



**Vani Archaeological Monuments Protective Covering and
Vani Archeological Site Territory Renovation**

**Sub-project Environmental and Social Screening and
Environmental Review**

**WORLD BANK FINANCED
REGIONAL DEVELOPMENT PROJECT 2**

August, 2015

Environmental Screening and Classification

Sub-project (SP) envisages rehabilitation of Vani Archeological Site infrastructure and arrangement of public services. In particular, provision of roof covering for 5 excavated monuments and rehabilitation of a bridge connecting Vani Archeological museum to archeological site is foreseen by the SP. Information banners, outdoor seats, and litter bins will be arranged on the territory as well.

In order to protect archeological area, arrangement of metal/laminated glass protective covers are foreseen for the following monuments: 1. Gate (on the area 100 m²); 2. Mosaic Temple (on the area 220 m²); 3. Round Temple (on the area 120 m²); 4. Upper Terrace Sanctuary (on the area 20 m²) and 5. The Upper Terrace Child's Grave (on the area 3 m²). The works for arrangement of protective covers include:

- Installation of the temporary wood protective covers for the archaeological monuments;
- Dismantle of existing metal protective covers and fences;
- Construction of reinforced concrete foundations;
- Installation of roof metal constructions;
- Arrangement of glass railing;
- Arrangement of roof deck with galvanized tin and metal profile (laminated glass protective cover will be arranged for Chapel and Child burial ground).

Works for rehabilitation of bridge connecting Vani Archeological Museum to archeological site includes:

- Removing of the protective grid rail of the bridge;
- Cleaning existing metal deck surface from rust with sand blasting and anti-corrosion solution;
- Painting of metal surface;
- Wrapping metal bearing structure standing at the both sides of the bridge with stretched stainless steel sheets;
- Replacing of the protective grid rail with stainless steel woven grid that will be coated with transparent and elastic plastic material.

The protective covers are intended for conservation of the archaeological monuments situated at different open air places on the territory of the Vani Archaeological Site. The existing protective metal covers are old; the tin layer cover is badly damaged and cannot be restored. The wooden parts of the constructions are rotten and fungus formation process is observed. They do not cover the entire areas of the monuments and do not guarantee their protection, the metal pillars are construction wise unstable and corroded, thus, threatening safety of people standing under them as well as the integrity of the monuments themselves.

According to the general concept of the Vani Archaeological Site renovation developed by the Georgian National Museum, works will be carried out in several phases. First stage (which will be implemented within the SP) provides for emergency conservation works for five

archaeological monuments, as well as rehabilitation of connecting bridge. Further, arrangement of an open-air educational center, a visitor's paths, protective covering for all excavated points, as well as construction of observation terraces for panoramic overview of the entire Archaeological Site is planned.

(A) IMPACT IDENTIFICATION

<p>Has the subproject a tangible impact on the environment?</p>	<p>The SP has a modest negative environmental impact and is expected to have tangible long term positive impact on the social environment.</p>
<p>What are the significant beneficial and adverse environmental effects of the subproject?</p>	<p>The SP envisages rehabilitation of the Vani Archaeological Site having a very important scientific and cultural values and improvement of the infrastructure by construction of protective covers for conservation of the archaeological monuments that are situated under open air.</p> <p>Risk of negative impacts on the structural integrity and historical value of the archeological monuments is minimal. Temporary protective wood covers will be arranged on all archaeological monuments prior starting of works in order to ensure the monuments protection from any possible damage. The temporary protective covers will covered by waterproof tent.</p> <p>New protective covers for archaeological monuments are designed with the consideration of local terrain, the archaeological specifications and their architectural spatial positions.</p> <p>All works will be conducted under the immediate supervision of an architect.</p> <p>The expected negative environmental impact is likely to be short term and typical for small to medium scale rehabilitation works: noise, dust and emissions from the operation of construction machinery; generation of construction waste.</p> <p>After SP implementation, increased tourist flows may have indirect negative environmental impacts: waste generation, vandalism, etc.</p>

<p>May the subproject have any significant impact on the local communities and other affected people?</p>	<p>The Vani Archaeological Museum Reserve is one of the most attractive tourist center of the Imereti Region. Accomplishment of the archaeological site will improve touristic attraction. The increased tourist flows will have positive social impact through improvement of employment opportunities. SP implementation will create opportunity for new jobs for local population and increase their incomes. The increased tourist flow will contribute to the wellbeing of the local population by attraction of private sector investment in tourism infrastructure (hotels, restaurants, shopping, entertainment, etc.).</p> <p>Visitor’s safety will be increased by renovation of the connecting bridge.</p> <p>No new land take is required.</p> <p>Negative impacts are short term and limited only to the restrictions for the visitors free entry to the construction sites.</p>
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(B) MITIGATION MEASURES

<p>Were there any alternatives to the sub-project design considered?</p>	<p>Five archaeological monuments have been selected which need immediate conservation works.</p> <p>Alternatives of materials and design of the protective covers have been considered and the optimal options selected suitable from function and aesthetic viewpoints. All requirements of the Vani Archaeological Expedition team members have been taken into consideration.</p>
<p>What types of mitigation measures are proposed?</p>	<p>The expected negative impacts of the construction phase can be easily mitigated by demarcation of the construction site, traffic management, good maintenance of the construction machinery, observance of the established working hours, and well organized disposal of waste to the formally agreed sites.</p> <p>In operation phase, proper management of generated solid waste and waste water should be ensured to reduce impact on the environment.</p>

<p>What lessons from the previous similar subprojects have been incorporated into the project design?</p>	<p>The SP is designed by the Georgian National Museum which already completed rapid and inevitable works for conservation of archaeological sites/monuments in Dmanisi and and Dzalisa Settlements.</p> <p>The works have been planned on the bases of the experience gained during the implementation of similar actions in Dmanisi and and Dzalisa Settlements.</p> <p>To reduce impact on the Museum-reserve area, civil works within the SP will be carried out in sequence, starting from Round Temple, then at the Chapel and the Child’s Grave on the Upper Terrace and finally at the Mosaic Temple and the Gate. The renovation works of the suspension bridge will be conducted simultaneously at the same time.</p> <p>Before starting the construction works all the monuments will be covered by the temporary wood protective cover in order to prevent damage during the construction works.</p>
<p>Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?</p>	<p>SP specific EMP will be made available for local population and will be discussed in a consultation meeting prior to the commencement of works.</p>

(C) RANKING

Based on the screening outcomes,

Subproject is classified as environmental Category A
 B
 C

Conclusion of the environmental screening:

- 1. Subproject is declined
- 2. Subproject is accepted

If accepted, and based on risk assessment, subproject preparation requires:

- 1. Completion of the Environmental Management Checklist
for Small Construction and Rehabilitation Activities
- 2. Environmental Review, including development of
Environmental Management Plan

Social Screening

Social safeguards screening information		Yes	No
1	Is the information related to the affiliation, ownership and land use status of the sub-project site available and verifiable? (The screening cannot be completed until this is available)		✓ *
2	Will the sub-project reduce people's access to their economic resources, such as land, pasture, water, public services, sites of common public use or other resources that they depend on?		✓
3	Will the sub-project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		✓
4	Will the project result in the temporary or permanent loss of crops, fruit trees and household infra-structure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc)?		✓
If answer to any above question (except question 1) is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and mitigation measures should follow this OP/BP 4.12 and the Resettlement Policy Framework			
Cultural resources safeguard screening information		Yes	No
5	Will the project require excavation near any historical, archaeological or cultural heritage site?	✓	
If answer to question 5 is "Yes", then OP/BP 4.11 Physical Cultural Resources is applicable and possible chance finds must be handled in accordance with OP/BP and relevant procedures provided in the Environmental Management Framework .			

* The Vani Archeological Museum-Reserve, established in the 1981, is a part of the Georgian National Museum. The Vani Archeological Museum-Reserve is comprised of the Vani Ancient Settlement (Vani Archeological site), the archaeological base and the Museum.

Private plots and houses owned by local residents are situated on the territory of Vani Archeological site. No new land take is required for SP implementation. All civil works will be implemented outside of residential areas.

At present land plot on which the Vani Archeological Museum-Reserve is situated is registered as state property with unspecified area 85 000 m² which is transferred to the Georgian National Museum for usage according to usufruct agreement. Georgian National Museum has started preparation of cadastral map of the area. Private plots and houses located on the territory of archaeological site will not registered with the Vani Archeological Museum-Reserve. Consequently, the area of the Vani Archeological Museum-Reserve will decline. Cadastral information will be submitted upon completion of the registration process.

Environmental Review and Environmental Management Plan

1. Introduction

1.1. Background Information

The Government of Georgia approved in June 25, 2010 (Government resolution no. 172), the State Strategy on Regional Development of Georgia for 2010-2017, prepared by the Ministry of Regional Development and Infrastructure (MRDI). The main objective of the strategy is to create a favorable environment for regional socio-economic development and improve living standards. These objectives will be attained through a balanced socio-economic development, increased competitiveness and increased socio-economic equalization among the regions.

In order to better utilize the tourism and agriculture potentials that exist in Imereti and reduce internal socio-economic disparities, the Government of Georgia approached the World Bank with the request to provide financial support to the regional development in Imereti. A Regional Development Project II (RDP II) was prepared jointly by the Government of Georgia and the World Bank, and World Bank provided a loan funding for the implementation of RDP II.

The SP for the Preservation Measures for the Vani Archaeological Site is part of the RDP II and shall be prepared, reviewed, approved, and implemented in agreement with the requirements of the Georgian legislation and the World Bank policies applicable to the RDP II.

1.2. Institutional Framework

The Municipal Development Fund of Georgia (hereinafter: the MDF) is a legal entity of public law, the objective of which is to support strengthening institutional and financial capacity of local government units, investing financial resources in local infrastructure and services and improving on sustainable basis the primary economic and social services for the local population (communities). MDF is designated as an implementing entity for the RDP and is responsible for its day-to-day management, including application of the environmental and social safeguard policies.

MDF prepares and submits to the World Bank for approval the SP Appraisal Reports (SARs), with safeguards documents attached. These may include, as case may be, an Environmental Review (ER) along with an Environmental Management Plan (EMP), an EMP prepared using the Environmental Management Checklist for Small Construction and Rehabilitation Activities, and a Resettlement Action Plan (RAP).

The Georgian National Museum is responsible for the operation and maintenance of the Vani Archaeological Site.

1.3 Legislation and Regulations

According to the law of Georgia on Permit on Environmental Impact (2008) the SP does not require preparation of EIA and obtaining of Permit on Environmental Impact.

The SP triggers to the OP/BP 4.01 Environmental Assessment and OP/BP 4.11 Physical Cultural Resources safeguard policies of the World Bank.

According to the above mentioned safeguard policies and the Environmental Management Framework adopted for the current program, the SP has been classified as B (+) category and requires preparation of Environmental Review (ER) and environmental Management Plan (EMP), in compliance with recommendations of Environmental Management Framework (EMF).

2. Subproject Description

Sub-project (SP) envisages restoration of Vani Archeological Site infrastructure and organizing public services and amenities. In particular, covering arrangement for 5 archeological areas and rehabilitation of bridge connecting Vani Archeological museum to archeological site is foreseen by the SP. Information banners, outdoor seats, and litter bins will be arranged on the territory as well.

In order to protect archeological area, arrangement of metal/laminated glass protective covers are foreseen for the following monuments: 1. Gate (on the area 100 m²); 2. Mosaic Temple (on the area 220 m²); 3. Round Temple (on the area 120 m²); 4. Upper Terrace Sanctuary (on the area 20 m²) and 5. The Upper Terrace Child's Grave (on the area 3 m²). The works for arrangement of protective covers include:

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- Replacing of the protective grid rail with stainless steel woven grid that will be coated with transparent and elastic plastic material.

According to the general concept of the Vani Archaeological Site renovation, developed by the Georgian National Museum, works will be carried out in several phases. First stage (which will be implemented within the SP) provides for emergency conservation works for five archaeological monuments, as well as rehabilitation of connecting bridge. Further, arrangement of the open-air educational center, visitor's paths, protective covers for all the excavated archaeological sites, as well as observation terraces for providing the panoramic overview of the entire Museum-reserve is planned.

3. Baseline Environmental Conditions

The Vani Archaeological Museum-Reserve was founded on April 21, 1981 as a local history museum, and was opened to the public in September 1985 during an international symposium. Since 2006, Vani Archaeological Museum-Reserve is a part of Georgian National Museum. The Vani Archeological Museum-Reserve is comprised of the Vani Ancient Settlement (Vani Archaeological site), the archaeological base and the Museum itself.

The archaeological discoveries in Vani were made in the middle of the 19th century already. The first archaeological surveys and excavations in Vani were conducted by Ekvtime Takaishvili in 1896. He also has the honor of the first scientific publications on the Vani archaeological monuments. Beginning from the 30s of the 20th century the big variety of many archaeological objects mainly dated by the 8th-1st centuries BC were accumulated during the archaeological excavations in Vani. The great architectural complexes and Temples-Sanctuaries dated by the 3rd-1st centuries BC were excavated. These great archeological discoveries have led to the recognition of the Vani Archaeological Site as the Reserve and founding a museum near the territory of the Archaeological Site.

The Vani Archaeological site is situated on a hill close to the town of Vani in the western Georgia, on the left bank of the River Rioni. The area is bordering with residential yards and orchards. The site is crossed by asphalt paved road in the middle connecting not only the archaeological sites but the Upper Vani villages with the main road. More than half of total area is occupied by privately owned houses and gardens. Most of these houses are modern, constructed during the 50-60s of last century. Some gas and water pipes traverse the site, that serving residential houses. Two modest buildings stand in the centre of the Site that house the archaeological expeditions.

Archaeological site is connected to the hill upon which the Museum stands by a narrow iron suspension bridge, allowing a very convenient circuit of the area to be made by visitors on foot starting at the lower city gate and returning by the bridge, with the Museum seen either at the beginning or at the end of the visit.

The remains of several early period architectural monuments are preserved on the territory. Most of them were ruined in the period of Ancient Antiquity and the remains were used as materials for later period constructions. The existing protective covers of the archaeological monuments situated at different open air places on the territory of the Vani Archaeological Site are old; the tin layer cover is badly damaged and cannot be restored. The wooden parts of the constructions are rotten and fungus formation process is observed. They do not cover the entire areas of the monuments and do not guarantee their protection, the metal pillars are construction wise unstable and corroded, thus, threatening safety of people standing under them as well as the integrity of the monuments themselves. Existing protective covers are outdated and does not correspond to modern museum requirements and safety norms.

The present overall construction condition of the suspending Connecting Bridge between the Museum and the Archaeological Site does not arise any suspicion. Though, the decking is ripped off from the supporting beams and the durability is low. The metal grid is used as a protective rail between the carrying suspension cable and the decking. It is rather damaged and ripped in many places and does not correspond to safety requirements and norms.

4. Analysis of Potential Impacts

4.1 Construction Phase

4.1.1 Social Impacts

- **General set of social issues.** Significant social impact of the rehabilitation and construction activities is not envisaged.
- **Resettlement Issues.** SP does not imply private land acquisition and no permanent impacts are envisaged on private or leased agricultural lands and private assets or businesses.
- **Positive impact related to Job opportunities for construction workers.** Limited and temporary during construction and limited during operation.
- **Health issues related to noise, emissions, and vibration.** Limited and temporary.
- **Traffic Disruption.** Local traffic can be impacted limited and temporary by transport activities related to the SP.
- **Safety and Access.** There will be no reduced access to areas adjacent to rehabilitation and no potential hazards to vehicles and pedestrians during rehabilitation downtime.

4.1.2. Impacts on the Physical Cultural Property

Civil works within the SP will be carried out in sequence at different places on the territory of a cultural heritage site. The protective covers will be arranged on all archaeological monuments before the start of the construction works in order to protect them from any damage. No interventions are planned on the structural elements of the archaeological monuments. All the construction and the load bearing elements will be placed on the outer perimeter of the monuments. Therefore, there is no risk of negative impacts on the structural integrity and historical value of the archaeological monuments.

The chance of the new archaeological discoveries is modest as the field works and archaeological surveys have already been conducted and the monuments have been thoroughly studied. Despite this, a Museum archaeologist will be supervising and monitoring the construction works. Nonetheless, during the minor volume of earth works required for the SP implementation and the supervision of an archaeologist, in cases of a possible encountering with chance finds must hold works immediately, inform the Ministry of Culture and Monument Protection in writing, and activity will resume works only upon formal permission from the National Agency for Cultural Heritage Preservation.

4.1.3 Environmental Impacts

Soil and water contamination

Water and soil contamination may result from a variety of sources, including the following:

- Spillages of fuel, oil or other hazardous substance from construction vehicles and machinery;
- Spillages of paint or anti-corrosion solution;
- Improper handling, storage, use and disposal of construction materials (e.g. cement and concrete) and waste (packaging, stones and gravel, cement and concrete residue, wood, etc.).
- Releasing silt water from excavations;

- Washing of vehicles or equipment;

Air Pollution and Noise

Potential impact of air pollution is minimal and related to demolition of the existing structures, to bridge construction cleaning works and transportation of construction materials and waste.

Minimum fumes and dust from vehicles may be of a concern linked to supply and transportation of materials to storage facilities near the Site territory. All construction works will mainly be maintained mechanically with the use of manual labor.

A relatively large amount of dust will be generated during cleaning existing metal deck surface of bridge from rust with sand blasting.

Construction Related Wastes

As a result of demolition of old constructions metal residues will be produced, which will be stored on the territory of the Archaeological Base.

Other types of waste anticipated to be produced from SP implementation are residual ground soil; inert materials; packaging materials.

Small amount of hazardous waste in form of packaging material of paint and solvents will be produced.

Noise & Vibration Impacts

Some traffic nuisance may occur for a short period of time only during the construction works at the Gate, where small power crane equipment may be required and used. This will not cause any traffic jam problems, mud on the road or air pollution.

Topsoil Losses Due to Topsoil Stripping

Topsoil stripping is not envisaged under the project during the works related to preservation measures.

Vegetation and Landscape

The SP does not envisage woodcutting or cutting of bushes. The SP design also does not envisage any changes of the landscape.

4.2 Operation Phase

Increased number of visitors after the site rehabilitation may possibly result in the increased volume of waste and noise. Positive social impact will be related to the increasing of the tourist infrastructure that will have positive effect on the local population, in terms of employment.

5. Mitigation Measures

This Environmental Management Plan (EMP) has been prepared to ensure that negative environmental impacts associated with this SP are minimized.

5.1 Construction Phase

The contractor is required:

- To obtain construction materials only from licensed providers or obtain licenses for inert material extraction;
- If contractor wishes to operate own concrete plant (rather than purchasing these materials from other providers), then the contractor must prepare technical report on inventory of atmospheric air pollution stationary source and agree with the Ministry of Environment and Natural Resources Protection (MoENRP);
- Construction waste must be disposed on the nearest municipal landfill. The records of waste disposal will be maintained as proof for proper management as designed.
- GOST and SNIP norms must be adhered.

A number of restrictions and mitigation measures are to be taken into account during the construction process:

- Application of the heavy machinery and equipment is prohibited on the territory of the Site;
- Any construction or municipal wastes produced during construction stage should remove from the site area every day at the end of working hours;
- Every worker at mobilization stage will undergo the respective training on working on the high sensitivity site.
- In course of construction activities in case of observing any suspicious object, the rehabilitation works will be suspended, photo documentation will be obtained and the works will restart only upon issuance of the permit by the National Agency for Cultural Heritage Preservation.

Noise

The following measures will be implemented for noise reducing:

- The maximum speed should be restricted to the safety level during the pass of the trucks;
- Proper technical control and maintenance practices of the machinery should be applied;
- Activities should be limited to daylight working hours;
- No-load operations of the vehicles and heavy machinery are not allowed. Proper mufflers will be used on machinery.

Pollution Prevention Measures

Specific mitigation measures should be implemented at the construction site for prevention of soil/water pollution:

- The construction materials will be stored in the specially designated and temporarily constructed storage facilities.

- Lubricants, fuel and solvents should be stored and used for servicing machinery exclusively in the designated sites;
- Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information; Spill containment materials (sorbents, sand, sawing, chips etc.) should be available on construction site;
- No fuel, lubricants and solvents storage or re-fuelling of vehicles or equipment will be allowed near the cultural heritage site;
- During the ground soil works the extracted soil shall be stored at a designated place. After the completion of works a part the soil shall be backfilled and the remaining part shall be taken out from the archaeological site territory to a location designed by the local municipality service;
- Wet cement and/or concrete will not be allowed to enter any watercourse, pond or ditch.

Waste Handling

- Metal residues will be stored on the territory of the Archaeological Base and finally disposed in agreement with Museum Administration;
- Construction waste must be disposed on the nearest municipal landfill;
- Municipal waste should be collected and placed into special containers and should be disposed on the nearest landfill;
- Burning of waste on construction site is forbidden;
- The containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching;
- The records of waste disposal will be maintained as proof for proper management as designed.

Dust and Emissions

All vehicles shall be maintained so that their emissions do not cause nuisance to workers or local people. Activities will be limited to daylight working hours. All technical services provided will be to a high standard for providing the high safety performance and minimum level of noise. All plant used on site will be regularly maintained so as to be in good working order at all times to minimise potentially polluting exhaust emissions.

If deemed necessary in dry conditions or where significant quantities of dust are being or are likely to be produced mitigation measures will be arranged by means of covering of construction materials and storage piles.

Mitigation Measures for the Site Safety Access

In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to:

- Signposting, warning signs, barriers and traffic diversions;
- Construction site will fenced;
- The access of the visitors to the monuments under construction will be limited.

5.2 Operation Phase

For proper management of the **increased volume of waste** generated due to the increased number of visitors additional containers shall be placed and penalty sanctions against littering on the site shall apply.

The traffic will increase in adjacent area of CH sites, which will result in the increased level of local emissions and noise as well as traffic safety issues. Within the Vani Museum Rehabilitation SP which will be implanted within the RDP II as well, arrangement of the parking area for cars and buses is envisaged.

6. Monitoring

MDF carries overall responsibility for monitoring of the implementation of the environmental mitigation measures. A consulting firm hired for supervision of works will supplements MDF's in-house capacity for tracking environmental and social compliance of works undertaken under this SP. Field monitoring checklist will be filled out and photo material attached on monthly basis.

Narrative reporting on the implementation of EMP will be provided on quarterly basis as part of the general progress reporting of MDF. MDF will also be expected to obtain from contractors and keep on file all permits, licenses, and agreement letters which contractors are required have according to the Georgian law for extracting material, operating asphalt/concrete plants, disposing various types of waste, etc.

MONITORING MANAGEMENT PLAN

Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
Supply with construction materials	Purchase of construction materials from the officially registered suppliers	In the supplier's office or warehouse	Verification of documents	During conclusion of the supply contracts	To ensure technical reliability and safety of infrastructure	MDF, Construction supervisor
Transportation of construction materials and waste Movement of construction machinery	Technical condition of vehicles and machinery Confinement and protection of truck loads with lining Respect of the established hours and routes of transportation	Construction site	Inspection	Unannounced inspections during work hours and beyond	Limit pollution of soil and air from emissions; Limit nuisance to local communities from noise and vibration; Minimize traffic disruption.	MDF, Construction supervisor, Traffic Police
Earthworks	Temporary storage of excavated material in the pre-defined and agreed upon locations; Backfilling of the excavated material and/or its disposal to the formally designated locations; Banning use of heavy excavation machinery	Construction site	Inspection Permanent oversight by archaeologists	In the course of earth works	Prevent pollution of the construction site and its surroundings with construction waste; Prevent damage and loss of physical cultural resources	MDF, Construction supervisor Georgian National Museum NACHP
Sourcing of inert material	Purchase of material from the existing suppliers if feasible; Obtaining of extraction license by the works contract and strict	Borrowing areas	Inspection of documents Inspection of works	In the course of material extraction	Limiting erosion of slopes and degradation of ecosystems and landscapes; Limiting erosion of river banks, water pollution with	MDF, Construction supervisor

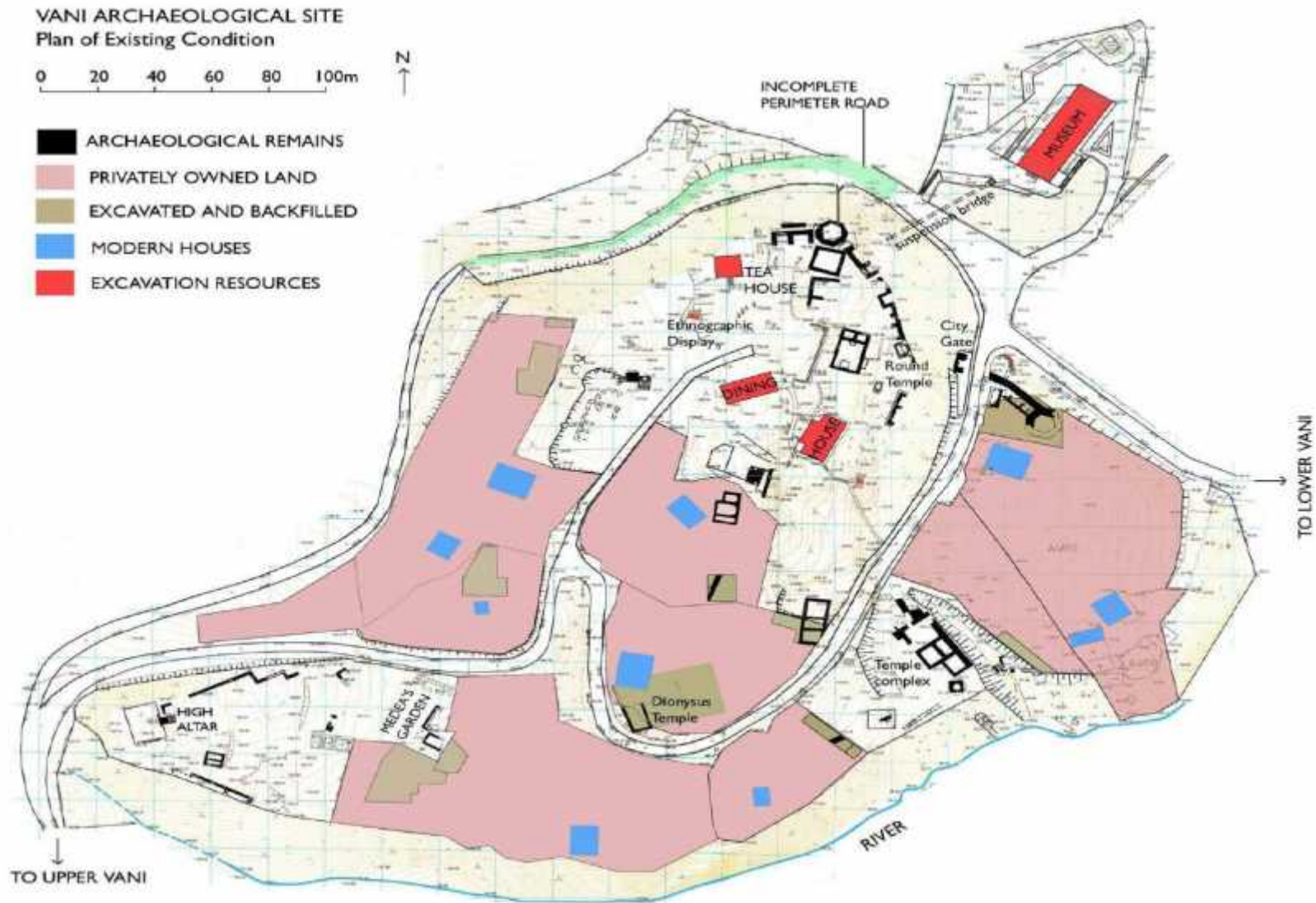
Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
	<p>compliance with the license conditions;</p> <p>Terracing of the borrow area, backfilling to the exploited areas of the borrow site, and landscape harmonization;</p> <p>Excavation of river gravel and sand from outside of the water stream, arrangement of protective barriers of gravel between excavation area and the water stream, and no entry of machinery into the water stream.</p>				suspended particles and disruption of aquatic life.	
Generation of construction waste	<p>Temporary storage of construction waste in especially allocated areas;</p> <p>Timely disposal of waste to the formally designated locations</p>	<p>Construction site;</p> <p>Waste disposal site</p>	Inspection	Periodically during construction and upon complaints	Prevent pollution of the construction site and nearby area with solid waste	MDF, Construction supervisor
Traffic disruption and limitation of pedestrian access	<p>Installation of traffic limitation/diversion signage;</p> <p>Storage of construction materials and temporary placement of construction waste in a way preventing congestion of access roads</p>	At and around the construction site	Inspection	In the course of construction works	<p>Prevent traffic accidents;</p> <p>Limit nuisance to local residents</p>	MDF, Construction supervisor

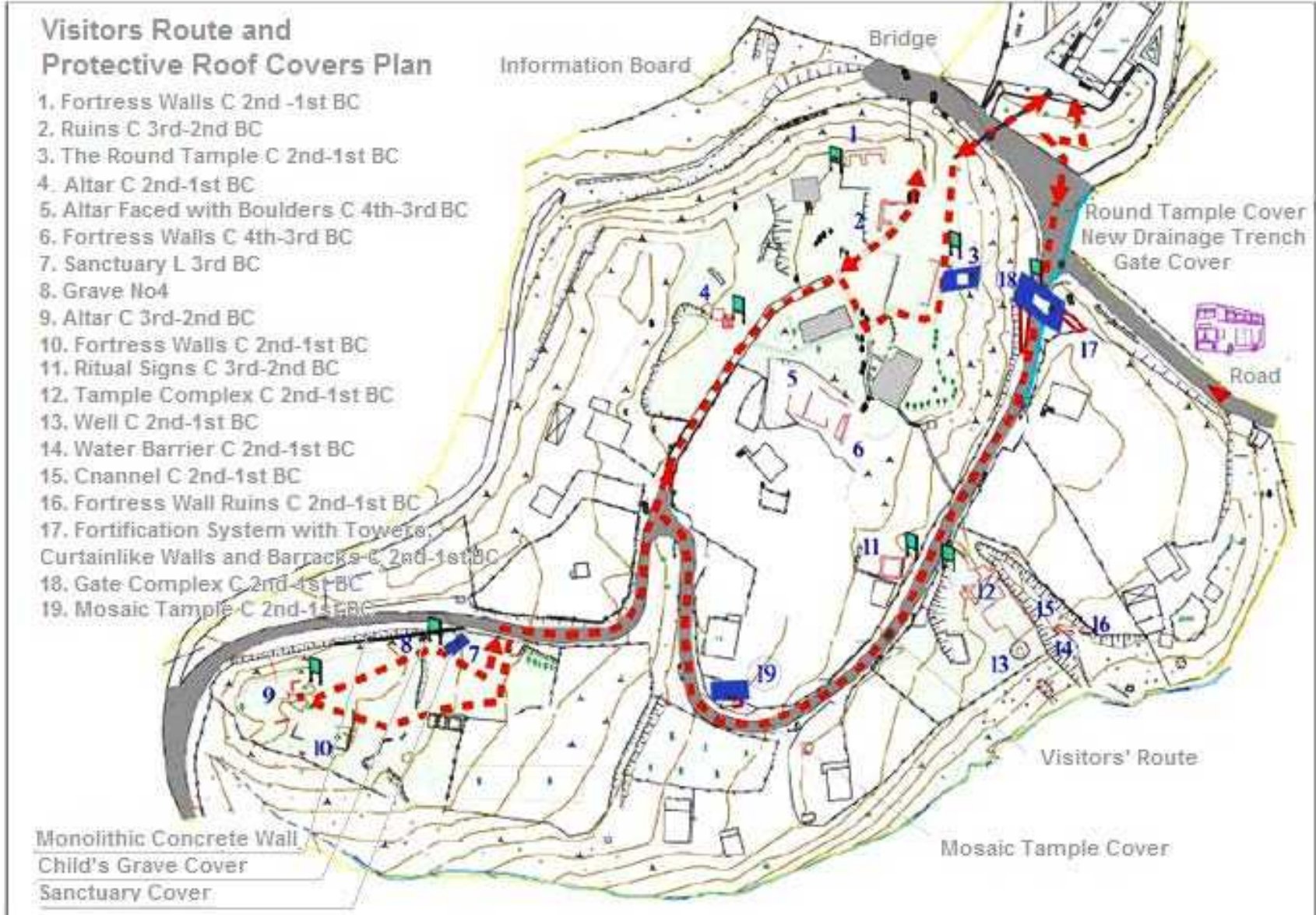
Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
Workers' health and safety	Provision of uniforms and safety gear to workers; Informing of workers and personnel on the personal safety rules and instructions for operating machinery/equipment, and strict compliance with these rules/instructions	Construction site	Inspection	Unannounced inspections in the course of work	Limit occurrence of on-the-job accidents and emergencies	MDF, Construction supervisor
OPERATION PHASE						
Management of the solid waste from the visitors' center	Trash bins provided on site and arrangement in place for timely regular out-transporting of waste	Rehabilitated facilities	Inspection	During operation of facilities	Prevent littering of the site and area around it	Georgian National Museum Administration
Maintenance and protection of the Site after the rehabilitation	No unauthorized construction and no informal land use in the vicinity of the historical site	Rehabilitated facilities	Inspection	During operation of facilities	Prevent loss of the historical and aesthetic values of the monument and surrounding area	Georgian National Museum Administration, Vani Municipality Authorities

Attachment 1. Orthophoto of the site



Attachment 2. General Plan of the site





Attachment 3. Photo illustrations

1. Archeological monument - Gate



2. Archeological monument – Mosaic Church



3. Archeological monument – Round Church



4. Archeological monuments - Chapel and Child grave



5. **Bridge** connecting Vani archeological museum to archeological site



Attachment 4. Cadastral Information


N 31.01.03.828

ამონაწერა საჯარო რეგისტრაციის

არქივების რეგისტრაცია მომხმარებლის თარიღი
 N 882015400092 - 16/07/2015 16:29:13 17/07/2015 14:35:20

საკუთრების განვლილება

ბინი	სველი	კუთხედი	საკუთ	მნიშვნელობა
31	01	03	828	საკუთრების განვლილება

მნიშვნელობა: 408.20

შესაკუთრების განვლილება

არქივების რეგისტრაცია : ნომერი 312006091142 - თარიღი 2012/2006

კუთვლის ამოიღებულად დაკუთვნი:

- მნიშვნელობა N15.3236/34 - ამონაწერის თარიღი: 10/11/2006 - საჯარო რეგისტრაციის განვლილების საბაზისზე

შესაკუთრების საბაზისზე: აღწერი

ამოთვლა

საჯარო რეგისტრაციის განვლილება

ხარვეზობა

არქივების რეგისტრაციის ნომერი: 312007001814
 თარიღი: 26/11/2007

კუთვლის განვლილება: "საჯარო რეგისტრაციის განვლილება" შესაკუთრების საბაზისზე
 საჯარო რეგისტრაციის ნომერი: 312006091142 - თარიღი: 2012/2006

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კუთვლის რეგისტრაცია

არქივების რეგისტრაცია

საჯარო რეგისტრაცია

არქივების რეგისტრაცია

კუთვლის განვლილება: "არქივების რეგისტრაციის განვლილება" საბაზისზე
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