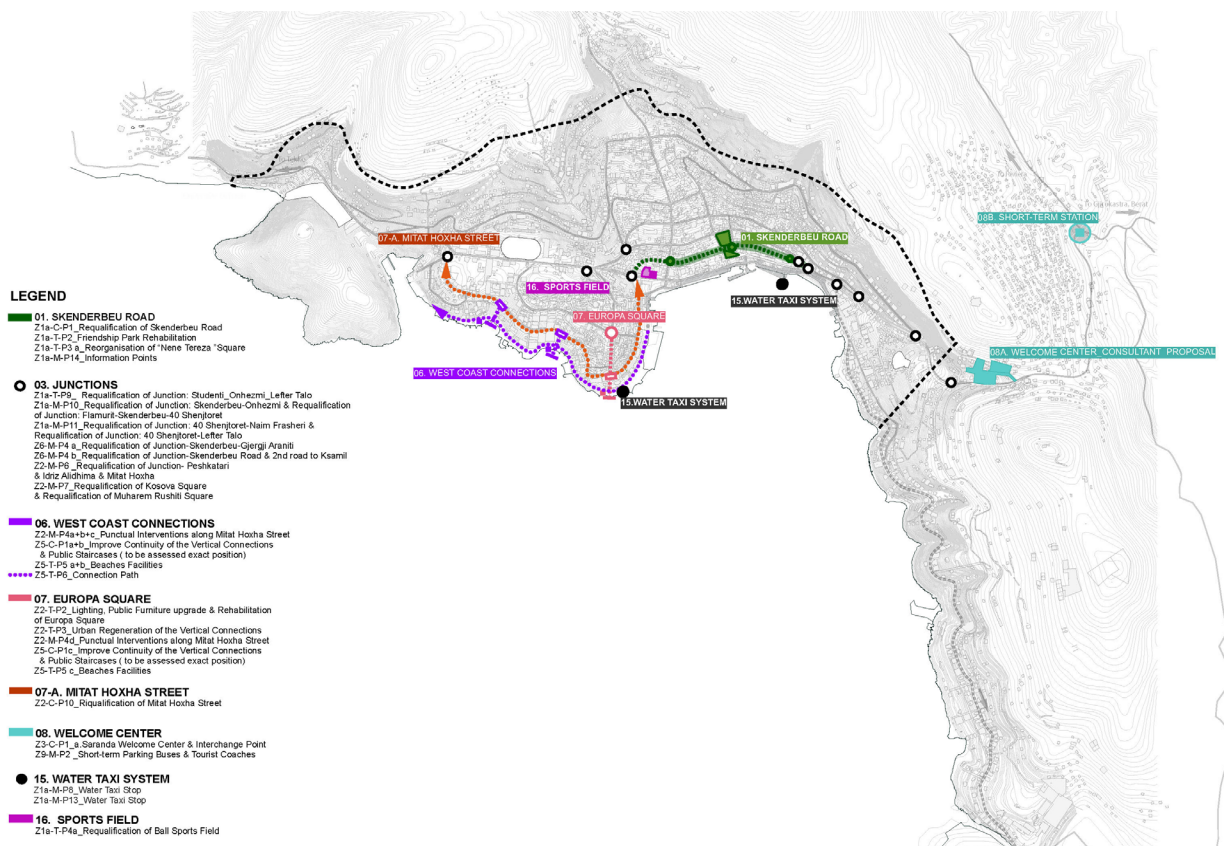


REQUALIFICATION OF PROJECT GROUPS: P1- SKENDERBEU STREET, P3- INTERSECTIONS, P7- EUROPA SQUARE AND P7A- MITAT HOXHA STREET

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT



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Tirane, October 2022

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1. INTRODUCTION

1.1 PROJECT PURPOSE and Site locations

The project subject to this ESIA is “Requalification of project groups: P1- Skenderbeu Street, P3- Intersections, P7- Europa Square and P7A- Mitat Hoxha Street”.

The general objective of the project is the further improvement and requalification of the road infrastructure of Saranda municipality, such as Europa Square, Skënderbeu Street, Mitat Hoxha Street, intersections.

The implementing Agency is the Albanian Development Fund (ADF)with NUIS number: K02231002H, which has procured the groups of projects for the requalification of Skenderbeu street, intersections, Europa square and Mitat Hoxha street, which have beneficiaries and are located within the territory of Saranda municipality. The beneficiary of the project groups is the municipality of Saranda and all the projects are located within the city of Saranda.

Saranda is a city located in the south of Albania, beside its key geographical position as the south door of the country; the city is an important administrative and economic center for the region and in the same time a communication node between the dynamic coastal zone and the inner surroundings.

The project will identify the existing depreciated situation, the problems and improper interventions, and to present the best possible solution for improving conditions and improvement of Saranda Road infrastructure. This project is considered an important investment which will contribute to a positive impact on the local area and wider in the region. It will improve the public infrastructure of Saranda, make available to the visitors unknown attractions in the city and encouraging their longer stay in the city.

These changes are expected to significantly improve the conditions in which the facilities are and positively impact the increase of the visitors’ numbers. In line with national priorities, the project will offer an advanced, environmentally friendly technology that optimizes tourism in the Project area, meeting local and regional requirements and achieving sustainable economic development in the future. The project methodology and layout are selected by ensuring the lowest possible impact on the environment, sustainable development of all other economic and social sectors and increasing the quality of life of the local population. According to World Bank policies the project has been assigned an Environmental Category B, meaning no significant impact to the environment is expected from the implementation of the project activities. For activities classified as category B, it will be required that the appropriate level of environmental and social impact assessment to be carried out, and Environmental and Social Management Plan to be prepared.

The Albanian Development Fund has approved the group of projects for the requalification of the road infrastructure in the territory of the municipality of Sarande, this group of projects includes:

P1 – Skanderbeu Street

- Z1A-C-P1 – Requalification of Skenderbeu street
- Z1A-T-P2 – Rehabilitation of the friendship park
- Z1A-T-P3 - Reorganization of "Mother Teresa" square
- Z1A-M-P14 – Information points



Table 1: Coordinates of Skenderbeu Street

The path of the proposed project "Street Skenderbeu"					
Coordinates according to Gaus Kruge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416119.87	4414783.99	1	4415513.56	500204.93
2	4416138.52	4414806.61	2	4415532.46	500227.33
3	4416143.72	4414842.37	3	4415538.06	500263.03
4	4416130.32	4414975.94	4	4415526.16	500396.73
5	4416146.34	4415046.13	5	4415542.96	500466.73
6	4416205.46	4415206.42	6	4415603.86	500626.33
7	4416215.22	4415242.55	7	4415614.03	500662.34
8	4416214.56	4415301.35	8	4415614.03	500721.14
9	4416199.04	4415373.99	9	4415599.33	500793.94
10	4416185.31	4415412.34	10	4415586.03	500832.44
11	4416131.98	4415548.97	11	4415534.23	500969.64

P7A – Mitat Hoxha Street

- Z2-C-P10 – Requalification of Mitat Hoxha street



Table 2: Coordinates of Street Mitat Hoxha

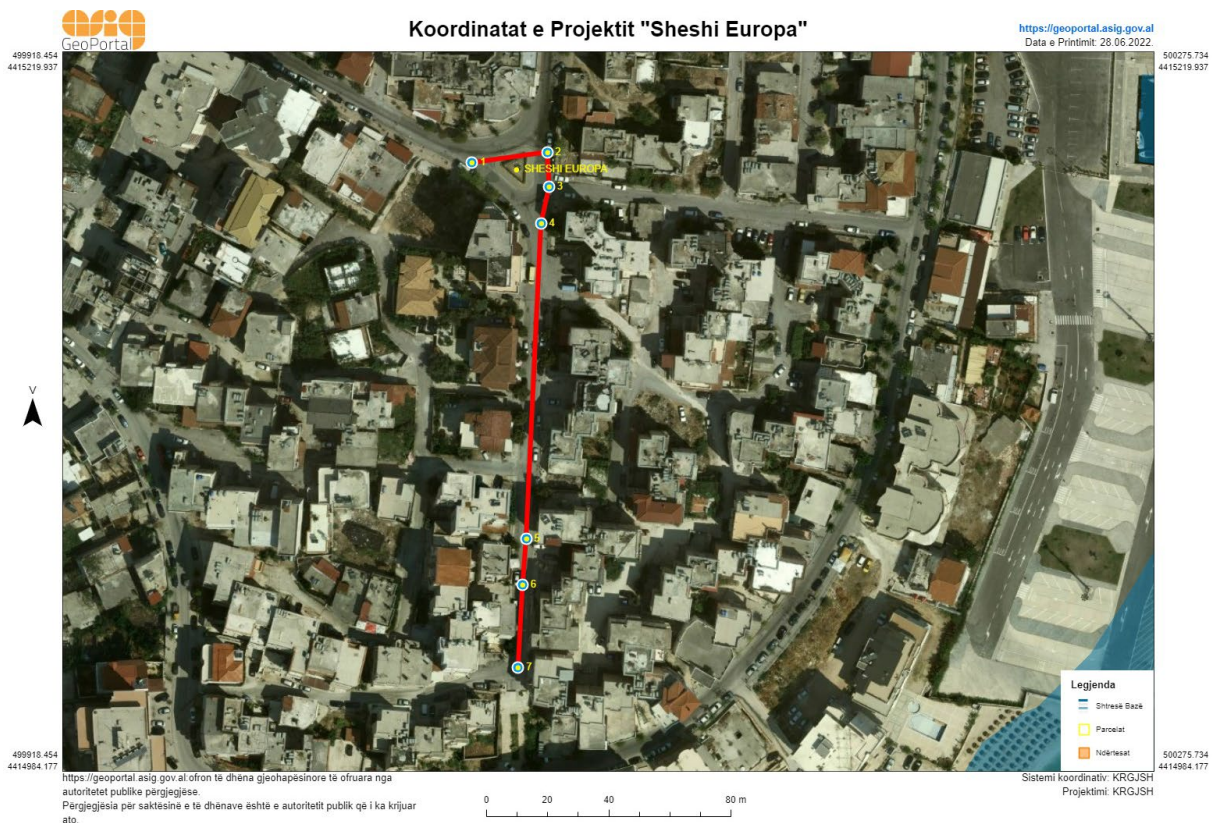
The path of the proposed project "Street MITAT HOXHA"					
Coordinates according to Gaus Krüge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416000.93	4414785.15	1	4415394.66	500207.41
2	4415960.34	4414783.99	2	4415354.06	500206.71
3	4415833.63	4414782.57	3	4415227.36	500206.71
4	4415816.13	4414782.38	4	4415209.86	500206.71
5	4415680.59	4414757.06	5	4415074.06	500182.91
6	4415604.27	4414695.29	6	4414997.06	500122.01
7	4415585.52	4414619.47	7	4414977.46	500046.41
8	4415580.99	4414585.82	8	4414972.56	500012.81
9	4415584.93	4414546.65	9	4414976.06	499973.61
10	4415599.11	4414531.41	10	4414990.06	499958.21
11	4415663.51	4414532.13	11	4415054.46	499958.21
12	4415704.96	4414519.29	12	4415095.76	499944.91
13	4415729.66	4414502.07	13	4415120.26	499927.41
14	4415743.84	4414485.42	14	4415134.26	499910.61
15	4415758.24	4414449.88	15	4415148.26	499874.91
16	4415797.42	4414390.11	16	4415186.76	499814.71
17	4415802.64	4414361.46	17	4415191.66	499786.01

18	4415804.72	4414300.57	18	4415193.06	499725.11
19	4415799.1	4414239.6	19	4415186.76	499664.21
20	4415863.17	4414171.59	20	4415250.05	499595.5
21	4415904.23	4414130.74	21	4415290.65	499554.2
22	4415962.95	4414076.79	22	4415348.75	499499.6
23	4415972.39	4413983.78	23	4415357.15	499406.5
24	4415986.11	4413957.33	24	4415370.58	499379.9
25	4415998.77	4413890.26	25	4415382.48	499312.7
26	4416056.11	4413833.5	26	4415439.18	499255.3
27	4416111.39	4413836.21	27	4415494.48	499257.4

P7 – Europa Square

- Z2-T-P2 – Lighting, improvement of public equipment and rehabilitation of Europa Square
- Z2-T-P3 – Urban regeneration of vertical connections
- Z2-M-P4D – Punctual interventions along Mitat Hoxha street
- Z5-C-P1C – Improving the continuity of vertical connections and public stairs

Table 3: Coordinates of the Europa Square



The path of the proposed project "Europa Square"					
Coordinates according to Gaus Krüge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4415791.96	4414627.52	1	4415183.96	500052.15

2	4415795.04	4414652.48	2	4415187.32	500077.07
3	4415783.83	4414653.2	3	4415176.12	500077.91
4	4415771.83	4414649.7	4	4415164.08	500074.55
5	4415668.42	4414644.06	5	4415060.62	500070.07
6	4415653.31	4414642.77	6	4415045.5	500068.95
7	4415626.73	4414640.52	7	4415018.9	500066.99

P3 – Traffic intersections

- Z1A-T-P9 – Requalification of the crossing Student – Onhezmi – Lefter Talo
- Z1A-M-P10 – Requalification of the crossing Skenderbeu – Onhezmi and requalification of the crossing Flaguri – Skenderbeu – 40 Saints
- Z1A-M-P11 – Retraining of the 40 Saints Crossing – Naim Frasheri and Retraining of the 40 Saints Crossing – Lefter Talo
- Z2-M-P6 – Retraining of crossing Peshkatari – Idriz Alidhima – Mitat Hoxha
- Z2-M-P7 – Requalification of Kosova Square and Requalification of Muharem Rushiti Square
- Z6-M-P4A – Requalification of the Skenderbeu – Gjergj Araniti crossing
- Z6-M-P4B – Requalification of the intersection Skenderbeu street – the road to Ksamil.

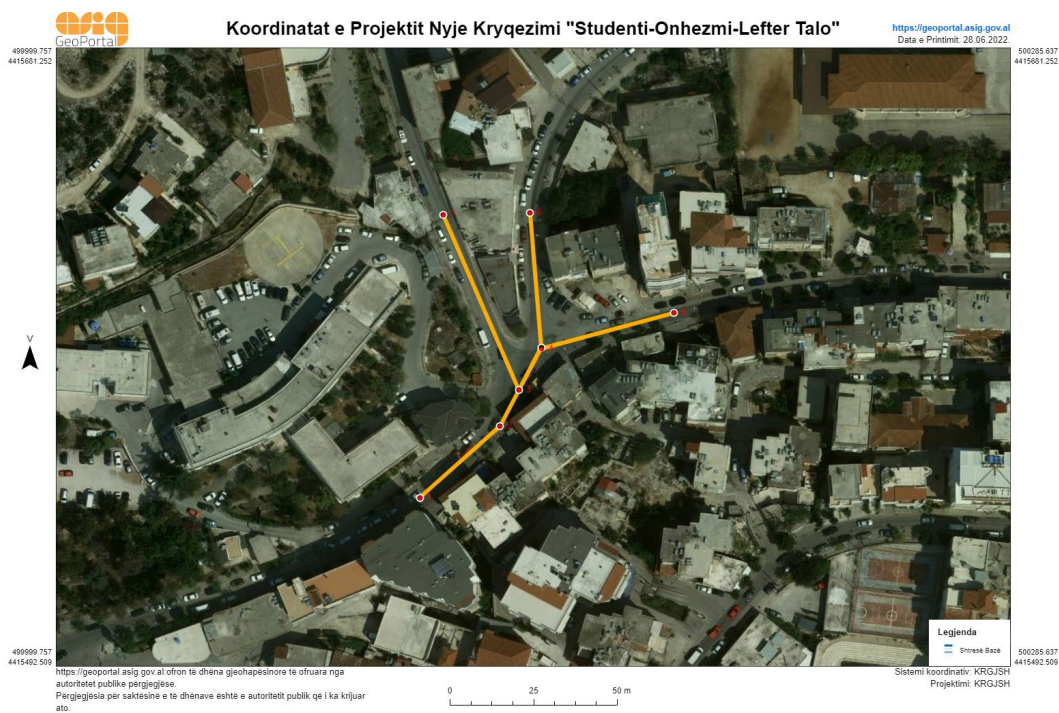
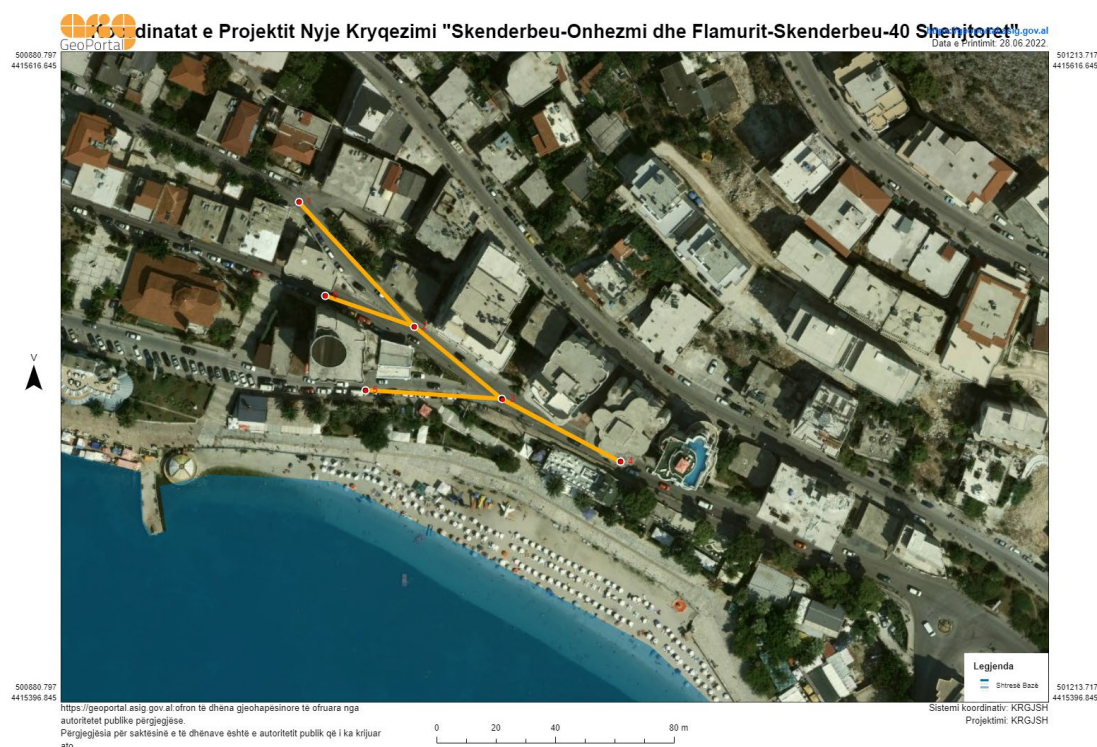


Table 4: Coordinates of the cross section Studeni-Onhezmi-Lefter Talo

Requalification of the crossing Student – Onhezmi – Lefter Talo					
Coordinates according to Gaus Kruge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416151.99	4414687.8	1	4415544.6	500108.4
2	4416173.84	4414712.13	2	4415566.72	500132.48
3	4416184.41	4414718.41	3	4415577.36	500138.64
4	4416197.51	4414724.44	4	4415590.52	500144.52
5	4416207.69	4414765.16	5	4415601.16	500185.12
6	4416238.98	4414721.82	6	4415631.96	500141.44
7	4416238.43	4414696.05	7	4415631.12	500115.68



Flaguri-Skenderbeu-40Saint

Requalification of the crossing Skenderbeu – Onhezmi and requalification of the crossing Flaguri – Skenderbeu – 40 Saints					
Coordinates according to Gaus Kruge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416163.76	4415540.67	1	4415565.92	500960.99
2	4416121.46	4415579.26	2	4415524.06	501000.05
3	4416096.78	4415608.25	3	4415499.7	501029.31
4	4416074.91	4415647.91	4	4415478.28	501069.21
5	4416100.48	4415562.22	5	4415502.88	500983.25
6	4416132.27	4415549.14	6	4415534.52	500969.81



Tabl

er Talo

Retraining of the 40 Saints Crossing – Naim Frasher and Retraining of the 40 Saints Crossing – Leter Talo					
Coordinates according to Gaus Krugze zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416048.46	4415701.27	1	4415452.42	501122.86
2	4416034.14	4415741.85	2	4415438.56	501163.6
3	4416020.66	4415757.81	3	4415425.26	501179.7
4	4416000.76	4415796.93	4	4415405.8	501219.04
5	4416014.12	4415754.37	5	4415418.68	501176.34
6	4416006.32	4415750.22	6	4415410.84	501172.28
7	4415984.52	4415749.28	7	4415389.04	501171.58
8	4415993.87	4415776.83	8	4415398.7	501199.02
9	4415989.12	4415837.07	9	4415394.62	501259.3
10	4415952.99	4415862.43	10	4415358.78	501285.06
11	4415937.08	4415882.97	11	4415343.1	501305.78



Table 7: Coordinates of the crossing Peshkatari-Idriz Alidhima-Mitat Hoxha

Retraining of crossing Peshkatari – Idriz Alidhima – Mitat Hoxha					
Coordinates according to Gaus Kruge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416220.59	4413845.65	1	4415603.77	499265.61
2	4416179.38	4413874.46	2	4415562.89	499294.87
3	4416174.14	4413879.72	3	4415557.71	499300.19
4	4416168.03	4413925.16	4	4415552.11	499345.69
5	4416161.41	4413853.67	5	4415544.69	499274.29
6	4416137.21	4413802.15	6	4415519.91	499223.05
7	4416109.23	4413836.71	7	4415492.33	499257.91



Table 8: Coordinates of the Kosova Square and Requalification of Muharem Rushiti Square

Requalification of Kosova Square and Requalification of Muharem Rushiti Square					
Coordinates according to Gaus Kruge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416098.18	4414579.19	1	4415489.59	500000.4
2	4416106.33	4414526.91	2	4415497.15	499948.04
3	4416103.76	4414568.89	3	4415495.05	499990.04
4	4416119.16	4414618.91	4	4415511.01	500039.88
5	4416108.77	4414584.49	5	4415500.23	500005.58
6	4416097.76	4414616.71	6	4415489.59	500037.92
7	4416098.05	4414591.09	7	4415489.59	500012.3
8	4416068.97	4414587.54	8	4415460.47	500009.08
9	4416085.71	4414580.03	9	4415477.13	500001.38
10	4416086.71	4414553.71	10	4415477.83	499975.06
11	4416098.04	4414567.28	11	4415489.31	499988.5

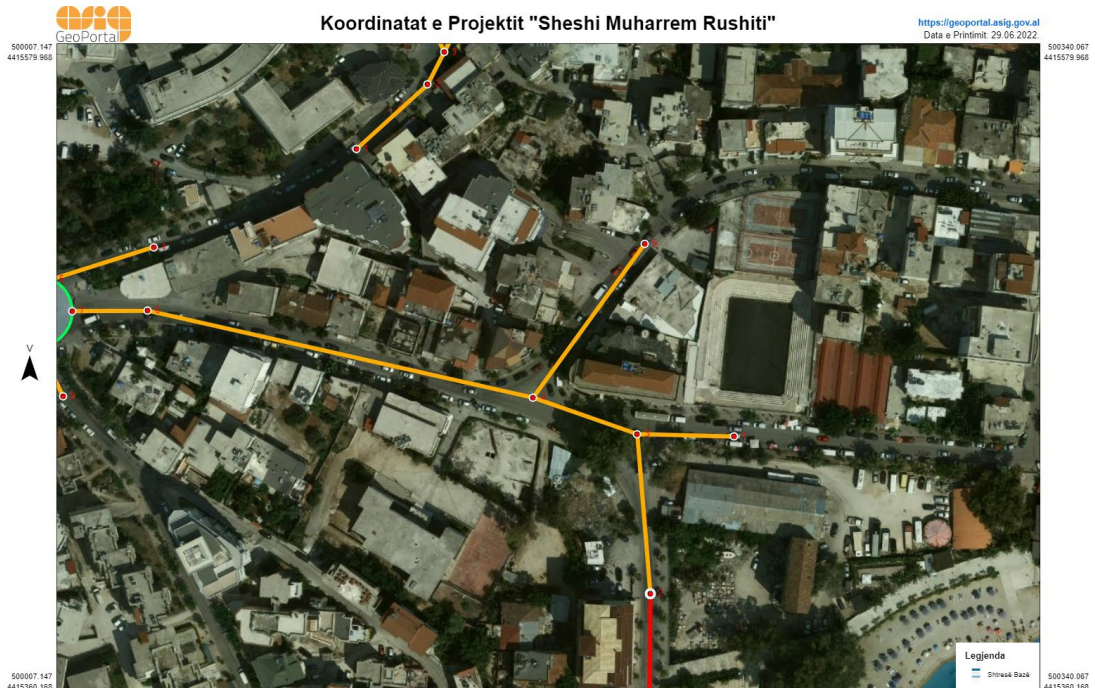


Table 9: Coordinates of Sheshi Muharrem Rushiti

SEGMENTI KU PROPOZOHEHET TE ZHVILLOHET PROJEKTI "SHESHI MUHARREM RUSHITI"					
Coordinates according to Gauss Kruged zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4416052.92	4414814.79	1	4415446.97	500236.47
2	4416000.04	4414785.63	2	4415393.77	500207.91
3	4416055.25	4414781.77	3	4415448.93	500203.43
4	4416067.41	4414746.34	4	4415460.69	500167.87
5	4416118.78	4414785.28	5	4415512.49	500206.23
6	4416098.27	4414616.46	6	4415490.09	500037.67



Table 10: Coordinates of Skenderbeu-Gjergj Araniti Crossing

Requalification of the Skenderbeu – Gjergj Araniti crossing					
Koordinatat e projektit sipas sistemit GAUS KRUGE ZONE 4			Koordinatat e projektit sipas sistemit KRGJSH		
Nr	N	E	Nr	N	E
1	4415780.89	4416122.96	1	4415189.62	501547.48
2	4415789.88	4416120.54	2	4415198.58	501544.96
3	4415818.9	4416092.3	3	4415227.28	501516.4
4	4415780.29	4416114.27	4	4415188.92	501538.8
5	4415820.28	4416044.57	5	4415228.12	501468.66
6	4415776.06	4416129.91	6	4415184.86	501554.48
7	4415738.41	4416166.03	7	4415147.62	501591.02



Table 11: Coordinates of Skenderbeu-Ksamil

SEGMENTI KU PROPOZOHET TE ZHVILLOHET PROJEKTI "NYJE KRYQËZIMI SKENDERBEU-KSAMIL"					
Coordinates according to Gaus Kruge zone 4			Coordinates according KRGJSH		
Nr	N	E	Nr	N	E
1	4415590.96	4416213.05	1	4415000.73	501639.68
2	4415563.57	4416233.19	2	4414973.57	501660.12
3	4415541.72	4416258.85	3	4414952.01	501686.02
4	4415534.48	4416280.61	4	4414945.01	501707.86
5	4415540.36	4416368.47	5	4414951.87	501795.64
6	4415491.58	4416260.11	6	4414901.89	501687.84



Table 12: Coordinates of Mother Teresa Square

SEGMENTI KU PROPOZOHET TE ZHVILLOHET PROJEKTI "SHESHI NËNË TEREZA"					
Koordinatat e projektit sipas sistemit GAUS KRUGE ZONE 4			Koordinatat e projektit sipas sistemit KRGJSH		
Nr	N	E	Nr	N	E
1	4416185.65	4415244.88	1	4415584.49	500665
2	4416286.97	4415224.45	2	4415685.57	500643.44
3	4416268.44	4415153.95	3	4415666.25	500573.16
4	4416205.93	4415183.78	4	4415604.09	500603.68

1.2 ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PURPOSE

This Environmental and Social Impact Assessment (ESIA) Report is prepared for the project “Requalification of project groups: P1- Skenderbeu Street, P3- Intersections, P7- Europa Square and P7A- Mitat Hoxha Street”, and is part of the necessary documentation required for this project.

The ESIA study contains a description of the project and its activities, overview of the current state of physical, biological and human environment in the project area, assessment of WB OP/BP triggered by the project and key environmental and social risks and impacts, and addresses the measures to prevent, minimize, mitigate or offset the potential impacts.

The report was prepared in accordance to the Law No. 10431, dated 9 June 2011 "On Environmental Protection" and other normative acts of the Ministry of Tourism and Environment and is also in line with the World Bank Safeguards Policies (OP/BP).

The project triggers the World Bank Safeguard Policy on Environmental Assessment (OP/BP 4.01) and is classified as Category B, primarily due to the rehabilitative nature of the proposed interventions, which will involve Improving infrastructure, re-arrangement of car traffic/ parking/ taxis, providing clear signage, Improving the pedestrian accessibility, Integration of public lighting, Integration of greenery and urban furniture, Improve visibility, rehabilitation and reconstruction of road infrastructure.

The purpose of this ESIA is to ensure that the environment and social aspects in the project area are considered among all other important issues at any stage thereof.

The purpose of the ESIA is to ensure that the proposed investments of the Project, fully comply with the existing environmental and social protection laws, regulations and standards in Albania as well as with World Bank Operational Policies. The report aims to give consideration to the environmental and social impacts of the proposed project in order to orient the institutions or decision-making bodies in approving the performance of the activity.

The report aims to identify negative and positive effects and to propose mitigation measures taking into account the economic interests of the investor as well as rational use of natural resources and coordination of the economic and social development of the area with the requirements of sustainable development. The main purposes of this assessment are to:

1. Identify potential environmental impacts in the study area during the restoration and management of the road infrastructure of Sarandë municipality, such as Europa square, Skënderbeu street, Mitat Hoxha street, intersections and vertical connections.
2. Identify possible socio-economic impacts in the study area during and after the implementation of the project
3. Propose the necessary measures to be undertaken for minimizing and preventing the effects created on the environment
4. Ensure that environmental considerations are explicitly addressed and considered in the decision-making process.
5. Protect and rehabilitate the natural environment ensuring the sustainable continuity of the biological environment comprising flora and fauna in the environments surrounding of the area taken into consideration.

2. DESCRIPTION OF THE PROJECT

2.1 PROJECT SITE LAYOUT

The project area is located in Saranda Municipality, Vlorë District. The new municipality of Saranda is bordered to the north by the municipalities of Himarë and Delvinë, to the south by the municipality of Konispol, to the east by the municipality of Finiç and to the west by the Ionian Sea. The capital of the Municipality is the city of Saranda. The new municipality has two administrative units, the city of Saranda and the municipality of Ksamil.

The group of proposed infrastructural projects is in accordance with the General Local Plan of the Municipality of Sarande approved by KKT Decision no. 3, dated 16.10.2017 and revised by KKT Decision no. 6, date 28.12.2020.

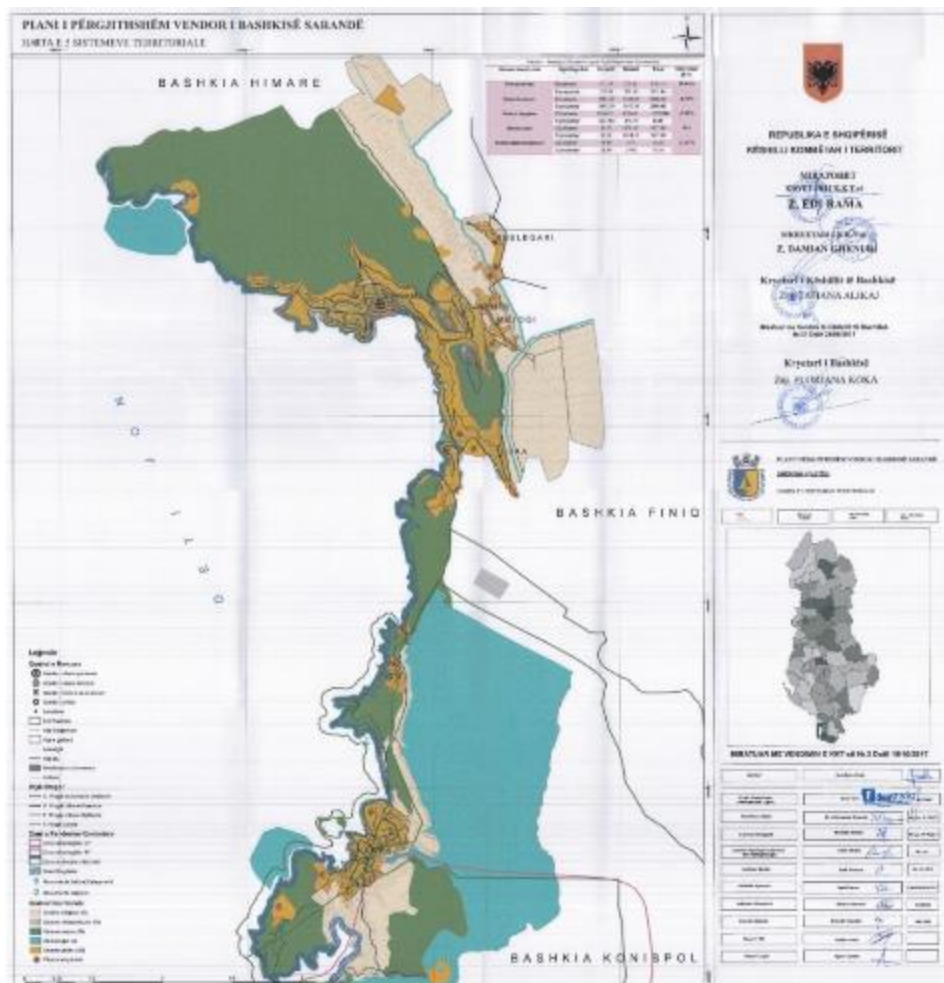


Figure 1: The territorial system of Saranda Municipality

According to the local general plan of the municipality, the basic categories of land use are: N-Natural land; B-Agriculture; IN-Infrastructure; U-Water; A-Residential; S-Services; M-Heritage and Cultural and Historical Monuments; IE-Economy and Industry; IS-Institutions; AR-Social and Recreational Activities; AS-Education; SH-Health; V- Special and ZU-Military Zone. Saranda is not only an important urban center but also the intersection of some of the most important national and international corridors. Beyond the maritime routes, Saranda is affected by two important road axes such as: the Blue Corridor and the Gjirokaster-Sarande-Igumenice-Janine Ring. The infrastructural network of the Sarande

administrative unit is also affected by the influences of investments and financing in the south of Vlora. We mention here the positive effect in the Himare-Qeparo segment, which follows the infrastructural developments from the south of Vlora to Orikum, where the bypass intervenes and shortens and frees up traffic for the destination of Himare and Saranda. The road access of the area along the modernized Qeparo-Sarande road can be considered suitable and without special problems. This road ensures the connection with the administrative units of Delvina, Gjirokastra, as well as the northern regions and Epirus of Greece.

The lack of an urban plan throughout the last 20 years directly reflects the chaos in the infrastructure, both urban and rural, of Sarande, although there have been investments from the municipality of Sarande and the Albanian Development Fund, it continues to remain problematic. At first glance, Saranda is characterized by a single central street that has the function of entering and exiting the city, this is Skenderbeu street. A considerable number of urban roads in Sarande need maintenance, retraining, asphaltting, lighting, equipment with horizontal and vertical signage, etc. Also, due to the intensive way of construction development, the infrastructure has not been able to adapt at the same speed, and therefore many roads have remained unfinished.

Main road network. Saranda is connected to the national road network through Qafe se Gjashte (Sh 8) 2.5 km Qafe se Muzine 26.5 km which connects it with road 2 of the Base Network (SEETO) from where it goes to the PKK of Kakavije. Yes, through the Sixth Pass it is connected to the national road of Breg in the direction of Vlora 124 km, which is part of the Adriatic Ionian corridor (Blue Corridor).

Communication in the city of Saranda is supported by five main parallel roads and in some axes we have vertical roads with them. All the streets of the city center are outside the standards and the distances of the sidewalks in many of their segments are difficult. The main entrance road of the city is "Skenderbeu" road 2.1 km, which continues to the city center, where the last segment of the center 0.8 km is of tertiary type. The entrance of the city is connected to the city of Saranda through a road in the Sixth Pass which is unorganized. This is a category B, main interurban road with independent carriageways, but not separated by separate traffic, with 2 lanes. The road that connects Saranda with Butrint through Ksamil has been repaired and is in good condition, this is a category C road, 17 km long.

Secondary network. Regarding the secondary network of roads in the city of Saranda, the internal roads connecting the neighborhoods of the city are in a bad condition also due to the investment in the water-sewerage network. There is a lack of parking in the city center as well as at its entrance and exit. The city also does not have a terminal for passenger vehicles. The city of Saranda has 5 roads parallel to the sea that connect the entrance road with the northern part of the city, creating rings at different schematic levels. Most of them have 1 passage to facilitate traffic and the solution of changing the parking lots remains problematic. The road that connects the port of the city with the port of Limion, about 2 km, has been newly built. The road has two crossings and sidewalks on both sides, but their width is limited by constructions and they are outside the standard.

several locations and especially in front of the shopfronts. It is characterized by old Italian fascist building facades, but especially the businesses on the ground floor, have affected the uniformity of the facades with different advertisements, tents, etc. Parking on the side of the road contributes to the heavy traffic and aggravates the pedestrian experience. Proposed Interventions: *Pedestrianization of the street, Integration of greenery, urban furniture, public and decorative lighting, upgrading and systematization of underground infrastructure, upgrading of surface road infrastructure, upgrading of urban spaces/pockets next to sidewalk upgrading and/or new concept for building facades.*

The intervention proposes the use of the Skenderbeu road as a shared space between pedestrians, cars and bicycles, which would strengthen the use of the road by tourists and residents. The guiding concept of the project is the strengthening of the five senses connected to a seaside city. Along the route (road), public rest areas have been established where it is possible to strengthen the senses. The rest areas are the parts where it is possible to see the sea (sight), feel its marine thrill (hear), typical plants will be placed (smell), will be placed fountains with drinking water (taste) and at the same time refresh (touch). The prescribed areas are the vertical stairs crossing the street and ‘Nene Tereza’ square. The whole street will be paved in local stone with a pattern that symbolizes the type of city, namely the fish scales.

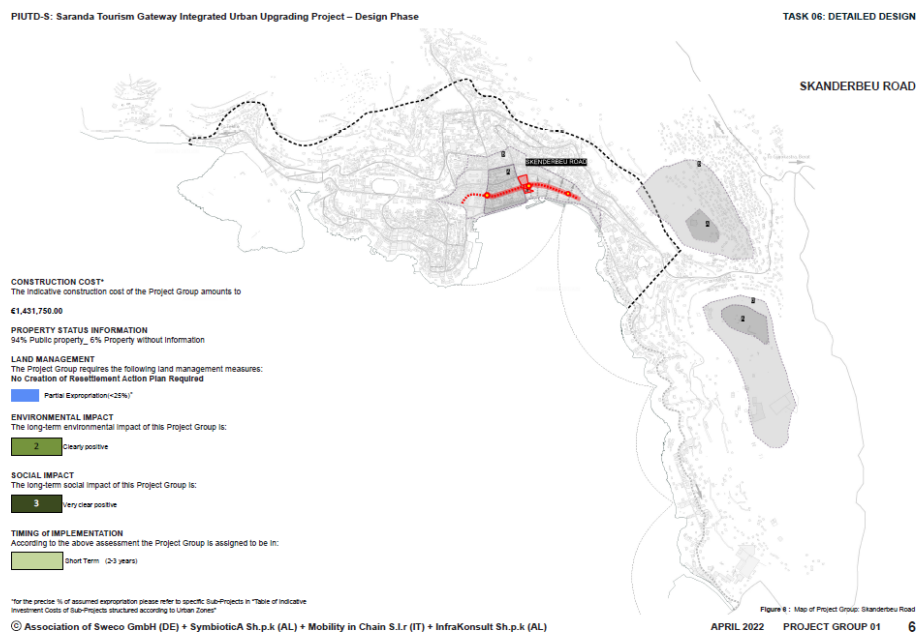
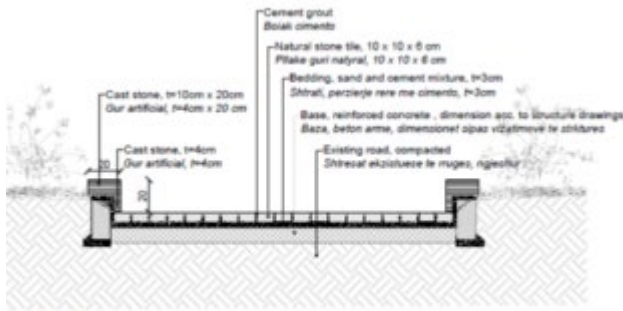


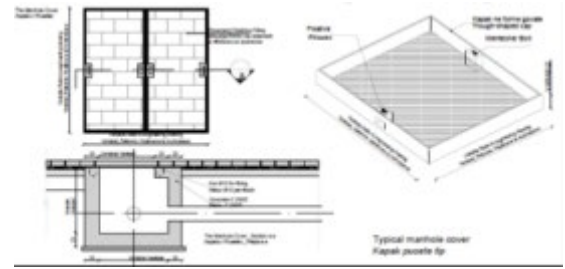
Figure 3: Skenderbeu Street Project

The intervention consists in: **Improving infrastructure, re-arrangement of car traffic/parking/ taxis, providing clear signage, Improving the pedestrian accessibility, Integration of public lighting, Integration of greenery and urban furniture, Improve visibility.**

The intervention proposes the use of the Skenderbeu road as a shared space between pedestrians, cars and bicycles, which would strengthen the use of the road by tourists and residents. The guiding concept of the project is the strengthening of the five senses connected



Park: Typical path detail - 1
Parku: Detaje tip le rugîce - 1



Friendship Park_ Except for the waterfront area, the city, in general, is lacking green public spaces and playgrounds. This site of intervention, located in the midst of a residential and hotel area but with very good access, is positioned ideally to accommodate a complementing social function such as a playground and green resting space. It is essential to restore good public access for the site from all borders and to ensure safe public movement through the site as well. This way the site could serve as a local pedestrian centre point for the whole neighborhood. Also, a direct visual and/or physical connection to the “Friendship Park” should be reinstalled. This intervention would also suit well with the concept of pedestrianization and the planned reduction of vehicular traffic in the “Skenderbeu Road” and the rehabilitation of “Mother Tereza Square”. Due to its specific location and easy access this site has the potential to be recovered and to develop once again into a friendly and welcoming recreational area for people of different ages and groups for citizens, artists and visitors alike. Proposed Intervention: Improve visibility of the existing park. Provide clear signage. Upgrade of the existing infrastructure, Improve and/or remove barriers, Upgrade paving and sidewalks, Upgrade of public lighting, Upgrade of greenery / landscaping, Upgrade of the urban furniture



Figure 5 View of Friendship Park



Figure 6 Friendship park after the intervention

Mother Tereza” Square is located in the city centre. It is a very busy area, occupied by car traffic, parking spaces, taxis and bus stops. Through this project, the area could be reconfigured in order to give more space to pedestrians and make the synagogue a more attractive tourist hot spot. This intervention would also suit well with the concept of pedestrianization and the planned reduction of vehicular traffic in the “Skenderbeu Road” and the rehabilitation of “Friendship Park”. Due to its specific location and easy access, all these sites have the potential to be recovered and to be developed into an active social/ cultural incubator and urban centrality for citizens, and tourists alike. The square is planned to be extended vertically with stairs overlooking the sea, so that it can become a resting point and eventual area for city events.



Figure 7 Intervention Visualization _ Mother Tereza Square

P7A –Mitat Hoxha Street

- Z2-C-P10 – The requalification of Mitat Hoxha street

Through this project the area could be reconfigured in order to give more space to pedestrians and make the pedestrian and vehicular mobility more comfortable. The intervention consists in: Improving infrastructure, re-arrangement of car traffic/ parking/ taxis, Providing clear signage, Improving the pedestrian accessibility, Integration of public lighting, Integration of greenery and urban furniture, Improve visibility.

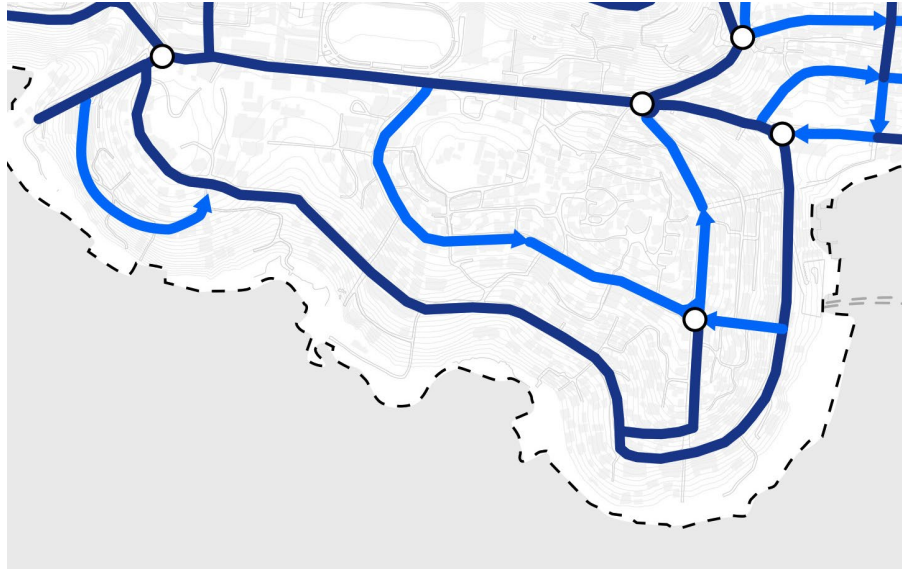


Figure 8 Intervention Project: New Circulation Proposal

The Design present the changing of Mitat Hoxha Street to a street with one sense of movement. The road section includes double sense bike lane and expanding sidewalk on the side along the seaside, giving to the pedestrians a new experience and enjoyable view under the European Linden Tree shadows due to the positioning of the hotel bandages on both sides of the road, sidewalks play an important role in discharging the flux of tourists.

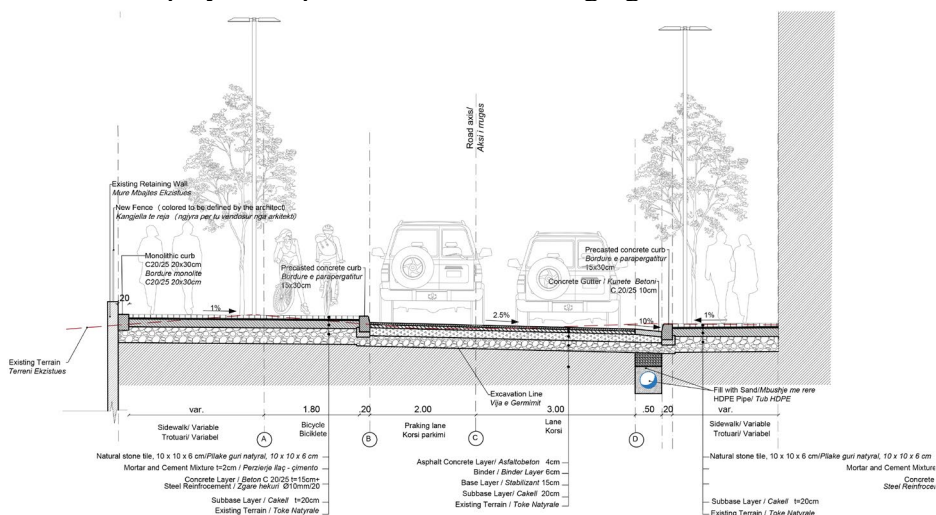


Figure 9 New Section of Mitat Hoxha Street

The street will be paved in local stone with a pattern that symbolizes the type of city, namely the fish scales. The pattern is the intertwining of local stone in two different colors that will shape the space for the exclusive use of pedestrians towards the space where it is also possible to ride a bicycle.

Since bicycles are not used in Saranda, this road will be a starting point for this type of transport to become part and why not return one of the priority transports for citizens and tourists. Nowadays the use of non-motorized two-wheeled vehicles has increased and this proposed bicycle lane can be used in parallel for the movement of these vehicles.

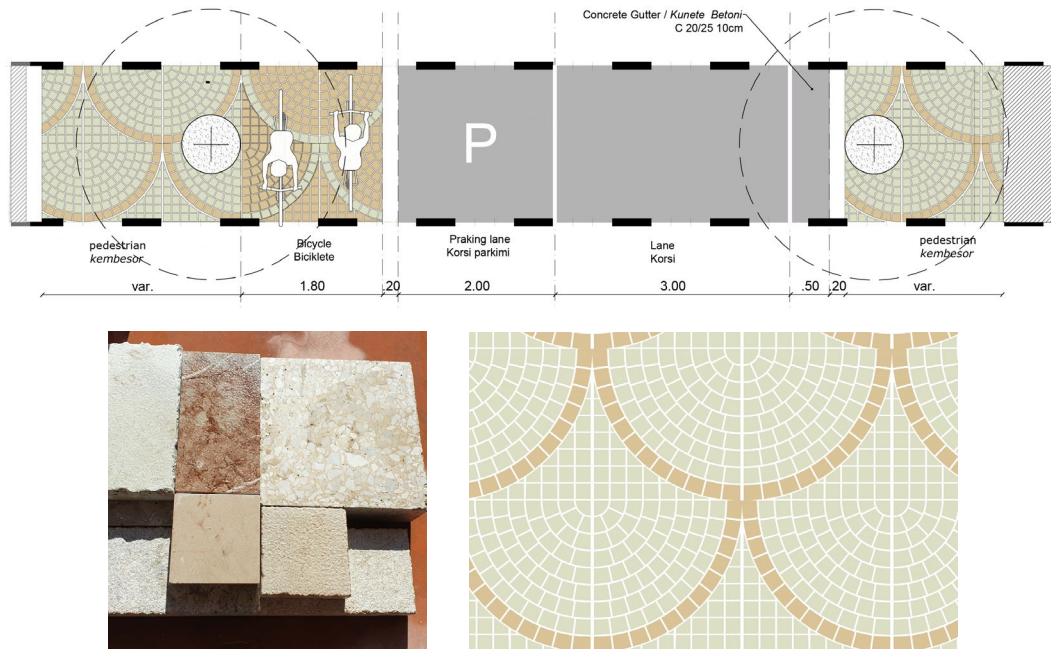
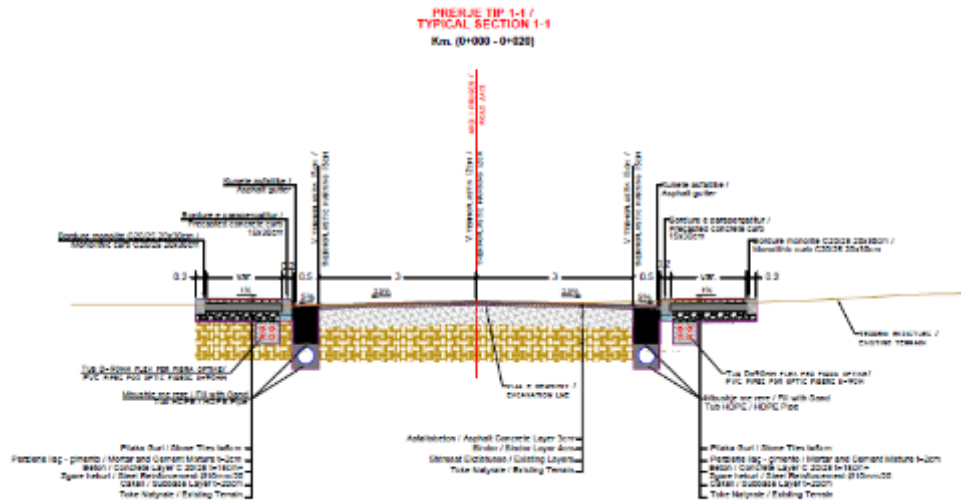


Figure 10 Pattern and Materiality Proposed



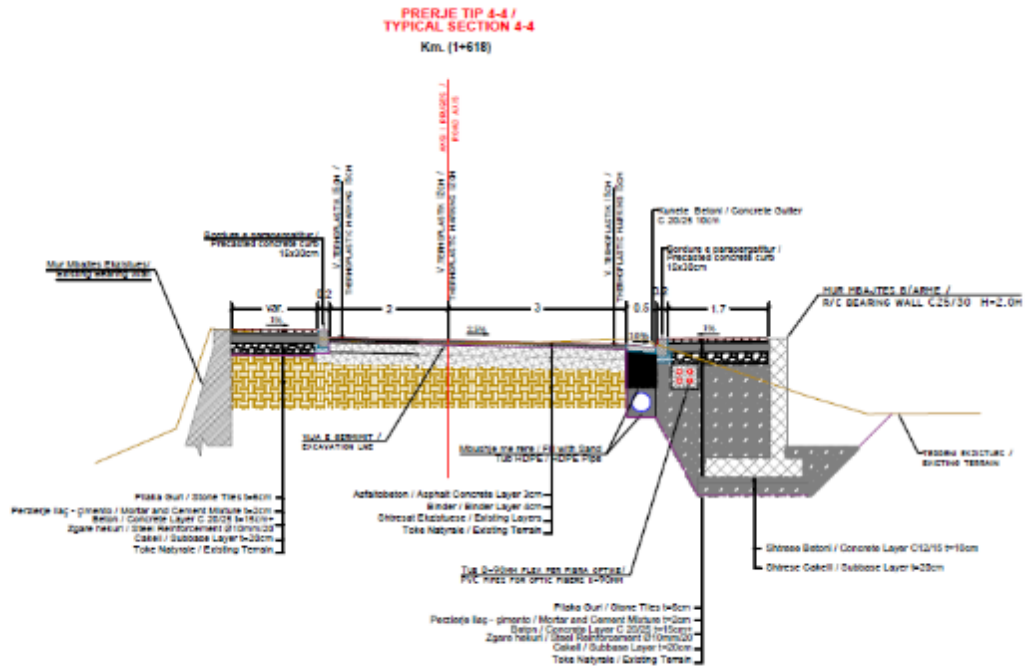


Figure 11 Typical Sections

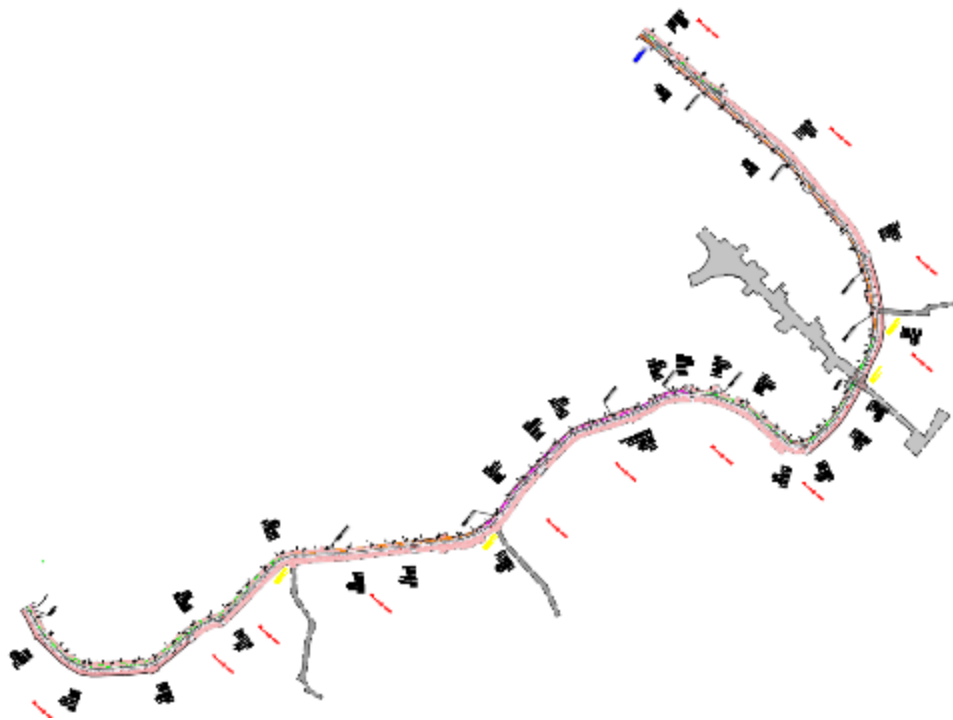


Figure 12 Drainage Plan



Figure 13 Signage plan

P7 – Europa Square

- Z2-T-P2 – Lighting, improvement of public equipment and rehabilitation of Europa Square
- Z2-T-P3 – Urban regeneration of vertical connections
- Z2-M-P4D – Punctual interventions along Mitat Hoxha street
- Z5-C-P1C – Improving the continuity of vertical connections and public stairs

Europa Square is located in the eastern part of Saranda Hill (Zone 2), along Ismail Qemali Road, Europa Square is an important junction, and a very busy area, occupied by car traffic, parking spaces, taxis, and bus stops. The Zone is mostly residential but, it is also very close to the Hotels and Beach Area (Zone 5). Europa Square is a crucial point for this entire area since the two roads that secure access into the Hotels and Beach Area (Hodo Nivica and Bilal Xhaferri Street) intersect with each other in this point. The site intervention is around 7000m².

The most problematic issues of this site are related to pedestrian safety and comfort. Although the carriageway quality is in moderate condition, the sidewalks and curbs are deteriorated. The physical condition of the pavement is poor and their technical parameters are insufficient for comfortable and safe pedestrian mobility. There are also substandard curb and sidewalks width, caused by protruding property limits. The lack of public lighting, clear way-finding elements, and the lack of greenery have also a negative impact on the site.

Z2-T-P2_Lighting, Public Furniture upgrade & Rehabilitation of Europa Square

Europa Square is located in the eastern part of Saranda Hill (Zone 2), along Ismail Qemali Road, Europa Square is an important junction, and a very busy area, occupied by car traffic, parking spaces, taxis, and bus stops. The Zone is mostly residential but, it is also very close to the Hotels and Beach Area (Zone 5). Europa Square is a crucial point for this entire area since the two roads that secure access into the Hotels and Beach Area (Hodo Nivica and Bilal Xhaferri Street) intersect with each other in this point. The site intervention is around 7000m²

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Figure 14 Existing Plan of Europa Square



Figure 15 Photo of the Existing Layout of the Square



Figure 16 Lack of Safety in Pedestrian Spaces



Figure 17 View towards Hodo Nivica Street

Z2-T-P3_Urban Regeneration of the Vertical Connections.

This project group comprises also the rehabilitation of the main vertical connection (**Bilal Xhaferri Street**) and existing public staircases at the end of this street, improving the public space and touristic attractiveness of the Saranda Hill Area. Bilal Xhaferri Street is located in the eastern part of Saranda Hill (Zone 2). It intersects with Ismail Qemali Road at Europa Square and ends down to Mitat Hoxha Street, after which the staircases, that go down to the beach area begin. Bilal Xhaferri is one of the most important vertical connections between the two parallel roads that enable the connectivity of the whole area, and most importantly it is the only road secures vehicular access from the eastern part of Zone 2 to the eastern part of Zone 5, where the hotels are located. Due to the strongly sloped terrain, the vertical circulation is very limited in the whole City in general. The poor quality of the vertical axes complicates the mobility and loads traffic on the parallel axes. The physical condition of the roads is not good. The Lack of signage and lighting makes it difficult for vehicular mobility and makes affects.



Figure 18_Unsafe Pedestrian & Citizens Space



Figure 19_Bad Condition of the Sidewalk and Unsafe Pedestrian Space



Figure 20_Existing Condition of the Pedestrian Space & Road

Z2-M-P4d_Punctual Interventions along Mitat Hoxha Street

In an area with multiple hotels, that offers access to the sea, our intervention site is deemed to create a more accessible but also a more, potentially, attractive part of the city's new touristic hot-spot for Saranda.

The area has a less than desirable road infrastructure, with barely any street lighting, in a green deprived part of town. The sections of our proposed intervention offer opportunities to increase accessibility to the beach. With minimal pedestrian space on the side of the road, it feels almost unwelcoming to an outsider. The lack of designated parking spaces makes the

area feel very chaotic from time to time. The strip closest to the sea is very lively with a mix of hotels, bars and restaurants. The area behind it is mostly residential, with great potential.

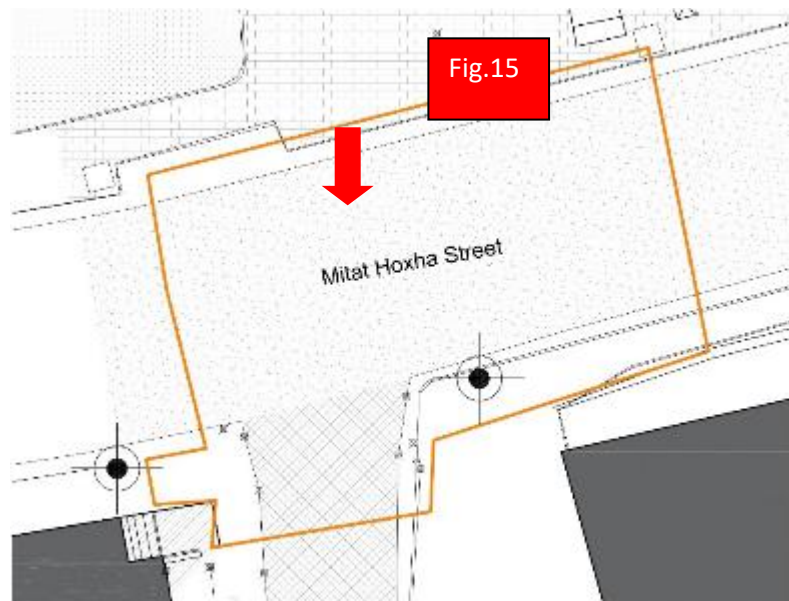


Figure 21_Existing Plan of Z2-M-P4D_Punctual Interventions along Mitat Hoxha Street



Figure 22_View toward the Punctual Intervention

Z5-T-P5 c_ Beaches Facilities

These Facilities will be located at the beach area in the Southwest of the Central City Area. They are part of the ““West Touristic Beach/ Zone 5”. The positioning of this area along the coastline has favored and defined the use for tourist purposes of the territories of this area. Several beaches have been developed in this area that extend along the entire length of the coastline. Next to the beach area is the area with facilities serving tourism, thereby creating a

strip of tourist function buildings. It is a rocky beach, with a beautiful sea. It is mostly used by locals. As it has happened often in the seashore of the major coastline cities of Albania, the most part of the area is occupied, sometimes even informally, by the private beaches of the hotels nearby. There are still a few public spaces left for the inhabitants.

Concept Description

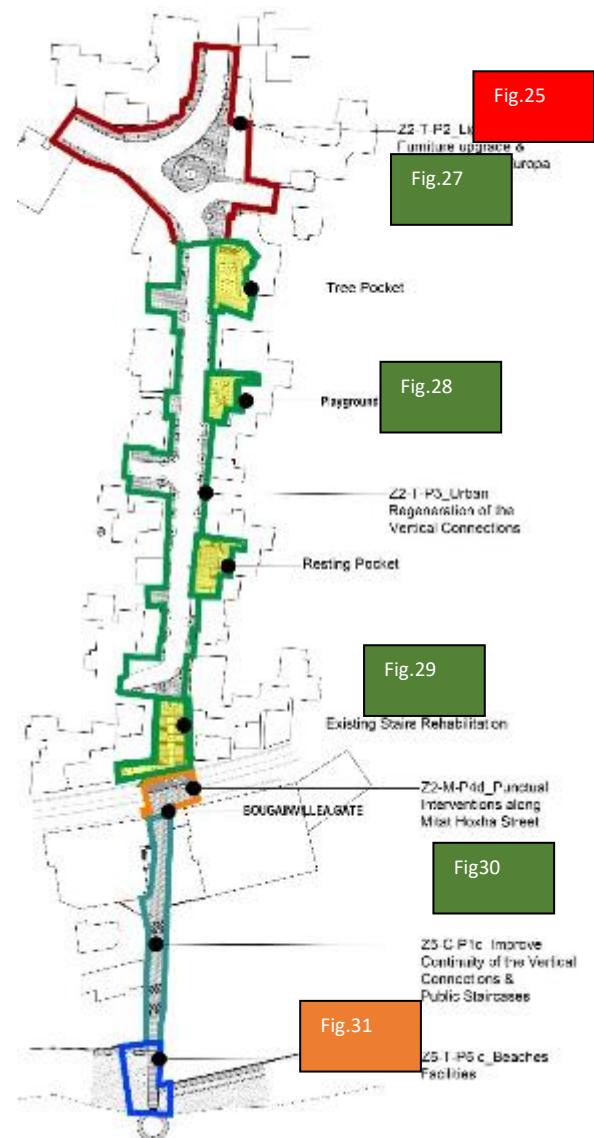
Project Group “Europa Square” comprises the urban rehabilitation of Saranda Hill Neighborhood and West Coast Beach Zone. This interventions will give improve the local and tourism experience in the area and give better access and connection from the inner parts of Saranda Hill to the Seafront.

The intervention consists in the rehabilitation and improvement of the existing road, existing vertical connections and also in the creation of new recreational spots along Bilal Xhaferri Street and new recreational end point into the sea.

The main design concept proposed for this group in based on the creation of the connectivity between the main prats of the project mentioned above, creating a vertical unique line that connect the Europa Square with the sea.

The Main Part of the project proposal are:

1. Z2-T-P2_Lighting, Public Furniture upgrade & Rehabilitation of Europa Square
2. Z2-T-P3_Urban Regeneration of the Vertical Connections:
 - Tree Pocket Plaza
 - Playground Pocket
 - Resting Pocket
 - Rehabilitation of the Existing Staircase
3. Z2-M-P4d_Punctual Interventions along Mitat Hoxha Street:
 - Bougainvillea Gate
4. Z5-C-P1c_Improve Continuity of the Vertical Connections & Public Staircases
5. Z5-T-P5 c_Beaches Facilities
6. Rehabilitation of Facades



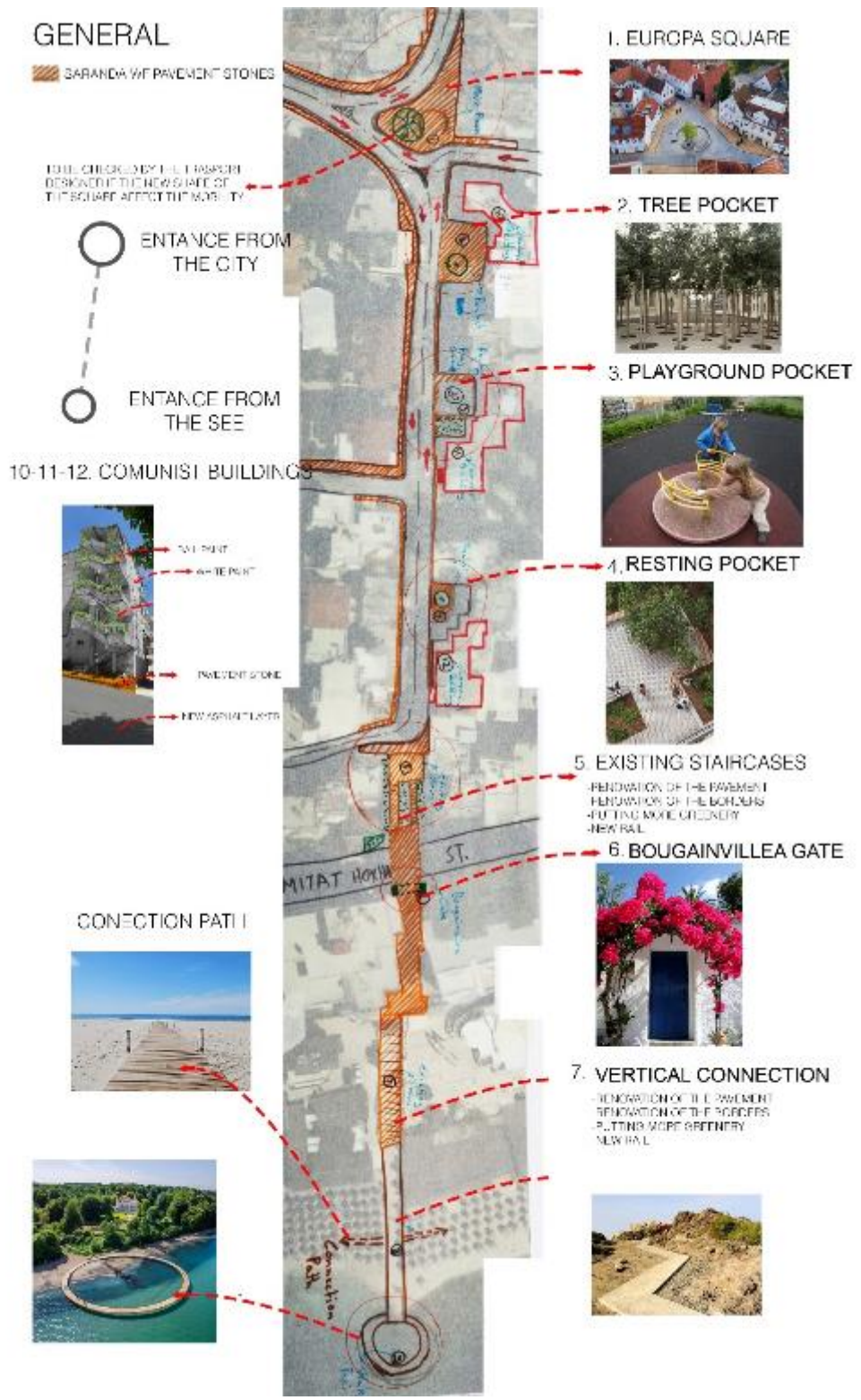


Figure 23 Concept Idea of the Project Group

Z2-T-P2_Lighting, Public Furniture upgrade & Rehabilitation of Europa Square

Through Europa Square project the area could be reconfigured in order to give more space to pedestrians and make the pedestrian and vehicular mobility more comfortable. We are proposing a creation of a main Entrance Plaza with a resting point in the middle of it. From this you have a beautiful view point from you can see the sea.

- Improving infrastructure
- Re-arrangement of car traffic/ parking/ taxis
- Providing clear signage
- Providing shading elements
- Improving the pedestrian accessibility
- Integration of public lighting
- Integration of greenery and urban furniture

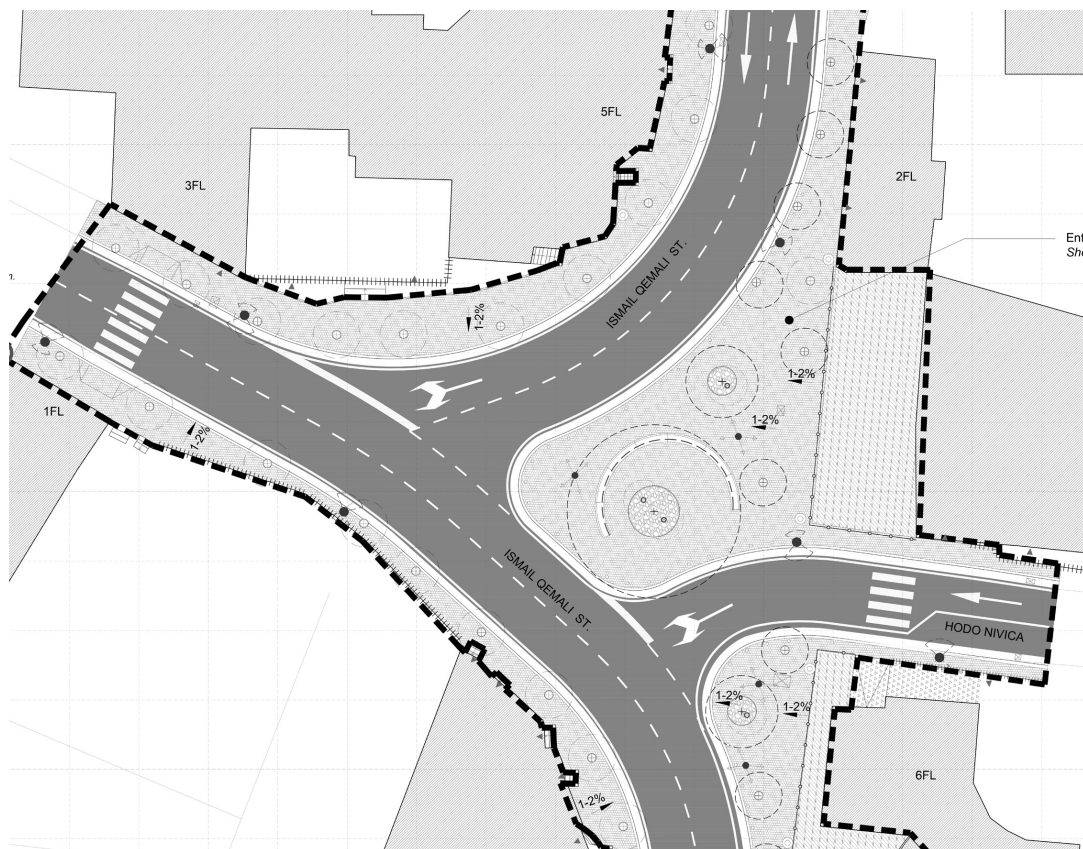


Figure 24 Europa Square Plan Intervention



Figure 25_Europa Square Intervention

Z2-T-P3_Urban Regeneration of the Vertical Connections

The intervention of the Regeneration of the vertical connection consist in:

Upgrade existing road infrastructure

- Upgrade existing staircases
- Upgrade accessibility
- Upgrade urban spaces along vertical connections
- Integration of public lighting
- Integration of points of interests / new activities
- Integration of greenery
- Integration of urban furniture

The particular of this project is the Creation of three Recreational spots with different themes, along the Vertical Connection Bilal Xhaferri Street, converting the street into a more livable and pedestrian-friendly space, giving the citizens e new lifestyle.

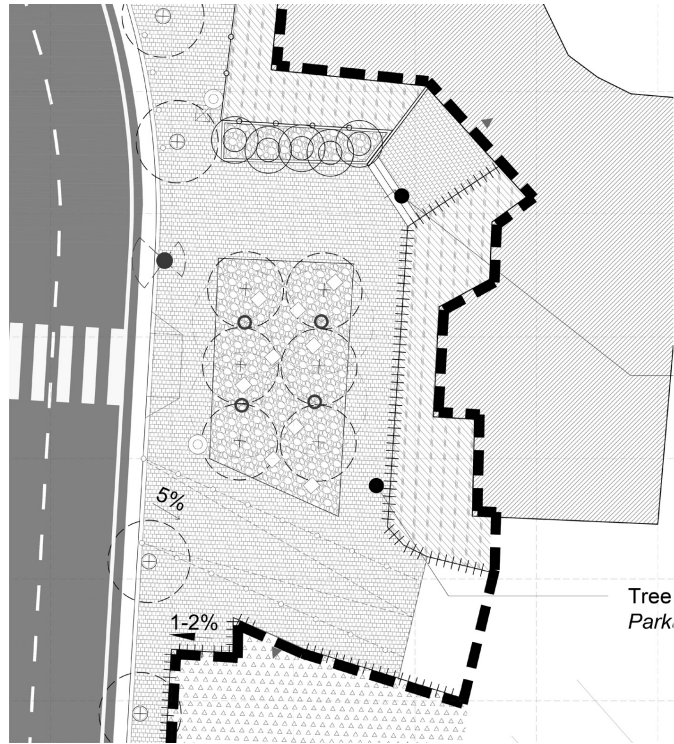


Figure 26 Intervention Spots _ Tree Pocket

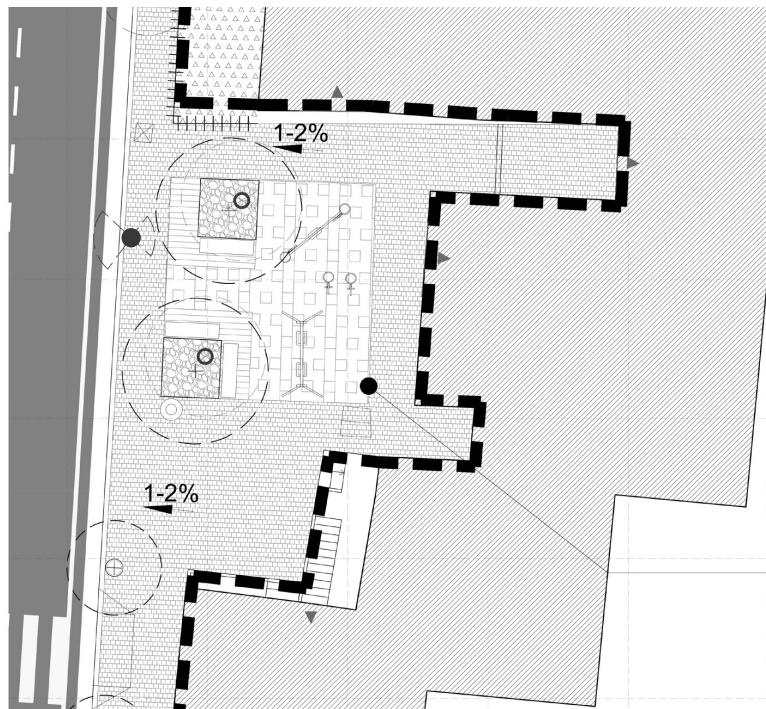


Figure 27 Intervention _ Resting Pocket Playground Pocket

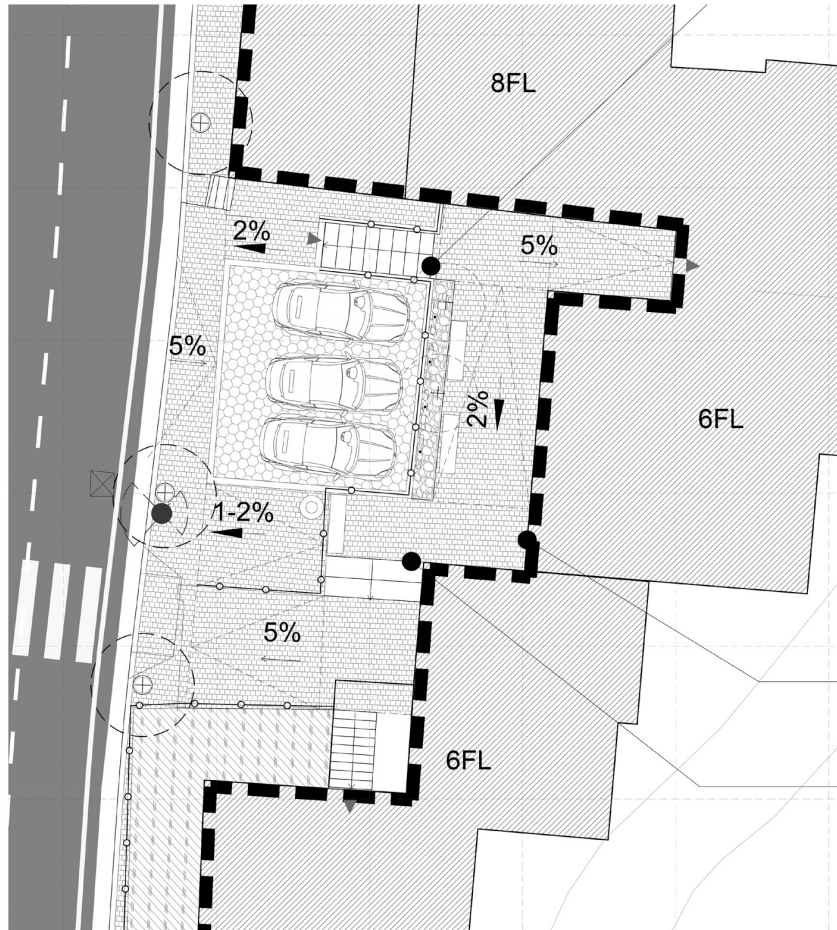


Figure 28 Intervention Spots _ Resting Pocket

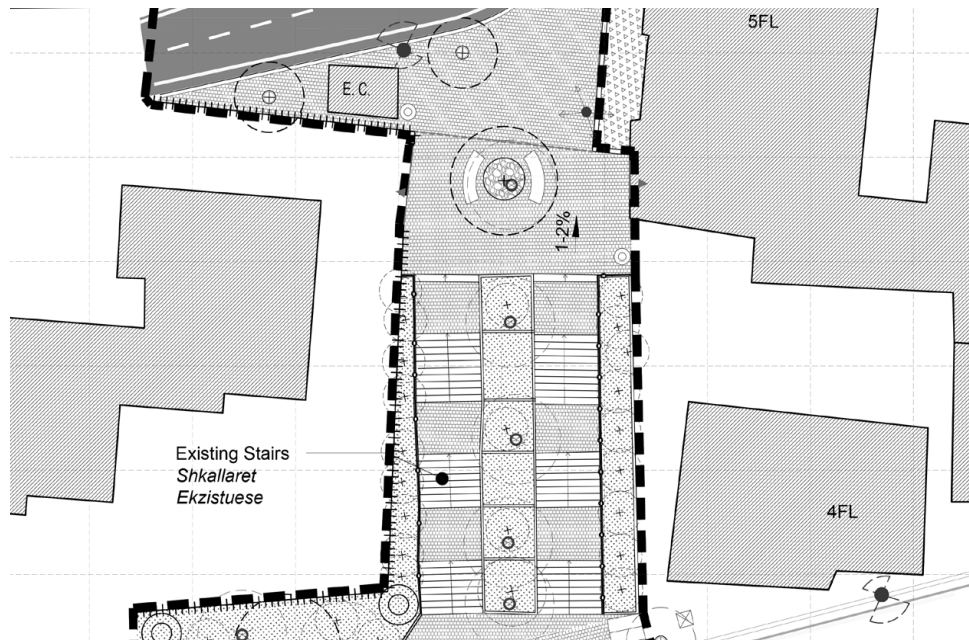


Figure 29 Rehabilitation of the Existing Stairs

Z2-M-P4d_Punctual Interventions along Mitat Hoxha Street

The intervention will upgrade accessibility between the western touristic orientated strip and the residential area behind it. It would enhance the urban space on top of the vertical connections. Also an update of the existing road infrastructure will improve the accessibility for both sections.

These areas would also attract tourists which would in its turn also improve living standards in the area.

The creation of “the **Bougainvillea Gate**” in a shape of a steel frame where the Bougainvillea will grow, will create the idea of an entrance door into the see.

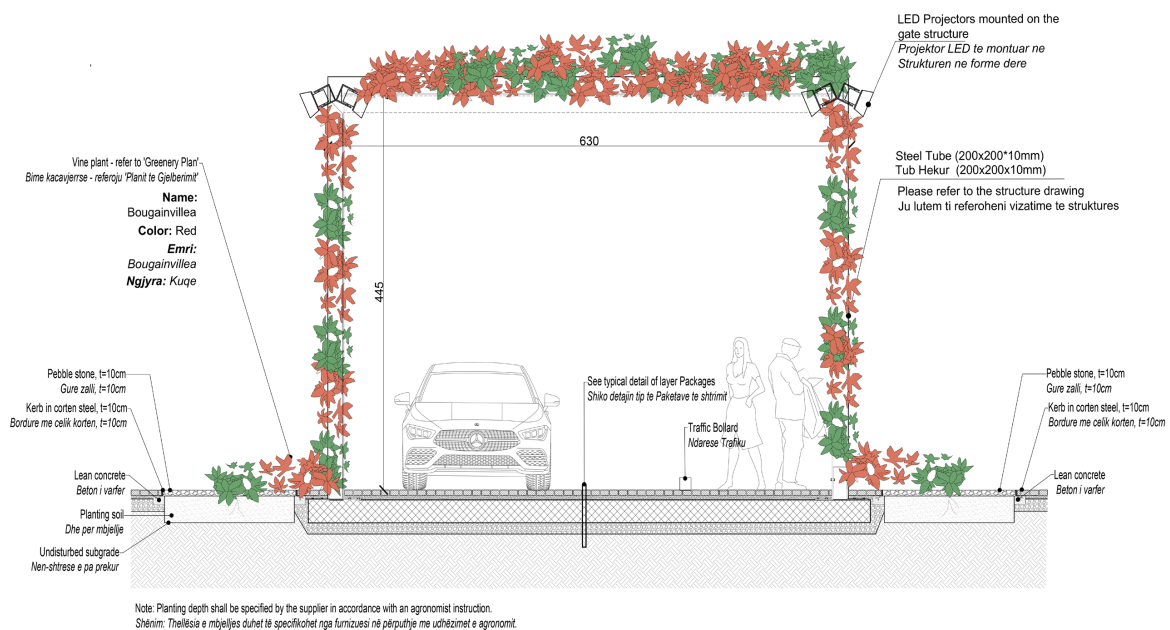


Figure 30 Bougainvillea Gate Elevation Image

Z5-C-P1c_Improve Continuity of the Vertical Connections & Public Staircases

- Upgrade existing road infrastructure
- Upgrade existing staircases
- Upgrade accessibility
- Pavement layer unification
- Unification of the hand railing



Figure 31 Intervention Plan of Z5-C-P1c_Improve Continuity of the Vertical Connections & Public Staircases

Z5-T-P5 c_ Beaches Facilities

In the theme of reviving Saranda's beach, we are proposing beach facilities. To increase the attractiveness of Saranda's shores, we aim to construct beach facilities. They will make it easier, for instance, day-tourists to come and visit the beaches. The facilities would have showers, toilets and changing rooms.

Façade Rehabilitation

A large-scale intervention is required to revitalize the facades and at the same time unify the urban area, including conservation and rehabilitation of the buildings. Part of the intervention project will be only the main facades overlooking the Bilal Xhaferri road. The intervention must be considered a regulation on how the rehabilitation of the rest of the buildings that must be carried out by the citizens / owners must take place.

The interventions are divided into three types:

Type 1_ Buildings built from 1950 to 1993 - rehabilitation of the facades as originally built but with colors as per palette;

Type 2_ Buildings built after 1993 - plastering, if necessary, and color similar to Saranda light stone.

- The following are the major interventions in accordance with the points above:
- Relocation of the external units of the air conditioner to the balcony floor. If no balcony available then a box with a perforated mesh and a color similar to the facade will be installed to hide the AC unit. The length of the metal box must be equal to the window;
- Removal of exposed cables and insertion in a tray, if internal passage is not possible, with a color similar to the facade;
- Rehabilitation and repainting of the plaster;
- Unified color of the railings in accordance with the palette;
- Sun tends color similar to Saranda dark stone (to be applied as regulation by the municipality, not part of the intervention);
- Plinths on the ground floor to be covered with the same stone proposed for the paving of the avnue;
- Windows frame color in accordance with the palette (to be applied as regulation by the municipality, not part of the intervention);



Figure 32 Concept Façade Color Proposed



Figure 33 Color Pallette Proposed

used the first type of Lighting: Street Lighting every 25 m. This kind of streetlight has the capacity to light up the road and the sidewalk.



Figure 36_Europa Square-Lighting Plan Proposed

In the Entrance Plaza _ Europa Square, as the main part of this group of project is proposed to be used different type of lightings to emphasize the function of it. The proposed lights are: Led projectors, Ground mounted spots for tree pits and also led lighting incorporated in urban furniture. For the different spots created along Bilal Xhaferri street is proposed a minimal lighting concept using mainly the Ground mounted spots for tree pits and also they are light up from street lightings. Lighting is used also in the main entrance of the Vertical Connection being incorporated in the Bougainvillea Gate structure. In order to protect pedestrian from the street Ground mounted spots are used also where traffic bollards are proposed, making not only a physical barrier bot also a visual one.

Greenery Proposal

Name: Platanus occidentalis (Plane Tree)
Foliage Color: Green, gray green
Evergreen: No
Time of Planting: To be confirmed by dendrologist
Minimum Circumference Tree
Trunk before planting: > 30cm
Min. Height of Tree before Planting: h ≥ 300 cm
The Crown to start in half of the height of the tree

Emri: Platanus occidentalis (Pllapi)
Ngjyra e Gjetes: Jeshile, jeshile-qi
Me gjelberim te perbershem: vetem ne gjese te caktuara ne vit
Koha e Mbijeljes: Te konfirmohet nga dendrologu
Perimetri minimal i trunqut te pemes para mbijeljes: > 30cm
Lartesia e Pemës Minimale: h ≥ 300 cm
Kurora te fllaje ne gjysmen e lartesis se pemës.



The main proposal of the usage of greenery is related with the differentiation of functionality also with using different types of greenery per different type of function. The greenery selection is related to the type of climate zones related, depending on the lighting analysis and water and maintenance needs

Name: Ginkgo Biloba Autumn Gold
Foliage Color: Green
Evergreen: No
Time of Planting: To be confirmed by dendrologist
Minimum Circumference Tree
Trunk before planting: 30cm
Min. Height of Tree before Planting: h=300 cm
The Crown to start in half of the height of the tree

Emri: Ginkgo Biloba Autumn Gold
Ngjyra e Gjetes: Jeshile
Me gjelberim te perbershem: vetem ne gjese te caktuara ne vit
Koha e Mbijeljes: Te konfirmohet nga dendrologu
Perimetri minimal i trunqut te pemes para mbijeljes: 30cm
Lartesia e Pemës Minimale: h= 300cm
Kurora te fllaje ne gjysmen e lartesis se pemës.



Few trees have such a distinguishing character as Platanus occidentalis. Even to the layperson, these grand trees clearly stand out from the rest. The patchwork bark – brown, orange, green and of course, white – make these trees jump out, especially in the winter landscape. The white-tipped branches can be seen from miles away, sharply contrasting the sky and the dull tones of other trees. The bark character and imposing form of these titans make them among the most

Name: Tilia European (Linden tree)
Foliage Color: Green to yellow
Evergreen: No
Time of Planting: To be confirmed by dendrologist
Minimum Circumference Tree
Trunk before planting: ≥ 20cm
Min. Height of Tree before Planting: h=250cm
The Crown to start in half of the height of the tree

Emri: Tilia European (Linden Evropian)
Ngjyra e Gjetes: Jeshile
Me gjelberim te perbershem: vetem ne gjese te caktuara ne vit
Koha e Mbijeljes: Te konfirmohet nga dendrologu
Perimetri minimal i trunqut te pemes para mbijeljes: ≥ 20cm
Lartesia e Pemës Minimale: h= 250cm
Kurora te fllaje ne gjysmen e lartesis se pemës.



visually impressive trees anywhere. **Entrance Plaza _ Europa Square** to give shade to the people using the square.

Name: Ilex Aquifolium
Foliage Color: Dark green
Evergreen: Yes
Time of Planting: To be confirmed by dendrologist
Minimum Circumference Tree
Trunk before planting: 20cm
Min. Height of Tree before Planting: h=500 cm
The Crown to start in half of the height of the tree
Emri: Ilex Aquifolium
Ngjyra e Gjetes: Jeshile Erit
Me gjelberim te perbershem: Po
Koha e Mbijeljes: Te konfirmohet nga dendrologu
Perimetri minimal i trunqut te pemes para mbijeljes: 20cm
Lartesia e Pemës Minimale: h=500 m
Kurora te fllaje ne gjysmen e lartesis se pemës.



Ginkgo biloba, also called maidenhair, is a large broadleaf, deciduous tree with a sculptural pyramid shape. While it loses its leaves in winter, this ancient tree is classified as a conifer and is dioecious, meaning that some trees are male while others are female. Before the whole leaf turns golden, there is sometimes a stage during which the leaf is two-toned, with separate bands of gold and green. Ginkgo is used in the Entrance Plaza _ Europa Square, in the and also in the Entrance of

the Existing stairs at the end of Bilal Xhaferri street. Small-leaved lime (Tilia) is a large and long-living tree. It has a wide, natural range and can be found in most of Europe. The tree favours good, loamy sites but is quite drought tolerant and can also be found on sandy and infertile soils. Tilia is proposed as a street tree along **Bilal Xhaferri Street**.

Common holly (Ilex aquifolium) is a small, slow-growing evergreen tree or shrub, characterized by its distinct green leathery leaves and red berries. It is native to western Europe. The tree's fruit is an important food source for birds and smaller mammals during winter. The species is adaptable to different soil conditions, but prefers well-drained, acidic

soils. In its northern range, the tree grows at sea level but, in its southern range, the tree grows in altitudes up to 2600 m. It tolerates maritime exposure as well as air pollution. Ilex is proposed to be used in the **Tree Pocket**.

- **P3 – Traffic intersections**

- Z1A-T-P9 – Requalification of the crossing Student – Onhezmi – Lefter Talo
- Z1A-M-P10 – Requalification of the crossing Skanderbeu – Onhezmi and requalification of the crossing Flaguri – Skanderbeu – 40 Saints
- Z1A-M-P11 – Retraining of the 40 Saints Crossing – Naim Frasheri and Retraining of the 40 Saints Crossing – Lefter Talo
- Z2-M-P6 – Retraining of crossing Peshkatari – Idriz Alidhima – Mitat Hoxha
- Z2-M-P7 – Requalification of Kosova Square and Requalification of Muharem Rushiti Square
- Z6-M-P4A – Requalification of the Skenderbeu – Gjergj Araniti crossing
- Z6-M-P4B – Requalification of the intersection Skenderbeu street – the road to Ksamil

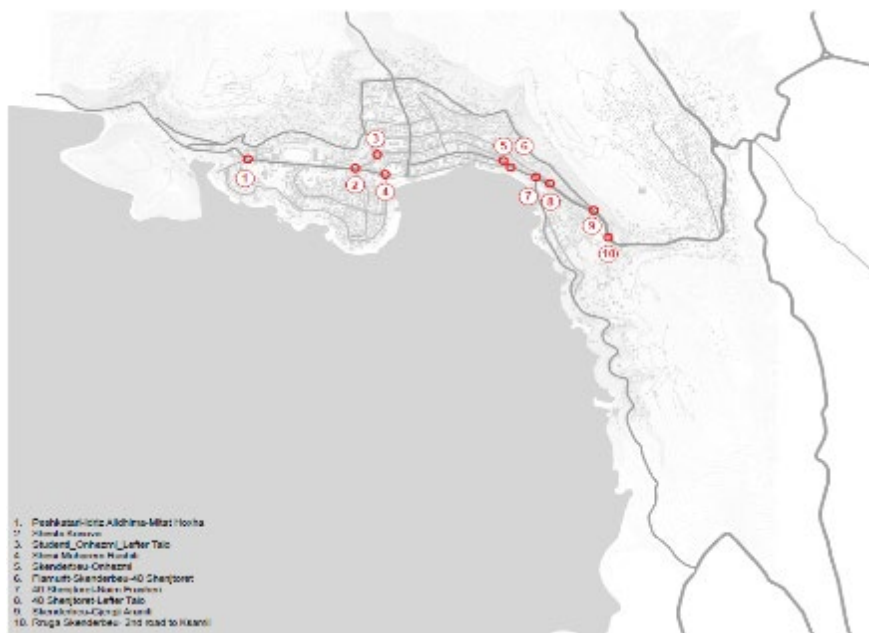


Figure 37 Intersection Project Location Map



Figure 38: View of the Existing Situation

There are two options proposed for this junction, but the choice between the two will be possible only after having a precise estimation of the future traffic flows. The proposed design does not change the general layout of the junction from the current status, instead, it emphasizes the rationalization and channeling of maneuverer and shortening the pedestrian paths across the intersection. Pedestrian mobility is made easy by providing ample curb space, pedestrian crossings at every branch, as close to the intersection as is safely possible. No traffic lights are needed to control this intersection, but a dedicated traffic light can be activated by the arrival/departure of an ambulance, to clear the intersection when an ambulance must access the hospital.

Onhezmi is currently one-way in the east to west direction, but in the plan of redesign of the road network, it will be two ways west of this intersection and one way with traffic flowing in the west to east direction east of this intersection. Currently, both Studenti and Lefter Talo are one way with traffic flow entering the intersection.

A second layout is proposed which functions in a better way than the previous layout but requires that the direction of travel on Studenti St. is reversed. This reversal will have to involve the entire length of Studenti St. from this intersection to the intersection with Adem Sheme Street. This will not cause problems to the circulation of vehicles within the centre of Saranda, since Adem Sheme Street has been proposed as a two-way street for almost its entire length, from the north of the city to the intersection with Skenderbeu Street. By reversing the direction of travel, a loop is formed between Studenti St., Adem Sheme and Lefter Talo St., which allows them to reach this intersection.



Z1a-T-

P9_ Requalification of Junction: Studenti_Onhezmi_Lefter Talo

Description of Existing Conditions

This is one of the main junctions of Saranda. This is an intersection between the two segments of Studenti Street and Onhezmi and Lefter Talo Street, located on the western side of the city Centre Zone, near the Hospital of Saranda.

Currently, four streets converge in this intersection: Onhezmi Street (which has two branches), Studenti and Lefter Talo Street. The physical condition of the intersection is not good. The lack of signage and lighting, the insufficient technical parameters of road junctions creates it difficulties for vehicular mobility and affects pedestrian comfort, safety, and orientation. This junction is very important because it connects the three main parallel roads and in addition to this, an important element to take into consideration is the entrance of the city Hospital which is two-way access where ambulances must be able to enter and exit at any time undisturbed by traffic. This intersection will be a crucial point, with the overall changes to the road network, public transport lines, and parking strategy.

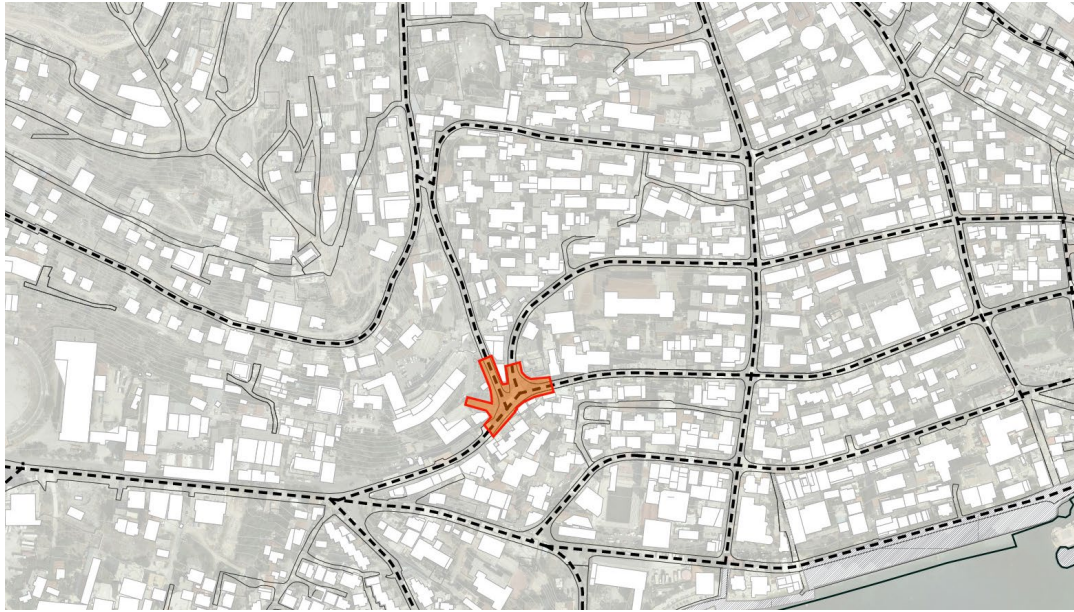


Figure 40 Intersection Location Map



Figure 41 View of the Existing Situation

Proposal Description

There are two options proposed for this junction, but the choice between the two will be possible only after having a precise estimation of the future traffic flows. The proposed design does not change the general layout of the junction from the current status, instead, it emphasizes the rationalization and channeling of maneuverer and shortening the pedestrian paths across the intersection. Pedestrian mobility is made easy by providing ample curb space, pedestrian crossings at every branch, as close to the intersection as is safely possible. No traffic lights are needed to control this intersection, but a dedicated traffic light can be activated by the arrival/departure of an ambulance, to clear the intersection when an ambulance must access the hospital.

Onhezmi is currently one-way in the east to west direction, but in the plan of redesign of the road network, it will be two ways west of this intersection and one way with traffic flowing in the west to east direction east of this intersection. Currently, both Studenti and Leter Talo are one way with traffic flow entering the intersection.

A second layout is proposed which functions in a better way than the previous layout but requires that the direction of travel on Studenti St. is reversed. This reversal will have to involve the entire length of Studenti St. from this intersection to the intersection with Adem SHEME Street. This will not cause problems to the circulation of vehicles within the centre of Saranda, since Adem SHEME Street has been proposed as a two-way street for almost its entire length, from the north of the city to the intersection with Skenderbeu Street. By reversing the direction of travel, a loop is formed between Studenti St., Adem SHEME and Leter Talo St., which allows them to reach this intersection.



Figure 42 New Proposal

Z1a-M-P10_Requalification of Junction: Skenderbeu-Onhezmi & Requalification of Junction: Flamurit-Skenderbeu-40 Shenjtoret

Description of Existing Conditions

This junction is located at the Eastern Entrance of the Waterfront Promenade “Naim Frasheri” and also the Eastern Entrance of the City Centre. It is an intersection that connects Flamuri Street, Skenderbeu Street and Onhezmi Street with the 40Shenjtoret Road. The road network, as in most cases in Saranda, is strongly conditioned by the topography of the site. The physical condition of the existing intersection of the streets is deteriorated. It lacks proper lighting, signage and way-finding elements, since it is the entrance point to the two most frequented areas in the city of Saranda. The insufficient technical parameters of road junctions create difficulties for vehicular mobility and affect pedestrian comfort, safety, and orientation. Due to the difference in elevation and the profiles of the street, in the point where Onhezmi and Skenderbeu road meet, it is very problematic for pedestrian street crossing. This is also problematic in the part where Flamuri and 40Shenjtoret meet, because of the position of the advertisement and the infrastructures elements of the existing Gas station. The illegal/ or dedicated parking on the side of the streets, creates a problem with the traffic flows in this Intersection.



Figure 43 Intersection Location Map



Figure 44. Project Area



Figure 45 Existing Situation of Junction _Skenderbeu Street & Onhezmi Street



Figure 46 Existing Situation of Junction_ Flamuri Street &Skenderbeu Street &40 Shenjtoret Street

Proposal Description

Due to the importance of this junction and the impact that each street who intersect with each other at this site have for the City of Saranda, a careful mobility study and analysis of the entire area has been made, as it was presented in the previous phases. Four streets converge in this intersection: Onhezmi, 40 Shenjtoret, Skenderbeu, and Flamuri. All streets are one-way with traffic flows exiting the intersection only from 40 Shenjtoret.

Differently from the current situation, also the traffic flow along Onhezmi now enters the intersection, and the intersection has been designed accordingly. This intersection has three directions of arrival and only one direction of departure. Given that, in the proposed plan Skenderbeu will become a low-traffic, pedestrian-friendly street, while its role as an urban thoroughfare will be taken by Onhezmi, priority to the flow of traffic entering from Onhezmi has been given over the flow of traffic entering from Skenderbeu. The traffic flow arriving from Flamuri exits the intersection directly, thanks to the presence of two lanes on 40 Shenjtoret. The other lane collects the traffic coming from Onhezmi and Skenderbeu.

Placing appropriate pedestrian curbs and crossings has been made difficult not so much by the traffic flows as by the difference in elevation of the streets and the steep inclines. It has not been possible to design a pedestrian crossing that is accessible to disabled persons on wheelchairs, and it has not been possible to accommodate a pedestrian walkway on the hillside of Onhezmi because of the insufficient width available. No traffic lights are needed to control this intersection.

Butrinti Road (SH 81) is two-ways. This intersection, therefore, has 4 entry points and 4 exit points.

It currently has insufficiently large space dedicated to the carriageway, lack of road marking and organized pedestrian crossing points, parking access at the junction. No traffic light regulation, the junction performs as a roundabout. There are many conflict points for different maneuvers which are not desirable for a good level of service. In addition to the allowed maneuvers, access to petrol station and the local parking facility take place at this junction, which impacts on the efficiency of the junction's operation. The Junction itself is not constructed in a way that allows the traffic to be regulated.



Figure 48 Project Borders Map



Figure 49 Existing Situation _40 Shenjtoret Street & Naim Frasheri Street



Figure 50 Existing Situation of Junction _40 Shenjtoret Street & Leter Talo Street

Proposal Description

As it shows even on the schematic diagram below, this is one of the most problematic junctions of Saranda. This is not only because of the deteriorated current physical conditions, the insufficient technical parameters of road junctions which creates difficulties for vehicular mobility and affects pedestrian comfort, safety, and orientation, but also because of the traffic weight that it carries, since the roads that intersect in this junction are the most populated roads of Saranda, (especially in the high season) and are in poor conditions themselves. The Butrinti Road often has an insufficient width to allow for quality pedestrian mobility. The width of the curbs should never be less than 1.5 m, ideally 2.5 m especially if on one side only. The interruption of curbs should always correspond to a safe and comfortable pedestrian crossing that allows pedestrians to walk to the other side.

The intersection has been designed in a similar way to Muharem Rushiti Square, considering the intersection with Butrinti (SH 81) as a “T” intersection and giving priority to the flows of traffic exiting 40 Shenjtoret in both directions.

Ample traffic islands and numerous pedestrian crossings guarantee the highest level of safety and connectivity to pedestrians crossing this intersection. No traffic lights are needed to control this intersection.

It must be considered that, when the second road to Ksamil will be completed, Butrinti Road will become one way from Saranda towards Ksamil, and this intersection will be redesigned with a simpler design, thanks to the removal of one direction of arrival of vehicular flows.

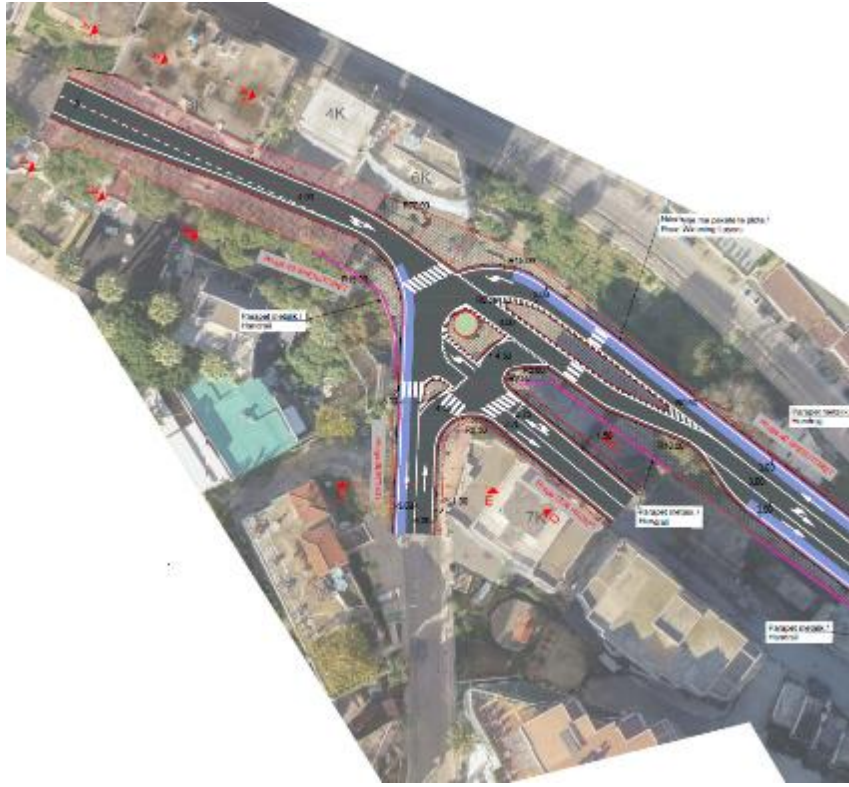


Figure 51 New Proposal_Segment A

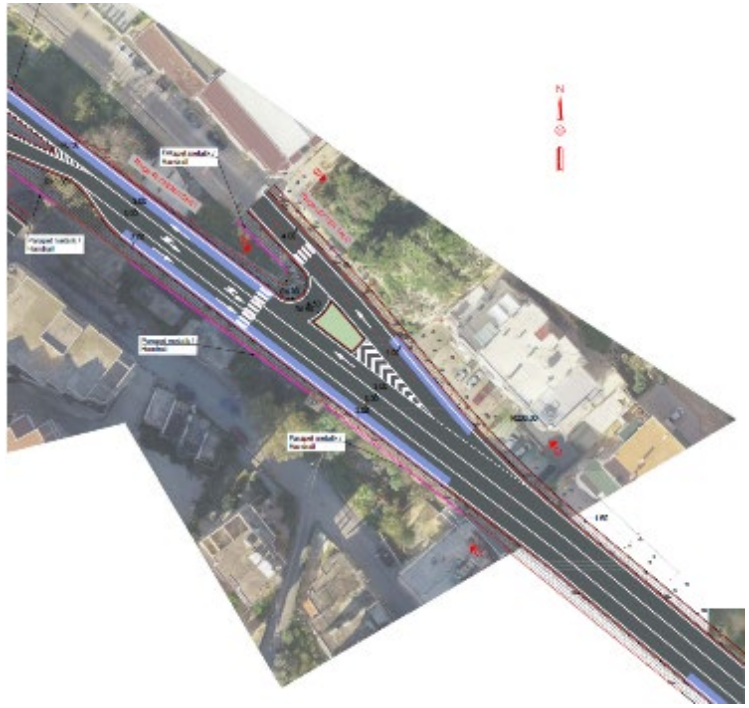


Figure 52 New Proposal_Segment B



Figure 53 New Proposal_Segment B (following the image above)

Z2-M-P6 _Requalification of Junction- Peshkatari & Idriz Alidhima & Mitat Hoxha

Description of Existing Conditions

On the western side of the city, this intersection leads to the small fishermen's harbour. Four roads meet at this intersection: Idriz Alidhima Street (two branches), Peshkatari Street and Mitat Hoxha Street. All these streets are 2 ways. It currently has insufficiently large space dedicated to the carriageway, lack of road marking and organized pedestrian crossing points, parking access at the junction. No traffic light regulation, the junction performs as a roundabout. There are many conflict points for different maneuvers which are not desirable for a good level of service. In addition to the allowed maneuvers, access to petrol station and the local parking facility take place at this junction, which impacts on the efficiency of the junction's operation. The Junction itself is not constructed in a way that allows the traffic to be regulated.



Figure 54 Project Borders Map



Figure 55 Existing Situation

Proposal Description

In view of the re-qualification of this harbor in touristic port for small yachts, the intersection leading to it has been redesigned accordingly. The intersection design gives priority to the vehicle movements along Idriz Alidhima Street and along Mitat Hoxha Street over Peshkatari Street, which is a local access road. Pedestrian movement is made easy by providing ample curb space and pedestrian crossings at every branch, as close to the intersection as is safely possible. No traffic lights are needed to control this intersection.



Figure 56 New Proposal

Z2-M-P7_ Requalification of Kosova Square & Requalification of Muharem Rushiti Square

Description of Existing Conditions

Kosova Square is a square where five streets converge: Onhezmi street, Idriz Alidhima Street (two branches), Ismail Qemali Street and a local access street leading into the district of the Hill. Four streets converge in this intersection: Idriz Alidhima Street, Jonianet Street, Abedin Dino street Mitat Hoxha Street. In addition to these streets, there is also one private vehicular access. Idriz Alidhima and Mitat Hoxha Street are two-ways, while Abedin Dino Street is one way exiting the intersection and Jonianet is one way towards the intersection. This means that the intersection has three directions of arrival and three directions of departure.



Figure 57 Intersection Location Map

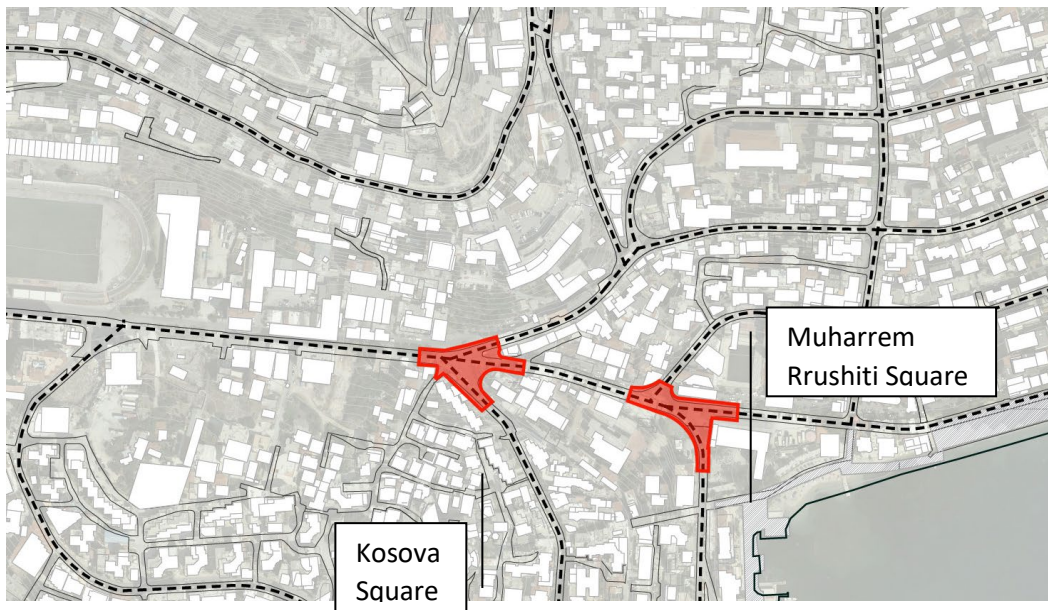


Figure 58 Project Borders Map



Figure 59 Existing Situation_ Kosova Square



Figure 60 Existing Situation_ Muharrem Rrushiti

Proposal Description

Kosova Square is a square where five streets converge: Onhezmi street, Idriz Alidhima Street (two branches), Ismail Qemali Street and a local access street leading into the district of the Hill.

There are therefore 5 directions of arrival and 3 directions of departure from the intersection. The best solution in this case is a roundabout. Ample space is guaranteed to the pedestrians and pedestrian crossings are designed at every branch, as close to the intersection as is safely possible. Small “shark-tooth” traffic islands provide a deflection of vehicular flows that guarantees adequate visibility and low speed, to the advantage of safety. No traffic lights are needed to control this intersection.



Figure 61 New Proposal-Kosova Square

Because of the complex layout of this intersection, it was decided that a roundabout is not the best solution to combine safety, pedestrian convenience and control of the traffic flows. The solution chosen favors the direct vehicular flows from Idriz Alidhima street to Mitat Hoxha Street and vice-versa, while it stops the flow coming from Jonianet Street. Pedestrian crossings are designed at every branch of the intersection, but also across the centre of the intersection, because of its vast area. A surmountable curb allows access to the private area to vehicles coming from Idriz Alidhima. No traffic lights are needed to control this intersection.

Z6-M-P4 a_Requalification of Junction-Skenderbeu-Gjergji Araniti

Description of Existing Conditions

This is the intersection between Skenderbeu Road (SH8) and Gjergj Araniti Road (the fifth parallel road). The site is located on the top part of the “South Touristic Zone” (Z6) on the southeastern edge of the City of Saranda.

It is in moderate conditions, but the technical parameters of the existing roads and of the intersection do not meet the requirements of the expected vehicular mobility or pedestrian safety and comfort. It currently has insufficiently large space dedicated to the carriageway, lack of road marking and organised pedestrian crossing points.



Figure 64 Intersection Location Map



Figure 65 Project Borders Map



Figure 66 Existing Situation

Proposal Description

This is apparently a simple “Y” shaped intersection between two-way roads. However, it is made complex by the difference in elevation of the roads that meet and by the limited space. Two options are presented to resolve this intersection as a roundabout.

The “T” junction favors the direct flows over the maneuvers, the roundabout, differently from the existing roundabout, has a through-flow lane on Skenderbeu, in west to east direction. This is obtained by shifting the centre of the roundabout’s central island to the north, exploiting the space available in that position. This change has also increased the deflection of the vehicular flows in east-west direction and improved the safety in this direction.

A “shark-tooth” traffic islands provide a deflection of vehicular flows along Skenderbeu, that guarantees adequate visibility and low speed, to the advantage of safety. The position of pedestrian crossings exploits these traffic islands to guarantee the highest level of safety and connectivity to pedestrians crossing this intersection. No traffic lights are needed to control this intersection. Because of the steep slope, it has not been possible to design the western pedestrian crossing across Skenderbeu in a way that is accessible to disabled persons on wheelchairs. The choice between the two options will be possible only after having a precise estimation of the future traffic flows.



Figure 67 New Proposal



Figure 68 New Proposal (following the image above)



Figure 69 New Proposal (following the image above)

Z6-M-P4 b_ Requalification of Junction-Skenderbeu Road & 2nd road to Ksamil

In anticipation of the opening of the second road to Ksamil, the intersection with rruga Skenderbeu (SH8) must be designed so as to guarantee the safety of the manoeuvres considering the traffic that it will be called to manage. Both roads that intersect are two ways and rruga Skenderbeu (SH8) has two lanes per direction.

Because of the amount of traffic forecasted, and the fact that rruga Skenderbeu in this point has four lanes, a traffic light is necessary to properly control this intersection.

Pedestrian movement is made easy by providing ample curb space and pedestrian crossings at every branch, as close to the intersection as is safely possible. Also, the width of the intersection is narrowed compared with the current layout, so as to reduce the length of the crossings.



Figure 70 Project Borders Map

Intervention works

New Road Layers

The main part of the reconstruction project of the intersections consists of interventions in the road layers. Since we are mainly following the existing road trail and the existing road layers are in good condition, only intervention in the asphaltic layers has been foreseen on most of the areas. Where the new roads expand beyond the existing roads, a full layer intervention has been foreseen.

The type of layers used for the road are as follows:

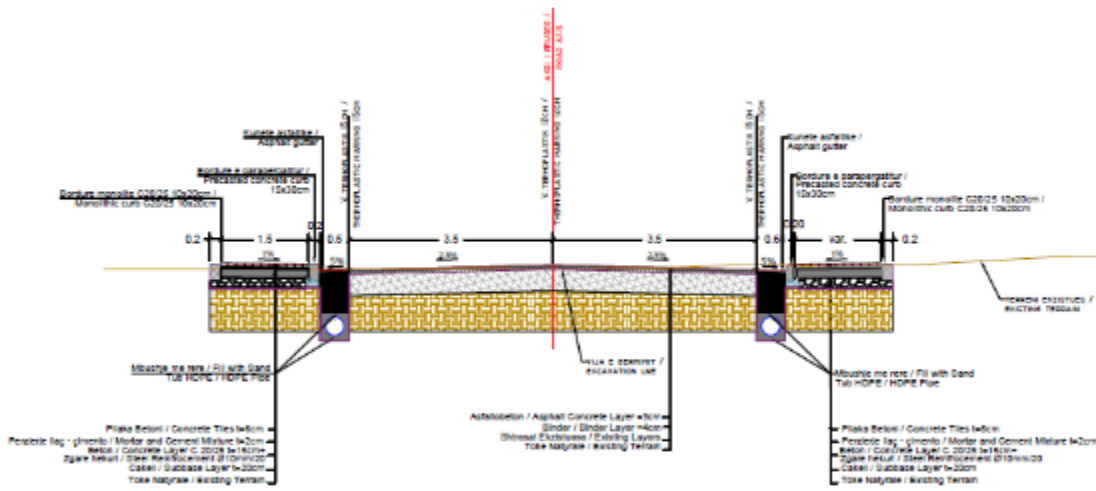
Existing Road Layer :

Asphalt Concrete Layer	3cm
Binder Layer (for levelling)	4cm

Road Widening Layers :

Asphalt Concrete Layer	3cm
Binder Layer	6cm
Base Layer	15cm

**PRERJE TIP A-A /
TYPICAL SECTION A-A
RRUGA IDRIZ ALIDHIMA / IDRIZ ALIDHIMA ROAD**



**PRERJE TIP C-C /
TYPICAL SECTION C-C
RRUGA MITHAT HOXHA / MITHAT HOXHA ROAD**

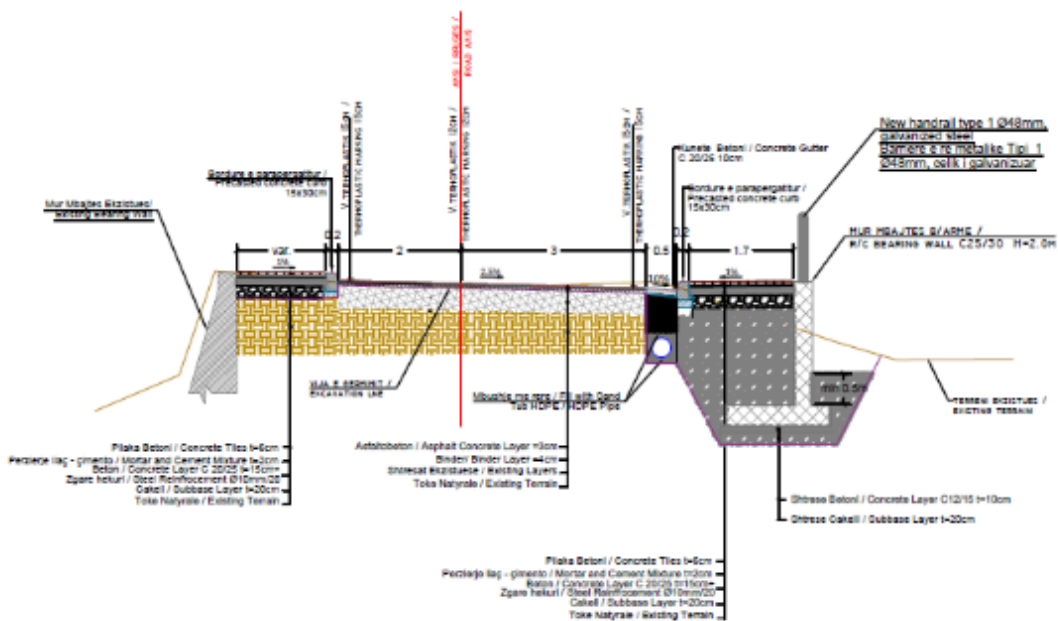


Figure 71 Typical Sections

Sidewalks

On both sides of the road are sidewalks with variable width. The sidewalks shall be rebuilt with full depth intervention.

The type of layers used for the sidewalks are as follows:

Type 1:

Concrete Tiles $t=6\text{cm}$

Mortar and Cement Mixture $t=2\text{cm}$

Concrete Layer C 20/25 $t=15\text{cm}$

Steel Reinforcement $\text{Ø}10\text{mm}/20\text{cm}$

Subbase Layer $t=20\text{cm}$

Applied at Junctions :

- Z2-M-P6_Requalification of Junction- Peshkatari & Idriz Alidhima & Mitat Hoxha
- Z2-M-P7_Requalification of Kosova Square
- Z1a-T-P9_Requalification of Junction: Studenti_Onhezmi_Lefter Talo
- Z6-M-P4 a_Requalification of Junction-Skenderbeu-Gjergji Araniti
- Z6-M-P4 b_Requalification of Junction-Skenderbeu Road & 2nd road to Ksamil

Type 2:

Stone Tiles $t=6\text{cm}$

Mortar and Cement Mixture $t=2\text{cm}$

Concrete Layer C 20/25 $t=15\text{cm}$

Steel Reinforcement $\text{Ø}10\text{mm}/20\text{cm}$

Subbase Layer $t=20\text{cm}$

Applied at Junction:

- Z1a-M-P10_Requalification of Junction: Skenderbeu-Onhezmi & Requalification of Junction: Flamurit-Skenderbeu-40 Shenjtoret

Type 1 and Type 2 applied at Junctions:

- Z2-M-P7_Requalification of Muharem Rushiti Square
- Z1a-M-P11_Requalification of Junction: 40 Shenjtoret-Naim Frasheri & Requalification of Junction: 40 Shenjtoret-Lefter Talo

3. National LEGAL FRAMEWORK AND World Bank SAFEGUARD Policies

3.1 ENVIRONMENTAL and social RELATED INTERNATIONAL CONVENTIONS

Albania is signatory to a number of international agreements relevant to the Project. A comprehensive list of them is given below

Table 13 Legal Framework

Convention/Agreement	Overview	Ratified	Relevance to the Project
General			
Aarhus Convention on Access to Information, Public Participation in decision-making and Access to Justice in Environmental Matters (1998)	The Convention establishes several rights to the public, with regard to the environment; including access to environmental information; public participation in environmental decision-making and access to justice.	26 October 2000	Arrangements are to be made by public authorities to enable the public potentially affected by the project and environmental non-governmental organizations, to comment on proposals for projects affecting the environment, or plans and programme relating to the environment. The comments received are to be taken into due consideration in decision-making, and information to be provided on the final decisions and the reasons for it.
Climate Change			
UN Framework Convention on Climate Change (UNFCCC) (1992) entered into force in 1994	The United Nations Framework Convention on Climate Change (UNFCCC) has been crucial in addressing climate change and the need for a reduction of emissions of	01 December 1994	As Albania is signatory to the convention, every effort should be made to limit GHGs.

Convention/Agreement	Overview	Ratified	Relevance to the Project
	greenhouse gases. The ultimate objective of the Convention is to stabilize greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous human interference with the climate system.		
Paris Agreement at the COP21 in Paris on 12 December 2015, entered into force on 4 November 2016	The Paris Agreement builds on the Climate Change Convention to combat climate change.	21 September 2016	The project should adopt mitigation measures to minimize greenhouse gas emissions.
Kyoto Protocol	The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change; signatories commit to setting internationally binding emission reduction targets ¹ .	01 April 2005	The project should adopt mitigation measures to minimize greenhouse gas emissions.
Water			
Convention on the Protection and Use of Trans boundary Watercourses and International Lakes (1992)	Avoid or minimize adverse effects on water resources and water quality.	5 January 1994	The study area is situated in the Langarica River watershed basin.
Biodiversity			
Convention on Biological Diversity (CBD) (1992)	Avoid or minimize adverse effects on important habitats and species, internationally and naturally designated nature	5 April 1994	The Convention requires, under Principle 17, that ESIA shall be undertaken for proposed activities that are likely to have a

¹ <https://unfccc.int/process-and-meetings/the-kyoto-protocol/what-is-the-kyoto-protocol>

Convention/Agreement	Overview	Ratified	Relevance to the Project
	conservation sites; conservation, sustainable and equitable use of biodiversity.		significant adverse impact on the environment and are subject to a decision of a competent national authority.
Convention on the Protection of Wild Flora and Fauna and Natural Habitats in Europe (Bern Convention) (1976)	The Convention aims to ensure the conservation of wild flora and fauna species and their habitats. Special attention is given to endangered and vulnerable species, including endangered and vulnerable migratory species ² ; to avoid or minimize adverse effects upon important habitats and species, internationally and naturally designated nature conservation sites.	2 March 1998	There are IUCN protected areas in the Study area, including Category II (National Park).
Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (1979)	Avoid or minimize adverse effects upon migratory species	1 September 2001	The Project Area includes protected sites that contain globally vulnerable species of birds as well as migratory birds. There are specific resolutions and instruments such as species action plans under this convention that apply to Albania.
Agreement on the Conservation of African-Eurasian Migratory Water birds (1995)	African-Eurasian Migratory Water Birds Agreement (AEWA) covers 254 species of birds ecologically	1 September 2001	Species and habitats protected by this agreement may be present in the study area. Mitigation

² <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/104>

Convention/Agreement	Overview	Ratified	Relevance to the Project
	<p>dependent on wetlands for at least part of their annual cycle. All AEWA species cross international boundaries during their migrations and require good quality habitat for breeding as well as a network of suitable sites to support their annual journeys. Avoid or minimize adverse effects upon migratory water bird species.</p>		<p>measures for the protection of flora and fauna have been identified in the ESIA.</p>
<p>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1975)</p>	<p>CITES is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.</p>	<p>27 June 2003</p>	<p>Threatened and endangered species and their habitats have been identified in the study area. Mitigation measures for the protection of flora and fauna have been identified in the ESIA.</p>
Cultural Heritage			
<p>Convention on the Protection of the World Cultural and Natural Heritage (1989)</p>	<p>Avoid adverse effects upon Albanian and World Cultural Heritage sites; minimize adverse effects on unknown and intangible cultural heritage sites, material assets and other infrastructure.</p>	<p>10 July 1989</p>	<p>Cultural and natural heritage sites have been identified in the Study area. Mitigation measures for the protection of cultural heritage have been proposed.</p>

3.2 SOCIAL RELATED INTERNATIONAL CONVENTIONS

Albania is also signatory to a number of social related international agreements relevant to the Project. A comprehensive list of them is given below

Table 14: Social related International Conventions and agreements signed/ratified by Albania

Convention/Agreement	Overview	Ratified	Relevance to the Project
Cultural Heritage			
Convention on the Protection of the World Cultural and Natural Heritage (1989)	Avoid adverse effects upon Albanian and World Cultural Heritage sites; minimize adverse effects on unknown and intangible cultural heritage sites, material assets and other infrastructure.	10 July 1989	Cultural and natural heritage sites have been identified in the Study area. Mitigation measures for the protection of cultural heritage have been proposed.
Labor			
ILO Convention 29 Forced Labour Convention (1930) and ILO 105 Abolition of Forced Labour Convention (1957))	Its object and purpose are to suppress the use of forced labor in all its forms, irrespective of the nature of the work or the sector of activity in which it may be performed.	25 June 1957 27 February 1997	Local workers will be employed on the project. The project should adopt monitoring measures to ensure compliance with the convention.
ILO Convention 87 Freedom of Association and Protection of the Right to Organize (1948)	Protects the rights of workers and employers to join organizations of their own choosing without previous authorization.	3 June 1957	Local workers will be employed on the project. The project should adopt monitoring measures to ensure compliance with the convention.
ILO Convention 98 Right to Organize and Collective Bargaining	The convention provides for workers to be able to join unions and engage in collective bargaining.	3 June 1957	Local workers will be employed on the project. The project should adopt monitoring measures to ensure compliance with the convention.
ILO Convention 100 Equal Remuneration Convention (1951)	Each member shall, by means appropriate to the methods in operation for determining rates of remuneration, promote and,	03 Jun 1957	Local workers will be employed on the project. The project should adopt monitoring measures

Convention/Agreement	Overview	Ratified	Relevance to the Project
	in so far as is consistent with such methods, ensure the application to all workers of the principle of equal remuneration for men and women workers for work of equal value.		to ensure compliance with the convention.
CESCR – International Covenant on Economic, Social and Cultural Rights	free human beings enjoying freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy his economic, social and cultural rights, as well as his civil and political rights	04/10/1991	Proposal to be inclusive of all social groups without discrimination.
UNESCO Convention for Safeguarding the Intangible Cultural Heritage (2003)	Avoid adverse effects upon Albanian and World Cultural Heritage sites	04/04/2006	Cultural and natural heritage sites have been identified in the Study area. Mitigation measures for the protection of cultural heritage have been proposed.

Other International laws, regulations, guidelines applicable on cultural heritage places:

- International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter) (1964) - Charter for the Conservation of Historic Towns and Urban Areas (The Washington Charter) (1987)
- International Cultural Tourism Charter - Managing Tourism at Places of Heritage Significance (1999)
- Principles for the Preservation of Historic Timber Structures (1999)
- Charter on the Built Vernacular Heritage (1999)
- ICOMOS Charter – Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (2003)
- ICOMOS Charter on Cultural Routes (2008)
- ICOMOS Charter on the Interpretation and Presentation of Cultural Heritage Sites (2008)
- The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas (2011)

- Venice Charter on Conservation and Restoration (1964) -Nara Document on Authenticity (1994)
- Burra Charter for Places of Cultural Significance (1979, revised in 1999)
- Resolutions of the International Symposium on the Conservation of Smaller Historic Towns, at the 4th ICOMOS General - Assembly (1975)
- Declaration of Rome (1983)
- The Declaration of San Antonio (1996)
- Principles for the recording of monuments, groups of buildings and sites (1996)
- The Quebec Declaration on the Preservation of the Spirit of the Place (2008)
- Lima Declaration for Disaster Risk Management of Cultural Heritage (2010)
- The Paris Declaration On heritage as a driver of development (2011)
- Florence Declaration (2014)
- Delhi Declaration on Heritage and Democracy (2017)
- Athens Charter for the Restoration of Historic Monuments (Athens Conference, 21-30 October 1931)
- Final Report of the Meeting on the Preservation and Utilization of Monuments and Sites of Artistic and historical Value held in Quito, Ecuador, 1967
- Declaration of Amsterdam Congress on the European Architectural Heritage, 21-25 October 1975)
 - European Charter of the Architectural Heritage (Council of Europe, October 1975)

International laws, regulations, guidelines applicable on museums

Recommendation concerning the Protection and Promotion of Museums and Collections, their Diversity and their Role in Society Adopted by the General Conference at its 38th Session Paris, 17 November 2015

- Convention for the Protection of the World Cultural and Natural Heritage (1972)
- Convention for the Safeguarding of the Intangible Cultural Heritage (2003)
- Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)
- Recommendation concerning the Most Effective Means of Rendering Museums Accessible to Everyone (UNESCO, 1960)
- Rules for Functions in Historic Buildings – Caterers (DEM HIST, 2007)
- Profile for a Historic House Museum Curator (2008)
- Statement of Principles of Museum Documentation (CIDOC, 2012)
- The CIDOC Conceptual Reference Model (CIDOC, 2011)
- Lightweight Information Describing Objects (CIDOC, 2010)
- The CIDOC Conceptual Reference Model (CIDOC, 2001)
- International Core Data Standards for Ethnology/Ethnography (CIDOC, 1996)
- International Guidelines for Museum Object Information: the CIDOC Information Categories (CIDOC, 1995)
- Recommendations for Identity Photography (CIDOC Fact Sheet 3, 2010)

- Labelling and Marking Objects (CIDOC Fact Sheet 2, 1993)
- Registration Step by Step: When an Object Enters the Museum (CIDOC Fact Sheet 1, 1993) - CIDOC Core Data Standard for Archaeological Objects (1992)

3.3 ENVIRONMENTAL LEGISLATION IN ALBANIA

Law No. 10431 dated 9 June 2011 “On Environmental Protection” is the main law in the field of environment is the Law No. 10431, dated 9 June 2011 "On Environmental Protection". This law establishes national and local policies on environmental protection, requirements for the preparation of estimates of environmental impact and strategic environmental assessment, requirements for permitting activities that affect the environment, the prevention and reduction of environmental pollution, environmental norms and standards, environmental monitoring and control tasks of state bodies in relation to environmental issues, the role of the public and sanctions imposed for violation of the Law.

Other pieces of environmental legislation, related to this ESIA are:

Table 15: Environment Legislation in Albania

Legislation	Overview of main issues
Law No. 10440, dated 7 July 2011 "On Environmental Impact Assessment",	Law sets out the rules, procedures and deadlines for identifying and assessing the impacts of direct and indirect environmental projects or activities. The law defines the steps necessary to implement ESIA procedures: submission of application, preliminary review, selection and classification criteria, hearings and public consultations, access to information, tasks and rights of other bodies. The law also provides the list of activities that should be subject to the Profound and Preliminary ESIA. Some articles of the law were amended by Law No. 12/2015 on Amendments to the Law No. 10 440, dated 07.07.2011, "On environmental impact assessment".
Law No. 10448, dated 14.7.2011 "On Environmental Permits"	Law aimed at preventing, reducing and maintaining control of pollution caused by certain categories of activities, in order to achieve a high level of environmental protection in general, human health and quality of life. This law defines the rules for allowing the development of some activities that cause environmental pollution in Albania. Pursuant to Law No. 60/2014, Appendix 1 of the Law No. 10 448, dated 14.7.2011, "On environmental permits" has changed.
Law No. 162/2014, dated 04.12.2014 “On Protection of ambient air quality”	The aim of this law is improving public health and ensuring a high level of environmental protection through integrating ambient air quality issues in other policies as well as establishing requirements on its

	monitoring, assessment and planning and promoting international cooperation to this end. The Law consists of 6 Chapters: General provisions (I); Environmental air quality (II); Air emissions (III); Trans boundary air pollution (IV); Offences (V); Transitional provisions (VI). This Law fully complies with Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe.
Law No. 10463, dated 22.09.2011 “On integrated waste management”, as amended by the law 156/2013,	Law aims to ensure the protection of environment and human health against pollution and damage resulting from solid waste. To this end, it sets out rules governing the environmental treatment of solid wastes at every stage: creation, collection, separation, transportation, recycling, processing and disposal. The Law further aims at waste reduction and the reduction of the hazardous and dangerous impact of waste.
DCM No. 686 (29.07.2015) Amended “On the rules, responsibilities, timelines for the ESIA procedure ...”	The act sets specific and detailed rules for the procedure, framework and structure of the ESIA report and appendices, timeframe of the procedure, application for approval, final decision and impact monitoring and reporting during the project execution.
DMC No. 247 (30.04.2014) “On the determination of rules, requirements and procedures for public information and involvement in the environmental decision-making process”	The act sets specific requirements for consultation with stakeholders, focusing on consultation with local communities. It also gives details on the procedure to be followed, timeline and media publishing.

In addition to the above-mentioned legislation, the preparation of the ESIA is based on the following legislation:

- Law No. 81/2017, dated 18.05.2017 "On Protected Areas"
- Law No. 9774, dated 12.07.2007 "On the Assessment and Management of Environmental Noise".
- Law No. 9587, dated 20.07.2007 "On Protection of Biodiversity".
- Law No. 9385, dated 04.05.2005 "On Forests and Forest Service".
- Law No. 9115, dated 24.07.2003 "On Environmental Treatment of Polluted Waters.
- Law No. 8897, dated 2002, "On protection of air from pollution".
- DCM No. 417, dated 25.06.2014 "On approval of the Environmental Permit fees"

- DCM No. 227, dated 30.04.2014 "On establishing the rules, requirements and procedures for informing and involving the public in environmental decision-making".
- DCM No. 47, dated 29.01.2014 "On defining the regulation for the organization and functioning of the National Environment Agency and Regional Environment Agencies"
- DCM No. 48, dated 29.01.2014 "On the creation and manner of organization of the state Inspectorate on Environment, Forestry and Water administration"
- DCM No. 175, dated 19.01.2011 "On approval of the national strategy and waste management plan of the national waste management"
- DCM No. 587, dated 7.07.2010 "On the monitoring and control of noise levels in urban and tourist centres".
- DCM No. 853, dated 28.12.2005 "On approving the list of hazardous wastes, residues and other wastes to be imported for purposes prohibited storage, disposal and destruction".
- DCM No. 248, dated 24.04.2003 "On Approval of the Interim Standards on Air Emission and their implementation".
- DCM No. 435, dated 12.09.2002 "On Approval of the air emission norms in the Republic of Albania".

3.4 SOCIAL LEGISLATION

3.4.1 LEGISLATION ON TERRITORY PLANNING, CULTURAL HERITAGE AND CHANCE FINDS

Projects for all types of building above ground and underground and engineering infrastructure projects across the entire country are based on standards and technical requirements of legal acts in force.

Law No. 107/2014 “On territory planning and development” aims at ensuring the sustainable development of the territory through the rational use of land and natural resources; assessing the actual and future potential of the territory development on a local and national level by balancing natural resources with economic demand and public and private interests. It also aim to coordinate the effort for: i) conservation of natural resources such as land, air, water, forests, flora and fauna; ii) creation of territories eligible for functional construction; iii) promoting the economic, social, and cultural life in local and national level; iv) safeguarding the resources of adequate supplies; v) providing for life safety, national security, public order and public health; and vi) promoting the balanced regional development to ensure sustainable distribution of population. The Law is implemented by:

- Regulation No. 408 date 13.5.2015 approving the territory planning and development regulation.
- Regulation 686 date 22.11.2017 on the territory planning.

- Regulation No. 739 date 13.12.2017 amending and supplementing Regulation No. 725 date 2.9.2015 on the organization and functioning of the Territory Development Agency.
- Regulation No. 427 date 8.6.2016 on the organization and functioning of the National Agency of Territory Planning.
- Amended by
- Law No. 28/2017 amending and supplementing Law no. 107/2014 on the territory planning as amended.

Law No. 27/2018, dated 17.05.2018 “On Cultural Heritage and Museums” is the primary legal framework governing the management of tangible and intangible cultural heritage in Albania. The Law aims to promulgate and protect the cultural heritage in the territory of the Republic of Albania.

This Law, in relation to the field of territorial planning and development, defines inter alia:

- the cases of construction in public or private properties, which must obtain written approval from the National Council of Restorations and the National Council of Archeology;
- cases of excavations, restorations, uses and any other action in the cultural monuments, as well as any alteration on the ground under their protection, to be done with the authorization of the National Council of Restoration, Archaeological Institute, Archaeological Service Agency.
- the rules and types of constructional interventions in the Museum Areas, museum ensembles, historical centers, archaeological parks.

According to the law, if anything unusual will be found during the digging and excavation process the contractor has to stop immediately works, urgently inform the local authorities, the Culture Monuments Institute and the Ministry of Culture. They will send archaeologists and field specialists in order to check and evaluate the supposed archaeological objects and the works will restart only if the Culture Monuments Institute issues the official permit.

Other important pieces of legislations are:

- Decision of Councils of Ministers No. 426, date 13.7.2007 “On the approval of the Albanian restoration charter”.

3.4.2 LABOUR RELATED LEGISLATION

The **Labour Code of the Republic of Albania**: Law No. 7961, dated 12.07.1995, amended by Law No. 8085, dated 13.03.1996, Law No. 9125, dated 29.07.2003 and Law No. 10053, dated 29.12.2008 “Labour Code of the Republic of Albania” regulates relations between employers and employees. The law reflects Constitutional principles, as well as the basic principles of international conventions on labour, trade unions, prevention of discrimination, etc. The code is widely considered to be a fair and effective law.

The Labour Code provides for basic rights regarding the prohibition of compulsory labour, prohibition of discrimination, the freedom to join a trade union and collective bargaining.

The Labour Code provides general rules for the employee's obligations and responsibilities, as well as the prohibition of competition after the termination of labour relationship. Also, the employer's general obligations are specified in accordance with article 32-38 of this law. Safety and health protection are the responsibility of employers.

Labour Code also stipulates the duration of work and breaks, including daily and night work and extra payment; the weekly working time and holidays, the maximum duration of extra hours and compensation.

The Labour Code provides for special protection for juveniles and women, special provisions on payment and minimum wage. A separate chapter (XIV) provides rules for the termination of the work relationship. Also, general consideration is provided on the protection of the right to work and the right to strike.

Law “On health and safety in the workplace”. On 22.12.2016, the Albanian Parliament approved the law no. 135/2016 “On health and safety in the workplace, emergencies and the salvation in the mining activity and in underground works of hydropower activities”. Law 135/2016 was published in the official gazette no. 265, dated 12.01.2017 and entered into force 15 days after its publication.

Law 135/2016 defines the general principles governing health and safety at work in the mining activities and underground works of hydropower activities, and guarantees the safety and protection of the health of employees and other persons working in these sectors.

Pursuant to this law entities engaged in activities, studies or projects in the mining sector and underground works of hydropower activities are obliged to fulfill the requirements of safety in the workplace provided in the law and the secondary legislation.

3.4.3 LEGISLATION ON PRIVATE PROPERTY AND EXPROPRIATION

Expropriation process. The legislation governing the expropriation process for the private properties is described below:

- Law no. 11/2020, dated 05.03.2020 “On some changes and amendments on Law no. 8651, dated 22.12.1999 ‘On expropriation and temporary use of private property for public interest.
- Law no. 8651, dated 22.12.1999 ‘On expropriation and temporary use of private property for public interest’, as amended and;
- Decision of Council of Ministers (DCM) no. 126, dated 23.3.2000 ‘On the composition and procedures of special committees for expropriation’,
- DCM no. 127, dated 23.3.2000 ‘On the content and procedures for submission of request for expropriation and temporary use of private property for public interest’,

- DCM no. 138, dated 23.3.2000 ‘On the technical criteria for the evaluation and calculation for compensation of expropriated properties, devaluated properties and third party rights(as amended)’;

Under Law no. 8561, dated 22.12.1999 on expropriation and temporary use of private property for public interest provides for the State’s right to expropriate or take private property for temporary use for purposes of a “public interest” that cannot be achieved or protected in another manner. The State must compensate the value of land expropriated and any reduction in the value of property caused to properties bordering with the expropriated property.

Under the Expropriation Law, the expropriation value (compensation) is calculated by a special committee based on the assessment of the properties subject to expropriation (by considering their initial value, depreciation, destination, location, indexes of the market price changes and of the currency). A Decision of the Council of Ministers no. 138 dated 23.03.2000 explains the evaluation methodology of the land subject to expropriation procedures is defined (in ALL/m²) by decisions of the Council of Ministers approving the price reference according to Law no. 9235, dated 29.07.2004, on restitution and compensation of properties.

The Republic of Albania Law on Expropriation and Temporary Takings of the Private Property for Public Interest (passed in 1999, amended in 2016) guides land acquisition and serves as a general framework for expropriation in the Republic of Albania.

The Law does not use the term „involuntary resettlement“, which is used in the relevant World Bank policy documents, but instead uses the term expropriation.

This law enables government institutions, and to a certain extent private legal person to acquire private property for projects that are deemed to be of national and/or local interest, while protecting the interests of all project affected persons with legal title, whose assets are to be expropriated. The law also enshrines the principle of fair compensation.

The most important features of the Law on Expropriation are:

- The Law provides an exhaustive list of what is deemed as public interest (Art. 8/ç of Law “On Expropriation...”);
- The beneficiary subject in the expropriation process will be the relevant Municipality of each city (Art. 9 of the Law “On Expropriation...”)
- The procedure will be considered complete, when the owners through a statement approve the transaction of the property in favor of the Government;
- The decision of expropriation (for owners not agreeing to the expropriation) will be approved by the Council of Ministers and will enter into force immediately, and published in the Official Journal;
- The affected owners have access to judicial procedures if amicable settlement on the compensation is not reached. However, if there is no contest, the decision of the Council of Ministers will be final and binding.

- The devaluation of property. Compensation is due in cases when, although there is no land take but the assets or access to assets, and livelihood is affected (land is devaluated and the livelihood has deteriorated as a result of the project).

The estimation of the value is based on the type of land to be expropriated (agricultural land, woodland, meadow etc.); the characteristics for the estimation are different (i.e. in case of the agricultural land: the land category; the range from the urban zone; situation under or above the water level etc.).

The Civil Code establishes the obligation to compensate for property damage which consists of the value of the damage caused and the expected profit (Art. 640).

Law on Cadastre: The new Law on Cadastre, or Law no.111/2018 on "Cadaster" ("the Law") adopted by the Albanian Parliament on 2 February 2019, entered into force on 21 March 2019. It supersedes Law no.33/2012 dated 21 March 2012 on "Registration of Immovable Properties".

Law “On the completion of the ownership transitional processes in the Republic of Albania”. The Law 20/2020 is published on the Official Gazette no. 70, dated 22.04.2020. The purpose of the Law 20/2020 is to establish a simplified and harmonized legal framework for the finalization of the transitional registration procedures of the state and private land consisting of:

- The registration of ownership titles of agricultural land;
- The finalization of the transfer to their users of the ownership of agricultural land previously owned by cooperatives and agricultural enterprises.
- The legalization and registration of illegal constructions, constructions without an ownership title and yards granted for use;
- The specification of ownership rights of individuals and entities, which have benefited from the Law no. 7665, dated 21.01.1993 “On development of economic zones with touristic priority”, repealed;
- The finalization of the inventory update process of public real estate; Handling of the problems related to the overlapping of ownership immovable property titles.

3.4.4 LEGISLATION ON THE ACCESS TO INFORMATION

Law No 119/2014 “On the Right to Information” regulates the right of access to information being produced or held by public sector bodies. The rules contained in this law are designated to ensure the public access to information, in the framework of assuming the rights and freedoms of the individual in practice, as well as establishing views on the state and society situation. This law aims also at encouraging integrity, transparency and accountability of the public sector bodies

Law No. 8672, dated 26.10.2000, “On the Aarhus Convention Ratification on public right to information, to participate in decision-making and to have access to justice in environmental matters”. The international agreements ratified by the Republic of Albania, pursuant to the Constitution, occupy a privileged rank at the domestic legal order. An international

agreement ratified by law of the parliament prevails over the laws of the country that are incompatible with it, and it is directly applicable, except the case when it is not self-executing and its application requires the adoption of a law. In the field of environment the major part of the international treaties are not self-executing and require positive measures in order to be properly implemented at the domestic level.

3.5 WORLD BANK ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES

Like in any project financed by, or with financial participation of, the World Bank, the environmental and social safeguards as defined in the Bank's Operational Procedures (OPs) will be respected for the purposes of this project implementation.

World Bank classifies its projects into four Environmental Assessment categories according to the likely impacts on the environment they will have. This classification is as follows (only main conditions mentioned):

1. Category A: A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts.
2. Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects. This particular subproject has been categorized as B.
3. Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further Environmental Assessment action is required for a Category C project.
4. Category FI: A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts; this case, in any way, is not applicable to the PIUTD project.

The World Bank's OP 4.01 Environmental Assessment is considered to be the umbrella policy for the Bank's environmental safeguard policies. These policies are critical for ensuring that potentially adverse environmental and social consequences are identified, minimized, and properly mitigated. The WB carries out screening of each proposed project to determine the appropriate extent and type of EA to be undertaken and whether or not the project may trigger other safeguard policies. The safeguard policies, the triggers for each policy, as well as status of their relevancy for the proposed project are presented in the table 5, below:

Table 16: World Bank Environmental and Social Safeguard polices Triggered by the Project:

Operational Policy	Triggers	Status
Environmental Assessment (OP 4.01)	If a project is likely to have potential (adverse) environmental risks and impacts in its area of influence.	Yes
Forests	Forest sector activities and other Bank sponsored interventions	No

(OP 4.36)	which have potential to impact significantly upon forested areas.	
Involuntary Resettlement (OP 4.12)	Physical relocation and land loss resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; (iii) loss of income sources or means of livelihood, whether or not the affected people must move to another location.	YES
Indigenous Peoples (OP 4.10)	If there are indigenous peoples in the project area, and potential adverse impacts on indigenous peoples are anticipated, and indigenous peoples are among the intended beneficiaries.	No
Pest Management (OP 4.09)	If procurement of pesticides is envisaged; If the project may affect pest management in the way that harm could be done, even though the project is not envisaged to procure pesticides. This includes projects that may (i) lead to substantially increased pesticide use and subsequent increase in health and environmental risk, (ii) maintain or expand present pest management practices that are unsustainable, not based on an IPM approach, and/or pose significant health or environmental risks.	No
Physical Cultural Resources (OP 4.11)	The policy is triggered by projects which, prima facie, entail the risk of damaging cultural property (e.g. any project that includes large scale excavations, movement of earth, surface environmental changes or demolition).	YES
Natural Habitats (OP 4.04)	The policy is triggered by any project with the potential to cause significant conversion (loss) or degradation of natural habitats whether directly (through construction) or indirectly (through human activities induced by the project).	No
Projects on International Waterways (OP 7.50)	If the project is on international waterway such as: any river, canal, lake, or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more states (or any tributary or other body of surface water that is a component of this waterway); any bay, gulf, strait, or channel bounded by two or more states or, if within one state, recognized as a necessary channel of communication between the open sea and other states-and any river flowing into such waters.	No

The World Bank Operational Policy on Involuntary Resettlement requires that environmental and social impacts of all its supporting projects should be mitigated according to operational polices that spell out the principles and planning methods for mitigation work. This applies whenever land or property must be acquired, or its use modified, for a project, or loss of income because of land take, residence or access to resources, either permanent or temporary whether the occupation is legal or illegal.

In any instance where there is a gap or conflict between the Albanian Law on Expropriation and OP 4.12, World Bank Operational Policy 4.12 will prevail or implementing agencies will provide a solution in compliance with OP 4.12. The World Bank OP 4.12 aims to achieve the following objectives:

- a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

OP 4.11 - Physical Cultural Resources

This policy addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial, or national level, or within the international community.

Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices.

Physical Cultural Resources within Environmental Assessment

The borrower addresses impact on physical cultural resources in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process. The steps elaborated below follow the EA sequence of screening; developing terms of reference (TORs); collecting baseline data; impact assessment; and formulating mitigating measures and a management plan. The following projects are classified during the environmental screening process as Category A or B and are subject to the provisions of this policy: (a) any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and (b) any project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower. Projects specifically designed to support the management or conservation of physical cultural resources are individually reviewed, and are normally classified as Category A or B.

- **World Bank Group EHS Guidelines.**

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). When one or more members of the World Bank Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards. These General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines which provide guidance to users on EHS issues in specific industry sectors. For complex projects, use of multiple industry-sector guidelines may be necessary. The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Some relevant World Bank Group Environmental Health and Safety Guidelines that are applicable to this project are Air Emissions and Ambient Air Quality, Hazardous Materials Management, Waste Management, Noise, Worker Health and Safety, Community Health and Safety, Construction Materials Extraction

4. ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS

4.1 ENVIRONMENTAL BASELINE CONDITIONS

4.1.1 CLIMATE

The geographical position of Albania determines its Mediterranean climate (Figure 2), characterized by mild and humid winters followed by hot and dry summers. Rainfall occurs mainly during the second half of the year. Climatic conditions differ considerably according to regions. The coastal plains have a strong maritime influence, causing a gradient of lower temperatures and reduced precipitation eastwards from the coast (MoE, 2016).

Analysis of mean temperature for the period 1930 to 2006 against the 1961 to 90 average shows that the period 1931 to 1970 had a positive anomaly followed by a negative anomaly between 1971 and 2000 (MoE, 2016). After 2000 there has been a period with a positive anomaly from 2001 to present. This is a consequence of an increase in both maximum and minimum daily temperatures, especially in summertime. Several years after 1990 are characterized by an increasing rate of minimum temperature, higher than that of the maximum temperature in the summer. Further analysis shows that since the turn of the century there has been a positive trend of increasing temperature for all seasons (winter: from +1.60 to +2.50°C; spring: from +2.00 to +3.00°C; summer: +3.00°C; and autumn: +2.00°C). The northern part of the coastal zone does have lower temperatures in the winter season compared to the middle and southern zones, but summer temperatures are similar across all coastal regions.

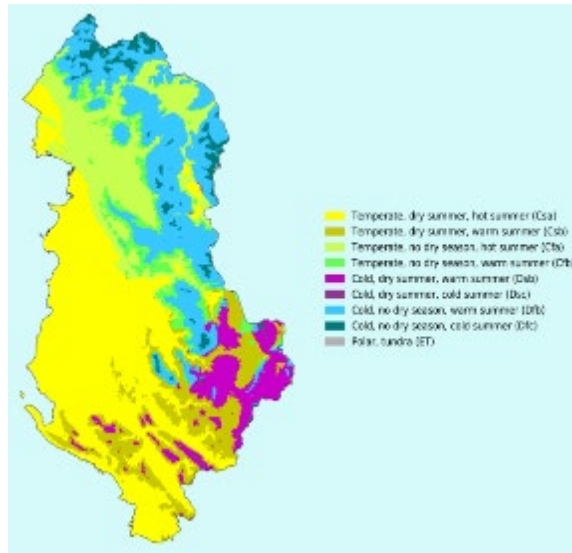


Figure 72: Köppen-Geiger climate classification map for Albania (1980-2016) (Source: Beck et al. 2018).

The project area is in the low Mediterranean area of the Mediterranean, which covers almost all of Albania's coastal lowlands. This Mediterranean climate is characterized by hot and dry summers and cold and wet winters. Average annual rainfall is between 950 - 1200 mm/yr, with most of the rain falling during October-March (70-80%). The average annual temperature is measured between 15 ° -18 ° C. The highest temperatures are measured during the period June-August, with a maximum of 30 ° -35 ° C. The lowest temperatures are recorded in the month of January, reaching values between 6.5 ° -7.5 ° C.

The factors that determine the climate in this area are a) Geographical position (proximity to the sea); b) The influence of cyclones and anti-cyclones that regulate it, and c) The morphology of the region. The area of Saranda is very exposed to waves and strong winds in the sea to the west and northwest from the Adriatic Sea. Generally, wind waves directed from north-west to south-west determine the climatic conditions for the coast of Saranda.

The potential of solar energy

The territory of Albania is located in the western part of the Balkan Peninsula, on the eastern coast of the Adriatic and Ionian seas. It is located between latitudes 39° 38' - 42° 38' and longitudes 19° 16' - 21° 04' east. Thanks to this geographical position, Albania belongs to the Mediterranean climate zone with hot dry summers, long sunny days and mild winters with abundant rainfall, therefore it possesses a significant potential solar energy. Most areas of Albania are exposed to more than 1500 kWh / m² per year ranging from 1185 to 1690 kWh / m² per year.

Table 17: Annual Solar Radiation (kWh/m² day)

Cities	Shkoder	Peshkopi	Tirana	Vlorë	Ersekë	Sarandë
Month						

January	1.70	1.55	1.80	2.15	1.90	1.90
February	2.30	2.30	2.50	2.85	2.70	2.40
March	3.35	3.25	3.40	3.90	3.40	3.60
April	4.50	4.15	4.20	5.00	4.40	4.80
May	5.45	5.25	5.55	6.05	5.60	5.80
June	6.10	5.85	6.40	6.80	6.40	6.80
July	6.50	6.25	6.70	7.20	6.80	6.10
August	5.55	5.45	6.05	6.40	5.90	4.80
September	4.45	4.35	4.70	5.15	4.70	3.60
October	2.90	2.90	3.20	3.50	3.10	3.20
November	2.10	1.85	2.15	2.40	2.10	2.10
December	1.70	1.50	1.75	1.85	1.80	1.80

Table 18: Seasonal and annual optimal angles of panels located for many counties of the country

District	Peshkopi	Shkodra	Tirana	Durres	Vlore	Sarande
Optimum annual angle	37.43	38.57	37.87	38.33	37.72	36.23
Optimal seasonal angle	28.24	29.53	28.98	29.24	28.78	27.41
Optimal seasonal angle	75.20	57.72	57.29	57.67	57.22	55.52

4.1.2 GEOLOGICAL OVERVIEW OF SARANDA AREA

Regarding the geology, the study area belongs to the anticlinal Shëndelli – Heremec – Sarandë. The limestones comprise an area of about 5 ha. They are micro crystal structures up to peptic ones belonging to the pelagic formations (Figure 15). They have white color with shades of light grey, and with layers. Limestones have large breaks in their surface, which follow different directions, but the most important ones are through the valley. Limestones in general have clear exits and above them are formed brown soils and deep brown soils, with thickness of 0,4-0,7m. Fliche deposits can be found along the national road Sarandë –Vlorë. They have a green colour, light green and with layers, dentine soils, axosolic, carbonates and sandy ones. The flished deposits belong to the Oligocene.

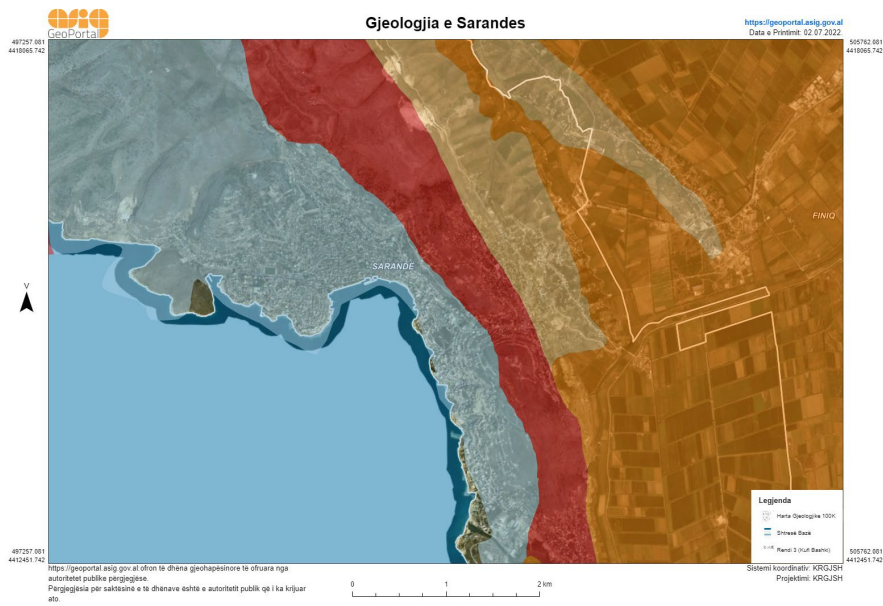


Figure 73: Geological map of the project area

The soils are divided into:

- a) soils in the right side of national road Sarandë – Vlorë, brown, grey soils, containing humus from 1-2% up to 5 – 6% and are soils under culture.
- b) soils in hills with a quote above +200m, are mountainous grey soils, situated over the carbonate formations and filched, and are used for pasture.

Erosion in Saranda is a key problem because it causes removal of soil elements and fertilizers for plants by reducing so the level of land fertility (on-site effect) and causing sedimentation and eutrophication of waters (off-site effect).

4.1.3 HYDROGEOLOGY

Vjosa River

The Vjosa River originates in the northwest of Greece, in Epirus from the mountains of Pindi to the east of Janina, where its flow continues in the direction of the northwest and flows into the Adriatic Sea in Albania. The river has a length of 272 km, of which 80 km in the territory of Greece and about 192 km within the territory of Albania, whose flow crosses the south of Albania, and is the border of the natural separation between the district of Fier and Vlore. The Vjosa basin is monitored in 5 monitoring points.

The Vjosa River is the largest river in Southern Albania and one of the largest rivers in Albania, especially in terms of numerous water flows. The length of this river is 272 km, the surface of the watershed is 6706 km², of which 4365 km² are within our territory, while the rest is in Greek territory. The main branches of Vjosa are Sarandoporo, Drinosi and Shushica. Many karsts springs end in Vjosa or in its branches, such as those of the gorge of Këlcyra, Libohova, Viroi, Gjirokastra, Cold Water of Tepelena, Poçem, etc. Vjosa originates from the

mountains of Pindis (Greece) where it flows through a deep valley which widens after entering our territory.

In most of the basin, the amount of rainfall is above the national average. Some of them in the upper part of the basin fall in the form of snow, which affects the nutrition and regime of these rivers. The surface feed occupies 69.5% of the annual flow, while the underground one occupies 30.5% of it. During the wet period, about 84% of the annual volume flows. But it must be said that the Vjosa and Drinos rivers, due to the numerous karst springs, do not have very small minimum flows. The maximum flows of both rivers correspond to the wettest period of the cycle (November-January) while the minimum flows correspond to the driest period (July-August). Vjosa and Drinosi, due to the predominance of limestone in their catchment basin, are ranked among the least erosive rivers of Albania. Its solid discharge reaches 212 kg/sec, average turbidity 1087 gr/m³ and alluvium modulus 997 tons/km² per year. The waters of Vjosa and Drinos have an average mineralization of 335 mg/liter and 286 mg/liter, respectively.

The largest karst water sources in our country are located in the region, such as the sources of Viroi, Libohova, Këlcyra and Cold Water in Tepelena. In addition to these sources, there are many other smaller ones as well as dozens of streams and rivers that flow into the Vjosa and Drinos Rivers. They constantly serve as their feeders. Streams and rivers have the largest flows in periods of rainfall and in the months when the snow melts. The latter enriches the region's hydrographic network with water. The relief is typical mountainous. The elevations, both mountainous and hilly, preserve the general Albanian orientation from Southeast to Northwest. High hills with regular erosional forms can be distinguished in the mountain relief, which represent natural monuments with geoscientific value. The climate in the region we study is typical Mediterranean with hot summers and cold winters, with the exception of the area from Kalivaçi to Ura e Mifoli, which is characterized by hot summers and winters without snowfall. In this region, 1700-1800 mm of rain fall per year. The lowest temperature in winter reaches 0-50 C and the highest temperature in summer reaches 38-400 C. Snowfalls that fall in the mountainous area, with their slow melting become an important factor for water supply. of the hydrographic network.

Geological construction of the basin

The geological formations that make up the Vjosa basin consist mainly of carbonates, flysch, mollasic and Quaternary deposits.

Carbonate rocks are represented by:

- Lower Cretaceous deposits (microcrystalline limestone interspersed with marls and argillaceous limestones).
- Upper Cretaceous deposits (micritic and crystalline limestone with phosphatic horizon, microcrystalline limestone and organogenic limestone).
- Paleocene deposits (crystalline limestone with flint concretions and lenses).
- Eocene deposits (pelitomorphic limestone, coprisic limestone).

The fly formation is represented by:

- Formations of the Lower Oligocene

- Transitional marl packages (marls interspersed with layers of argillaceous limestones).
- The package of thin clayey-sandy flysch (clay-siltstone-sandy interlayers).
- Sandy-clay flysch package (sandy rhythms).
- Vithite flysch package (vithic horizons with a mix of clay-sandy flysch packages).
- Clay flysch pack (fine clay flysch).

Mollasic formation is represented by:

- Aquitanian deposits (thick to massive sandstones with thin layers of clays and siltstones)
- Burdigalian deposits (combination of marl packs, clay-marl, sandstones and lithotamnic limestone layers).
- Langian deposits (combination of marl packs, clay-marl and bioclastic sandstone and limestone layers)

Saranda Beach

During the inspection, the presence of sanitary facilities and waste bins was observed. At monitoring station 6 (Chuka Canal), according to the analytical results, microbial contamination was found in sampling campaigns 1, 2, 3, 6 and 7, while at monitoring point 3 (New Beach) microbial contamination was found in sampling campaign 3 of monitoring.

For Saranda Beach, for the year 2019, the number of stations of Category A- Excellent water quality was 5 points, i.e. 83%, in category B- Good water quality there were 1 point, in category C- Sufficient water quality waters and in category D- Bad water quality there was no point. For the beach of Saranda, for the year 2019, the waters of category A - Excellent quality are increasing compared to 2015 to 2016 and the same as 2017 and 2018. The number of stations of category B - Good water quality, for the year 2019 is decreased compared to 2016 and 2018 and is the same as 2015 and 2017 and decreased compared to 2018. The number of stations of category C- Sufficient water quality for 2019 has increased compared to 2015 - 2018. The number stations of category D - Bad water quality, for the year 2019 is reduced compared to the years 2015-2017 and the same as 2018.

Ksamil beach

The beaches on the coastline of Ksamil are very clean, with trash cans and toilets. In the 9 series monitored at the 3 monitoring stations on the beaches of Ksamil, according to the analytical results (estimation for the presence of E. Coli and S. Fecal microorganisms), no microbial load of the waters on these beaches is observed.

4.1.4 AIR QUALITY

Albania currently has no comprehensive database about national air quality. However, motor vehicles are major emission sources for several air pollutants, including nitrogen oxides (NOX), carbon monoxide (CO), particulate matter (PM), and hydrocarbons (HCs). They represent the main indicators for the assessment of air quality, based on guidelines EU and reflected in Decision of Council of Ministers of Albania No. 803, dated 04.12.2003 "On approval of the air quality standards". Unfortunately, no data are available for Saranda.

4.1.5 NOISE (ACOUSTIC POLLUTION)

Based on Albanian legislation and according to Instruction No.8, date 27.11.2007, form Ministry of Environment and Tourism “On limit levels of noise in certain areas”, the allowed level of noise in urban areas is 85-100 dB(A).

In addition to noises, vibrations are another important indicator that significantly affects the quality of life of the residents who live or exercise their economic activity. The city of Saranda has a high tourist activity during the summer season, where the number of tourists and residents is very high, which is another factor that influences the noise levels.

4.1.6 SEISMICITY

Albania is characterized by shallow crustal seismicity. The different present-day tectonic regime in eastern and western Albania requires the use of separate strong motion relations. The extensional region, into which the normal faulting earthquakes are generated, is located in eastern Albania. The compressional region, into which mainly thrust faulting and much rare strike-slip faulting earthquakes are generated, is located in western part of it.



Figure 74: Map of $S_a(0.2)$ 5 % damping for Albania on rock site and for probability 10 % / 50 years or 475 years return period (Left) and the Map of Seismic Hazard in Albania (Right) (Source: Aliaj et al. 2010).

4.1.7 BIOLOGICAL ENVIRONMENT

Biodiversity is a very important component of the natural resources of a country, area or region. The origins of this diversity lie in the geographic position, geological, pedologic, hydrological, relieve and climate factors.

The geographic position, geological construction, climatic conditions, water resources and the soil in the territories of Saranda have created habitats suitable for the living plant and animal world.

Regarding the plant cover of the surface of the mountain slope of the Ionian Sea coast, we can say that this area is characterized by the vegetation of the middle floor where the zone with scrub vegetation dominates. The shrubs of the area are typical of the Mediterranean vegetation of coastal areas. This area is rich in terms of surface water resources such as the Sea, Lake, rivers, streams, or small springs. When we talk about scrub vegetation, it is understandable that it is always associated with herbaceous vegetation. As for high vegetation, it is found in special areas and is rarely encountered. The relief is flat to continue with the hilly-sub mountainous type. The soils have a mainly rocky composition with a limestone composition.

4.1.8 ENDEMIC AND ENDANGERED SPECIES

Vegetation at the project site

The footprint of the study area where the project is proposed to be implemented is "Main Urban Road" under the management and administration of Sarande Municipality. The territory affected by the group of projects are some of the main roads and junctions of the city which are connected to the secondary network of roads and internal roads connecting the city's neighborhoods, which are in amortized condition, with limited width, without vertical and horizontal signage, without lighting and are outside the standard. Along the length of the roads under study, there are sidewalks on both sides, which are characterized by plants Secondary network. Regarding the secondary network of roads in the city of Saranda, the internal roads connecting the neighborhoods of the city are in a bad condition also due to the investment in the water-sewerage network. There is a lack of parking in the city center as well as at its entrance and exit. The city also does not have a terminal for passenger vehicles. The city of Saranda has 5 roads parallel to the sea, that connect the entrance road with the northern part of the city, creating rings at different schematic levels. Most of them have 1 passage to facilitate traffic and the solution of changing the parking lots remains problematic. The road that connects the port of the city with the port of Limion, about 2 km, has been newly built. The road has two crossings and sidewalks on both sides, but their width is limited by constructions and they are outside the standard. The project area is located entirely in an urban area, where flora and fauna species are not commonly found. Beyond this fact, the streets in the city of Saranda are characterized by bushes and types of low vegetation.



Figure 75: View from the existing condition of Mitat Hoxha street



Figure 76: View from the existing condition of Skenderbeu Street



Figure 77: View of the existing condition of Mother Teresa Square

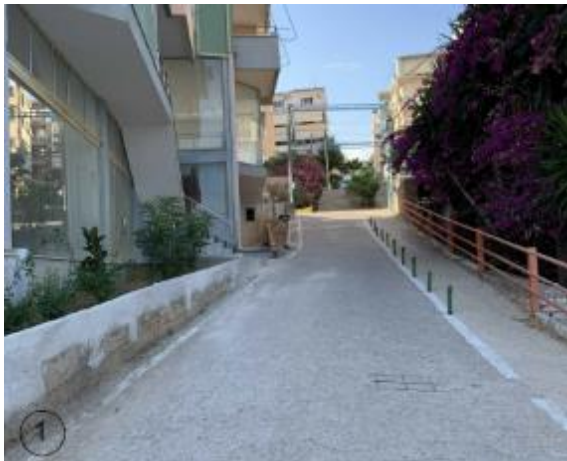


Figure 78: View from the existing condition of Europa Square





Figure 79: View from the existing state of traffic nodes

Flora

The main purpose of the field observations was to identify the most important flora and the elements of the surface vegetation along all the road segments where the project group will be located. They lie entirely in urban areas, where flora and fauna species are not commonly found. Beyond this fact, the vegetation in the city of Saranda is characterized by shrubs and types of low vegetation, such as *Quercetea ilicis*, *Phlomis fruticosa*, *Urginea maritima*, *Pistacia lentiscus*, *Pyrus*, *Amigdaliformis*, *Quercus coccifera*, *Palurus spina-christi*, *Brachiopodium sp*, *Malcolmia maritima*, *Asparagus*, *Saponaria*, *Colutea arborescens*, *Juniperus communis*, *Laurus nobilis*, *Spartum junceum*, *Phyllyrea media*.

Fauna

In the area under study, the presence of wild fauna has not been noticed, since the projects are entirely in the urban area of the city, it results that it is not rich in species of fauna. In most of the area, the bird population is very limited consisting of a variety of birds from sparrows to pigeons, the main ones being *Hippolais olivetorum* (olive heron) and *Sylvia nisoria* (common heron). However, the vegetation is not dense enough to support more species. There are many types of insects that populate the typical flora of the area.

4.1.9 PROTECTED AREAS

The Network of Protected Areas in Albania contains several categories, which can be defined as follows:

- Category I: Reserve Only for Natural Purposes / Reserve for Scientific Purposes
- Category II: National Park
- Category III: Natural Monument
- Category IV: Managed Natural Resources / Administered Area of Species and Habitats
- Category V: Protected Landscape Area
- Category VI: Protected Area of Managed Resources/ Protected Area with Multiple Use

Referring to the Map of Protected Areas on the ASIG/Geoportal, it results that the project area is near the protected area “**Butrint National Park**”.

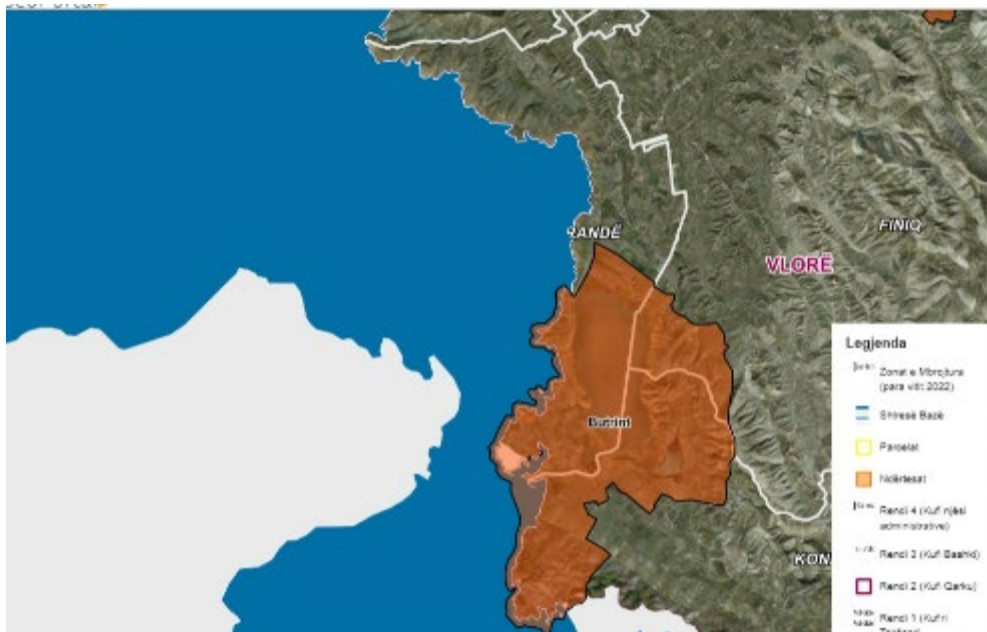


Figure 80: Protected areas related to the project area

4.2 SOCIAL BASELINE

4.2.1 LOCATION

The municipality of Saranda borders to the north with the municipality of Himarë and Delvinë, to the south with the municipality of Konispol, to the east with Finiq municipality and west to the Ionian Sea. The centre of the municipality is the city of Saranda. The municipality has two administrative areas, city of Saranda and administrative unit of Ksamil. According to the national census of 2011, the new municipality of Saranda has a population of 20,227 inhabitants while in the civil registry is registered a population of 50,680 living inhabitants. The municipality has a surface of 58.96 km². Based on Census results, the population density here is 343 inhabitants/km² while according to the civil registry; the population density is 859.56 inhabitants/km².

Saranda city connects to the national road network through the Qafë Gjashta region of the national road, which goes to Kakavija (Greek border) and also connects to the coastal road in direction to Vlora (124 km distance), which is part of the Adriatic-Ionian Blue Corridor. After the completion of the main road corridor Tiranë – Durrës – Lushnjë – Fier – Vlorë, which actually is improved, being also under a process of modernization, it is expected for Saranda to have a greater access to the central and north Albania.

4.2.2 POPULATION

According to INSTAT, based on the 2011 Census, Saranda Municipality was estimated to have 20,227 inhabitants (a density of 343 inhabitants/km²).

The city of Saranda itself has a resident population who are a predominantly urban population. One of the main social issues is migration. Overall migration has been one of the main demographic problems in Saranda changing considerably the population ratios and structure. During the years 1990-2000, an important part of labor force migrated outside of Albania. Migrants from Saranda have migrated mostly to Italy and Germany, and lesser amount to Greece. Once the migrants found employment in these countries and became officially registered in these Western countries, they took their families with them. Statistics show that immigration phenomenon involved some important parts of population of the region.

Based on the latest Census (2011), the population of Saranda municipality has shown a slight increase of 18% over the last 10 years. There is also a small male dominance in this municipality. In respect to the number of visitors during summer tourist season, the population raises to around 250.000. Rapid demographic and urban expansion have given to the city of Saranda the opportunity to build a considerable number of accommodation structures, transforming the city into one of the most important touristic sites in the country.

4.2.3 ECONOMIC DEVELOPMENT AND EMPLOYMENT

Key economic sectors include public services, education, construction, financial services and business, transport, telecommunication, production, tourism and recreation, cultural industries, agriculture and livestock. The irrigated surface areas are 23.530 ha for the district. The largest portion of businesses belongs to the trade sector (41.2%), hotels and restaurants (21.5%) and processing industries of only 6.1%. The municipality has approximately 2,000 businesses / SMEs.

Saranda city is one of the most important cities of Albania. The port of Saranda is ranked third by national importance. New and uncontrolled constructions have really impacted the quality of life in this city. The city serves also as the nearest gate to Greece, especially for tourism purposes. Based on the data provided by INSTAT (annual bulletin 2016) for the district, the average monthly income per capita for the period 2011-2015 is around 52,553 Lek, and the monthly average expenses are around 54,931 Lek (table 2). Moreover: The brut PBB (per capita) is 94.8 %, while the real increase of PBB is -1.4 %.

The municipality has within its territory the lake of Butrint (approximately 14 km away), which is an important area for mussels' production and fisheries in the lagoon. During the recent years, across the hills of Saranda have been planted over 30,000 pines and cypress trees, which aim to cover the hills surrounding Saranda and provide a green crown to the city. Lately the city was expanded through construction of some roads, where the last one (road No. 5) aims to ease the heavy traffic in the center of the city and also to increase the capacities for parking.

Rural areas of the Municipality play a major role in socio-economic development with livestock and agriculture being the main economic activities. The main agriculture products are fruits and vegetables.

1.1.1 CULTURAL HERITAGE

Considering the position of Saranda on the Ionian coast and the fact that it was an important port of the region of Kaonia, the data derived from ancient authors regarding Anchiasmos are few. Between the 1st century BC and the 2nd century AD, according to Caesar, Strabo, Dionysius of Halicarnassus and Ptolomeo, Onchesmos was simply a Kaonian harbor. Later, in the 5th-6th century, the city became an episcopal center, appearing under the name Anchiasmos, and it is mentioned in the list Synecdemus of Hierocles, where this name is listed among the 12 cities of Old Epirus. Another relevant source is Procopius of Caesarea who, in addition to the cities of Dodona and Nicopolis, mentions another city in Old Epirus, Anchialos, which was destroyed in 551 by the Goths of Italy under the leadership of Totila.

Following the sources and the position indicated by the ancient authors, Onchesmos (Anchiasmos), travelers and researchers have not had any difficulty in identifying it with the ruins in the city of Saranda, stating that Onchesmos was an inhabited settlement since the 4th century BC; it was expanded in the first centuries AD and fortified with strong walls in late antiquity. The first rescue excavations and the subsequent ones of a more systematic character carried out during the years 1979-1987 in this city, brought to light the floor paved with mosaics, a large part of the fortress wall, the dwellings, a cistern and the basilica. The excavations gave the researchers the opportunity to create a more complete picture of the extent of this settlement in different periods of its life, and establishes its dynamic development which was divided into three phases: Phase I which spans between the IV century BC and the 1st century AD; Phase II, 1st – 3rd century AD; and Phase III, 4th-6th Century AD.

Phase I is represented by several capitals, Ionic Column and a coin. In phase II Onchesmos extends towards the sea, where the dwellings with the mosaics were found; also the walls built in the opus reticulatum technique, some tombs, coins and ceramics are mainly dated to the 2nd-3rd century AD. In phase III this center takes on features that are more characteristic for an extension over an area of 8 hectares within a district wall of 850 m. Within this enclosure are the ruins of an early Christian basilica that underwent three main phases of construction (I: first half of the 5th century AD; II: second half of the 5th century AD; III: second half of the VI AD) were discovered. From the first study it was possible to clearly define the earliest constructions on which the basilica was built, mainly with mosaics.

The new excavations in the ruins of the basilica made in 2003, made it possible to collect new data about the synagogue that was later adapted as a Christian basilica. Based on the archaeological material, mainly the coins and sources of ancient authors, the archaeologist Kosta Lako first came to the conclusion that the destruction by anger and the internal abandonment, not only of the basilica, but also of the city, must be sought at a time between the year 577 (the last coin found in the mosaic of the basilica) and the year 595, after which Anchiasmos ceased to exist as an episcopal center. In this time period, the events of the years 586 and 587 are particularly considered, related to the Slavic incursions, where, according to the Chronicles, they did a lot of destruction. Also, the excavations in the Synagogue in 2003 have led the authors to conclude that the destruction of this complex and the entire city happened sometime in 580 AD.

In recent studies, an important topic was the ceramics obtained mainly from the excavations inside the fortification walls. The ceramics collected in 2002 during surveys carried out in

several areas of the basilica, which dated back to the first half of the 7th century AD, once again brought into focus the issue of the abandonment of the city.

A year later, after a rescue excavation in one of the streets of the city, outside the fortification ruins, abundant evidence of dwellings and cisterns and a burnt layer were found, accompanied by pottery of the 6th century and some coins, mainly of Baduila (Totila). In addition to this dwelling, the excavation revealed several segmental walls built of stone and mortar, over 2 m thick, that followed the sloping form of the relief and were oriented towards the sea. The ceramics and coins collected from the salvage excavations had a complete comparability in time with those recovered from the excavations of the Monastery of the 40 Saints. The new data raised the hypothesis that until the attack on Totila 551 the city had a much wider extent than what is known and that as in the case of the fortification wall of Byllis, the fortification here was rebuilt after this period. The phenomenon observed in Byllis and Hexamilion seems to have occurred in the city of Anchiasmos as well, where most of the city, 9 hectares, remained outside the new fortification, which included only 5 hectares. The data obtained from ceramic materials, extracted from archaeological excavations, enriched with abundant data on the Monastery of 40 Saints, as well as data on the city of Phoinike and the city of Butrint, have created a new image of Anchiasmos (Onchesmos).

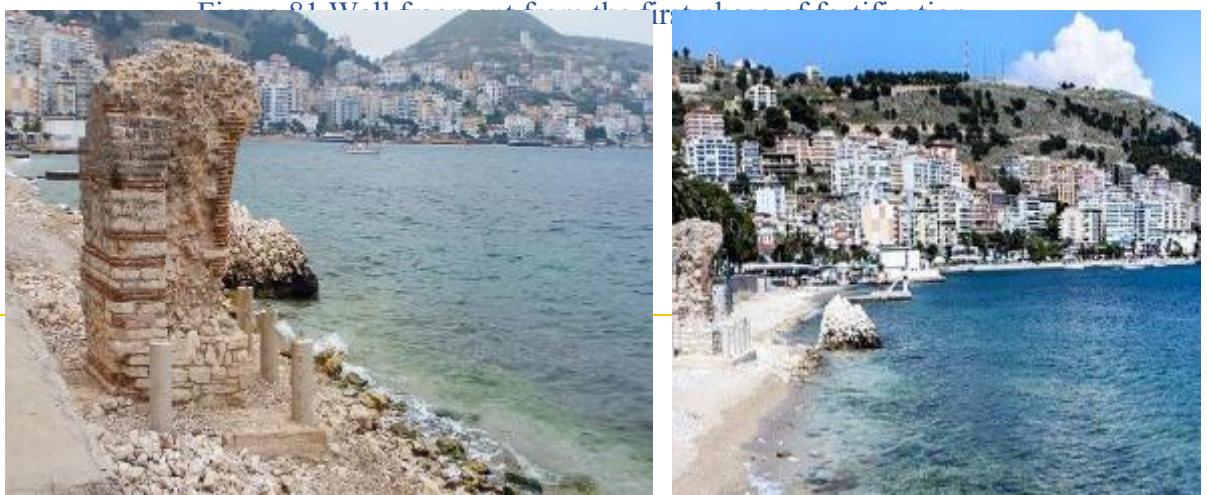
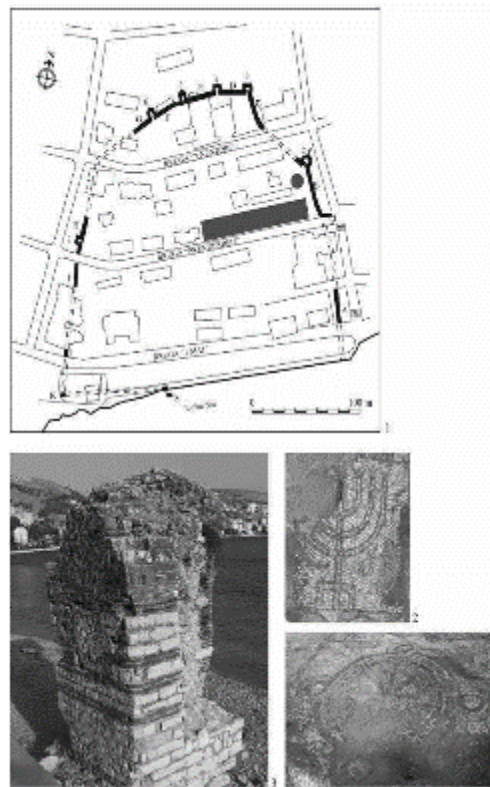


Figure 82 Fortification Wall Fragment, Sarande

The mosaics are generally damaged by structural changes as a result of water infiltrations. Therefore, there are frequent potholes that create unpleasant images for the visitor. Technically, the construction of the mosaic stands in the footsteps of time, with chiseled stones about 1 cubic cm placed on a layer of harasan mortar (lime, tile dust and fine sand). According to archaeologists, the synagogue located inside the ancient wall, in one of the main streets of the city of Saranda (the ancient city of Onhezmi), is considered more complete if compared to two synagogues discovered in Macedonia and Thessaloniki, whose presence is not documented as in Sarande.

Excavations in the Paleo-Christian basilica of Saranda started in 2003, and extended to the western part of the city, after the demolition of a house that was located there. In this wing is the part of the synagogue, where a basilica from the 6th century is located. Excavations in this basilica revealed two mosaics.

The year 2003 marked the first expedition of Albanian-Israeli cooperation in the basilica, where the goal was to discover the most complete elements of the Jewish synagogue of the 5th century in this Mediterranean city. Archaeological data help to understand the development of city life in this period. The archaeological values of Onhezmi (today's Saranda) extend over a much wider area than the basilica, from the port area to the area of today's martyrs' cemetery, to the Monastery of 40 Saints, from which the city of Saranda got its name.

According to the Archaeological Institute in Tirana, the two mosaics with figures of fish, the explanation of which is related to the coast of Saranda, are of great interest. In fact, fish in the period of Early Christianity is a very used element in religious objects. On the mosaic surface there is also a fragment of an inscription not completely legible, which belongs to the middle of the 5th century. His decipherments explain the relations between the Jewish community of Saranda and those of Lecce (Italy) and prove that the Jewish community of Saranda was quite powerful. Archaeological data help to understand the development of the city in the 5th century.

During the IV-V century, the city of Onhezmi flourished. It continues to be known by this name until late, until it takes the name of the 40 Saints. Within 20 kilometers of distance and 8 kilometers of width, there are several monuments in this area that complete this complex. This is probably where the value of the synagogue lies.

According to archeological data, the building of the basilica, before turning into a Christian church, was previously a Jewish cult building, a synagogue. Meanwhile, until today in the basilica of Saranda, three temples of Jerusalem with biblical scenes, built at the same time, have been identified by archaeologists.



Figure 83 Synagogue, Sarande

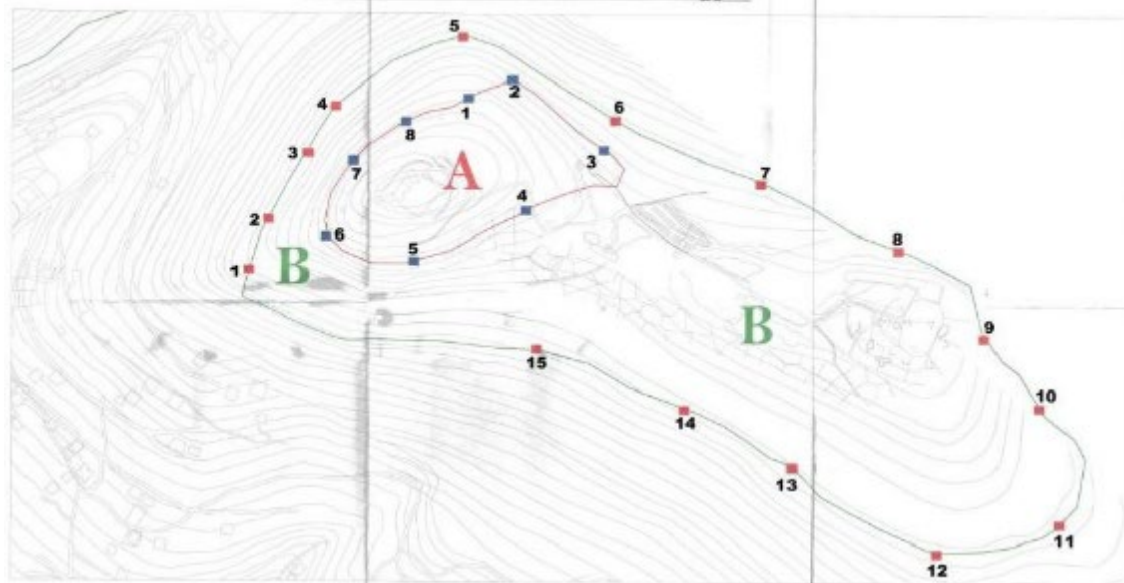


Figure 84 Mosaic, Synagogue Sarande

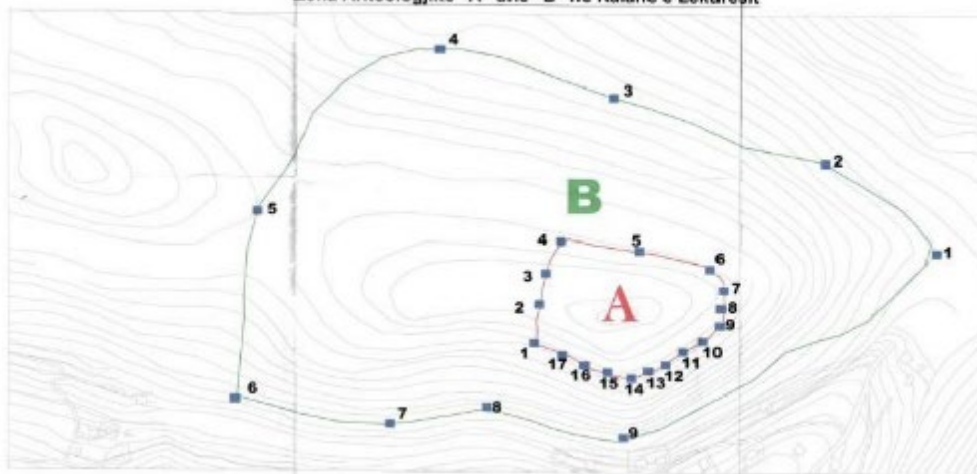
located on the Ionian coast. The name Saranda comes from an early Christian monastery dedicated to 40 Saints.

For the first time the name of Saranda is mentioned in the year (1412). Until the 4th century AD it was under the Roman Empire and this is proven by the ruins of the surrounding walls, parts of which are also located in the city promenade. From the 4th to the 6th century, Saranda was under the Byzantine Empire. Saranda is a city in the southwest of Albania,

Harta e Zonifikimit Arkeologjik



Zona Arkeologjike "A" dhe "B" ne Kalane e Lekuresit



Zona Arkeologjike "A" dhe "B" e Manastirit te 40 Shenjtoreve

MIRATOHET:
Selli Bërisha
 KRYEMINISTRI
 Prof. Dr. Selli BËRISHA

MINISTRIA E TURIZMIT, KULTURES,
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 Prof. Dr. Apollon BAÇE



AGJENCIA E SHERBIMIT
 ARKEOLOGJIK

DREJTORI
 Roland OLLI



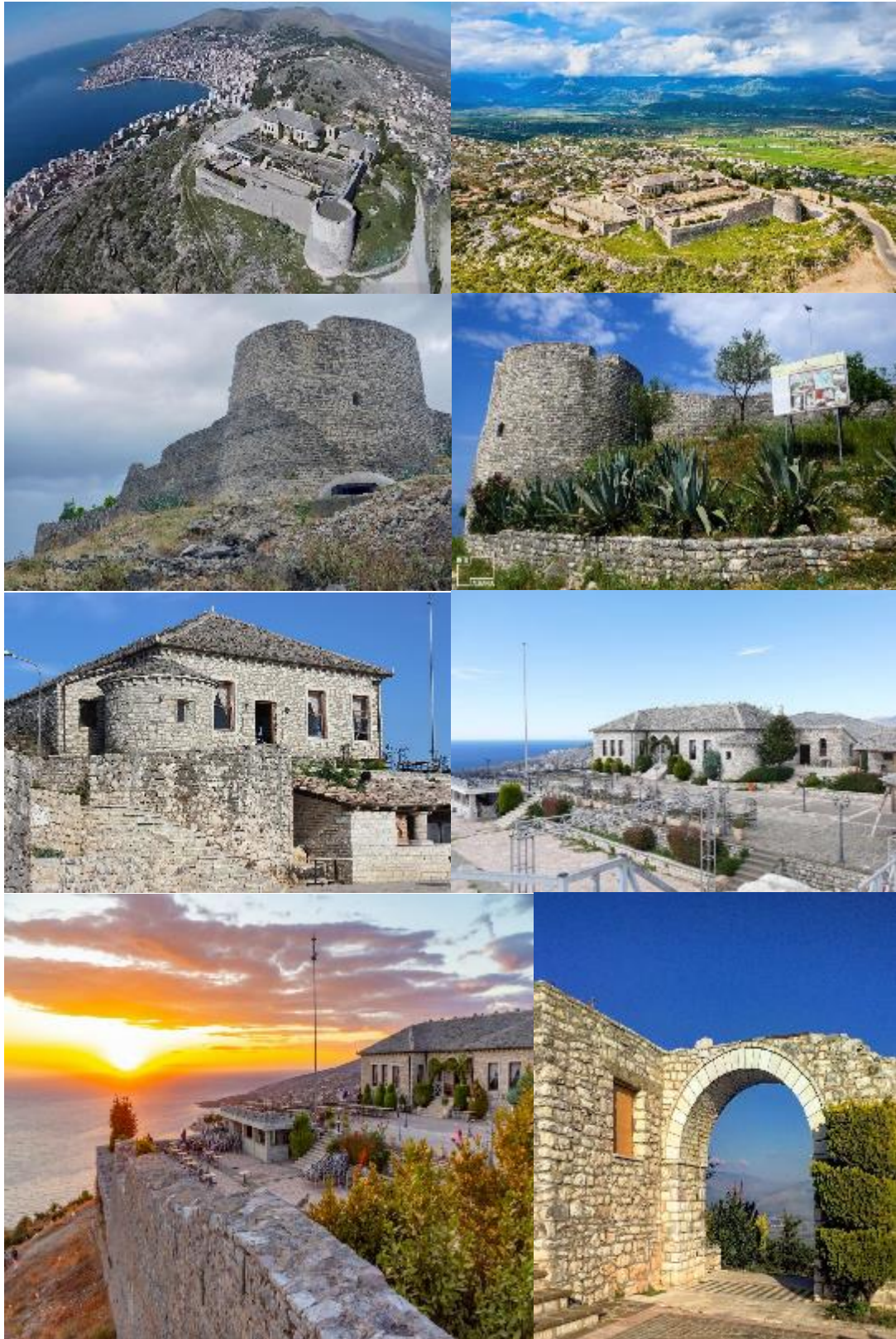
Zona Arkeologjike "A"

Zona Arkeologjike "B"

Vendim Nr. 428, Date 20.06.2012

In the city of Saranda, there are Archaeological Areas "A" and "B", as well as the Monastery of 40 Saints and the Castle of Likursi.





2. METHODOLOGY FOR IMPACT IDENTIFICATION AND ANALYSIS

2.1 METHODOLOGY FOR ENVIRONMENTAL IMPACT ASSESSMENT AND ANALYSIS

2.1.1 IMPACT SIGNIFICANCE

Impact significance is determined from an impact significance matrix (Table 1) which compares severity of the impact with probability of its occurrence. Impact significance criteria are as follows:

- Very High (VH) and High (H): These denote that the impact is unacceptable and further mitigation measures must be implemented to reduce the significance. Shaded red in Table 7.
- Medium (M): Impacts in this region are considered tolerable but efforts must be made to reduce the impact to levels that are as low as reasonably practical. Shaded yellow in the impact significance matrix.
- Low (L): Impacts are considered acceptable. Shaded light violet.
- Negligible (N): Impacts are very low or no impact at all. Shaded green.

Table 19: Determination of impact severity

		Sensitivity of receptor			
		Very low	Low	Medium	High
		1	2	3	4
Very low	1	1 Negligible	2 Minor	3 Minor	4 Minor
Low	2	2 Minor	4 Minor	6 Moderate	8 Moderate
Medium	3	3 Minor	6 Moderate	9 Moderate	12 Major
High	4	4 Minor	8 Moderate	12 Major	16 Major

Cumulative Impacts

Cumulative effects manifest when socio-environmental conditions are already or will be affected by past or reasonably probable future development or activities. The ESIA identified current, past and probable future similar activities that compound social and environmental conditions in the project area.

Mitigation of Environmental Impacts

Mitigation measures are designed to avoid, reduce, mitigate, or compensate for adverse environmental and social impacts and inform the Environmental Management Plan (EMP).

2.1.2 IMPACT DESCRIPTION

Describing a potential impact involved an appraisal of its characteristics, together with the attributes of the receiving environment. Relevant impact characteristics included whether the impact is:

- Adverse or beneficial.
- Direct or indirect.
- Short, medium, or long-term in duration; and permanent or temporary.
- Affecting a local, regional, or global scale; including trans-boundary; and
- Cumulative (such an impact results from the aggregated effect of more than one project occurring at the same time, or the aggregated effect of sequential projects. A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions”).

Each of these characteristics is addressed for each impact. Consideration of the above gives a sense of the relative intensity of the impact. The sensitivity of the receiving environment was determined by specialists based on the baseline data collected during the study.

2.1.3 IMPACT EVALUATION

Each impact is evaluated using the criteria listed in Table 8. To provide a relative illustration of impact severity, it is useful to assign numerical or relative descriptors to the impact intensity and receptor sensitivity for each potential impact. Each is assigned a numerical descriptor of 1, 2, 3, or 4, equivalent to very low, low, medium or high. The severity of impact was then indicated by the product of the two numerical descriptors, with severity being described as negligible, minor, moderate or major, as illustrated in Table 8. This is a qualitative method designed to provide a broad ranking of the different impacts of a project. Illustrations of the types of impact that were assigned the different grades of severity are given in Table 2.

Table 20: Classification of impact evaluation

	Classification	Description
1	Extent:	Evaluation of the area of occurrence/influence by the impact on the subject environment; whether the impact will occur on site, in a limited area (within 2 km radius of the site); locally (within 5 km radius of the site); regionally (district wide, nationally or internationally).
2	Persistence/ Duration:	Evaluation of the duration of impact on the subject environment, whether the impact was temporary (<1 year); short term (1 – 5 years); medium term (5 – 10 years); long term (>10); or permanent.

4	Regulatory and Legal Compliance:	<p>Evaluation of the impact against Local and International legislative requirements.</p> <p><i>High:</i> Prohibition terms for specific activities/emissions. Major breach of regulatory requirements resulting in potential prosecution or significant project approval delays.</p> <p><i>Medium:</i> Potential breach of specific regulatory consent limits resulting in non-compliance.</p> <p><i>Low:</i> No breach of specific regulatory consent limits anticipated.</p>
5	Overall Impact rating (Severity):	<p>Using a combination of the above criteria, the overall severity of the impact was assigned a rating Severe, Substantial, Moderate, Minor and negligible. Refer to Table 7 for broad categories of impact for each rating.</p>

Note: These are only guidelines that will lead the professional judgment required for every case.

2.2 METHODOLOGY FOR SOCIAL IMPACT ASSESSMENT AND ANALYSIS

The purpose of the assessment of social influences is to assess the temporary and permanent impacts of the proposed project. It should emphasize the need to create positive effects and benefits for the community, not just for investors.

In the assessment of possible social impacts, the following topics were considered:

- Impact on Cultural Heritage
- Potential Landscape and Visual Impact
- Changes in the health and safety of the community
- Changes in housing and infrastructure
- Work force and working conditions
- Income to material/ equipment suppliers and contractors:
- Impact on private property, and common property used by individuals

The Social Impact Assessment Approach (SIA) follows the standard procedure of the established international practice for assessing social impacts: a description of the current social / social environment (taken as a starting point), reviewing the changes in that social environment caused by the Project, determining the significance of those impacts and address appropriate mitigation measures.

The objective of the SIA process is to create a situation where the project will have no major residual impacts (impacts that will remain despite the application of mitigation measures); especially those that are long-lasting or that cover a larger area. However, it

is possible for some aspects to have residual impacts, although all practical measures for reducing impacts have been exhausted.

The SIA identifies the social impacts arising from the realization of the project at its various stages: pre-construction, construction, and operational phase. The pre-construction phase is the phase preceding the construction activities and includes the preparation of the necessary plans, tender procedures, planning activities and project organization. The construction phase encompasses the preparation of the construction site and the construction activities themselves. The operational phase follows the activities undertaken in the life cycle of the project.

Table 21 Criteria for Impact Assessment

Criteria	Score	Description
Nature	Positive	Impact that creates an improvement in the current situation or introduces a positive change
	Negative	Impact creates negative changes in the existing situation or introduces unwanted elements in the same
Type	Immediate (Direct)	Impacts are the result of direct (immediate) interaction between project activity and resources / receivers
	Indirectly	Impacts that are the result of non-project activities that occur as a result of the project
	Cumulative	A product of multiple environmental / social impacts on a single receiver or effects that result as a combined effect of various development projects
Area	On the spot	Impact effects limited to 1 km from the project area
	Local	Effects of impact in width 1-20 km from the project area
	Regional	Effects of impact, 20-50 km from the project area
	National	Effects of impact over 50 km from the project area
Duration	Short term	Impacts predicted to last for a short time, usually only during construction
	Mid-term	Impacts foreseen to last a mid-term until the completion of the construction / realization of the entire construction part of the project
	Long term	Impact and its effects will continue or will last throughout the operational phase of the project
	Permanently	The impact and its effects will continue or will last even after the life cycle of the project
Probability	Surely	The impact will occur under normal operating conditions
	Probably	Influence may appear in some time, under normal operating conditions
	Not likely	Impact is not expected to occur, but may occur under normal operating conditions
Reversibility	Reversible	Potential impact is occasionally and reversible

	Nonreversible	Potential impact is permanent and irreversible
Magnitude	Negligible	There is no noticeable change in the assessed situation
	Low	A noticeable, but slight change in the assessed state
	Medium	A noticeable change in the assessed state, which does not result in a fundamental temporary or permanent change
	High	A fundamental change in a given assessed condition resulting in a long or permanent change, typically spread in nature, and requiring substantial intervention to return to the original state, exceeding national standards and limitations
Significance	Negligible	Impact of negligible meaning exists when the resource or receiver is not affected in any way by the activity given, or the intended effect is inconspicuous or background levels inseparable
	Small	Influence with little significance, when the effect is felt, but the magnitude is small enough and quite within the permissible limits and / or the receiver is of low sensitivity
	Moderate	The impact of moderate significance is within the permissible limits and standards. The emphasis of moderate influence is placed on the display that the impact is reduced to a level of reasonably acceptable limits. This does not mean that moderate impacts should be reduced to small ones, but that moderate consequences are properly and effectively managed.
	Large	Impact of great importance is what exceeds the permissible limits and standards, or an impact with great significance occurs in highly valued / sensitive resources / resources

Determining the significance of impacts relies on a reasonable argument, a professional judgment, and consideration of the views and considerations of the respective organizations. On some topics, possible impacts are evaluated by quantitative thresholds and scaling in determining significance. In determining any impact in one of the four categories of significance, it allows different topics to be set on the same scale, which allows direct comparison.

Significance is considered as a function of the magnitude of the impact and the likelihood of its occurrence. The significance matrix is described in the following table.

Table 23: Matrix for determination of significance

SIGNIFICANCE =Magnitude x Probability	PROBABILITY		
	Not likely	Probably	Surely

MAGNITUDE	Negligible	Negligible	Negligible	Negligible
	Low	Negligible	Small	Small
	Moderate	Small	Moderate	Moderate
	Large	Moderate	Large	Large

Since all the social impacts considered in this study are not always negative but have influences that are favorable to the local or wider community and to affected groups, the next color coding is created to offer assistance in visual identification of the impacts that this project will cause.

Table 24: Color Significance Coding

Negative assessment	Positive assessment
Negligible	Negligible
Small	Small
Moderate	Moderate
Large	Large

3. ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

3.1 ENVIRONMENTAL IMPACTS

3.1.1 IMPACT ON VEGETATION AND FAUNA

During the implementation phase of the sub projects, we will not have impacts on the area's biodiversity, as they are implemented on existing road tracks. The interventions are calculated and designed in such a way that the impacts are minimal.

The existing decorative vegetation will be replaced with new vegetation, which is resistant to the climate of the city of Saranda and increasing the coefficient of open spaces. All the trees that will be removed due to the project groups will be transferred to other places approved by the municipality of Sarande, so there will be no cutting of the area's vegetation, but their transfer to another approved area and replacement their plants according to the projects approved by the investor.

The area within the city of Saranda is poor with fauna, where we do not have the presence of protected species, during the works the possible impacts that can be caused to the fauna of the area come from noises and for this reason they can move to quieter areas within the neighborhood's others in the city of Saranda.

The project groups do not plan to intervene in the water areas (coastal and marine) for this reason we have no impact on the aquatic flora and fauna of the area.

A special item of work for each of the project groups is that of work for external systems such as: greening, planting trees, planting grass and urban furniture, which will positively affect the improvement of the flora of the area and will attract more species of fauna that populate this flora.

3.1.2 IMPACTS ON GEOLOGY, GEOMORPHOLOGY AND LANDSCAPE

The impacts on the land will be minimal, referring to the track of the proposed projects for the requalification of the road infrastructure in the municipality of Sarande, they lie entirely on the existing track, not affecting other neighboring territories or the opening of new roads. Also, dangerous substances that can contaminate the soil will not be stored and used. At the end of the implementation of the project groups, the investor through subcontractors has foreseen a special volume of works for the systematization and rehabilitation of the territory affected by the development of the project, expected to be implemented in the last weeks of the project, according to the schedule of works.

3.1.3 IMPACTS ON HYDROLOGY AND HYDROGEOLOGY

The projects that will be implemented due to the geographical position of the municipality of Saranda, lie on the southern slope of the mountain, which has a significant slope, and therefore the surface waters tend to be oriented towards the marine surface water environment. During the development/construction phase of the project, we have small impacts on water quality superficial, since the waters that will be generated from washing tools and equipment are turbid and increase the turbidity of the waters of marine and coastal environments. Another important impact during the implementation of project groups can be caused if during the implementation works, we have atmospheric conditions with high rainfall intensity, where as a result, in addition to the increase in surface water turbidity, we can also have an increase in sediments (suspended substances) for due to the washout of road infrastructure by rainfall and frequent vertical connections (stairs).

The flow of turbidite and suspended matter would have a negative impact on the receiving surface water environment (marine and aquatic) since near the project areas we have seagrass beds, which are sensitive to increased water turbidity. The seagrass beds “*Possidonia oceanica*” are estimated to be located about 150-200 m away from the coastline and over 300-800 m from the project groups. Disciplining the works during the implementation of the projects, managing the surface water generated and carrying out the works during the season with dry weather and no atmospheric precipitation, would significantly reduce the possible impacts on surface water environments, avoiding in this way the increase in turbidity and pending cases.

In the area where the works of the project will be carried out, no hazardous materials will be stored and therefore there will be no surface water pollution. It also remains to be evaluated the fact that the period of works during which surface waters are affected (such as: mobilization, square cleaning, demolition works, and soil works) for the implementation of the project groups will be relatively short (from 1 month to 3 month) and in this way the possibility of pollution from these waters is significantly reduced. Special care should also be shown during the phase of works for the placement of horizontal road signs (drawings with ink) by carrying out these works in dry and clear weather, avoiding in this way the paint being washed away by water.

3.1.4 IMPACTS ON WATER RESOURCES

From the implementation of the project groups, it is not expected to have groundwater pollution. The waters that are discharged outside the infrastructural segments in the construction are the waters created by the activities of cleaning the land with water, washing vehicles, cleaning tires and the waters that come from atmospheric precipitation, which due to the geological formation and the slope of the terrain do not penetrate into the ground water. In the territory of the project groups, there will be no deposits of dangerous materials, and therefore the possibility of contamination of groundwater from infiltrations does not exist.

The possible impact of underground water can result from the bad management of solid waste generated by the demolition and construction of road segments, if they are stored or stored for a long time in the territory of the implementation of the project, then as a result of being washed away by atmospheric rainfall we may have penetration and infiltration into the underground waters contaminating them, but such a possibility is unlikely to happen since the waste from the demolitions/constructions will be removed from the place of generation at the end of each working day for the purpose of treatment, processing or their further destruction by a licensed operator.

3.1.5 WASTE GENERATION

Inert waste (demolition/construction waste) that will be generated by the works for cleaning, systematization, demolition, excavation of project groups will be solid waste such as: packaging waste, mixed urban waste from employees, wood waste, inert waste from the demolition and construction of the project **“Qualification of project groups: P1- Skenderbeu Street, P3- Intersections, P7- Europa Square and P7A- Mitat Hoxha Street”**.

Regarding the inert waste from demolitions and constructions that will be generated during the stages of cleaning, demolition works and earthworks, they will be managed in cooperation with a licensed operator equipped with a category III.2.B "Collection" license. and transportation of waste from demolitions and constructions", referred to Law No. 10081, dated 23.02.2009 "On licenses, authorizations and permits in the Republic of Albania" as amended, Law No. 10 463, dated 22.9.2011 "On integrated waste management" as amended and VKM No. 575, dated 24.6.2015 "On the approval of requirements for inert waste management"

The waste that will be disposed of during the implementation phase of the project, referred to Decision No. 402, dated 30.06.2021 "For the approval of the catalog of waste" are:

17 01 01 Concrete

17 01 07 Mixtures of concrete, bricks, tiles and ceramics, other than those mentioned in 17 01 06

17 02 01 Wood

17 02 03 Plastic

17 03 02 Bituminous mixtures, other than those mentioned in 17 03 01

17 04 07 Mixed metals

17 05 04 Earth and stones, other than those mentioned in 17 05 03

17 09 04 Mixed construction and demolition waste, other than those mentioned in 17 09 01, 17 09 02 and 17 09 03.

This waste will be managed in cooperation with the Municipality of Sarande and with a licensed operator with a license of subcategory III.2.B, as well as the documents for the transfer of non-hazardous waste will be completed, based on Decision No. 229, dated 23.04.2014 "For the Approval of the rules for the transfer of non-hazardous waste and the information that must be included in the transfer document" as amended. In implementation of the National Sectoral Plan for Solid Waste Management (Approved by KKT Decision No. 1, dated 13.01.2020) a part of the soil waste that will be generated during the construction phase and external systems for the development of the project can be used for the rehabilitation of the surfaces of the project groups.

Table 25: The volume of waste that will be generated

P1 – Skenderbeu Street	
The works	Volume
Excavation works	7612.97 m ³
P7A – Mitat Hoxha Street	
The works	Volume
Paving works, Mitat Hoxha street	10665.11 m ³
Construction works vertical road 1 Europa	30.56 m ³
Vertical road excavation works 2	9.12 m ³
Vertical road excavation works 3	30.32 m ³
Vertical road excavation works 4	37.02 m ³
P7 – Europa Square	
The works	Volume
Europa square excavation works	1600.36 m ³
Construction works vertical road 1	115.31 m ³
P3 – Traffic intersections	
The works	Volume
Construction works + demolition Z1a-M-P9 Student	1145.97 m ³
Construction works + demolition Z1a-M-P10 Onhezimi	853.28 m ³
Excavation works + demolition Z1a-M-P11 "40 Saints"	2143.78 m ³

Excavation works + demolition Z2-M-P7 Sheshi Kosova	1029.66 m ³
Excavation works + demolition Z2-M-P7 Muharrem Rushiti	1436.98 m ³
Excavation works + demolition Z6-M-P4a Gjergj Arianiti	1496.24 m ³
Excavation works + demolition Z6-M-P4b Ksamil	1635.65 m ³

The waste generated from the demolition and construction will be collected by the contractor in the designated place within the area where each of the projects is developed with the purpose of their temporary storage and storage, until the moment of transfer to the licensed operators for the further treatment/disposal of the waste. . The temporary storage and storage of waste will be done for a period of 1-3 days until the moment of completion of the quantity requested for transfer, influenced by the phases of the works. The works contractor will carry out waste differentiation at the source with the aim of reducing the amount required for treatment/disposal, recovery of recyclable waste (eg metals, wood, etc.) and recovery of reusable waste for filling works (eg: soils, gravel, etc.).

As for solid urban waste (mixed urban waste) generated by workers at construction sites, they will be collected in special containers and at the end of each working day they will be unloaded in the common urban waste containers of the municipality of Saranda.

The project groups foresee for each of the projects the placement of urban waste containers, which during operation will serve the municipality of Sarande in improving the urban waste management infrastructure.

3.1.6 IMPACTS ON AIR QUALITY

Air pollution comes as a result of the spread of dust, which is generated by materials and works for cleaning the square, demolition works and earthworks that are affected by the group of projects, as well as by the processes of organizing the territory of the projects. Also, the release of combustion gases, which come from work tools and machines in the project area, and in cases where there is no electricity and there is a need to use the generator. It should be emphasized that the daily urban activity of vehicles generates more pollution than the use of vehicles in construction sites. The typology of the project “Requalification of project groups: P1- Skenderbeu Street, P3- Intersections, P7- Europa Square and P7A- Mitat Hoxha Street”, will be associated by dust particle generation and release of gases, although in a very small amount.

The most significant impact on air emissions will be during the cleaning, demolition, and excavation phase, for which water sprinklers will be used to capture and minimize PM2.5 and PM10 particles in the air. The works contractor should avoid keeping the vehicles and machines on as much as possible, when there are no works in the road segments of the project groups, also special care should be shown during days with strong wind.

3.1.7 IMPACTS ON THE ACOUSTIC ENVIRONMENT - VIBRATIONS

The highest possible impacts from the implementation of project groups, considering their wide extent in the main road segments of Sarande municipality, will be the impacts from noise and vibrations, which will be present during all phases of construction, with higher intensity during the stages of cleaning, demolition and earthworks. Noises and vibrations come mainly from the use of construction tools and machines, as well as from the site workers themselves.

For this reason, the main condition for the works contractor should be the use of equipment, tools and machines which are calibrated according to EU standards regarding the noise caused in the environment.

In cases where the noise level exceeds the noise limits and constitutes a risk for the employees and residents of the area, then protective measures will be used, in this case headphones for the employees, and the work schedule will be reduced during the day and late hours. at night.

In addition to noises, vibrations are another important indicator that significantly affects the quality of life of the residents who live or exercise their economic activity along the segments of the project groups' works.

The city of Saranda has a high tourist activity during the summer season, where the number of tourists and residents is very high, for this reason the works for the implementation of the project groups must be carried out after the end of the tourist season, significantly reducing it in this way the social and economic impact that can be caused by noise and vibrations. For each of the project groups, the road segments where the works will be carried out must be used, thus avoiding the transfer of pollution to other road segments of the municipality of Sarande.

3.1.8 IMPACT ON CULTURAL HERITAGE

The Surface Archaeological Survey of the area where the Project for Integrated Urban and Tourist Development for the city of Saranda is expected to be carried out, was realized by a team led by Enkeleida Prifti (licence expert), Mevis Struga, ESIA expert and Iva Guco, the architect. The observation was carried out by walking on foot in the places where the Project for Integrated Urban and Tourist Development for the city of Saranda is expected to be carried out and carefully observing the terrain, as well as documenting with photos the GPS coordinates, which are presented in this Report with details.

The method followed, in the archaeological surface survey, is observation with the naked eye while walking in the entire controlled area and photographing the controlled tracts based on the project. The tools used; besides the natural senses, like eyes to see, feet to walk and hands to hold devices; were: Device for obtaining GPS coordinates, Camera to document the situation, notebook and portable computer.

The monitored area includes the entire space where the Project for Integrated Urban and Tourist Development is proposed for the city of Saranda, controlling the entire surrounding area, which is intensively built.

Researcher A. J. Schofield, in his book *Interpreting Artefact Scatters: Contributions to Ploughzone Archaeology*, published in Oxford, in 1991, clearly states that: 'A single researcher or a team can walk slowly into the area to be surveyed, checked for archaeological objects or other indicators on the surface.

The result of the observation: During the surface archaeological survey of the area where the Project for Integrated Urban and Tourist Development is planned for the city of Saranda, no surface archaeological finds were verified.

3.2 SOCIAL IMPACTS

During the project construction is planned to create new jobs for local people who can support in the construction phase. There will not be any negative impact to the local community or tourist during the construction works. Furthermore, the project does not harm the local communities especially vulnerable people such as young people, elderly people or farmers (rural areas). The construction of the project is foreseen to not prevent youth people to move to the schools or elderly people to have access to main amenities. Additionally, the project is not expected to affect the local businesses that operate effectively during the day. As it described above, the project does not have any involuntary resettlement to the local communities and businesses. During the project there is not affected any agricultural land or damaging the livelihood of communities or income to the businesses.

3.2.1 Income to material suppliers and contractors:

Construction Phase

Development of the project will entail civil works requiring materials such as gravel, stones, timber, steel materials and cement. This is *a positive* but *short-term* and *reversible* impact. Considering that construction labour would be local or national, but some equipment procured internationally, this impact has local spatial extent.

Operational Phase

No impacts are expected during the operational phase.

3.2.2 EMPLOYMENT

Construction Phase

Construction will avail skilled and unskilled job opportunities. This would be *a positive* but *short-term* and *reversible* impact, lasting only during the construction period. Wherever feasible, local people should be considered for job opportunities commensurate with their level of skills. Adequate occupational health and safety standards should be provided to ensure the work environment is conducive.

Operational Phase

Opportunities for opening small businesses (i.e. coffee shop, accommodation) along the itineraries.

3.2.3 Visual Impacts and Aesthetics

Construction Phase

Construction activities will require material, equipment and cordons at the site. Since the intervention area is inhabited and will remain open for access by local community, presence of these activities and materials thereof will cause temporary visual blight at the construction site. Presence of construction activities will alter visual impressions accustomed too.

Duration of visual impact will be **short-term** only lasting through the construction phase. The impact intensity will be **very low** considering the dilapidated state of all existing facilities; therefore, sensitivity on receptors will be low, hence **minor** impact significance.

Operational Phase

The project will have a positive impact on the landscape and visibility that include treatment of walls and re-pavement of the paths.

3.2.4 Impact on private property and common property used by individuals

This project will focus on the public space –streets – no expropriation will take in place and no change will be made to the land plot configuration. However, the project foresees the realization of some specific actions such as restoration of the surrounding walls of the houses, removal of concrete layers and replacement/covering of the spaces in front of the house gates with appropriate materials consistent with the construction techniques. Such a replacement will be included in the scope of the civil works contractor's contract and fully financed by the project, and will not result in any loss of private assets.

The main interventions in private property:

1. Intervention on the facades of the building (replacement of windows, doors, external facade, etc)

3.2.5 Occupational health and safety (OHS)

Construction activities have potential to pose occupational risks some of which could be life-threatening, for example, fatal falls if workers do not use safety latches when working at heights. Working with high voltage and hot works (welding) pose a risk of electrocution. In addition, falling debris could injure workers if personal protective equipment (PPE) are not provided or properly used. Back injury could occur if workers lift heavy objects using inappropriate body posture.

Other potential hazards might be: inadequate lighting during the night working hours or limited level of visibility during rainstorms creating difficulty for staff driving heavy equipment, driving equipment with improper brake system, lack of concentration while working and exposure to hazardous wastes such as paints, cement, adhesives and cleaning solvents.

Duration of the impact will be **short-term** occurring only during the construction phase. Extent of the impact will be **local or national** depending on origin of construction workers. The likelihood of the impact occurring will be medium considering the level of safety at

construction sites in Albania. Intensity of the impact will be *medium* given that some accidents could be minor and not life threatening while others can be grave leading to permanent disability or loss of life of construction workers. Sensitivity of the receptor is *medium* resulting in a *moderate* impact significance.

3.2.6 Community health and safety (CHS)

Safety Impact 1: Problems related to workers' behaviour towards the local environment

Often, the Contractor is not part of the project's development process, and therefore there is no complete picture of the sensitivity of the project area, because its approach, more or less, is mechanical without paying too much attention to the local human environment. Contractors' employees, if they do not come from local populations, most often have less understanding of the needs and values of the local population, especially if they are about neighbourhoods that are in close proximity to construction activities. There are cases where workers are subject to conflict between the developer and the local community.

These conflicts arise due to anxiety over property loss, endangered home security, robberies and disruption of domestic peace of the local population.

The narrow distance between the houses and the construction site, in settlements, can become a source of frustration that will problematize the relationship between the contractor and the local residents / property owners. The presence of workers, unknown persons, close to homes / property has a great impact on the fear of the Project and the nervous reaction of the local population.

Based on the set criteria, this impact can be defined as: *negative, indirect, local, short-term* (it will be manifested only in the construction phase), with the possibility of occurrence-probably, reversible, with low magnitude and low significance (impact can be mitigated and managed).

Safety Impact 2: The emergence of accidents by transporting materials

Traffic accidents have become one of the most significant causes of injuries and fatalities among members of the public worldwide. Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who are most vulnerable to road traffic accidents.

Based on the set criteria, this impact can be defined as: negative, indirect, of a local character, short-term (it will be manifested only in the pre-construction phase), with little possibility of occurrence - unlikely, irreversible, high magnitude and moderate significance (mitigation measures can partially help to recover from the impact).

Health 3: Disturbance from noise and vibration due to construction activities

Noise and vibration will undoubtedly be the main problems in the construction phase. Apart from earthworks and cobblestones, the increased volume of traffic of people, vehicles and materials on local roads through historic quarter and other directly affected populated areas will contribute significantly to the anxiety of the population in these settlements.

Based on the set criteria, this impact can be defined as: negative, direct, on the spot, short-term (it will be manifested only in the construction phase), with the possibility of occurrence - probably, reversible, with medium magnitude and moderate significance (impact can be mitigated and managed).

3.2.7 Accidents

The project area is located in zone with relatively high human activity on it and at the adjoining roads. With an increase in number of vehicles during transportation of construction materials and equipment, there will be an increase of community risk of traffic-related accidents or injuries.

Duration of the impact will be short-term occurring only during the construction phase. Extent of the impact will be local or regional depending on origin of construction workers. The likelihood of the impact occurring is medium considering the usually low level of road safety caution by drivers and pedestrians in Albania. The sensitivity of receptors is high given that some accidents would lead to permanent damage and others loss of life while the intensity of the impact is low given the relatively high volume of traffic assessing the area. Therefore, significance of the impact is moderate.

Table below show the matrix of social impacts.

Table 22: The matrix of social impacts during construction phase

Impact \ Condition	Nature of impact	Type of impact	Area	Duration	Probability to appear	Reversibility	Impact magnitude	Significance of impact	Mitigation measures
CONSTRUCTION PHASE									
Income to material suppliers and contractors	Positive	Directly	National	Short-term	Surely	Reversible	Moderate	Moderate	No
Employment	Positive	Directly	Local	Mid-term	Surely	Reversible	Moderate	Moderate	No
Visual Impacts and Aesthetics	Negative	Indirectly	Local	Short-term	Probably	Irreversible	Small	Small	Yes
Impact on private property and common property used by individuals	Negative	Immediate	Local	Long-term	Probably	Irreversible	Moderate	Moderate	Yes
Hindered access to the homes	Negative	Directly	Local	Short-term	Surely	Reversible	Moderate	Moderate	Yes
Negative impact noise and vibration	Negative	Directly	Local	Short-term	Surely	Reversible	Moderate	Moderate	Yes
Loss of unofficial Parking area	Negative	Indirectly	Local	Long-term	Probably	Reversible	Low	Small	Yes
Problems related to workers' behavior towards the local	Negative	Indirectly	On the spot	Long-term	Probably	Reversible	Low	Small	Yes

environment									
Spread of communicable diseases	Negative	Directly	Local	Long-term	Probably	Irreversible	Moderate	Moderate	Yes
Accident	Negative	Directly	Local	Long-term	Probably	Reversible	Moderate	Moderate	Yes

Table 23: Summary of Environmental Impact for the construction and operation of the project

Assessment Criteria	Extent	Duration	Reversibility	Magnitude	Explanation
Soil					
Land use	Alienation of land use from the implementation of projects, as well as truck crossings on the road	2	+	0	Use of existing land footprints Project tracking systems Use of appropriate technological equipment. Wet ground.
Soil contamination	Waste storage	1	+	-	Action plan for the management of waste from demolitions and constructions
Adverse impacts on the physical characteristics of the project area	Square cleaning and demolition works Construction skeleton Concreting/Asphalting flutter Works for external systems	1	+	--	The projects are spread over existing tracks Rehabilitation Plan Work standards.
Biodiversity					
Vegetation Potential damage to vegetation	Displacement of trees in the project footprint Terrain system. Excavations. Gas and dust emissions. The flows.	1	--	--	Implementation of the regulation. Optimum technical conditions of working tools. Pollution prevention Rehabilitation of the project area and planting of new trees.
Fauna					
Disturbance of species, accidental damage to	Terrain system. Excavations. Gas and dust emissions. The flows.	1	0	0	Implementation of the regulation. Optimum

them	Building				technical conditions of working tools. Pollution prevention.
Air quality					
Increase in emissions of PM10, PM2.5, CO2, CO, NOx, SO2, LN, HC(VOC),	Increase in air emissions from the combustion of diesel used by source trucks but also by other accompanying vehicles Construction of new buildings	1	-	---	Use of covers on trucks and storage area. Transport should be carried out during free traffic hours. The fuel must be of good quality. Periodic control of work tools for discharges. Efficient use of work tools. Neighborhood of the object that is destroyed during the processes of demolition and cleaning of the territory Neighborhood of buildings and territory during construction works
Water quality					
Surface waters	Demolition, excavation, construction and systematization activity.	1	--	--	Cleaning the environment in case of spillage of pollutants in the environment Carrying out works during the dry season Discipline of surface waters
Ground water	Construction activity,	1	--	--	Cleaning the environment

	systematization.				in case of spillage of pollutants in the environment
Hydrology					
Drainage/discharge system, hydrological condition, decantation, erosion	Terrain system. Excavations. Construction activity.	1	--	--	Drainage system. Retaining walls.
Flood	NO	NO	NO	NO	The terrain is sloping & the high waters drain into the main sewerage network.
Waste					
Increase in urban waste	Addition of urban waste from the human activity of the employees who will operate in this project	1	-	-	Differentiated clusters.
Demolition and construction waste	Terrain system. Excavations. Demolition and construction activity.	1	--	--	Temporary storage place inside the construction sites. Transport to the storage place designated by the Municipality Recovery, Reuse and Recycling
Landscape					
Changing landscape	During the construction phase and after completion where the final landscape is obtained	2	-	++	Based on the project, the final landscape will increase the values of the area.
Natural and cultural monuments / Protected areas	NO	NO	-	++	Based on the final project, there will be an increase in the values of the area.
Noise					

Increased noise level	Increased noise level from the movement of vehicles and trucks, the use of equipment and machinery on the construction site	3	---	---	Tools with optimal testing. Works during convenient hours. The works will be carried out after the end of the tourist season
Traffic					
Traffic	Potential increase in traffic from the movement of trucks and vehicles during project implementation	1	-	-	Transport will be carried out during peak traffic hours and in areas that avoid populated areas as much as possible. To use the existing infrastructure of the projects

4. CUMULATIVE IMACTS

4.1 SPATIAL SCOPE

The spatial scope of the cumulative assessment focuses on potential developments within the Saranda Municipality that may interact with impacts (positive and negative) arising from the sub-project.

4.2 ASSESSMENT METHODOLOGY

The methodology for the identification and assessment of cumulative impacts has comprised the following steps:

- Project identification - Determine whether the other development projects in the Saranda Municipality are in the planning system. The identified projects are extracted from the ‘Annual planned budget for the year 2022’³ for Saranda municipality.
- Impact and “interlinkages” assessment-Undertake a cumulative assessment that determines whether the combined impact of the sub-projects and the other development projects will have a significant effect on any of the resources or receptors identified in the ESIA.

4.3 ASSUMPTIONS AND LIMITATIONS

Despite undertaking as review of information on projects within the Saranda Municipality, limited information is available for planned projects within the municipality.

As part of this cumulative assessment, and based on the information identified it is assumed that the following projects will be complete and/or operational (i.e. prior to Project construction):

- Rehabilitation of former waste disposal site, Volloder.
- Revitalization of secondary roads with concrete in Cuke, Manastir.
- Revitalization of the road ‘Bilal Golemi’.
- Revitalization of the secondary road with concrete in Metoq.
- Reconstruction of the water utility in Ksamil&Depo + Distribution Network, neigh. no.3 and no.4
- Reconstruction of the secondary school in Cuke/arrangement of internal environment and sport center.
- Revitalization of secondary roads with concrete in Bardanesh.
- Construction of sportive complex.

4.4 IDENTIFICATION AND ASSESSMENT OF CUMULATIVE IMPACTS

Potential environmental and social impacts caused by a combination of planned projects and the sub-projects have been assessed and results are set out in Table’’+’’ below, where an x denotes a

³ https://www.vendime.al/wp-content/uploads/2022/01/VKB-Sarande-Nr.225-Date-22.12.2021_compressed.pdf

potential adverse cumulative impact; and a “-“ denotes that no potential cumulative impact is expected.

Table 24 Cumulative Impacts Assessment Matrix

Development name	Air Quality	Biodiversity	Soil	Water	Noise and Vibration	Visual	Waste	Traffic	Population influx	Employment	Overlooks	Community Health and Safety	Cultural Heritage
Rehabilitation of former waste disposal site, Volloder.	-	-	-	-	-	-	-	-	-	-	-	-	-
Revitalization of secondary roads with concrete in Cuke, Manastir.	-	-	-	-	-	-	-	-	-	-	-	-	-
Revitalization of the road ‘‘Bilal Golemi’’	+	-	-	-	+	-	-	+	-	-	-	-	-
Revitalization of the secondary road with concrete in Metoq.	+	-	-	-	+	-	-	+	-	-	-	-	-
Reconstruction of the water utility in Ksamil&Depo + Distribution Network, neigh. no.3 and no.4	-	-	-	-	-	-	-	-	-	-	-	-	-
Reconstruction of the secondary school in Cuke/arrangement of internal environment and sport center.	-	-	-	-	-	-	-	-	-	-	-	-	-
Revitalization of secondary roads with concrete in Bardanesh	+	-	-	-	+	-	-	+	-	-	-	-	-
Construction of sportive complex.	-	-	-	-	-	-	-	-	-	-	-	-	-

4.5 EVALUATION OF POTENTIAL CUMULATIVE IMPACTS

The known planned projects in the Saranda Municipality are all small scale and are generally unlikely to have a cumulative effect on any resources and receptors when their influence in combination with the sub-projects.

Based on this evaluation, potential adverse cumulative impacts are considered possible in relation to the following projects:

- Revitalization of the road ‘Bilal Golemi’.
- Revitalization of the secondary road with concrete in Metoq.
- Revitalization of secondary roads with concrete in Bardanesh.

Potential cumulative dust and noise impacts from construction of the sub-projects, combined with construction of the two additional road reconstruction projects may lead to an identifiable adverse effect on receptors in and around the city. However, the long-term benefits of these projects in terms of increased access, improved road safety and reduced dust emissions are considered likely to outweigh short-term construction impacts and will support overall economic development of the district. The identified construction projects will increase local employment on a temporary basis, but this positive impact is considered to be of negligible impact on Saranda Municipality.

5. MITIGATION MEASUREMENTS

5.1 MITIGATION MEASURES FOR ENVIRONMENTAL IMPACTS

- Ensure that around and inside the construction site, where the offices are installed, there is no presence of the fauna of the area during the period of implementation of the works.
- Cleaning, washing and maintenance of machinery, equipment and means of transport must be done in a controlled manner within the construction site and in no case should this be allowed to happen along the work segment, with the aim of preventing and minimizing emissions the polluted waters in an uncontrolled manner in the sea, and as a result the damage to the aquatic fauna occurring in it;
- Plan of measures for the rehabilitation of the surface contaminated by accidental leaks of substances with dangerous content, with the aim of preventing damage to the area's fauna;
- Isolation and Safe Disposal of waste generated by pollution generated by accidental leaks;
- To evaluate the possibility that the trees and vegetation affected by the project can be moved safely to other nearby areas.
- If there is no possibility of their relocation, the trees cut in cooperation with the relevant local unit should be sent to ensure the heating of a part of schools, kindergartens, nurseries or families in need near the project area.
- At the end of the project, in addition to the vegetation provided for in the estimate of works, 3 times more trees should be planted than those cut by the implementation of the project.
- That during the construction phase of the construction site, its perimeter should be fenced with trees, with the aim of reducing the impact on the landscape and minimizing the dust and noise coming from the construction site;
- Keep all construction equipment and machinery clean and wash them in safe places to prevent the spread of seeds.

5.1.1 MITIGATION MEASURES FOR IMPACTS ON GEOMORPHOLOGY – LANDSCAPE

- Vegetation of all land surfaces exposed to construction at the first opportunity.
- Use materials for the restoration of degraded areas.
- Ensure that berms are constructed to prevent erosion from occurring.

- Use sandbags to stabilize soils and avoid erosion.
- Build barriers to enable the capture of soils caused by heavy rains.

5.1.2 MITIGATION MEASURES FOR IMPACTS ON GEOLOGY AND SOIL

- Protect non-construction areas, avoid working in sensitive areas during very unfavourable conditions, rehabilitate damaged areas;
- Remove the upper layer as necessary and store it in an authorized place so that it can be used after construction and rehabilitation works. To be stored separately in a designated area with a height not exceeding 2m;
- The location of the land surface should avoid slopes, natural drainage flows and proximity to road axes.
- Preserve the soil surface through temporary manual planting.
- Determine storage and drainage sites to ensure soil stability.
- Place geotextile protection barriers or salt fences around soil storage sites.
- To keep in condition in each case a special container and amount of absorbent material to prevent cases of soil contamination from accidental spills of equipment, machinery and means of transport.
- Safe disposal by a licensed operator of soil contaminated with dangerous substances.
- A spill kit with all the necessary tools to clean up possible contamination from accidental spills should be kept in the yard at the construction site;
- Do not discharge wastewater that will contaminate the land;
- The excavated material should be carefully stored to avoid spillage and possible contamination as it will be used again after construction and rehabilitation works;
- To make the temporary disposal of surface water to reduce the risk of soil washout from surface water and rainfall.
- Training should be provided for the response to spills, as well as the equipment should be present to avoid any type of pollution.
- Protect non-building areas.
- Design the works to minimize the affected soil.
- Design slopes and supporting structures to minimize risk, ensure proper drainage, soil stabilization/vegetative cover.
- Provide erosion control measures.
- To prepare the land rehabilitation plan.

5.1.3 MITIGATION MEASURES FOR IMPACTS ON AIR QUALITY

During the construction phase, the following measures must be implemented for the minimization of the deterioration of the air quality of the area:

- The use of water sprayers during operations for demolitions and excavations.
- During the dry season and windy days, periodically wet access roads and work segments to reduce dust particles in the atmosphere.
- During excavation, water spraying, and the use of masks and protective equipment must be carried out.
- Unpaved roads are wetted periodically as needed.
- Within the construction site and the project area, the means of transport move at a limited speed, within the value allowed in the technical regulation.
- Periodic control of the speed of movement of vehicles by the security officer.
- To periodically clean the tires of vehicles and machines before they go out on the main national roads and axes of the area.
- To avoid as much as possible keeping the machines and tools switched on when they are not at work.
- Means of transport to be covered with raincoats.
- To perform a weekly visual inspection of the technical condition of the means of transport so that there are no leaks during the transport of the material inside them.
- Tires of transport vehicles when moving outside the project area must be clean of mud and soil.
- Places of temporary storage of soils should be covered in order to prevent the rise of dust particles in the air;
- During days with strong winds above average levels, consider the possibility of interrupting the circulation of means of transport or limiting them to the extent that it does not cause emissions of dust particles into the air;
- To manage the traffic of the project area in such a way as to avoid vehicles standing still as much as possible.
- The equipment, machinery and means of transport must be contemporary, approved and their emissions must be within the norms allowed by Albanian legislation and EU norms.
- Refuelling – normally diesel is used for some equipment where SO₂ is among the biggest pollutants emitted. Use quality fuel with low lead and sulfur content.

- To prohibit the burning of construction materials and waste in the construction site and the project area;

5.1.4 MITIGATION MEASURES FOR IMPACTS ON WATER RESOURCES

During the construction phase, mitigation measures that ought to be taken to avoid the impact on the water bodies are:

- Carry out careful design, maintain natural drainage where possible.
Systematization and temporary discipline of surface water flows.
- During the segment of the works, the contractor must take care that in no case should they affect the increase of turbidity and suspended matter in the aquatic environment of the sea;
- To avoid as much as possible the deposition of waste from demolitions/constructions and raw materials near water bodies in the vicinity.
Demolition/construction waste and raw materials storage areas should be surrounded by protective barriers that prevent rainwater from washing away and taking measures.
- Safe and sanitary disposal of any hazardous waste, oily waste, any chemical to avoid infiltration and contamination of underground water.
- Wash construction vehicles and machinery only in designated areas where the water flow will not create pollution and place sediment traps;
- Around the construction site, the network of collection and discipline of surface water and rainwater should be built.
- Do not allow the deposit of unnecessary materials within the project area;
- Refuelling should not be allowed on slopes or near water sources;
- Repair and maintenance of transport vehicles and machines, except in cases where it is requested otherwise to be done by a licensed operator outside the project area;
- Chemical toilets to be provided in the area by a licensed supplier.
The polluted urban waters generated from the construction site are collected and unloaded in plastic containers with the purpose of transporting them to authorized plants for the treatment of polluted urban waters.
- During the work segment, mobile structures of containers (portable toilets) for employees should be installed.
- Ensure the final disposal of sewage from toilets in sewage treatment plants.
- Do not discharge sewage into the soil;

- Disinfection of chemical toilets.

After mitigated the residual impact significance is classified as negligible.

5.1.5 MITIGATION MEASURES FOR IMPACTS ON THE ACOUSTIC ENVIRONMENT

- Work hours should be minimized and organized from 08:00 am to 17:00 pm;
- The circulation of vehicles that must be carried out based on a program that respects public holiday schedules, not too early in the morning and not too late in the evening;
- Do not use vehicle horns in residential areas;
- Restriction of traffic in residential areas;
- Provision of noise barriers, which significantly reduce the level of noise, especially in the vicinity of buildings, institutions for which the emission of noise would cause concern, annoyance. Each increase in the height of the protective barriers by 1 m height reduces the noise level by 1.5 dB;
- Devices, machines that emit noise should be placed in the right direction in order to reduce the spread of noise towards the other direction (objective) more sensitive to noise;
- Signs of calm areas to be installed in all areas where there is human activity along with the relevant trainings;
- Employees, managers of equipment, machines, managers of works to communicate with contemporary electronic means of communication (cellular, radio, etc.);
- Fit covers for all powered mechanical equipment, generators, compressors, etc.;
- Headphones will be provided to all employees during work;
- Machines and equipment that generate vibrations are used in limited hours, which do not cause concern for the residents of the area;
- To use equipment, machines conforming to EU standards that emit noise levels within the allowed level (according to the manufacturer's patent);
- To carry out weekly visual inspections on the technical condition of equipment, machines and the possibility of noise generation as a result of possible defects;

After mitigated the residual impact significance is classified as minor negative.

5.1.6 MITIGATION MEASURES FOR WASTE

- To prepare the waste management plan;
- To follow the policies of prevention, waste minimization, land protection and increasing the efficiency of the use of waste during the construction phase;

- To identify all streams of waste that can be recovered and recycled, with the aim of reducing the amount of waste sent to landfills or authorized storage sites;
- The construction workers of the project should be properly instructed in the way of waste management (D and R operations) and environmental protection of the project area as a whole;
- At the construction site, the differentiation of urban solid waste should be done at the source in special containers according to the priority streams of waste generation (paper, cardboard, glass, metal, plastic, packaging waste, electrical and electronic waste, water sludge black, mixed urban waste);
- Stimulating a recycling policy for the reuse of waste where possible.
- Separation of inerts from soils from demolition and digging operations.
- To separate the soil generated from the upper layer of the soil (30 cm) from the other part generated from the excavations. Preservation of this layer of soil for reuse for the processes of planting and rehabilitation of the area around the works site and project segments.
- Soils generated from excavations to be potentially evaluated or processed with other auxiliary material in order to reuse them as filling material or as material for the rehabilitation of the project area.
- Soils generated from excavations should be potentially evaluated or processed with other auxiliary material and, in cooperation with the Municipality or the relevant LGU, be reused for the rehabilitation of other squares in the vicinity of the project area;
- Cleaning, disinfection, washing of waste containers and waste collection point (VGM) according to a specific plan;
- To repair, paint and maintain the containers in such a way that they can be reused.
- The waste management containers should be labeled and painted with distinct colors according to the priority streams of waste that can be deposited in them.
- To avoid as much as possible the temporary deposition of waste from demolitions/constructions near water bodies in the vicinity.
- Waste management containers must be distributed along the entire length of the works segment.
- The VGM cleaning service should be performed periodically, according to the work schedule and the amount of waste generated.

- To identify the licensed operators of the area for the recovery and recycling of waste, as well as to sign cooperation contracts for their safe management, with the aim of reducing the distance of waste transfer.
- Storage and temporary storage of waste should be done in the place approved by the Director of Works.
- The place of storage, storage of waste from demolitions/constructions should be impenetrable.
- Urban solid waste to be stored in impenetrable containers and resistant to the material stored inside them;
- Sewage, sludge and polluted urban water should be discharged into impenetrable containers and resistant to the material stored inside them;
- To increase the efficiency of the reuse of waste from demolitions/constructions according to the Sectoral Plan of Solid Waste Management, with the aim of reducing the use of natural resources for raw materials.
- Waste that cannot be recovered or recycled should be sent to the waste treatment area and to the urban wastewater plant, according to the legal procedure approved for the transfer of waste;
- The waste generator is responsible for all phases of waste management, from generation, differentiation at the source, storage, storage, transportation to their final treatment or disposal;
- For each waste transfer from the generator to their final disposer, the waste transfer documents must be completed and saved, based on the legislation in force;
- Create a register of waste according to PMM;
- Ensure waste minimization for all works teams;
- Ensure that work teams are trained in terms of waste management, separation, etc., based on the waste management plan;
- Waste containing hazardous substances to be managed according to the waste management plan that will be drawn up case by case, as well as to be sent for final disposal to a licensed operator inside and outside the territory of Albania, in accordance with the rules, standards and laws in force.

5.2 MITIGATION MEASURES FOR SOCIAL IMPACTS

5.2.1 MITIGATION MEASURES FOR IMPACTS ON PRIVATE PROPERTY AND COMMON PROPERTY USED BY INDIVIDUALS

- Creation of Abbreviated Resettlement Action Plan and making an inventory of project affected people in the document.
- Development of a detailed inventory of assets that will be affected by the project activities. Any physical document as fences, walls and other privately provided assets that will be affected by the construction activities will be replaced at full replacement cost by the contractor or compensated at full replacement cost if not agreement is reached.

5.2.2 MITIGATION MEASURES FOR IMPACTS ON ACCESS TO MOBILITY

- During construction where interference is intended, businesses should be served notices and allowed enough time. Alternative arrangements for access should be discussed and implemented before the demolition activities start.
- The traffic management plan must be prepared including the measures while work or activity is carried out in the road corridor

5.2.3 MITIGATION MEASURES FOR IMPACTS ON COMMUNITY HEALTH AND SAFETY

The contractor should observe community health and safety. The public consultation was categorical about the role of community health and safety during construction and operations. In this regard, the contractor should be committed to:

- Inform community members along project trace on project schedule and activities.
- Reflective signage should be installed for safety of road users, keep public away from material sites.
- Initiative should be taken to conduct public awareness and sensitization campaign on safety aspects related to the road project.
- Train and develop capacity especially for inexperienced labourers/workers or newly purchased equipment's.
- Compensate for losses and injuries.

5.2.4 MITIGATION MEASURES FOR IMPACTS ON OCCUPATIONAL HEALTH AND SAFETY

Initially the contractor shall develop the Occupational Health and Safety Management Plan. The plan shall address several strict measures in line with national and international standards. The main measures that shall be addressed in the OHS Management plan are:

- Informing and providing training of workers in lifting and materials handling techniques during construction and demolishing of the project.
- Planning work site layout to minimize the need for manual transfer of heavy loads
- Implementing administrative controls into work processes, such as job rotations and rest or stretch breaks
- Mitigation measures to avoid slips and falls on the same elevation associated with loose construction materials, liquid spills, and uncontrolled use of electrical cords and ropes on the ground, include:
 - Implementing good house-keeping practices, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths
 - Cleaning up excessive waste debris and liquid spills regularly
 - Locating electrical cords and ropes in common areas and marked corridors
 - Training will be conducted on how to prevent and manage incidences. This will involve proper handling of electricity, water etc. and sensitization on various modes of escape, conduct and responsibility during such incidences. All workers will fully be aware and mentally prepared for potential emergency.
 - Strict instructions shall be given for drivers of heavy equipment.
 - Communication will be ensured in between workers and drivers of heavy equipment.
 - Develop evacuation procedures to handle emergency situations.

5.2.5 MITIGATION MEASURES FOR IMPACTS ON NOISE AND VIBRATION

Noise and vibration impacts are anticipated, as heavy earth moving machineries and equipment will be used. The contractor shall thus put in place several measures that will mitigate noise and vibration pollution expected to rise during the construction phase. As regards, the following noise and vibration suppression techniques will be employed to curb the possible menace.

- To minimize the night time noise and vibration impacts, suppressors/dampers will be used on construction equipment where feasible. High noise and vibration machinery should not be allowed to operate in the proximity of social places.
- Apply the above measures to minimize the day time noise and vibration impacts in the most sensitive area close to schools.
- Use quiet and modern equipment (i.e. equipment designed with noise and vibration control elements – noise shielding screens or vibration dampers).

These equipment's must be kept at manufacturers' specification.

- Limit trucks and other small equipment to minimum idling time and observe common-sense approach to vehicle use, as well as encourage workers to shut off vehicle engines whenever not in use.
- Construct mainly during the day.
- Loud noise and high vibration generating machinery like generators should be encased or dampened to reduce the noise and vibrations they may generate.
- Establish inspection and monitoring program for equipment
- Recommended noise level guidelines are 55 dBA during daytime (07:00 till 22:00) and 45 dBA during night-time (22:00 till 07:00).

5.2.6 GRIEVANCE MECHANISMS

Operational Safety rules be agreed with the community and implemented within a grievance mechanism that facilitates a comprehensive fair, effective and efficient grievance system. The project involves risks associated with increased road traffic including during operations and should be established an effective and clear grievance mechanism (GM), through which communities and stakeholders would be able to present their grievances that would be attended to fairly, effectively and efficiently, with an option for scaling further.

5.3 ENVIRONMENTAL IMPACT MONITORING PROGRAM DURING THE PROJECT IMPLEMENTATION

5.3.1 ENVIRONMENTAL MONITORING PURPOSES

The purpose of environmental monitoring for this project, is to provide data through which, to assess whether the development of the activity is in accordance with environmental laws and standards related to it, to assess the degree of impact (if any), as well as to assess the environmental performance of its management in the context of continuous improvement. Monitoring for the parameter we are interested in is done through repeated measurements, taken with a sufficient frequency, to make it possible to assess the state of the environment and its changes over time.

5.3.2 MONITORING OBJECTIVES

- To compare the quality and condition of the environment before the start of the activity with that during the construction of "Requalification of project groups: P1- Skenderbeu Street, P3- Intersections, P7- Europa Square and P7A- Mitat Hoxha Street".
- Monitor emissions (if any) at all stages of project development in accordance with the legal norms and standards of Albania and the EU.
- Determine whether potential environmental changes are as a result of developments in activities carried out in the project region and whether there are cumulative links and impacts to the proposed project.
- To determine the effectiveness of remedial measures implemented by project development actors in the region.
- To determine long-term impacts (if any).
- To determine the duration of the return to normalcy of environmental quality in the project region, in cases where it is estimated that there are impacts and impacts on it.
- To create an environmental quality archive, a database that can be used in the future.

5.3.3 LEGAL BASIS OF MONITORING

Environmental monitoring is a legal obligation, the way, frequency and elements of monitoring are different for different activities.

Legal requirements for monitoring:

- Law no. 10431 dated 09.06.2013 "On environmental protection", chapter VI "monitoring of the state of the environment";
- The entity is obliged to conduct periodic monitoring according to the requirements set out in the terms of the Preliminary Decision of the ESIA.

Table 25: Legal framework of Monitoring

Law No. 10266 dated 15.4.2010	To protect the air from pollution
Law no. 9774 dated 12.07.2007	For environmental noise assessment and management
DCM No. 1189 dated 18.11.2009	On the Rules and Procedures for the Design and Implementation of the National Environmental Monitoring Program
DCM no.103 dated 31.03.2002	“On environmental monitoring in the Republic of Albania”
DCM No. 435, dated 12.09.2002	On the approval of air emission norms in the Republic of Albania
DCM No. 803 dated 04.12.2003	For the approval of air quality norms
Instruction No.8 dated 27.11.2007	For noise limit levels in certain environments
Instruction no. 6527 dated 24.12.2004	On the allowable values of air pollutants in the environment from the emissions of gases and noises emitted by road vehicles, and how to control them. Amended by: Instruction no. 12 dated 15.06.2010

In accordance with the characteristics of the implementation and construction of the road and in accordance with the legal basis on monitoring, we recommend monitoring the following elements:

Monitoring of environmental parameters

N r.	Monitoring	Parameters to be monitored	Time period	Frequenc y	Liability
1	Air Quality	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO , CO ₂	From the beginning of the project until its completion	Every 6 months	Environmental Expert
2	Noise emission	Noise level in dB	From the beginning of the project until its completion	Every 6 months	Environmental Expert
4	Cases, possible incidents in the workplace	Registration and reporting of treatment	From the beginning of the project until	Every 3 months	Security Officer

			its completion		
5	Malfunction or various possible defects during operation	Are Registered, reported	From the beginning of the project until its completion	Every 3 months	Security Officer and Works Manager
6	Damage to vegetation or crops	Registered	From the beginning of the project until its completion	Every 6 months	Environmental Expert
7	Monitoring the implementation of the conditions of the Preliminary ESIA Decision	Monitored, are registered, reported	From the beginning of the project until its completion	Every 6 months	Environmental Expert & Relevant Inspectorate

Table 26: Monitoring of environmental parameters

Monitoring of the natural resources, air, water, land, urban discharges, etc., is performed according to some scientific criteria in terms of monitoring, collection and analysis of samples. It aims at data collection to observe and predict the role of the human and natural factor in changes in the environment in which it is active. The main objectives of monitoring are:

- To detect changes and to quantify exactly the tendencies (trends) of resource development.
- To provide information on the relationship between the conditions (conditions) of resources and their causes.
- To identify the quality of the environments where people conduct their life activity, in order to take the necessary measures to improve them.
- To evaluate the effectiveness of natural resource management policies and actions.

Monitoring is the task of the investment company at the individual level for points Ç1, Ç2, Ç5, Ç6, Ç7, Ç8 of Decision No.1189. dated 18.11.2009 "On monitoring in the Republic of Albania"

The investor will monitor these indicators of environmental pressure only during the construction phase and specifically the following elements:

- For air must monitor Suspended Solid Matter (LNP) and noise (dB).
- For water, discharges during the construction of the facility from washing machines / equipment
- For land, no obligations apply