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ROAD REHABILITATION AND SAFETY PROJECT

MAIN DESIGN FOR HEAVY MAINTENANCE OF THE STATE ROAD LOT 3: IB 34, ROAD SECTION: BRATINAC (NABRDJE) – BRANICEVO (TRIBRODE), FROM KM 13+273.00 TO KM 44+276.00 L=31.003 KM

ID: RRSP/CS3-RRD4-3/2017-02

ENVIRONMENTAL MANAGEMENT PLAN

DRAFT

PREPARED BY:

BOTEK

MHM PROJEKT

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CONTENTS

ABBREVIATIONS

AADT	Annual Average Daily Traffic
ARAP/АРАП	Abbreviated Resettlement Action Plan
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 / МФИ	International Financing Institutions
INCS	Institute for Nature Conservation of Serbia
IPCMK	Institute for the Protection of Cultural Monuments of Kraljevo
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
NRNRP	National Road Network Rehabilitation Program
OP	Operational Policy
PAP	Project Affected Person
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
TP/ТП	Technical Assistance
WB	The World Bank Group
WMP	Waste Management Plan

INTRODUCTION

The Environmental Management Plan has been prepared for the proposed Design for Heavy Maintenance of the State Road IB number 34, on the road section Bratinac (Nabrdje) – Branicevo (Tribrode), 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.

Following the guidelines issued by IFIs, the project was classified as a B Category of environmental risk, and it requires the development of the Environmental Management Plan (EMP).

The Project Proponent is the Government of Serbia, acting through its Ministry of Construction, Transport, and Infrastructure (MoCTI). The 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 the Environmental Mitigation Plan and Environmental Monitoring Plan. The EMP analyses the rehabilitation phase and operational phase of the relevant road section thus defining measures that 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 project aims to increase the usability and durability of the road, promoting traffic safety, including the requirements of the 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 road section, the Environmental Management Plan is focused on urgent maintenance and damage repair and is part of the relevant contract for the construction works implementation. The activities connected to the regular maintenance of the road section, even though they are not brought into the 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 site explorations, including consultations with regional-level representatives and local stakeholders. The EMP is based primarily on site explorations performed during October 2020.

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 2022, and it includes the following:

- improving the condition of the state road network through the rehabilitation of current roads,
- increasing the road safety level through the application of measures for traffic safety improvement at all stages of the Project implementation, and
- capacity strengthening and improvement of institutional coordination in the field of traffic safety through the implementation of several different services.

Road section description

The subject road section belongs to the Branicevo administrative district located in the central-eastern part of the Republic of Serbia. Road section Bratinac (Nabrdje) - Beranje - Topolovnik - Branicevo (Tribrode), i.e. according to the reference system from 2009 (Bratinac (Nabrdje) - Beranje - Topolovnik - Veliko Gradiste) in the length of 31,940 km belongs to the state road IB-34 (old road mark M-25.1) ("Official Gazette of RS", No. 93/2015) and is part of the traffic connection between Pozarevac - Veliko Gradiste - Golubac - Donji Milanovac – Porecki Most and the connection with the state road IB-35.

Figure 0-1 Excerpt from the map of the state roads reference system from 2017

Rehabilitation Works Description

The terms of reference, issued by the Investor, provide maintaining the existing dimensions of the traffic profile (Existing traffic profile). The planned construction works, in that sense, will primarily refer to the strengthening of the existing pavement structure, rehabilitation of the existing road and road base drainage system, and design of all elements that prolong the durability of works and improve the traffic safety system.

The project will also include the development of new solutions for existing intersections in the level. The locations of the new bus stops will also be considered, following the requirements of the residents and the construction possibilities.

The construction of footways 1.50 m wide on one side of the pavement is planned on the sections which go through settlements (Sirakovo, Majilovac, Djurakovo – Popovac, Topolovnik, Kumane, Veliko Gradiste).

The drainage of the subject section will be based on a combination of closed and open drainage systems.

These types of works are described in more detail in the next chapter - ***1. PROJECT DESCRIPTION; Description of rehabilitation works.***

Baseline Conditions Assessed during Route Survey

The subject road section passes through two municipalities: the City of Pozarevac and Veliko Gradiste. The very beginning of the road section and Batinac settlement belong to the territory of Pozarevac municipality, while other places through which the road section passes belong to the municipalities of Veliko Gradiste (Sirakovo, Majilovac, Djurakovo-Popovac, Topolovnik, Kumane, and Veliko Gradiste).

The cadastral municipalities through which the subject road section passes are:

- CM Bare
- CM Sirakovo
- CM Majilovac
- CM Djurakovo
- CM Popovac
- CM Topolovnik
- CM Kumane
- CM Veliko Gradiste
- CM Kusice

Based on the Conditions of the Institute for Nature Conservation of Serbia No. 020-2835 of 03/12/2020, the state road route on the road section Bratinac-Branicevo is not located within the protected area for which the protection procedure was conducted or

initiated, it is not within the ecological network coverage, nor in the area of recorded natural resources.

During the subject road section site visit, on the roof of the house in Kumane settlement, a stork's nest was spotted at the approximate chainage 35+230.

The conditions of the Institute for Nature Conservation plan the preservation of potential nesting areas for commercial bird species.

During the bird nesting period from March 15 to June 30, it was planned to preserve the nests of the white storks Ciconia ciconia, large birds of prey, and species from the crow family (Corvidae).

Since storks belong to the group of strictly protected species, it is necessary to treat them following the conditions obtained from the competent institution.

Based on the conditions from 24/11/2020 submitted by the Regional Institute for Cultural Monuments Protection in Smederevo, there are no identified immovable cultural assets in the subject area.

The investor and the contractor of the subject works are obliged to inform the Regional Office about the beginning of the groundworks at least fifteen days in advance in writing and to provide all the necessary conditions for their continuous archaeological supervision.

Several monuments and memorial fountains were noticed during the site visit of the road section, which are not registered as cultural assets on the list, but are mentioned in this document and should be paid attention to during the execution of works.

The following economic facilities and contents were identified along the observed road section:

- Bus stop, between Bratinac and Sirakovo, at km 17+497 (left side) and km 17+600 (right side) at the chainage increase direction
- Bus stop, Topolovnik, at km 32+440 (left side) and 32+668 (right side), at the chainage increase direction
- Bus stop, Topolovnik, at km 33+448 (right side), at the chainage increase direction
- Bus stop, Kumane, at km 34+863 (right side), at the chainage increase direction
- Bus stop, Veliko Gradiste, at km 40+120 (right side) and km 40+110 (left side), at the chainage increase direction
- Gas station “Atlantik”, between Bratinac and Sirakovo, at km 17+100
- Gas station “MFK Petrol”, at the entrance to Majilovac from Sirakovo direction, at km 23+050
- Gas station “Eko”, at the roundabout at the entrance to Veliko Gradiste, from Bratinac direction, at km 38+220
- Gas station “Balkan Petrol”, in Veliko Gradiste, at km 40+000
- Gas station “Zuca Petrol", located between Veliko Gradiste and Branicevo, at km 41+840

Along the part of the subject road section, in the direction Bratinac - Sirakovo, there is a railway parallel to the road. The intersection with the subject road section is located in Sirakovo at km 21+890, where there is an unleveled crossing of the railway and the road (the railway passes under the road).

The river Mlava flows near the subject road section, more precisely 2 km before the beginning of the road section, near Bratinac settlement. The road section is intersected by several streams and canals.

There are no additional sources of air pollution within the observed road section Bratinac (Nabrdje) - Branicevo (Tribrode). Data on measured values of air pollution in the observed corridor were not available.

An increase in pollutants concentration in the air of a temporary nature is expected in the rehabilitation phase.

Data on measured noise values on the observed corridor were not available. Increased intensity of noise of a temporary nature is expected in the phase of road rehabilitation.

Policy, Legal and Administrative Framework

The Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for the 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 Serbia (INCS) and The Regional Institute for Cultural Monuments Protection in Smederevo, and the 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.

Lender requirements that are applied to this project include the following Policies:

- Operational Policy of Environmental Impact Assessment (OP 4.01),
- Resettlement Policy Framework (RPF) prepared for the Road Rehabilitation and Safety Project (RRSP),
- European Investment Bank (EIB): Statement of Environmental and Social Principles and Standards (2008).

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

Summary of Environmental Impacts

The works concerning the road rehabilitation on the road section Bratinac (Nabrdje) - Branicevo (Tribrode) will have a smaller impact on the environment (B category of environmental protection). Most of the impacts are temporary and they will disappear after the works on heavy maintenance, i.e. road rehabilitation and sidewalks' construction have been completed.

During the execution of construction activities, there may be disruption of current traffic flow, movement of the residents of the neighboring settlements, reduced road safety, damages to access roads, noise production, dust, waste, and air pollution, impact on soil, water, plant and animal life.

The EMP refers to the phase of execution of works and its implementation is a future obligation of the Contractor.

Environmental Management Plan

Environmental impacts of the Design for Heavy Maintenance on road section Bratinac - Branicevo will be from moderate to minor. 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 and t is based on the types of environmental impacts, their scope, and duration.

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 their associated mitigation measures during the design, rehabilitation, and operational phases. It refers to the conditions issued by the authorized institutions (Institute for Nature Conservation of Serbia, Regional Institute for Cultural Monuments Protection in Smederevo), law and contract documents, approximate location, time frame, and the responsibility for its implementation and supervision.

Monitoring Plan

A Monitoring Plan for the proposed Design (Appendix 2) has been prepared. A monitoring control list will be prepared based on EMP and Monitoring Plan (Appendix 2). The list will be used by the supervision engineer on the construction site. Signed control lists will be submitted to PERS, which is responsible for monitoring and reporting.

Stakeholder Engagement – Information Disclosure, Consultations, and Participation of Public

As requested by IFI's safeguard policies, public consultations will be held in the EMP preparation phase. 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 presented in Appendix 6 of this document and will contain a list of identified actors.

Consultations with road users will be made during the road rehabilitation stage, while all records of environmental and social issues, complaints received during consultations, site visits, and informal discussions, formal reports, etc. will be monitored, recorded, and kept in PERS.

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 2022 and includes the following:

- improving the conditions of the state road network by rehabilitating current roads,
- raising the safety level on the roads by applying measures for enhancing 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 the realization of the Project is Public Enterprise “Roads of Serbia” (PERS). Within PERS, a Project implementation team (PIT) was formed, which should conduct all the necessary activities for successful management and completion of the Project, with the help of other professional departments in the company and cooperation with the other interested institutions of the Government of the Republic of Serbia.

The aim is to prepare technical documentation in the form of the Main Design of heavy maintenance which provides: increasing the use-value and durability of the road, improving traffic safety, the inclusion of local community requirements (social aspect), and compliance with environmental requirements as much as possible in given spatial constraints (the context of the road section) and restrictions arising from the type of allowed construction and traffic interventions (legal basis).

Road Section Description

According to the Reference system of the National Road Network from 2009, the road section Bratinac (Nabrdje) - Branicevo (Tribrode) is 30,003 km long. When Regulation on the Classification of State Roads from 2015, was adopted and entered into force, a new Reference System was established whereby all nodes from the old reference system have been renamed. knots. Also, there has been a change in the length of the road section, which consists of three subsections, as follows:

subsection 03405, with the length of 6,413 km,
subsection 03406, with the length of 12,449 km, and
subsection 03407, with the length of 12,141 km,
the total length of the subject road section is 31.003 km.

The subject road section belongs to the Branicevo administrative district located in the central-eastern part of the Republic of Serbia. Section Bratinac (Nabrdje) - Beranje - Topolovnik - Branicevo (Tribrode), i.e. according to the reference system from 2009 (Bratinac (Nabrdje) - Beranje - Topolovnik - Veliko Gradiste) in the length of 31,940 km belongs to the state road IB-34 (old road mark M-25.1) (“Official Gazette of RS”, No. 93/2015) and is part of the traffic connection between Pozarevac - Veliko Gradiste - Golubac - Donji Milanovac - Porecki Most and the connection with the state road IB-

35. This road section is part of a project planned for heavy maintenance within the fourth year of its implementation. All chainages in this Terms of Reference are given under the new Reference System from November 2017. An excerpt from the Reference System is given in the following table.

Table 1-1 The road 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	0740	03405	3404	3405	Bratinac (Nabrdje)	Beranje	6,405* 6,413**
2	0739	03406	3405	3406	Beranje	Topolovnik	12,492* 12,449**
3	0738	03407	3406	3407	Topolovnik	Branicevo (Tribrode)	13,043* 12,141**
Total:							**31,940*** **31,003****

* Label of the road section according to the old Reference System 2008/2009 (JV CPL- Nievelt)
** Length of the subsection for designing

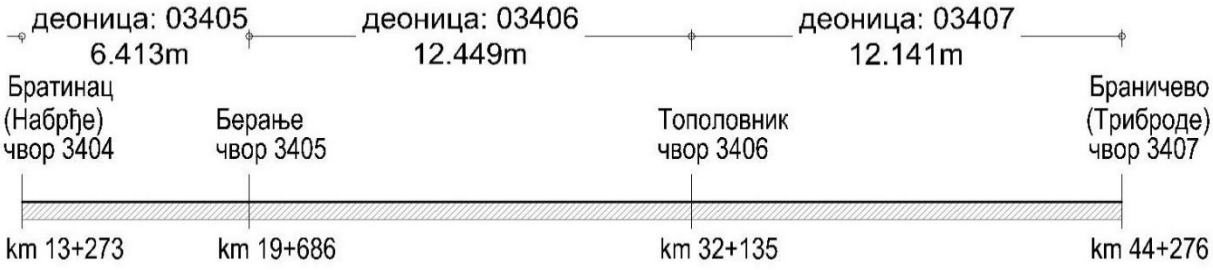


Figure 1-1 The scheme of the road section for rehabilitation

Figure 1-2 Excerpt from the map of the state roads reference system from 2017

Figure 1-3 The beginning of the subject road section

Figure 1-4 The end of the subject road section

Description of rehabilitation works

The existing width of the pavement, on the part of the route from the beginning of the section - the intersection with the state road IIA-161 for Bratinac all the way to the intersection with the state road IIB-375 for Beranje is about 7 m. On the remaining part of the route, it is mostly about 6.5 m.

The terms of reference, issued by the Investor, provide maintaining the existing dimensions of the traffic profile (Existing traffic profile). The planned construction works, in that sense, will primarily refer to the strengthening of the existing pavement structure, rehabilitation of the existing road and road base drainage system, and design of all elements that prolong the durability of works and improve the traffic safety system.

Table 1-2 The existing traffic profile

Section	Traffic lane	Edge lane	No. of lanes	Total pavement width
Bratinac (Nabrdje) - Beranje	3.30	0.25	2	7.10
Beranje - Topolovnik	3.00	0.25	2	6.50
Topolovnik - Branicevo (Tribrode)	3.00	0.25	2	6.50
Through settlements	3.00	0.25	2	6.50

The project will also include the development of new solutions for existing intersections in the level. The locations of the new bus stops will also be considered, following the requirements of the residents and the construction possibilities.

All junctions will be arranged. Vehicle mud removal areas are being designed on the country roads, and kerbs will be arranged and the necessary visibility berms will be opened at the intersections with local roads.

The construction of footways 1.50 m wide on one side of the pavement is planned on the sections which go through settlements (Sirakovo, Majilovac, Djurakovo – Popovac, Topolovnik, Kumane, Veliko Gradiste). The footways are planned on one side of the pavement since there is no regulated drainage system in the existing condition, so the lower side of the regulation is reserved for the drainage system. Due to the complexity of the conditions in populated areas, the insufficient number of recipients for the drainage system (there is none in Veliki Gradiste), it will not be possible to organize the movement of pedestrians on both sides of the pavement.

If during the project elaboration there is a need for pavement widening (correction of geometry in places characterized as problematic from the aspect of traffic safety, pavement widening in a curve for passing vehicles, stops, etc.), the project will include extension of existing pavement culverts, which after the analysis of the condition are determined to be undamaged. If the analysis determines that the possible rehabilitation is economically unjustified, the project will include designing a new culvert of adequate capacity. Considering the site conditions in which the route is located, the main design will pay special attention to the improvement of the existing drainage system (construction of gutters and open canals) and following the planned measures to define the most favorable recipients.

Following the ToR and based on a site visit, the project will provide the development of adequate plans for the rehabilitation and arrangement of buildings on the roadside. Pavement widths on bridges (traffic profile) remain unchanged concerning the existing condition, except in terms of widening for the footway, which has not been present on the facilities in the existing condition so far. Since all bridges are located within the settlement, pedestrian flows must be connected.

Work on the facilities refers to the repair of all damages, installation or repair of transition slabs, installation of footways and new curbs, installation of protective fences for vehicles and pedestrians, etc. The project will provide controlled water drainage in front of and behind the bridge, as well as the plan of the transition from the road shoulder to the bridge.

The drainage of the subject section will be based on a combination of closed and open drainage systems. The existing concept of drainage, of uninhabited parts of the section, is with the help of road ditches or gutters. All drainage elements gravitate towards culverts that have the function of transferring water from the right to the left side of the subject section.

The designed concept of drainage of uninhabited parts of the section will be largely the same as in the existing condition.

The drainage of the bridges will be based on the flow along the curb and the controlled discharge to the flumes. The replacement of gutters and piping for controlled

implementation in the recipient will be planned on bridges with gutters in the existing condition.

A significant change in the drainage concept will relate to the populated parts of the section. Considering the planning of the construction of footways in the settlements, there will be a need for the introduction of a closed drainage system. Closed directions of the atmospheric sewer will be defined in the Main Design, i.e. when all elements of the road are defined (pavement leveling, vertical alignment, as well as the final directions of the footways). The final recipients are mostly existing watercourses in the settlements.

Drainage of Veliko Gradiste settlement is a special problem since there are no recipients. The discharge of collected effluents into absorption wells is considered. If this water discharge system is adopted, oil and fat separators will be provided before drainage into the wells, all to protect groundwaters.

According to the designer, purification of the collected effluents before discharge into the watercourse is not necessary, since the forecasted traffic is not so large. A large number of watercourses are temporary, i.e. some water appears in the riverbed only in rainy periods.

The calculation of pollutants for the subject section is presented in the chapter **BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY** in the section ***Watercourses.***

Following the dynamics, type, scope, technique, and technology of works, the project will define specific traffic and technical measures that achieve the basic objectives:

- Safe traffic
- Safe and uninterrupted works on the construction site
- Satisfactory level of service for users of sections on which works are done
- Reducing the negative impact of the subject road on the environment

During the works, traffic regulation will be done in the following ways:

- by traffic signs;
- manually, by at least two workers contractors;
- by traffic lights.

The method of traffic technical regulation will be defined in the function of a specific locality and its specifics, the length of the narrowing area, the visibility of the warning zone, and the narrowing and the daily traffic area.

The traffic signalization must function permanently, flawlessly in all weather conditions, in each of the phases of the works.

In case that during the works (considering the scope, technique and technology, and period of completion) there is a need to occupy the pavement or road plot, that requires

traffic technical regulation different from the one defined in the project, it is necessary to provide a design plan and consent to it, according to the defined procedure.

If the existing traffic signalization is not in accordance with the traffic conditions in the work zone, or is in collision with the traffic signalization that is installed during the works, it has to be removed or covered with non-reflective tape.

At any time during the works (even in the period when the construction site is not active - night, holidays, etc.), it is necessary to ensure the presence of a person on duty at the construction site, who will take care of the visibility and stability of temporary traffic signals, so that they would not be dislocated or destroyed under gusts of wind or due to the passage of vehicles, and to take care of general traffic safety in the work zone.

Traffic signalization, installed during the works, is removed in its entirety immediately after the performed works, and no later than 24 hours after their completion, whereby the newly designed traffic regime, defined by the traffic signalization project, is established. Traffic signalization is removed from the road, by first removing sign III-17, and then the signs orderly, in the opposite from the traffic direction, to traffic sign I-19, placed at the beginning of the work zone.

2. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY

Due to the specifics of the topography of the terrain and the basic characteristics of the road construction, i.e. poor connection of canals and culverts in the system and poor or no connection with larger recipients, parts of the drainage system are degraded or buried by waste and/or sediment. It is important to note that the road sections in populated areas have poor regulation of the drainage system. residential and commercial buildings were built directly along the road without the elements of the drainage system, which prevents the drainage of water from the road zone and makes it difficult for traffic participants to move.


Figure 2-1 landscape of the road section, Topolovnik village

During the road section survey, 5 retaining walls were noted.

Table 2-1 retaining walls on the subject road section

No	Chainage (km)	Length (m)	Wall position
1	14+812.47 to 15+022.63	210	On the left side, under the road base
2	25+377.43 to 25+415.74	23	On the right side, under the road base
3	32+908.30 to 33+005.31	40+9+4	On the right side, above the road base
4	33+678.06 to 33+844.37	165	On the right side, above the road base
5	35+230.82 to 35+309.92	80	On the right side, above the road base

Figure 2-2 retaining wall No. 5, at Topolovnik graveyard

Settlements

The subject road section passes through two municipalities: the City of Pozarevac and Veliko Gradiste. The very beginning of the road section and Bratinac settlement belong to the territory of the City of Pozarevac municipality, while other places through which the road section passes belong Veliko Gradiste municipality (Sirakovo, Majilovac, Djurakovo-Popovac, Topolovnik, Kumane, and Veliko Gradiste).

The subject road section goes through the following cadastral municipalities:

- CM Bare
- CM Sirakovo
- CM Majilovac
- CM Djurakovo
- CM Popovac
- CM Topolovnik
- CM Kumane
- CM Veliko Gradiste
- CM Kusice

Pozarevac is a significant administrative, economic, and cultural center of Serbia. It is located 15 kilometers from Corridor 10 and on a very important railway Belgrade-Bor-Zajecar, which connects the Timok region and the whole of eastern Serbia with the Republic of Serbia's railway network. It is located between three rivers: the Danube (Corridor 7), Velika Morava, and Mlava.

The territory of the city covers an area of 491 square kilometers, of which as much as 80% of the total territory is arable land. This land represents one of the most valuable treasures of this region, the fertile Stig plain and the Moravian, Danube, and Mlav banks.

It consists of 2 urban (the City of Pozarevac and Kostolac municipality) and 25 rural settlements, with about 75,000 residents. The City of Pozarevac itself has 44,000 residents and including villages about 61,000 residents.

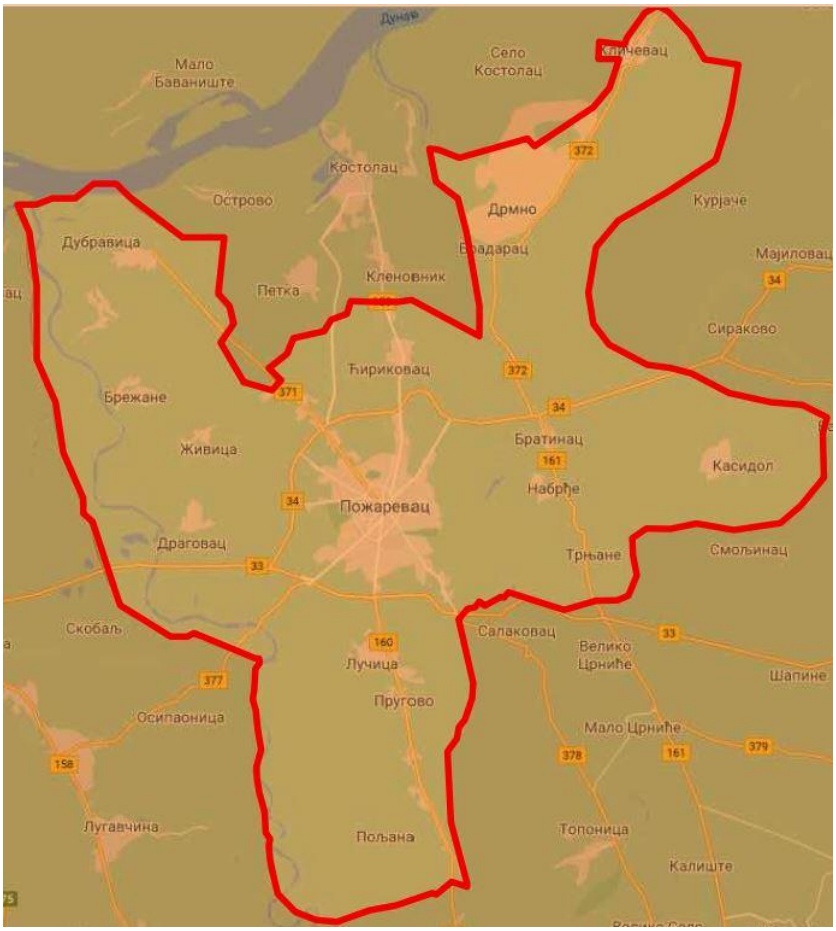


Figure 2-3 Inhabitated areas of the City of Pozarevac

Pozarevac is the economic, cultural, administrative center, as well as the headquarter of the Branicevo district, and it is of great importance for the entire region. Branicevo district, besides Pozarevac, includes the municipalities of Veliko Gradiste, Golubac, Zabari, Zagubica, Kucevo, Malo Crnice, and Petrovac.

The settlements of the city of Pozarevac are: Bare, Batovac, Beranje, Bradarac, Bratinac, Brezane, Bubusinac, Dragovac, Drmno, Dubravica, Zivica, Kasidol, Klenovnik, Klicevac, Kostolac, Lucica, Popovac, Maljurevac, Nabrdje, Ostrovo, Petka, Pozarevac, Poljana, Prugovo, Recica, Village Kostolac, Trnjane, Cirikovac.

The total length of roads on the territory of the city of Pozarevac is 183 km, of which 165 km belongs to the modern pavements category. The trunk roads comprise 48 km, and the network of local roads 64 km of modern pavements. Although the connection

of the settlements in the city of Pozarevac is satisfactory, the local road network is still insufficiently constructed, as well as the network with a modern pavement.

The city of Pozarevac is located on a very important railway Belgrade-Bor-Zajecar, which connects the Timok region and the whole of eastern Serbia with the railway network of the Republic of Serbia.

The municipality of Veliko Gradiste is located in the northeastern part of Serbia and belongs to the Danube region (Branicevo district). It covers an area of 344 km^2. About 17,500 residents are located in 26 settlements on the municipality territory. The municipality headquarter is Veliko Gradiste, which has about 6,000 residents and represents the administrative, economic, and cultural center of the municipality. More than 5,500 people temporarily work abroad (mostly in Western European countries). Veliko Gradiste borders are with Malo Crnice municipality in the west, Kucevo municipality in the southeast, and Golubac municipality in the east. The municipality is bordered by the Danube in the north, which separates it from neighboring Romania in the length of 20 km.

The settlements of Veliko Gradiste municipality are: Veliko Gradiste, Biskuplje, Garevo, Desine, Doljasnica, Djurakovo, Zatonje, Kamijevo, Kisiljevo, Kumane, Kurjace, Kusice, Ljubinje, Majilovac, Makce, Ostrovo, Pecanica, Pozezeno, Popovac, Ram, Sirakovo, Srednjevo, Topolovnik, Tribrode, Carevac, Cesljeva Bara.

The trunk road Belgrade-Kladovo and the railway pass through the southern part of the municipality. It is about 110 km, an hour's drive, away from Belgrade. Veliko Gradiste is connected with other surrounding cities by good asphalt roads.

Figure 2-4 Settlements of Veliko Gradiste municipality

Veliko Gradiste is a port for foreign ships coming from Vienna along the Danube on their way to Black Sea ports and vice versa. There is a customs house in Gradiste, so that is the reason why these white beauties should stop there on their way, for a short or long time.

The river Pek flows into the Danube river near Veliko Gradiste. With the construction of HPP Djerdap and the raising of the level of the Danube, a bay was formed at the mouth of Pek, which very quickly became a large habitat for many bird species. From Veliko Gradiste, along the Danube to the mouth of the Pek, and even further upstream, a defensive embankment was built, which is at the same time a beautiful promenade along the banks of the Danube.

In terms of relief, the area of the municipality is mostly flat because over 60% of it is plains. Higher hilly land comprises 25% and hilly area only 15% of the total area. The highest elevation is Lipovacka, 362 meters high, and the lowest point is the mouth of the Pek with an altitude of 68 meters. Veliko Gradiste is located at an altitude of 81 meters.

When it comes to the objects of public importance, the presence of several elementary schools was noticed on the subject road section during the survey.

Table 2-2. Elementary schools on the subject road section

Chainage	Location	The name of a school and number of grades	Side of the road
20+968	Sirakovo	Vuk Karadzic, outpost, I-IV	Left
24+083	Majilovac	Vuk Karadzic, I-VIII	Right
28+370	Djurakovo - Popovac	Vuk Karadzic, outpost, I-IV	Left
32+468	Topolovnik	Ivo Lola Ribar, outpost, I-IV	Right
34+835	Kumane	Ivo Lola Ribar, outpost, I-IV	Right

Figure 2-5 Elementary school Ivo Lola Ribar in Kumane, at km 34+835

The following economic facilities and contents were identified along the observed road section:

- Bus stop, between Bratinac and Sirakovo, at km 17+497 (left side) and km 17+617 (right side)
- Bus stop, Topolovnik, at km 32+440 (right side) and km 32+668 (left and right side)
- Bus stop, Topolovnik, at km 33+448 (right side)
- Bus stop, Kumane, at km 34+863 (right side)
- Bus stop, Veliko Gradiste, at km 40+120 (right side) and km 40+110 (left side)
- Gas station “Atlantik”, between Bratinac and Sirakovo, at km 17+100
- Gas station “MFK Petrol”, at the entrance to Majilovac from Sirakovo direction, at km 23+050
- Gas station “Eko”, at the roundabout at the entrance to Veliko Gradiste, from Bratinac direction, at km 38+220
- Gas station “Balkan Petrol”, in Veliko Gradiste, at km 40+000
- Gas station “Zuca Petrol”, located between Veliko Gradiste and Branicevo, at km 41+840

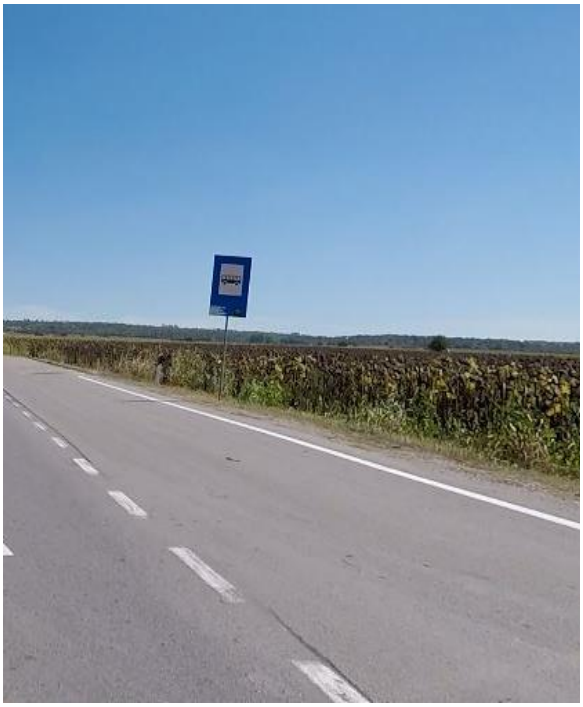



Figure 2-6 Bus stop, between Bratinac and Sirakovo, at km 17+497 (left side) and km 17+617 (right side)

Figure 2-7 Bus stop, Topolovnik, at km=32+440 and km 32+468

Figure 2-8 Bus stop, Topolovnik, at km 33+448

Figure 2-9 Bus stop, Kumane, at km 34+863

Figure 2-10 Bus stop in Veliko Gradiste, at km 40+120

Figure 2-11 Gas station "Atlantik", at km 17+100

Figure 2-12 Gas station "MFK Petrol", at km 23+050

Figure 2-13 Gas station "Eko", near Veliko Gradiste, at km 38+220

Figure 2-14 Gas station "Balkan Petrol", Veliko Gradiste, at km 40+000

Figure 2-15 Gas station "Zuca Petrol", at km 41+840

Natural Resources and Cultural Heritage

Based on the Conditions of the Institute for Nature Conservation of Serbia No. 953-1922 of 03/12/2020, the route of the state road on the road section Bratinac-Branicevo is not located within the protected area for which the protection procedure has been done or initiated, it is not within the scope of the ecological network, nor in the area of recorded natural assets.

Based on the condition number 348/2 – 2020 from 24/11/2020 submitted by the Regional Institute for Cultural Monuments Protection in Smederevo, there are not any immovable cultural assets in the subject area.

During the road section survey, several monuments and memorial fountains were noted which are not registered as cultural assets on the list, but are mentioned in this document and should be paid attention to during the execution of the works.

Archaeological explorations in this area have not been done so far, and in the wider zone, several archaeological sites and individual movable archaeological finds from different epochs have been registered.

The investor and the contractor of the subject works are obliged to inform the Regional Institute about the beginning of the groundworks at least fifteen days in advance, in writing, and to provide all the necessary conditions for their continuous archaeological supervision. If any archeological finds are found during the works, the contractor is also obliged to immediately stop the works and inform the competent institution for cultural monuments protection and to take measures so that the find is not destroyed, damaged, and to be preserved in the place and position where it was discovered.

The investor is obliged to provide funds for exploration, protection, storage, publication, and exhibition of the previously protected assets discovered during the work execution, which will be regulated by a special contract.

It is necessary to inform the archeological supervision during the ground excavation if the ground from other locations is used for the embankment.

A monument to fallen soldiers in the wars of 1912-1918 was identified in Majilovac settlement during the road section survey.

Figure 2-16 A monument to fallen soldiers in the wars of 1912-1918, Majilovac km 24+100

The Memorial Fountain in Kumane settlement, dedicated to the fallen fighters in the First and Second World War, was noted during the road section survey.

Figure 2-17 The Memorial Fountain in Kumane, km 35+944

In Topolovnik settlement there is also The Memorial Fountain dedicated to the fallen fighters in the First and Second World War.

Figure 2-18 The memorial Fountain in Topolovnik, km 31+350

The Monument dedicated to the fallen fighters in the First and Second World War is in the center of Topolovnik.

Figure 2-19 The Monument dedicated to the fallen fighters in the First and Second World War, Topolovnik, km 32+486

A cemetery in Topolovnik settlement was also noted during the road section survey.

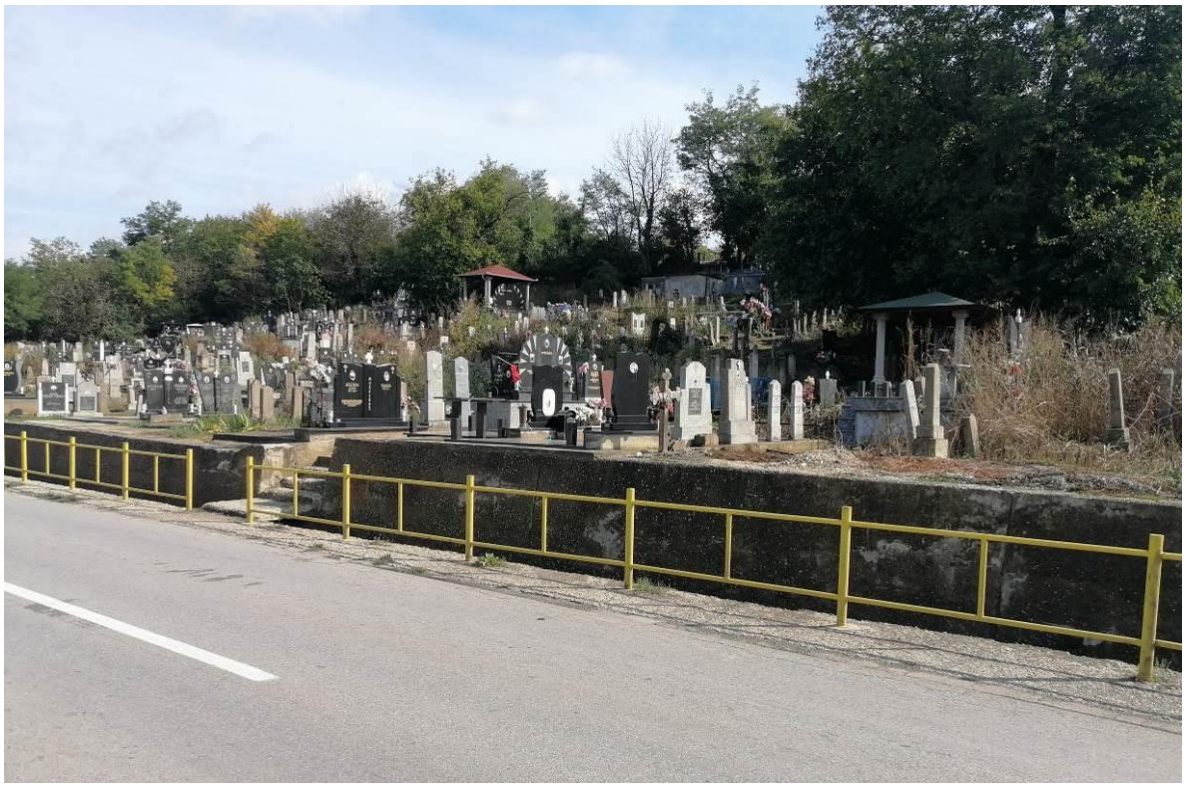


Figure 2-20 Cemetery in Topolovnik settlement, km 33+680

A fountain was noted during the road section survey, which is located between Majilovac and Djurakovo.

Figure 2-21 A fountain between Majilovac and Djurakovo, km 26+732

The Monument dedicated to the fallen fighters in the First and Second World War was noted during the road section survey, located at the chainage km 28+320, in Djurakovo – Popovac settlement.

Figure 2-22 The Monument dedicated to the fallen fighters in the First and Second World War, Djurakovo- Popovac, km 28+320

During the road section survey, at the entrance to Veliko Gradiste from the direction of Pozarevac, there is the Monument to the citizens of Topolovnik, Kumane, Kisiljevo, and Djurakovo, who were shot by the Germans in 1941. Next to the monument, there are gazebos with benches, as well as the tourist board of Veliko Gradiste municipality.

Figure 2-23 The Monument to the citizens shot by the Germans in 1941, at the approximate chainage 37+290

At the approximate chainage between 36+800 – 37+800 (the entrance to Veliko Gradiste from Pozarevac direction), there is a pond that extends parallel to the subject road section. Some detailed data on this water were not found.

Figure 2-24 The pond at the entrance to Veliko Gradiste from Pozarevac direction, approximately from km 36+800 to km 37+800

Figure 2-25 The pond position according to the subject road section

Flora and Fauna

During the subject road section survey, a stork nest was noted at a rooftop in Kumane settlement, at the approximate chainage 35+230.

Figure 2-26 The stork nest at a rooftop in Kumane settlement, at km 35+230

Figure 2-27 The stork nest at a rooftop in Kumane settlement, at km 35+230

The conditions of the Institute for Nature Conservation of Serbia plan the preservation of potential nesting grounds for colonial bird species, rest areas, and wintering areas along watercourses and other areas along the road route.

It is planned to preserve the nests of the white storks Ciconia ciconia, large birds of prey, and species from the crow family (Corvidae) during the nesting season of birds from March 15 to June 30.

Execution of works on maintenance of road infrastructure near white stork nests can be done when it is not the nesting season, even when storks are not in the nest, i.e. after brood leave the nest and the territory to migrate, and before the next reproductive cycle, no later than March 15 and after July 20 during the year.

Since storks belong to groups of strictly protected species, it is necessary to treat them following the conditions of the competent institutions.

Railway Traffic

Along the part of the subject road section, in the direction Bratinac - Sirakovo, there is the railway passing parallel to the road. The intersection with the subject section is located in Sirakovo at km 21+890, where there is an unleveled crossing of the railway and the road (the railway passes under the road).

Figure 2-28 Unleveled crossing of the railway and the subject road section, Sirakovo at km 21+890

Watercourses

The river Mlava flows near the subject road section, more precisely 2km before the beginning of the road section, near Bratinac settlement. The road section is intersected by several streams and canals.

There are five bridges on the section of the road IB-34, Bratinac (Nabrdje) - Branicevo (Tribrode).

Table 2-3 bridges on the subject road section

No.	Chainage	Bridge
1	21+890	The overpass over the railway in Sirakovo settlement
2	28+183	The bridge over the canal in Djurakovo settlement
3	32+388	The bridge over Veliki Izvor stream in Topolovnik village
4	34+722	The bridge over Zuti Potok stream in Kumane settlement
5	35+160	The bridge over Markove Vode stream in Kumane settlement

Figure 2-24 The overpass over the railway in Sirakovo settlement

Figure 2-25 The bridge over Veliki Izvor stream in Topolovnik village

Figure 2-31 The bridge over Zuti Potok stream in Kumane settlement

Figure 2-32 The bridge over Markove Vode stream in Kumane settlement

Figure 2-33 The bridge over the canal in Djurakovo settlement

Calculation of the amount of pollutants

By analyzing the collected data on the daily traffic as well as the obtained quantities of potential pollutants based on the forecasted daily traffic, the Designer's opinion is that runoff from the pavement should not be purified, therefore it is not necessary to introduce a closed atmospheric sewage system in the registered watercourses zone.

The subject section is divided into three sections ID 03405, ID 03407, and ID 03403.

Data on the daily traffic of these sections were collected in the phase of exploration works. Data collection by control automatic traffic counting was done continuously for 7 days, in both traffic lanes simultaneously. Following the accepted traffic counting plan, additional manual counts of pedestrians and cyclists, as well as motor vehicles were done at 4 locations on the subject section.

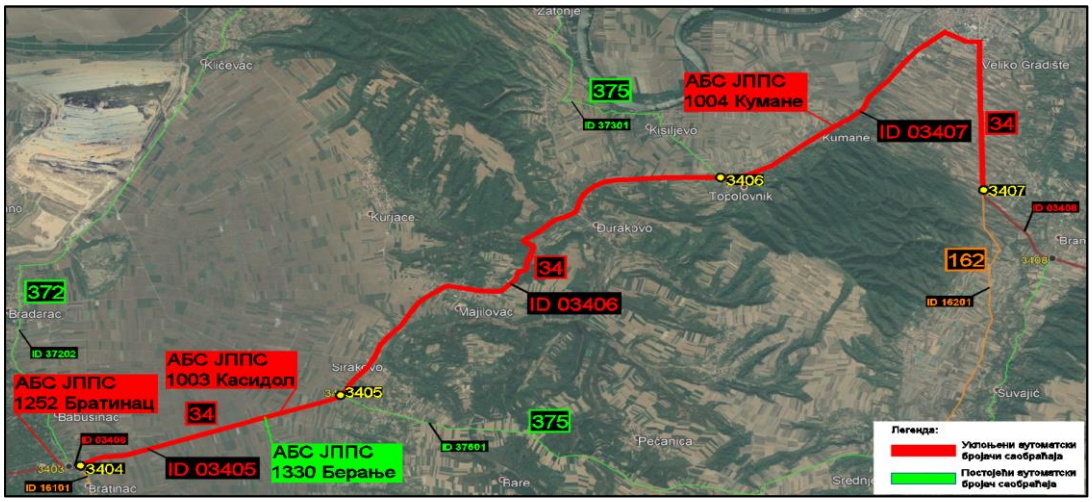


Figure 2-34 Locations of the existing automatic traffic counters and section marks

A calculation of pollutants based on the forecasted AADT for the busiest section ID 03405 for 2030 follows. It is assumed that a kilometer of the section gravitates towards the recipient. The adopted width of the pavement is 7.2m, while the adopted width of the greenbelt is 5m.

Table 2-4 Forecasted AADT of the subject section

Year	PC	BUS	LT	MT	HV	HT	Total
2019 base	**4300**	**41**	**99**	**78**	**50**	**183**	**4751**
2020	4472	43	103	81	52	190	4941
2021	**4651**	**44**	**107**	**84**	**54**	**198**	**5139**
2022	4837	46	111	88	56	206	5344
2023	5030	48	116	91	58	214	5558
2024	5232	50	120	95	61	223	5780
2025	5415	52	125	98	63	230	5983

2026	5604	53	129	102	65	239	6192
2027	5800	55	134	105	67	247	6409
2028	6003	57	138	109	70	255	6633
2029	6214	59	143	113	72	264	6865
2030	**6431**	**61**	**148**	**117**	**75**	**274**	**7105**
2031	6656	63	153	121	77	283	7354
2032	6889	66	159	125	80	293	7612
2033	7130	68	164	129	83	303	7878
2034	7380	70	170	134	86	314	8154
2035	7638	73	176	139	89	325	8439
2036	7905	75	182	143	92	336	8734
2037	8182	78	188	148	95	348	9040
2038	8468	81	195	154	98	360	9357
2039	8765	84	202	159	102	373	9684
2040	**9072**	**86**	**209**	**165**	**105**	**386**	**10023**

Table 2-5 Input values for the calculation of traffic pollution

Mark	Unit	Description
Ca	(kg)	Annual pollution concentration
Cu	From the chart	The unified annual value of pollutants for one hectare and 1000 vehicles per day
T	Vehicles/day	AADT value
S	(ha)	Road surface
Ce	mg/l	The concentration of runoff pollution
t	%	Contribution of natural purifiers (ditches, lakes) - (as a percentage, in decimals)

Table 2-6 Unified annual value of pollutants for one hectare and 1000 vehicles per day according to "Calculation of the loads of chronic pollution from roadways runoffs (Sétra, July 2006) "

Suspended Matter (from the table for Cu)	Chem. Oxygen consum.	Zn (Zinc)	Co (Cobalt)	Cd (Cadmium)	Hydrocarbons	Polycyclic arom. hydrocarbons
kg	kg	kg	kg	g	g	g
40.00	40.00	0.40	0.02	2.00	600.00	0.08

CALCULATION

Table 2-7 The amount of water and drainage area

	Pavement surface	Site surface	Ca	Ct	Amount
	m^2	m^2			l/s
1	7200	5000	0.9	0.1	120.99

$$Ca = Cu \times \frac{T}{1\,000} \times S$$

Table 2-8 Value of Ca for the drainage area

Suspended Matter (from the table for Cu)	Chem. Oxygen consum.	Zn (Zinc)	Co (Cobalt)	Cd (Cadmium)	Hydrocarbons	Polycyclic arom. hydrocarbons
kg	kg	kg	kg	kg	kg	kg
204.62	204.62	2.05	0.10	0.01023	3.07	0.00041

$$Ce = \frac{2{,}3\ Ca\ (1 - t)}{10\ S}$$

Table 2-9 Value of Ce for the drainage area

Suspended Matter (from the table for Cu)	Chem. Oxygen consum.	Zn (Zinc)	Co (Cobalt)	Cd (Cadmium)	Hydrocarbons	Polycyclic arom. hydrocarbons
mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
19.610	19.610	0.196	0.010	0.001	0.294	0.000

Table 2-10 Comparison with prescribed values

Limit values of pollutants “Official Gazette of RS”, number 67/11, 48/12, 1/16			
Pollutant	Unit	Limit Value	Calculated value
Suspended Matter	mg/l	35	19.610
Chem. Oxygen consum.	mgO_2/l	200	19.610
Zn (Zinc)	mg/l	2	0.196
Co (Cobalt)	mg/l	1	0.010
Cd (Cadmium)	mg/l	0,1	0.001
Hydrocarbons	mg/l	10	0.294
Polycyclic arom. hydrocarbons	mg/l	1	0.000

The results of the conducted calculation indicate that the values of pollutants caused by the daily traffic, and expressed by the values of the forecasted AADT for 2030 for the observed section, are below the allowable values prescribed by the “Official Gazette of RS”, No. 67/11, 48/12, 1/16.

According to most European monitoring and measurement programs, pollution from the daily traffic is considered only when the AADT values reach 15,000 vehicles per day. (Conférence Européenne des Directeurs des Routes, CEDR).

Culverts

During the site visit, 48 culverts were found and evaluated. Table 2-4 shows all culverts with data on chainage, diameter, as well as site observations during the visual inspection in November 2020.

Figure 2-35 Pipe culvert at km 36+392

Figure 2-36 Box culvert, km 32+800

Figure 2-26 Arched culvert, at km 37+844

Table 2-11 Culverts on the subject road section

No.	Chainage	Type	Comment
1.	15+003	arched Ø1600	The culvert is in a good condition, slightly filled.
2.	17+658	pipe Ø600	The culvert is in a good condition. Inadequate ditch shape makes it difficult for the culvert to function.
3.	18+065	pipe Ø600	The culvert is in a good condition. There is no drainage ditch on the right side, and on the left side, it has an inadequate shape. No ditch or an inadequate ditch shape makes it difficult for the culvert to function
4.	22+142	arched Ø1000	The culvert is in a good condition. Inadequate ditch shape makes it difficult for the culvert to function.
5.	24+503	box L=1.8m	The culvert is in a good condition. There is no connection with drainage ditches along the road.

No.	Chainage	Type	Comment
6.	25+390	arched Ø1000	The culvert is in a good condition. On the left side, there is a concrete canal that drains water from the pavement. On the right side, there is the end of the culvert in the retaining wall. Road in the embankment (on the left side about 3 m while on the right side the embankment is higher than 5 m).
7.	25+670	arched Ø1000	The culvert on the left side is in good condition, on the right side it is almost completely buried due to erosion caused by water draining from the pavement (there are no flumes).
8.	26+022	arched Ø1000	The culvert is in a good condition. There is no drainage ditch on the right side.
9.	26+254	pipe Ø200	The culvert is in a good condition. On the left side, the drainage ditch is of irregular shape which makes it difficult for the culvert to function.
10.	26+752	arched Ø1000	The culvert is partly filled. Drainage ditches of inadequate shape and position make it difficult for the culvert to function.
11.	26+835	arched 2x Ø2000	The culvert is in a good condition. It is necessary to arrange the site around the culvert for better functioning.
12.	27+091	arched Ø1000	The culvert is partly filled. Drainage ditches of inadequate shape and position make it difficult for the culvert to function.
13.	27+161	arched Ø1000	The culvert is in a good condition. Drainage ditches of inadequate shape and position make it difficult for the culvert to function.
14.	28+873	arched Ø1000	Around 50% of the profile is filled.
15.	29+592	arched Ø1000	Around 90% of the profile is filled. Drainage ditches of inadequate shape and position make it difficult for the culvert to function.
16.	29+969	arched Ø1000	Around 80% of the profile is filled. Drainage ditches of inadequate shape and position make it difficult for the culvert to function. Country road on the right side intersects the ditch so there is no continuity.
17.	30+020	arched Ø1000	Around 70% of the profile is filled. On the left side there is no drainage ditch, and on the right side is of irregular shape. No ditch and the irregular shape make it difficult for the culvert to function.
18.	30+208	arched Ø1000	The culvert is in a good condition. On the left side, there is no drainage ditch, and on the right side, it is of irregular shape. No ditch and the irregular shape make it difficult for the culvert to function.
19.	30+498	box L=2.0m	Around 90% of the profile is filled. On the left side, there is no drainage ditch and on the right side, it is of irregular shape. No ditch and the irregular shape make it difficult for the culvert to function.
20.	30+655	arched Ø1000	The culvert is filled. On the left side, there is no drainage ditch and on the right side, it is of irregular shape. No

No.	Chainage	Type	Comment
			ditch and the irregular shape make it difficult for the culvert to function.
21.	30+972	arched Ø1000	Around 60% of the profile is filled. On the left side, there is no drainage ditch and on the right side, it is of irregular shape. No ditch and the irregular shape make it difficult for the culvert to function.
22.	31+146	arched Ø1000	Around 60% of the profile is filled. On the left side, there is no drainage ditch and on the right side, it is of irregular shape. No ditch and the irregular shape make it difficult for the culvert to function.
23.	31+337	box L=4.0m	The culvert is in a good condition. Minor reinforcement protection interventions are needed to prevent further deterioration of the construction. The unclear function of the high drainage volume culvert.
24.	32+055	arched Ø1000	The culvert is in a good condition, partly filled. The culvert position is unclear since there is no connection to the surrounding drainage ditches.
25.	32+152	arched Ø1000	The culvert is in a good condition, slightly filled. Connected to the settlement's atmospheric sewage network.
26.	32+388	box L=5.0m	Most of the profile is filled. The need for the high drainage volume culvert is questionable.
27.	32+803	box L=4.0m	Most of the profile is filled. The need for the high drainage volume culvert is questionable.
28.	32+908	arched Ø1000	The culvert is in a good condition. The left end of the culvert does not have an overlying ground layer above (there is a hole near the pavement) so it is not safe from the traffic point of view.
29.	33+354	arched Ø1000	Both culvert ends are filled. The right end of the culvert was broken. The missing guardrail on the right side.
30.	33+598	box L=4.0m	The culvert is in a good condition, mostly filled. On the left side, it is connected to the settlement atmospheric sewage.
31.	33+685	arched Ø1000	The culvert is in a good condition. An integral part of the settlement’s atmospheric sewage.
32.	34+036	box L=4.0m	The culvert is in a good condition, but mostly filled. Cleaning is necessary.
33.	34+455	arched Ø1000	The culvert is in a good condition. The right end is located in the profile of the access road, and a lattice has been installed for smooth traffic.
34.	34+960	arched Ø1000	The culvert is in a good condition. An integral part of the settlement’s atmospheric sewage.
35.	35+160	box L=5.0m	The culvert is in a good condition. Minor reinforcement protection interventions are needed to prevent further deterioration of the construction.
36.	35+475	arched Ø1000	The culvert is in a good condition. The left end is partly filled. Cleaning is necessary.
37.	35+732	box L=2.0m	The culvert is in a good condition.

No.	Chainage	Type	Comment
38.	35+820	arched Ø1000	The right end of the culvert is broken but it does not affect its function. The right end partially filled.
39.	36+036	arched Ø1000	Around 90% of the profile is filled. Drainage ditches are of inadequate position and shape which makes it difficult for the culvert to function.
40.	36+321	Ø1000	The culvert is in a good condition. The left culvert end is arched. Drainage ditches are of inadequate position and shape which makes it difficult for the culvert to function.
41.	36+392	Ø600	The culvert is in a good condition, around 40% of the profile is filled. The left culvert end is arched. Drainage ditches are of inadequate position and shape which makes it difficult for the culvert to function.
42.	36+539	box L=1.0m	The culvert is in a good condition.
43.	36+856	box L=1.0m	The culvert is in a good condition.
44.	37+431	arched Ø1000	The culvert is in a good condition.
45.	37+844	arched Ø1000	The culvert is in a good condition.
46.	43+750	box L=4,8m	The culvert is in a good condition. Minor reinforcement protection interventions are needed to prevent further deterioration of the construction. A country road goes through the culvert.
47.	43+899	arched Ø1000	The culvert is in a good condition.
48.	44+102	box L=2.0m	The culvert is in a good condition.

The following figures show the filling of culverts, as well as the characteristic damages observed.

Figure 2-38 km 28+873 – culvert filled with material

Figure 2-39km 30+498 culvert filled with material

Figure 2-40 km 31+337 the protective plaster layer has fallen off

Figure 2-41 km 33+354 culvert filled with material, broken culvert head

The ditches are covered by vegetation on almost the entire stretch and are inadequately shaped. They do not have continuity and are cut by frequent approaches for agricultural vehicles, country roads, and crossroads. One of the most important remarks when assessing the culvert state referred to the need to clean and arrange the surrounding terrain to ensure the smooth functioning of the culvert.

Figure 2-42 km ~27+100 the ditch of the irregular shape

Figure 2-43 km ~30+650 no ditch prevents the culvert from functioning properly

Since the ditches do not have the required shape, it is not possible to assess slopes condition or the filling, while the vegetation coverage is such that it significantly makes the water drainage difficult.

After the detailed visual inspection conducted in November 2020, it was concluded that the drainage system of the pavement and the road base is in a condition that requires certain interventions. Most of the culverts are in good condition and the biggest obstacle to quality drainage is drainage canals that have inadequate shape and position. Therefore, it is necessary to arrange their slopes and bottom. It is also necessary to clean some culverts to enable their optimal functioning

Bicycle and pedestrian traffic

The problem of pedestrians in Majilovac was presented to the representatives of the police in a telephone conversation. Since there were no sidewalks, in the zone of the intersection for Kurjace, pedestrians cross the road at the place where there is a pedestrian crossing, but it is not visible. Bicycle paths along the subject section have not been built.

On the right side of the subject section is the graveyard in Topolovnik. The graveyard is defined along the edge of the concrete drainage canal, where the sidewalks are not defined in the graveyard zone. During religious holidays, as well as funerals, a larger number of stopped and parked vehicles can be expected along the road, as well as increased pedestrian traffic at the subject location.

Air

There are not any additional sources of air pollution within the observed road section Bratinac (Nabrdje) - Branicevo (Tribrode). Data on measured air pollution values in the observed corridor were not available.

No significant increase in traffic intensity is expected on the corridor of the subject road section, and thus no increase in air pollution levels as a product of exhaust gases based on the experience and the expected traffic intensity during and after the planned rehabilitation works.

An increase in air pollutants concentration of a temporary nature is expected in the rehabilitation phase.

Noise

Data on measured noise values on the observed corridor were not available. An increased noise intensity of a temporary nature is expected in the road rehabilitation phase.

3. POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

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

The other aspects of environmental management related to road rehabilitation projects are dealt with by several other institutions, among which are the Regional Institute for Cultural Monuments Protection in Smederevo, Institute for Nature Conservation of Serbia (INCS), and Public Enterprise “Roads of Serbia” (PERS).

За потребе овог пројекта прибављена су следећа мишљења: For the needs of this design, the opinions/conditions from following institutions were obtained:

- Regional Institute for Cultural Monuments Protection in Smederevo No. 348/3-2020 of 24/11/2020.
- Institute for Nature Conservation of the Republic of Serbia No. 020-2835/2 of 03/12/2020.

All obtained opinions and conditions for the subject section are included within Appendix 6.

Current Serbian Legislation

Environmental protection in the Republic of Serbia is regulated by various laws and regulations at the national and municipal levels. The environmental legislation in force 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” No. 135/2004 and 36/2009), which is completely following the European EIA Directive - 85/337/EEC. Therefore, the EIA study is not necessary for road rehabilitation projects, except for those road 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 Opinion about the need for making the Environmental Impact Assessment to the relevant ministry. Depending on the estimation and significance of potential environmental impacts, the opinion is made about whether it is necessary to conduct the full procedure of Environmental Impact Assessment.

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

The decision states that the project of heavy maintenance of the road i**s not subject of EIA** and is not classified in the List of Projects for which EIA is required and the List of projects for which EIA may be required, and accordingly **the holder of the project is not obliged to start the EIA procedure** under Article 8. Laws on Environmental Impact Assessment.

The opinion was obtained from The Ministry of Environmental Protection (MoEP) (No. 011-00-00045/2021-03 dated from 25/01/2021) 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:

- 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;
- Resettlement Policy Framework – RPF;
- EIB: Statement of Environmental and Social Principles and Standards (2008).

The World Bank and EIB require 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 of EMP for this type of investment, while the World Bank policy requires a partial EIA and EMP for each road section.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

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

Table 4-1 Environmental impact review

Impact	Significance	Comment
Impacts on land use/settlements	Moderate	Land expropriations will be within the existing occupation of the state road, in places where the existing road exits the right of way - the so-called “historical expropriation”.
Underground and surface water	Low	Due to the 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)	Low	According to the conditions of the Institute for Nature Conservation of Serbia, the route of the state road on the road section Bratinac-Branicevo is not within the protected area for which the protection procedure was conducted or initiated, it is not within the ecological network, nor in the area of recorded natural assets. Only the temporary impact will be present during the execution of works.
Noise	Moderate	Temporarily, rehabilitation works may lead to an increase in noise levels during construction in residential parts of Sirakovo, Majilovac, Djurakovo, Popovac, Topolovnik, Kumane, and Veliko Gradiste.
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 wastewater management

Impact	Significance	Comment
Cumulative impacts	Moderate / Low	Temporarily, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only. Also, pedestrian movement of local population may be slightly disturbed during sidewalks construction.

The works on road rehabilitation on the road section Bratinac (Nabrdje) - Branicevo (Tribrode) will have a smaller impact on the environment (the environmental protection category B). Most impacts are temporary and will disappear after the completion of works on heavy maintenance i.e. road rehabilitation and sidewalks' construction.

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 a 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 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:

- execution of works near a stork's nest placed on a rooftop in 6, Marsala Tita Street in Kumane;
- disturbance in the regular traffic flow;
- road safety;
- damages of the access roads;
- inconveniences caused by noise, waste, and dust;
- emission of gases;
- the 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 pollution 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 can partially cause adverse impacts.

In the phase of the execution of works (during the period when certain types of work are expected to have increased dust emission), the construction site needs to be wet to reduce 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 truckload.

Noise caused by rehabilitation works is temporary.

The contractor shall limit his works to the period from 7 am to 5 pm, especially during the execution of works in the inhabited part of the road section.

Possible Water Pollution

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. In case of a spillage on the road, especially near registered watercourses, 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.

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

Potential Cumulative Impacts

The execution of works on heavy maintenance on the road section Bratinac (Nabrdje) - Branicevo (Tribrode) could have some temporary cumulative impacts (disturbance in pedestrian movement of residents, noise, air pollution, water, and soil pollution), and they will not cause a significant impact on the environmental conditions.

Other Impacts:

- All social-economic conflicts are taken into consideration, including health and safety during Works. 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;

- Covid-19: The risk to workers' health due to the Covid-19 virus pandemic will be present. Taking into account that the works are done outdoors and that Appendix 1 sets out the measures that site employees should adhere to, the risk of infection will be reduced to a lesser extent.
- 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 will be collected on the site and transported onto a landfill, outside the site construction zone.

Waste disposal on the territory of the municipality - the City of Pozarevac should be done following the Local Waste Management Plan for the City of Pozarevac.

Waste disposal should be performed following the Regional Waste Management Plan for Branicevo District: the city of Pozarevac and the municipalities of Veliko Gradiste, Golubac, Malo Crnice, Kucevo, Zabari, Petrovac on Mlavi, and Zagubica.[1]

[1] http://www.rra-bp.rs/uploads/Regionalni%20i%20plan%20upravljanja%20otpadom%20za%20%20Branicevski%20okrug%20za%20period%202010-2019.pdf

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the road section Bratinac - Branicevo will be moderate to low. 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 their associated mitigation measures during the design, construction, and operational phases. It refers to the conditions issued by the authorized institutions (Institute for Nature Conservation of Serbia, Regional Institute for Cultural Monuments Protection in Smederevo), 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 the environment, as shown in Appendix 1, 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 the 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 Creditors.

The Contractor will use this document to check compliance with the CEP. The Contractor should calculate the implementation of environmental mitigation measures in his overall cost. The Contractor is obliged to confirm that:

- the EMP conditions have been included in 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 subcontractors will comply with Republic of Serbia national laws, EU standards, and requirements of the Creditors.

Site Organization Plan

The contractor shall carry out and follow the Site Organization Plan. Conditions issued by INCS shall be included in the Site Organization Plan. The 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 watercourse zone;
- Temporary or permanent locations must be provided (the existing organized communal facilities/landfills) for disposal of muck and other waste in any form, as well as communal waste produced during the works. Temporary waste disposal/dumping in the watercourse zone, 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 (leveling 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 adhered to the corridor of the road so that when handling vehicles and machines, no consequences are left to the surrounding area;
- During the execution of works, it is forbidden to dispose of and leave any kind of waste on the watercourse zone.
- Servicing vehicles and machinery on the road section shall be prohibited. In case of a road traffic accident resulting in an oil or service fluids spill, the road area must be cleaned, rehabilitated, and reinstated (removing the contaminated soil layer, then leveling the surface);
- The works must be performed only during the day from 7 am to 5 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;
- The installation of safety barriers, pedestrian crossings, and passageways should be foreseen on places where it is useful, especially at locations near the existing settlements, based on the Temporary Traffic Signage Design;
- 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 road base area (to locate containers for the temporary disposal of municipal waste on road extensions on the roadway) and to ensure their emptying daily, 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 a parking lot, workshops, and fuel storages must be drained toward the oil-water separator;

- Sanitary wastewater 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", No. 30/2010, 93/2012, 101/2016, and 95/2018 – other law);
- Fuel storage areas must not be located within 20 m of a watercourse;
- Where fuel above 5,000 liters 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 in 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 size 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 soil erosion;
- Apply a methodology for the protection of soil from the areas susceptible to erosion, to reduce the runoff of atmospheric water carrying eroding 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 obligatory 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 correlated with the surrounding area and purpose.

Contractor's Environmental Plan

Bearing in mind all the identified impacts, the Contractor must prepare and later consciously apply the Contractor's Environmental Plan (CEP) during the project duration to ensure compliance with the requirements of the legislation and the Creditors.

The Contractor is required to have a qualified and experienced person in the 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 daily.

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 who will be requested to rectify such irregularities.

Contractor's Environmental Plan (CEP) shall also include the following:

- Site Management Plan: CEP should consist of the procedures for setting up and functioning of a construction site to preserve the local community and natural resources;
- Construction Site Organization Plan: Description and arrangement of areas, with maintenance equipment and oil and lubricant storage facilities, including the distance from water areas and the details about proposed measures should indicate the environmental impact caused by their placement;
- 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 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 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 Management Plan: All waste materials from the construction site, including barrels, wood, sand and gravel, cement bags, etc. should be disposed of appropriately. If there is no possibility for recycling, incurring some reasonable costs, these materials should be transported to the approved landfill and deposited there. Waste disposal should be performed in accordance with the Regional Waste Management Plan for the Branicevo District: the city of Pozarevac and Veliko Gradiste, Golubac, Malo Crnice, Kucevo, Zabari, Petrovac na Mlavi, and Zagubica municipalities[2]. Hazardous waste will be stored and removed from the construction site after demobilization, following the Law on Waste Management ("Official Gazette of RS", No. 36/2009, 88/2010 and 14/2016, and 95/2018 - other law). 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 of all types of waste and show that it has been done following 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, the 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 proof

[2] http://www.rra-bp.rs/uploads/Regionalni%20i%20plan%20upravljanja%20otpadom%20za%20%20Branicevski%20okrug%20za%20period%202010-2019.pdf

that this project applies the best practice and complies with the legal regulations;

- Sewage and Waste Water Management Plan presents the list of measures 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 licensed and approved following the EU standards. This applies to all machinery, vehicles, and sites where noise and vibrations may affect susceptible receptors. Following the Law on Noise Protection ("Official Gazette of RS" No. 36/2009 and 88/2010). The Contractor shall limit his works to a period of daylight (from 7 am to 7 pm) so that people in the community would not report any activities at night as a disturbance;
- Dust Emission Reduction Plan should have the water wetting schedule for the access roads and the settlements nearby the road that is being rehabilitated, as well as a list of machinery that is to be used. This applies to all 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 - This 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, should be implemented for the areas of borrow-pits and access roads when the project is finished;
- Emergency Response Plan: CEP should set out the procedures for emergency response in the event of accidents or major incidents, to protect people, property, and environmental resources. Details of the spill response equipment should be specified and provided on site;
- Plan of Environmental Grievances (grievance mechanisms and organization) will show how the local community and third parties affected by the project could 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 the nomination of a person who will be immediately contacted

if an accident occurs. The Site Safety Plan should be submitted to the Project Supervision Consultant for approval one week before the commencement of the works.

- The Contractor shall ensure that drugs and alcohol are not used on the construction site;
- The Contractor's Site Safety Plan will include a provision for safe working environment and safety measures and personal protective equipment (PPE) for all workers, including gloves, hard hats, goggles, 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, following the Law on Safety and Health at Work ("Official Gazette of RS" No. 101/2005, 91/2015, and 113/2017 – other law);
- The Contractor shall provide potable water supply, toilets, and water supply for washing to the workers;
- Safety Labour Management Plan (SLMP), 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 regulations 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, the safety of 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 are 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 truckloads are secured and all loads with potential dust generating materials (e.g. excavated soil and sand) are covered,
- safety and immediate removal of any driver that ignores any of the community safety requirements,
- speed limits are respected.

Before 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. The contractor should restore the 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 the 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, which includes resurfacing and bigger repairs are typically scheduled over periods of several years.

B. Monitoring plan

The monitoring plan is prepared concerning the proposed Design (Appendix 2). The main components include:

- The 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 will be 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 Grievance 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 outcome.

C. Institutional Implementation and Reporting Arrangements

Project Implementation

PERS is the institution responsible for the implementation of 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.

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

The Contractor will provide the results of “baseline monitoring” before the commencement of groundworks, during its 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 of the 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 analyzing 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 a certain number of demerit points specified in the Contract, the Contractor will not be allowed, for 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 the mitigation of environmental impact and monitoring activities.
III. The Contractor must be explicitly required 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 the implementation of the Contractor’s environmental responsibilities. The Contractor will coordinate between PERS and the relevant Ministry, and will address any complaints during project implementation in cooperation with PERS, and pay attention to complaints. During project implementation, the PERS shall monitor the compliance of the Contractor with the EMP provisions. It is proposed that the

Project Supervision Consultant employs an environment specialist (with civil engineering/environmental management background) to assist the environmental supervision.

Upon completion of the Project, JPPS will be responsible for the road use and maintenance. Routine and occasional monitoring will be done according to the monitoring plan and program.

PERS shall also be responsible for the following:

- Implementation of the requests for environmental protection provided by State environmental authorities, IFIs and other institutions, Law on Environmental Protection (''Official Gazette of RS'' No. 135/2004, 36/2009, 72/2009, 43/2011, 14/2016, 76/2018, and 95/2018);
- 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 propose environmental protection, including the safety of persons associated with the works and the public, within the EMP. This proposal will be reviewed by PERS 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 safe conditions for all persons entitled to be on site;
- provision of all lights, guards, fencing, warning signs, traffic control, aiming to protect the works and other property as well as the safety and public interests.

The relevant Ministry (MoEP) will have the authority for immediate suspension of works if performance is not following environmental standards and regulations. The inspection will then inform the PERS about suspension and order to proceed according to its directive. The project will be subsequently supplemented with feedback from public inspection.

Reporting Procedures

An EMP presentation report will be attached after the presentation.

The Contractor will prepare quarterly progress 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, following the 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 enclosed in Appendix 4, while hard copies will be available in local community centers.

6. STAKEHOLDER ENGAGEMENT – 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 made available to the local community.

A detailed report on the public consultation process will be presented in Appendix 6 of this document and will contain a list of identified actors, which will 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 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 centers of potentially affected communities,
- Radio announcements about traffic diversions,
- Providing contact details of the responsible person appointed to work with local communities.

A Grievance Mechanism will be implemented to ensure that all complaints from local communities regarding Works are dealt 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 centers.

The report on public consultations will be presented in this document, after the consultations take place.

7. REFERENCE

- Environmental Assessment Sourcebook No. 25, Environmental Management Plans, World Bank Environment Department, January 1999;
- Roads and the Environment: A Handbook, World Bank Environment Department;
- EIB, Environmental and Social Practices Handbook, Environmental and Social Office, Version 2 (24/02/2010);
- EBRD, Environmetal and Social Policy (2008);
- 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 environmental protection (Ministry of Environmental Protection, Institute for Nature Conservation of Serbia, Regional Institute for Cultural Monuments Protection in Smederevo) 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. • The location (construction site), as well as space for temporary disposal i.e. storage of required construction and other material and storage, have to be outside water flow zones as well as outside 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). • The contractor should minimize the size of the facilities to minimize the unnecessary removal of vegetation, waste production. The sanitary wastewater must be 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 watercourses. • Mechanical topsoil degradation should be avoided. • Soil erosion on site should be prevented. • The contractor should limit the scope of the excavations to mitigate possible soil erosion. • Avoid excavation and machine operations in damp site conditions.	PERS/Contractor	Supervison Consultant/PERS	
	Site selection for construction camps, near or within existing settlements. Impact on public health and sociological setting	• The minimum distance must be kept (buffer zone) between the site and the nearest populated area. • The influence of the local conditions must be taken into account (wind) to avoid or minimize harmful effects. • The Contractor's EMP should define health and safety and environmental measures. • Independent water and electricity supply, in addition to a medical service station with a trained employee in the construction camp, must be planned.	Contractor	Supervision Consultant/PERS	
	Safety of pedestrians and suitable crossings	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	
	The question of the existence of several smaller illegal landfills along the subject section	It is proposed to clear the existing mini landfills, to level and cover them with soil before the works start.	Contractor	Supervision Consultant/PERS	

Construction	**Management Plans**				
	Contractor shall prepare the following 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" No. 36/2009, 88/2010, 14/2016, and 95/2018) – 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	Supervision Consultant	
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	Supervision Consultant	
Construction	**Material Supply**				
	Asphalt plant: dust, fumes, health and safety effects, ecosystem disturbance	Usage of the existing asphalt plants, the requirement for official approval or valid operating license	Asphalt plant	Asphalt plant/Supervision Consultant	Bid supplier / Approved supplier
	Quarry: dust, health, and safety of workers, ecosystem disturbance	Usage of the existing quarries, the requirement for official approval or valid operating license	Quarry	Quarry/Supervision Consultant	
	Sand and gravel borrow-pits: riverbed disturbance, quality of water, ecosystem disturbance	Use the existing borrow pits or buy material from licensed separation facilities, the requirement for official approval or valid operating license	Contractor or gravel and sand separation facility	Contractor or gravel and sand separation facility/Supervision Consultant	
	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/Supervision Consultant	
Construction	**Material Transportation**				
	Asphalt /Dust, fumes	All truck loads need to be covered	Truck operator	Truck operator/Supervision Consultant	

	Stone/Dust	Wet/covered truckload	Truck operator	Truck operator/Supervision Consultant	
	Sand, Gravel/Dust	Wet/covered truckload	Truck operator	Truck operator/Supervision Consultant	
	Cement, concrete	Remove the fresh concrete which was negligently spilled from the mixer from the transport roads within 6 hours.	Truck operator	Truck operator/Supervision Consultant	
	Traffic noise exhaust fumes and road congestion	Obeying the working hours (desirable from 9 am to 2 pm); the use of alternative routes to reduce the usage of the main roads to the minimum. Adequate temporary road signalization	A person in charge of transportation/truck operator	The person in charge of transportation/truck operator/Supervision Consultant	
Construction	**Construction Site**				
	The negative impact of noise on workers and local community and fauna	– To limit the activities to daylight working hours (without works between 8 pm and 7 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 following the EU standards; – To use noise barriers for noisy works for those longer than one day in the same location/area.	Contractor	Supervision Consultant	
	Dust	Measures to be introduced: – 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	Supervision Consultant	
	Vibrations	To limit activities to daylight working hours (without works between 8 pm and 7 am) or work during the aforementioned period, upon obtaining permission from the residents and management. Locate the equipment for earthworks as far away as possible from the vibration-sensitive receptors.	Contractor	Supervision Consultant	
	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,	Contractor	Supervision Consultant/PERS	

		– 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 planned works.			
	Reduced access to roadside activities	Provide alternative access to roadside activities at all times.	Contractor	Supervision Consultant	
	Safety of vehicles and pedestrians when there are no construction activities	Lighting and well-defined safety signs and protection measures.	Contractor	Supervision Consultant	
	Soil and water pollution from improper material storage, management, and use	– To organize and cover material storage areas; – To isolate the concrete, asphalt, and others from the watercourses 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 to minimize the risk of generating sediments and accumulating wastewater, which could cause pollution of the surrounding soil and water (consider situations such as drainage for atmospheric water, wastewater 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 topsoil; – To use localized controlled measures to prevent sediment from 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 covers, geotextile, rock groynes, and sediment basin), marking them to make the road slope optimal and the slope edges sharp (steep); – To prevent sediment from flowing into surface water, the slope of the soil and protection from wind erosion must also be considered, by installing fences, covers, etc.	Contractor	Supervision Consultant	
	Soil and water pollution from improper material removal	– To dispose waste material at a location protected from washing out, on a marked location, if not on site, then on an authorized landfill. – Waste disposal should be done under the Regional Waste Management Plan for Branicevo District: the city of Pozarevac and the municipalities of Veliko Gradiste, Golubac, Malo Crnice, Kucevo, Zabari, Petrovac na Mlavi and Zagubica http://www.rra-bp.rs/uploads/Regionalni%20i%20plan%20upravljanja%20otpadom%20za%20%20Branicevski%20okrug%20za%20period%202010-2019.pdf – 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 local community. Using and labeling the containers planned for waste collection, as well as the areas for disposing of different types of waste (hazardous and non-hazardous).	Contractor	Supervision Consultant	

		– 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.			
	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 of it at authorized recycling locations.	Contractor	Supervision Consultant	
	Possible water contamination during the execution of works on bridges	– Storage and oil, fuel, and solvents handling should only be carried out in a secured space and warehouse with a concrete base; – During the execution of works, it is forbidden to dispose and leave any kind of waste, especially waste from the construction site, in the zone of any other watercourse; – Provide free space for tanks that would receive hazardous and toxic substances in the bridge zone. It is necessary to ensure that the spilled liquid (in case it happens by accident) is led in a controlled manner to the tank (minimum volume 220l) so that the water quality of the watercourse is not contaminated.	Contractor	Supervision Consultant	
	Safety of workers	– Provide workers with safety instructions and PPE; – Provide a safe alternative traffic flow.	Contractor	Supervision Consultant	
	Health of workers – preventing the spreading of Covid infection	– Place signs with instructions for proper hand washing and disinfection in a visible place on the construction site – Provide disinfectants – Avoid hand shaking, make only necessary physical contacts – Keep a distance of 2m – Wearing a protective mask is recommended wherever it is not possible to keep a distance, – Disinfect work equipment – Employees on the construction site will report the symptoms of the infectious disease COVID-19 (if they notice them) to the immediate supervisor, go to the Covid clinic of the competent health center for an examination, inform the immediate supervisor about the outcome, and submit a doctor's certificate. The infectious disease symptoms of employees that had close contact with the patient will be monitored, employees will report any contacts with the patient outside the work environment	Contractor	Supervision Consultant	
	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	Supervision Consultant	

	Possibility of an archaeological site existence	In case the Contractor comes across an archaeological site (conditions prescribed by the Regional Institute for Cultural Monuments Protection in Smederevo) he is obliged to stop the works immediately and inform the relevant Institute for Cultural Monuments Protection and PERS and to take all measures not to destroy nor damage and to preserve it at the place and position in which it was discovered. It is necessary to inform the competent Institute about the start date of the works at least 15 days prior.	Contractor	Supervision Consultant	
	Plans about the noted stork's nest	A stork's nest was recorded on the roof of a house in Marshala Tita Street in Kumane settlement. It is necessary to pay special attention to the nest in the phase of work execution. According to the conditions of the Institute for Nature Conservation (020-2835/2 of 03/12/2020), the execution of works near the nest should be carried out exclusively when it is not the reproduction period and when the storks are not in the nest, i.e. until 15th March and after 20th July. The stork is a legally protected bird, so it is necessary to treat it following the conditions obtained from the competent institution.	Contractor	Supervision Consultant/Representative of the Competent Institution	
Construction	**Special Measures Defined by the Conditions of Relevant Institutions**				

	The Institute for Nature Conservation of Serbia	- The route of the state road for which the preparation of technical documentation is planned - on the road section Pozarevac (Orljevo) - Ljesnica is not located within the protected area for which the protection procedure has been conducted or initiated, nor within the scope of the RS ecological network. - Nature Conservation conditions: - The main design of the state road IB order no. 33 heavy maintenance, road section Pozarevac (Orljevo) - Ljesnica, further on: The Design will plan such solutions and measures that will provide conditions for the preservation of air, soil, groundwater, and surface water in the immediate vicinity. - When performing works on the road route, which is directly next to the watercourses, maximum preservation of the riverbed, shores, and coastal vegetation need to be planned. - Obtain the consent of the competent institutions for the performance of works that require the possible cutting of the old, valuable specimens of dendroflora, to reduce the removal of vegetation to a minimum. - Preserve potential nesting areas for colonial bird species, rest areas, and wintering areas along watercourses, and other areas along the road route - During the bird nesting period from 15th March to 30th June, preserve the nests of white storks Ciconia ciconia, large birds of prey, and species from the crow family (Corvidae). - After the reconstruction, cleaning the salt aggregate from the road surface should be planned, especially in the early spring period. - Works on road infrastructure maintenance near white storks' nests can be done exclusively when it is not the nesting period and when storks are not in the nest, i.e. after the brood leave the nest and the territory for migration, and before the next breeding cycle, no later than 15th March and after 20th July during the year. - If according to the final design plan, the relocation of poles with nests is planned, it is necessary to inform the Institute for Nature Conservation of Serbia and send a request for decision issuance on the nature conservation conditions for nests relocation. - It should be planned by the Design to undertake anti-erosion protection measures from landslides, rockfalls, etc. It is desirable to apply biological and biotechnical measures as much as possible, in combination with technical measures, to the level of functional stabilization of the terrain. - The drainage of the road must be carried out by gravity surface water drainage and, if necessary, by the construction of open canals for the reception of surface water. - The construction of sedimentation tanks and grease and oil separators should be planned for waters formed by draining from the pavement that contain oils and other petroleum products if the Environmental Management Plan determines/estimates that the average annual daily traffic will negatively affect the water quality of watercourses which the subject state road crosses or runs parallel to, i.e. that the limit values defined by the Decree on limit values for the emission of pollutants into water and deadlines for reaching them will be violated (“Official Gazette of RS”, No. 67/2011, 48/2012, and 1/2016) and the Decree on limit values of pollutants in surface and groundwater and sediment and deadlines for reaching them (“Official Gazette of RS”, No. 50/2012). - For road surfaces use materials that provide noise and vibration reduction and allow efficient drainage of water from the surface of the pavement. - Works on the road that passes through the protected area should be carried out only in the daytime due to the possible negative impact of the noise produced by the construction machinery and vehicles on the animal world in the immediate environment. - When carrying out the works, strict adherence to the route and corridor of the road is demanded in order not to leave an impact on a wider space using vehicles and machinery. Also, use an existing road network without building new roads, to prevent the fragmentation of space and existing habitats. - Maintain the maximum level of communal hygiene throughout the works along the entire route.		

		- To prevent accidents, preventative measures should be foreseen. If accidents occur, an appropriate rehabilitation should be carried out with the obligation to notify competent inspection services and institutions. - If there is a fuel, oil, or any other hazardous materials spill by accident, to protect the land, immediate remediation to return to the original condition is required. - An integral part of the Design should be related to the organization of the site, where it is necessary to define and provide: ▪ temporary locations for the storage of the necessary construction and other materials and equipment, which must be located outside the area with high vegetation as well as the flood zones and limited only during the execution of 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. Waste disposal in the area of the riverbank, as well as on the agricultural land shall be prohibited, except in the locations defined by the Design; ▪ when the works are done, all surfaces that are degraded in any way should be rehabilitated as soon as possible. - Once construction works are completed, it is necessary to remove all mechanization, building materials, and other materials as soon as possible. - If there is a violation of the subject area (terrain along the road section), that road must be rehabilitated by establishing a plant cover (cultivate terrain) in all places that are damaged, renaming appropriate flora and species that are biologically stable under given climate conditions, relatively resistant to harmful effects (exhaust gases, etc.) and the choice of species should be harmonized with the surroundings and its purpose - Avoid plants that are recognized as invasive for our climate: Acer negundo or Boxelder maple, Amorpha fruticosa or False indigo bush, Robinia pseudoacacia, Ailanthus altissima, Fraxinus americana, Fraxinus pennsylvanica, Celtis occidentalis, Ulmus pumila, Prunus padus, and Prunus serotina and species that are determined as allergens (cottonwoods, etc.). - If during the works it encounters geological-palaeontological or mineralogical-petrochemical objects, which are presumed to be a property of the natural good, the Contractor is obliged to notify the Ministry responsible for environmental protection within eight days, and to take all measures in order not to damage the natural good until the arrival of an authorized person.			
	Regional Institute for Cultural Monuments Protection in Smederevo	There are no established immovable cultural assets in the subject area - The investor and the contractor of the subject works are obliged to inform the Regional Institute about the beginning of the groundworks at least fifteen days in advance in writing and to provide all the necessary conditions for their continuous archaeological supervision. - The Contractor/Investor is obliged to take protective measures if the finding would not be destroyed or damaged. It should stay safe and in the position in which it was discovered. - The investor is obliged to provide funds for exploration, protection, storage, publication, and display of the previously protected assets, discovered during the works, which will be regulated by a special contract. - If the soil from other locations is used for backfilling, it is necessary to provide archaeological supervision during its excavation			
Operational	**Maintenance**				
	Noise disturbance to human and animal population and workers	- Limit activities to daylight working hours (no works between 8 pm and 7 am or following the public consent);	Maintenance Contractor	Maintenance contractor /JPERS	It should be specified in the contract maintenance

		- Use the equipment with noise mufflers installed; - 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 of all waste under the Law on Waste Management; - 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 should be done exclusively in registered car washes; - Waste material should be placed at a site protected from leaching	Maintenance Contractor	Maintenance Contractor\PERS	documentation - Technical Specifications for the performance of maintenance works
	Vibrations	Limit activities to daylight working hours (no works between 8 pm and 7 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\PERS	
	Maintenance	– Regularly maintain curbs; – Mow and maintain the grass and take it to the landfill; – Regularly clean drainage structures (gullies) and dispose of 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\PERS	
	Increased vehicle speed	Install speed limit signs	Maintenance Contractor	Maintenance Contractor\PERS	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; - Put warning signs on locations considered necessary by good engineering practice, or as agreed in writing with authorities.	Maintenance Contractor	Maintenance Contractor\PERS	

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?	Institutional responsibility Implementation
Construction	**Material Supply**					
Asphalt plant	Possession of an official approval or valid (operating) license	Asphalt plant	Inspection/Supervision	Before the commencement of works	Assure plants, quarry, and borrow-pit compliance with environment, health and safety requirements	Plant Manager / Contractor's supervision / Supervision Consultant
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection/Supervision	Before the commencement of works		Quarry Operator / Contractor's supervision / Supervision Consultant
Sand and gravel borrow-pit	Possession of an official approval or valid (operating) license	Sand and gravel borrow-pit	Inspection/Supervision	Before the commencement of works		Borrow-pit or separation facility operator / Contractor's supervision / Supervision Consultant
Concrete plant	Possession of an official approval or valid (operating) license	Concrete plant	Inspection/Supervision	Before the commencement of works		The operator of a concrete plant / Contractor's supervision / Supervision Consultant
Construction	**Material Transport**					
Asphalt	Truckload covered	Construction Site	Supervision	Unannounced inspections during the works, at least once a week	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision / Supervision Consultant
Stone	Truckload covered or wetted	Construction Site	Supervision	Unannounced inspections during the works, at least once a week	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision / Supervision Consultant
Sand and gravel	Truckload covered or wetted	Construction Site	Supervision	Unannounced inspections during the works, at least once a week	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision / Supervision Consultant

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?	Institutional responsibility Implementation
Concrete plant	Removing fresh concrete that was accidentally spilled from the mixer on the transport roads within 6 hours	Construction Site	Supervision	Unannounced inspections during the works	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision / Supervision Consultant
Traffic guidance	Hours and routes selected	Construction Site	Supervision	Unannounced inspections during the works	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision / Supervision Consultant
Construction	**Construction Site**					
Noise disturbance to workers and neighboring population	Noise levels	Construction site, nearby houses along with the construction site	Equipment – manual equipment for analyzing (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 environmental, health, and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring) / Supervision Consultant
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 before the construction (at the reference point up the creek from the construction site) and once during the rehabilitation works. If the tracking results are not satisfactory, they should be performed monthly until the works on the site are finished.	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring) / Supervision Consultant
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 environmental, health, and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring) / Supervision Consultant
Vibrations	The limited-time of the activities	Construction Site	Supervision	Unannounced inspections during the active works and due to grievances	Assure compliance with environmental, health, and safety requirements and enable as little disruption to traffic as possible.	Contractor's supervision (monitoring) / Supervision Consultant
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	– Before 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 / Supervision Consultant

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?	Institutional responsibility Implementation
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 / Supervision Consultant
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 compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision / Supervision Consultant
Safety of workers	PPE; bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the works	Assure compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision / Supervision Consultant
Stork's nest	Time and period of execution of works near the stork's nest on the rooftop of a house	The immediate vicinity of the stork's nest in Marsala Tita Street in Kumane	Supervision	Continuously during the works	Assure the compliance with conditions of the Institute for Nature Conservation of Serbia to protect strictly protected species.	Contractor's supervision / Supervision Consultant / Representative of the Competent Institution
Construction of footways	Pedestrians safety	Construction Site	Inspection / Supervision	Continuously during the works	During the foorway construction it is necessary to pay attention to pedestrian movements	Contractor's supervision / Supervision Consultant / PERS
Works on bridges	Possible water contamination during the execution of works on bridges	Near bridges and on bridges themselves	Supervision / Water quality control	Continuously during the works	Ensure compliance with the requirements of environmental protection, health, and safety at work as well as the requirements for the preservation of surface water quality.	Contractor's supervision / Supervision Consultant / Representative of the Competent Institution
Operational	**Maintenance**					
The negative effect of noise on the workers and residents	Noise levels	Construction Site; nearby houses	Equipment – manual equipment for analyzing (detecting the level of noise) with the suitable software	Unannounced inspections during the maintenance activities and due to grievances	Ensure 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?	Institutional responsibility
						Implementation
Vibrations	The limited-time of activities	Construction Site	Supervision	Unannounced inspections during the maintenance activities and due to grievances	Ensure compliance with the health and safety and environmental requirements	PERS
Safety of workers	PPE; bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the maintenance activities and due to grievances	Ensure compliance with the health and safety and environmental requirements	PERS
Operational	**Road Safety**					
Increasing the speed of vehicles	The conditions of traffic signs, the vehicle speed	Road section included in the design	Visual observation; Speed detection	During the activities, unannounced	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

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 labor 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 the environment, social, labor, 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 the 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 the number and nature of any violations found:
How many inspections were carried out by the labor authorities during the reporting period?	Number:	Please provide details of these visits, including the 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 the 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 environmental 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 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 3				
Please provide the name and contact details for your environmental manager:				
Parameter[4]	**Value[5]**	**Unit**	**Compliance status[6]**	**Comments[7]**
Wastewater				
Total wastewater generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO_2				
NO_X				
Particles				
CO_2				
CH_4				

[3]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
[4] 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.
[5] Please ensure that the units of measurement are clearly stated.
[6]Please state the standards applied in this project (typically local, EU and/or World Bank Group)
[7] 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 3				
Please provide the name and contact details for your environmental manager:				
Parameter[4]	**Value[5]**	**Unit**	**Compliance status[6]**	**Comments[7]**
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.				
Name 2				
Product output data				
Product 1				
Product 2				

4. Resource Usage and Product Output			
Parameter	**Value**	**Measurement Unit**	**Comments[8]**
Fuels used			
Oil			
Gas			
Coal			
Lignite			

[8] 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)

Grid Electricity			
Heat Purchased			
Feedstocks and raw materials consumed			
Name 1			
Name 2			
Product output			
Product 1			
Product 2			

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**
The number of direct employees:			
The 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 the 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 the 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 the 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 complaints 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 labor and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize the nature of, and reasons for, disputes and explain how they were resolved
Were there any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize the 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:			The number of fatalities[9]:		
Budget spent on OHS in this period (total amount and currency):			The number of injuries:		
OHS training provided in this period among employees-days:			The number of Lost Time Incidents (including vehicles)[10]:		
Number of lost workdays[11] resulting from incidents			The number of cases of occupational disease:		
The number of days when people are on sick leave:					
Accident causes (falling, heavy loads, struck by an object, contact with the 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 reporting period:					
Please summarize any emergency response exercises or drills that have been carried out during the reporting period:					

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 reporting period, - information provided for the members of public and other stakeholders during the reporting 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:	

[9] If you have not done it yet, please provide a separate report on the circumstances of each fatality in a great detail.
[10] Incapacity to work for at least one full workday on the day when the accident or illness occurred.
[11] 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.

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 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 the closure of land acquisition transactions. Please attach a 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 and regional regulatory instruments.

BASIC NATIONAL LEGISLATION:

The main laws and regulations currently in force in the 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", No. 72/2009, 81/2009, 64/2010, 24/2011, 121/2012, 42/2013, 50/2013, 98/2013, 132/2014, 145/2014, 83/2018, 31/2019, 37/2019 – other Law, and 9/2020);
2. **Law on Nature Conservation** ("Official Gazette of RS", No. 36/2009, 88/2010, 91/2010, 14/2016, and 95/2018 – other law);
3. **Law on Environmental Protection** ("Official Gazette of RS", No. 135/2004, 36/2009, 36/2009, 72/2009, 43/2011, 14/2016, 76/2018, and 95/2018 – other law);
4. **Law on EIA** ("Official Gazette of RS", No. 135/2004 and 36/2009);
5. **Law on Strategic EIA** ("Official Gazette of RS" No. 135/2004 and 88/2010);
6. **Law on Waste Management** ("Official Gazette of RS", No. 36/2009, 88/2010, 14/2016, and 95/2018 – other law);
7. **Law on Noise Protection** ("Official Gazette of RS", No. 36/2009 and 88/2010);
8. **Law on Water** ("Official Gazette of RS", No. 30/2010, 93/2012, 101/2016, and 95/2018 – other law);
9. **Law on Forests** ("Official Gazette of RS", No. 30/2010, 93/2012, 89/2015, and 95/2018);
10. **Law on Air Protection** ("Official Gazette of RS", No. 36/2009, 10/2013, and 26/2021);
11. **Law on Occupational Safety and Health** ("Official Gazette of RS", No. 101/2005, 91/2015, and 113/2017- other law);
12. **Law on Roads** ("Official Gazette of RS", No. 41/2018 and 95/2018 – other law)
13. **Law on Cultural Property** ("Official Gazette of RS", No. 71/94, 52/2011, 99/2011 – other law, and 6/2020 – other law);
14. **Regulation on measures for prevention and control of infectious diseases COVID-19** ("Official Gazette of RS" No. 151/2020, 152/2020, 153/2020, 156/2020, 158/2020, 1/2021, 17/2021, 19 / 2021, 22/2021, 29/2021, and 34/2021)

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. Decree on Watercourses' Classification ("Official Gazette of RS" No. 5/68);
8. Regulations of Dangerous Pollutants in Waters ("Official Gazette of RS" No. 31/82);
9. Regulation on Limit Values for Emissions of Pollutants in Water and Deadlines for Their Achievement ("Official Gazette of RS" No. 67/2011, 48/2012, and 1/2016);
10. Regulation on Limit Values of Polluting Substances in Surface and Ground Waters and Sediments and Deadlines for Their Achievement ("Official Gazette of RS", No. 50/2012);
11. The decision on Establishment of List of First Class Water ("Official Gazette of RS" No. 83/2010);
12. Decree on the Categorization of State Roads, ("Official Gazette of RS", No. 93/2015).

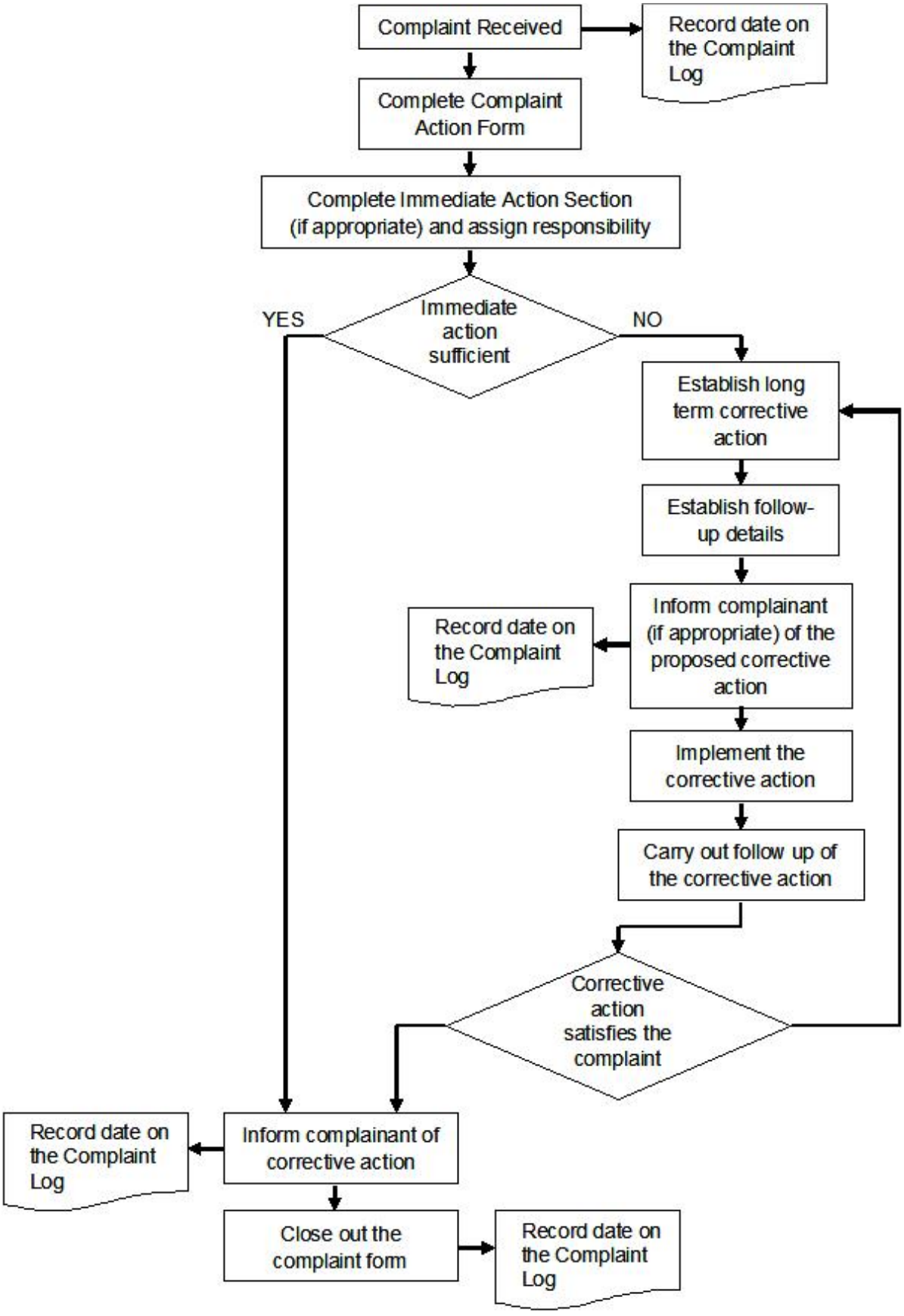
Other relevant Serbian legislation:

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 identification 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

CONDITIONS AND OPINIONS OF RELEVANT INSTITUTIONS

РЕПУБЛИКА СРБИЈА
ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ
НОВИ БЕОГРАД, Др Ивана Рибара бр. 91
Тел: +381 11/2093-802; 2093-803;
Факс: + 381 11/2093-867

Завод за заштиту природе Србије, Београд, Др Ивана Рибара бр. 91, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010-исправка, 14/2016 и 95/2018-други закон) и члана 136. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016 и 95/2018 – аутентично тумачење), поступајући по Захтеву бр. 11-021120/IB34BB-05-MS од 02.11.2020. године JV Botek Bosphorus Technical Consulting Corp & MHM-Project D.O.O. Нови Сад, ул. Јована Поповића бр. 40, Нови Сад, по пуномоћју ЈП „Путеви Србије“ бр. 953-20720/20-1 од 23.10.2020. године, за издавање услова заштите природе за израду техничке документације Главног пројекта појачаног одржавања на државном путу: ЛОТ 3: IБ34, деоница Братинац (Набрђе) - Браничево (Трибороде), стационажа км 13+273 – км 44+276, дана 03.12. 2020. године под 03 бр. 020-2835/2, доноси:

Р Е Ш Е Њ Е

1. Траса државног пута за који се планира израда техничке документације - на деоници Братинац-Браничево не налази се унутар заштићеног подручја за које је спроведен или покренут поступак заштите нити у обухвату еколошке мреже РС. Сходно томе, издају се следећи услови заштите природе:

1) Главним пројектом појачаног одржавања деонице државног пута IБ реда бр. 34, деоница Братинац (Набрђе) - Браничево (Трибороде), у даљем тексту: Пројекат, предвидети таква решења и мере које ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода у непосредном окружењу.
2) При извођењу радова на траси пута, која је непосредно уз водотоке, предвидети максимално очување корита, обала и приобалне вегетације.
3) Прибавити сагласност надлежних институција за извођење радова који изискују евентуалну сечу одраслих, вредних примерака дендрофлоре, како би се уклањање вегетације свело на најмању меру.
4) Очувати потенцијална гнездилишта колонијалних врста птица, одморишта и зимовалишта уз водотокове и друге површине дуж трасе пута.
5) У периоду гнежђења птица од 15. марта до 30. јуна очувати гнезда белих рода *Ciconia ciconia*, крупних птица грабљивица и врста из породице врана (Corvidae).
6) Након реконструкције планирати чишћење агрегата соли са површине пута, нарочито у ранопролећном периоду.
7) Извођење радова на одржавању путне инфраструктуре у непосредној близини гнезда беле роде може се реализовати искључиво ван периода гнежђења и када роде нису у гнезду, односно након излетања младунаца из гнезда и напуштања територије у циљу сеобе, а пре следећег циклуса размножавања, најкасније до 15. марта и после 20. јула током године.
8) Уколико се према коначном пројектном решењу предвиђа измештање стубова са гнездима, потребно је обавестити Завод за заштиту природе Србије и упутити захтев за издавање решења о условима заштите природе за измештање гнезда.

9) По потреби, предвидети противерозионе мере због заштите од клизишта, одрона и сл. При томе пожељна је већа примена биолошких и биотехничких мера, у комбинацији са одговарајућим техничким мерама, до нивоа функционалне стабилизације терена.
10) Дефинисати да се одводњавање саобраћајнице врши гравитационим отицањем површинских вода и по потреби изградњом отворених канала за прихват површинских вода.
11) За воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима предвидети изградњу таложника и сепаратора масти и уља, уколико се Планом управљања животном средином утврди/процени да ће просечни годишњи дневни саобраћај негативно утицати на квалитет воде водотокова са којима се предметни државни пут укршта или паралелно води, односно да ће бити нарушене граничне вредности које су дефинисане Уредбом о граничним вредностима емисије загађујућих материја у воде и роковима за њихово достизање („Службени гласник РС“, бр. 67/2011, 48/2012 и 1/2016) и Уредбом о граничним вредностима загађујућих материја у површинским и подземним водама и седименту и роковима за њихово достизање („Службени гласник РС“, бр. 50/2012).
12) Као коловозни застор користити материјале који могу, са аспекта заштите природе, обезбедити смањење нивоа буке и вибрација и омогућити ефикасно дренирање воде са површине коловоза.
13) Предметне радове на траси пута изводити само у току периода дана због могућег негативног утицаја буке од грађевинских машина и возила на животињски свет, чија су станишта у непосредном окружењу.
14) При извођењу радова строго се придржавати трасе и коридора пута како се при манипулацији возилима и машинама не би оставиле последице на шири простор. Такође, користити постојећу путну мрежу без изградње нових путева, у циљу спречавања фрагментације простора и постојећих станишта дивљих биљних и животињских врста.
15) Током извођења радова дуж целе трасе одржавати максимални ниво комуналне хигијене.
16) Предвидети превентивне мере ради спречавања акцидентних ситуација, као и одговарајуће активности санације уколико до њих дође, уз обавезу обавештавања надлежних инспекцијских служби.
17) Уколико дође до хаваријског изливања горива, уља/мазива и других штетних материја обавезна је санација површине и враћање у првобитно стање.
18) Саставни део предметног Пројекта треба да буде и део који се односи на организацију радилишта, при чему је неопходно дефинисати и обезбедити:
    - привремене локације за складиштење потребног грађевинског и другог материјала и опреме, које је неопходно лоцирати ван простора са високом вегетацијом, као и плавних зона водотокова, и ограничити искључиво на време трајања радова;
    - привремене или трајне локације (постојеће уређене комуналне објекте/депоније) за одлагање и депоновање шута и другог отпадног грађевинског материјала у било каквом стању, као и комуналног отпада насталог у току извођења радова, односно забрану њиховог одлагања/депоновања у приобаљу водотокова, као и пољопривредном земљишту, осим на локацијама дефинисаним Пројектом;
    - предвидети да се након завршетка предметних радова све површине које су на било који начин деградиране грађевинским и другим радовима, што пре санирају.

19) По изведеним грађевинским радовима неопходно је што пре уклонити сву механизацију, грађевински материјал и друго.
20) Уколико је дошло до нарушавања предметног подручја (терена дуж трасе) треба га санирати. У том смислу, успоставити биљни покривач (култивисати терен) на свим угроженим местима, применом одговарајуће флоре и врста које су биолошки постојане у датим климатским условима, отпорније на штетне утицаје (издувне гасове и сл.), као и да је избор врста усклађен са околним простором и његовом наменом.
21) Избегавати врсте, које су за наше поднебље препознате као инвазивне: *Acer negundo* (јасенолисни јавор или негундовац), *Amorpha fruticosa* (багремац), *Robinia pseudoacacia* (багрем), *Ailanthus altissima* (кисело дрво), *Fraxinus americana* (амерички јасен), *Fraxinus pennsylvanica* (пенсилвански јасен), *Celtis occidentalis* (амерички копривић), *Ulmus pumila* (ситнолисни или сибирски брест), *Prunus padus* (сремза) и *Prunus serotina* (касна сремза), као и врсте које су детерминисане као алергене (тополе и сл.).
22) Уколико се током радова наиђе на геолошко-палеонтолошке или минералошко-петролошке објекте, за које се претпоставља да имају својство природног добра, извођач радова је дужан да у року од осам дана обавести Министарство заштите животне средине, односно предузме све мере како се природно добро не би оштетило до доласка овлашћеног лица.

2. Ово решење не ослобађа подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима.
3. За све друге радове/активности на предметном подручју или промене пројектне документације, потребно је поднети нови захтев.
4. Уколико подносилац захтева у року од две године од дана достављања овог решења не отпочне радове и активности за које је ово Решење издато, дужан је да поднесе захтев за издавање новог Решења.
5. Такса за издавање овог Решења у износу од 30.000,00 динара је одређена у складу са чланом 2. став 5. тачка 1. Правилника о висини и начину обрачуна и наплате таксе за издавање акта о условима заштите природе („Службени гласник РС“, бр. 73/2011, 106/2013).

О б р а з л о ж е њ е

Завод за заштиту природе Србије примио је дана 05.11.2020. године Захтев заведен под 03 бр. 020-2835/1 JV Botek Bosphorus Technical Consulting Corp & MHM-Project D.O.O. Novi Sad, ул. Јована Поповића бр.40, Нови Сад, по пуномоћју ЈП „Путеви Србије“ бр. 953-20720/20-1 од 23.10.2020. године, за израду техничке документације Главног пројекта појачаног одржавања деонице државног пута ИБ реда бр. 34, деоница Братинац (Набрђе) - Браничево (Трибороде), стационажа км 13+273 – км 44+276, дужине 31.003 км.

На основу достављеног захтева утврђено је да се техничка документација ради за потребе израде Главног пројекта појачаног одржавања на државном путу: ЛОТ 3: ИБ34, деоница Братинац (Набрђе) - Браничево (Трибороде), стационажа км 13+273 – км 44+276. Израда Главног пројекта је предвиђена Пројектом рехабилитације путева и унапређења безбедности саобраћаја, који је пројекат подршке међународних финансијских институција (Светске банке, Европске инвестиционе банке и Европске банке за обнову и развој) Влади Републике Србије у имплементацији Националног програма рехабилитације државне путне мреже. Овај пројекат представља реализацију прве фазе Владиног програма и обухвата:

- унапређење стања државне путне мреже кроз рехабилитацију око 1.100 km постојећих путева,
- подизање нивоа безбедности на путевима кроз примену мера за унапређење безбедности саобраћаја у свим фазама имплементације Пројекта и
- јачање капацитета и унапређење институционалне координације у области безбедности саобраћаја кроз имплементацију већег броја различитих услуга.

У достављеном захтеву је наведено да су приликом обиласка терена на постојећим стубовима у оквиру предметне деонице примећена гнезда. У овом тренутку не постоје информације да ли ће се стубови на којима се налазе гнезда морати измештати, али са разрадом техничких решења може се појавити и таква опција.

Након увида у Централни регистар заштићених природних добара и документацију Завода утврђени су услови и мере заштите природе за извођење активности из диспозитива овог решења. При томе се имало у виду да на предметној деоници нема заштићених подручја за које је спроведен или покренут поступак заштите, утврђених еколошки значајних подручја и еколошких коридора од међународног значаја еколошке мреже Републике Србије.

Законски основ за доношење решења: Закон о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010, 14/2016 и 95/2018-други закон), Закон о заштити животне средине („Службени гласник РС“, бр. 135/04, 36/2009, 72/2009, 43/2011, 14/2016, 76/2018 и 95/2018 - други закон) и Правилник о проглашењу и заштити строго заштићених и заштићених дивљих врста биљака, животиња и гљива („Службени гласник РС“, бр. 5/2010, 47/2011, 32/2016 и 98/2016).

Планиране активности могу се реализовати под условима дефинисаним овим Решењем, јер је процењено да неће значајно утицати на природне вредности подручја.

На основу свега наведеног, одлучено је као у диспозитиву овог Решења.

Такса на захтев и такса за решење, по Тар. бр. 1. и Тар. бр. 9. су наплаћене у складу са Законом о републичким административним таксама („Службени гласник РС“, бр. 43/2003, 51/2003, 61/2005, 5/2009, 54/2009, 50/2011, 93/2012, 65/2013-други закон, 83/2015, 112/2015, 113/2017 и 3/2018 – исправка, Усклађени динарски износи из Тарифе републичких административних такси - 38/2019, 86/2019, 90/2019-испр. и Усклађени динарски износи из Тарифе републичких административних такси – 98/2020).

Упутство о правном средству: Против овог решења може се изјавити жалба Министарству заштите животне средине у року од 15 дана од дана пријема решења. Жалба се предаје писмено или изјављује усмено на записник Заводу за заштиту природе Србије.

ДИРЕКТОР

Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архива x 2

РЕГИОНАЛНИ ЗАВОД ЗА ЗАШТИТУ
СПОМЕНИКА КУЛТУРЕ СМЕДЕРЕВО
Деспота Ђурђа 37, 11300 Смедерево • тел./факс +381 26 46 22 309
e-mail: office@spomenicikulture.org.rs • www.spomenicikulture.org.rs

Број: 348/2 – 2020
Смедерево, 24.11.2020. године ДР / ДЦ

На основу чланова 4, 7, 12, 27, 28, 109. и 110. Закона о културним добрима ("Службени гласник РС" бр. 71/94, 52/11-др. Закон и 99/11-др. Закон) и члана 104. став 1. тачке 1. и 2. Закона о општем управном поступку ("Службени гласник РС" бр. 18/2016), а по захтеву ЈП "Путеви Србије" (Сектор инвестиције) из Београда, Булевар краља Александра бр. 282, Регионални завод за заштиту споменика културе Смедерево доноси следеће:

Р Е Ш Е Њ Е

I У Пројекат појачаног одржавања деонице државног пута IБ реда бр. 34 (стара ознака: магистрални пут М-25.1), деоница Братинац – Браничево, на територији града Пожаревца и општине Велико Градиште, са становишта заштите непокретних културних добара потребно је уградити следеће услове:

- инвеститор и извођач предметних радова су дужни, да о почетку земљаних радова, обавесте овај Регионални завод најмање петнаест дана раније, у писаној форми и да обезбеде све потребне услове за њихов континуирани археолошки надзор;
- извођач је дужан да уколико се током радова наиђе на археолошке налазе, одмах без одлагања прекине радове и обавести надлежни завод за заштиту споменика културе и да предузме мере да се налаз не уништи, не оштети и да се сачува на месту и у положају у коме је откривен;
- инвеститор је дужан да обезбеди средства за истраживање, заштиту, чување, публиковање и излагање добра које ужива претходну заштиту, које се открије приликом извођења радова, што ће бити регулисано посебним уговором;
- уколико се користи земља за насипање са других локација неопходно је обезбедити археолошки надзор приликом њеног ископа.

II На предметном простору нема утврђених непокретних културних добара,.

III Подносилац захтева је дужан да у Пројекат угради наведене услове.

IV Након израде Пројекта у складу са издатим условима, подносилац захтева је дужан да прибави сагласност на предметни Пројекат од овог Регионалног завода.

V Ово Решење не ослобађа подносиоца захтева обавезе прибављања и других услова, дозвола и сагласности предвиђених прописима, а нарочито у домену заштите природних добара од надлежне службе заштите природе.

VI Ово Решење важи две године од дана издавања.

VII Жалба не одлаже извршење овог Решења.

РЕГИОНАЛНИ ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ СМЕДЕРЕВО • REGIONAL INSTITUTE FOR THE CULTURAL MONUMENTS PROTECTION SMEDEREVO

О Б Р А З Л О Ж Е Њ Е

Регионалном заводу за заштиту споменика културе Смедерево, обратило се JV BOTEK Bosphorus Tehnical Consulting Co. & MHM –PROJEKT DOO Novi Sad, као опуномоћеник ЈП "Путеви Србије" (Сектор инвестиције) из Београда, Булевар краља Александра бр. 282, захтевом за утврђивање услова за израду Пројекта појачаног одржавања деонице државног пута ІБ реда бр. 34 (стара ознака: магистрални пут М-25.1), деоница Братинац – Браничево, на територији града Пожаревца и општине Велико Градиште, у оквиру наведених координата, а у погледу заштите непокретних културних добара.

На простору предвиђеном за извођење планираних радова, нема утврђених непокретних културних добара.

Археолошка истраживања на наведеном простору до сада нису вршена, а у широј зони регистровано је више археолошких локалитета и појединачних покретних археолошких налаза из различитих епоха.

Сходно наведеним околностима, а посебно с обзиром да предметни простор до сада није археолошки истраживан, предвиђене су обавезе за извођача и инвеститора радова како је наведено у диспозитиву Решења.

ПРАВНА ПОУКА: Против овог Решење дозвољена је жалба Републичком заводу за заштиту споменика културе, у року од 15 дана од дана његовог пријема. Жалба се подноси у два примерка преко овог Завода. Жалба не задржава извршење овог решења.

Достављено:

- Републичком заводу за заштиту споменика културе Београд
- Граду Пожаревцу - органу надлежном за послове урбанизма и грађевинарства
- Општини Велико Градиште - органу надлежном за послове урбанизма и грађевинарства

В.Д. ДИРЕКТОРА
Дејан Радовановић

Република Србија
МИНИСТАРСТВО
ЗАШТИТЕ ЖИВОТНЕ СРЕДИНЕ
Број: 011-00-00045/2021-03
Датум: 25.01.2021.
Немањина 22-26
Београд

ЈП ПУТЕВИ СРБИЈЕ
Сектор за инвестиције

ул. Булевар краља Александра 282
БЕОГРАД

Предмет: Допис у вези са захтевом за давање мишљења

Министарству заштите животне средине обратили сте се захтевом за давање мишљења о потреби покретања процедуре у складу са Законом о процени утицаја животну средину („Сл.гласник РС", бр. 135/04, 36/09) за пројекат појачаног одржавања на државном путу IB-34, деоница: Братинац (Набрђе) – Браничево (Трибороде), дужине L= 31,03 км.

У допису наводите да је предметни пројекат обухваћен и интегралним „Пројектом Рехабилитације путева и безбедности саобраћаја („Road Rehabilitation and Safety Project – RRSP"), који се финансира из међународног кредита. Пројекат подразумева грађевинско – путарске радове у оквиру трасе већ постојећег пута.

Планирано је да се Главним пројектом за хитно одржавање путева обезбеди: повећање употребне вредности пута, трајност пута, побољшање безбедности саобраћаја, укључивање захтева локалне заједнице и усаглашеност са захтевима заштите животне средине у највећој могућој мери под датим условима просторног ограничења и ограничења који произилазе из типа дозвољених грађевинских и саобраћајних интервенција.

Врста радова која се планира углавном обухвата радове ојачања или замене постојеће коловозне конструкције, у постојећем путном профилу, са постојећим и санираним системом одводњавања уз пројектовање свих елемената који продужавају трајност радова и унапређују систем безбедности саобраћаја и у потпуности је регулисана одредбама из члана 59. Закона о јавним путевима („Сл. гласник РС" 101/05, 123/07, 101/11, 93/12, 104/13), на шта упућују члан 115. и члан 116. важећег Закона о путевима („Сл. гласник РС" 41/2018, 95/2018 – др. Закон).

Уз Захтев је приложена и додатна документација:

- Кратак опис пројекта;
- Решење бр. 020-2835/2 од 03.12.2020. које је издао Завод за заштиту природе Србије;
- Решење бр. 348/2-2020 од 24.11.2020. које је издао Завод за заштиту споменика културе у Смедереву;
- Графички прилог - прегледна карта са уцртаном деоницом државног пута IB-34 на којој је планирано појачано одржавање;

На основу увида у захтев обавештавамо вас о следећем:

У складу са чланом 3. и 4. Закона о процени утицаја животну средину („Сл.гласник РС", бр. 135/04, 36/09) предмет процене утицаја на животну средину су пројекти који се планирају и изводе, промене технологије, реконструкције, проширење капацитета који могу имати значајан утицај на животну средину, а притом су садржани 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», бр.114/08).

Пројекат појачаног одржавања пута, у складу са горе поменутим члановима Закона о процени утицаја на животну средину, не представља предмет процене утицаја на животну средину и није сврстан у Листама пројеката из поменуте Уредбе, па сагласно томе *носилац пројекта није у обавези* да отпочне процедуру процене утицаја на животну средину у складу са чланом 8. Закона о процени утицаја на животну средину.

ДРЖАВНИ СЕКРЕТАР
по решењу о овлашћењу
бр. 021-01-29/2020-09
од 09.11.2020

Александар Дујановић

Доставити:
- Архиви
- Носиоцу пројекта
- МХМ –ПРОЈЕКТ д.о.о. Нови Сад, ул. Јована Поповића 40, 21000 Нови Сад.