

ANNEX 1. TERMS OF REFERENCE (TOR)

1. INTRODUCTION

These Terms of Reference are to give the consultants with a multi-disciplinary team of technical specialists the outline of the assignment and the outputs expected from the assignment for **Sourp Magar monastery located in Halevga/Alevkayasi**.

GPS identification: X: 35.287548, Y: 33.522117

Cadastral Info: XIII.44.E2 – PLOT 24

2. CULTURAL HERITAGE PROJECTS BACKGROUND

The Agreement of 21 March 2008 reached between Greek Cypriots and Turkish Cypriots under the auspices of the United Nations (UN), paved the way for the establishment of the Technical Committee on Cultural Heritage (TCCH), dedicated to the identification, promotion and protection of the rich and diverse cultural heritage of Cyprus. The TCCH is composed of an equal number of Greek Cypriot and Turkish Cypriot experts. The TCCH works to provide a mutually acceptable mechanism for the implementation of practical measures for the proper preservation, physical protection and restoration (including research, study and survey) of the immovable cultural heritage of Cyprus. The TCCH is operating under the UN auspices and its work is an important tool for building confidence between the Turkish Cypriots and the Greek Cypriots.

The TCCH is supported in its work by an Advisory Board (AB), which was established in 2009 and is composed of archaeologists, architects, art historians and town planners from both communities.

In 2012, United Nations Development Programme (UNDP) initiated with the implementation of the European Union (EU) funded activity *Support to Cultural Heritage Monuments of Great Importance for the communities in Cyprus – Phase 1* and since then it has continued with the successful implementation of the EU funded activities *Support to Cultural Heritage Monuments of Great Importance in Cyprus – Phases 2, 3 and 4*. In November 2016, UNDP started the implementation of the new EU funded activity *Support to Cultural Heritage Monuments of Great Importance in Cyprus – Phase 5*.

CONSERVATION PHILOSOPHY

All conservation projects should aim to the conservation of the cultural heritage sites. Namely, conservation actions/works on each cultural heritage site will include the examination, treatment and preventive care of the building elements, with the ***least possible (minimum) intervention***, aiming to safeguard its fabric in the long-term, protecting its special characteristics and elements (and especially of those most at risk), creating safety and safeguarding its heritage values. Treatment should ensure maximum stabilization, consolidation and/or reinforcement actions, if these are considered necessary, in order to achieve structural stability and durability. The proposed interventions should ensure the protection of the building fabric from weather conditions and other environmental factors. These interventions will deal also with rainwater management and accessibility issues, depending on the needs of each site. For any of these actions it is preferable that the traditional techniques and materials of same type as the originals will be used. The general philosophy of all interventions should be to safeguard the authenticity and integrity of the building by maintaining, conserving and restoring (instead of replacing and reconstructing) elements of the building when and where possible. It is expected that the interventions on each site will be decided and defined following detailed survey and investigation of the building, its assessment and analysis. The methodology of interventions might be modified if findings during the construction works alter the original hypotheses. All conservation studies and works should be in compliance with the international standards of conservation.

Restoration actions/works, namely specialized actions which aim to restore the items at a known earlier state might be considered, further than the conservation actions, in case these are evaluated as necessary or highly beneficial and feasible (detailed scientific justification will be necessary) within the available budget. In case there are paintings, mosaics, frescoes, or any other specialized conservation subjects in any of the heritage sites, it is suggested to plan only for their stabilization and protection.

REGULATORY FRAMEWORK

The site is declared an 'Ancient Monument' in line with the local regulatory texts and ideally should be covered by relevant international conservation standards of UNESCO, ICOMOS and ICCROM.

Measurements and surveys must be of non-invasive nature unless otherwise permitted in writing. No items must be taken from the sites.

ELIGIBILITY TO PARTICIPATE

Participation to this RFQ process is open to all registered architectural and/or engineering and/or architectural/engineering offices and/or bureaus and/or companies and/or individuals forming a design team.

Individuals forming a design team must enter into a 'collaboration agreement' and designate a leader to sign the contract and receive payments due.

Bureaus/offices/companies OR the designated leader entering into contract must have an indemnity insurance as per Clause 12 of the General Terms and Conditions for Contracts. Copy of the indemnity insurance must be presented at the contract signature.

OBJECTIVES OF THIS ASSIGNMENT

The objectives of this assignment is to solicit the services for the envisaged, described outputs in the detail elaborated in the subsequent sections.

It is the responsibility of the participants to this process to understand the concept and philosophy of the **minimum conservation intervention**. Participants must take into account all costs associated with the activities related to the details and the outputs. Lack of understanding and knowledge will not be considered as waiving the objectives.

The assignment shall determine the break-down of the interventions in phases by defining the priority of necessary interventions through the preparation of a General Rehabilitation Plan for the site.

A substantial objective of the first phase is to conserve one of the chapels (the small one) in such a way to allow its use as a chapel.

Due to the large size of the site and the finite resources available, the focus is to stabilise the structures aiming to freeze further deterioration and damage as much as possible.

OUTPUTS AND DETAILS OF THE ASSIGNMENT

This section gives the outputs and the level of details that will be required.

OUTPUT-1A: Surveys (measured drawings) and Photos and Historical Analysis

Topographic surveys of the site, buildings within the site and its boundary walls with detailed measurement shall be carried out. Complete architectural surveys (plans, elevations, sections) of the building including details of special elements, construction details etc., to be conducted.

Moreover, detailed historical account of the monastery in terms of constructions, additions and repairs carried out over the years to be researched.

Surveys (measured drawings) and Photos:

The designers will carry out the survey of the buildings and the building plot indicated in the site plans. For this specific site, an image-based survey was conducted in 2017 within the framework of the preliminary assessment. This will be provided to the designers upon contract signature.

Surveys should be executed by the designers not only for the purpose of the intervention.

Recording of the heritage place must be carried out having in mind that the information collected can be utilized for the following purposes:

- For conservation purposes,
- For educational purposes,
- Digital safeguarding of the memory, culture and information of this heritage place for future generations,
- For scholars, research and for facilitating archiving of the building and further investigation of the monument,
- For safeguarding the authenticity and integrity of the heritage place. Each intervention on built heritage (conservation, safeguarding, support, rescue measures, restoration, rehabilitation, reconstruction etc.) may lead to loss of precious information, authenticity and integrity of the cultural heritage building. For this reason the extensive, in detail and precise recording, investigation, documentation and management of information regarding the monument is especially important well in advance, if possible, of initiation of planned intervention.

Surveys should be executed accurately and in detail containing graphical representation of all construction/ structural details, details of special elements etc. in a variety of scales according to the needs of each drawing and detail.

Official cadastral map and the plot number of each site must be provided with the survey outputs.

Minimum drawing requirements are: (i) plans for every floor level including roof, (ii) ceiling plan, (iii) number of sections in order to document all the interior elevations, and (iv) elevations of every facade of the building/s with measurements and descriptions of the materials. Special elements should also be documented in detail in larger design scale. All drawings should include measurements and description of building materials.

Drawings must be submitted in:

- AutoCAD drawing file format and including in the electronic deliverable the .ctb file (which defines the plot style of the drawings)

- Pdf format in scale (including north arrow). Each drawing should be on a separate pdf. Pdfs should be created directly from Autocad by choosing "print to pdf". They shouldn't be scanned from hard-copies to PDF format in scale.
- Hard copies of the drawings in scale (including north arrow).
- A List of all the drawings submitted, their scale, and what they present (a type of table of contents of drawings).

Photos can be in TIFF or JPG format but each photo shouldn't be a heavy document.

Historical Analysis

Designers shall carry out research in order to: (i) trace the original date of the construction of each site, and other important dates of the construction, (ii) trace and date later interventions on the building, (iii) historically support the building's analysis and conservation proposal/s. The historical analysis should additionally be conducted through bibliographic and archival means. Oral testimonies could be taken into consideration. The analysis can be enhanced with sketches and pictures. Narratives must be written in good English and must be proof-read before submission.

OUTPUT-1B: General Rehabilitation Plan (in Phases) for Prioritised Interventions

Designers shall elaborate a general rehabilitation plan of the monastery for its conservation as a ruin and divide these interventions into different Phases according to the urgency/need. First Phase shouldn't exceed Euro 300,000 +/- 20%. Content and magnitude of the subsequent phases to be agreed with UNDP.

OUTPUT-1A and 1B shall be submitted in three hard copies and three electronic copies (DVD/CD/FLASHDISK).

PRESENTATION: Stakeholder Presentation of Submitted Outputs

Designers will present the Outputs 1A and 1B in PowerPoint to a stakeholders' meeting which will be arranged by UNDP. Presentation material must be provided 3 days in advance to the presentation by the designers to UNDP.

Designers will be responsible for taking notes of the main points of discussion during the presentation, submit for approval within maximum 48 hours to UNDP and wait for the final feedback.

According to the provided feedback the designers should proceed to all necessary modifications to the submitted outputs accordingly.

This feedback/approval will be given in maximum TWO (2) calendar weeks which shouldn't be considered extra to the thirty two (32) calendar weeks. This should be shown and counted in the workplans.

OUTPUT-2A: Condition Assessments of Structures and Conservation Recommendations for Phase 1

Designers must elaborate condition assessments of each structure envisaged in Phase 1 of the General Rehabilitation Plan taking into account the maximum ceiling allocated for each prioritised intervention.

Phase 1 should include: the small old chapel, safety measures and access for visitors, site cleaning and consolidation / propping of dangerous structures.

However, for the small chapel in the courtyard more details condition assessment shall be carried out taking into account.

- Materials testing
- Finite element modelling or similar modelling method for the small chapel
- Geotechnical investigation (if required)

Materials Tests

Designers shall conduct the following tests in collaboration with an experienced laboratory.

The cost of these tests will be quoted separately and is to be regarded as one of the outputs.

Timelines required for these tests to be conducted and results to be used in the design elaboration must be factored in the work plans. Maximum duration for these tests shall be FORTY (40) calendar days from sampling to results. Designers shall arrange the work plans accordingly.

Samples shall be taken as per the following:

Per each building/church/structure, 3 stones will be sampled and from each stone 3 specimens must be tested for the following tests;

- o Compressive strength in accordance with EN 1926
- o Capillary absorption - one direction of testing according to EN 1925
- o Porosity in accordance with EN 1936
- o Full XRD analysis (qualitative/quantitative) per stone specimen

Per each building/church/structure, 3 mortar and plaster specimens must be taken and tested for;

- o Full XRD analysis (qualitative/quantitative) per mortar specimen
- o Full XRD analysis (qualitative/quantitative) per plaster specimen

Sampling from each building/church/structure shall be made by the designers and in line with the stipulations in the relevant Euro Norms. UNDP should be informed in order to facilitate before any tests are performed on the site.

FEM or Equivalent Modelling

Further investigation of the site should be undertaken at this output. The condition assessment should be supported by efficient photographic and scientific documentation.

Computational investigation of the building's (small chapel) seismic response (such as Finite Element Modelling or other equivalent test) for evaluation of seismic hazard is to be made. The FEM analysis shall follow the stipulations in the relevant Eurocodes, such as EN 1996-2 and EN 1998-3.

OUTPUT-2B: Conservation recommendations

Based on conditions assessments and staying within the conservation philosophy, designers shall elaborate on conservation recommendations for Phase 1.

These recommendations will include the rationale & objectives, descriptions of the interventions supplemented by pictures & sketches and preliminary estimates for these interventions.

At this output there is no need to prepare detailed implementation drawings, specifications and bills of quantities. Narratives must be written in good English and must be proof-read before submission.

Recommendations on conservation shall be made for the structures and specifically for the old chapel.

OUTPUT-2A and 2B shall be submitted in three hard copies and three electronic copies (DVD/CD/FLASHDISK).

PRESENTATION: Stakeholder Presentation of Submitted Outputs

Designers will present the Outputs 2A and 2B in PowerPoint to a stakeholders' meeting which will be arranged by UNDP. Presentation material must be provided 3 days in advance to the presentation by the designers to UNDP.

Designers will be responsible for taking notes of the main points of discussion during the presentation, submit for approval within maximum 48 hours to UNDP and wait for the final feedback.

According to the provided feedback the designers should proceed to all necessary modifications to the submitted outputs accordingly.

This feedback/approval will be given in maximum TWO (2) calendar week which shouldn't be considered extra to the thirty two (32) calendar weeks. This should be shown and counted in the workplans.

OUTPUT-3: Draft Designs for Phase 1

3A: Old chapel and the open area in front of it.

Draft designs for all structures included in Phase 1. In particular for the conservation of the old chapel and the open area in front of it. This building should be conserved so as to be in a usable condition.

Data from the tests and modelling shall be utilised for this chapel, especially for evaluation of seismic hazard and proposal of interventions for seismic enhancement so as to be safe for visitors.

Designers shall prepare draft conservation designs that will include drawings & relevant details, technical specifications, the bills of quantities and cost estimates.

3B: Structural Stabilization of Structures (walls, floors, roofs, wooden parts, etc.)

Taking into account the budget, these actions should aim towards the protection of the structures from evident danger, further deterioration which would jeopardize their durability and safeguarding their heritage values. Interventions should focus on structural consolidation of the structures as a ruin.

Amount allocated for 3A and 3B shall not exceed Euro 300,000 +/- 20%

Designers shall prepare draft conservation designs that will include drawings & relevant details, technical specifications, the bills of quantities and cost estimates.

In the draft designs elaboration the following, but not limited, must be considered, specified and stipulated in the specifications, drawings and bills of quantities:

- Safety measures (for people, structures and special elements) before initiating any type of work: scaffolding, nets, signage etc.
- Measures for effective treatment against biodegradation, effective treatment against vegetation, proposal for preventive maintenance to keep the vegetation under control
- Measures for avoiding the roosting and nesting of animal species (i.e. pigeons)
- Rainwater management system/drainage system for the structures and for the site
- Treatment of building pathologies such as cracks
- Masonry works (suitable stone, dimension of stones, building techniques and materials). Replacement of missing, deteriorated or cracked stone pieces where necessary for the structural consolidation of the structures of the complex.
- Consolidation of plasters and other finishes (mortars, plasters).
- Pointing, repointing and injection grouting for repairing and strengthening of interior and exterior walls (masonry).
- Safeguarding techniques for special elements which are not moveable.
- Measures for protection from rising damp and water - proofing of upper parts of exposed (roofless) masonry.

Visitors' accessibility to the site, taking into account visitors' safety. Visitor accessibility should be limited along a specific path leading from the west entrance of the monastery towards the chapel that will be conserved and used and possibly towards the east façade of the monastery.

Maintenance plan for the monastery: This maintenance plan must include actions for monitoring the condition/decay of the site on a regular basis and preventive actions for avoiding further decay of structures. The schedule of periodical visits (seasonal, yearly, etc.) will be identified with cost relation. The workmanship cost will be specified including the materials costs. The inspection checklist to be prepared as per the work items.

OUTPUT-3A and 3B shall be submitted in three hard copies and three electronic copies (DVD/CD/FLASHDISK).

Stakeholder presentation and feedback on submitted outputs

Designers will present the Outputs 3A and 3B in PowerPoint to a stakeholders' meeting which will be arranged by UNDP. Presentation material must be provided 10 days in advance to the presentation by the designers to UNDP.

Designers will be responsible for taking notes of the main points of discussion during the presentation, submit for approval within maximum 48 hours to UNDP and wait for the final feedback.

According to the provided feedback the designers should proceed to all necessary modifications to the submitted outputs accordingly.

This feedback/approval will be given in maximum two (2) calendar weeks which shouldn't be considered extra to the thirty two (32) calendar weeks.

OUTPUT-4: Final Conservation Designs of Phase 1 (4A & 4B)

Designers shall finalize the conservation designs (drawings & details, technical specifications, the bills of quantities and cost estimates, as well as timeline of works in line with the feedback they will receive.

Drawings must be submitted in AutoCAD drawing file format (including the .ctb plot style file); PDF format in scale (including north arrow). Each drawing should be on a separate pdf. Pdfs should be created directly from Autocad by choosing "print to pdf". They shouldn't be scanned from hard-copies to PDF format in scale. Hard copies of the drawings in scale (including north arrow).

Technical specifications should be submitted in word. Narratives must be written in good English and must be proof-read before submission.

Bills of quantities and estimates shall be in Excel. The technical specifications and the bills of quantities must have similar alphanumeric sequence that will have an easy cross-references to each other.

The final Bills of Quantities can be submitted in 10 calendar days of the submission of the final drawings and specifications.

OUTPUT-4 shall be submitted in three hard copies and three electronic copies (DVD/CD/FLASHDISK).

OUTPUT-5: Technical Advices During the Works

Designers are expected to be available for providing technical advices to UNDP on technical matters during the conservation works. These advices are to include routine site inspections, on-site and off-site meetings that will be arranged in consultation with UNDP.

Technical advices also includes modifications to the designs, any enhancement of the designs that are required as a result of works activities & as a result of encountered new findings not known at the time of the designs.

The works are likely to take place in 2018 and/or 2019. If the works are not implemented in 2019, this output will not be needed and the amount associated with this output shall not be paid.

Designers shall consider up to 6 days per month and up to 12 months duration for this output.

A day is to be calculated as 8 hours. Time spent traveling to and from the project site, time spent at the site and at the office for this project will be calculated as time worked.

Payments for the technical advices shall be made in two instalments; one at the halfway of the duration of the works and the last one upon the issuance of the certificate of substantial completion for which the designers will be involved.

DURATION TIMELINES OF THE ASSIGNMENT

The designers are expected to complete the assignment within **thirty two (32) calendar weeks** starting from the date of the contract signature. Designers shall prepare and submit a detailed workplan **per each activity** taking into account the required outputs and within the overall timeline stipulated. The work plan should show 'weeks'. OUTPUTS, whenever possible, should overlap and planned for the optimizing of the duration.

The final output (OUTPUT-4) shall be submitted by the end of the **thirty two (32) calendar weeks**.

It is the obligation of the designers to plan and submissions falling on public holidays and mandatory breaks must be shown at the workplan. These shall not change the duration of the assignment.

Delays in submitting the final output will result in the application of liquidated damages for delay at a rate of Euro 500 per day of delay beyond the end of the 32nd week.

DESIGNER'S TEAM

The designer has to propose a technical team with relevant technical disciplines required to complete the whole assignment in the timeframe stipulated.

The core team for each site should be composed of Architect, Civil/structural engineer and Archaeologist.

The designer team must be composed of at least one member registered with the GCYP technical chamber and one member registered with the TCYP technical chamber.

The designer must enhance the team with more technical staff and/or additional disciplines if he considers it necessary to meet the timelines for submitting outputs.

CVs of the core team members and the names of all the team members must be submitted.

LOGISTICS DURATION OF THE ASSIGNMENT

The Designer will be responsible for his own logistics and shall arrange his travels to and from the sites, as well as to the meetings/presentations in Nicosia and/or at the sites.

CONTRACTING

Designer selected for the assignment must sign the contract in calendar 10 calendar days of being notified as such. The indemnity insurance must be submitted at contract signature.

INDICATIVE PARAMETERS FOR DRAWINGS

When drawings are prepared and collated, designers are to take into consideration the following requirements along with the requirements stated in the “Guidelines for Design Phase Drawings”:

Drawing sheets;

- Dimension of the drawings will be limited as A1 to A3 paper size,
- Project legend will be provided by the UNDP
- Dimension of legend will be appropriate as per A4 and A3 size of paper,
- The font type and size will be Calibri-11 or Times New Roman-12,
- Drawings sheets will be numbered – A-Ex 01, A-Pr 01, Str 01, El 01, Mech 01, etc.,
- Drawing lines weight will be adjusted depending on the scales.
- Drawings sheets will be folded in A4 size and filed.

Survey Drawings and scales;

- Site plan in 1/100 or 1/200 scale,
- Plans in 1/50 scale
- Longitudinal and Cross-sections in 1/50 scale
- Elevations in 1/50 scale
- Roof plan in 1/50 scale
- Ceiling plan in 1/50 scale
- Architectural system construction details in 1/20 scale
- Stairs system details, if applicable, in 1/50 scale
- Door and window and other relevant details in 1/20, 1/10 and 1/5 scale
- Door and window and other relevant details annex list