

1. LOCATION

1.1. Wider Location

The location on which is Asim Ferhatović-Hase Stadium is on the territory of Centar Municipality in Sarajevo designated as locality Zetra in the Urban Regulatory Plan (RP).

The locality which covers the locality Zetra in the Urban Regulatory Plan is the lowland of Koševo valley and a part of the slopes area of Betanija. Total area of the locality 79.0 ha, in the length of 2.5 km and the width of 100 to 600 m. Boundaries of the area from the south is Sutjeska street, from the east Koševo street and Patriotska liga street, from the north partly by Patriotska liga street and from the west is Alipašina street and partially new projected traffic artery to Vogošća.

Landforms' characteristics

The area included in this Plan in smaller part is lowland until the contour line 550 m.a.s.l. which goes through the park at Second High School and the greater part belongs to hilly region above 550 m.a.s.l. The altitudes are between in intervals from 546 in the southern part including the Alipašina Street until 611 above Maternity Hospital Building.

Referring to geological structure the terrain type is erosive-denudative which characteristics are morphological dissection, segmented by complex valleys and steep to mild slopes of Betanija.

The greatest part of the terrain is in a mild inclination to the south. Thus, 53% of the area are the terrains with the inclination of 0-10%, 33% of the area are the terrains with the inclination of 10-20%, and 13% of the area the terrains with the inclination of more than 20%.

The best view of the area terrain with its prominent lines of denudation shows the analysis of the terrain according to the exposition or cardinal orientation. The flatland takes 3.2% of the locality, eastern expositions includes 10%, southern (SE,S,SW) 47%, western 24.7% and northern (NW,N,NE) take 15.1% of the territory.

Hydrogeological characteristics of the terrain

The hydrogeological situation on the wider analysed area is very complex. On the hill side part of the terrain within the Plan was found out situation of ground water, however possible occasional springs as result of natural draining of the slopes during extensive rainfall. The greatest part of the atmospheric precipitations goes as surface water in constant and occasional watercourses and low gullies and ravines through the brooks of Sušica from one side and Koševo brook from the other side of the ridge (watershed) Betanija, then all waters flow towards Miljacka river, and a smaller part infiltrated and in the surface cover and strained in crust of geological substrates' decay and so, after a shorter underground flow comes out as springs. Such spring's types are rare.

Geological structure of the terrain

Terrain stability

Based on engineering-geological mapping and results of previous research, on the above-mentioned area are separated, concerning stability, three basic terrain categories:

- stable terrain 49.7 ha
- conditionally stable terrain 14.6 ha
- unstable terrain 14.7 ha

As a most incontinent category is separated the range of **active landslides, cover thickness of 3.0 to 6.00 m** which take 14.7 ha of the locality. Within these terrains is necessary to plan green areas without any buildings for the reason of stability conditions worsening.

Construction suitability of the terrain and recommendations for founding constructions

Terrains convenient for construction take the greatest part of the locality Zetra in the Regulatory Plan (43 ha) and are situated on proluvial-deluvial coverage, and partly on eluvial-deluvial coverage (at the street Patriotska liga and the complex Jezero Hospital). Slopes inclination of these terrains is 1%-5% and therefore the earth works are less complex than at other categories. Water draining is relatively convenient and the terrains are stable and generally with good load bearing capacity and therefore convenient for construction of all kind of buildings. NPV, during rainfalls and hydrological maximums under the normal depth of founding ($D_f = 2.00$ m.) which gives convenient conditions for urbanisation compared to other categories.

The research has showed designated by No. 2 may be used for urbanisation under application of adequate measures of construction foundation. Depending of constructive disposition of a construction, founding may be performed by foundation tracks or foundation piers. In case of the foundation with tracks it is necessary to reinforce the foundation horizontal tracks and diagonally connect with a-b beams. In case of founding on foundation piers it is necessary to connect the foundation piers a-b beams in both directions so that the foundation construction presents a unique construction unit. It is necessary for the reason of adoption of the foundation construction against potential uneven inherent settlement. It is necessary, before any works, to perform detailed engineering-geological and geo-mechanical investigation in order to get preconditions concerning the bearing capacity of the ground for construction of any building on the zone of Regulatory Plan Zetra.

Terrains conditionally convenient for construction

These are the terrains made of eluvial-deluvial coverage, thickness from 3.0 to 6.0 m, which are in situation of border balance and appearance of ground strolling type waters of insignificant profusion. They take 6.1 ha of the total area of the locality and range mainly alongside Alipašina Street and partially beyond the stadium. For the terrains of the category it is necessary to keep strictly of the construction conditions to avoid radical changes of general and local stability of the terrain. On the terrains, at construction of recreation objects and roads especially must be paid attention to keep unchanged natural form of a slope, i.e. that dapping and the terrain bulk filling is at minimum. If on the terrain construction works are undertaken, it is convenient to choose the zones on which the geological substrate is shallow so that deeper dapping and filling may be enforces by support constructions founded on the

geological substrate. In every special case at a building construction, which required opulent earth works, it is necessary implement relevant stability analyses based on previous accomplished investigation work, if such don't exist, on additional investigation work.

Investigations showed that the terrain designated by number three (3) may be used for urbanisation under use of adequate protection measures of the foundation soil from inflow of ground and surface water due to susceptibility to later soil moisture, under condition that the depth of founding should be adopted to the terrain. Open excavations must be protected against potential cave in by adequate technical measures.

Terrains inconvenient for construction

As an inconvenient category for construction on the locality zone Zetra of the Regulatory Plan the separated terrains take 14.3 ha. The category is present in the area of active, inactive fissile and repaired landslides present on the presented locality of the eluvial-deluvial cover of Betanija slope.

Urbanisation of the area in the zone (4) is possible under application of adequate measures for protection of constructions and the terrain as a whole. Additionally, we recommend complementary investigation for more precise definition of local soil conditions for rational choice of protection system in order to ensure protection of the construction and terrain against landslide. As basic recommendation for such terrains is to achieve by adequate foundation construction adequate recovery of the instable part of the terrain.

Extremely unfavourable construction sites

As the most inconvenient category are sorted out terrains of active landslides made of coluvial (Co) coverages of thickness 3.0 to 6.0 m. They take up 14.7 ha of the locality.

On the terrain is necessary to plan green areas without any buildings in order to escape any worsening of the stability. We recommend regulation of ordinary streams for free and natural drainage of the terrain and avoid, and earth works which may be cause of renewed initiation of landslides.

Urbanisation of the area in the zone (5) is neither possible even with application of detailed analyses nor after remediation.

Terrain seismicity

On the basis of the seismic-tectonic map of BIH for the area of Sarajevo is showed under 7 on MCS. The assessment is calculated for moderate conditions of the soil, but as the terrain is maid on poorly tied to tied rocks od uneven granulation and consolidation with relatively high NPV, we consider that the seismic characteristics of the location soil have middle value conditions. Therefore, is calculated increase of seismicity of + 1 MCS scale compared to basic level of seismic intensity.

Climate characteristics

Sarajevo is characterized by two climate types. Up to 600 m of altitude is characterised by continental climate, above the altitude is continental and above 1000 m.v. mountain and alpine type of climate.

The mean annual air temperature in Sarajevo is +9.50 C. The coldest month is January with a mean temperature of -1.40 C, and the warmest month is July with a mean temperature of +19.60 C. Middle year temperature in some parts of the city it is increased due to the influence of the thermal outflow, so it goes up to 10.50 C.

The average relative humidity value is 72%, while the highest average of middle monthly humidity is in December (82%) and in January (81%). The lowest average values are in April and August (65%).

The distribution of air circulation is largely determined by the relief, so that in Sarajevo are predominantly eastern (17.8%) and western (14.6%) winds, which are certainly related to the valley of Sarajevo which is open in the east-west direction. Very strong winds are rare, and the average wind speed is 2.8 m / sec.

Established conditions

On the locality taken into consideration by the Plan are various contents and functions. Out of the total area, which is 79.0 h, the percent of 57% (45.0 ha) of the areas under buildings, terrains, roads and graveyards and 43% (34.0h) is unimproved land (parks and other green areas).

Table 1
Current use of the land

Purpose	Land surface	
	ha	participation %
Social infrastructure	22,6	28,6
Communal infrastructure	1,5	1,9
Residential areas	2,8	3,5
roads	11,2	14,2
parks	14,2	18,0
graveyards	6,9	8,7
other greenery	19,8	25,1
Total:	79,0	100,0

Within the developed land the largest part of the lot is used for the facilities of communal infrastructure (sport, education, healthcare and commercial activities) and the least part of the land is residential area and communal infrastructure.

Out of the total area of the zone which is 79.0 ha, about 10% is privately owned.

Construction stock

Within the locality of Zetra in the Regulatory Plan are predominant contents of social infrastructure represented as construction stock first of all as sport facilities, primary, secondary and higher education buildings and healthcare facilities.

Besides the above-mentioned buildings' purposes in the zone are three communal structures: open wholesale market and heating facilities Zetra, a series of commercial facilities (shops, catering, craft shops) as separate facilities or in ground floors of residential buildings.

Table 2
Current construction stock by purpose

Construction purpose	Number of constructions	Floor area m ²	GCA m ²
Sport	6	66.321	93.211
Education	11	9.865	17.114
Healthcare	2	3.740	17.618
Commercial	40	4.417	5.392
Residential-business	12	1.248	3.322
Residential	52	4.227	9.030
Communal	3	1.397	1.397
Religious	2	138	138
Total	128	91.353	147.222
Devastated buildings	9	2.570	7.621
Cornerstones/ foundations	1	87	-
Altogether:	138	94.000	154.843

Cultural-historic and nature heritage

Within the locality which is in consideration in the Plan, are old graveyards: Catholic graveyard "St. Mihovil", Old Serbian Orthodox graveyard St. Arhangel Mihael, Orthodox graveyard "St. Marko" and Catholic graveyard St. Josip as well as memorial Muslim graveyard "Stadium" (recent history) which made valuable contents from the scope of cultural-history heritage and by their building characteristics in the same time present the area of memorial legitimacy. Within the complex of the Hospital is the Muslim graveyard Alića Brdo.

The locality was treated in the Regulatory Plan in eight zones as follows:

- A. Commercial zone Second High School
- B. Park zone Koševo
- C. Zone Graveyards of Koševo (C1 and CII)
- D. Residential-business zone Ciglanska
- E. Zone of high level sports "Zetra-Stadium)
- F. Residential-business zone Street of Patriotska lige (F1 and FII)
- G. Commercial zone Hospital Jezero
- H. Recreational zone Park Jezero
- I. Zone of primary traffic



Zone A

Zone A is the secondary school complex of the Second High School and takes an area of 0.88 ha. There is no plan to increase spatial capacities at the existing Second High School. It is permitted to renovate and redesign the existing High School in the existing dimensions and in the function of its basic purpose. Within the plot belonging to the High School will be maintained already implemented horticultural solutions, which is in function of the basic purpose and at the same time it makes a whole in a landscape and design significance with the Park Zone and the Zone of the Graveyards.

Zone B

This zone is made of the parks between the reconstructed streets Alipašina and Koševo in total area of 3.90 hectares. The area Municipal Square "Koševo" expands in the northern part in the area under the buildings that will be completely removed.

The realized planting of trees will be retained. The ground has primary the character of "permanent green space without buildings", except for the reconstruction of the Austrian house. This construction can be reconstructed in its original form with the possibility of extension within the plot ownership, but exclusively in the function of satisfying the cultural and educational needs without a road access i.e. it must have only a pedestrian access and without any possibility of active use of the immediate environment for their own use (summer bar and similar).

Park "Koševo" by its position (an area of intense communication, an important landmark, focal point) and the functionality to be satisfied (large completion of constructions on the area) requires a solution that will by composition, relationship of levels and spatial collocation and introduction of new appearances establish new values of embedding architecture and natural landscape. Therefore, the town Square "Koševo" should maintain functionality through the elements of biological components achieve new landscape-design values.

All the changes, specified by the urban solution, represent a form of permanent spatial-urban interventions which require the creation of new spatial determinants for the subject locality and become the basis for a new conceptual horticultural solution. Thus, it should be harmoniously realised "connection" of the Conceptual Design in the old Urban Regulatory Plan and the realised planting, which now represents the state of the biological component of the space in question.

Alleys, as line systems, follow the primary traffic flows that limit the subject spatial integrity, but at the same time they appear as a design element along with other flows within the boundary of the locality. The boundary of the locality stretches along the alleys along the Alipašina street - the alley of plane trees and along the street of the Patriotska liga - chestnut alley. They are to be retained in the existing volume with regular maintenance and filling up according to spatial possibilities.

Zone C

The zone is located between Patriotska liga Street and Alipašina street and takes 6.81 h. It consists of the old orthodox and catholic graveyards and the memorial Muslim graveyard Stadium. Concerning its aim the zone presents a unique locality from the point of spatial disposition of the graveyard complex it is, due to its position between the city highway route and the open market Ciglane, divided in two spatial units as follows:

The zone "*Koševo graveyard*" II makes the space between the streets of the Patriotska liga and Alipašina, and between the park zone and the "Ciglane" open market and includes the old graveyards: the Roman Catholic cemetery "St. Mihovil" and Old Serbian Orthodox Graveyard "St. Archangel Michael, both out of use since 1966. Respecting the mentioned graveyards status, the long-term planning commitments, the importance and role of this area during the war period as well as its cultural-historical and ambient values, the urban planning concept of the Plan, this zone is envisaged as a park-cemetery, thus allowing special treatment of these space in terms of designing a spatial arrangement.

The zone "Koševo graveyards" II makes the space between the streets of the Patriotska liga and Alipašina, and between the zone of the open market "Ciglane" and the zone of high level sport facilities. Within this spatial unit are: Roman Catholic graveyard "Sv. Josip", Serbian-orthodox graveyard "St. Marko" and memorial Muslim graveyard "Stadium". These graveyards generally do not have the character of municipal graveyards, i.e. they were put out of use, with the exception that the burials will continue to be allowed exclusively in the existing reserved graves. The plan is rehabilitation of paths and planting of adequate authentic vegetation according to the spatial possibilities and previous rehabilitation and reconstruction of the existing valuable objects and monuments in the graveyard.

Zone D

The area between the Zone "*Koševo graveyards*" I and II and the Alipašina and Patriotska liga streets makes this zone, with an area of 2.84 ha. Within this unit, there are two groups of residential and residential-business and commercial buildings: (1) in the extension of the "arcade" of the graveyards and (2) in Ciglanska Street near the graveyard "St. Josip". In Ciglanska Street, is planned retention of the constructions with the possibility of reconstruction and redesign of existing houses and replacement of the construction stock, as well as the construction of new facilities. The commercial property on the corner between the

streets of the Patriotska liga and the Ciglanska can be reconstructed or made to replace the construction stock in by the Plan given the dimensions and the guidelines given by the Decision on the Implementation of the Plan. In the space between the Ciglanska and Alipašina streets, in addition to the existing refuelling station, planned for reconstruction in the existing dimensions, is planned a parking lot accessed from a newly planned road. In the area that today uses PUC "Market places and green market/ Tržnice i pijace" (Green market Ciglane), it is foreseen: construction of a modern market place construction, green and flower market, and construction of parking lots. The existing petrol station will be restructured within the existing dimensions.

Zone F

The zone consists of two groups of residential, commerce and office buildings along Patriotska liga street. Total area of the zone is 2.97 h.

Residential-business zone *Patriotska liga street I*, designed by the Urban regulatory project "Zetra" Patriotska liga street (The Official Gazette of Sarajevo Canton Issue No.: 22/90).

Residential-business zone *Patriotska liga street II*

Within this zone, it is planned:

- The for sport-built facility constructed (indoor trainings) built between the Athletic Stadium and the Patriotska liga Street. Within the ground floor of this building, along the street at a depth of max. 6m it is possible to place commercial facilities (trade, catering and service activities in the function of the basic purpose of the building);
- Construction of "STENS" House;
- Extension and renewal of the building Elementary School "Nafija Sarajlić".

The existing group of residential and residential-commercial buildings along the street of the Patriotska liga shall be mostly kept, in terms of reconstruction, extension and raising the height and replacement of the construction fund, provided that the intervention within the existing plots by the Plan is foreseen the regulation and construction lines as well as maximum floors. There will be no new construction of residential and residential/business facilities in the zone.

Zone G

The total area of this zone is 5.83 ha and covers the Hospital Jezero complex where are foreseen the facilities for the Clinic for Gynaecology and Obstetrics and the Clinic for Children's Diseases, for which rehabilitation and reconstruction, upgrading and raising the height of the existing facilities, exclusively in the function of health care. Existing housing facilities within this zone are retained in terms of reconstruction, extension and raising the height, provided that for such intervention on the existing plots by the Plan are envisaged the regulation and construction line, as well as the maximum floors.

The space improves by the elements of biological components of attractive morphological forms throughout the year.

Zone H

The recreational zone "Park Jezero" occupies an area of 23.63 ha, covering the slopes of Betanija and thus making a functional and spatial connection between the zone of high level sports and the planned Betanija city park.

Within this zone, the largest part of the area is partially realised in an area of approximately 10 ha.

Its expansion is planned by series of pedestrian paths connecting it with the Betanija city park. The park "Jezero" is intended for citizens' recreation. In addition to the green areas and the tracks, is planned construction of a rest area, space for playing children. Within this park, a bicycle path has been built, which connects to the bicycle trail planned in the City Park "Betanija". Along with the newly-scheduled part of the route of Alipašina Street, it is planned to be build a Tennis Club with a set of four tennis courts. The main tennis court has stands with a capacity of 2,000 seats.

Micro locations

Zone E

The zone of high level sports "Zetra Stadium"



This zone occupies the area of 24,23 ha and in the same time is the largest zone in the Plan. It consists mostly the facilities and areas for necessities of high level and professional sports and education of professional personnel as well as other facilities in sports' practising.

Within this zone, the Plan is envisaged the following:

- Reconstruction and dome over of the "Asim Ferhatović" Stadium in the existing capacity;
- Construction of the central square in front of the entrance to the Stadium (which will be established at the same level between the eastern entrance to the Stadium and the Patriotska liga Street).

Within the square is planned the construction of the Hotel for athletes, with a capacity of 60 beds, the total ground floor 2100 m², and of which can be 1600 m² above the level of square.

In the area below the square (- I floor), at the level of the terrain are placed:

- accompanying the facilities of the stadium,
- premises of the Institute for Health Protection of athletes,
- shops, administration buildings and other facilities related to sports,
- storage spaces.

The floors below the ground are planned for a multi-storey garage.

- Construction of a new building in the area of today's parking lot west of the main entrance to the Sport Hall "Juan Antonio Samaranch", with the following facilities:
 - multi-storey garage below the building for the needs of the "Zetra" complex,
 - sports grounds on the roof of the building,
 - other facilities in the function of sports.
- Construction of a small ice hall;
- Reconstruction and dome over the ice tracks.

For the spatial unit Asim Ferhatović Stadium and the access square it will be prepared the architectural and urban planning solution within the urban planning project.

Within the premises of the Faculty of Sport and Physical Education and athletic polygons, it is planned:

- Reconstruction and upgrading of the Faculty of Sport and Physical Education;
- Upgrading and raising the height of the facility within the athletic polygon;
- From the west side of the Faculty is planned construction of a facility for the reception, storage of athletic devices and equipment and construction of a universal sports platform (for the needs of mini football, volleyball and badminton);
- Extension of the athletic track for two lanes to get a smaller athletic stadium. The stands

are also planned from the east side of the Athletic Stadium.

In the space between the stadium and the hospital "Jezero" it is planned to be built a heliport as well as expansion of the existing parking lot with the possibility of building an underground garage on the north side of the stadium "Asim Ferhatović".

In this zone there are outdoor sports grounds: an athletic stadium, a polygon with throwing space, two playgrounds for football, five tennis courts, a pushing bobsleigh.

According to the spatial possibilities in the space should be also brought in elements of biological components including suitable fixtures.



<p>Modernisation of Koševo Stadium</p>	<p>By inspection of locality Zetra in Regulatory Plan (The Official Gazette Sarajevo Canton, Issue No.: 51/12) is found out that in the framework of it is Zone of High Level Sports „Zetra-Stadium“ designated as Zone „E“. The Zone takes the area of 24,23 ha and it is the largest zone within the Plan, it makes predominantly facilities and spaces for high level sport and professional needs as well as education of professional personnel as well as other facilities in sports' practising.</p> <p>Within this zone, the Plan is envisaged the following:</p> <ul style="list-style-type: none"> • Reconstruction and dome over of the "Asim Ferhatović" Stadium in the existing capacity; • Construction of the central square in front of the entrance to the Stadium (which will be established at the same level between the eastern entrance to the Stadium and the Patriotska liga Street). <p>Within the square is planned the construction of the Hotel for athletes, with a capacity of 60 beds, the total ground floor 2100 m², and of which can be 1600 m² above the level of square.</p> <p>In the area below the square (- I floor), at the level of the terrain are placed:</p> <ul style="list-style-type: none"> – accompanying the facilities of the stadium, – premises of the Institute for Health Protection of athletes, – shops, administration buildings and other facilities related to sports, – storage spaces – The floors below the ground are planned for a multi-storey garage. <p>For the spatial unit Asim Ferhatović Stadium and the access square it will be prepared the Architectural and Urban Planning solution within the urban planning project, verified by representatives of the City Administration, Institute for Development Planning of Sarajevo Canton and Centar Municipality Sarajevo.</p> <p>The location is within the Zone I of the city building land, for which the amount of tax fee for taking over of it for a m² of useful space amounts to KM 72.60.</p> <p>The fees for land appropriation in the Zone I are from KM 601 to KM 900 per m² and are calculated for the complete area of a lot.</p>
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Notes: Investors may offer in their communication solutions by which are also planned additional facilities harmonised with the basic space purpose, by the realisation of which will be improved economic justification of the complex planned development.

Enclosed:

- Extract of the Space Plan of Sarajevo Canton for the period of time 2003-2023;
- Extract from Urban Plan of City of Sarajevo;
- Extract from locality "Zetra" Regulatory Plan (current situation);
- Extract from locality "Zetra" Regulatory Plan (zoning plan);
- Extract from locality "Zetra" Regulatory Plan (city planning solution);
- Extract from locality "Zetra" Regulatory Plan (location Stadium);

I, Alden Bajgorić, official court translator/ interpreter in the Federation of Bosnia and Herzegovina, Bosnia and Herzegovina, do hereby certify that the above is true and correct translation of the original instrument in the Bosnian/ Croatian/ Serbian language presented to me.

IN WITNESS WHEREOF I have hereunto set my hand and my official seal.

Reg. No. 011/018

Sarajevo, 31st January 2018