Zrenjanin and PERS.	Contractor	Supervising Authority	
Construction	**Special Measures Defined by the Conditions of Relevant Institutions**				

[14] http://www.sepa.gov.rs/download/UpravOtpad/ZrenjaninLPUO.pdf
[15] http://www.sepa.gov.rs/download/UpravOtpad/RPUO_ZrenjaninSecanjTitelKovacica.pdf

	Institute for Nature Conservation of Vojvodina Province	- For surface coarse use materials that provide noise and vibration reduction and allow efficient drainage of water from the surface of the carriageway; - To smooth down all terrain after completion of work to reduce the possibility of spreading weeds; - Construction and communal waste generated during the works are collected in containers designed for this purpose and regularly evacuated in cooperation with the competent communal service. - Lubricant and fuel required for the supply of mechanization must be transported, stored and handled, respecting the protection measures prescribed by the statutory regulation related to hazardous substances; - In case of accidental spill of pollutants in the habitat of protected and strictly protected wild species of plants, animals and fungi or in the zone of influence, the polluted soil layer must be removed immediately and placed in a package that can be emptied only on the landfill made for this purpose, outside natural habitats. Form a new, unpolluted layer of land on that place. Requirements for the revitalization of terrestrial and aquatic habitats should be obtained from this institute.			
	Institute for Protection of Cultural Monuments of Zrenjanin	– Ensure continuous supervision during the execution of earthworks at Investor's account – If, during the execution of earthworks, an archaeological site or site with archaeological remains are found, but not registered, the Investor is obliged to order the Contractor to terminate the works without any delay and inform the person who has announced this decision, as well as to take measures in order not to damage or destroy them. They should be preserved in the place and position in which they are discovered. – If there is imminent danger of damage to the archaeological site or facility, the Institute will temporarily suspend the works, until it is determined whether it belongs to cultural property or not according to the Law on Cultural Property. – The Applicant is obliged to inform the Institute for Protection of Cultural Monuments of Zrenjanin about the day of commencement of earthworks, in order to regulate the obligation of the Investor related to performing professional archaeological supervision.			
Operational	**Maintenance**				
	Noise disturbance to human and animal population and workers	– limit activities to daylight working hours (no works between 08:00 pm and 07:00 am or in accordance with the public consent); – use the equipment with noise mufflers installed	Maintenance Contractor	Maintenance Contractor \ PERS	

	Possible air, water and soil pollution	– apply the best engineering practice in handling and safe storage of lubricants, fuel and oil in secured storages; – ensure proper loading of fuel and maintenance of equipment; – collect and dispose all waste in accordance with the Law on Waste Disposal; – properly organize and cover the areas for material storage; – isolate concrete and asphalt works from the watercourse by using sealed formwork; – washing the vehicles and construction machines is exclusively done in registered car washes – dispose of waste material to a site protected from eroding	Maintenance Contractor	Maintenance Contractor	It should be specified in the contract maintenance documentation - Technical Specifications for the performance of maintenance works
	Vibrations	limit activities to daylight working hours (no works between 08:00 pm and 07:00 am, or as agreed with the public and authorities)	Maintenance Contractor	Maintenance Contractor/ PERS	
	Safety of workers	– provide workers with safety instructions and PPE; – Organize safe traffic bypass using alternative roads and appropriate traffic signage. – All the workers and visitors to the construction site will be introduced to the basics of environmental protection and safety measures and protection at work and will be given instructions for using the PPE.	Maintenance Contractor	Maintenance Contractor	
	Maintenance	– Regularly maintain curbs; – Mow and maintain grass and take it to the landfill; – Regularly clean drainage structures (gullies) and dispose waste material on specially designated landfill; – Regularly clean the road surface, – Fill in the holes, joints and cracks; – The remains of asphalt after works should be transported and stored on an appropriate landfill designated for construction materials; – Clean the road surfaces regularly and timely, as well as the surrounding road structures in case of a traffic accident or overturning of tanks or other trucks; – Make repairs	Maintenance Contractor	Maintenance Contractor	
	Increased vehicle speed	To install speed limit signs	Maintenance Contractor	Maintenance Contractor	It should be specified in TS in the part about maintenance works
	Erosion, rockfall, hazardous situation	– install suitable warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow traffic zone, merging), – reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility; – place warning signs on locations considered necessary by good engineering practice, or as agreed in writing with public authorities.	Maintenance Contractor	Maintenance Contractor	

APPENDIX 2

MONITORING PLAN

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored (randomly)?	Institutional responsibility Implementation
Construction	**Material Supply**					
Asphalt plant	Possession of an official approval or valid (operating) license	Asphalt plant	Inspection / Supervising engineer	Prior to the commencement of works	Assure plant compliance with environment, health and safety requirements	Plant manager
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection / Supervising engineer	Prior to the commencement of works		Quarry operator
Sand and gravel borrow-pit	Possession of an official approval or valid (operating) license	Sand and gravel borrow-pit	Inspection / Supervising engineer	Prior to the commencement of works		Borrow-pit or separation facility operator
Concrete plant	Possession of an official approval or valid (operating) license	Concrete plant	Inspection/ Supervising engineer	Prior to the commencement of works		Operator of a concrete plant
Construction	**Material Transport**					
Asphalt	truck load covered	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor’s supervision
Stone	truck load covered or wetted	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor’s supervision
Sand and gravel	truck load covered or wetted	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor’s supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored (randomly)?	Institutional responsibility Implementation
Concrete plant	Removing fresh concrete that was accidentally spilled from the mixer on the transport roads within 6 hours	Construction Site	Supervising engineer	Unannounced inspections during the works	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision
Traffic guidance	Hours and routes selected	Construction Site	Supervision	Unannounced inspections during the works	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision
Construction	**Construction Site**					
Noise disturbance to workers and neighboring population	Noise levels	Construction site, nearby houses along the construction site	equipment – manual equipment for analysing (detecting the level of noise) with the software for its application	– Once, at the beginning of the project – Quarterly – Due to grievances – If the tracking results are not satisfactory, it is to be prepared on a monthly level.	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring)
Water and soil pollution resulting from improper material storage, management and use	Soil and water quality (suspended solids, oils, PH values, conductivity)	Watercourses near the storage places	– Unannounced sampling; – analysis in a certified laboratory possessing the required equipment	Monitoring should be performed prior to the construction (at the reference point upstream from the construction site) and once during the rehabilitation works. If the tracking results are not satisfactory, it should be performed at a monthly basis until the works on the site are finished	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring)
Dust	Air pollution (solid particles)	On and near the construction site, quarry, inhabited settlements...	Inspection and visual observation	Unannounced inspections during the delivery of materials and construction	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring)
Vibrations	Limited time of the activities	Construction Site	Supervision	Unannounced inspections during the active works and due to grievances	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring)

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored (randomly)?	Institutional responsibility Implementation
Traffic disruption during construction activity	The existence of the Traffic Management Plan and traffic pattern	On the construction site and area nearby it	Inspection; Supervision	– Prior to the commencement of works; – once a week in the periods with the largest amount of works and – calm periods when the quantity of activities is not the highest	Minimal disruptions of traffic	Contractor's supervision
Reduced access to roadside activities	Alternative access provided	Construction site	Supervision	Random checks at least once a week during construction site activities	Minimal disruptions of traffic	Contractor's supervision
Safety of vehicles and pedestrians where there are no construction activities	Visibility and suitability	On the construction site and area nearby it	Observation	Random checks at least once a week at evening hours	Assure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Safety of workers	PPE; bypass traffic organization	Construction site	Inspection	Unannounced inspections during the works.	Assure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Operational	**Maintenance**					
Negative effect of noise on the workers and local residents	Noise levels	Construction site; nearby houses	Equipment – manual equipment for analysing (detecting the level of noise) with the software for its application	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS
Vibrations	Limited time of activities	Construction site	Supervision	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored (randomly)?	Institutional responsibility Implementation
Safety of workers	PPE; bypass traffic organization	Construction site	Inspection	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS
Operational	**Road Safety**					
Increasing the speed of vehicles	The conditions of road signs, the vehicle speed	Road section included in the design	Visual observation; Speed detection	During the activities, announced	Ensure safe and economical traffic flow	Maintenance Contractor; Traffic police
Erosion, rockfall and hazardous situations	The condition of danger warning signs	Road section included in the design	Visual observation	During the activities	Ensure safe and economical traffic flow	Maintenance Contractor, tracking the impact (monitoring)

1. General		
Is the project compliant with all relevant requirements (taking account of agreed action plans, exemptions or derogations)?	Yes ❑ No ❑	If no, please provide details of any material non-compliances:
Is the project materially compliant with all applicable environmental and social laws and regulations?	Yes ❑ No ❑	If no, please provide details of any material non-compliances:
Have there been any accidents or incidents that have caused damage to the environment, lead to injuries or fatalities, affected project labour or local communities, affected cultural property, or created liabilities for the company?	Yes ❑ No ❑	If yes, please describe, including details of actions to repair and prevent reoccurrence:
Have there been any changes to environment, social, labour or health and safety laws or regulations that have materially affected the company?	Yes ❑ No ❑	If yes, please describe:
How many inspections did you receive from the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any possible violations:
How many inspections were carried out by the health and safety authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
How many inspections were carried out by from the labour authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
Have these visits resulted in any penalties, fines and/or corrective action plans?	Yes ❑ No ❑	If yes, please describe, including status of implementing corrective actions to address any violations found:
Has the Company engaged any sub-contractors for project related work?	Yes ❑ No ❑	If yes, please state for which types of work, and how the company has monitored the compliance of contractors with specified requirements:
Were there any violations stated above regarding the responsibility of contractors?	Yes ❑ No ❑	If yes, please provide details, including how the Company is ensuring those corrective actions implemented by the Contractor?

Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or legislation reasons?	Yes ❑ No ❑	If yes, please describe:
Please describe any environment or social programs, initiatives or sub-projects undertaking during the reporting period to improve the Company's environmental or social performance and/or management systems: Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:		

2. Status of the Environmental and Social Action Plan
Please provide information on the status of each item in the Environmental and Social Action Plan (ESAP). If the ESAP has been updated during the reporting period, please attach a copy of the new plan.

3. Environmental Monitoring Data [16]				
Please provide the name and contact details for your environmental manager:				
Parameter[17]	**Value[18]**	**Unit**	**Compliance status [19]**	**Comments[20]**
Waste water				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO_2				
NO_X				
Particles				
CO_2				
CH_4				

[16] Please provide the results of monitoring environmental parameters carried out by the Company or its consultants. If you have already had all the necessary information available in another format, you can use that format instead of the one provided here
[17] Not all parameters will necessarily be applied. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.
[18] Please ensure that the units of measurement are clearly stated.
[19] Please report on compliance against the standards for this project (typically local, EU and/or WB)
[20] In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

3. Environmental Monitoring Data [16]				
Please provide the name and contact details for your environmental manager:				
Parameter[17]	**Value[18]**	**Unit**	**Compliance status [19]**	**Comments[20]**
N_2O				
HFCs				
PFCs				
SF_6				
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				
Please provide details of the types and amounts of solid wastes generated by the project. Indicate places where waste is classified as hazardous. Indicate the final re-use, recycle or disposal method for each waste type.				

4. Resource Usage and Product Output			
Parameter	**Value**	**Measurement Unit**	**Comments[21]**
Fuels used			
Oil			
Gas			
Coal			
Lignite			
Grid Electricity			
Heat Purchased			
Feedstock and raw materials consumed			
Name 1			
Name 2			
Product output			
Product 1			
Product 2			

[21] In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility Please include any fuel quality parameters (e.g. calorific value)

5. Human Resources Management				
Please provide the name and contact details for your Human Resources manager:				
	Total		**Recruited in this reporting period**	**Dismissed in this reporting period**
Number of direct employees:				
Number of contracted workers:				
Were there any collective redundancies during the reporting period?	Yes ❑ No ❑	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, consultation undertaken, and measures to mitigate the effects of redundancy:		
Are there any planned redundancies to the workforce in the next year?	Yes ❑ No ❑	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:		
Were there any changes in trade union representation at Company facilities during the reporting period?	Yes ❑ No ❑	If yes, please provide details, and summarize engagement with trade unions during reporting period:		
Are there any other worker representatives (e.g. in the absence of a trade union)?	Yes ❑ No ❑	If yes, please provide details and summarize engagement with them during reporting period:		
Were there any changes in the status of Collective Agreements?	Yes ❑ No ❑	If yes, please provide details:		
Have employees expressed any grievance regarding the project during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarize the issues expressed by male and female staff and explain how the Company has addressed them:		
Have employees expressed any complaint about harassment or bullying during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarize the issues expressed in grievances by male and female staff and explain how the Company has addressed them:		

Were there any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
Were there any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
Were there any changes to the following policies or terms and conditions during the reporting period in any of the following areas: • Union recognition • Collective Agreement • Non-discrimination and equal opportunity • Equal pay for equal work • Gender Equality • Bullying and harassment, including sexual harassment • Employment of young persons under age 18 • Wages (wage level, normal and overtime) • Overtime • Working hours • Flexible working / work-life balance • Grievance mechanism for workers • Health & safety	Yes ❑ No ❑	If yes, please give details, including some new initiatives:

6. Occupational Health and Safety Data					
Please provide the name and contact details for your Health and Safety manager					
	Direct employees	**Contracted workers**		**Direct employees**	**Contracted workers**
The amount of work that the average worker does in the reporting period in an hour:			Number of fatalities[22]:		
Budget spent on OHS in this period (total amount and currency):			Number of injuries:		
OHS training provided in this period among employees-days:			Number of Lost Time Incidents (including vehicles)[23]:		
Number of lost workdays[24] resulting from incidents			Number of cases of occupational disease:		
Number of days when people are on sick leave:					
Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):					
Please provide details of any fatalities or major accidents that have not previously been reported, including total compensation paid due to occupational injury or illness (amount and currency):					
Please summarize any emergency prevention and response training that has been provided for Company's personnel during the report period:					
Please summarize any emergency response exercises or drills that have been carried out during the report period:					

[22] If you have not done it yet, please provide a separate report on the circumstances of each fatality in a great detail.
[23] Incapacity to work for at least one full workday on the day when the accident or illness occurred.
[24] The number of workdays is related to lost workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

7. Stakeholder Engagement	
Please provide the name and contact details for your external relations or community engagement manager:	
Please provide information on the implementation of the Stakeholder Engagement Plan and summarize interaction with stakeholders during the reporting period, including: - Meeting or other initiatives to engage with the members of public or public organizations during the report period, - information provided for the members of public and other stakeholders during the report period concerning environmental, social or safety issues, - coverage in media, - and interaction with any environmental or other community groups. Please describe any changes to the Stakeholder Engagement Plan:	
How many complaints or grievances did the project receive from the members of public or civil society organizations during the reporting period? Please split by stakeholder group. Summarize any issues raised in the complaints or grievances and explain how they were resolved:	

8. Status and Reporting on Resettlement Action Plan/Livelihood Restoration Framework		
Existing Land Acquisitions Please report any further progress made during this reporting period in the implementation of the Resettlement Action Plan (RAP) or Livelihood Restoration Framework (LRF), using the monitoring indicators as detailed in the RAP or LRF, and complete the table below. Please provide the results of any other related monitoring carried out by the Company or its consultants and attach any additional information you think would be useful.		
Have all the affected persons been fully compensated for their physical displacement and, if applicable are there any economic losses resulting from the project?	Yes ❑ No ❑	If no, specify how many compensation payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made:
Has the land acquisition had any additional, unforeseen impacts on affected persons' standard of living or access to livelihoods that were not previously covered in the RAP?	Yes ❑ No ❑	If yes, quantify these impacts and specify what measures have been undertaken to minimize and mitigate these impacts. If no, specify how potential impacts on livelihoods have been monitored.
Have any vulnerable groups been identified?	Yes ❑ No ❑	If yes, list the groups that were identified and describe any additional measures undertaken in order to mitigate impacts specific to these groups.
If applicable, have all transit allowances been paid?	Yes ❑ No ❑	If no, specify how many payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.
Has legal support been provided to all the affected persons?	Yes ❑ No ❑	If yes, specify how many persons effectively made use of the legal support.
Have all outstanding land and/or resource claims been settled?	Yes ❑ No ❑ Not applicable ❑	If no, specify how many claims are still outstanding and state what the expected timing is for settling them.
Have there been any new land acquisition-related complaints or grievances?	Yes ❑ No ❑	If yes, please state how many and summarize their content.

Has the Company regularly reported the affected communities on the progress made in implementing the RAP?	Yes❑ No❑	If yes, please state how many meetings were held and how many participants attended those meetings
New Land Acquisitions If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. Please attach new/revised RAP covering the new land acquisition and describe mitigation measures, compensation, agreements reached, etc. and provide in tabular form a list of affected people and status of compensation.		
Are there any persons that physically have been displaced?	Yes❑ No❑	If yes, how many?
Are there any persons that economically have been displaced?	Yes❑ No❑	If yes, how many?
Will the government assist that resettlement?	Yes❑ No❑	

9. Community Interaction and Development
Please summarize any social or community development initiatives undertaken by the company during the reporting period, and any associated expenditure:

APPENDIX 3

LEGISLATION

REGULATIONS AND REQUIREMENTS

This section deals with the regulatory context in terms of consultation and publicity in the Republic of Serbia, and it relates to the Design. Particular emphasis is placed on the importance of the relevant Serbian legislation, regional regulatory instruments, as well as the relevant requirements of the World Bank's Access Policy and Operational Policies OP 4.01 Environmental Impact Assessment.

BASIC NATIONAL LEGISLATION:

The main laws and regulations currently in force in Republic of Serbia which are relevant to the environmental protection during the design and execution of works are listed below:

1. **Law on Planning and Construction** ("Official Gazette of RS", Nos. 72/2009, 81/2009 - correction, 64/2010 - CC decision, 24/2011, 121/2012, 42/2013 - CC decision, 50/2013 - CC decision, 98/2013 - CC decision, 132/2014 and 145/2014);
2. **Law on Nature Protection** ("Official Gazette of RS", Nos. 36/2009, 88/2010, 91/2010 - correction and 14/2016);
3. **Law on Environmental Protection** ("Official Gazette of RS", Nos. 135/2004, 36/2009, 36/2009 - state law, 72/2009 - state law, 43/2011 - CC decision and 14/2016);
4. **Law on EIA** (“Official Gazette of RS”, Nos. 135/2004, 36/2009);
5. **Law on Strategic EIA** (“Official Gazette of RS” Nos. 135/2004 and 88/2010);
6. **Law on Waste Management** ("Official Gazette of RS", Nos. 36/2009, 88/2010 and 14/2016);
7. **Law on Noise Protection** ("Official Gazette of RS", Nos. 36/2009 and 88/2010);
8. **Law on Water** ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 101/2016);
9. **Law on Forests** ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 89/2015);
10. **Law on Air Protection** (“Official Gazette of RS”, Nos. 36/2009 and 10/2013);
11. **Law on Occupational Safety and Health** ("Official Gazette of RS", Nos. 101/2005, 91/2015 and 113/2017 - state law);
12. **Law on Roads** ("Official Gazette of RS", No. 41/2018).

Regulations formed based on the aforementioned Laws:

1. Decree of Establishing the List of Projects for which the Impact Assessment is mandatory and the List of Projects for which the EIA can be requested (‘’Official Gazette of RS’’ No. 114/08);
2. Rulebook of the Contents of Requests for the Necessity of Impact Assessment and on the Contents of Requests for Specification of Scope and Contents of the EIA Study (“Official Gazette of RS” No. 69/05);
3. Manual of the Contents of the EIA Study (“Official Gazette of RS” No. 69/05);
4. Manual of the Procedure of Public Inspection, Presentation and Public Consultation about the EIA Study (“Official Gazette of RS” No. 69/05);
5. Manual of the Work of the Technical Committee for the EIA Study (“Official Gazette of RS” No. 69/05);
6. Regulations on Permitted Noise Level in the Environment (“Official Gazette of RS” No. 54/92);
7. Regulation of Establishing Class of Water Bodies (“Official Gazette of RS” No. 5/68);
8. Regulations of dangers pollutants in waters (“Official Gazette of RS” No. 31/82).

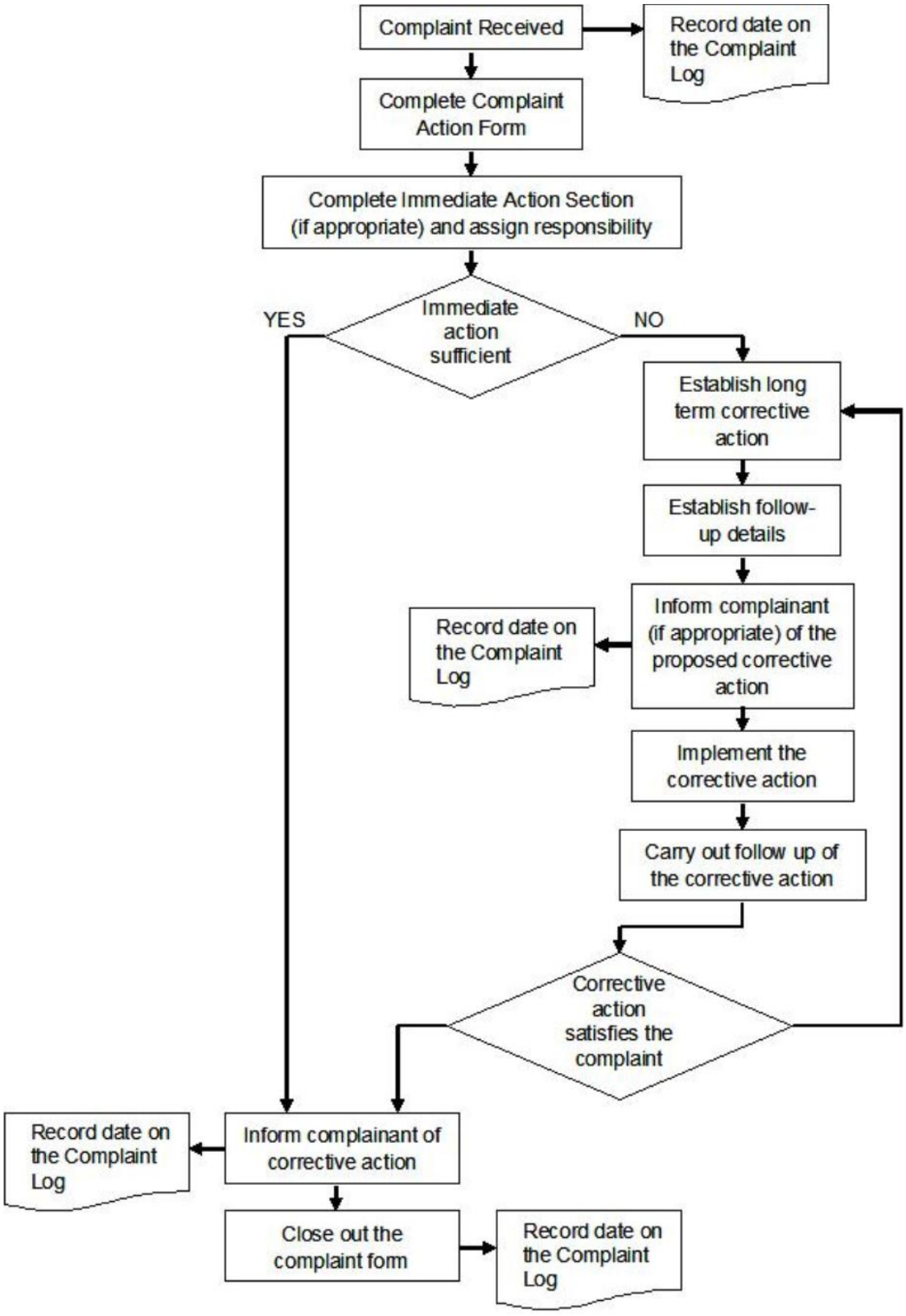
Other relevant Serbian legislation

1. Law on Confirmation of Convention on Information Disclosure, Public Involvement in Process of Decision Making and Legal Protection in the Environmental Area (“Official Gazette of RS” No. 38/09).

APPENDIX 4

THE GRIEVANCE MECHANISM AND FORM

Flowchart of Complaints/Grievance Procedure



<table>
<tr><td colspan="4">Grievance Reference Number:</td></tr>
<tr><td rowspan="4">Contact details</td><td colspan="3">Name:</td></tr>
<tr><td colspan="3">Address:</td></tr>
<tr><td colspan="3">Tel:</td></tr>
<tr><td colspan="3">e-mail:</td></tr>
<tr><td>How would you prefer to be contacted? Please tick a box</td><td>by post</td><td>by phone</td><td>by e-mail</td></tr>
<tr><td colspan="4">Name and personal information (a unique master citizen number from identity card)</td></tr>
<tr><td colspan="4">Details of your grievance (Please describe the problems, whom they occurred to, when, where and how many times, as relevant)</td></tr>
<tr><td colspan="4">What is your suggested resolution for the grievance?</td></tr>
<tr><td rowspan="3">How to submit this form to the authorized persons</td><td colspan="3">by post:</td></tr>
<tr><td colspan="3">by hand:

Please drop this form at:</td></tr>
<tr><td colspan="3">by e - mail: Please e-mail your grievance, proposed resolution and contact details to the following e – mail address:</td></tr>
<tr><td>Signature:</td><td colspan="3">Date:</td></tr>
</table>

APPENDIX 5

PUBLIC CONSULTATIONS

The following people took part in the public consultations:

No.	Name and surname	Working organization- institution
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

QUESTIONS AND ANSWERS:

APPENDIX 6

CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS

Република Србија
Аутономна покрајина Војводина
Покрајински секретаријат за урбанизам и заштиту животне средине
Булевар Михајла Пупина 16, 21000 Нови Сад
Т: +381 21 487 4719 Ф: +381 21 456 238
ekourb@vojvodina.gov.rs | www.ekourb.vojvodina.gov.rs
БРОЈ:140-501-379/2018-05 ДАТУМ: 06. 03. 2018. година

МНМ -ПРОЈЕКТ д.о.о.
Јована Поповића бр. 40
2100 Н О В И С А Д

Предмет: Захтев за давање мишљења у вези подношења захтева за одлучивање о потреби процене утицаја на животну средину

Покрајинском секретаријату за урбанизам и заштиту животне средине достављен је захтев за давање мишљења да ли је за пројекат појачаног одржавања државног пута IБ реда бр. 13 деоница: Зрењанин (Ечка)- Ечка, дужине 8,620km, неопходна процедура процене утицаја на животну средину, односно подношење захтева за одлучивање о потреби процене утицаја предметног пројекта на животну средину. На основу достављеног захтева може се закључити да предметни пројекат подразумева грађевинско – путарске радове у оквиру трасе постојећег пута.

У вези са достављеним захтевом обавештавамо вас да се процена утицаја врши, на основу члана 4. Закона о процени утицаја на животну средину („Службени гласник РС“, број 135/2004 и 36/2009), за пројекте који су наведени у Уредби о утврђивању Листе пројеката за које је обавезна процена утицаја и Листе пројеката за које се може захтевати процена утицаја на животну средину („Службени гласник РС“, број 114/2008). У Листи I, која садржи пројекте за које је обавезна студија о процени утицаја на животну средину, под тачком 7. подтачка 2) наводи се изградња магистралних аутопутева и путева са четири или више трака, или реконструкција и/или проширење постојећег пута са две траке или мање, са циљем добијања пута са четири или више трака, у случају да такав нови пут или реконструисана и/или проширена деоница имају непрекидну дужину од преко 10km или више, укључујући припадајуће објекте, осим пратећих садржаја магистралног пута, док се у Листи II, која садржи пројекте за које се може захтевати процена утицаја на животну средину, под тачком 12. Подтачка 5) наводе регионални путеви укључујући припадајуће објекте, осим пратећих садржаја пута – сви објекти.

1

Како ЈП „Путеви Србије“ планира извођење грађевинско – путарских радова у оквиру трасе постојећег пута, односно појачано одржавање државног пута IБ реда бр. 13 деоница: Зрењанин (Ечка)- Ечка, дужине 8,620km, према критеријумима наведеним у Уредби, не постоји обавеза вршења процене утицаја на животну средину.

ВРШИЛАЦ ДУЖНОСТИ ПОМОЋНИКА
ПОКРАЈИНСКОГ СЕКРЕТАРА

Немања Ерцег

Доставити:
1. Наслову
2. Архиви

ПОКРАЈИНСКИ ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ
Србија ■ 21000 Нови Сад ■ Радничка 20А
Тел: 021/4896-301 ■ Факс: 021/66-16-952
e-mail: novi.sad@pzzp.rs ■ www.pzzp.rs

INSTITUTE FOR NATURE CONSERVATION OF VOJVODINA PROVINCE
Serbia ■ 21000 Novi Sad ■ Radnicka 20A
Phone: +381214896301 ■ Fax: +381216616252
e-mail: novi.sad@pzzp.rs ■ www.pzzp.rs

Број: 03–2033/2
Датум:18.08.2017.

ЈАВНО ПРЕДУЗЕЋЕ ПУТЕВИ СРБИЈЕ
II Број 953-16097/17-1
22-08-2017

ЈП ПУТЕВИ СРБИЈЕ
Булевар краља Александра 282
Поштански фах 17
11059 БЕОГРАД

На основу чл. 9. и 102. став 1. тачка 10. Закона о заштити природе („Службени гласник РС", бр. 36/2009, 88/2010 и 91/2010– исправка и 14/2016), члана141. Закона о општем управном поступку („Службени гласник РС ",бр.18/2016) и на основу члана 2. Правилника о висини и начину обрачуна и наплате накнаде за издавање акта о условима заштите природе („Службени гласник РС", број 110/2013), Покрајински завод за заштиту природе доноси

РЕШЕЊЕ

I) Поступајући по захтеву ЈП „Путеви Србије" за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице пута ІБ реда бр.13 (стара ознака: магистрални пут М-24), деоница Зрењанин - Ечка радове изводити под следећим условима;

1. За обнављање коловозног застора, користити материјал који са аспекта заштите треба да обезбеди следеће захтеве: смањење нивоа буке и вибрација, омогућавање ефикасног дренирања воде са површине коловоза, и сл.;
2. Обавити равнање терена после завршетка радова ради смањења могућности ширења корова;
3. За одлагање чврстог отпада користити контејнере који обезбеђују изолацију отпадних материја од околног простора. Контејнери се морају редовно празнити од стране одговарајуће комуналне службе;
4. Мазиво и гориво потребно за снабдевање механизације неопходно је транспортовати, депоновати (чувати) и њима руковати поштујући при том мере заштите прописане законском регулативом која се односи на опасне материје;
5. У случају акцидентног изливања загађујућих материја на простору станишта заштићених и строго заштићених дивљих врста биљака, животиња и гљива или у зони утицаја, загађени слој земљишта мора се хитно отклонити и исти ставити у амбалажу која се може празнити само на, за ту сврху, предвиђеној депонији, изван природних станишта. На место акцидента нанети нови, незагађени слој земљишта. Услове за ревитализацију терестичних и акватичних станишта тражити од овог Завода.

II) Подносилац захтева је дужан да радове и активности изведе у свему у складу са условима из тачке I овог решења.

III) Уколико подносилац захтева у року од две године од дана достављања акта не отпочне радове и активности за које је акт о условима заштите природе издат, дужан је да прибави нови акт. Такође, уколико дође до измена захтевом наведених активности,

или промене локације/подручја, носилац активности дужан је да поднесе Покрајинском заводу за заштиту природе нов захтев за издавање акта о условима заштите природе;

IV) Ово решење не ослобађа обавезе подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима;

V) Обрађивач је обавезан да поштује и све друге одредбе заштите животне средине утврђене Законом о заштити природе, другим прописима као и важећим плановима вишег реда.

VI) Накнада за издавање овог Решења у износу од 30.000,00 динара, је одређена у складу са чланом 2. Правилника о висини и начину обрачуна и наплате накнаде за издавање акта о условима заштите природе.

ОБРАЗЛОЖЕЊЕ

ЈП „Путеви Србије" из Београда, Булевар краља Александра 282 обратило се Покрајинском заводу за заштиту природе са захтевом бр. 953-16097 од 03.08. 2017. за за израду техничке документације пројекта Појачаног одржавања пута IБ реда бр.13 (стара ознака: магистрални пут М-24), деоница Зрењанин – Ечка. Према Информационој бази Покрајинског завода за заштиту природе, предметна траса пута не прелази преко заштићених природних добара ни преко станишта строго заштићених и заштићених врста

Услови прописани тачкама 1.- 5. израђени су у складу са Чланом 21. Закона о заштити животне средине ("Службени гласник РС", бр. 135/2004,36/2009,72/2009,43/2011 и 14/2016) којим је дефинисан принцип интегрисане заштите природе и животне средине: "Заштита природних вредности остварује се спровођењем мера за очување њиховог квалитета, количина и резерви, као и природних процеса, односно њихове међузависности и природне равнотеже у целини". Очување природних процеса и заштита природних вредности у антропогеном пределу захтева исте мере које су предуслов стварања здраве животне средине, а право на здраву средину обезбеђено је Уставом наше државе. Услови су дефинисани у складу са Чланом 7. Закона о заштити природе, по коме се заштита природе реализује „ ... спровођењем мера заштите природе и предела; утврђивањем услова и мера заштите природе и заштићених природних добара и предела у просторним и урбанистичким плановима, пројектној документацији, основама и програмима...од утицаја на природу...као и ублажавањем штетних последица које су настале активностима у природи".

Чланом 8. Закона о заштити природе („Службени гласник РС", бр. 36/2009, 88/2010 и 91/2010) дефинисано је планирање, уређење и коришћење простора. Планирање и уређење простора спроводи се на основу просторних и урбанистичких планова, планске и пројектне документације, у складу са мерама и условима заштите природе. Носилац пројекта дужан је да поступа у складу са мерама заштите природе, на начин да се избегну, или сведу на најмању меру угрожавања или оштећења природе. Према члану 9. у поступку израде планова, пројеката и активности из члана 8. Закона о заштити природе прибављају се услови заштите природе. Акт о условима заштите природе, између осталог, садржи процену да ли се планирани радови и активности могу реализовати са становишта циљева заштите природе.

Поука о правном леку:
Против овог Решења може се поднети жалба Покрајинском секретаријату за урбанизам, градитељство и заштиту животне средине, а преко Покрајинског завода за заштиту природе, у року од 15 дана од дана достављања овог Решења уз доказ о уплати Републичке административне таксе у износу од 440,00 динара на текући рачун бр. 840-742221843-57, позив на број 59013 по моделу 97.

Решено у Покрајинском заводу за заштиту природе, под бројем 03–2033/2, дана 18.08.2017. године.

Директор:
др Биљана Пањковић

Доставити:

1. Наслову
2. Архиви
3. Документацији

ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ ЗРЕЊАНИН
Трг др Зорана Ђинђића 1 Зрењанин, www.zrenjaninheritage.com, spomkultzr@gmail.com
ПИБ: 103255037, Жиро-рачун: 840-857664-61, Тел/факс: 023-564 366

ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"
Број 953-18243
04 -09- 2017
Датум
БЕОГРАД, Булевар краља Александра бр. 282

Број: I-102-5/17

Дана: 31.08.2017.

Завод за заштиту споменика културе Зрењанин, на основу члана 109. а у вези са чланом 27. став 1. и члана 104. Закона о културним добрима („Сл. гласник РС“ 71/94), члана 104. Закона о општем управном поступку („Сл. Гласник РС“ 18/2016), поступајући по захтеву Јавног предузећа „Путеви Србије“, Булевар краља Александра 282, Београд, у предмету добијања услова за израду техничке докуметације, у поступку непосредног одлучивања, дана 31.08.2017. године , доноси

РЕШЕЊЕ

I Мере техничке заштите за потребе Пројекта појачаног одржавања деонице државног пута IБ реда бр 13 (стара ознака: магистрални пут М-24), деоница Зрењанин-Ечка могу се извести под следећим условима:

- Приликом извођења земљаних радова обазбедити сталан конзерваторски надзор на рачун Инвеститера;
- Уколико се при извођењу земљаних радова наиђе на археолошко налазиште, односно локалитет са археолошким садржајем, а који нису евидентирани, инвеститор је дужан да извођачу радова наложи да без одлагања прекине радове и да о томе обавести доносиоца овог решења, као и да предузме мере да се налази не оштете или не униште и да се сачувају на месту и положају на коме су откривени.
- Ако постоји и непосредна опасност оштећења археолошког налазишта или предмета, Завод ће привремено обуставити радове, док се на основу Закона о културним добрима не утврди да ли је културно добро.
- Подносилац је дужан да обавести Завод за заштиту споменика културе Зрењанин о дану почетка земљаних радова, ради регулисања обавезе Инвеститора везаних за вршење стручног археолошког надзора.

II Прибављање ових услова не ослобађа подносиоца прибављања осталих сагласноти прописаних законом.

III За вршење конзерваторског надзора одређује се Дејан Жигић археолог.

IV Жалба не одлаже извршење решења.

Образложење

Овом Заводу обратило се Јавно предузеће „Путеви Србије“, са седиштем у Београду, Булевар краља Александра 282, Сектор за инвестиције, са захтевом за добијање услова за потребе израде техничке докуметације пројекта Појачаног одржавања деонице државног пута IБ реда 13 (стара ознака: магистрални пут М-24)

деоница Зрењанин-Ечка, у окруру Пројекта рехабилитације путева и унапређења безбедности саобраћаја на мрежи државних путева. Почетак деонице је рескрсница државног пута IБ реда 13 и улице Житни трг у Зрењанину, а крај деонице је раскрсница државних путева IБ реда 13 и IIА реда бр 130 код Ечке.

Увидом у докуметацију констатовано је у непосредној близини трасе постоје археолошки локалитети: Попова хумка са налазима из периода средњег века; Ечански виногради са налазима из сарматског периода, Закуп где је пронађена средњевековна некропола; Циганске ливаде са налазима из сарматског периода; Немачко гробље са налазима из сарматског периода.

Обзиром да постоје подаци о археолопким локалитети, потребно је обезбедити сталан конзерватрски надзор током извођења земљаних радова.

Уколико се при извођењу земљаних радова наиђе на археолошко налазиште, односно локалитет са археолошким садржајем, а који нису евидентирани, инвеститор је дужан да извођачу радова наложи да без одлагања прекине радове и да о томе обавести доносиоца овог решења, као и да предузме мере да се налази не оштете или не униште и да се сачувају на месту и положају на коме су откривени.

Ако постоји и непосредна опасност оштећења археолошког налазишта или предмета, Завод ће привремено обуставити радове, док се на основу Закона о

културним добрима не утврди да ли је културно добро.Одлука из тачке 1. донета је на основу члана 109. а у вези са чланом 27. Закона о културним добрима, донета је одлука из диспозитива .

Чланом 109. Закона о културним добрима регулисана је обавеза инвеститора да уколико наиђе на археолошко налазиште одмах заустави радове и обавести о томе овај завод.

Ово решење донето је у скраћеном поступку (непосредном одлучивању по члану 104.ЗУП-а Сл. гласник РС 18/16), применом члана 104. став 1. Закона о културним добрима.

На основу члана 104.ст. 3. Закона о културним добрима, жалба не одлаже извршење решења.

Поука о правном леку: Против овог решења дозвољена је жалба Републичком заводу за заштиту споменика културе из Београда, у року од 15 дана од дана достављања. Жалба се подноси путем доносиоца.

Обрадиле.
Д. Жигић, археолог
Г. Стоин, дипл. правник

Директор
Милан Ковачевић

Доставити:
Инвестотору
Архиви,
Документацији

ЈАВНО ВОДОПРИВРЕДНО ПРЕДУЗЕЋЕ ВОДЕ ВОЈВОДИНЕ НОВИ САД
21000 Нови Сад, Булевар Михајла Пупина 25
тел: 021/4881-888 централа, 557-390 & факс: 021/557-353
ПИБ: 102094162
e-mail: office@vodevojvodine.co.yu, office@vodevojvodine.com

Број: I-325/4-18
Датум:
ЕС

15 JUN 2018

MHM-project d.o.o. Novi Sad
Јована Поповића бр. 40
Нови Сад

Предмет: Претходни услови за израду техничке документације Главни пројекат појачаног одржавања државног пута IБ-13, деоница: Зрењанин (Ечка) – Ечка, дужине L=8.620km

Вашим Захтевом број 11-230218/9 од 23.02.2018.год. (наш број I-325/1 од 26.02.2018.год.), допуне захтева број 11-230218/9-1 од 13.03.2018.год. (наш број I-325/3 од 15.03.2018.год.), и допуне захтева број 11-230218/9-2 од 22.03.2018.год. (наш број I-325/5 од 23.03.2018.год.), у име инвеститора ЈП „Путеви Србије" Београд, Булевар краља Александра бр. 282, матични број: 20132248, ПИБ: 104260456, затражили сте наше претходне услове за израду техничке документације Главни пројекат појачаног одржавања државног пута IБ-13, деоница: Зрењанин (Ечка) – Ечка, дужине L=8.620km.

Уз захтев је достављена следећа документација:

- Технички опис планираних радова за израду Главног пројекта појачаног одржавања државног пута IБ-13 деоница: Зрењанин – Ечка, L=8.620km, стационажа пута од km 122+260 - km 130+880
- Пуномоћје, издато од ЈП„ Путеви Србије" Београд, бр. 953-1827 од 23.01.2018.год.,
- Прегледна карта деонице Зрењанин – Ечка, L=8.620km
- Ситуациони план предметне деонице у размери P=1:1000: почетак деонице од стационаже пута km 122+260 - цртеж бр. 1, деоница на месту укрштања са мелиорационим каналом на стационажи пута km 125+195 - цртеж бр. 2 и крајња деоница до стационаже пута km 130+880 - цртеж бр. 3
- Геодетска ситуација предметне деонице са ортофото подлогом (у елктронском облику)

У поступку издавања претходних услова прибављено је Мишљење ВПД „Средњи Банат" д.о.о. Зрењанин, број 04-7/68-18 од 29.03.2018.год. и број 04-7/82-18 од 19.04.2018.год.

Разматрањем поднетог захтева са прилозима, установили смо да се планирају радови на рехабилитацији и појачаном одржавању деонице државног пута I Б реда бр. 13 Хоргош – Београд, деоница: Зрењанин (Ечка) – Ечка, дужине L=8.620km. Обухваћена деоница државног пута почиње у граду Зрењанин, код Житног трга (на стационажи пута око km 122+260), обухвата улице Николе Пашића и Београдску, затим наставља ка насељу Ечка и завршава на око 50m након раскрнице са државним путем IIA реда бр. 130 Ечка – Панчево (на стационажи пута око km 130+880). Појачаним одржавањем се предвиђа побољшање носивости коловозне конструкције у оквиру постојеће ширине пута, са санирањем постојећег система одводњавања, све у сврху повећања трајности пута и повећања безбедности одвијања саобраћаја.

1

Предметна деоница пута се укрштa са Александровачким каналом, на стационажи канала km 2+770. На месту укрштања се налази армирано бетонски пропуст, преко кога је изграђена саобраћајница која је предмет захтева (стационажа пута km 125+195).

При изради техничке документације за рехабилитацију и појачано одржавање државног пута IБ-13, деоница: Зрењанин (Ечка) – Ечка, дужине L=8.620km, треба уважити следеће услове:

1. Техничку документацију урадити у складу са законским прописима и нормативима за ову врсту објеката. За потребе израде прикупити све потребне подлоге (урбанистичке, геодетске, геомеханичке, хидролошке,...), извршити одговарајуће анализе и прикупити остали неопходне услове надлежних органа.
2. За потребе пројекта, извршити сва детаљна снимања терена и постојећих објеката на њему. Испројектовану трасу саобраћајнице, као и решење одводњавања пута, приказати у одговарајућој размери поштујући важеће катастарске подлоге.
3. Предвиђени радови на рехабилитацији пута, као и његово коришћење, ни на који начин не сме да ремети могућност и услове одржавања водних објеката и њихово функционисање (канала, пропуста и др.). Предвиђена технологија извођења радова треба да обезбеди слободан протицајни профил канала у свим условима рада система, стабилност дна и косина канала, несметан пролаз службеним возилима и механизацији дуж у зони постојећих водних објеката.
4. Пројектна документација треба да садржи податке о ширини и дебљини коловозне конструкције планиране саобраћајнице као и њен положај у односу на водне објекте у хоризонталном и вертикалном смислу (положај обрадити ситуационо, подужним и попречним профилима). Приказати решење одводњавања пута са свим потребним елементима.
5. На основу достављене документације, установили смо да се предметна деоница пута укрштa са мелиорационим каналом Александровачки, на стационажи канала km 2+770. Приликом израде пројектне документације, уважити следеће хидрауличке елементе канала и карактеристике постојећег пропуста на месту укрштања:
   5.1. Пројектовани хидраулички елементи мелиорационог канала:
   - Кота пројектованог дна 76,29m.n.J.m.
   - Ширина дна 2,3m
   - Нагиб косина је у односу 1:1,5
   - Максимална количина воде Q=3,88 m3/s
   - Максимална дубина воде 1,4m

   5.2. Карактеристике постојећег пропуста:
   - Димензије отвора B/H=3,0/2,5m
   - Дужина пропуста, између крилних зидова, L=30m
   - Камена облога профила канала, узводно и низводно од пропуста, на дужини од 3,0m, са висином облоге канала од 1,4m
6. У појасу радно-инспекционе стазе, у ширини екпропријационог појаса односно минималној ширини од 5,0m дуж обала канала у грађевинском рејону (у ванграђевинском рејону 10,0m), није дозвољена изградња објеката, садња дрвећа, постављање ограда и слично, који би ометали континуитет саобраћаја тешке грађевинске механизације која ради на одржавању водних објеката.
7. Коловозна конструкција пројектоване трасе, односно предвиђено саобраћајно оптерећење, не сме да нарушава стабилност постојећег пропуста.
8. Забрањено је у мелиорационе канале и отворене канале упуштати било какве воде осим атмосферских вода које својим степеном пречишћености и режимом упуштања морају по Уредби о категоризацији водотока и Уредби о класификацији вода („Сл. гласник СРС", бр. 5/68) припадати II класи вода и које по Уредби о граничним

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вредностима емисије загађујућих материја у воде и роковима за њихово достизање („Сл. гласник РС", бр. 67/11, 48/12 и 1/16), задовољавају прописане вредности, као и убацивање чврстог отпада и шута. Морају се исто тако задовољити одредбе Правилника о опасним материјама у водама („Сл. гласник СРС", бр. 31/82).

9. Атмосферске воде са саобраћајних површина могу се упуштати у мелиорациони канал, путем уређених испуста, ако су претходно ослобођене муља, вегетације, масти, уља, нафтних деривата, лебдећих и пливајућих материја путем решетки и таложника.
10. За евентуално усмеравање и пријем атмосферских вода у канал, излив атмосферских вода у мелиорациони канал мора задовољити следеће услове:
    10.1. Изливну грађевину дефинисати тако да се не изазива ерозија корита и обала при свим режимима течења. На месту испуста косине и дно канала обложити одговарајућом облогом од ломљеног камена или бетона у ширини од 3,0m узводно и низводно од места излива.
    10.2. Изливну грађевину осмислити тако да не умањује протицајни профил канала, не ствара успор у каналу као и да се онемогући задржавање пливајућих предмета у зони излива. Изливну грађевину удаљити минимално 5,0m од ивице постојећег пропуста.
    10.3. Укопане делове испуста у зони канала и радно-инспекционе стазе обезбедити на утицај оптерећења од тешке грађевинске механизације. Сву одговорност око заштите испуста у зони канала обезбеђује инвеститор, односно корисник инсталације.
11. Потребно је да се извршити чишћење каналског профила и околног терена од заосталог грађевинског материјала или земље из ископа, да се вишак материјала евакуише са водног земљишта, односно да се околни терен по завршетку радова у зони водних објеката доведе у првобитно стање а радови на извођењу тако организују да се не омета нормално функционисање истих.
12. Инвеститор је дужан да евентуална оштећења водних објеката насталих као последица изведених радова, несагледавања проблема или некомпетентних решења надокнади, а сва оштећења отклони о свом трошку у најкраћем могућем року, уз надзор стручне службе ЈВП Воде Војводине Нови Сад.
13. За све друге активности које ће се евентуално обављати у оквиру предметног простора, мора се предвидети адекватно техничко решење, у циљу спречавања загађења земљишта, површинских и подземних вода, као и промене постојећег режима воде.
14. Обавеза инвеститора је да о почетку радова благовремено писмено извести ЈВП Воде Војводине Нови Сад, ради контроле извођења радова са становишта њиховог утицаја на водни режим и водне објекте и услова у оквиру издатих претходних услова.

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