# Development of preliminary and detailed technical designs and preparation of complete tendering documentation for reconstruction, construction and furnishing of six psychiatric clinics in Bosnia and Herzegovina

**Funded from Slovak Inclusive Growth Account (SIGA)** 

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### **INCEPTION REPORT**

March 2020

Created by the Consultant Urbis Centar, Ltd. Banjaluka



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### 1 INTRODUCTION

The Governments of the two Entities of Bosnia and Herzegovina, Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS), formally endorsed the initiative of their respective Ministries of Health to approach the Council of Europe Development Bank (CEB) with a request to provide loan funds to BiH for reconstruction, construction and furnishing of six psychiatric clinics in Bosnia and Herzegovina, at the following locations: Sarajevo, Mostar, Banja Luka, Sokolac, Modriča and Višegrad. Respectively, the Government of the Republika Srpska endorsed this initiative at its 154th session, held on 30 November 2017, and the Government of the Federation of B&H adopted the same decision at its 144th session, held on 24 May 2018. In response to the request of Bosnia and Herzegovina, CEB has in March 2019 initially approved an €11 million loan to BiH for the rehabilitation and expansion of the psychiatric clinics throughout the country.

Ultimately, this investment will result in increased comfort and dignity for patients during their treatment and it will enhance the rates of their recovery and resocialization through creation of conditions ensuring access to modern health and socialization treatments, in line with the relevant EU and WHO standards.

Given the complexities and limited resources available in the health sector of BiH, the government of BiH also made a request to CEB for the allocation of technical assistance grant with the objective to provide, through UNDP BiH, technical assistance to the government which would enable effective preparation of the loan proposal for reconstruction, construction and furnishing of the psychiatric clinics.

In preparatory phase of technical assistance cooperation, UNDP has prepared an estimate of the costs of the reconstruction, construction and furnishing of the six psychiatric clinics as a starting point for the process of CEB loan application development and, as a reference for the later detailed design and implementation phases. The cost estimate document prepared by UNDP's national expert, in cooperation with the two entity Ministries of Health.

Consecutively, upon the request of the government, CEB has approved a grant for technical assistance (TA) in the process of rehabilitation and expansion of the psychiatric clinics, which is to be implemented by the UNDP Bosnia and Herzegovina. The TA grant funding originates from the Slovak Inclusive Growth Account (SIGA).

UNDP started implementation of the grant for technical assistance by launching a tender procedure on September 17<sup>th</sup> 2019 in order to choose a Consultant for the Development of preliminary and detailed technical designs and preparation of complete tendering documentation for reconstruction, construction and furnishing of six psychiatric clinics in Bosnia and Herzegovina.

Urbis Centar Ltd. Banjaluka was chosen as the most successful bidder and the Contract was signed on 31st December 2019.

The overall objective of this activity is to contribute to removal of the technical barriers for the Government of Bosnia and Herzegovina to efficiently implement the CEB loan for reconstruction/ construction of the six psychiatric institutions, by contracting a specialized, licensed company to develop all necessary surveys, urban and technical documents where needed, preliminary and detailed technical designs and complete tendering documentation for reconstruction, construction and furnishing of six psychiatric clinics in BiH, all in line with the relevant national legal framework requirements and the technical requirements of CEB.

The names and addresses of Institutions in FBiH, which are part of this project, are as follows:

- PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTER SARAJEVO, Bolnička Street, no. 25, Sarajevo
- PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL HOSPITAL MOSTAR, K.M. Viševića Humskog Street, no. 39, Mostar

The names and addresses of Institutions in RS, which are part of this project, are as follows:

- PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTRE OF THE REPUBLIKA SRPSKA, BANJA LUKA, Dvanaest beba Street, Banja Luka
- SPECIAL HOSPITAL FOR CHRONIC PSYCHIATRY MODRIČA, Gornjani Street no. 99, Modriča
- SPECIAL PSYCHIATRIC HOSPITAL SOKOLAC, Podromanijska Street bb, Sokolac
- PUBLIC INSTITUTION CARE HOME FOR PERSONS WITH DISABILITIES VIŠEGRAD, Birčanska Street bb, Višegrad

### 2 ACTIVITIES DURING THE INCEPTION PHASE

### 2.1. PRELIMINARY ACTIVITIES

This assignment is based on the tasks defined in the Contract to be performed throughout 12 months.

After the contract signing Urbis Centar has analysed the ToR project task in depth, named three leading architects to perform/manage the tasks and informed UNDP Project associate on December 31<sup>st</sup> 2019 to kindly provide Urbis Centar with the contacts details (name, assigned position, e-mail and telephone number) in the respective psychiatric institutions, in order to start the process of assembling the relevant existing documentation and agree upon the initial meeting/ site visit to each respective location.

In line with the requested procedures, UNDP has sent a letter to respective Entity Ministries of Health on January 2<sup>nd</sup> 2020, informing them about the role of the Consultant, asking for their help in providing direct contact with the named institutions, enabling site visits and sharing documentation necessary for the contract execution.

Federal Ministry of health has delivered a letter to two Psychiatric clinics in Federation of Bosnia and Herzegovina on January 22<sup>nd</sup> 2020, informing them about the role of the Consultant and asking for their direct involvement in the project by enabling site visits, sharing documentation necessary for the contract execution and naming the coordinator in the respective institutions..

Ministry of health and social welfare of Republic of Srpska has delivered a letter to four Psychiatric clinics in Republic of Srpska on January 23<sup>rd</sup> 2020, informing them about the role of the Consultant and asking for their direct involvement in the project, enabling site visits and sharing documentation necessary for the contract execution.

On January 22<sup>nd</sup> 2020 Urbis Centar has delivered a letter to UNDP kindly reminding that contacts in respective institutions are urgently needed, in order to organise initial meetings per each location, as well as site visits and existing documentation collection and check up, so that work needed for inception report can be initiated, carried out and finished as soon as possible, but evidently not within the originally planned deadlines.

On January 28<sup>th</sup> 2020 UNDP Project manager shared with Urbis Centar above mentioned letters sent to Ministries of Heath and subsequent letters to Psychiatric Clinics, informing us about the previous UNDP activities and sharing with us the contacts per respective clinics.

Urbis Centar immediately started multiple team organisation, consultations with clinics and UNDP representatives to assemble an optimal tentative agenda of meetings and site visits.

After the consultations, an official e mail was sent to all clinics on March 3<sup>rd</sup> 2020, informing them on the planned activities, with the following adopted agenda of meetings, initial site visit and existing documentation takeover and check up.

Table of adopted agenda of initial meetings per institutions:

1.	11.02.2020.	10:00 hours
PS	CHIATRIC CLINI	C OF UNIVERSITY CLINICAL CENTRE OF THE REPUBLIKA SRPSKA,
BAI	NjA LUKA, Dvana	est beba Street, Banja Luka
2.	11.02.2020.	09:00 hours
PUI	BLIC INSTITUTIO	N CARE HOME FOR PERSONS WITH DISABILITIES VIŠEGRAD,
Bird	čanska Street bb,	Višegrad
3.	12.02.2020.	11:00 hours
SPE	ECIAL PSYCHIAT	RIC HOSPITAL SOKOLAC, Podromanijska Street bb, Sokolac
5.	12.02.2020.	12:00 hours
	/CHIATRIC CLINI 25, Sarajevo	C OF UNIVERSITY CLINICAL CENTER SARAJEVO, Bolnička Street,
4.	13.02.2020.	11:00 hours
PS	CHIATRIC CLINI	C OF UNIVERSITY CLINICAL HOSPITAL MOSTAR, K.M. Viševića
Hur	nskog Street, no.	39, Mostar
6.	14.02.202.	10:00 hours
	ECIAL HOSPITAL driča	FOR CHRONIC PSYCHIATRY MODRIČA, Gornjani Street no. 99,

Locations in Banjaluka, Sarajevo and Mostar were visited by the UNDP representatives, Urbis Centar director and engineering experts, while locations in other three clinics Višegrad, Sokolac and Modriča were visited by two various Urbis Centar teams lead by experienced design project managers/head architects.

### 2.2. ACTIVITIES RELATED TO PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTER SARAJEVO

### **INITIAL MEETING AND SITE VISIT**

Initial meeting with the representatives of the PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTER SARAJEVO, representatives of UNDP and representative of the Federal Ministry of Health was held on February 12<sup>th</sup> 2020 at the location of the Clinic.

In the introductory part of the meeting, a representative of the Psychiatric Clinic (hereinafter: the Clinic), Ms. Alma Dzubur Kulenovic, head of the Clinic, welcomed all present and emphasized the importance of this project for the Clinic, and gave a brief overview of the existing condition of the Clinic facility.

UNDP representatives, Mr. Armin Sirco and Mr. Goran Vukmir, briefly presented the background of the project and the activities that have been implemented so far, as well as the activities that follow in the coming period. They stated that the purpose of the meeting was to connect the Consultant (URBIS CENTER), who is engaged in the preparation of the investment-technical documentation, with the representatives of the Clinic and with the KCUS Technical Service for further cooperation and communication on the project. They also informed the attendees that a loan from CEB was approved for the reconstruction, reconstruction and equipping of six psychiatric clinics in BiH, and that negotiations were underway on the details of the loan between CEB and the relevant entity and state bodies.

Representative of the Federal Ministry of Health (hereinafter: FMZ), Mr. Ferid Huseinbagovic, pointed out that FMZ is responsible for managing CEB approved funds in the FBiH. Regarding the procedure for signing the agreement with the CEB at the state level, the Framework Agreement is currently under review by the competent BiH institutions. The signing of the Framework Agreement is followed by the signing of Subsidiary Agreements with the Entities.

Mrs. Alma Dzubur Kulenovic raised the question regarding the possibilities of financing the training on the use of the purchased equipment for the employees of the Clinic from CEB loans.

Mr. Ferid Huseinbagović emphasized that the CEB loan does not provide for special funds for training the employees of the Clinic, but that through the item of equipment procurement, technical assistance can be provided by a certified expert who would train employees in the Clinic on the purchased equipment. He also stressed that all procurement, both works and equipment, is carried out by the Project Implementation Unit established by FMZ, and that the procurement of equipment will only be completed once all works have been completed.

It was concluded that consultations on these issues between the Clinic and FMZ can be carried out independently of the consultant Urbis Center, unless they directly deal with the preparation of technical and tender documentation according to the defined project task.

Director of URBIS CENTER, Ms. Snežana Mrđa Badža gave a brief overview of the long-standing experience of the URBIS CENTER in the role of technical assistance on projects financed by CEB, and in this regard, knowledge of the specific requirements of CEB. Regarding the planned activities of the project for the rehabilitation of the Clinic, she stated that the Terms of Reference define that the foreseen works mainly relate to internal works, and that the external works only relate to interventions in the garden and terraces of the Clinic. Also, the Terms of Reference lists the required equipment. The Consultant expects the KCUS Technical Service to further refine and submit updated information on the needs of the Psychiatry Clinic, both in terms of works and equipment, not later than in the initial design phase of the Preliminary Design. No new requirements will be added to the design phase of the Detailed Design, as this phase is intended to elaborate in detail the needs identified in the Preliminary Design.

It was also emphasized that there would probably be no need to issue urban and technical conditions and location permit, since it is an existing facility. It remains to be determined whether location permits will be required for outdoor landscaping. In this connection, the issue of ownership of the Clinic's facilities and the parcels on which the facilities are located, that is, whether they are located on one or more parcels, has been raised, and in that sense it is necessary to provide an extract from the cadastral plan and ownership documentation. It is of the utmost importance that the Consultant be provided with the existing project documentation of the Clinic facility as soon as possible, as well as the proposal of a new internal disposition of the use of the premises in accordance with the defined needs of the Clinic reorganization.

Member of the URBIS CENTER project team, suggested that the Terms of Reference containing the indicative specification of the required works and equipment should be submitted to the representatives of

the Clinic, and that the Clinic, after conducting internal consultations, provide the Consultant with an official written position on this matter. A deadline of 7 days is proposed for delivery.

In the continuation of the meeting, the need for the Consultant to inspect all the Clinic premises, after receiving the existing project documentation from the Clinic, was discussed. It was stated as very important to have all the needs of the Clinic defined before measuring the building, so that the number of arrivals of the measuring team is kept to a minimum, to minimise the interference with the work of the Clinic.

Head of the Neurology Clinic, Ms. Dženita Imamović, pointed out the specific situation regarding the fact that Psychiatry and Neurology share the same building and that it is not possible to physically demarcate the space, since the reconstruction credits are intended only for the Psychiatry facility.

Ms. Snežana Mrđa Badža emphasized that, in this sense, it would not be possible to separate some of the installations, that is, they would be planned in their entirety if necessary, regardless of which Clinic they belong to, as is the case with, for example, sewage verticals.

After the meeting, a tour of the Clinic's entire facility was arranged so that the Consultants would be briefed on the layout and purpose of the Clinic's departments and premises, and gain insight into the current situation. The team was not allowed to take pictures of the facilities.

### **DOCUMENTS RECEIVED**

After the initial meeting document "Assessment of the value of reconstruction works and equipment of facilities of two psychiatric clinics in Federation of BiH" created by UNDP was shared by the Consultant with the Clinic, as well as the MoM as requested. After that appointed representative of the Technical staff of the University Clinical Center Sarajevo shared with the Consultant the following documents:

- 1. Excerpt from the Federal cadastre where it is shown that building lies on one cadastral lot 34/3 together with the designated area for the garden landscaping, which confirms the conclusion that there is no need for location permit issuance since foreseen works have the nature of rehabilitation and according to applicable laws do not require building permit to be issued.
- 2. Layouts of archive design for the building in pdf. format
- Layouts of marked proposals for some interventions within the building in dwg. format prepared by the technical staff of the University Clinical Center which are defined as not precise by the Beneficiary
- 4. Suggestion for minor additions/amendments of MoM

The Consultant has during the inception period applied all means to acquire the Detailed design of the energy efficiency project renovation implemented in 2017, hoping that it be could potentially used instead of measuring the building (especially having in mind situation with coronavirus outbreak), and we succeeded in acquiring it from the Implementer of the project two days before the submission of this report. We acquired the design in pdf format containing layouts and elevations but without sections of the building.

### **ANALYSIS CONCLUSIONS AND WORK PLAN**

After the analysis of received documents and the location, it was concluded that Project task received by the UNDP corresponds with the requests of the Clinic defined during the inception period, notwithstanding the question raised regarding the possibilities of financing the training on the use of the purchased equipment for the employees of the Clinic, which was not foreseen in the defined Project task. This additional request will be solved bilaterally between the Clinic and the Federal Ministry of Health and has no impact on this contract.

The building is built in 1964 and encompasses Psychiatric and Neurology wards in one building. The fourth floor with the new roof was built in 1991 and belongs to Psychiatry part of the building. The technical design or documents from this phase of renovation are not available. The buildings envelope was also part of the energy efficiency project renovation but technical documentation for this intervention is also not available. The elevation of the building is the following: basement part, ground floor and four floors. The gross building area of the entire building as defined in the Project task is 6.178,00 m2.

As previously mentioned we acquired the Detailed design of the energy efficiency project from 2017 with layouts and elevations but without sections of the building. This document can be used in the phase of the preliminary design, however for the phase of the detailed design in order to define sections of the building as well as installations, the building will have to be measured to acquire necessary missing data about the existing state of the building. All installations in the building will have to be examined at the site by the experts of the relevant engineering phase. Also, geodetic works need to be performed for the outside area in order to design the landscaping of the new garden area. Landscaping of a part of the outdoor area is intended for occupational therapy in the area of 380,00 m2 as defined in the Project task.

It is planned to organise the measuring site visit and geodetic works in one day in the first week of April, to minimise the intrusion in the work of the Institution. Meetings during the work on preliminary design can be then held in the administration offices with selected staff of the Clinic and technical staff without disturbing the patients.

Work plan for PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTER SARAJEVO is presented in the table below:

Activities Per deliverables	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Preliminary activities												
Inception period ending with report												
Preliminary design ending with report												
Final Preliminary design ending with report												
Detailed design ending with report												
Final Detailed design ending with report												
Tendering documentation ending with Final report												

### PROJECT RISKS AND RISK MITIGATION

### Risk 1:

Major risk that appeared due to "force majeure" of coronavirus pandemic can cause the inability to measure the building and perform geodetic works needed for landscaping phase, due to the general lockdown of the facility for the safety of the patients. The team wore protective masks in the first site visit also, but this may be deemed insufficient by the Clinic, having in mind the spread of the virus, or other legal bans may be forbidding the site visit all together.

### Mitigation:

It would be possible for the Consultants team to mitigate this risk partially in the phase of the preliminary design for the building, since we have managed to acquire a detailed schematic drawings for layouts and facades of the existing state of the building. However, it would not be possible to mitigate this risk for the garden landscaping, if we cannot do the geodetic surveys. Also, if the situation extends itself into the months when we are due to start work on the detailed design, then it would be a challenge to finish all installations design, without the possibility for the designers of engineering phases to access the building at all. In this case works on this contract have to be prolonged, as well as deadlines for the delivery of the reports on detailed design.

### Risk 2:

The contract was signed at the very end of the year 2019, followed by the long January holidays in 2020, so it was expected that we will not be able to start with the organised initial meetings, site visits and documentation exchange before mid February, which may however jeopardize the final deadlines for project closure at the end of 12<sup>th</sup> month from contract signing.

### Mitigation:

The preliminary phase of complex works encompassed by this contract, which must involve proper preparation of the Beneficiary regarding the existing documentation and detailed analysis that have to be performed by the Consultant, was optimistically estimated to last only one month, but it is realistic that this phase along with the preparatory introduction phase lasts three months. However if this phase is conducted properly then other work phases can be carried out faster with proper team organisation, so we are optimistic that we can mitigate this risk fully, if we are able to start with the measuring the building and the garden area in the first week of April.

### Risk 3:

The "Assessment of the value of reconstruction works and equipment of facilities of two psychiatric clinics in Federation of BiH" was done in 2017, when the designated funds for Sarajevo location were estimated at 3.352.640,00 BAM, out of which 707.750,00 BAM is designated to be spent on equipment and furnishings. This leaves us with the estimate of 2.502.090,00 BAM for the building and 142.800,00 BAM for the outdoor works. Thus the estimated unit price per one gross square meter of the building area for complete rehabilitation of the psychiatry part of the building (approximately half of the area of the whole building) amounts to cca 800 BAM, which may be insufficient for all the works on remodelling the interior and all new installations, including the parts of installations that cannot be separated from the neurology part of the building. Up to date we are witnessing a continual rise in prices for construction works, largely due to lack of skilled workers, so it may be a challenge to stay within the limits of the originally planned budget, both during design phase when a detailed Bill of Quantities must be produced with realistic and up

to date prices, and also during the tendering for the actual works, where larger price bids may appear regardless of the estimated price.

### Mitigation:

During the design phase, we will aim at rationalisation of expenses, but not at the cost of quality of the design and chosen materials. This problem can be overcome after the tendering procedure is finished and the actual price of works is known, by either not performing all the planned and designed works, or by adding the additional funds to the project implementation.

### 2.3. ACTIVITIES RELATED TO PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL HOSPITAL MOSTAR

#### INITIAL MEETING AND SITE VISIT

Initial meeting with the representatives of the PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL HOSPITAL MOSTAR, representatives of UNDP and representative of the Federal Ministry of Health was held on February 13<sup>th</sup> 2020 at the location of the Clinic.

In the introductory part of the meeting, a representative of the Psychiatric Clinic (hereinafter: the Clinic), Mr. Miro Klarić, head of the Clinic, welcomed all present and emphasized the importance of this project for the Clinic, and gave a brief overview of the existing condition of the Clinic facility. He also invited a large number of employed staff of the Clinic to participate in the meeting in order to facilitate their contribution in the further definition of the needs of the Clinic to be designed and implemented.

The representatives of the Federal Ministry of Health, Mr. Ferid Huseinbagović and Ms. Marina Bera both emphasized the importance of the project and willingness of the Ministry to assist the process by all means available. Mrs. Marina Bera gave the historical overview of the work of the facilities and shared her determination that Mostar gets a contemporary and functional facility through this project.

UNDP representative, Ms. Nataša Prica briefly presented the background of the project and the activities that have been implemented so far, as well as the activities that follow in the coming period. She stated that the purpose of the meeting was to connect the Consultant (URBIS CENTER), who is engaged in the preparation of the investment-technical documentation, with the representatives of the Clinic and with the Technical Service for further cooperation and communication on the project. She also informed the attendees that a loan from CEB was approved for the reconstruction, reconstruction and equipping of six psychiatric clinics in BiH, and that negotiations were underway on the details of the loan between CEB and the relevant entity and state bodies.

Director of URBIS CENTER, Ms. Snežana Mrđa Badža gave a brief presentation of the team and overview of the long-standing experience of the URBIS CENTER in the role of technical assistance on various projects. Regarding the planned activities of the project for the rehabilitation of the Clinic, she stated that the Terms of Reference define that the foreseen works relate only to internal works in the clinic. The Consultant expects the Technical Service of the Clinic to further refine and submit updated information on the needs of the Psychiatry Clinic, in terms of works not later than in the initial design phase of the Preliminary Design. She explained that no new requirements will be added to the design phase of the Detailed Design, as this phase is intended to elaborate in detail the needs identified in the Preliminary Design.

The representative of the Technical staff Mr. Tihomir Ćavar gave overview of the present condition of the building and of all previous designs and interventions performed in the building. He stated that Clinic possess the Detailed design of the building, done within the project of energy efficiency measures implementation, when the entire building envelope was rehabilitated and renovated, which will be shared with the consultant.

It was also emphasized that there would be no need to issue location permit nor building permit, since it is an existing facility which will be subject to rehabilitation, and no works are foreseen to be implemented outside of the building. It was agreed that Consultant be provided with the existing project documentation of the Clinic facility as soon as possible, as well as the proposal of a new internal disposition of the use of the premises in accordance with the defined needs of the Clinic reorganization.

It was suggested that the Terms of Reference i.e. Project task containing the indicative specification of the required works and equipment should be submitted to the representatives of the Clinic, and that the Clinic, after conducting internal consultations, provide the Consultant with an official written position on this matter. A deadline of 7 days is proposed for delivery.

In the continuation of the meeting, the need for the Consultant to inspect all the Clinic premises, after receiving the existing project documentation from the Clinic, was discussed.

After the meeting, a tour of the Clinic's entire facility was arranged so that the Consultants would be briefed on the layout and purpose of the Clinic's departments and premises, and gain insight into the current situation. The team was allowed to take pictures of the facilities.

During the site visit, the ideas to implement certain new spatial and functional dispositions were presented and options were discussed. It was also concluded that it would be useful if a new elevator could be installed outside of the building, since there is no technical possibility to build one within the building itself. Also the Consultant was shown the problem areas that originated from the facade reconstruction within the project of energy efficiency measures. As seen on the site, works done recently on the enveloping terraces on the south side of the buildings caused the ceilings of terraces to crash down, due to the inefficient works on drainage. It was generally concluded that the Clinic will state these additional works as necessary, both the elevator and the rehabilitation of the terraces ceilings and drainage, to be discussed further with the Ministry and UNDP, for possible additional funds from CEB, since they are not integral part of the Project task related to this contract. The estimated investment value for the new panoramic elevator construction is cca 90.000,00 BAM, and estimated investment value for the rehabilitation of the terraces is cca 140.000,00 BAM.

### **DOCUMENTS RECEIVED**

After the initial meeting document "Assessment of the value of reconstruction works and equipment of facilities of two psychiatric clinics in Federation of BiH" created by UNDP was shared by the Consultant with the Clinic. After that appointed representative of the Technical staff of the Clinic shared with the Consultant the following documents:

 Project design for the ENERGY REHABILITATION OF THE BUILDING OF PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL HOSPITAL MOSTAR, with all layouts, one sections and facades of the existing facility given in dwg. format done in 2015. This design was the basis for EE measures implementation works performed in 2016 on the envelope of the building. 2. Suggestion for additions to official Project task related to above mentioned works for new elevator and the rehabilitation of the terraces ceilings and drainage system.

### **ANALYSIS CONCLUSIONS AND WORK PLAN**

After the detailed analysis of obtained documents and the location, it was concluded that Project task received by the UNDP corresponds with the requests of the Clinic defined during the inception period, not withstanding the questions raised regarding the possibilities of financing the works for new elevator and the rehabilitation of the south terraces ceilings and drainage system. This additional request will be discussed between the Clinic, Federal Ministry of Health and UNDP, and currently has no impact on this contract. In technical terms, design and construction works for the new elevator and the terraces rehabilitation can be implemented at the later phase, since these interventions are not correlated as a technical necessity to the works envisaged within the original project task.

The building is built in 1956 and the envelope of the building was rehabilitated in 2016. The building encompasses 3 parts with the total gross building area of 4317 m2, as defined in the project task. The elevation of the building is the following: basement part, ground floor and four floors.

Since there is a good existing technical documentation that can be used with certainty, the building does not have to be measured per each room by the consultant's team prior to the preliminary design, but all installations in the building have to be examined at the site by the experts of the relevant engineering phases.

Since the outside area will not be changed in this design, geodetic works are not needed. Also, there is no need to issue location permit nor building permit, since it is an existing facility which will be subject to rehabilitation, and no works are foreseen to be implemented outside of the building.

The technical staff of the Clinic has informed the Consultant that they are interviewing the doctors regarding their wishes for the functional reorganisation of the Clinic, and will inform the Consultant when sufficient information is gathered within the Clinic and presented accordingly.

It is planned to organise a site visit in the first week of April, for the engineers of the infrastructure phases to view existing installations, and to facilitate the information exchange on the preliminary design input from the Clinic staff. Meetings during the work on preliminary design can be then held in the administration offices with selected staff of the Clinic and technical staff without disturbing the patients.

Work plan for PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL HOSPITAL MOSTAR is presented in the table below:

Activities Per deliverables	Months											
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Final Preliminary design ending with report												
Detailed design ending with report												
Final Detailed design ending with report												
Tendering documentation ending with Final report												

### **RISKS AND RISK MITIGATIONS**

### Risk 1:

Major risk that appeared due to "force majeure" of coronavirus pandemic can cause the inability to access the building due to the general lockdown of the facility for the safety of the patients. The team can wear protective masks and gloves during the site visit, but this may be deemed insufficient by the Clinic, having in mind the spread of the virus, or other legal bans may be forbidding the site visit all together.

### Mitigation:

It would be possible for the Consultants team to mitigate this risk in the phase of the preliminary design, since we have received a detailed schematic drawings of the existing state of the building. The team was allowed to take pictures of the facilities, so that also facilitates the work on preliminary design in case no new visit is allowed soon. But if the situation extends itself into the months when we are due to start work on the detailed design, then it would be a challenge to finish all installations design, without the possibility for the designers of engineering phases to access the building at all. In this case works on this contract have to be prolonged, as well as deadlines for the delivery of the reports on detailed design.

#### Risk 2:

The contract was signed at the very end of the year 2019, followed by the long January holidays in 2020, so it was expected that we will not be able to start with the organised initial meetings, site visits and documentation exchange before mid February, which may however jeopardize the final deadlines for project closure at the end of 12<sup>th</sup> month from contract signing.

### Mitigation:

The preliminary phase of complex works encompassed by this contract, which must involve proper preparation of the Beneficiary regarding the existing documentation and detailed analysis that have to be performed by the Consultant, was optimistically estimated to last only one month, but it is realistic that this phase along with the preparatory introduction phase lasts three months. However if this phase is conducted properly then other work phases can be carried out faster with proper team organisation, so we are optimistic that we can mitigate this risk fully, if we are able to perform site visits at least during the initial phase of work on detailed design.

### Risk 3:

The "Assessment of the value of reconstruction works and equipment of facilities of two psychiatric clinics in Federation of BiH" was done in 2017, when the designated funds for Mostar location were estimated at 3.425.360,00 BAM. Thus the estimated unit price per one gross square meter of the building area for complete rehabilitation of the building amounts to cca 790 BAM, which may be insufficient for all the works on remodelling the interior and all new installations, including the total remodelling of the basement area. Up to date we are witnessing a continual rise in prices for construction works, largely due to lack of skilled workers, so it may be a challenge to stay within the limits of the originally planned budget, both during design phase, when a detailed Bill of Quantities has to be produced with realistic and up to date prices, and also during the tendering for the actual works, where larger price bids may appear regardless of the estimated price.

### Mitigation:

During the design phase, we will aim at rationalisation of expenses, but not at the cost of quality of the design and chosen materials. This problem can be overcome after the tendering procedure is finished and the actual price of works is known, by either not performing all the planned and designed works, or by adding the additional funds to the project implementation.

### 2.4. ACTIVITIES RELATED TO PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTRE OF THE REPUBLIKA SRPSKA, BANJA LUKA

### **INITIAL MEETING AND SITE VISIT**

Initial meeting with the representatives of the PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTRE OF THE REPUBLIKA SRPSKA, BANJA LUKA, representatives of UNDP and representative of the Ministry of Health and Social Welfare of Republic of Srpska was held on February 11<sup>th</sup> 2020, at the location of the University Clinical Centre at Paprikovac location in Banjaluka.

In the introductory part of the meeting, a representative of the Psychiatric Clinic (hereinafter: the Clinic), Ms. Nera Zivlak-Radulović, head of the Clinic, welcomed all present and emphasized the importance of this project for the Clinic, and gave a brief overview of the existing condition of the location and previous documents done for the future facility.

The representative of the Ministry of Health and Social Welfare of Republic of Srpska Mr. Zoran Padežanin emphasized the importance of the project and willingness of the Ministry to assist the process by all means available.

UNDP representative, Mr. Goran Vukmir briefly presented the background of the project and the activities that have been implemented so far, as well as the activities that follow in the coming period. He stated that

the purpose of the meeting was to connect the Consultant (URBIS CENTER), who is engaged in the preparation of the investment-technical documentation, with the representatives of the Clinic and with the Technical Service for further cooperation and communication on the project. He also informed the attendees that a loan from CEB was approved for the reconstruction, reconstruction and equipping of six psychiatric clinics in BiH, and that negotiations were underway on the details of the loan between CEB and the relevant entity and state bodies.

Director of URBIS CENTER, Ms. Snežana Mrđa Badža gave a brief presentation of the team and overview of the long-standing experience of the URBIS CENTER in the role of technical assistance on various projects. Regarding the planned activities of the project for the new Clinic, she stated that the Terms of Reference define that the new building will be designed in line with the Regulation plan. The Consultant expects the Technical Service of the Clinic to submit updated information on the infrastructure connections for the new Psychiatry Clinic. She explained that all consultations about design solutions of the layouts and envelope of the building will be held during the preliminary design phase, so that no new requirements are added to the design phase of the Detailed Design, as this phase is intended to elaborate in detail the needs identified in the Preliminary Design.

Ms. Nera Zivlak-Radulović explained that in the previous period the preliminary design was done by a different designer. At that time intensive consultations with the Clinic were held and she was satisfied with the designed functional organisation, so she instructed the Consultant to take that design as a starting point in new solutions. However, it was noted by several meeting attendees that there is a legal dispute between this former designer and the University Clinical Centre over payment of design, and it gave rise to a question whether this design can be used in the future with no legal implications for the Consultant. The conclusion was to further check this issue from all available sources, both by the University Clinical Centre Administrative and Technical staff Unit and by the Consultant.

The Technical staff head Mr. Dalibor Danilović expressed their willingness to help the Consultant and share all the technical documents available for the location. It was also emphasized that there is need to check in detail the geodetic and geotechnical characteristics of the location, issue new urban and technical conditions, location permit and building permit, since it is a newly build facility. It was agreed that Consultant will be provided with the existing project documentation for the location and pre-existing preliminary design, as soon as possible.

In the continuation of the meeting, the need for the Consultant to perform site visit, after receiving the existing project documentation from the Technical staff, was discussed. It was also discussed whether to keep the previously build part of the building on site and integrate it in the new design. It was concluded that Consultant will first review the location in terms of existing land slides on location and then determine whether it is feasible to keep the structure or plan for demolishment, if it cannot fit in the safe and rational design of the new structure.

After the meeting, a separate meeting was held in the premises of the Technical staff of the University Clinical Center, where Consultant met all the relevant engineers per phases, received all documents available and was given information about the University Clinical Center complex as a whole.

During the site visit, the Consultant gained insight in the actual location and the surrounding area. It was noted that even more debris from the recent construction in the complex was piled up on the location site which already head problems with land stability during previous decades, so it was decided that extensive geodetic and geotechnical surveys have to be done first in order to define the plan of actions.

### **DOCUMENTS RECEIVED**

The appointed representative of the Technical staff of the Clinic shared with the Consultant the following documents:

- 1. Urban and technical conditions for the construction of a psychiatric clinic in Banja Luka, May 2008 by the Urban Planning Institute of RS.
- 2. Tender for construction works and installation of a temporary facility for the forensic department of the Psychiatric Clinic at the location on St. Andreja Street in Banja Luka.
- 3. Detailed design for reconstruction of external water supply and sewerage network, book 1 waterworks, 2008, PROJEKT ad.
- 4. Detailed design for reconstruction of external water supply and sewerage network, book 2 sewerage, 2008, PROJEKT ad.
- 5. Urban and technical conditions for reconstruction of external water supply and sewerage network in the Clinical Center Banjaluka, 2008, PROJEKT ad.
- 6. Underground Installation Cadastre Banja Luka Clinical Center, 2010. Geoastor.
- 7. Psychiatric Clinic Implementation Design Architectural Phase, 2002, Kaming Banja Luka.
- 8. Psychiatric Clinic Implementation Design Structural Phase, 2002, Kaming Banja Luka.
- 9. Psychiatric Clinic Implementation Design Hydro Phase, 2002, Kaming Banja Luka.
- 10. Psychiatric Clinic Implementation Design Electro Phase, 2002, Kaming Banja Luka.
- 11. Report on additional field work performed geotechnical research.
- 12. Landslide remediation project on new psychiatry.
- 13. Conceptual design for building a psychiatric clinic.

Documents from 1 to 12 were given in paper format. Relevant ones were scanned and returned to the Beneficiary. Recent Conceptual design for building a psychiatric clinic was given in pdf. format.

### **ANALYSIS CONCLUSIONS AND WORK PLAN**

It is generally concluded that Project task received by the UNDP corresponds with the requests of the Clinic defined during the inception period.

However, after the detailed analysis of all obtained documents and the location, conducted by the expert staff from the fields of structural, geotechnical and geological engineering it was evident that previous documents did not meet the standards of land slide safety. Taking into account all current analysis, vast previous knowledge of the location and the current state it is in, we have concluded that it would be most feasible to design the new compact higher rise structure with same gross building areas as planned 4500

m2, which would be more rational in respect of foundation methods and land slide stabilisation methods, and also fit within the planned budget.

According to the planning documentation, a psychiatric clinic in Banja Luka is located at the top of an unstable slope (landslide) that has been created through years of unselective deposition and filling of various earth material, construction waste, etc. This deposit land is constructed of heterogeneous material without prior preparation of the terrain, without material selection and any compaction method. According to previous research, the thickness of the deposit layer is different and ranges up to 7 m in some places and more. Material is in the largest percentage fine-grained, with clay fractions, but also with construction work and organic waste inside it. Consolidation of this kind of material takes a very long time. Below the described deposit is a humus layer, which further complicates the stability of the entire slope. This uncontrolled atmospheric-influenced deposit has initiated a sliding process that has been unchecked for years.

Due to this fact, as well as insight into certain geotechnical studies that were done in the previous period, the foundation of the psychiatric clinic facility itself will be complex and expensive. Deep foundation methods (piles) need to be applied which require higher costs compared to conventional foundation conditions. Funding on piles will secure the building itself as well as part of the slope, however, there remains a problem of exterior landscaping around the building that will also need to be secured from an active land sliding process.

Also, through insight into the preliminary design that was done in the earlier period, it is concluded that such a structure is quite disjointed in terms of its layout, and the elevation of the object is very low just ground floor and one extra floor. This incoherent layout is a big financial problem, as it would require a large number of deep piles to fund the building well. Therefore, the proposal is to make the structure as compact as possible and increase its elevation to maintain all needed functions of the building itself, as previously planned by the Beneficiaries. It should also be sought to lower the building as much as possible towards the load-bearing layers of the soil, as far as the levelling of the surrounding roads allows, in order to eventually reduce the length of the piles themselves and thereby reduce the investment.

From all of the above stated, it is important to emphasize that the construction of a psychiatric facility in a structurally sound way is just one of the two obligatory technical stages. The second stage must certainly be further stabilization and landslide remediation in full scope, which is not part of this project task since it occupies large territory within the University Clinical Centar complex, and it has to be carried out as soon as possible.

The foundation of the psychiatry facility on piles will provide stability of the building, but the external landscaping will be constantly influenced by settling in the wider land slide area. Only the rehabilitation of the entire slope will secure the landscaping of the area in terms of construction. The rehabilitation of the entire slope clearly implies activities reaching far out of the land parcel in question and cannot be justified by the construction of psychiatry alone. A phased approach is therefore suggested, out of which building the new psychiatry would be one of the phases. The phased approach to the rehabilitation of this area implies that any deposit of material over a wider site is prohibited as of now.

The implementation of the proposed geotechnical research will define the conditions for the construction of piles and foundations of a psychiatric facility. In addition, the thickness of the deposit will be defined, which will influence the definition of the micro location, shape of the building and the methods of rehabilitation of the building plot terrain. The building needs to be adjusted as much as possible to the conditions of the terrain, so that the cost of rehabilitation is as low as possible and the solution is durable and safe.

It is planned to organise detailed geodetic and geotechnical surveys in the first week of April and then continue with the preliminary design and new urban and technical conditions which have to be prepared at the same time. Meetings during the work on preliminary design can be held in the administration offices with selected staff of the Clinic and technical staff without disturbing any patients.

Work plan for PSYCHIATRIC CLINIC OF UNIVERSITY CLINICAL CENTRE OF THE REPUBLIKA SRPSKA, BANJA LUKA is presented in the table below:

Activities Per deliverables	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Preliminary activities												
Inception period ending with report												
Geodetic and geotechnical surveys												
Urban and technical conditions												
Preliminary design ending with report												
Final Preliminary design ending with report												
Detailed design ending with report												
Final Detailed design ending with report												
Tendering documentation ending with Final report												

### **RISKS AND RISK MITIGATIONS**

### Risk 1:

Major risk that appeared due to "force majeure" of coronavirus pandemic can cause the inability to access the building site due to the general lockdown of the University Clinical Center for the safety of the patients or other legal bans may be forbidding the site access all together.

### Mitigation:

It would be impossible for the Consultants team to mitigate this risk and in this case works on this contract have to be prolonged, as well as deadlines for the delivery of the reports. Since data, which must be produced during the legally obligatory geodetic and geotechnical surveys, affect both position and shape of the future building, we are not able to start work on either preliminary design or urban and technical conditions. It is also important to note that we have already done all that could be done without the surveys, namely: analysis of the functional programme of the existing preliminary design, terrain

prospection of geology team apart from whole drilling and excavation works, and acquisition of all necessary data on existing infrastructure facilities and lines within the University Clinical Centre complex.

### Risk 2:

The contract was signed at the very end of the year 2019, followed by the long January holidays in 2020, so it was expected that we will not be able to start with the organised initial meetings, site visits and documentation exchange before mid February, which may however jeopardize the final deadlines for project closure at the end of 12<sup>th</sup> month from contract signing.

### Mitigation:

The preliminary phase of complex works encompassed by this contract, which must involve proper preparation of the Beneficiary regarding the existing documentation and detailed analysis that have to be performed by the Consultant, was optimistically estimated to last only one month, but it is realistic that this phase along with the preparatory introduction phase lasts three months. However if this phase is conducted properly then other work phases can be carried out faster with proper team organisation, so we are optimistic that we can mitigate this risk fully, if we are able to perform above stated surveys in the first week of April.

### Risk 3:

The "Assessment of the value of reconstruction works and equipment of facilities of four psychiatric clinics in Republic of Srpska" was done in 2017, when the designated funds for Banjaluka location were estimated at 6.285.000,00 BAM, out of which 1.200.000,00 BAM is estimated for terrain stabilisation. It is evident that sum envisaged for landslide stabilisation is not sufficient to stabilise the entire slope extending far out the building plot of the psychiatric facility, hence our two phased approach is the optimal way to start the construction. Also the sum left for the entire new building with furnishings, which amounts to 5.085.000,00, gives us estimated unit price per one gross square meter of the new building area amounting to cca 1130 BAM, which is certainly insufficient for such a complex building with expensive foundation methods to be performed. So, it is our intent to plan and design in such a way that all available funds are used to build the new compact facility with safe deep foundations and also to secure, as much as possible, the landscaping area around it, with a clear warning that second phase of entire landslide stabilisation has to be performed in the near future as well. Otherwise the landscaping area around the building will eventually suffer from land movement, as many roads and facilities do at the moment in this landslide area (see picture below).

Recent picture of landslide damage at the parking lot built 2 years ago within the University Clinical Center complex:



Moreover, up to date we are witnessing a continual rise in prices for construction works, largely due to lack of skilled workers, so it may be a challenge to stay within the limits of the originally planned budget, both during design phase, when a detailed Bill of Quantities has to be produced with realistic and up to date prices, and also during the tendering for the actual works, where larger price bids may appear regardless of the estimated price.

### Mitigation:

If our two phased approach is accepted both by UNDP and the Beneficiary, we will aim at rationalisation of all expenses during the design phase, but not at the cost of quality of the design and chosen materials. This problem can be overcome after the tendering procedure is finished and the actual price of works is known, by either not performing all the planned and designed works, or by adding the additional funds to the project implementation. Also University Clinical Center must be warned that stabilisation of the entire landslide is an urgent matter.

## 2.5. ACTIVITIES RELATED TO SPECIAL HOSPITAL FOR CHRONIC PSYCHIATRY MODRIČA INITIAL MEETING AND SITE VISIT

Initial meeting with the representatives of the SPECIAL HOSPITAL FOR CHRONIC PSYCHIATRY MODRIČA, hospital director, deputy director, assistant director, chief of psychiatric wards and representatives of the technical sector, was held on February 14<sup>th</sup> 2020, at the location of the Clinic in Modriča.

In the introductory part of the meeting, Director of the Modriča Chronic Psychiatric Hospital, Mr. Siniša Nikić welcomed all present and emphasized the importance of this project for the Hospital, while representatives of the technical sector presented the current state of all facilities.

Representatives of the Hospital, in addition to the explanation about the buildings that are included in the Project Task, also expressed the need for new requirements for additional works and works on other facilities that were not included in the current Project Task for this contract.

After the introductory part of the meeting, a member of the project team, Ljubisa Adamovic, informed the attendees about the long-standing experience of the URBIS CENTER in the role of technical assistance in projects financed by CEB, where he was a key expert, and in this regard also knowledge of the specific requirements of CEB. On that occasion, he mentioned the building financed by CEB, located in the Garevac settlement, right next to the complex of the Hospital for Chronic Psychiatry Modriča, and thus explained to the meeting attendees that the buildings financed this way are indeed being successfully

completed. Also, the activities that have been carried out so far in this project, as well as the activities that follow in the next period, were explained.

The members of the project team emphasized what is defined in the Terms of Reference and expressed expectations from the technical service to further refine and submit updated information on the needs of the Hospital, both in terms of works and equipment, not later than in the initial phase of preliminary design. It was explained that, no new requirements will be added to the design phase of the Main Design, as this phase is intended to elaborate in detail the needs identified in the Preliminary Design phase.

It was suggested that the Terms of Reference containing the indicative specification of the required works and equipment should be submitted to the representatives of the Hospital, and that the Hospital, after conducting internal consultations, will provide the Consultant with an official written position on this matter. A deadline of 7 days is proposed for delivery.

It was concluded that new facilities would have to be subject of new Urban-Technical Conditions, obtaining the Location Permit, performing the geotechnical survey and obtaining the Building Permit. It was also concluded that it is of great importance that the Consultant is provided with design documentation of all existing facilities in the complex, as well as preliminary designs for new facilities, if there are any, as soon as possible.

At this meeting, a method of cooperation and communication on the project was agreed between the Consultant engaged in the preparation of the investment and technical documentation, with representatives of the Hospital and the technical service.

After the meeting, a tour of the whole complex was done, when the representatives of the Hospital informed the project team about the work of the Hospital and all existing facilities in the complex that are included in the Project Task, as well as about the current problems due to which they are placing additional requirements not covered by the Project Task.

After the site visit, a brief meeting with the technical service was held, where extensive technical documentation was acquired in pdf. and jpg. format for most of the existing facilities of the Hospital for Chronic Psychiatry Modriča, as well as existing preliminary designs for new facilities.

### **DOCUMENTS RECEIVED**

The appointed representative of the Technical staff of the Clinic shared with the Consultant the following documents per defined buildings/interventions:

No.	Name of the building	Gross build up area (m2)	Elevation	Interventions according to project task	Received documents	Format of received documents
1	INPATIENT FACILITY	1834	GF+1	New building	-Preliminary design GP "Obnova" d.o.o. Šamac, March 2015. -geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013	geodetic site map in dwg format, the rest in pdf and jpg format
2	TWO STANDARDIZED INPATIENT HOMES	400 (2x200)	GF+1	New building	-Preliminary design GP ""Obnova"" d.o.o. Šamac, March 2015. -geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013	geodetic site map in dwg format, the rest in pdf and jpg format
3	OCCUPATIONAL THERAPY	490	GF+1	New building (in place of old building)	-Preliminary design, 2017. -geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013. -Usage permit December, 1980	geodetic site map in dwg format, the rest in pdf and jpg format
4	KITCHEN WITH A CAFETERIA AND ADMINISTRATIVE OFFICES	980	GF+1	New building (in place of old building)	-Layout draft, March 2017 -geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013 - Building permit, March 1986 -Usage permit, December,1986	geodetic site map in dwg format, the rest in pdf and jpg format
5	ACCOMMODATION FACILITIES "SAVA", "KRIVAJA", "VRBAS" "SUTJESKA" I "NERETVA"	1613 (5x322, 6)	GF+1	Rehabilitation of the building envelope	-geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013 - Layouts, sections and facades for buildings "Vrbas", Sutjeska" i "Neretva", company "Plan" Banjaluka 1997Usage permit for buildings "Vrbas", "Sutjeska" i "Neretva" December 1980.	geodetic site map in dwg format, the rest in pdf and jpg format

					-Main design for buildings "Sava" i "Krivaja" firm ""Braća Mićić"" d.o.o. Modriča October, 2008. -Usage permit for "Sava" i "Krivaja" July 2009.	
6	ACCOMMODATION FACILITIES "UNA", "DRINA" I "BOSNA"	924 (3x308)	GF+1	Rehabilitation of the building envelope	-geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013 - Layouts, sections and facades, done by company "Plan" Banjaluka 1997Usage Permit, December, 1980.	geodetic site map in dwg format, the rest in pdf and jpg format
7	ACCOMMODATION FACILITIES "IBAR" I "DRAVA"	318 (2x159)	GF	Rehabilitation of the building envelope	-geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013 - Layouts, sections and facades, done by company "Plan" Banjaluka 1997Certificate on legality June, 2014.	geodetic site map in dwg format, the rest in pdf and jpg format
8	ACCOMMODATION FACILITIES "ZETA"	166.5	GF	Rehabilitation of the building envelope	-geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013Certificate on legality June, 2014.	geodetic site map in dwg format, the rest in pdf and jpg format
9	HEATING SYSTEM BY THE INSTALLATION OF THE EQUIPMENT OF THE WATER- TO- WATER HEAT PUMP SYSTEM	-	-	Heating system	-geodetic site map ""geoinženjering"" d.o.o. Modriča, June 2013Bill of quantities for the system of "heat rise" done by company ""EUROMONT"" Banjaluka"	geodetic site map in dwg format, the rest in pdf and jpg format

### **ANALYSIS CONCLUSIONS AND WORK PLAN**

It is generally concluded that Project task received by the UNDP corresponds with the initial requests of the Clinic, however during the inception period the Clinic has put forward a series of additional requests. Since there are 9 buildings/interventions in the complex of the Special hospital for chronic psychiatry Modriča, we will address project task, requests for additional interventions and our expert conclusions i.e. proposed work plan, in tabular form for greater clarity:

No.	Name of the building	Project task	Additional requests	Conclusions and description of work plan
1	INPATIENT FACILITY	The facility is planned to be newly built on the existing recreation ground.	Additional requirements are to rotate the building, to add: an elevator, a morgue, a medical waste storage, a meeting room, 4 visitation rooms and a smart room, and to connect this facility with a heated connection or canopy to the laundry facility.	As part of our project, we can design an elevator, potentially a morgue (after more detailed analysis), a meeting room and 4 visitation rooms, since all of these additions are within a building defined in the official project task and do not require extra documents/permits to be produced. However medical waste storage would generate a series of environmental permits that are not foreseen in the project task. Also smart room would require additional expertise and the design of the completely new installations in the entire complex which are not even mentioned in the project task. We will not design the heated connection or canopy towards the laundry facility since laundry building was not mentioned in the project task at all, and also due to the fact that these interventions would affect the structure of that building also. Also we will not rotate the new building since this request differs from the good solution defined both in the project task and the existing concept design.
2	TWO STANDARDIZED INPATIENT HOMES	The facility is planned to be newly built on the existing recreation ground.	An additional requirement is to move these two buildings behind the laundry facility.	We will not move these two inpatient homes to entirely new location since this request vastly differs from the good solution defined both in the project task and the preliminary design we will work according to.
3	OCCUPATIONAL THERAPY	The facility is intended to be built as a replacement at the site of the existing prefabricated building for occupational therapy.	There are no additional requests for this facility.	We will design all according to project task.

4	KITCHEN WITH A CAFETERIA AND ADMINISTRATIVE OFFICES	The facility is intended to be built as a replacement at the site of the existing prefabricated administration building.	An additional requirement is to design two separate buildings with elevation GF+1 instead of one.	We will not separate these facilities in two buildings, because the Project task clearly defines one building with elevation GF+1. Also, designing two separate buildings would substantially increase the investment costs which are estimated too low as is.
5	ACCOMMODATION FACILITIES "SAVA", "KRIVAJA", "VRBAS" "SUTJESKA" I "NERETVA"	Works defined in project task are a new facade with the required thermal insulation, including the associated metal sheet work.	There are no additional requests for these facilities.	The project task is deficient in technical terms in respect to these facilities. For the purpose of meeting the minimum requirements in terms of rational use of energy and thermal protection, it is necessary to additionally provide the rehabilitation of the roof with thermal insulation of the attic space. So we will design all needed to actually meet the legal requirements.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.
6	ACCOMMODATION FACILITIES "UNA", "DRINA" I "BOSNA"	Works defined in project task are a new facade with the required thermal insulation, including the associated metal sheet work.	An additional requirement for the Drina facility is to have the exterior joinery and windows replaced.	The project task is deficient in technical terms in respect to these facilities. In order to meet the minimum requirements in terms of rational use of energy and thermal protection, it is necessary to additionally provide the replacement of exterior joinery and windows, as well as perform roof repair with thermal insulation of the attic space. Hence, we will fulfil the additional requirement and also design all needed elements in order meet the legal requirements.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.

7	ACCOMMODATION FACILITIES "IBAR" I "DRAVA"	Works defined in project task are a new facade with the required thermal insulation, including the associated metal sheet work.	For the "Drava" facility, additional requirements are to construct the quarantine room in the basement and to construct the new floor structure.	The project task is deficient in technical terms in respect to these facilities. For the purpose of meeting the minimum requirements in terms of rational use of energy and thermal protection, it is necessary to additionally provide the rehabilitation of the roof with thermal insulation of the attic space. So we will design all needed to actually meet the legal requirements.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.  However, we will not fulfil the additional request since there is no mention of it in the project task, and it represents a serious structural intervention on bearing walls, floors, additional stairs etc. Also from the point of view of functional organisation, we do not believe it is a good solutions to place infected psychiatric patient in the basement without windows.
8	ACCOMMODATION FACILITIES "ZETA"	Works defined in project task are a new facade with the required thermal insulation, including the associated metal sheet work.  There is no existing design documentation, so building measuring is required.	There are no additional requests for this facility.	The project task is deficient in technical terms in respect to this facility. In order to meet the minimum requirements in terms of rational use of energy and thermal protection, it is necessary to additionally provide the replacement of exterior joinery and windows, as well as perform roof repair with thermal insulation of the attic space. Hence, we will design all needed elements in order meet the legal requirements.  According to the terms of reference, interventions in this facility are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.

The additional request is not defined in the project task, so it will not be our primary concern. The works on the future heating system are complex and include the following detailed surveys, analysis and planned activities during the phases of both preliminary and main design. The following data are missing for a complete review of the state of the heating system of the Hospital for Chronic Psychiatry Modriča, and the estimates of the amount of investment in the reconstruction of the system: - Thermal consumption of existing It is planned in buildings, the project task - Thermal consumption of buildings after to replace the their energy rehabilitation, existing and - The thermal power of the installed purchase new heaters in the facilities for the existing infrastructure temperature regime and the temperature equipment, mode of operation of the system with heat An additional pumps. which also **HEATING SYSTEM** requirement is that - Dimensions and condition of the pipe includes the BY THE a new concrete network. rehabilitation of **INSTALLATION OF** slab be - Expected yield and water temperature 9 THE EQUIPMENT existing heat from underground wells. constructed within OF THE WATERlines above the existing boiler TO- WATER HEAT ground. The Thus, planned sequence of activities **PUMP SYSTEM** house. solution of - Survey (drilling) of exploratory wells to installation of obtain: yield, temperature and chemical water - water composition of water, pump system - Determination of the maximum power of equipment is heat pumps based on the obtained bore proposed. well, water temperature and the possible number of wells, - Development of a calculation of heat losses of existing facilities with energy remediation measures included. - Calculation of heat loss calculations for newly designed buildings, - Analysis of the total heat losses of the facilities and the possible capacity of the heat pumps in order to define the needs for the peak heat source, - Analysis of installed heaters and pipe network with regard to the reduced heat consumption and lower temperature regime with which the heat pumps operate (replacement of the grid and heaters or their retention).

The interventions per each building in terms of legal regulations i.e. permit issuance and obligatory surveys are as follows:

No.	Name of the building	Isuance of urban and technical conditio ns for entire complex	Required location and building permits	Required geodetic survey	Required geotechnical survey	Required well drilling for water pump
1	INPATIENT FACILITY	Yes	Yes	No	Yes	No
2	TWO STANDARDIZED INPATIENT HOMES	Yes	Yes	No	No	No
3	OCCUPATIONAL THERAPY	Yes	Yes	No	Yes	No
4	KITCHEN WITH A CAFETERIA AND ADMINISTRATIVE OFFICES	Yes	Yes	No	Yes	No
5	ACCOMMODATION FACILITIES "SAVA", "KRIVAJA", "VRBAS" "SUTJESKA" I "NERETVA"	Yes	No	No	No	No
6	ACCOMMODATION FACILITIES "UNA", "DRINA" I "BOSNA"	Yes	No	No	No	No

7	ACCOMMODATION FACILITIES "IBAR" I "DRAVA"	Yes	No	No	No	No
8	ACCOMMODATION FACILITIES "ZETA"	Yes	No	No	No	No
9	HEATING SYSTEM BY THE INSTALLATION OF THE EQUIPMENT OF THE WATER-TO- WATER HEAT PUMP SYSTEM	Yes	Yes	No	No	Yes

The Beneficiary, Special hospital for chronic psychiatry Modriča, has during the inception period also put forward a series of new requests which are not related to buildings defined in the project task at all. We will not include these in this project, however we are giving an overview of them for eventual future planning of needed interventions within the complex:

- 1. **Laundry building:** Additional requirements are to reconstruct this facility, to separate the dirty and clean entrance-exit, and to make a new façade and the roof.
- 2. **Technical service building:** Additional requirements are to reconstruct this facility to make a new façade and the roof.
- 3. **Existing kitchen building:** Additional requirements are that sports grounds and a summer pavilion should be built at this location, so this facility should be demolished in that case.
- **4. Buildings "DUNAV", "PLIVA" and "SANA":** The additional requirement is to demolish these buildings.
- **5. Facility of an existing ambulance:** Additional requirements are to replace the roof structure and the gable wooden part of the roof.

Having in mind all the above said, it is planned to organise site visit, geotechnical surveys and well drilling for water pump in the first two weeks of April and then continue with the preliminary design and new urban and technical conditions which have to be prepared at the same time. Meetings during the work on preliminary design can be held in the administration offices with selected staff of the Clinic and technical staff without disturbing any patients.

**Work plan for** SPECIAL HOSPITAL FOR CHRONIC PSYCHIATRY MODRIČA is presented in the table below:

Activities Per deliverables	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Preliminary activities												
Inception period ending with report												
Geotechnical surveys and well drilling for water pump												
Urban and technical conditions												
Preliminary design ending with report												
Final Preliminary design ending with report												
Detailed design ending with report												
Final Detailed design ending with report												
Tendering documentation ending with Final report												

### **RISKS AND RISK MITIGATIONS**

### Risk 1:

Major risk that appeared due to "force majeure" of coronavirus pandemic can cause the inability to access the building site due to the general lockdown of the Special hospital for chronic psychiatry Modriča for the safety of the patients or other legal bans may be forbidding the site access all together.

### Mitigation:

It would be possible for the Consultants team to mitigate this risk partially in the phase of the preliminary design, since we have managed to acquire schematic drawings for most of the existing buildings. However, it would not be possible to mitigate this risk for the accommodation facility "ZETA" and for the design of heating system by installation of the water-to-water heat pumps, if we cannot measure the "ZETA" building, perform required geotechnical surveys and well drilling for water pump. Also, if the situation extends itself into the months when we are due to start work on the detailed design, then it would not be possible to finish the structural part of the design without the geotechnical surveys and all installations design without the possibility for the designers of engineering phases to access the complex at all. In this case works on this contract have to be prolonged, as well as deadlines for the delivery of the reports on detailed design.

### Risk 2:

The contract was signed at the very end of the year 2019, followed by the long January holidays in 2020, so it was expected that we will not be able to start with the organised initial meetings, site visits and documentation exchange before mid February, which may however jeopardize the final deadlines for project closure at the end of 12<sup>th</sup> month from contract signing.

### Mitigation:

The preliminary phase of complex works encompassed by this contract, which must involve proper preparation of the Beneficiary regarding the existing documentation and detailed analysis that have to be performed by the Consultant, was optimistically estimated to last only one month, but it is realistic that this phase along with the preparatory introduction phase lasts three months. However if this phase is conducted properly then other work phases can be carried out faster with proper team organisation, so we are optimistic that we can mitigate this risk fully, if we are able to perform above stated surveys in the first two weeks of April.

### Risk 3:

Up to date we are witnessing a continual rise in prices for construction works, largely due to lack of skilled workers, so it may be a challenge to stay within the limits of the originally planned budget, both during design phase, when a detailed Bill of Quantities has to be produced with realistic and up to date prices, and also during the tendering for the actual works, where larger price bids may appear regardless of the estimated price.

We are giving the table below with estimated versus realistic costs per each building/intervention:

No.	Name of the building	Comparison of cost per project task 2017 and realisitc investment costs 2020
1	INPATIENT FACILITY	The estimated value of the works to be carried out under the terms of reference is 895 BAM / m2, which is rather small for this type of facility. It is necessary to anticipate about 1,200 BAM / m2, which would amount to cca 2,200,848 BAM instead of 1,641,465.80 BAM.
2	TWO STANDARDIZED INPATIENT HOMES	For these two facilities, the estimated value of the works performed according to the project assignment is 840 BAM / m2, which is small for this type of facility. It is necessary to anticipate about 1,000 BAM / m2, which would instead amount to cca 400,000 BAM instead of 336,000 BAM.
3	OCCUPATIONAL THERAPY	The estimated value of the works to be carried out under the terms of reference is 795 BAM / m2, which is small for this type of facility. It is necessary to anticipate around 1,000 BAM / m2, which would amount to cca 490,000 BAM instead of 389,550 BAM.
4	KITCHEN WITH A CAFETERIA AND ADMINISTRATIVE OFFICES	For this facility, the estimated value of the work to be carried out under the terms of reference is 840 BAM/ m2, which is rather small for this type of facility. It is necessary to anticipate about 1,200 BAM / m2, which would amount to cca 176,000 BAM instead of 823,200 BAM.

5	ACCOMMODATIO N FACILITIES "SAVA", "KRIVAJA", "VRBAS" "SUTJESKA" I "NERETVA"	The estimated value of the incomplete works is 45 BAM / m2. It is necessary to anticipate around 100 KM / m2, which would amount to cca 161,300 BAM instead of 72,585 BAM.
6	ACCOMMODATIO N FACILITIES "UNA", "DRINA" I "BOSNA"	The estimated value of the incomplete works is 45 BAM / m2. It is necessary to anticipate around 100 KM / m2, which would amount to cca 94.400 BAM instead of 41.580 BAM.
7	ACCOMMODATIO N FACILITIES "IBAR" I "DRAVA"	The estimated value of the incomplete works is 45 BAM / m2. It is necessary to anticipate around 100 KM / m2, which would amount to cca 31.800 BAM instead of.14.310 BAM.
8	ACCOMMODATIO N FACILITIES "ZETA"	The estimated value of the incomplete works is 45 BAM / m2. It is necessary to anticipate around 100 KM / m2, which would amount to cca 16.650 BAM instead of 7.492,5 BAM.
9	HEATING SYSTEM BY THE INSTALLATION OF THE EQUIPMENT OF THE WATER-TO- WATER HEAT PUMP SYSTEM	The estimated value of the works to be carried out under the terms of reference is 450,000.00 BAM. It is not possible to estimate in more detail the actual investment value before required geotechnical surveys of well drilling for water pump which will determine expected yield and water temperature from underground wells, as well as detailed analysis of the:  - Thermal consumption of existing buildings, - Thermal consumption of buildings after their energy rehabilitation, - The thermal power of the installed heaters in the facilities for the existing temperature regime and the temperature mode of operation of the system with heat pumps, - Dimensions and condition of the pipe network,

### Mitigation:

During the design phase, we will aim at rationalization of expenses, but not at the cost of obligatory legal provisions, quality of the design and chosen materials. This problem can be overcome after the tendering procedure is finished and the actual price of works is known, by either not performing all the planned and designed works, or by adding the additional funds to the project implementation.

#### 2.6. ACTIVITIES RELATED TO SPECIAL PSYCHIATRIC HOSPITAL SOKOLAC

### **INITIAL MEETING AND SITE VISIT**

Initial meeting with the representatives of the SPECIAL PSYCHIATRIC HOSPITAL SOKOLAC, was held on February 12<sup>th</sup> 2020, at the location of the Clinic in Sokolac.

In the introductory part of the meeting, the representative of the Public Health Institution Special Hospital for Psychiatry Sokolac (hereinafter: Hospital) Director Biljana Renovica Cvijetić welcomed the attendees and informed them about the history of the institution, the number of beneficiaries, the current situation, the change in the organization of the institution that occurred by separating the Forensics ward and emphasized the importance of this project for further work.

The representative of the Urbis Center Gordan Milinković gave a brief overview of the work and experience of the URBIS CENTER so far on similar projects, as well as the overall work in the field of technical and planning documentation. Sonja Rapajić, lead architect in front of Urbis Center, presented the planned project activities, as well as foreseen interventions and planned equipment to be installed, according to the project task. It has been explained that project task defines rehabilitation of existing facilities, which mainly refers to interior works, renovation of the facade and roof covering. The construction of one new facility for Psychogeriatrics is forseen, as well as the enlargement of the building for occupational therapy.

Ms. Biljana Renovica Cvijetić emphasized that in the period since the submission of data in 2017, the hospital was able to partially rehabilitate the facility of the Men's Acute ward as well as purchase some equipment, but that they now need equipment that was not initially listed. Also, the 2018 Statute changed organizational units, so that the Acute and Rehabilitation wards were no longer part of the Hospital, but the Hospital received two new wards: the Alcohol, Drug and other intoxicants and the Department of Psychogeriatrics. The construction of the Psychogeriatrics facility is foreseen by the project task, while the facilities for Department for treatment of alcohol, drug and other intoxicants dependence are not foreseen by the project task.

A representative of the Hospital also made a request for rehabilitation of the canteen of one part of the Restaurant building, which is not covered by the terms of reference. The Consultant emphasized that the representatives of the Hospital are expected to specify and submit any possible changes or additional requests as soon as possible, at the latest in the initial phase of the preliminary design.

Since the construction of a new facility is foreseen in the complex, as well as reconstruction and upgrading of the buildings, Hospital's representatives are informed about the need to elaborate Urban and technical conditions, obtain location permit and building permit. It was also emphasized that it was necessary to provide existing technical documentation for the facilities defined in the project task. During the meeting, the Hospital's representatives found in their archives part of the technical documentation related to the buildings and deliver it to the Conslutant.

After the meeting, a tour of the entire complex was organized in order for the Consultant to get acquainted with the existing condition of the facilities, spatial organization and purpose of the facilities, as well as with internal functional organization and condition of each facility.

Representatives of the Hospital and the Consultant agreed that any additional or specific requests should be made to the Consultant in writing.

### **DOCUMENTS RECEIVED**

The appointed representative of the Technical staff of the Hospital shared with the Consultant the following documents per defined buildings/interventions:

No.	Name of the building	Gross build up area (m2)	Elevation	Interventions according to project task	Received documents	Format of received documents
1	ADMINISTRATIVE BUILDING	1656,48	B+GF+1	Reconstruction and renovation	-Detailed Design Kitchen and Laundry of Sokolac Psychiatric Hospital, "Biro za izgradnju", Dubrovnik , 1969 (A) -Preliminary design for renovation and reconstruction of the floor of the administrative building of the Psychiatric Hospital in Sokolac, 2010 (A), -Usage permit, 1975.	Paper format
2	ACUTE MALE WARD	720	GF+1	Renovation and rehabilitaion	-Design "Men's Acute Ward Remediation and Energy Efficiency Improvement Project", "Plan" 2019Parts of the 1964 project (A, S, H, M). Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format
3	ACUTE FEMALE WARD	196	GF	Renovation and rehabilitaion	Certificate on legality 2015	Paper format
4	FORMER FEMALE REHABILITATION WARD	832,94	B+GF+1	Renovation and rehabilitaion	Design"Remediation of the Women's Rehab Unit", "Vranica" Pale2017Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format
5	FEMALE REHABILITATION WARD	576	B+GF	Renovation and rehabilitaion	Design "Hospital Pavilion with ambulance" (A, S)	Paper format

					"Arhitekt", Sarajevo1964 -Certificate on legality 2015 (subsequent building and occupancy permit)	
6	MALE REHABILITATION WARD (FORMER FORENSIC REHABILITATION AND ACUTE WARD)	841	GF+1	Renovation and rehabilitaion	-Design "Rehabilitation of the Forensic and Acute Ward Facility at the Sokolac Psychiatric Hospital Complex, "K-Projekt", Pale 2015. Design 40 Bed Pavilion, "Arhitekt", Sarajevo, 1964 (A) -Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format
7	PSYCHO- GERIATRICS	392,1	GF	New building		
8	MORGUE	61	GF	Renovation and rehabilitation but due to large extent of building damage and low quality of the remaining structure we concluded to design new building	-Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format
9	GARAGE FOR VEHICLES	123	GF	Renovation and rehabilitaion	-Design for central heating of Sokolac Mental Hospital Garages, "Instalater", Sarajevo 1968 -Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format

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10.	OCCUPATIONAL THERAPY	75	GF	Building an anex of the existing building	-Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format
11.	WORKSHOPS AND BARBERSHOP	72	GF	Renovation and rehabilitation but due to large extent of building damage and low quality of the remaining structure we concluded it would be more feasible to build these facilities within the annex of the Occupational therapy building	-Certificate on legality 2015 (subsequent building and occupancy permit)	Paper format
12.	LANDSCAPE DESIGN AND UTILITIES	59947		Reconstruction of road, water installations, parking, revitalization of exploitation wells, demolition of former Austro- Hungarian military building which is not possible due cultural heritage protection initiative	Rehabilitaion of military facility Sokolac, 1974	Paper format

# **ANALYSIS CONCLUSIONS AND WORK PLAN**

It is generally concluded that Project task received by the UNDP corresponds with the initial requests of the Clinic, however during the inception period the Clinic has put forward additional requests. Since there are 12 buildings/interventions in the complex of the Special psychiatric hospital Sokolac, we will address project task, requests for additional interventions and our expert conclusions i.e. proposed work plan, in tabular form for greater clarity:

No.	Name of the building Project task		Additional requests	Conclusions and description of work plan	
1	The project task envisages complete renovation of the interior, construction of new walls, new doors and windows, rehabilitation of a part of a flat roof, thermal façade, replacement of all installations, building solar collectors and the installation of a new pellet or woodchips boiler (existing is gas).		There are no additional requests for this facility.	Given the climatic conditions and rainfall at the site, instead of rehabilitating of the flat roof we will consider designing a sloping roof instead. In addition to the facade, in order to meet the minimum technical requirements of energy efficiency, it is necessary to provide horizontal thermal insulation (roof, terraces, spaces below and above the outside and unheated spaces etc.) The facility does not comply with the conditions of accessibility to persons with disabilities, so we will in addition design ramps or platforms.	
2	ACUTE MALE WARD	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations,	There are no additional requests for this facility.	A partial remodeling of the facility was completed following up on the 2019 project: ground floor, façade, exterior joinery replaced. The first floor, due to lack of money, was left not renovated, with the exception of radiators and exterior joinery that were replaced. The first floor space remains to be remodeled, which includes the replacement of floor and wall coverings, electrical installations, water supply and sewerage.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.	
3	ACUTE FEMALE WARD	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations.	There is an additional requests to build completely new Women acute ward and Alcohol and drugs ward on the first floor.	In order to meet the minimum technical requirements, it is also necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces).  The additional requirements to build completely new facilities with two floors significantly differs from the terms of reference and will not be taken into account.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.	

4	FORMER FEMALE REHABILITATION WARD	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations, rehabilitation of the existing concrete stairway and existing roof construction.	There are no additional requests for this facility.	In addition to the measures defined in the project task, the basement waterproofing is needed, as well as replacement of damaged ceiling parts and repair of walls damaged by water and moisture. Existing concrete stairs must be reconstructed and access to facilities of persons with disabilities must be ensured.
5	FEMALE REHABILITATION WARD	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations.	There are no additional requests for these facilities.	After analysis of the design documentation, it was found that only one floor area was given in the project task instead of two floors. Before tiles replacement in bathrooms, it is necessary to perform floor waterproofing. For the purpose of meeting the minimum requirements in terms of rational use of energy and thermal protection, it is necessary to additionally provide the rehabilitation of the roof with thermal insulation of the attic space. So we will design all needed to actually meet the legal requirements.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.
6	MALE REHABILITATION WARD (FORMER FORENSIC REHABILITATION AND ACUTE WARD)	The project task envisages complete renovation of the interior, construction of new walls, new doors and windows, rehabilitation of a part of a flat roof, thermal façade, and replacement of all installations.	There are no additional requests for these facilities.	Before tiles replacement in bathrooms, it is necessary to perform floor waterproofing and the waterproofing of the underground walls. For the purpose of meeting the minimum requirements in terms of rational use of energy and thermal protection, it is necessary to additionally provide the rehabilitation of the roof with thermal insulation of the attic space. So we will design all needed to meet the legal requirements.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.

7	PSYCHO- GERIATRICS	The facility is planned to be newly built on the existing foundations to be removed.	There are no additional requests for these facilities.	Considering the fact that the construction of a brand new facility is foreseen, for which it is necessary to remove the existing foundations, as well as the fact that health facilities represent more demanding facilities in terms of functional organization, quality and requirements of the used materials, the estimated price per m2 of 880 BAM is extremely low. We will however work with the beneficiaries to find an optimal solution between the function, size of the building and the final cost of investment.
8	MORGUE	Works defined in project task are renovation and rehabilitation, but due to large extent of building damage and low quality of the remaining structure, we concluded to design new building.	There are no additional requests for this facility.	This is a severely damaged building with no horizontal bearing grid, and with structural damage to the walls. The conclusion of the designer is that, given the level of necessary interventions, a new facility should be built instead of reconstruction and renovation of the old one. In both cases, the estimated funding of 285 BAM / m2 is insufficient. We will however work with the beneficiaries to find an optimal solution between the function, size of the building and the final cost of investment.
9	GARAGE FOR VEHICLES	The project task envisages complete renovation of the interior, construction of new walls, new doors and windows, rehabilitation of a part of a flat roof, thermal façade, replacement of all installations, and roof covering replacement.	There are no additional requests for this facility.	The roof covering has been replaced in 2018 and does not need to be replaced again. In addition to the garage space in the building there is a chauffeur's office and space that is currently used as a morgue, but does not meet the necessary requirements. Given that building mostly consists of a garage space which will not be heated, it is not necessary to install thermal insulation on all facades. However, it is necessary to completely replace the old reed plaster ceilings and install horizontal thermal insulation where necessary.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.
10.	OCCUPATIONAL THERAPY	Building an anex of the existing building with the following facilities: medical and recreational spaces with associated facilities (toilets, pantries, offices, etc.) with all necessary installations and installation of solar collectors for the preparation of hot water.	There is an additional requests to provide a mini gym and exercise area and hair salon.	The area foreseen by the project task is too small for all the intended and required facilities, which are not sufficiently defined through the project task. Given the nature of the works, the average cost per m2 of 750 BAM is far too low. We will however work with the beneficiaries to find an optimal solution between the function, size of the building and the final cost of investment.  The hairdresser, as the initial Beneficiary request, is already planned in another building.

11.	WORKSHOPS AND BARBERSHOP	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations.	There is an additional requests that hairdressing salon is planned in the annex of occupational therapy facility.	This is a severely damaged building with no horizontal bearing grid and with structural damage, so due to large extent of building damage and low quality of the remaining structure, we concluded it would be more feasible to build these facilities within the already planned new annex of the Occupational therapy building.
12.	LANDSCAPE DESIGN AND UTILITIES	Reconstruction of road, water installations, parking, revitalization of exploitation water wells, demolition of former Austro-Hungarian military building	There are no additional requests for this facility.	The former Austro-Hungarian military building is on the list of petitions to be declared "National monument", so it is not legally possible to demolish it. For further information please check the web page of the meritorious Commission for protection: <a href="http://aplikacija.kons.gov.ba/kons/public/listapeticija/galerija/292">http://aplikacija.kons.gov.ba/kons/public/listapeticija/galerija/292</a> We will design all other defined facilities as per project task.

The interventions per each building, according to our work plan, in terms of legal regulations i.e. permit issuance and obligatory surveys are as follows:

No.	Name of the building	Isuance of urban and technical conditio ns for entire complex	Required location and building permits	Required geodetic survey	Required geotechnical survey	Required other specific surveys
1	ADMINISTRATIVE BUILDING	Yes	Yes	Yes	No	No
2	ACUTE MALE WARD	Yes	No	Yes	No	No
3	ACUTE FEMALE WARD	Yes	No	Yes	No	No

4	FORMER FEMALE REHABILITATION WARD	Yes	Yes	Yes	No	No
5	FEMALE REHABILITATION WARD	Yes	No	Yes	No	No
6	MALE REHABILITATION WARD (FORMER FORENSIC REHABILITATION AND ACUTE WARD)	Yes	No	Yes	No	No
7	PSYCHO- GERIATRICS	Yes	Yes	Yes	Yes	No
8	MORGUE	Yes	Yes	Yes	No	No
9	GARAGE FOR VEHICLES	Yes	No	Yes	No	No

10.	OCCUPATIONAL THERAPY	Yes	Yes	Yes	No	No
11.	WORKSHOPS AND BARBERSHOP	No	No	Yes	No	No
12.	LANDSCAPE DESIGN AND UTILITIES	Yes	Yes	Yes	No	Yes revitalizati on of existing water wells

In order to increase the quality and the capacity of the services provided by this institution, the plan is also to procure medical, recreational and infrastructure equipment, which will be designed and planned according to the project task.

It can be generally stated that none of the buildings have elevators installed and most of the facilities do not have adequate access for people with disabilities, so it is necessary to design ramps or platforms to provide access (in Administration Building, former Acute Female Ward, Female rehabilitation ward, Men's Rehabilitation ward, etc.) which is not foreseen by the project task, but we will design it according to legal obligations.

In almost all buildings, the number of beds per room, as well as the minimum distances between beds do not provide patient privacy, so the organization of space should be adjusted to the applicable regulations, which means that the total number of beds per facility should be reduced.

The Beneficiary, Special psychiatric hospital Sokolac, has during the inception period also put forward one new request which is not related to buildings defined in the project task at all. We will not include this request in this project, however we are giving an overview of it for eventual future planning of needed interventions within the complex:

1. Restaurant building: The building is connected by a heated corridor to the kitchen within the administrative building. The project task does not envisage any interventions for this building. Additional requirement is to renovate and adapt entire restaurant facility and new canteen to be organized in the unused section of the building.

Having in mind all the above said, it is planned to organize site visit, geodetic and geotechnical surveys in the first two weeks of April and then continue with the preliminary design and new urban and technical conditions which have to be prepared at the same time. Meetings during the work on preliminary design can be held in the administration offices with selected staff of the Clinic and technical staff without disturbing any patients.

Work plan for SPECIAL PSYCHIATRIC HOSPITAL SOKOLAC is presented in the table below:

Activities Months Per deliverables												
	1	2	3	4	5	6	7	8	9	10	11	12
Preliminary activities												
Inception period ending with report Geodetic and												
Geotechnical surveys												
Urban and technical conditions												
Preliminary design ending with report												
Final Preliminary design ending with report												
Detailed design ending with report												
Final Detailed design ending with report												
Tendering documentation ending with Final report												

# **RISKS AND RISK MITIGATIONS**

## Risk 1:

Major risk that appeared due to "force majeure" of coronavirus pandemic can cause the inability to access the building site due to the general lockdown of the Special psychiatric hospital Sokolac for the safety of the patients or other legal bans may be forbidding the site access all together.

# Mitigation:

It would be possible for the Consultants team to mitigate this risk partially in the phase of the preliminary design, since we have managed to acquire some schematic drawings for the existing buildings and we have managed to measures the rest of the facilities during site visit. However, it would not be possible to mitigate this risk for the external landscape design and utilities without the detailed geodetic survey and infrastructure engineers site visit. Also, if the situation extends itself into the months when we are due to start work on the detailed design, then it would not be possible to finish the structural part of the design without the geotechnical surveys and all installations design without the possibility for the designers of engineering phases to access the complex at all. In this case works on this contract have to be prolonged, as well as deadlines for the delivery of the reports on detailed design.

## Risk 2:

The contract was signed at the very end of the year 2019, followed by the long January holidays in 2020, so it was expected that we will not be able to start with the organised initial meetings, site visits and documentation exchange before mid February, which may however jeopardize the final deadlines for project closure at the end of 12<sup>th</sup> month from contract signing.

# Mitigation:

The preliminary phase of complex works encompassed by this contract, which must involve proper preparation of the Beneficiary regarding the existing documentation and detailed analysis that have to be performed by the Consultant, was optimistically estimated to last only one month, but it is realistic that this phase along with the preparatory introduction phase lasts three months. However if this phase is conducted properly then other work phases can be carried out faster with proper team organisation, so we are optimistic that we can mitigate this risk fully, if we are able to perform above stated surveys in the first two weeks of April.

#### Risk 3:

Up to date we are witnessing a continual rise in prices for construction works, largely due to lack of skilled workers, so it may be a challenge to stay within the limits of the originally planned budget, both during design phase, when a detailed Bill of Quantities has to be produced with realistic and up to date prices, and also during the tendering for the actual works, where larger price bids may appear regardless of the estimated price. Realistic estimates per m2 are similar to the detailed ones given for Modriča facility.

# Mitigation:

During the design phase, we will aim at rationalisation of expenses, but not at the cost of obligatory legal provisions, quality of the design and chosen materials. This problem can be overcome after the tendering procedure is finished and the actual price of works is known, by either not performing all the planned and designed works, or by adding the additional funds to the project implementation.

# 2.7. ACTIVITIES RELATED TO PUBLIC INSTITUTION CARE HOME FOR PERSONS WITH DISABILITIES VIŠEGRAD

## **INITIAL MEETING AND SITE VISIT**

Initial meeting with the representatives of the CARE HOME FOR PERSONS WITH DISABILITIES VIŠEGRAD, was held on February 11<sup>th</sup> 2020, at the location of the Institution in Višegrad.

In the introductory part of the meeting, the representative of the Public institution care home for persons with disabilities Višegrad (hereinafter referred to as the Institution), Director Zoran Vasiljevic welcomed all present. He informed the participants of the history of the institution, the current situation in the complex and emphasized the importance of this project for their further work.

Urbis Center representative Gordan Milinković gave a brief overview of the work and experience of the URBIS CENTER so far on similar projects and overall work in the field of technical and planning documentation. Sonja Rapajić, lead architect in front of the Urbis Center, presented the planned activities of the project, as well as the project task for the planned intervention and planned equipment. The terms of

reference of the project foresee works related mainly to interior works, facade renovation, roofing and provision of the necessary accessibility for persons with reduced physical capacity.

Mr. Zoran Vasiljevic emphasized that in relation to the time of submission of data in 2017, there were some changes in the needs of the Institution, first of all regarding the equipment. Ms Silvana Krilić Kesić, stated that at this moment there are no users under 18 years of age and that it is necessary to adapt Pavilion 1 for their accommodation, whereby the space intended for children would be separated by sliding doors.

The Consultant emphasized that representatives of the Institution are expected to specify and submit any possible changes or additional requests as soon as possible and at the latest in the initial phase of the preliminary design.

Considering the fact that reconstruction, upgrading and change of purpose are foreseen for some buildings, the representatives of the Institution were informed about the need to elaborate new Urban and technical conditions and obtain location and building permit. It was also emphasized that it was necessary to provide existing technical documentation for the facilities.

The consultant was promptly provided with some documentation: copy of cadastral plan, title deed, land registry entry and geodetically recorded floor plans of all buildings.

During the meeting, representatives of the Institution found in their archive some of the technical documentation related to the buildings, a list of which is attached. No documentation was found for the Administration Building only. Urbis Centar representatives reviewed and took over the required documentation.

After the meeting, a tour of the entire complex was organized in order to familiarize the Consultant with the existing condition of the facilities, the layout and purpose of the facilities, the internal functional organization and condition of each facility.

During the visit, representatives of the Institution made certain individual requests for the facilities and informed the Consultant about the conditions and problems in the functioning of the facilities.

It was stated that in terms of functional organization, changes are needed in the school building where the accommodation facilities would be organized upstairs. The ground floor would be organized for workshop, office, dispensary, as well as necessary solution for clean and dirty road in the laundry room. Pavilion 1 needs to be adapted for children. All pavilions need to have adequate access and reorganized toilets in order to provide accessibility for people with reduced physical capacity. Pavilions do not have elevators and are organized in such a way that mobile users are located upstairs, while immobile ones are located on the ground floor.

Representatives of the Institution introduced the Consultant to the problem of losses in the hot water network that are old and worn out. The consultant emphasized that although the boiler room and the installation of new pellet boiler were defined by the project task, the reconstruction of the entire hot water network and the external arrangements were not.

Representatives of the Institution and the Consultant agreed that any additional or specific requests should be made to the Consultant in writing.

# **DOCUMENTS RECEIVED**

The appointed representative of the Technical staff of the Institution shared with the Consultant the following documents per defined buildings/interventions:

No.	Name of the building	Gross build up area (m2)	Elevation	Interventions according to project task	Received documents	Format of received documents
1	SCHOOL	1518	B+GF+1	Change of function and renovation	- Design of Central Heating Project, 1968. -Floor plan of the object, geod.image, 2019. - Building Permit 1968.	Paper format
2	OUTPATIENT CLINIC	342	GF+1	Reconstruction of the first floor and rehabilitaion	- Design of Central Heating Project, 1968. -Floor plan of the object, geod.image, 2019. - Building Permit 1968.	Paper format
3	PAVILION 1	372	GF	Renovation and rehabilitaion	- Main design books: A, M, E, 1968, 1974. -Floor plan of the building, geod.image, 2019. -Usage permit 2019. -Building permit 1974.	Paper format
4	PAVILION 2	630	GF+1	Renovation and rehabilitaion	-Main Design Books: A, S, H, E, M, 1969,1974 -Floor plan of the object, geod.image, 2019. -Usage permit 2019. -Building permit 1974.	Paper format
5	PAVILION 3	641	GF+1	Renovation and rehabilitaion	-Main Design Books: A, S, H, E, M, 1969,1974 -Floor plan of the object, geod.image, 2019. -Usage permit 2019. -Building permit 1969.	Paper format

6	PAVILION 4	654	GF+1	Renovation and rehabilitaion	-Main Design Books: A, S, H, E, M, 1969,1974 -Floor plan of the object, geod.image, 2019. -Usage permit 2019. -Building permit 1969.	Paper format
7	PAVILION 5	682	GF+1	Renovation and rehabilitaion	-Main Design Books: A, S, H, E, M, 1969,1974 -Floor plan of the object, geod.image, 2019. -Usage permit 2019. -Building permit 1969.	Paper format
8	ADMINISTRATIVE BUILDING	447	GF	Renovation and rehabilitation	-Floor plan of the object, geod.image, 2019Building permit 2003Building permit 1968.	Paper format
9	BOILER ROOM	300	GF	Reconstruction, rehabilitation and new canopy	-Main Design Books: A, S, E, M, 1969,1974 -Floor plan of the object, geod.image, 2019. -Building permit 1968. -Building permit 1969.	Paper format

# **ANALYSIS CONCLUSIONS AND WORK PLAN**

It is generally concluded that Project task received by the UNDP corresponds with the initial requests of the Institution, however during the inception period the Clinic has put forward few additional requests. Since there are 9 buildings/interventions in the complex of the Public institution care home for persons with disabilities Višegrad, we will address project task, requests for additional interventions and our expert conclusions i.e. proposed work plan, in tabular form for greater clarity:

No.	Name of the building	Project task	Additional requests	Conclusions and description of work plan
1	SCHOOL	The project task envisages complete renovation of the interior, construction of new walls, new doors and windows, rehabilitation of a part of the roof cover, thermal façade, replacement of all installations, building, and new solar collectors.	Additional requests is to provide water source in 3 additional rooms, one in ground floor and two upstairs.	In order to meet the minimum technical requirements of energy efficiency, it is necessary to provide horizontal thermal insulation on the ceilings towards the outside and all unheated spaces. An additional request will be addressed by the hydro installation project. According to the terms of reference, interventions in these facilities are defined as reconstruction and we will adopt this approach having in mind new solar collectors have to be designed.
2	OUTPATIENT CLINIC	The project task envisages complete renovation of the ground floor, removing the existing first floor and building the new one instead.	There are no additional requests for this facility.	The building has structural damage in the walls (sloping cracks) which needs to be inspected and repaired. The total area of the building given in the terms of reference refers to the surface of one floor, when in fact it is double. In view of the volume of work, the market price and the specific requirements for healthcare facilities, the estimated price in the project task is extremely low, just 225 BAM per m2.  According to the terms of reference, interventions in these facilities are defined as reconstruction and we will adopt this approach having in mind entire new floor has to be designed.
3	PAVILION 1	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations, and building the new access ramp.	There are no additional requests for this facility.	In order to meet the minimum technical requirements, it is also necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces).  The estimated amount of 185 BAM / m2 is insufficient for the implementation of the planned remediation measures.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.

4	PAVILION 2	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations, and building the new access ramp.	There are no additional requests for this facility.	In order to meet the minimum technical requirements, it is also necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces).  The estimated amount of 122 BAM / m2 is insufficient for the implementation of the planned remediation measures, especially having in mind that project task did not give accurate GBA, but only the area of one floor.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.
5	PAVILION 3	The project task envisages complete renovation of the interior, new doors and windows, thermal façade, replacement of all installations, and building the new access ramp.	There are no additional requests for this facility.	In order to meet the minimum technical requirements, it is also necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces).  The estimated amount of 124 BAM / m2 is insufficient for the implementation of the planned remediation measures, especially having in mind that project task did not give accurate GBA, but only the area of one floor.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.
6	PAVILION 4	The project task envisages complete renovation of the interior, new doors, thermal façade, replacement of all installations, and building the new access ramp.	Additional requests is to change PVC windows.	Existing wooden windows have been replaced by PVC windows recently, but they do not fit the purpose and are deemed far worse the previous old ones by the Beneficiary. Also, in order to meet the minimum technical requirements, it is necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces).  The anticipated amount of 85 BAM / m2 is insufficient for the implementation of the anticipated remediation measures, especially having in mind that project task did not give accurate GBA, but only the area of one floor .  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.

7	PAVILION 5	The project task envisages complete renovation of the interior, new doors, thermal façade, replacement of all installations, and building the new access ramp.	Additional requests is to change PVC windows.	Existing wooden windows have been replaced by PVC windows recently, but they do not fit the purpose and are deemed far worse the previous old ones by the Beneficiary. Also, in order to meet the minimum technical requirements, it is necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces). The anticipated amount of 86 BAM / m2 is insufficient for the implementation of the anticipated remediation measures, especially having in mind that project task did not give accurate GBA, but only the area of one floor .  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.			
8	ADMINISTRATIVE BUILDING	The project task envisages complete renovation of the interior, new doors and windows, rehabilitation of the roof cover, thermal façade, and replacement of all installations.	There are no additional requests for this facility.	In order to meet the minimum technical requirements, it is also necessary to provide horizontal thermal insulation (spaces below and outside of unheated spaces).  The estimated amount of 250 BAM / m2 is insufficient for the implementation of the planned remediation measures.  According to the terms of reference, interventions in these facilities are defined as reconstruction, but given the level of intervention by law, these facilities are in fact being rehabilitated.			
9	BOILER ROOM	The project task envisages renovation of the interior, replacement of all installations.and new canopy for storage of for heating products		The estimated amount of 125 BAM / m2 insufficient for the implementation of the planned remediation measures, especial if boiler is changed to pellet or woodchips and new transporter is installed.  According to the terms of reference, interventions in these facilities are define as reconstruction and we will adopt this approach having in mind new canopy has to be designed.			

The interventions per each building, according to our work plan, in terms of legal regulations i.e. permit issuance and obligatory surveys are as follows:

No.	Name of the building	Isuance of urban and technical conditio ns for entire complex	Required location and building permits	Required geodetic survey	Required geotechnical survey	Required other specific surveys	
1	SCHOOL	Yes	Yes	Yes	No	No	
2	OUTPATIENT CLINIC	Yes	Yes	Yes	Yes	No	
3	PAVILION 1	Yes	No	Yes	No	No	
4	PAVILION 2	Yes	No	Yes	No	No	
5	PAVILION 3		No	Yes	No	No	

6	PAVILION 4	Yes	No	Yes	No	No
7	PAVILION 5	Yes	No	Yes	No	No
8	ADMINISTRATIVE BUILDING	Yes	No	Yes	No	No
9	BOILER ROOM	Yes	Yes	Yes	No	No

It can be generally stated that after the tour of the site, examining the acquired documentation and obtained geodetic maps, it was determined that there are certain disagreements of gross built-up area given by the project task in relation to the gross built-up area obtained on the basis of the geodetic maps, as well as in relation to usable areas provided through Floor plans geodetic images made in 2019 by the authorized surveying houses. The difference is significant in the facilities of the boiler room, administration building, ambulance and pavilions no. 2, 3, 4 and 5. It is found that the total GBA given by the project assignment is about 1500 m2 smaller than the actual GBA of the facilities. As explained above, this is especially acute having in mind the already very low estimated investment costs for renovating the buildings.

Roofing works are foreseen at the administration building but no replacement of the roof structure or possibly damaged parts of the roof structure is foreseen, which may be necessary given the visible deterioration of the building.

Roofing works are foreseen at the school building also. Considering that the roof covering was replaced in the period from 2004 to 2012 and that no significant damage or traces of moisture on the ceiling are visible

towards the attic space, the need to replace the complete roof covering should be revised, and instead making necessary repairs to the gutters and other works where fuds are insufficient.

In addition to the construction of ramps to provide accessibility for persons with disabilities, it is necessary to widen the openings of a large number of doors in user accommodation facilities (Pavilions 1-5). Pavilions 4-5 with elevation of GF + 1, do not have a built-in elevator, which makes the first floors inaccessible to people with disabilities.

Regarding the equipment foreseen in the project task, the Institution, meanwhile, procured some of the items, while there is now a need for some other items. These differences will be addressed and reconciled in the equipment and furnishings design and bill of quantities.

Having in mind all the above said, it is planned to organize site visit, geodetic and geotechnical surveys in the first two weeks of April and then continue with the preliminary design and new urban and technical conditions which have to be prepared at the same time. Meetings during the work on preliminary design can be held in the administration offices with selected staff of the Clinic and technical staff without disturbing any patients.

Work plan for PUBLIC INSTITUTION CARE HOME FOR PERSONS WITH DISABILITIES VIŠEGRAD is presented in the table below:

Activities Per deliverables	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Preliminary activities												
Inception period ending with report												
Geodetic and Geotechnical surveys												
Urban and technical conditions												
Preliminary design ending with report												
Final Preliminary design ending with report												
Detailed design ending with report												
Final Detailed design ending with report												
Tendering documentation ending with Final report												

#### **RISKS AND RISK MITIGATIONS**

#### Risk 1:

Major risk that appeared due to "force majeure" of coronavirus pandemic can cause the inability to access the building site due to the general lockdown of the Institution for the safety of the patients or other legal bans may be forbidding the site access all together.

# Mitigation:

It would be possible for the Consultants team to mitigate this risk partially in the phase of the preliminary design, since we have managed to acquire some schematic drawings for the existing buildings and we have managed to measures most of the facilities during site visit. But, if the situation extends itself into the months when we are due to start work on the detailed design, then it would not be possible to finish the structural part of the design without the geotechnical surveys and all installations design without the possibility for the designers of engineering phases to access the complex at all. In this case works on this contract have to be prolonged, as well as deadlines for the delivery of the reports on detailed design.

## Risk 2:

The contract was signed at the very end of the year 2019, followed by the long January holidays in 2020, so it was expected that we will not be able to start with the organized initial meetings, site visits and documentation exchange before mid-February, which may however jeopardize the final deadlines for project closure at the end of 12<sup>th</sup> month from contract signing.

# Mitigation:

The preliminary phase of complex works encompassed by this contract, which must involve proper preparation of the Beneficiary regarding the existing documentation and detailed analysis that have to be performed by the Consultant, was optimistically estimated to last only one month, but it is realistic that this phase along with the preparatory introduction phase lasts three months. However if this phase is conducted properly then other work phases can be carried out faster with proper team organisation, so we are optimistic that we can mitigate this risk fully, if we are able to perform above stated surveys in the first two weeks of April.

#### Risk 3:

Given the time span of almost 3 years from the financial estimate provided in the project task, as well as the established large difference between defined and actual gross built-up areas of the buildings, we can conclude that the funds provided are insufficient for the planned works.

## Mitigation:

During the design phase, we will aim at rationalization of expenses, but not at the cost of obligatory legal provisions, quality of the design and chosen materials. This problem can be overcome after the tendering procedure is finished and the actual price of works is known, by either not performing all the planned and designed works, or by adding the additional funds to the project implementation.

# 3 LEGAL FRAMEWORK

We submit the list of core legal framework in BIH we work according to. In addition there are a number of sector policies and standards regulating the technical parameters of each phase of design and building construction.

Spatial planning and construction legislation in BIH:

Spatial planning and construction in Bosnia and Herzegovina is the exclusive constitutional competence of entities and cantons. Due to this division of responsibilities, the relevant laws and regulations are adopted by entities and cantons. It should be noted that in the Federation of Bosnia and Herzegovina, competence over spatial planning and building is divided between the entity and cantonal level in the Federation of Bosnia and Herzegovina.

## The Federation of Bosnia and Herzegovina

- Law on Spatial Planning and Land Use in the Federation of Bosnia and Herzegovina (Official Gazette of FBIH, 02/06, 72/07, 32/08, 4/10, 13/10 and 45/10);
- Law on Fire Protection (Official Gazette of FBIH, 65/09);
- Decree on Single Methodology for Development of Spatial Planning Documents (Official Gazette of FBIH, 63/04, 50/07);
- Statute on Site Organization, Mandatory Documentation at the Construction Site and participants in Construction (Official Gazette of FBIH, 48/09);
- Statute on Technical Standards that Buildings Must Meet in Terms of Security and the Use and Maintenance of the Buildings (Official Gazette of FBIH, 29/07, 51/08 and 99/14);
- Statute on Type, Content, Marking and Storing, Control and Validation of Investment Technical Documentation (Official Gazette of FBIH, 33/10, 99/14);
- Statute on Spatial Intervention and Buildings for which the Federal Ministry of Spatial Planning issues urban permit and/or location permit (information) (Official Gazette of FBIH, 32/14);
- Statute on spatial standards, urban technical conditions and norms to prevent the creation of architectural and urban barriers for persons with reduced physical abilities (Official Gazette of FBIH, 48/09);
- Rulebook on Technical Review of Building/Facility (Official Gazette of FBIH, 58/14);
- Law on Energy Efficiency (draft law);
- Rulebook on Energy Certification of Buildings (Official Gazette of FBIH, 50/10);
- Rulebook on Requirement for Persons Who Carrying Out the Energy Certification of Buildings (Official Gazette of FBIH, 28/10);
- Rulebook on Technical Requirements for Thermal Protection of Buildings and Rational Use of Energy (Official Gazette of FBIH, 49/09);

#### **CANTONS**

- Law on Spatial Planning (Official Gazette of Canton Sarajevo);
- Statute on urbanistic and technical requirements, spatial standards and norms for the elimination and prevention of the creation of architectural and urban barriers to the movement of disabled persons who use technical and orthopedic aids (Official Gazette of Canton Sarajevo, 05/00);
- Law on Spatial Planning (Official Gazette of Hercegovačko Neretvanski Canton, 2004)
- Law on Construction (Official Gazette of Hercegovačko Neretvanski Canton)

# The Republic of Srpska

- Law on Spatial Planning and Construction (Official Gazette of RS, 40/13, 84/19, 105/16 and 03/16);
- Law on Fire Protection (Official Gazette of RS, 71/12);
- Law on Energy Efficiency (Official Gazette of RS, 59/13);
- Rulebook on Technical Standards for Fire Protection in buildings/facilities intended for public use which gather, residing or working more persons (Official Gazette of RS, 64/13);
- Rulebook on Technical Standards for Fire Protection of High Buildings (Official Gazette of SFRY, 07/84);
- Rulebook on the Method of Drafting, Content and Development of Spatial Planning Documents (Official Gazette of RS, 69/13);
- Rulebook on the Form, Content and Issuance of Location Permit (Official Gazette of RS, 69/13);
- Rulebook on Development and Adopting of Spatial Planning Documents by Summary Proceeding (Official Gazette of RS, 69/13);
- Rulebook for planning and designing the buildings for unobstructed movement for children and persons with reduced physical abilities (Official Gazette of RS, 93/13);
- Rulebook on Calculation of the Surface Area and Volume of the Buildings/Facilities (Official Gazette of RS, 95/13);
- Rulebook on Content and Control of Technical Documentation (Official Gazette of RS, 101/13);
- Rulebook on General Rules of Urban Regulation Elements and Land Subdivision (Official Gazette of RS, 115/13);
- Rulebook on Design, Production and Maintenance for Lifts (Official Gazette of RS, 68/15);
- Rulebook on Minimum Requirements for the Energy Performance of Buildings (Official Gazette of RS, 30/15);
- Rulebook on the Methodology for Calculating the Energy Performance of Buildings (Official Gazette of RS, 30/15);
- Rulebook on the Performance of Energy Audits and Issuing of Building Energy Certificate (Official Gazette of RS, 30/15);