

TECHNICAL REPORT

Contract: Performance-based maintenance, Kthese Patos - Ballsh road + Ballsh-Fratar(Mallakaster) road + Ballsh - Aranitas road + Metohasim – Kafaraj (K/Frakull-Kashishte) road + K/Rr Nazionale – Bylis road 61.4 km

1. Scope of services to be carried out

The services to be provided include all the activities, physical and others, which should be carried out by their compliance with the levels of service, and the criterion set for their performance fulfillment, or any other requirement. In particular, they include managerial duties and physical works concerning road-related assets and items:

- Asphalt
- Shoulders
- Road signs and supply of road safety devices
- Drainage facilities
- Vegetation control
- Escarpments (excavations and shoulders)
- Art works
- Traffic management
- Soil accumulation
- Snow removal (if winter maintenance is available)

The services required by road maintenance are classified in:

2. Rehabilitation/Periodic Works in the form of quantity of a ceiling amount, while indicating the quantities of measurable works to be carried out in order for the road to meet its performance standards.
3. Routine Maintenance Services in the form of quantity expressed in a monthly ceiling amount (this will be a monthly quantity applicable throughout the contract duration, expressed in price per km for each month multiplied by road length and duration of services);
4. Emergency Works in the form of a traditional bill of quantities.

The main functions of maintenance bases in general should be as follows:

1. Supervision of road segment/section in certain periods by levels of service
2. Control of traffic data for this segment
3. Observation of meteorological factors
4. First aid in case of accidents (related to road and traffic elements)
5. Maintenance on desired road layers conditions
6. Maintenance of parking spaces, service, road signs, lighting systems, and future signaling and telecommunication.
7. Repairs and reconstruction after road accidents
8. Repairs and reconstruction after natural disasters
9. Cleaning operations of drains, culverts and other facilities related to the removal of water from road surface.

10. All the operations for the cleaning and maintenance of:
- road signs, safety devices (guardrails, parapets) and lighting system
 - local repair of sidewalk damages
 - vegetation protection
 - winter activities for the removal of snow and ice.

Winter maintenance works include:

1. Preliminary works before winter
2. Organization of materials storage locations
3. Protective measures for snow, ice, snow piles and avalanches
4. Removal of snow from highway carriageway and communication signs and signals
5. Marking of carriageway sides
6. Ensuring carriageway drainage system operation
7. Removal of vehicles from the road
8. Installation of specific communication signals in case of special traffic regime for road closures
9. Ongoing public information on road conditions and traffic flow

5. Segments to be covered by the contract:

Road No.	No.	Road names	Road type	Total length (km)	Width (m)
4	1	Kthese Patos - Ballsh	SHL	20.6	6
4	2	Ballsh-Fratar(Mallakaster)	SHL	20.5	6
N/A	3	Ballsh - Aranitas	SHL	6	5
N/A	4	Metohasim – Kafaraj(K/Frakull-Kashishte)	SHL	8.5	4.5
N/A	5	K/Rr Nacionale - Bylis	SHL	5.8	4
CONTRACT SUM				61.4	

Note: SFL – road in a field terrain with one carriageway, without winter maintenance, SHL – road in a hilly terrain with one carriageway, without winter maintenance, SMTW – road in a mountainous terrain with one carriageway, with winter maintenance.

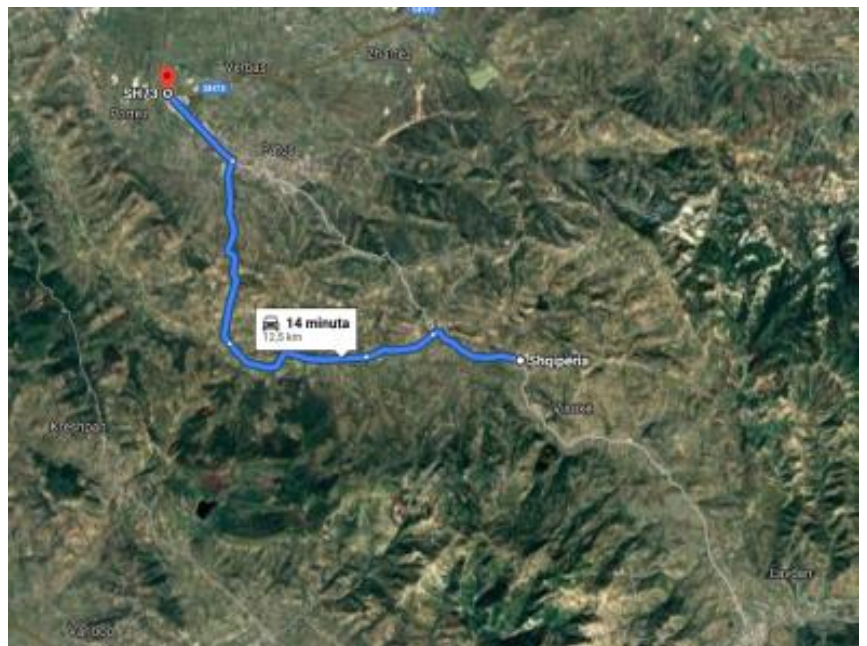
6. Specific condition

For each case, the segments to be included in investment (reconstruction) or other projects of the Albanian Road Authority will be reduced from the contract.

7. Road signs and safety

The maintenance of road signs and safety (guardrails) will be focused on repair and upgrade of the existing one.

8. Description of the area where the road is located



Fier(kthese Patosi) - Visoke (old repair shop)

This segment is part of the road axis connecting Fier to Patos and Ballsh.

It is a dual carriageway segment.

The asphalt layers are amortized because of heavy vehicles movement, which transport oil and solid materials to Mallakaster, so regular monitoring is required.

The side ditches and culverts need partial cleaning.

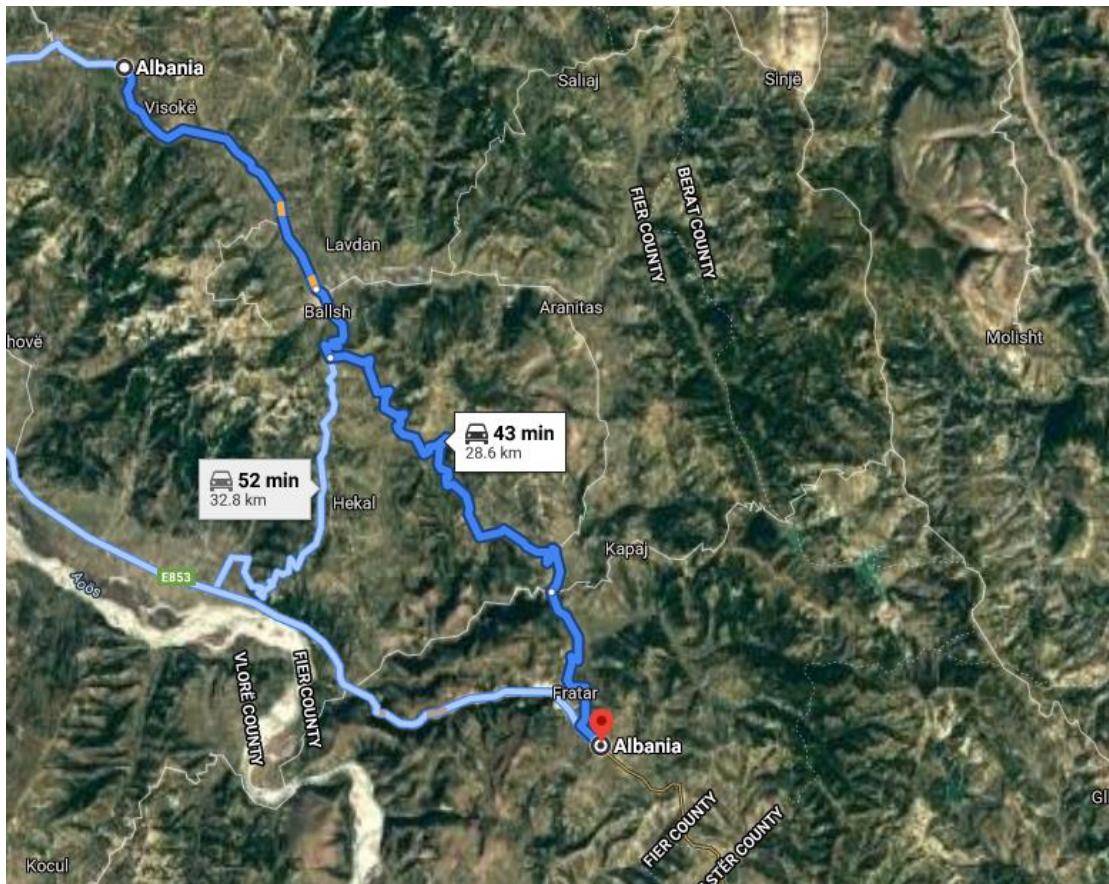
The concrete arches in some bridges and culverts should be repaired.

The road signs and safety need upgrade and partial replacements.

The road lies in a hilly terrain with one carriageway, without winter maintenance.

Due to the terrain, escarpments from km 13 -15 are not stable, and they should be regularly monitored.

The required level of service is “good”.



Visoke-Fratar(Mallakaster) road

This segment is part of the road axis connecting Fier to Patos, Ballsh and the area of Mallakaster.

It is a dual carriageway segment.

The asphalt layers are too amortized because of heavy vehicles movement, which transport oil and solid materials to Mallakaster, so regular monitoring is required.

The roadside ditches and culverts need regular cleaning because of rough terrain and the presence of landslides and rock falling during rainfalls.

The concrete arches in some bridges and culverts should be repaired..

The road signs and safety need upgrade and partial replacements.

The road lies in a hilly terrain with one carriageway, without winter maintenance.

The frequent slides in the entire road length are another problem requiring interventions.

1-Slides are present about 50 m to Ballsh exit, in km 11.8 to the left side, which is highly problematic during winter time. Its solution is to build retaining walls, which can prevent landslides.

2-Slides are present in km 11.6, to the left side, 50 m from Qafe Kashi

3-Slides are present about 100 m in km 12.2, behind the bar in water storage facility, to the right side. The road has been narrowed as a result of such slides (its width is reduced to 4m).

4-Slides are present about 20 m in Kojlac reservoir, in km 12.6.

5-Slides are present about 20 m to the right side, in km 13.1.

6-Slides are present about 25 m, in km 13.4.

7-Slides are present about 30 m in Qafe e Sykuqit, to the right side, in km 16.1

8-Slides are present about 30 m near the sharp turn behind the guardrails in km 16.5

Major failures in sharp turns in Greshice in km 20, for about 200 m.

9-Slides are present about 100 m in Greshice close to Povel, km 21.9

10-Slides are present about 200 m, in km 22.2.

11-Slides are present about 100 m, from km 22.6 to km 22.8, near the sharp turn descending to Povel.

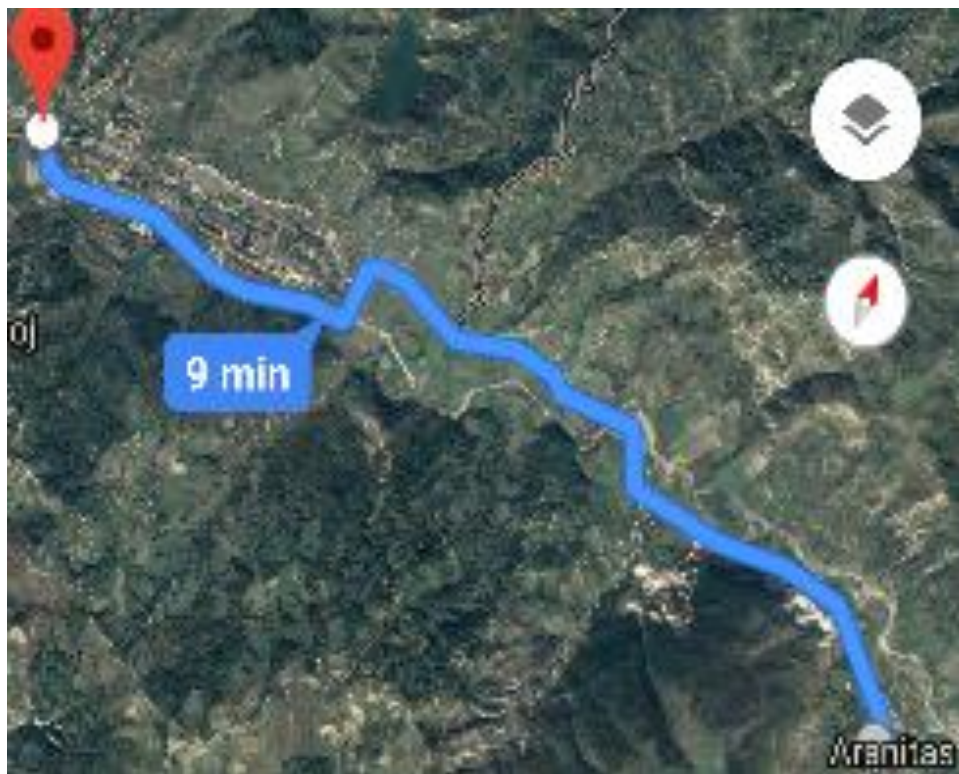
12-Slides are present about 30 m, in km 23, and major failures identified

13-Slides are present about 200 m in the gravel-paved section, before reaching the slide in Povle, in km 23.7

14-Slides are present about 100 before reaching Povle Bridge, in km 24; the road has been narrowed to a width of 2.5 m

15-Slides are present about 65 m, in km 24 .9; the road has been narrowed to a width of 3 m

The required level of service is “good”.



Ballsh-Aranitas

This road segment is the right branch of the road divided in Uzina e Ballshit turn.

It connects villages of Mallakaster to Ballsh.

It is a dual carriageway segment.

The conditions of bridges and culverts are good, except for the bridge in km 3.8 where the stone wall has been damaged (Panahori exit).

The movement of heavy vehicles transporting oil and solid materials to Aranitas remains a problem.

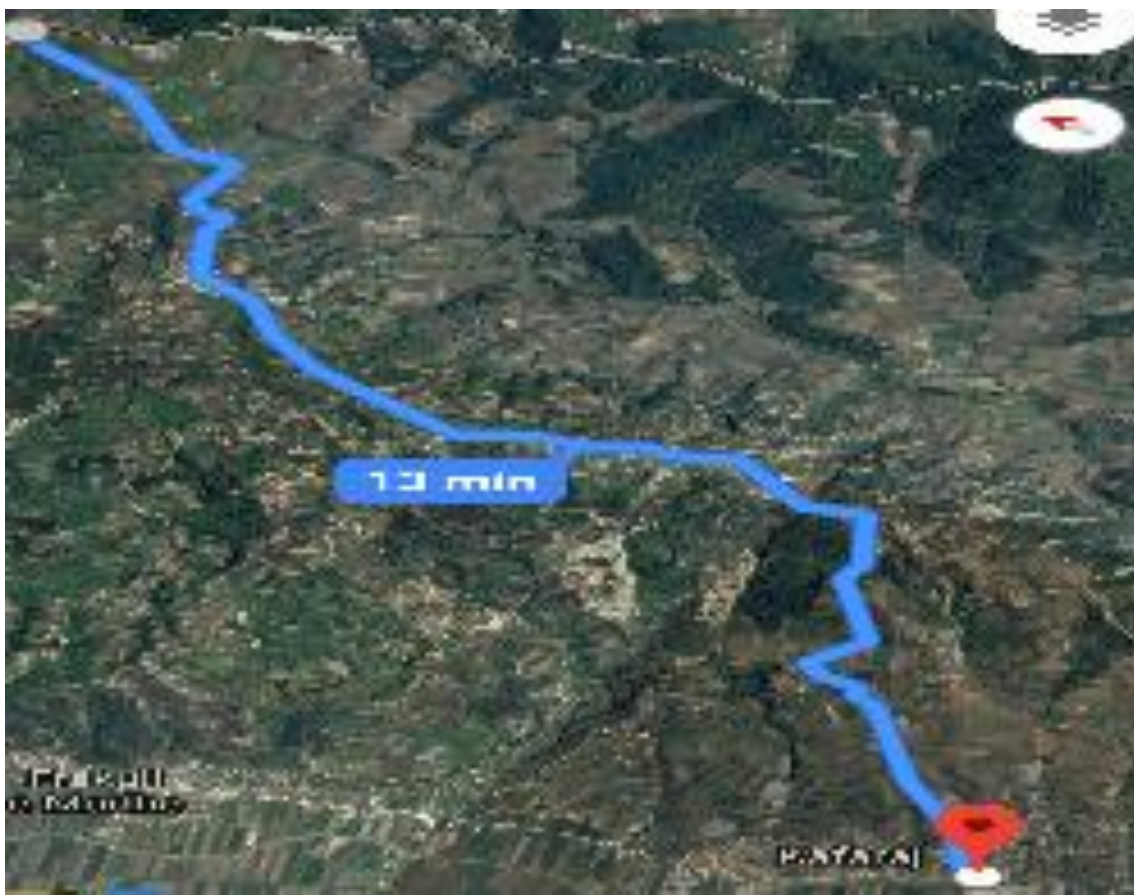
The asphalt layers' conditions are generally good, but surface course interventions are needed in km 5.5-6 because of road cracks and failures.

The side ditches and culverts need regular cleaning.

The road signs and safety need upgrade and partial replacements.

The road lies in a hilly terrain with one carriageway, without winter maintenance.

The required level of service is "good".



Metohasim – Kafaraj (K/Frakull – Kashisht) road

This road segment is the right branch of the road to Peshtan village connecting the surrounding villages to the highway and Fier city.

It is a dual carriageway segment.

The asphalt layers' conditions are good, but minor repairs are needed.

The roadside ditches, culverts and gutters need regular cleaning because of the presence of alluvium during rainfalls.

The road signs and safety need upgrade and partial replacements.

The road lies in a hilly terrain with one carriageway, without winter maintenance.

The required level of service is “good”.



Rr.Kryq.Rruga Nationale-Bylis

This road axis connects the National Bylis Park to the surrounding villages.

It is a dual carriageway segment.

The bridges and culverts are in good conditions.

The side ditches and culverts need regular cleaning.

The road signs and safety need upgrade and partial replacements.

The road lies in a hilly terrain with one carriageway, without winter maintenance.

Road failures are identified close to the 100 m long landslide in km 1.7, which require interventions to turn it within normal conditions.

A problem to this road axis is the 100 m landslide in km 2.2-2.3, to the left and right sides, which has resulted in retaining wall cracks, and interventions are required to turn it within normal conditions.

There is a 25m road failure in km 3.9, which requires interventions to fix it.

The required level of service is “good”.