



Republic of the Philippines

Tourism Infrastructure & Enterprise Zone Authority

TERMS OF REFERENCE

Consultancy Services for the Detailed Architectural and Engineering Study and Preparation for the Damaged Cultural Properties Ilocos Norte, Ilocos Sur, and Abra

I. RATIONALE

At 08:43 AM Philippine Standard Time (PST), 27 July 2022, a major tectonic earthquake with magnitude 7.0 hit the Northern Provinces of Luzon. The epicenter is located at 17.63°N, 120.63°E – 3 km N 50° W of Tayum (Abra) with a depth of 15 kilometers. This resulted in heavy structural damages of various built-heritage and cultural properties in the Ilocos Region (Region I). In particular, structures already declared as National Cultural Treasures (NCTs) by the National Museum of the Philippines (NMP), National Historical Landmarks (NHL's) by the National Historical Commission of the Philippines (NHCP), as well as other structures of at least fifty (50) years and above which are considered and/or presumed as Important Cultural Properties (ICP's) under the National Cultural Heritage Act of 2009 (R.A. 10066).

In line with the Philippine National Government's commitment in the conservation of these important earthquake-damaged heritage structure/s, this endeavor is deemed necessary in the formulation of sound restoration and conservation management plans. Also, in accordance with the mandate of the Tourism Infrastructure and Enterprise Zone Authority (TIEZA) to develop, manage and supervise tourism infrastructure projects in the country, it is also tasked to develop cultural, historical, religious, and heritage sites. To implement this, the TIEZA has linked up with the National Commission for Culture and the Arts (NCCA), the government agency mandated to conserve, promote and protect the nation's World Heritage Sites (WHS) and to tap or convene experts for this purpose.

In preparing the conservation management plans, it is important that key decision makers including the technical working group of the cultural agencies must have an extensive knowledge and expertise on heritage preservation. They must carefully take into consideration the structure/s function, significance, history, character, materials, past interventions, and existing condition of its physical components. Hence, a Detailed Architectural and Engineering Studies (DAES) is a fundamental requirement prior to commencement of any restoration works. This includes historical research, archival photos, previous architectural and engineering plans, movable item inventories, oral and written accounts, preparation of restoration plans, program of work, specifications and methodologies, bill of materials, testing results, recommendations, and other pertinent documentary requirements needed for the conservation of this historic structure/s as well as introduction of new compatible technological innovations in building construction deemed necessary for its long term preservation.

The submitted final outputs of this Project shall serve as a complete and comprehensive assessment of the over-all existing condition and future interventions of the structure/s and its site. The documentary requirements and submittals are stipulated in the succeeding pages of this TOR drafted by the NCCA. Once approved, this will be the sole basis for any future decision making during the project implementation.

II. OBJECTIVES

The Tourism Infrastructure and Enterprise Zone Authority (TIEZA), is requiring the Consultancy Services of an eligible consulting firm, including allied professionals not limited to architectural and/ or engineering, with related/ similar experience on heritage, conservation and master planning to attain the following objectives:

1. To conduct a detailed architectural and engineering study of select cultural and historical structures through surveys and tests
2. To formulate a conservation management plan in preserving and strengthening the structural integrity of select cultural and historical structures but not sacrificing historical and aesthetic value
3. To formulate a conservation management plan that will address all aspects concerning the site and structure/s and propose the necessary actions to ensure its safety; and
4. To formulate a conservation management plan that will be a useful reference for the present and future user/s of the structure and guide for its proper preservation and maintenance.
5. To prepare bid/ procurement packages based on conservation management plans formulated.

III. DUTIES AND RESPONSIBILITIES

1. THE CONSULTANT

- 1.1. The CONSULTANT shall comply with all applicable international standards and charters of conservation, national and local building laws and regulations in the proposal of conservation management plans;
- 1.2. The CONSULTANT shall be a team composed of technical professionals which includes, but not limited to the following allied professionals below, that will survey, document the site and structure/s, interpretation of data and formulate the proposed conservation management plan;

Qty.	Profession	Degree	Relevant experience
1	Project Manager	Master	5 years
5	Conservation Architect	Master	5 years
5	Structural Engineer	Master	5 years
5	Professional Electrical Engineer	Licensed	5 years
5	Civil Engineer	Bachelor	5 years
5	Master Plumber	Bachelor	5 years
5	Geodetic Engineer	Bachelor	5 years
5	Conservator	Bachelor	5 years
5	History Researcher	Master	5 years
10	Draftsman/CAD Operator	-	2 years

- 1.3. The CONSULTANT, with proper endorsement from TIEZA and/ or NCCA, shall be responsible for any work permits/clearances from the property owner/s and the local government units (LGU) which may be required in conducting soil investigation, ground penetrating radar scanning, and other tests required;
- 1.4. The CONSULTANT shall submit a schedule of work and closely coordinate with the TIEZA and/or the NCCA and the property owner/s during the implementation of the project. The CONSULTANT shall also take into consideration the functions and/or activities in the site and structure/s;
- 1.5. The CONSULTANT shall organize and conduct coordination meetings at least twice a month or as required by the TIEZA and/or the NCCA to give regular updates of on-site activities, ensure work quality and completeness of the data being submitted;
- 1.6. The CONSULTANT shall provide labor including the necessary tools and equipment for the temporary movement and installation of mobile objects and/or obstructions to its original location before and after the tests (e.g. soil investigation and ground penetrating radar scanning); and
- 1.7. The CONSULTANT guarantees to provide technical assistance or interpretations to the TIEZA and/or the NCCA about the test results submitted should there be any critical findings that may require immediate attention by the TIEZA and/or the NCCA during the actual restoration work.

IV. SCOPE OF WORK

Refer to Annex 1 for the sites included in the Project.

A. DETAILED STUDY COMPILATION

1. **SUMMARY REPORT** [Three (3) sets, A4 ring-bound]
 - 1.1. Introduction (including Table of Contents)
 - 1.2. Site Context
 - 1.3. History and Evolution of the Structure
 - 1.4. Survey and Technical Data of the Structure
 - 1.5. Legal Data of the Structure
 - 1.5.1. Transfer Certificate of Title (TCT)
 - 1.5.2. Tax Declaration
 - 1.5.3. Lease Title
 - 1.5.4. Deed of Usufruct
 - 1.5.5. Others
 - 1.6. Ownership and Stakeholders
 - 1.7. Construction Materials and Methodology
 - 1.8. Significance of the Structure and Components
 - 1.9. Analyses and Reports
 - 1.9.1. Sub-surface investigations (Ground Penetrating Radar, Soil Bearing Capacity, Topographic and Hydrological)
 - 1.9.2. Material Analysis
 - 1.9.3. Structural Analysis
 - 1.9.4. Others as needed
 - 1.10. Utilities of Structure and Site
 - 1.11. Photo Documentation
 - 1.11.1. Archival photos
 - 1.11.2. Key views
 - 1.11.3. Scenery
 - 1.11.4. Important Components
 - 1.11.5. Deteriorated Components

- 1.11.6. Others (including all original movable objects and decorative ornaments and finishes)
- 1.12. Conclusions and Technical Recommendations and Interpretation of the Findings

2. AS-FOUND COMPREHENSIVE DOCUMENTATION *[Two (2) sets, ring-bound A-3 paper and Two (2) sets, 20"x30" tracing paper]*

- 2.1. Title Page
 - 2.1.1. Perspective
 - 2.1.2. Reference Photo (Existing and archival photos)
 - 2.1.3. Table of Contents
 - 2.1.4. Vicinity Map
 - 2.1.5. Location Plan
- 2.2. As-found Site Development
- 2.3. Site Topographic Map
- 2.4. Site Hydrological Map
- 2.5. Site Foliage Map
- 2.6. Location of Site Utility Source
- 2.7. Orthographic photos (HD- Point cloud on AutoCAD)
 - 2.7.1. Floor plans
 - 2.7.2. 4-Elevations
 - 2.7.3. 2-Sections
 - 2.7.4. Doors and Windows
 - 2.7.5. Ceiling
 - 2.7.6. Flooring
 - 2.7.7. Roofing
 - 2.7.8. Details/Components (including all original movable objects and decorative ornaments and finishes)
- 2.8. Scaled, Labeled and Dimensioned 2-D Drawings with Surface Morphology
 - 2.8.1. Architectural
 - a. Floor Plans
 - b. Four (4) Elevations
 - 1. Condition Survey
 - 2. Material Map
 - c. Two (2) Sections
 - 1. Condition Survey
 - 2. Material Map
 - d. Schedule of Doors and Windows
 - e. Floor Pattern Layout
 - f. Reflected Ceiling Plan
 - g. Roof Plan
 - h. Details
 - i. Others (including all original movable objects and decorative ornaments and finishes)
 - 2.8.2. Structural
 - 2.8.3. Electrical
 - 2.8.4. Mechanical
 - 2.8.5. Plumbing and Drainage

B. PROPOSED CONSERVATION MANAGEMENT PLAN

[Two (2) sets, ring-bound A-3 paper and One (1) set, 20"x30" Original tracing paper, seven (7) sets, blueprint copies, signed and sealed by duly registered and licensed professionals]

- 1. **Conservation Methods**
 - 1.1 General conservation approach (as necessary depending on the result of the studies)
 - 1.1.1 Preservation
 - 1.1.2 Rehabilitation

- 1.1.3 Restoration
- 1.1.4 Repair
- 1.1.5 Retrofitting
- 1.1.6 Reconstruction

- 2.1. Protective measures
 - 2.1.1. Bracing or shoring plan
 - 2.1.2. Setbacks
 - 2.1.3. Cordoning works
 - 2.1.4. Others

- 3.1. Context improvement
 - 3.1.1. Site improvements
 - 3.1.2. Ancillary structures
 - 3.1.3. Buffer zones
 - 3.1.4. Others

- 4.1. Retrofitting and adaptive reuse;
 - 4.1.1. Reconditioning/strengthening of the foundation;
 - 4.1.2. Installation of reinforcements such as temporary or permanent supports (in case of heavily damaged walls with long-term conservation timeline);

- 5.1. Reconstruction plan for damaged and/or missing components;

- 6.1. Site development and other miscellaneous facilities essential for the total conservation management plan;

2. Proposed Site Development

3. Scaled, Labeled and Dimensioned 2-D Drawings

3.1. Architectural

- 3.1.1 Floor Plans
- 3.1.2 Four (4) Elevations
- 3.1.3 Two (2) Sections
- 3.1.4 Schedule of Doors and Windows
- 3.1.5 Floor Pattern Layout
- 3.1.6 Reflected Ceiling Plan
- 3.1.7 Roof Plan
- 3.1.8 Details
- 3.1.9 Others (including all original movable objects and decorative ornaments and finishes)

3.2. Structural (drawings necessary for the conservation method proposed)

- 3.2.1 Foundation plan
- 3.2.2 Roof framing plan
- 3.2.3 Schedule of trusses
- 3.2.4 Truss Detail
- 3.2.5 Floor framing plan
- 3.2.6 Ceiling Framing
- 3.2.7 Schedule of Footings, Column, Beams
- 3.2.8 Scaffolding design
- 3.2.9 Other details

3.3 Electrical

- 3.3.1 Location map
- 3.3.2 Schedule of Loads

- 3.3.3 Single Riser Diagram
- 3.3.4 Lighting Layout (site and structure)
- 3.3.5 Power Layout (site and structure)
- 3.3.6 Generation set details
- 3.3.7 Other Details

3.4 Mechanical

- 3.4.1 Mechanical Layout
- 3.4.2 Schedule of Load
- 3.4.3 Other Details

3.5 Plumbing and Drainage

- 3.5.1 Water Supply Layout
- 3.5.2 Sewage Layout
- 3.5.3 Septic Tank Detail
- 3.5.4 Drainage Layout
- 3.5.5 Drainage Details
- 3.5.6 Other Details

C. PROPOSAL BID AND TENDER DOCUMENTS *[Three (3) sets signed and sealed by duly registered and licensed professionals]*

- 1. Scope of Work
- 2. Detailed Unit Price Analysis (DPWH format)
- 3. Bill of Quantities
- 4. Technical Specifications
- 5. Structural Analysis and Computation
- 6. Restoration Work Schedule (duration of conservation work)
- 7. Others

V. SUBMITTALS AND PROJECT DURATION

Item	Contents/ Actions	Duration (CD)	Output		Output Percentage
			Hard Copy	Soft Copy (in two (2) HDs, to be submitted at the final acceptance)	
A. Detailed Study 1. Summary Report (Items on IV.A.1)	Written report all about the heritage structure, with researches, analyses and recommendations	1-30 CD	1. Draft copy in Ring- bound A4 report (1 set for checking)	1. PDF file 2. HD Photos/Maps in JPEG format 3. Excel or Word files	30%
	Revisions and/or approval	1-10 CD	2. Ring- bound A4 report (3 sets)		

2. As-found Comprehensive Documentation (Items on IV.A.2)	Photo and physical documentation of the structure: establishing site context and structure	1-50 CD <i>(Simultaneous to items in A.1)</i>	Draft copy in Ring-bound A3 paper (1 set for checking)	1. CAD files ver. ACAD 2014 or lower 2. Stitched 3-D scan Point Cloud 3. RAW files of 3D Scan Compatible with Autodesk Re Cap; 4. HD Photos in JPEG format	30%
	Revisions and/or approval	1-10 CD	1. Two (2) sets, ring-bound A-3 paper and 2. Two (2) sets, 20"x30" tracing paper		
B. Proposed Conservation Management Plan and Bid/ Procurement Documents 1. Proposed Conservation Management Plan (Items IV.B.1-3) 2. Bid/ Procurement Documents (Items on IV.C)	Proposed Conservation Management Plan and Bid Documents: ready for procurement	1-20 CD <i>(After items in A.2)</i>	Draft copy in Ring-bound A3 paper (1 set for checking)	1. CAD files ver. ACAD 2014 or lower 2. HD Photos in JPEG format 3. Word and PDF files of non-drawn documents	40%
	Revisions and/or approval	1-10 CD	1. Two (2) sets, ring-bound A-3 paper 2. One (1) set, 20"x30" Original tracing paper, 3. Seven (7) sets, blue print copies 4. Three (3) sets in 8.5"x 13" size of all items in IV.C		
TOTAL					100%

The duration of the project is for **ninety (90) calendar days** upon receipt of "Notice to Proceed".

VI. WARRANTY

The CONSULTANT shall assume full accountability for the services to be rendered stipulated in this TOR. The CONSULTANT shall assume the civil liability

related to the project outputs. Project outputs are valid within six (6) years from the final acceptance of the TIEZA.

VII. QUALIFICATION

The CONSULTANT should have prior experience and completed projects of similar/ related in nature and complexity, within three (3) years from the date of submission and receipt of bids, a contract similar to the project. The description of an eligible bidder is contained in the bidding documents.

VIII. BUDGET

The total consultancy cost is **Sixty One Million Five Hundred Thousand Pesos (P61,500,000.00)** inclusive of VAT to be charged against the budget of the TIEZA.

Item	Description	Weighted Value	Imputed Cost (PhP)
A	DETAILED STUDY COMPILATION (30%)		18,450,000.00
1.0	Summary Report		
1.1	Introduction	0.5%	
1.2	Site Context	0.5%	
1.3	History and Evolution of the Structure	0.5%	
1.4	Survey and Technical Data of the Structure	0.5%	
1.5	Legal Data of the Structure	0.5%	
1.6	Ownership and Stakeholders	1%	
1.7	Construction Materials and Methodology	2%	
1.8	Significance of the Structure and Components	3%	
1.9	Analyses and reports	16%	
1.10	Utilities of Structure and Site	1%	
1.11	Photo Documentation	0.5%	
1.12	Conclusions and Technical Recommendations and Interpretation	4%	
2.0	As-found Comprehensive Documentation (30%)		18,450,000.00
2.1	Title Page	2%	
2.2	As-found Site Development	4%	
2.3	Site Topographic Map	2%	
2.4	Site Hydrological Map	2%	
2.5	Site Foliage Map	2%	
2.6	Location of Site Utility Source	3%	
2.7	Orthographic photos	4%	

2.8	Scaled, Labeled and Dimensioned 2-D Drawings w/ Surface Morphology	11%	
B	PROPOSED CONSERVATION MANAGEMENT PLANS AND BID/ PROCUREMENT DOCUMENTS (40%)		24,600,000.00
1.0	Proposed Conservation Management Plan	30%	
1.1	Conservation Methods		
1.1.1	General conservation approach		
1.1.2	Protective measures		
1.1.3	Context improvement		
1.1.4	Retrofitting and adaptive reuse		
1.1.5	Reconstruction plan for damaged and/or missing components		
1.1.6	Site development and other miscellaneous facilities essential for the total conservation plan		
1.2	Proposed Site Development		
1.3	Scaled, Labeled and Dimensioned 2-D Drawings		
2.0	Bid/ Procurement Documents	10%	
2.1	Scope of Work		
2.2	Detailed Unit Price Analysis (DUPA)		
2.3	Bill of Quantities		
2.4	Technical Specifications		
2.5	Structural Analysis and Computation		
2.6	Restoration Work Schedule		
	TOTAL	100%	61,500,000.00

See Annex 1 for the breakdown of amount per site.

IX. PAYMENT

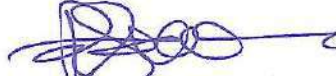
Progress payments (progress billing) will be periodical, upon submission of request for payment of work accomplished subject to acceptance by the TIEZA, and subject further to its obligations, accounting and auditing rules and regulations. Billing shall be as follows (refer to item V. Submittals and Project Duration of this TOR):

1. 15% upon signing of the Notice to Proceed (NTP) work order;
2. 15% upon acceptance of submittals as specified in item A.1;
3. 30% upon acceptance of submittals as specified in item A.2; and
4. 40% upon acceptance of the final submittals as specified in B.

X. INTELLECTUAL PROPERTY

The CONSULTANT hereby releases, and the TIEZA do accept, the absolute and unconditional right to reproduce, prepare deviate works, perform, and/or display the outputs within this TOR as applicable. The CONSULTANT does not hold any remaining rights in and to the outputs within this TOR and the unconditional ability to use and exploit the outputs without prior notice and written consent of the TIEZA.

Prepared by:



RADY E. ADAME

Manager

Project Planning & Design Division, TIEZA

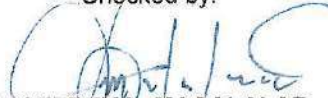


NOEL E. YAMBAO

Officer-in-Charge

Project Management Division, TIEZA

Checked by:



JEFFREY L. MACALALAD

Officer-in-Charge

Project Evaluation & Planning Department, TIEZA

Recommending Approval:



GREGORY A. OLLER

Assistant Chief Operating Officer

Architectural and Engineering Services Sector, TIEZA



OSCAR G. CASAYSAY

Executive Director, NCCA

Approved:



MARK T. LAPID

Chief Operating Officer, TIEZA

ANNEX 1

	SITES/STRUCTURE	DECLARATION	AMOUNT
1	Belfry of San Guillermo Cathedral (also known as Laoag Bell Tower), Laoag City	National Cultural Treasure	1,500,000.00
2	Belfry of Saint Andrew the Apostle Church (also known as Bacarra Church), Bacarra	National Cultural Treasure	1,500,000.00
3	Parish Church of Saint Monica (also known as Sarrat Church), Sarrat	Important Cultural Property	3,500,000.00
4	Old Convent and Parish Church of Saint Augustine (also known as Paoay Church), Paoay	World Heritage Site / National Historical Landmark	3,500,000.00
5	Cape Bojeador Lighthouse, Burgos	National Cultural Treasure / National Historical Landmark	2,000,000.00
6	San Nicolas de Tolentino Parish Church Complex (including the Santa Rosa Academy), San Nicolas	Important Cultural Property / Marked Structure	5,500,000.00
7	Minor Basilica of Saint John the Baptist (also known as Shrine of La Virgen Milagrosa de Badoc), Badoc	World Heritage Site / National Historical Landmark	3,500,000.00
8	Metropolitan Cathedral of the Conversion of Saint Paul the Apostle and Juan de Salcedo Monument, Vigan City	World Heritage Site	4,500,000.00
9	Arzobispado de Nueva Segovia and Escuela de Ninas (also known as Colegio Building), Vigan City	World Heritage Site	5,500,000.00
10	Belfry and Parish Church of St. Augustine (also known as Bantay Church), Bantay	National Cultural Treasure	5,000,000.00
11	Parish Church of Nuestra Senora de Esperanza, Caoayan	Historic Structure, Presumed Important Cultural Property	3,500,000.00
12	Parish Church of Saint John of Sahagun (also known as Candon Church), Candon City	Marked Structure, Presumed Important Cultural Property	3,500,000.00
13	Carino Ancestral House (also known as Candon Museum), Candon City	Important Cultural Property	2,000,000.00
14	Parish Church of Saint Stephen, San Esteban	Classified Historic Structure, Presumed Important Cultural Property	3,500,000.00
15	Parish Church of Santa Lucia, Santa Lucia	Historic Structure, Presumed Important Cultural Property	3,500,000.00
16	Parish Church of Saint Catherine of Alexandria (also known as Tayum Church), Tayum	National Cultural Treasure	3,500,000.00

ANNEX 1

17	Iglesia Filipina Independiente Church, La Paz	Registered Property, Presumed Important Cultural Property	2,000,000.00
18	Parish Church of Nuestra Senora de la Paz, La Paz	Classified Historic Structure, Presumed Important Cultural Property	2,000,000.00
19	San Lorenzo Ruiz de Manila Church (also known as Capilla de Camposanto de Bangued), Bangued	Classified Historic Structure, Presumed Important Cultural Property	2,000,000.00
Total			61,500,000.00