



პროფესიული განათლება  
ვაკონიკების განვითარებისთვის  
INDUSTRY-LED SKILLS AND  
WORKFORCE DEVELOPMENT



---

## ***AND ENVIRONMENTAL & SOCIAL MANAGEMENT PLAN (ESMP)***

**Title of Applicant Project: Development of vocational dual method education in railway sector & improvement of the railway labour market**

**Applicant Name:** Railway Transport College

**1. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN****1.1. Environmental and Social Management Plan**

Project Activity	Description of Potential Impact	Planned Mitigation Measures	Party Responsible for Mitigation	Party Responsible for Supervision	Cost of Mitigation Measure	Date of implementation
<b>DEMOLITION WORKS</b>						
Demolition of walls s; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Impact on air quality	<ul style="list-style-type: none"> <li>Ensuring proper technical state of maintenance of construction equipment and vehicles;</li> <li>Implementation of dust reduction measures in dry weather ;</li> <li>Undertaking daily on-site/offsite inspection to monitor dust;</li> <li>Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>Erecting solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.</li> <li>Enclosing site or specific operations where there is a high potential for dust production and the site is active for an extensive period;</li> <li>Maximum preservation of vegetation on the site (that can act as natural barrier);</li> <li>Equipping employees with personal protection equipment (respirators);</li> <li>Briefing on the personnel in best practice;</li> <li>Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Demolition of walls s; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Waste	<ul style="list-style-type: none"> <li>Regular timely removal of waste from the site (to construction waste landfill in Gldani). Frequency of removal will be adapted to generation rate;</li> <li>Separation of reusable/recyclable material;</li> <li>Inert waste will be removed to the Gldani landfill.</li> <li>Personnel will be trained in good practice.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3

Demolition of walls; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Fitting vehicles and mechanical plant used for the purpose of the works with effective exhaust silencers;</li> <li>• Preservation of vegetation acting as a natural noise barrier;</li> <li>• Installation barriers (e.g. acoustic sheds or partitions) to reduce noise whether practicable;</li> <li>• Implementation of noise generating works in daytime. Strict keeping to the works schedule;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Fitting compressors with properly lined and sealed acoustic covers which should be kept closed whenever in use;</li> <li>• Fitting pneumatic percussive tools with mufflers or silencers of the type recommended by the manufacturers;</li> <li>• Giving preference to equipment which breaks concrete, brickwork or masonry by bending or bursting or “nibbling” to percussive tools where practicable;</li> <li>• If required, where practicable, rotary drills/bursters activated by hydraulic or electrical power will be used for excavating hard or extrusive material;</li> <li>• If required, equipment powered by electricity will be used in preference to equipment powered by internal combustion engine or locally generated electricity;</li> <li>• If used and wherever practicable noise emitting machinery which is required to run continuously shall be housed in a suitable acoustically lined enclosure;</li> <li>• Care should be taken to reduce noise when loading or unloading vehicles;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs);</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Demolition of walls and partitions; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Impact on soil	<ul style="list-style-type: none"> <li>• Strict protection of the working site borders, to avoid possible contamination of the “neighbouring” areas, fertile soil layer damage and soil ramming;</li> <li>• Proper technical state of maintenance of machinery, in order to prevent soil pollution with fuel/oil spill;</li> <li>• Proper waste management and housekeeping;</li> <li>• Proper management of wastewater (car wash, runoff) - arrangement wheel wash site;</li> <li>• In case of fuel/oil spill, localization of the spilled material and immediate cleaning of the contaminated area;</li> <li>• Equipping the site with spill response kits (adsorbents, shovels, etc.). [In case of large spill, which is not likely to be the case, contaminated soil shall be stripped and removed by the licensed contractor for remediation];</li> <li>• Training of the staff on environmental and safety issues, before starting the work;</li> <li>• Removal of temporary facilities, waste and surplus material and recultivation of the sites after completion of the construction works;</li> <li>• Amelioration/recultivation of disturbed sites</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3

Demolition of walls and partitions; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Impact on vegetation	<ul style="list-style-type: none"> <li>Fencing of the trees to avoid indeliberate mechanical damage during demolition;</li> <li>Prohibition of placing inert waste and materials within the critical root zone;</li> <li>Implementation of dust suppression measures and measured identified for soil and air protection (see relevant sections of the document);</li> <li>Briefing personnel about the need for protecting of vegetation before commencement of works.</li> <li>Removal of waste/surplus material and temporary facilities (if any), cleaning up and recultivation of disturbed sites.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Demolition of walls and partitions; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Impact on fauna	<ul style="list-style-type: none"> <li>Preservation of vegetation;</li> <li>Implementation of measures in order to reduce dust during execution of the works;</li> <li>Implementation of measure for noise and vibration reduction during demolition/construction;</li> <li>Pits, trenches and other must be protected to prevent fall of animals. Long boards or logs must be launched into trenches and pits, so that small animals could get out. Trenches must be inspected before filling them with soil;</li> <li>Implementation of soil and vegetation impact mitigation measures listed in respective sections of the document;</li> <li>Instruction of personnel before commencement of the works.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Demolition of walls and partitions; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	Visual	<ul style="list-style-type: none"> <li>preservation of vegetation on the site;</li> <li>regular cleaning of the area;</li> <li>proper waste management (timely and regular removal of waste);</li> <li>reducing amount of material kept on site to reasonable optimum;</li> <li>management of storage;</li> <li>recultivation of all disturbed sites as soon as feasible.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Demolition of walls and partitions; removal of parquet, wooden floors, concrete cover, tiles, plastering, and r/c roofing slabs	OHS risks	<ul style="list-style-type: none"> <li>Isolation or disconnecting gas, electricity, water services before demolition work. If this is not possible, pipes and cables must be labelled clearly, to make sure they are not disturbed;</li> <li>Establishing exclusion zones and hard-hat areas, clearly marked and with barriers or hoardings if necessary;</li> <li>Provision of personal protection equipment (PPE) and safety harnesses;</li> <li>Installation of warning signs- caution, restriction and directive sign-boards</li> <li>Restriction of unauthorised access to the work site;</li> <li>Availability of first aid kit - standard medical boxes must be located on the places especially dangerous for health on construction site;</li> <li>Availability of first fire fighting equipment, fire plan and escape routes;</li> <li>Briefing staff in OHS issues;</li> <li>Presence of H&amp;S officer on the site;</li> <li>Instruction of personnel on health and safety rules;</li> <li>Strict keeping to working hours;</li> <li>Registration of accidents, incidents and near misses. Investigation of incidents in order to avoid them in the future.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3

Loading and transportation of waste	Impact on air quality	<ul style="list-style-type: none"> <li>• Avoiding loading/dumping from high</li> <li>• Ensuring proper technical state of maintenance of construction equipment and vehicles;</li> <li>• Implementation of dust reduction measures in dry weather (eg, construction sites and roads watering, protection of rules of bulk construction material storage and others);</li> <li>• Providing a wheel-washing facility and ensure that it is used by all vehicles before leaving all sites;</li> <li>• Covering all loose material with tarpaulins when transported off-site on trucks;</li> <li>• Implementation of precautionary measures in order to avoid excessive dust emission during land works and materials loading-unloading (eg, restriction loading-unloading material dropping from a big height);</li> <li>• Keeping to optimum speed of the vehicle movement;</li> <li>• Undertaking daily on-site/offsite inspection to monitor dust;</li> <li>• Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles.</li> <li>• Maximum preservation of vegetation on the site (that can act as natural barrier);</li> <li>• Equipping employees with personal protection equipment (respirators);</li> <li>• Briefing on the personnel in best practice;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Loading and transportation of waste	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Fitting vehicles and mechanical plant used for the purpose of the works with effective exhaust silencers;</li> <li>• Preservation of vegetation acting as a natural noise barrier;</li> <li>• Installation barriers (e.g. acoustic sheds or partitions) to reduce noise whether practicable;</li> <li>• Implementation of noise generating works in daytime. Strict keeping to the works schedule;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Fitting compressors with properly lined and sealed acoustic covers which should be kept closed whenever in use;</li> <li>• Fitting pneumatic percussive tools with mufflers or silencers of the type recommended by the manufacturers;</li> <li>• Giving preference to equipment which breaks concrete, brickwork or masonry by bending or bursting or “nibbling” to percussive tools where practicable;</li> <li>• If required, where practicable, rotary drills/bursters activated by hydraulic or electrical power will be used for excavating hard or extrusive material;</li> <li>• If required, equipment powered by electricity will be used in preference to equipment powered by internal combustion engine or locally generated electricity;</li> <li>• If used and wherever practicable noise emitting machinery which is required to run continuously shall be housed in a suitable acoustically lined enclosure;</li> <li>• Care should be taken to reduce noise when loading or unloading vehicles;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs);</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3

Loading and transportation of waste	Impact on vegetation	<ul style="list-style-type: none"> <li>• Strict observance of traffic routes (prohibition of shortcuts) and border or camps/construction areas in order to minimize risk of excessive damaging of vegetation cover;</li> <li>• Fencing of the trees to avoid indeliberate mechanical damage during demolition;</li> <li>• Prohibition of placing inert waste and materials within the critical root zone;</li> <li>• Implementation of dust suppression measures and measured identified for soil and air protection (see relevant sections of the document);</li> <li>• Briefing personnel about the need for protecting of vegetation before commencement of works.</li> <li>• Removal of waste/surplus material and temporary facilities (if any), cleaning up and recultivation of disturbed sites.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Loading and transportation of waste	Impact on fauna	<ul style="list-style-type: none"> <li>• Preservation of vegetation;</li> <li>• Selection of optimal traffic speed to reduce direct impact possibility (accident);</li> <li>• Implementation of measures in order to reduce dust during execution of the works;</li> <li>• Implementation of measure for noise and vibration reduction during demolition/construction;</li> <li>• Pits, trenches and other must be protected to prevent fall of animals. Long boards or logs must be launched into trenches and pits, so that small animals could get out. Trenches must be inspected before filling them with soil;</li> <li>• Implementation of soil and vegetation impact mitigation measures listed in respective sections of the document;</li> <li>• Instruction of personnel before commencement of the works.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Onsite and offsite traffic	Impact on air quality	<ul style="list-style-type: none"> <li>• Ensuring proper technical state of maintenance of construction equipment and vehicles;</li> <li>• Implementation of dust reduction measures in dry weather (eg, construction sites and roads watering, protection of rules of bulk construction material storage and others);</li> <li>• Providing a wheel-washing facility and ensure that it is used by all vehicles before leaving all sites;</li> <li>• Covering all loose material with tarpaulins when transported off-site on trucks;</li> <li>• Keeping to optimum speed of the vehicle movement;</li> <li>• Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles.</li> <li>• Enclosing site or specific operations where there is a high potential for dust production and the site is active for an extensive period;</li> <li>• Briefing of the personnel in best practice;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3

Onsite and offsite traffic	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Preservation of vegetation acting as a natural noise barrier;</li> <li>• Installation barriers (e.g. acoustic sheds or partitions) to reduce noise whether practicable;</li> <li>• Strict keeping to the works schedule;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs);</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Onsite and offsite traffic	Impact on vegetation	<ul style="list-style-type: none"> <li>• Strict observance of traffic routes (prohibition of shortcuts) and border or camps/construction areas in order to minimize risk of excessive damaging of vegetation cover;</li> <li>• Fencing of the trees to avoid indeliberate mechanical damage during demolition;</li> <li>• Implementation of dust suppression measures and measured identified for soil and air protection (see relevant sections of the document);</li> <li>• Briefing personnel about the need for protecting of vegetation before commencement of works.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Onsite and offsite traffic	Impact on fauna	<ul style="list-style-type: none"> <li>• Preservation of vegetation;</li> <li>• Selection of optimal traffic speed to reduce direct impact possibility (accident);</li> <li>• Implementation of measures in order to reduce dust;</li> <li>• Instruction of personnel before commencement of the works.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Onsite and offsite traffic	Safety	<ul style="list-style-type: none"> <li>• Installation of warning signs- caution, restriction and directive sign-boards</li> <li>• Restriction of unauthorised access to the work site;</li> <li>• Observance of traffic speed in residential areas;</li> <li>• Putting in place effective traffic management systems to avoid putting workers at risk of being hit by vehicles turning, slewing, or reversing.</li> <li>• Availability of first aid kit - standard medical boxes must be located on the places especially dangerous for health on construction site;</li> <li>• Availability of first fire fighting equipment, fire plan and escape routes;</li> <li>• Briefing staff in OHS issues;</li> <li>• Presence of H&amp;S officer on the site;</li> <li>• Instruction of personnel on health and safety rules;</li> <li>• Strict keeping to working hours;</li> <li>• Registration of accidents, incidents and near misses. Investigation of incidents in order to avoid them in the future.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
<b>CONSTRUCTION WORKS</b>						

Earthworks	Impact on air quality	<ul style="list-style-type: none"> <li>• Implementation of dust reduction measures in dry weather (eg, construction sites and roads watering, protection of rules of bulk construction material storage and others);</li> <li>• Keeping to optimum speed of the vehicle movement;</li> <li>• Undertaking daily on-site/offsite inspection to monitor dust;</li> <li>• Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>• Erecting solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.</li> <li>• Enclosing site or specific operations where there is a high potential for dust production and the site is active for an extensive period;</li> <li>• Maximum preservation of vegetation on the site (that can act as natural barrier);</li> <li>• Equipping employees with personal protection equipment (respirators);</li> <li>• Briefing on the personnel in best practice;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Earthworks	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Preservation of vegetation acting as a natural noise barrier;</li> <li>• Installation barriers (e.g. acoustic sheds or partitions) to reduce noise where practicable;</li> <li>• Implementation of noise generating works in daytime. Strict keeping to the works schedule;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs);</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Earthworks	Impact on fauna	<ul style="list-style-type: none"> <li>• Preservation of vegetation;</li> <li>• Selection of optimal traffic speed to reduce direct impact possibility (accident);</li> <li>• Implementation of measures in order to reduce dust during execution of the works;</li> <li>• Implementation of measure for noise and vibration reduction during demolition/construction;</li> <li>• Pits, trenches and other must be protected to prevent fall of animals. Long boards or logs must be launched into trenches and pits, so that small animals could get out. Trenches must be inspected before filling them with soil;</li> <li>• Implementation of soil impact mitigation measures ;</li> <li>• Briefing personnel before commencement of the works in good practice.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3



Earthworks	Impact on vegetation	<ul style="list-style-type: none"> <li>Fencing of the trees to avoid indeliberate mechanical damage during demolition;</li> <li>Implementation of dust suppression measures and measured identified for soil and air protection (see relevant sections of the document);</li> <li>Briefing personnel about the need for protecting of vegetation before commencement of works.</li> <li>Removal of waste/surplus material and temporary facilities (if any), cleaning up and recultivation of disturbed sites.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Earthworks	Impact on soil	<ul style="list-style-type: none"> <li>Minimized ground clearance;</li> <li>Removal of the fertile soil layer (topsoil) and temporary disposal on the pre-selected areas;</li> <li>Separate storage of subsoil and topsoil to preserve the quality of the fertile soil layer;</li> <li>Maximum preservation of vegetation;</li> <li>Strict protection of the working site borders, to avoid possible contamination of the “neighbouring” areas, fertile soil layer damage and soil ramming;</li> <li>Proper technical state of maintenance of machinery, in order to prevent soil pollution with fuel/oil spill;</li> <li>Proper waste management and housekeeping;</li> <li>Proper management of wastewater (car wash, runoff) ;</li> <li>In case of fuel/oil spill, localization of the spilled material and immediate cleaning of the contaminated area;</li> <li>Equipping the site with spill response kits (adsorbents, shovels, etc.). [In case of large spill, which is not likely to be the case, contaminated soil shall be stripped and removed by the licensed contractor for remediation];</li> <li>Training of the staff on environmental and safety issues, before starting the work;</li> <li>Removal of temporary facilities, waste and surplus material and recultivation of the sites after completion of the construction works. Amelioration/recultivation of disturbed sites</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3
Earthworks	Visual	<ul style="list-style-type: none"> <li>Preservation of vegetation on the site;</li> <li>Regular cleaning of the area;</li> <li>Proper waste management (timely and regular removal of waste);</li> <li>Reducing amount of material kept on site to reasonable optimum;</li> <li>Management of storage;</li> <li>Recultivation of all disturbed sites as soon as feasible.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 2 to Quarter 3

Onsite and offsite traffic	Impact on air quality	<ul style="list-style-type: none"> <li>• Ensuring proper technical state of maintenance of construction equipment and vehicles;</li> <li>• Implementation of dust reduction measures in dry weather (eg, construction sites and roads watering, protection of rules of bulk construction material storage and others);</li> <li>• Providing a wheel-washing facility and ensure that it is used by all vehicles before leaving all sites;</li> <li>• Covering all loose material with tarpaulins when transported off-site on trucks;</li> <li>• Keeping to optimum speed of the vehicle movement;</li> <li>• Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles.</li> <li>• Enclosing site or specific operations where there is a high potential for dust production and the site is active for an extensive period;</li> <li>• Briefing of the personnel in best practice;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Onsite and offsite traffic	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Preservation of vegetation acting as a natural noise barrier;</li> <li>• Installation barriers (e.g. acoustic sheds or partitions) to reduce noise where practicable;</li> <li>• Strict keeping to the works schedule;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs);</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Onsite and offsite traffic	Impact on vegetation	<ul style="list-style-type: none"> <li>• Strict observance of traffic routes (prohibition of shortcuts) and border or camps/construction areas in order to minimize risk of excessive damaging of vegetation cover;</li> <li>• Fencing of the trees to avoid indeliberate mechanical damage during demolition;</li> <li>• Implementation of dust suppression measures and measures identified for soil and air protection (see relevant sections of the document);</li> <li>• Briefing personnel about the need for protecting of vegetation before commencement of works.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Onsite and offsite traffic	Impact on fauna	<ul style="list-style-type: none"> <li>• Preservation of vegetation;</li> <li>• Selection of optimal traffic speed to reduce direct impact possibility (accident);</li> <li>• Implementation of measures in order to reduce dust;</li> <li>• Instruction of personnel before commencement of the works.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3

Onsite and offsite traffic	Safety	<ul style="list-style-type: none"> <li>• Installation of warning signs- caution, restriction and directive sign-boards</li> <li>• Restriction of unauthorised access to the work site;</li> <li>• Observance of traffic speed in residential areas;</li> <li>• Putting in place effective traffic management systems to avoid putting workers at risk of being hit by vehicles turning, slewing, or reversing.</li> <li>• Availability of first aid kit - standard medical boxes must be located on the places especially dangerous for health on construction site;</li> <li>• Availability of first fire fighting equipment, fire plan and escape routes;</li> <li>• Briefing staff in OHS issues;</li> <li>• Presence of H&amp;S officer on the site;</li> <li>• Instruction of personnel on health and safety rules;</li> <li>• Strict keeping to working hours;</li> <li>• Registration of accidents, incidents and near misses. Investigation of incidents in order to avoid them in the future.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Unloading	Impact on air quality	<ul style="list-style-type: none"> <li>• Restriction loading-unloading material dropping from a big height;</li> <li>• Equipping employees with personal protection equipment (respirators);</li> <li>• Briefing on the personnel in best practice</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Material storage	Impact on air quality	<ul style="list-style-type: none"> <li>• Implementation of precautionary measures in order to avoid excessive dust emission;</li> <li>• Undertaking daily on-site/offsite inspection to monitor dust;</li> <li>• Avoiding site runoff of water or mud;</li> <li>• Ensuring sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place;</li> <li>• Ensuring fine powder materials are stored so to prevent escape of material and overfilling during delivery;</li> <li>• For smaller supplies of fine power materials ensuring bags are sealed after use and stored appropriately to prevent dust;</li> <li>• Maximum preservation of vegetation on the site (that can act as natural barrier);</li> <li>• Briefing on the personnel in best practice</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Material storage	Soil	<ul style="list-style-type: none"> <li>• Strict protection of the working site borders, to avoid possible contamination of the "neighbouring" areas, fertile soil layer damage and soil ramming;</li> <li>• Diversion of water from the stockpile area;</li> <li>• Training of the staff on environmental and safety issues, before starting the work;</li> <li>• Removal of temporary facilities, waste and surplus material and recultivation of the sites after completion of the construction works;</li> <li>• Amelioration/recultivation of disturbed sites</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3

Material storage	Impact on vegetation	<ul style="list-style-type: none"> <li>• Strict observance of storage areas in order to minimize risk of excessive damaging of vegetation cover;</li> <li>• Prohibition of placing inert waste and materials within the critical root zone;</li> <li>• Implementation of dust suppression measures and measured identified for soil and air protection (see relevant sections of the document);</li> <li>• Briefing personnel about the need for protecting of vegetation before commencement of works.</li> <li>• Removal of waste/surplus material and temporary facilities (if any), cleaning up and recultivation of disturbed sites.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Material storage	Visual	<ul style="list-style-type: none"> <li>• Preservation of vegetation on the site;</li> <li>• Planning material importation to reduce accumulation of large amount on the site</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Material storage	Safety	<ul style="list-style-type: none"> <li>• Selection of material storage site so to avoid blockage of traffic (pedestrian and vehicles)</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Construction works, including arrangement of foundations and fencing	Impact on air quality	<ul style="list-style-type: none"> <li>• Ensuring proper technical state of maintenance of construction equipment and vehicles;</li> <li>• Implementation of dust reduction measures in dry weather (eg, construction sites and roads watering, protection of rules of bulk construction material storage and others);</li> <li>• Undertaking daily on-site/offsite inspection to monitor dust;</li> <li>• Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles.</li> <li>• Erecting solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.</li> <li>• Enclosing site or specific operations where there is a high potential for dust production and the site is active for an extensive period;</li> <li>• Keeping site fencing, barriers and scaffolding clean using wet methods;</li> <li>• Maximum preservation of vegetation on the site (that can act as natural barrier);</li> <li>• Briefing on the personnel in best practice;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3

Construction works, including arrangement of foundations and fencing	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Preservation of vegetation acting as a natural noise barrier;</li> <li>• Installation barriers (e.g. acoustic sheds or partitions) to reduce noise whether practicable;</li> <li>• Implementation of noise generating works in daytime. Strict keeping to the works schedule;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs);</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Construction works, including arrangement of foundations and fencing	Waste	<ul style="list-style-type: none"> <li>• Timely removal of waste from the project area. Frequency of removal will be adapted to generation rate;</li> <li>• Littering and fly tipping will be prohibited;</li> <li>• Personnel will be trained in good waste management practice.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Construction works, including arrangement of foundations and fencing	Safety	<ul style="list-style-type: none"> <li>• Establishing exclusion zones and hard-hat areas, clearly marked and with barriers or hoardings if necessary;</li> <li>• Provision of personal protection equipment (PPE) and safety harnesses;</li> <li>• Installation of warning signs- caution, restriction and directive sign-boards</li> <li>• Restriction of unauthorised access to the work site;</li> <li>• Availability of first aid kit - standard medical boxes must be located on the places especially dangerous for health on construction site;</li> <li>• Availability of first fire fighting equipment, fire plan and escape routes;</li> <li>• Briefing staff in OHS issues;</li> <li>• Presence of H&amp;S officer on the site;</li> <li>• Instruction of personnel on health and safety rules;</li> <li>• Strict keeping to working hours;</li> <li>• Registration of accidents, incidents and near misses. Investigation of incidents in order to avoid them in the future;</li> <li>• Equipping employees with personal protection equipment (respirators)</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
<b>AMELIORATION OF THE SITE</b>						

Clean up and seeding/planting	Impact on air quality	<ul style="list-style-type: none"> <li>• Ensuring proper technical state of maintenance of construction equipment and vehicles;</li> <li>• Implementation of dust reduction measures in dry weather (eg, watering);</li> <li>• Covering all loose waste/material with tarpaulins when transported off-site on trucks;</li> <li>• Implementation of precautionary measures in order to avoid excessive dust emission during loading-unloading (eg, restriction loading-unloading material dropping from a big height);</li> <li>• Keeping to optimum speed of the vehicle movement;</li> <li>• Undertaking daily on-site/offsite inspection to monitor dust;</li> <li>• Increasing the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles.</li> <li>• Avoiding bonfires and burning of waste materials;</li> <li>• Equipping employees with personal protection equipment (respirators);</li> <li>• Briefing on the personnel in best practice;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Clean up and seeding/planting	Noise	<ul style="list-style-type: none"> <li>• Provision of proper technical maintenance of machinery/equipment. Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking etc. is kept to a minimum;</li> <li>• Ensuring all vehicles switch off engines when stationary – no idling vehicles. Machines in intermittent use should be shut down or throttled down to a minimum when not in use;</li> <li>• Care should be taken to reduce noise when loading or unloading vehicles;</li> <li>• Training/briefing of the personnel in best practice;</li> <li>• Equipping employees with personal protection equipment (earphones/earmuffs) whether appropriate;</li> <li>• Recording/registration of complaints (if any) and appropriate action. Identification of cause(s), taking appropriate measures to reduce emissions in a timely manner, and recording the measures taken.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3

Clean up and seeding/planting	Waste	<ul style="list-style-type: none"> <li>Collection and removal of waste from the site</li> <li>Separate disposal of recyclables (if any)</li> <li>Briefing personnel in good practice.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
Clean up and seeding/planting	Visual	<ul style="list-style-type: none"> <li>Timely removal of waste from the area</li> <li>Recultivation of all disturbed sites.</li> </ul>	Contractor	RTC	Costs are envisaged in the project.	From Quarter 1 to Quarter 3
<b>OPERATION</b>						
Operation of RTC	Impact on air quality	<ul style="list-style-type: none"> <li>Keeping area clean;</li> <li>Watering of potentially dust generating surfaces in dry weather;</li> <li>Maintenance of green barriers.</li> </ul>	RTC	RTC	No extra costs required	From Quarter 1 to Quarter 3
Operation of RTC	Waste	<ul style="list-style-type: none"> <li>Signing agreement on disposal of garbage with Tbilisi waste management utilities operator;</li> <li>Provision of waste bins;</li> <li>Recyclables will be collected separately and handed over to recyclers.</li> </ul>	RTC	RTC	No extra costs required	From Quarter 1 to Quarter 3

**1.2. Environmental and Social Monitoring Plan**

<b>Project Activity</b>	<b>Monitoring Parameter</b>	<b>Monitoring Objective</b>	<b>Location</b>	<b>Monitoring Methods</b>	<b>Monitoring Frequency</b>	<b>Responsible Party</b>	<b>Estimated Cost</b>	<b>Date of implementation</b>
Demolition works	Dust	Reduction of impact on vegetation, local residents, labourers, fauna	Project area	Visual monitoring	Daily, during demolition works	contractor	No extra costs	From Quarter 1 to Quarter 3
Demolition works	Noise	No complaints	Project area	Instrumental measurements	In case of complaints	contractor	No extra costs	From Quarter 1 to Quarter 3
Demolition works	Status of vegetation	Reduction of impact on vegetation and fauna. Preservation of noise and dust barrier. Reduction of visual impact	Project area	Walkover, visual monitoring	Weekly, during demolition works	contractor	No extra costs	From Quarter 1 to Quarter 3
Demolition works	Technical state of maintenance of vehicles and machinery	Reduction of impact on air, soil. Noise reduction	Project area	Visual monitoring, checking records	During demolition works	contractor	No extra costs	From Quarter 1 to Quarter 3
Demolition works	Availability and use of PPE	Reduction of impact on labourers	Project area	Visual monitoring	During demolition works, daily	contractor	No extra costs	From Quarter 1 to Quarter 3
Demolition works	Compliance with operation hours	Reduction of noise impact on local residents	Project area	Visual monitoring	During demolition works, daily	contractor	No extra costs	From Quarter 1 to Quarter 3
Demolition works	Compliance with waste removal schedule	Reduction of visual impact, avoidance of blockage of the pathways, improvement of safety during operation on the site	Project area	Visual monitoring	During demolition works, according to the waste removal schedule	contractor	No extra costs	From Quarter 1 to Quarter 3
Earthworks	Dust	Reduction of impact on vegetation, local	Excavation area	Visual monitoring	Daily, during earthworks	contractor	No extra costs	From Quarter 1 to Quarter 3



		residents, fauna						
Earthworks	Compliance with operation hours	Reduction of noise impact on local residents	Excavation area	Visual monitoring	Daily, during earthworks	contractor	No extra costs	From Quarter 1 to Quarter 3
Earthworks	Status of vegetation	Preservation of efficient dust and noise barrier, Reduction of impact on fauna	Excavation area	Site walk-over, visual monitoring	During earthworks, depends on duration of works (weekly)	contractor	No extra costs	From Quarter 1 to Quarter 3
Earthworks	Small animals entrapped in pits/trenches	Reduction of impact on fauna	Excavation area	Visual monitoring	Daily, during earthworks Prior to backfill	contractor	No extra costs	From Quarter 1 to Quarter 3
Construction works	Dust	Reduction of impact on vegetation, local residents, labourers, fauna	Project area	Visual monitoring	Daily, during construction works	contractor	No extra costs	From Quarter 1 to Quarter 3
Construction works	Noise	No complaints	Project area	Instrumental measurements	In case of complaints	contractor	No extra costs	From Quarter 1 to Quarter 3
Construction works	Status of vegetation	Reduction of impact on vegetation and fauna. Preservation of noise and dust barrier. Reduction of visual impact	Project area	Visual monitoring	Weekly, construction works	contractor	No extra costs	From Quarter 1 to Quarter 3
Construction works	Technical state of maintenance of vehicles and machinery	Reduction of impact on air, soil. Noise reduction	Project area	Visual monitoring, checking records	During construction works	contractor	No extra costs	From Quarter 1 to Quarter 3
Construction works	Availability and use of PPE	Reduction of impact on labourers	Project area	Visual monitoring	During construction works, daily	contractor	No extra costs	From Quarter 1 to Quarter 3
Construction works	Compliance with operation hours	Reduction of noise impact on local residents	Project area	Visual monitoring	During construction works, daily	contractor	No extra costs	From Quarter 1 to Quarter 3

Construction works	Compliance with waste removal schedule	Reduction of visual impact, avoidance of blockage of the pathways, improvement of safety during operation on the site	Project area	Visual monitoring	During construction works, according to the waste removal schedule	contractor	No extra costs	From Quarter 1 to Quarter 3
Loading and unloading	Loading/unloading height	Reduction of dust	Project area	Visual monitoring	During loading-unloading operation	contractor	No extra costs	From Quarter 1 to Quarter 3
Storage	Status of the stored material, topsoil/subsoil	Reduction of damage caused by runoff and/or wind, reduction/avoidance material loss	Storage area within the boundaries of the project site	Visual monitoring	During demolition and construction works.	contractor	No extra costs	From Quarter 1 to Quarter 3
Onsite and offsite traffic	Keeping to working schedule	Reduction of noise impact on local residents	Project area	Visual monitoring	Throughout duration of the demolition/construction works	contractor	No extra costs	From Quarter 1 to Quarter 3
Onsite and offsite traffic	Status of technical maintenance	Reduction of impact on air, soil. Noise reduction	Project area	Visual monitoring, checking records	Throughout duration of the demolition/construction works	contractor	No extra costs	From Quarter 1 to Quarter 3
Operation	Status of the slope where traces of erosion are visible	Avoid erosion	Slope south to the building	Visual monitoring	After strong rain and snow events	contractor	No extra costs	From Quarter 1 to Quarter 3