

Environmental and Social Management, Monitoring Plan (ESMMP) and Operational Environmental and Social Management Plan (OESMP)

The main mitigation activities are described in Environment and Social Management and Monitoring Plan (ESMMP) given in Table 1 and Table 2.

Environment and Social Management and Monitoring Plan (ESMMP) identifies the environmental impacts during preparatory and construction - rehabilitation phase, mitigation measures and responsibilities for implementation of mitigation measures.

Mitigation is an integral part of impact evaluation. It looks the better ways of taking actions so that the negative impacts are eliminated or minimized.

Environmental and Social Management Plan

Table 1. Environment and Social Management Plan (ESMP)

Phase	Environmental/ Social Risks/Benefits	Mitigation measures	Responsibility		Target Date by year end / Project Phase	Related documents
			Implementation	Supervision		
PRECONSTRUCTION	GENERAL PROJECT ASPECTS					
	Following National Legislative and EBRD PRs for environmental/social risk or benefit	Design of main project according to National Legislative and EBRD PRs	PESR			National Legislation and EBRD PR 1-10
		The project designer to provide basement measurements in the Elaborate for Environmental Protection The project designer to provide road safety measures in the Basic Traffic Design (installation of horizontal and vertical signalization, replacement of the new road equipment, road safety measures etc.-)	Designer			National Legislation and EBRD PR 1-10
	Stakeholder involvement	Contractor to put in place Grievance Mechanism; Information to the local population about the project activities;	PESR, Contractor Engineer		Pre-construction and construction	National Legislation and EBRD PR 10
	DEVELOPMENT OF CONSTRUCTION ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (CESMP) The Contractor prepares the implementation of the accompanying Plans described in the Environmental Management Plan to ensure compliance with legal requirements and lender requirements 1. Construction site Management Plan, 2. Traffic management Plan 3. Dust and Air Management Plan,		Contractor		Reviewed and approved by Engineer.	Reviewed and approved by Engineer.

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	<p>4. Watercourse Management Plan, 5. Grievance mechanism; 6. Emergency and Response Management Plan 7. Location of the loan site, as well as remediation measures for the loan sites and access roads after completion of the project 8. Waste and wastewater Plan in accordance with the Law on Waste Management. 9. Community/Occupational Health and safety Plan</p> <p>All necessary licences and permits in relation to environment, safety and labour must be obtained before rehabilitation activities starts.</p>					
	ENTERING THE CONSTRUCTION SITE					
	Project health and safety induction will be delivered to all workers and site visitors based on Occupational Health and Safety Plan, including the obligation to wear personal protective equipment and protecting the environment.		Contractor	Licenced company / expert present full time on site	National Legislation	EBRD PR 4
	PROCUREMENT OF MATERIALS					
	Asphalt base	The asphalt base should have licence for operational work	Asphalt base	Asphalt base		National Legislation
	Ground material	The contractor has to have contract or approval with the Municipality authority to place the ground material for the road requirements	Contractor	Contractor		National Legislation
CONSTRUCTION	CONSTRUCTION SITE					
	Implementation of all measures of the approved CESMP (based on this ESMP):					
	Air quality	<p>Dust</p> <p>Exhaust gases</p>	<p>Contract for monitoring of air emissions</p> <p>Use of standardized fuels for mechanization</p> <p>Minimizing emissions through regular spraying with water during the construction works</p>	Contractor (Con)	Engineer (Eng)	<p>Licenced company</p> <p>Law of Ambient Air Quality; Law on the Environment, EBRD PR 3</p>

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			<p>Clean truck's tires before entering and using public roads</p> <p>Using technically correct machinery,</p> <p>Route planning and factor of loading and unloading to reduce of fuel consumption and emissions of exhaust gases and fugitive dust emissions</p> <p>Cover truck loads and using trucks by not exceeding their load capacity;</p> <p>Moisten the truck load;</p> <p>Trucks shall be covered to minimize dust and material spillage</p> <p>Avoid working on machinery in so called "idle", turn off mechanization when is not necessary;</p> <p>Covering vehicles that transport solid material;</p> <p>Moisten the transport vehicles;</p> <p>Provide minimal size of work site.</p>				
	Waste management	<p>Waste generation</p> <p>Waste management</p>	<p>Contract for management of all waste types;</p> <p>Contractor must obtain permit for temporary disposal for scrapped asphalt;</p> <p>Implementation of key principles for sustainable waste management according Waste Law Management;</p> <p>Separation of different types of waste;</p>	Con	Eng	<p>Licenced company</p> <p>Communal Public Enterprise</p> <p>Appropriate</p>	<p>Law on waste management,</p> <p>Law on the Environment,</p> <p>EBRD PR 3</p>

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			<p>Waste produced by the workers (communal waste) to be hand over</p> <p>Placement of appropriate containers for collection of municipal waste on location</p> <p>Collecting and further management of different types of waste;</p> <p>The demolition waste (asphalt) to be reused, in accordance with the needs of the Municipality.</p> <p>Concluding a contract for procurement of medical equipment and a contract for disposal of medical waste from a construction site;</p> <p>Medical waste generated during the provision of care for sick workers should be safely collected and disposed of in certain closed containers - containers or bags and treated and disposed of in accordance with the relevant requirements. If medical waste needs to be incinerated, it has to be done for as shortest time frame as possible. Waste should be reduced so that only the smallest amount of waste is incinerated.</p>			<p>PCE in the municipality</p> <p>Municipality authority</p> <p>Municipality authority</p>	
	Soil contamination	Soil pollution and contamination	<p>Termination of construction activities in case of uncontrolled spills of fuel, oil, lubricants and other chemicals, sprinkle with sand and removal of polluted soil layer;</p> <p>Polluted soil layer would be treated as a hazardous waste;</p> <p>Contract for placing mobile toilets on</p>	<p>Con</p> <p>Con</p>	<p>Eng</p>	<p>Law on Environment, EBRD PR 3</p> <p>Authorized company</p>	

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			<p>certain places along the section and contracting with the company which will undertake and clean them;</p> <p>Washing of the construction mechanization to be done on proper location;</p> <p>Proper handling of lubricants, oil, fuel etc.</p>				
	Noise and vibrations	Increased noise level and vibrations	<p>Contract for monitoring of noise levels</p> <p>Planning the construction procedures due to minimizing emitted noise (in time and intensity),</p> <p>Turning off the engines of vehicles and construction machinery when they are not in use,</p> <p>Maintenance of vehicles and construction mechanization in a technically correct condition;</p> <p>Limit activities to daylight working hours from 8 am - 5 pm;</p>	Con	Eng		<p>Law on noise protection in the environment, Rulebook on limits on level values on noise level in the environment, law on the environment, EBRD PR 3</p>
	Labour and Working Conditions	Worker's health and safety	<p>Contractor to organize training before construction activities starts;</p> <p>Workers need to have contracts in place before start construction work;</p> <p>Keep records on labour and working conditions policy and trainings held and any unlikely event (such as incidents and accidents);</p> <p>Provide workers with safety instructions and appropriate protective gear such as protective clothing, safety boots, helmets, gloves, goggles, ear protection, etc.,</p>	<p>Con</p> <p>Con</p> <p>Con</p> <p>Con</p>	<p>Con</p> <p>Eng</p> <p>Eng</p> <p>Eng</p>	Licenced company	<p>Law on Occupational Health and Safety ,National legislation and EBRD PR 2 and PR 4 requirements (child and forced labour are forbidden), EBRD PR. 4</p>

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		<p>COVID - 19 Providing personal protective equipment for all workers at the project site in accordance with the proposed measures: keeping records of cases infected with COVID 19, supporting quarantined workers and regularly informing the competent institutions in case of occurrence of an infected person with COVID 19.</p> <p>Start-up checks (measuring and recording the temperature of all workers entering and leaving the site);</p> <p>General and personal hygiene,</p> <p>Cleaning and disposal of waste,</p> <p>Training and communication with workers,</p> <p>Communication and contact with the community,</p> <p>Providing local medical and other services (disinfection, etc.)</p> <p>Organizing education of all workers for implementation of the recommendations, measures and protocols for protection from COVID-19;</p> <p>Placing posters and signs with the measures and recommendations from the government in a visible place that is accessible to all in the local language ;</p> <p>Establish a hygiene protocol with best practice;</p>				
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		<p align="center">Traffic Safety Management</p>	<p>Providing protective equipment and disinfectants (masks, soap gloves, alcohol);</p> <p>Observance of the measures for protection from the CORONA virus (recommended distance);</p> <p>Appropriate examination of employees with symptoms;</p> <p>The contractor should report sick employees through reports and monitor them continuously;</p> <p>Traffic regulation during project activities;</p> <p>Regulation of traffic during the project activities;</p> <p>Notify the authorities for any traffic disruption and collaborating with them when required by local laws;</p> <p>Procedure for providing adequate information road signs;</p> <p>Providing adequate signalization;</p> <p>Traffic safety signs;</p> <p>Flag persons for traffic control;</p> <p>Apply appropriate warning signs (slip, landslide, wet or slippery roadway, dangerous curve, pedestrian or animal crossing, school, slow vehicle movement in traffic), Fluorescent (reflective) markings indicating steep slopes or convex mirrors to traffic from the opposite direction could be monitored in inconspicuous curves, erected warning signs in places deemed appropriate by good engineering practice or as agreed</p>				
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			with public authorities. As appropriate, road safety audits should be undertaken for each phase of the project and routinely monitor incident and accident reports to identify and resolve problems or negative safety trends.				
	Biodiversity protection	Impacts on flora and fauna	Perform project construction activities on minimal space; Reuse of topsoil as appropriate and replant any lost vegetation (native species only); Minimal removal of the vegetation alongside the section during the preparation activities; Temporary waste disposal sites along the route not to be created; Hunting and fishing, collecting forest berries, bird eggs etc, by the workers is not allowed; Prohibition to lighting open fire.	Con	Eng		Law on nature protection Law on Environment, Birds Directive, Habitat Directive EBRD PR 6.
	Cultural Heritage Protection	Cultural Heritage, Chance finds	Contractor to develop Chance find procedure	Con	Eng		Law on Protection of Cultural Heritage, EBRD PR 8
OPERATION	DEVELOPMENT AND IMPLEMENTATION OF OPERATIONAL ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (OESMP) The OESMP must include sub plans relating to air quality, noise management, soil management, waste management, biodiversity management, traffic management, health and safety, community, water management and drainage, emergency response, stakeholder management and road maintenance and road safety inspection and audits.			PESR / Engaged company	PESR / Engaged licensed company	OESMP developed and implemented.	National Legislation and EBRD PR 1-10

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Table 2. Monitoring Plan

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored? Frequency	Responsibility	Reports Documents /	Indicative costs (euros)
Traffic safety	Implementation of Traffic Management Plan	On project site	Visual inspection by engineer and relevant authorities	During rehabilitation phase	Contractor Supervision Engineer	Quarterly Report AESR	Price to be offered by the Contractor in the BoQ
Road Safety	Implementation of the Road safety measures (installation of horizontal and vertical signalization, replacement of the new road equipment)	On project site	Road safety reports	During rehabilitation phase	Contractor Supervision Engineer	Quarterly Report AESR	Price to be offered by the Contractor in the BoQ
General Work Safety Safety of the employees, visitors on site	Implementation of the Plan for Occupational Health and Safety	On project site	The status of implementation of mitigation measures; number of injures at workplace; appointed person/officer for health and safety on site.	During rehabilitation phase	Contractor Supervision Engineer	Quarterly Report AESR	Price to be offered by the Contractor in the BoQ

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				measurement during the rehabilitation activities when works are ongoing on these locations in accordance with Programme of works.		Quarterly Report AESR	
Material transport	Truck load covered	On project site	Visual inspection	During rehabilitation activities	Contractor Supervision Engineer	Quarterly Report AESR	/
Construction site	Technical features of the construction equipment	In authorized services and on site	Supervisory Inspection	During rehabilitation activities During operation of the mechanization	Contractor Supervision Engineer	Quarterly Report AESR	Price to be offered by the Contractor in the BoQ

Roles and responsibilities for implementation of ESMMP

During rehabilitation of the road section Hipodrom - Miladinovci mitigation and monitoring activities will run parallel to the rehabilitation activities and in compliance with Programme of works on site. They will commence at the time when employees, equipment and/or materials are moved to the site and will end after the job is completed and all employees, equipment and/or materials are removed from the site and the work at location is complete.

Contractor should provide monthly reports to Public Enterprises for State Roads (PESR), including aspects for implementation of the foreseen environmental and social measures. The Engineer will prepare Quarterly Environmental Reports for submission to the PESR according to the received data from the Contractor, authorized bodies of state administration for such type of activities.

The Contractor shall prepare, and the Engineer shall approve and submit to the PESR the AESR during the construction phase, to be further submitted to EBRD. PESR will be responsible for preparation and submission of AESRs during the operation phase.

Roles and responsibilities for implementation of Environmental and Social Management and Monitoring Plan (ESMMP) are given in Table 3.

Table 3. Roles and Responsibilities for implementation of ESMMP

Company/Unit	Responsibilities
Environmental Protection and Social Aspects Unit (EPSAU) (PESR)	<p>This Unit is responsible for monitoring the implementation of EBRD's environmental safeguard policies in all stages and process of the project. Specifically, this unit will be responsible for:</p> <p>i) reviewing the subproject: ESAR, ESMMP prepared by consultants to ensure quality of the documents; ii) providing relevant inputs to the consultant selection process; iii) reviewing reports submitted by the Contractor, Supervision, Monitoring contractor; iv) conducting periodic site checks; v) advising PESR management on solutions to environmental issues of the project; and vi) preparing environmental performance section on the progress and review reports to be submitted to the EBRD.</p>
Contractor	<p>Based on the approved ESMMP and the Elaborate for environmental protection, the Contractor will be responsible for establishing a site-specific ESMMP (or CESMMP) for the project site, submit the plan to Supervision Contractor (Engineer) and PESR for</p>

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Company/Unit	Responsibilities
	<p>review and approval before commencement of rehabilitation works. In addition, it is required that the Contractor get all permissions for construction (traffic control and diversion, excavation, labour safety, etc. before civil works) following current national regulations.</p> <p>The Contractor shall be required to appoint a competent individual as the contractor 's on-site <i>Health, Safety and Environmental Officer (HSEO)</i> who will be responsible for monitoring the Contractor's compliance with the ESMMP requirements and the environmental specifications.</p>
Supervision Engineer	<p>The Supervision Engineer will be responsible for supervising and monitoring all project activities and for ensuring that Contractor comply with the requirements of the contracts and the ESMMP. The Supervision Engineer shall engage sufficient number of qualified staff (e.g. Environmental Engineer) with adequate knowledge on environmental protection and construction project management to perform the required duties and to supervise the Contractor's performance.</p>
Ministry of Environment and Physical Planning (MoEPP)	<p>MoEPP is responsible for issuing a decision for approval of Elaborate for Environmental Protection (equivalent to the ESAR) and monitoring of the state of implementation of all mitigation measures for environmental protection described in Elaborate for environmental protection.</p>

Annex 1 – Grievance Mechanism Form

Environmental and Social Management Plan

COMPLAINT FORM A1 / Образец за жалба -Приговор A1

Complaint No./Жалба-Приговор бр.	
Date:/Датум:	
Name and surname / Име и Презиме	
Contact info/Контакт податоци:	
Indicate the way in which a person wants to be contacted-mail, phone... / Наведете на кој начин странката сака да биде контактирана – по пошта, телефон	
Confidential/Доверливо Yes-Да /No-Не	
The Complaint is delivered (underline the way of delivering the complaint): in person, by phone, during the local communitys meeting, by e-mail, other way (describe) Жалбата/приговорот е доставен (подвлечете го начинот на доставување на жалбата): лично, по телефон, на состанок на локалната заедница, електронска пошта, на друг начин (опишете)	
Complaints Description (details) / Опис на жалбата (детали за истата)	
What is considered to be the solution to this problem? / Што сметате дека е решение за овој проблем?	
REPLY / ОДГОВОР:	
Date / Датум:	
Undertaken activities / Превземени активности:	
Name and Surname of the office Clerk/ Име и Презиме на службеното лице:	
Forwarded to the Client / Проследено до Инвеститорот:	
Date / Датум:	
Letter No./Бр. на писмото:	
Forwarded to the Contractor / Проследено до Изведувачот:	
Date / Датум:	
Letter No./ Бр. на писмото:	
Date/Датум:	Signature/Потпис:

Annex 2 Environmental noise level and dust concentration (PM10) in air



ОПУСПРОЕКТ

ЕКОЛОГИЈА | БЕЗБЕДНОСТ ПРИ РАБОТА | МОНИТОРИНГ

TEST REPORT

N° 0802/711

27.07.2020



Test Description:

ENVIRONMENTAL NOISE LEVEL AND DUST CONCENTRATION (PM10) IN AIR

Test user:

TRADE UNION ORGANIZATION OSO PRO DOO "SPACE" KUMANOVO

User address:

Mosha Pijade 2, Kumanovo

Location of measurements:

- Highway A1, section: Miladinovci – Petrovec
- Highway A2, section: Hipodrom – Miladinovci
- Highway A4, section: Petrovec - Hipodrom

Date of measurements: 22.07.2020 и 23.07.2020

Measured by: Ivan Vulgarakis, environmentalist

Approved by Head of laboratory: M.Sc. Kire Stanojoski

RI-OPUSPROEKT LLC



Manager

Ivan Vulgarakis

2020, Skopje



I. General information

<p align="center">Location of measurement points:</p>	<p>The measuring points were located in the north part of the Republic of N. Macedonia, east of the city of Skopje.</p> <ul style="list-style-type: none"> - 1MM (41°59'10.10"N, 21°32'12.43"E) - 2MM (41°57'57.99"N, 21°34'31.37"E) - 3MM (41°56'45.43"N, 21°36'32.63"E) - 4MM (41°58'47.08"N, 21°39'9.23"E) - 5MM (41°59'53.94"N, 21°35'9.59"E) <p>The microlocation of the road with a display of the noise and dust measuring points is given on the satellite image in Attachment N6.</p>		
<p align="center">Source of sound and dust:</p>	<p>Light and heavy duty motor vehicles</p>		
<p align="center">Measuring Instruments:</p>	<p>Noise measurement instrument: Cirrus CR:831 C Sound Level Meter Uncertainty of measurement (±1,58 dB)</p> <p>Air quality detector: HT-9600 air quality detector</p>		
<p align="center">Regulations for performing measurements:</p>	<p>Rulebook on Environmental Noise Limits (Official Gazette no.147/08) and</p> <p>Rulebook on the locations of measuring stations and measuring points (Official Gazette no. 120/08)</p> <p>MKC ISO 1996-2:2018, Determination of ambient noise levels</p> <p>Decree on limit and target values for levels and type of pollutants in the ambient air, alert and information thresholds; deadlines for achieving limit and target values for specific substances; margins of tolerance for limit value and target value and long term objectives for specific pollutants (Official Gazette No. 50/05)</p>		
<p align="center">Meteorological conditions</p>	<p>Date</p>	<p>22.07.2020</p>	<p>23.07.2020</p>
	<p>Wind [km/h]</p>	<p>8</p>	<p>2</p>
	<p>Temperature [°C]</p>	<p>30</p>	<p>26</p>
	<p>At. pressure[hPa]</p>	<p>1016</p>	<p>1015</p>
	<p>(Relative humidity)[%]</p>	<p>30</p>	<p>55</p>
	<p>Rain</p>	<p>/</p>	<p>/</p>
	<p>Snow</p>	<p>/</p>	<p>/</p>



II. Working methodology and measuring instruments:

Methodology for determining the environmental noise level is performed by using the noise measurement instrument **Cirrus CR:831 C Sound Level Meter**, in accordance with the MKS ISO 1996-2: 2018 standard for the determination of ambient noise levels.

The ambient dust concentration is detriment using methodology with optical measurement sensor. Measurements and analyzes were performed using the **HT-9600 air quality detector**.



III. RESULTS:

The results of the measurement are given in the following table:

Table No. 1

Object:		<ul style="list-style-type: none"> - Highway A1, section: Miladinovci – Petrovec - Highway A2, section: Hipodrom – Miladinovci - Highway A4, section: Petrovec - Hipodrom 						
Number of measurement points:		5						
Date of measurement:		22.07.2020 and 23.07.2020						
Testing parameters:		Environmental noise level and dust concentration PM10 in ambient air						
		RESULTS					DUST PM ₁₀ [*] [µg/m ³]	
Measurement point:	Coordinates	Total number of vehicles / hour	Average speed of vehicle (km / h)	Measured [Leq dBA]	NOISE [Leq dBA]		Measured	Maximum allowed value
					Day	Night		
1. Trubarevo	41°59'10.10"N 21°32'12.43"E	858	120	78,2 (±2,41)	60	55	15	50
2. Jurumleri	41°57'57.99"N 21°34'31.37"E	810	110	78,7 (±2,44)	60	55	12	50
3. Petrovec	41°56'45.43"N 21°36'32.63"E	576	110	76,6 (±2,60)	60	55	7	50
4. Miladinovci	41°58'47.08"N 21°39'9.23"E	162	110	70,9 (±3,50)	60	55	9	50
5. Ilinden	41°59'53.94"N 21°35'9.59"E	792	120	76,5 (±2,45)	60	55	26	50

* Not in the scope of accreditation

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IV. Statement of compliance:

Based on the results obtained from the measurements, we conclude the following:

- The environmental noise levels exceeds the maximum permitted values according to the Rulebook on Environmental Noise Level Limits (Official Gazette no. 147/08),
- The dust concentration (PM10) in air is in the scope of the maximum permissible values, in accordance with the Decree on limit and target values for levels and type of pollutants in the ambient air, alert and information thresholds; deadlines for achieving limit and target values for specific substances; margins of tolerance for limit value and target value and long term objectives for specific pollutants (Official Gazette No. 50/05).

Insinuation: The results shown in the report apply only to the conditions found during the measurements.



Attachment 1: Detailed overview of noise level measurement - Measuring point: No.1

Measurement Report

Measurement Details

Date and Time: 22.7.2020 14:13
Sound Level Meter: Cirrus Research plc

Run Duration: 00:10:00 hh:mm:ss
Range: 40-110 dB
Overload: no

Data

Leq	78,2 dBA	L1,0	87,5 dBA
Lepd	61,4 dBA	L10,0	82,7 dBA
LAE	105,7 dBA	L50,0	72,9 dBA
LAFmax	91,7 dBA	L90,0	61,1 dBA
Peak	108,1 dBC	L95,0	58,3 dBA
		Lmin	43,1 dBA

Attachment 2: Detailed overview of noise level measurement - Measuring point: No.2

Measurement Report

Measurement Details

Date and Time: 22.7.2020 14:28
Sound Level Meter: Cirrus Research plc

Run Duration: 00:10:04 hh:mm:ss
Range: 40-110 dB
Overload: no

Data

Leq	78,7 dBA	L1,0	88,0 dBA
Lepd	61,9 dBA	L10,0	83,2 dBA
LAE	106,3 dBA	L50,0	72,7 dBA
LAFmax	92,4 dBA	L90,0	62,8 dBA
Peak	112,0 dBC	L95,0	59,8 dBA
		Lmin	46,7 dBA



Attachment 3: Detailed overview of noise level measurement - Measuring point: No.3

Measurement Report

Measurement Details

Date and Time: 22.7.2020 14:43
Sound Level Meter: Cirrus Research plc

Run Duration: 00:10:06 hh:mm:ss
Range: 40-110 dB
Overload: no

Data

Leq	76,6 dBA	L1,0	42,3 dBA
Lepd	59,8 dBA	L10,0	41,7 dBA
LAE	104,2 dBA	L50,0	40,3 dBA
LAFmax	94,5 dBA	L90,0	38,9 dBA
Peak	111,0 dBC	L95,0	38,7 dBA
		Lmin	38,4 dBA

Attachment 4: Detailed overview of noise level measurement - Measuring point: No.4

Measurement Report

Measurement Details

Date and Time: 23.7.2020 10:17
Sound Level Meter: Cirrus Research plc

Run Duration: 00:10:03 hh:mm:ss
Range: 40-110 dB
Overload: no

Data

Leq	70,9 dBA	L1,0	83,1 dBA
Lepd	54,1 dBA	L10,0	68,1 dBA
LAE	98,5 dBA	L50,0	50,9 dBA
LAFmax	96,0 dBA	L90,0	39,6 dBA
Peak	109,7 dBC	L95,0	37,9 dBA
		Lmin	35,2 dBA



Attachment 5: Detailed overview of noise level measurement - Measuring point: No.5

Measurement Report

Measurement Details

Date and Time: 23.7.2020 10:39
Sound Level Meter: Cirrus Research plc

Run Duration: 00:10:00 hh:mm:ss
Range: 40-110 dB
Overload: no

Data

Leq	76,5 dBA	L1,0	63,8 dBA
Lepd	59,7 dBA	L10,0	63,4 dBA
LAE	104,1 dBA	L50,0	60,0 dBA
LAFmax	93,8 dBA	L90,0	47,0 dBA
Peak	107,7 dBC	L95,0	45,4 dBA
		Lmin	38,7 dBA



Ob 7.4/5
Edition 1

Лабораторија за тестирање

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Attachment 6: Micro-location of the measuring points



Environmental and Social Management Plan
