PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Procurement of Infrastructure Project

PURCHASE/INSTALLATION OF PAPI AT RUNWAY 13/31 AND AERODROME BEACON (ABN) AT CATBALOGAN AIRPORT

Government of the Republic of the Philippines

Bid No. 22-001-01 ALPHA

Sixth Edition
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Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender.* (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

Foreign-funded Procurement or Foreign-Assisted Project – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

GFI – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Invitation to Bid for

PURCHASE/INSTALLATION OF PAPI AT RUNWAY 13/31 AND AERODROME BEACON (ABN) AT CATBALOGAN AIRPORT Bid No. 22-001-01 ALPHA

1. The Civil Aviation Authority of the Philippines through the **GAA 2021/ DOTr Downloaded** Projects intends to apply the sum of **TWENTY-TWO MILLION FIVE HUNDRED TWENTY THOUSAND PESOS (PHP 22,520,000.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for **PURCHASE/INSTALLATION OF PAPI AT RUNWAY 13/31 AND AERODROME BEACON (ABN) AT CATBALOGAN AIRPORT (Bid No. 22-001-01 ALPHA).** Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The Civil Aviation Authority of the Philippines now invites bids for the above Procurement Project. Completion of the Works is required within **One Hundred Twenty (120) Calendar Days upon receipt of the NOTICE TO PROCEED.** Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Interested bidders may obtain further information from the Civil Aviation Authority of the Philippines and inspect the Bidding Documents at the address given below from Monday to Friday, 8:00 AM to 5:00 PM.

5. A complete set of Bidding Documents may be acquired by interested bidders on **January 04, 2022 until deadline of submission of bid** from the given address and website/s below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Php 28,000.00 (inclusive of 12% VAT).** The Procuring Entity shall allow the bidder to present its proof of payment for the fees by presenting the official receipt in person.

6. The Civil Aviation Authority of the Philippines will hold a Pre-Bid Conference[1] on **January 11, 2022 @ 2:00PM** at CAAP Conference Room, CAAP Compound, MIA Road Ninoy Aquino Avenue, 1300 Pasay City, and Metro and/or through videoconferencing/webcasting via Jitsi/Zoom/Google Meet, which shall be open to prospective bidders.

[1] May be deleted in case the ABC is less than One Million Pesos (PhP1, 000,000) where the Procuring Entity may not hold a pre-bid conference.

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before **January 25, 2022 @ 2:00PM**. Late bids shall not be accepted.

8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.

9. Bid opening shall be on 2:00 P.M. **January 25, 2022 @ 2:00PM** at the given address below and/or through Jitsi/Zoom/Google Meet. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. The Civil Aviation Authority of the Philippines reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

DR. ROLLY T. BAYABAN
Civil Aviation Authority of the Philippines
BAC Head Secretariat
MIA Road Pasay City
Telefax No. – (02) 7 944-2097
www.caap.gov.ph

12. Bidding Documents may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

January 04 2022

CAPTAIN DONALDO A. MENDOZA
Chairperson, Bids & Awards Committee

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, Civil Aviation Authority of the Philippines invites Bids for the **PURCHASE/INSTALLATION OF PAPI AT RUNWAY 13/31 AND AERODROME BEACON (ABN) AT CATBALOGAN AIRPORT** with Project Identification Number: **Bid No. _____**.

The Procurement Project (referred to herein as "Project") is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for GAA 2021 / DOTr Downloaded Projects in the amount of **TWENTY-TWO MILLION FIVE HUNDRED TWENTY THOUSAND PESOS (PHP 22,520,000.00).**

2.2. The source of funding is:

a. NGA, the General Appropriations Act or Special Appropriations/DOTr Downloaded Projects.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

7.1. Subcontracting is not allowed.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section X. Checklist of Technical and Financial Documents**.

10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.

10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section X. Checklist of Technical and Financial Documents**.

11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.

11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

14.2. *Payment of the contract price shall be made in:*

a. Philippine Pesos.

15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

15.2. The Bid and bid security shall be valid until ***[indicate date].*** Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid. Refer to BDS for additional instruction/s.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB.**

18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause	
3.0	**Certificate of Site Inspection** *(Annex "B" Form 1)* duly signed by **Airport Manager of Catbalogan Airport** or his/her duly authorized representative, is required to be submitted. This shall include all of the following documents as attachment to the Certificate of Site Inspection and shall form part of the bidder's technical documents: a) Copy of company ID of the person who conducted the site inspection; b) Copy of the airport/facility visitor's logbook appearing the names and signatures of inspectors & c) Picture of the proposed site including the personnel who conducted the site inspection together with the Airport Manager/Officer in Charge or his/her duly authorized representative. Bids not complying with the above instruction shall be disqualified.
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: **"Supply, Delivery, and Installation of Airfield Lighting System"**
7.1	Subcontracting is not allowed.
10.1	Bidder shall submit all eligibility and technical documents as specified in **Section X. Checklist of Technical and Financial Documents:** **Class "A" Documents** <u>Legal Documents</u> a. Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages); or b. Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document; and c. Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas; and d. Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR); and *In connection to GPPB Circular 07-2017 dated 31 July 2017, the bidder shall have the following options:* *1. Submit the Certificate of PhilGEPS Registration and Platinum Membership including its Annex "A" in lieu of the uploaded Class "A"*

Eligibility Documents identified in Section 8.5.2 of the Revised Implementing Rules and Regulations of Republic Act 9184 (Revised IRR of RA 9184), provided that all Class "A" Eligibility Documents listed under the aforesaid Annex "A" are all uploaded and maintained current and updated in the PhilGEPS Registry.

2. *Submit a combination of the PhilGEPS Registration and Platinum Membership including its Annex "A" and Class "A" Eligibility Documents identified in Section 8.5.2 of the Revised IRR of RA 9184.*
    - *In the event that aforesaid Class "A" Eligibility Document(s) listed in the Annex "A" of the PhilGEPS Registration and Platinum Membership is/are reflected to be outdated, the bidder shall submit such current and updated Class "A" Eligibility Document(s).*

3. *Submit all the Class "A" Eligibility Documents only, provided that the PhilGEPS Registration and Platinum Membership shall be submitted as a Post-Qualification requirement in accordance with Section 34.2 of the Revised IRR of RA 9184.*

<u>Technical Documents</u>

e. Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid. *(Annex "A" Form 1);* and

f. Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules. *(Annex "A" Form 2);* and

g. Philippine Contractors Accreditation Board (PCAB) License; or
Special PCAB License in case of Joint Ventures; and
registration for the type and cost of the contract to be bid; and
Joint Resolution *(Annex "A" Form 3)*; and

h. Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission; or
Original copy of Notarized Bid Securing Declaration *(Annex "B" Form 2);* and

i. Project Requirements, which shall include the following:

    1. Organizational chart for the contract to be bid *(Annex "B" Form 3)*; and

    2. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data *(Annex "B" Form 4, 5a, 5b & 5c)*; and

3. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be *(Annex "B" Form 6)*; and

j. Original duly signed Omnibus Sworn Statement (OSS) *(Annex "B" Form 7)*; and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder; and

This shall include all of the following documents as attachment to the Omnibus Sworn Statement:

1. Certification, under oath, attesting that they have no pending case(s) against the Government, in addition to the eligibility requirements as prescribe under the 2016 Revise Implementing Rules and Regulation (R-IRR) of RA No. 9184; and

2. Legal Clearance to be issued by the CAAP Enforcement and Legal Service with respect to the non-pending cases of the prospective bidders against this Authority; and

3. Bid Bulletins (if applicable); and

k. **Certificate of Site Inspection** *(Annex "B" Form 1)* duly signed by the **Airport Manager of Catbalogan Airport** or his duly authorized representative; and

This shall include all of the following documents as attachment to the Certificate of Site Inspection:

1. Copy of company ID of the person who conducted the site inspection; and

2. Copy of the airport/facility visitor's logbook appearing the names and signatures of inspectors &

3. Picture of the proposed site including the personnel who conducted the site inspection together with the Airport Manager/Officer in Charge or his duly authorized representative: and

<u>Financial Documents</u>

l. The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and

<table>
<tr><td></td><td>m. The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

n. If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence; or duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Bids not complying with the above instruction shall be disqualified.</td></tr>
<tr><td>10.3</td><td>Valid PCAB License or Special PCAB License in case of Joint Ventures, and Registration (Medium A Category B for Electro Mechanical Work and Navigational Facilities) for the type and cost of the contract to be bid.

Bids not complying with the above instruction shall be disqualified.</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:

<table><tr><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience</th></tr><tr><td>Project (Civil) Engineer
Electrical Engineer
Mechanical Engineer
Materials Engineer
Construction Foreman
Safety and Health Officer</td><td>Five (5) years in General Engineering</td><td>Three (3) years in the field of electro-mechanical/electrical works and airfield lighting system</td></tr></table>
Bids not complying with the above instruction shall be disqualified.</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table><tr><th>Equipment</th><th>Capacity</th><th>Number of Units</th></tr><tr><td>Bagger Concrete Mixer</td><td></td><td>Two (2) Unit</td></tr><tr><td>Elf Truck</td><td></td><td>One (1) Unit</td></tr><tr><td>Concrete Vibrator</td><td></td><td>Two (2) Units</td></tr><tr><td>Chain Block 5 Ton</td><td></td><td>Two (2) Units</td></tr><tr><td>Compactor</td><td></td><td>One (1) Unit</td></tr><tr><td>Fusion Machine</td><td></td><td>One (1) Unit</td></tr><tr><td>Bar Cutter</td><td></td><td>One (1) Unit</td></tr><tr><td>Welding Machine</td><td></td><td>One (1) Unit</td></tr><tr><td>DC 500V Insulation Resistance Tester</td><td></td><td>One (1) Unit</td></tr><tr><td>Fluke 101 Multi Tester</td><td></td><td>One (1) Unit</td></tr><tr><td>Hydraulic Crimping Tool</td><td></td><td>One (1) Unit</td></tr><tr><td>Material Handling Equipment</td><td></td><td>One (1)</td></tr></table>
Bids not complying with the above instruction shall be disqualified.</td></tr>
<tr><td>11.1.</td><td>The discounts stated in the Financial Bid Form shall be computer written with the same font style and size as of the whole text of the said Form.</td></tr>
</table>

	Discounts that are either handwritten, type written or computer written in other font style and size shall not be considered. The second bid envelope shall contain the financial documents for the Bid as specified in **Section X. Checklist of Technical and Financial Documents**. This shall include the complete accomplishment of all of the following documents as stated and required under Section VIII of this PBD and shall form part of the bidder's financial documents: a) Original of duly signed and accomplished Financial Bid Form; and b) Bill of Quantities *(Annex "C" Form 1)*; and c) Summary of Bid Proposal *(Annex "C" Form 2)*; and d) Bill of Materials & Cost Estimates *(Annex "C" Form 3)*; and e) Summary Sheet indicating the Unit Prices of Construction Materials, Labor Rates, and Equipment Rentals used in coming up with the Bid *(Annex "C" Form 4, 5 & 6)*; and f) Cash Flow by Quarter and Payment Schedule *(Annex "C" Form 7)* **Bids not complying with the above instruction shall be disqualified**.
11.2	Bid exceeding the ABC of the project shall be disqualified.
12	No further instructions.
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than two percent (2%) of ABC or **Php 450,400.00**, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than five percent (5%) of ABC or **Php 1,126,000.00)** if bid security is in Surety Bond.
16	1. Each and every page thereof shall be initialed/signed by the duly authorized representative/s of the Bidder. Submitted Eligibility, Technical and Financial documents shall be properly marked with index tabs (ear tab) and must be sequentially paginated in accurate order in the form i.e. "page 3 of 100". Page number of last page of the document (per envelope basis). Pagination should be sequential based on the entire span of the whole documents inside the envelope. Bids not complying with the above instructions shall be automatically disqualified. 2. Each Bidder shall submit one (1) original) copy of the first and second components of its bid. 3. Submission online is not allowed.

19.2	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	The Bidder with the Lowest Calculated Bid (LCB) that complies with and is responsive to all the requirements and conditions shall submit its a) Latest income and business tax returns filed through the Electronic Filing and Payment System (EFPS); b) Business licenses and permits required by law (Registration Certificate, Mayor's Permit, Tax Clearance & PCAB License); c) Latest Audited Financial Statements; and d) Key personnel licenses Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the bidder for award. Provided, that in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the Bid Security in accordance with Section 69 of the IRR of RA 9184.
21	The following relevant project documents are required to be submitted by the successful bidder who submitted the LCRB as part of the Contract Agreement during its signing: a) Construction schedule b) Bar Chart & S-curve c) PERT/CPM Network Diagram d) Manpower schedule e) Construction methods f) Equipment utilization schedule Construction safety & health programs approved by the Department of Labor & Employment **Purchase/Installation of PAPI at Runway 13/31 and Aerodrome Beacon (ABN) at Catbalogan Airport.**

Section IV. General Conditions of Contract

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. Possession of Site

3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC,** which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. Performance Security

5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.

5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

7. Warranty

7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.

7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC.**

11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC.** If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC.**

15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's

approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
2	Not applicable.
3.1	The **CIVIL AVIATION AUTHORITY OF THE PHILIPPINES** shall give possession of all parts of the Site to the Contractor upon receipt of the Notice to Proceed.
6	Certificate of Inspection signed by FIC or his/her representative.
7	One (1) year Defective Liability Period and one (1) year warranty.
10	No dayworks are applicable to the contract.
11.1	The contractor shall submit the program of work to the procuring entities' representative within seven (7) days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is Php 22,520,000.00
13	"No mobilization and advance payments will be extended or paid for all contracts/purchase orders for all goods, services and infrastructure projects. DOTr Memorandum dated 10 July 2018.
14	No further instructions.
15.1	The date by which operating and maintenance manuals are required is upon completion of the project The date by which "as built" drawings are required is upon completion of the project. PDF/AutoCAD File of the "as built" plans shall include as attachment to the required hard copy of the same upon completion of the project.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is **two percent (2.00%) of the Contract price.**

Section VI. Specifications and Scope of Work

Name of Project	:	**Purchase/Installation of PAPI at Runway 13/31 and Aerodrome Beacon (ABN) at CATBALOGAN Airport.**
Location	:	Catbalogan Airport
Duration	:	One Hundred Twenty (120) Calendar Days
Source of Funds	:	GAA 2021 / DOTr Downloaded Projects

SCOPE OF WORK

I. GENERAL REQUIREMENTS

1.0 GENERAL

a. *Provisions.* The provisions of General Requirements are applicable to some items of systems and are to be referred to in connection with Airfield lighting Specifications.

b. *Item of Work & Quantities.* The contractor, unless otherwise specified, shall furnish all labor, tools, equipment, materials, supplies, superintendence and other incidentals and shall perform all operations and maintenance work necessary to complete the work under the contract.

2.0 SCOPE OF WORKS

a. This Specification concerns the design (where applicable), manufacture and delivery to site, carrying out all works, installation, testing and commissioning at site, setting in operation and handing over in perfect operating and running condition.

b. Works shown on the Drawings and not mentioned or described in the Specification, and works described in the Specification and not shown on the Drawings shall be considered as included in this scope of works and their execution shall be deemed included in the Contract Price.

c. Any matter not provided in the Specification shall be determined through consultation between the CAAP and the Contractor

d. The specifications defines the requirement for the quality of materials and workmanship management for the satisfactory completion of the works under the contract.

e. These specifications shall be read in conjunction with the other contract documents. In case ambiguities or discrepancies, the Specifications shall have precedence over the Drawings and Bill of Quantities, but be override by the Condition of the Contract.

3.0 CODES AND STANDARDS

Characteristics of the airfield lighting shall, except when clearly indicated otherwise in the Specification, conform to the following ICAO Standards and Recommendations, Aerodrome Design Manual, Airport Services Manual, IEC International Standards and other related national or international regulations and agreements.

(a) ICAO Annex 14, Volume I - Aerodrome Design and Operations (Fourth Edition, July, 2004)

(b) Aerodrome Design Manual, Part 4 - Visual Aids, (Third Edition-1993)

(c) ICAO Aerodrome Design Manual, Part 5 Electrical Systems, (1st Edition-1993)

(d) ICAO Airport Services Manual Part 8 - Airport Operational Services

(e) Airport Service Manual, Part 9 - Airport Maintenance Practices (First Edition-1994)

(f) IEC International Standards (IEC-TC-97) regarding electrical installations for lighting and beaconing of aerodromes

Unless specified otherwise in this Specification, design, materials, manufacture and testing of all works shall comply with the following Standards and recommendations;

(a) IEC - International Electrotechnical Commission Publications

(b) ISO - International Organization for Standardization

(c) CIE - Commission Internationale de l'Eclairage (International Commission on Illumination)

(d) PEC - Philippine Electrical Code (Part 1 and Part 2)

(e) NSCP - National Structural Code of the Philippines

(f) ICEA - Insulated Cable Engineers Association, U.S.A

(g) IPCEA - International Power Cable Engineer's Association

(h) REA - Rural Electrification Administration Bulletin

(i) ANSI - American National Standard Institute Publications

(j) NEMA - National Electrical Manufacturer Association Publications

(k) ACI - American Concrete Institute Publications

Materials, devices and small parts may comply with the national and international authorized Standard prevalent in the country of manufacture. However, adequate modification shall be made for the point of interface with the facilities provided in accordance with Standards and regulations of PEC.

4.0 DESIGN AND MANUFACTURE

All equipment and materials to be provided under this Specification shall be installed on the Site and shall be capable of working continuously under following conditions.

Ambient temperature	Inside room 10ºC- 45ºC
	Outside 10ºC – 55ºC
Relative humidity	Inside room Max 95%
	Outside Max. 100%
Max. wind speed	60m/second

a. The Contractor shall submit the design documents to the CAAP for approval within twenty (20) days from the Commencement Date. The CAAP shall be advised if any change in design if found necessary after original approval is granted. The CAAP may require re-approval if they involve changes in concept, approach, quantity, size or weight, power requirements, performance.

b. The design documents shall include drawings of proposed structures, CCR capacity calculations, lamp wattage, number of lamp, intensity distribution diagrams and average intensity, cable size and voltage drop calculations.

c. Cubicles for electrical power distribution equipment shall be provided with proper ventilation grilles, and these ventilation grilles shall be designed to ensure rodents will not enter into the cubicles.

Not less than 30 days prior to the shipment of the related equipment or structures, two final draft copies of installation instructions, drawings and maintenance and operation manuals shall be submitted to the Engineer for approval

5.0 SPARE PARTS

General

a. The Contractor shall assure the availability of spare parts of the same type or substitutes of equal or better quality for at least ten (10) years after the issue of the Acceptance Certificate. The Bidder shall submit Certificate of after sales support for at least 10 years.
b. All such cases, containers, cable drums or other packages are liable to be opened for such examination as the Engineer may reasonably require, and all such opening and subsequent repacking shall be at the expense of the Contractor.

6.0 TOOLS / APPLIANCES AND MEASURING INSTRUMENT

6.1 General

a. Tools / Appliances and Measuring Instrument for normal maintenance shall be supplied by the Contractor as indicated in the Bill of Materials / Quantities.

b. Each tools and appliances shall be clearly marked with its size and/or purpose where necessary.

c. The tools and appliances with appropriate boxes shall be handed over to the Engineer prior to the issuance of the Taking-over Certificate.

d. The tools and appliances supplied shall not be used for erection purposes.

e. The scope of tools and devices for assembly and maintenance shall include all customary tools and devices and tools which are specially made and/or required for complete assembling, dismantling, adjustment and maintenance of all equipment.

6.2 Electrical Power Equipment

a. The electrical panels shall be of self-contained cubicle type, floor standing, with a full front face door, and/or rear access, with cable entry from the bottom.

b. Each electrical and power equipment shall be separated from another unit by a completely grounded steel plate, and high tension and low tension circuits shall also be separated by a completely grounded steel plate. The housing for the various components shall be constructed of fabricated steel.

c. Adequate ventilation shall be provided to enable the equipment to operate continuously under the local ambient temperature designated herein above, and the same time care should be taken into account of rodents.

d. Precautions shall be taken to prevent through hysteresis and eddy current loss.

e. All electrical equipment shall be provided with a suitable grounding terminal.

f. All electrical instruments and meters to be mounted on electrical panels shall be accurate to within ± 1.5%, flush-mounting type with dustproof cover measuring 80mm - 110mm square. Wherever necessary, instruments shall be provided with easily accessible zero adjuster.

g. All control panel wiring and secondary control wiring in circuit breakers, control gear and the like shall be made in a neat and systematic manner, with cables

supported clear of the panels and other surfaces at all points to obtain free circulation of air.

i. Wiring shall be color-coded as stated in PEC.
ii. All small wiring ends shall be marked or tagged to identify the circuit, voltage, current, fault circuit, etc.

h. The molded case circuit breakers (MCCB) shall be manually operated, trip free mechanism with electromagnetic or thermal-magnetic type tripping element.

i. Equipment shall be provided with lamps that indicate the stage of operation and a lamp test circuit shall be provided on the panel accordingly. Light emitting diode shall be adopted rather than filament lamp.

6.3 Grounding Systems/General

a. The light fittings, secondary cables and secondary wires of isolating transformers, electrical ducts and exterior lighting poles shall be grounded for lightning protection.

b. The grounding system shall be provided properly for safeguard to the person, equipment, light unit, and fitting etc.

c. The grounding of equipment, lights, poles and masts shall be made mechanically and electrically to ensure the continuous system, and shall be conductive.

d. The common grounding counterpoise wires of the grounding system and lightning system shall be used for light fitting and light units.

e. Connections between grounding rods and the grounding cables shall be welded exothermically. (i.e. Cad weld or its equivalent)

6.4 Common Grounding Wires

The lightning protection wires shall be installed above underground cables and power cables for linked circuits.

6.5 Grounding Wires

The grounding wires to be used in this work shall be manufactured and tested in accordance with the appropriate standards authorized in the country of manufacture or equivalent thereto.

6.6 Equipment

a. Common grounding wire shall be installed in the cable pit. The wire shall be connected to copper grounding plates, or rods and shall also be connected with the grounding terminal of equipment.

b. The copper grounding rods shall be installed underground to a depth of not less than 1.0 m. Grounding resistance of the system as a whole shall not exceed 5 ohms.

7.0 CIVIL WORKS / SITE WORKS

7.1 General

a. This work shall be applied for the installation of mounting light bases, manholes, foundations, concrete base for cubicle/panel and outdoor cable trench.
b. Foundations for equipment shall be sufficient size and thickness as recommended by the equipment manufacturer.

7.2 Excavation and Backfill Work

a. The depth and width of excavation shall be minimum for the installation of above facilities. The bottom plane of excavation shall be flat.

b. Excavated material may be used for backfill provided it is free of stones and other objects that can cause cable damage. Backfilling shall be put in horizontal layers not to exceed every 250mm in depth, and shall be compacted to the satisfaction of the Engineer.

c. The backfill of the trenches shall be in accordance with the specifications of ICAO Aerodrome Design Manual Part 5- Electrical Systems.

d. The cables in the trenches shall be carefully laid over 100mm of sand cushion, on top of the cables another 100mm of sand layer shall be added before backfilling. To secure proper spacing horizontally and vertically adequate jigs shall be used during cable laying.

8.0 TESTS AND INSPECTION

8.1 Scope of Testing

a. The Contractor shall perform all the test activities specified in this Section.

b. The Contractor shall prepare and submit, at least thirty (30) days prior to any test carried out by the Contractor, two sets of detailed test procedures and schedules to the CAAP for consideration and approval. Test procedures shall be comprehensive and shall demonstrate equipment hardware compliance with all the requirements of this Specification.

c. The entire work to be executed by the Contractor is subject to inspection and tests by the CAAP during installation and on completion at the Site, but the approval of the CAAP or the passing of any such inspection or test shall not, however, prejudice the right to reject the items or equipment if they do not comply with the Specification when installed.

d. Tests shall include the following:
    1. Tests at factory by the Contractor/Manufacturer
    2. Tests at the Site during construction
    3. Commissioning Tests
    4. Reliability Tests
    5. Other tests

e. The Contractor should carry out and submit the test documents according to the following Table 1

TABLE – 1. Test Items for Airfield Light Fittings

Test Item / Detail	1	2	3	Standard
Composition Test (Quality)	o			Approved Shop Drawings
Appearance & Structure Test	o		o	-do-
Dimensional Test	o			-do-
Photometric Test	o			-do-
Waterproof Test	o			FAA/ICAO spec.
Alignment Test		o	o	Document for Test and Inspection
Operation Test		o	o	-do-

Notes:
1) Test at factory by the Contractor/Manufacturer.
2) Test at the Site during construction.
3) Commissioning test.

TABLE - 2. Test Items for Constant Current Regulator

Test Item / Detail		1	2	3	Standard
Composition Test (Quality)		o		o	Approved Shop Drawings
Appearance & Structure Test		o			-do-
Dimensional Test		o			-do-
Photometric Test		o			-do-
Operation Test	1) Transitional Response Test	o			-do-
	2)Soft-starting Test	o			-do-
	3) Brilliancy Tap Changing-over Test	o	o	o	-do-
	4) Protective Device Test	o	o	o	-do-
	5)Overall Operational Test	o	o	o	-do-
Insulation Resistance Test		o	o	o	FAA / ICAO Spec.
Dielectric Test		o			-do-

Notes:

1) Test at factory by the Contractor himself.
2) Test at the Site during construction.
3) Commissioning test.

Test Item / Detail	1	2	3	Standard
Composition Test (Quality)	o			Approved Shop Drawings
Appearance & Structure Test	o		o	-do-
Dimensional Test	o			-do-

TABLE - 3. Test Items for Control Equipment

Insulation Resistance Test	o		o	-do-
Operation Test	o	o	o	FAA/ICAO specs.
Dielectric Test	o			-do-

Notes:

1) Test at factory by the Contractor himself.
2) Test at the Site during construction.
3) Commissioning test.

8.2 Documents for Tests and Inspection

1) Before execution of test and inspection, the Contractor shall prepare and submit the following documents to the Engineer for his approval:

   a. Complete description in writing about procedure of tests at Site.
   b. Complete description in writing about procedure of commissioning tests at the Site.

2) Certified reading and data of all tests to be carried out by the Contractor shall be submitted to the Engineer from time upon completion of each test and the Contractor shall prepare additional four (4) copies of complete set of these test data bound in book form for submission at the time of the commissioning test.

8.3 Test at Site during Construction

During the course of installation, the Engineer shall have full right for making tests and inspection for the work, as he may deem necessary always with the participation of the Employer's personnel in all tests at Site if so requested by CAAP for the purpose of on-the-job training. In this case, the Contractor may have part of the tests conducted by such personnel but shall assume final responsibilities for test results.

(1) Commissioning Tests

a. Commissioning tests of the system shall be carried out after it has been installed and tested. No commissioning test shall be commenced without prior approval of the Engineer to the schedule and procedure which are to be followed. At least five (5) working days' notice of the Contractor's readiness to start each site test shall be given to the Engineer.

b. The contractor shall conduct the commissioning tests which, however, shall be carried out under the direction of the Engineer.

(2) Reliability Tests

a. When the Contractor considers that the installations are ready for commercial service, the Engineer shall be notified accordingly after the commissioning tests. When the Engineer agrees that the Works are ready for commercial service, each system will be required to operate under the working conditions, either continuously or intermittently as may be convenient, without failure or interruption of any kind for a period of not less than five (5) days.

b. The system shall be operated by the Employer's staff during the reliability test period, but the Contractor will be allowed to make any minor adjustment which may be necessary, provided that such adjustments do not in any way interfere with, or prevent commercial use by the Employer.

(3) Other Test

The Contractor shall carry out any test other than specified hereinabove wherever so required by the CAAP. All tests shall be carried out in the presence of the CAAP.

(4) Retest

Should the systems or any portion thereof fail under test to give the performance required, then any further test(s) which may be considered necessary by the CAAP shall be carried out in a similar manner, but the whole cost of the repeated test(s) shall be borne by the Contractor.

(5) Rejection

In any item fails to comply with the requirements specified in the Specification in any respect whatsoever at any stage of manufacture, test, erection or on final completion, the CAAP may reject the item or defective component thereof, whichever is considered necessary, and after adjustment or modification as directed by the CAAP, the Contractor shall submit the item for further inspection and/or test. In the event of the defect of any item being of such a nature that the requirements in the Specification cannot be fulfilled by adjustment or modification, such item is to be replaced by the Contractor at his own expense, to the entire satisfaction of the CAAP.

9.0 OPERATION AND MAINTENANCE MANUALS

Three (3) sets of Complete Operation and Maintenance Manuals in English shall be submitted to the CAAP not later than five (5) days before any site testing and commissioning.

10.0 CABLE WORKS

10.1 General

a. Airfield lighting power and control cables shall be installed in ducts, conduit or trench. Counterpoise wire and underground cable marker sheet shall be installed on top of the trench of cable ducts and underground cable.

b. The cable conductor size in the Specification and on the Drawings is given in mm or in mm^2.

c. The following information shall be marked repeatedly on suitable part of the cable.

i. Manufacturer's Name and/or Trademark

ii. Size of Stranded Conductor Cross Section (for 5KV)

iii. Voltage Rating

d. Cable length per cable drum shall be less than 2,000 meter, and a total weight of cable and drum shall be less than 5 tons, for easy transportation. The Contractor shall submit AFL power cable length list to the CAAP for approval before manufacturing.

e. Where cable end projects from a drum they shall be adequately protected to prevent damage during handling and transportation, and a thick PVC wrapper (cap) shall be placed over the cable to prevent the ingress of dirt, dust and grit, etc.

f. Each drum shall bear a distinguishing number which is branded with hot iron or neatly chiseled on the outside of one flange. Painted markings shall not be accepted.

g. Particulars of the cable, i.e. type of cable, rated voltage, length, conductor size, number of cores, gross and net weights, as well as position of cable end, manufacturer's name and year and a month of manufacturer shall be clearly shown on the drum. The direction of rolling shall be indicated by an arrow.

10.2 Underground Series Circuit Cable (5KV, $8mm^2$-single core)

a. Airfield lighting power cable shall be manufactured in accordance with ICAO Specifications.

b. High voltage series circuit cables to be used in the Works shall be $8mm^2$ single conductor, cross-linked polyethylene (XLPE) insulated or ethylene-polypropylene rubber insulated (EPR), polyvinyl-chloride or polychloroprene sheathed cables as follows:

TABLE - 4. Cable Details (1)

Voltage Rating		kV	5
No. of Conductor		-	1
Conductor	Nominal area	mm^2	8
	No. and dia. of wires	No./mm	7/1.2
	Outside dia.	mm	3.6
EP Rubber Insulation Thickness		mm	4.0
Polychloroprene Sheath Thickness		mm	1.8
Outside Dia. of Sheath		mm	13.5
AC Test Voltage (for 10 minutes)		kV	17
Insulation Resistance per 1000 m (20) min.		meg ohm	900
Conductor Resistance per 1000 m (20) max		Ohm	2.41

c. The cable conductor will be tin or lead-alloy coated annealed stranded copper wires.

d. The average thickness of the insulation and sheath shall not be less than 90% of the value given in Table 5. The minimum thickness of the insulation and sheath at any point shall be not less than 80% of the specified value.

10.3 Extension Cables-Secondary (600V, 2 PNCT Cable) and Wires to the Light Fitting

a. The extension cable between the isolating transformer and light fitting shall be 4.0 mm^2 double-conductors, ethylene-polypropylene rubber insulated, polychloroprene sheathed portable cable. 2 PNCT Cable shall be manufactured in accordance with JIS-C 3327.

TABLE - 5. Cable Details (2)

Voltage Rating		V	600
No. of Cores		-	2
Conductor	Nominal cross-sectional area	mm^2	8
	Composition and No. of wires	mm	45/0.32
	Outside dia.	mm	2.5
Thickness of Separator		mm	0.05

Thickness of Insulation	mm	0.8
Cabling Dia., approx.	mm	8.4
Thickness of Sheath	mm	1.9
Overall Dia. Of Cable, approx.	mm	12.5
Weight of Cable per 1000 m, approx.	Kg	245
Conductor Resistance per 1000 m (20 ºC) max.	Ohm	5.54
AC Withstand Voltage for 1 minute	kV	3.0
Insulation Resistance for 1000 m (20ºC) min	Meg ohm	400

b. The secondary cables shall be provided either with a factory molded receptacle or factory molded plug, depending upon their location.

10.4 Plugs and Receptacles

a. Plugs and receptacles for the 5kV and 3kV single-conductor cables shall be designated for 25A current, and for the 600V, two-conductor cables for 20A.

b. The plug and receptacle shall be water tight and will withstand continuous use under the designed ambient temperature range. The connector plug and receptacle shall resist a pulling force equal to a static weight of 5 kg without becoming disconnected. All plugs and receptacles shall be identical and of uniform manufacture.

c. Plug and receptacles shall be manufactured in accordance with ICAO Standard.

d. The receptacle and the plug shall be factory molded on the cable end.

10.5 Isolating Transformers

a. The types and characteristics of the isolating transformer to be supplied shall be as shown in Table 6.
b. All isolating transformers shall be suitable for use on series circuits with a current of 6.6 amperes

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TABLE - 6. Isolating Transformer

Characteristics	45 watt	100 watt	200 watt	300 watt	Remarks
Primary Current (A)	6.6	6.6	6.6	6.6	100% load
Secondary Current (A)	6.53-67	6.53-67	6.53-67	6.53-67	
Secondary Current (A)	6.6-7.1	6.6-7.1	6.6-7.1	6.6-7.1	Short Circuit
Primary Power Factor (%)	Min. 95	Min. 95	Min. 95	Min. 95	100% load
Efficiency (%)	Min.85	Min.85	Min.90	Min.91	100% load
Primary Voltage Regulation (%)	Max.90	Max.80	Max.80	Max.80	Open Circuit
Frequency	60 Hz	60 Hz	60 Hz	60 Hz	
Rated Voltage	3000V	5000V	5000V	5000V	

c. All isolating transformers shall be completely waterproof, shall withstand continuous use under the designated ambient temperatures and shall be suitable for burying in the ground or setting in transformer boxes, as required. Each transformer shall be completely sealed together with the lead cable joints, in black vulcanized rubber with polychloroprene sheathing of 7 mm or more in thickness to ensure water tightness.
d. Two primary lead cables and one secondary lead cable shall be attached to the isolating transformer.
e. The primary lead cables shall be 340mm +/- 30mm in length, single cored, 8 mm^2 PN cables, the one with a receptacle and the other with a plug. The receptacle and the plug shall be factory molded.
f. The secondary lead cable shall be of 600V 2 x 3.5 mm^2 2 PNCT, 1100 mm +/- 50 mm in length in principle, and provided with a factory-molded receptacle. Isolating transformers shall show rating information. The Contractor shall examine necessary length of the secondary lead cable in consideration of the overall height of light.
g. Isolating transformer shall be manufactured in accordance with ICAO Standard.

10.6 Power and Control Cables

a. All power cables of parallel circuit, as well as all control cables to be used in the Works shall be manufactured in accordance with the following standards:

IEC - International Electrotechnical Commission

JIS - Japan Industrial Standard

JCS - Japanese Cable Makers Association Standards

ICEA - Insulated Cable Engineers Association, U.S. A

PEC - Philippine Electrical Code

b. All power cables, except where otherwise specified, shall be cross-linked polyethylene (XLPE) insulated and polyvinyl-chloride sheathed cables.

c. All control cables, except where otherwise specified, shall be polyvinyl-chloride insulated, polyvinyl-chloride sheathed control cables.

10.7 Bare Copper Wire (Counterpoise Wires)

a. Bare copper wires for counterpoise installations shall be stranded or PVC insulated wire with a minimum size of 14mm^2. Preference will be given to 600 V polyvinyl-chloride insulated wires for long service life.

b. The grounding wires to be used in this work shall be manufactured and tested in accordance with the appropriate Standards authorized in the country of manufacture or equivalent.

10.8 Series Circuit Cable Joint

a. All joints of the series circuit cables including their extensions, as well as joints with lead cables of the isolating transformer shall be made by means of the plug and the receptacle factory-molded on cable ends.

b. Prior to joining, the plug and the receptacle shall be thoroughly cleaned to be free from greases, dust, etc.

c. Unless otherwise specified, all plug joints shall be protected by 4 layers of self-bonding tape, topped by 3 layers of PVC tape, with the exception of all connections with the secondary lead cable of the isolating transformer, whose receptacle shall be joined to the plug of the light fittings by means of a clamp.

10.9 Power and Control Cable Joint

a. Joints and terminations of the power cable and control cables shall be executed in a manner to be approved by the CAAP. For the sake of easy access for maintenance, in principle all joints shall be made in the manholes or hand-holes.

b. The Contractor submit joining point location plan for the CAAP approval within twenty (20) days from the Commencement Date.

c. Full details of jointing materials shall be submitted to the CAAP for written approval, before shipment.

10.10 Installation

a. The approximate routes of the cables are shown on the Drawings. Actual laying positions of the cable ducts and of cable supports shall be determined with due regard to any obstacles that might exist as well as to accessibility of all such routes, subject to the approval of the CAAP prior to the installation.

b. PVC conduit ducts with concrete encasement and steel reinforced shall be used where cables are installed under the pavement area. Where crossing runways, taxiways, roads or aprons those underground cables shall be protected with ducts.

c. The series circuit cables, power cables, control cables and cables of radio navigational aids and communications shall be allocated separate duct conduit.

d. When the supply and return circuits of a series circuit are routed together, the cables for both directions shall be laid in the same duct pipe. However, when one lighting system receives its power supply through 2 circuits, the cables for each circuit shall be laid in separate conduit.

e. All cables shall be buried at least 600 mm below finished graded except for transformer secondary cable.

f. Minimum spacing between underground cables to be maintained:

Between same voltages	60mm
Between 6 kV cables and 600 V cables	150mm
Between 6 kV cables and light-current cables	300mm
Between 5 kV cables and 600 V cables	150mm
Between 5 kV cables and light-current cables	300mm
Between 6 kV cables and light-current cables	300mm

g. Each underground cable shall bear cable identification circuit markers for non-corrodible materials, as directed by the CAAP. Cable installation shall be in accordance with the specification of L-824 cable.

10.11 Grounding System

a. A stranded bare copper wire 14 mm^2 minimum size shall be installed for lightning protection of the underground cables in trenches.
b. The copper wire shall be installed in the same trench for the entire length of the insulated cables; it shall be placed at a depth of approximately 300 mm or as indicated in the drawing above the insulated cables.

c. The grounding rods shall be installed not more than 300 m apart around the entire cable length. The grounding rods shall be made of copper clad steel, coupled type, 3.0m length 19mm in diameter. The grounding resistance as a whole shall be less than 5 ohms. The grounding resistance of each electrode shall be not more than 20 ohms.
d. The grounding rod shall be installed not more than 750 mm in depth at the upper portion of the rod.

11.0 MAINTENANCE AND REPAIR SERVICES

11.1 Services To Be Provided

a. The contractor shall be responsible for providing full maintenance and repair services for all the works for the duration of the Defects Liability Period and for a further 12 months period after the issue of the Defect Liability Certificate (the total period to be hereinafter known as the Maintenance and Repair Period).
b. The Maintenance and repair services shall include:

    i. Regular routine maintenance and inspection procedures at intervals detailed in the relevant Operation and Maintenance Manuals.
    ii. The provision of all consumables, lubricants, spares parts and replacement parts.
    iii. Repair services including an emergency repair capability within 12 hours of a call out from the CAAP (personnel will be designated in the future for this purpose)

c. The Contractor shall remain responsible for the effective and efficient performance of the maintenance and repair services throughout the Maintenance and Repair Period and costs thereof shall be understood to be included in the respective rates of the Bill of Quantities.
d. The maintenance and repair services are to be carried out by the Contractor or by an officially established and locally presented organization under the Contractor's responsibility, certified as being capable and authorized to provide such Services by the Contractor and the manufacturer of particular items of Plant, system or part of the Works concerned. Maintenance or repair work carried out by such an organization shall not be invalidate or in any way affect any the Contractor's express or implied guarantees or warranties for the Works.
e. The maintenance and repair services should, as far as is practical, be carried out in the presence of the CAAP personnel to serve as ongoing operational and maintenance training.

II. PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEM

1.0 Scope of Work

This work includes the supply and installation of New PAPI system including Primary Airfield Lighting Cables, Grounding cables, Constant Current Regulator, Remote Control Box, excavation, sand bedding, backfilling & ancillaries to complete the work.

2.0 Lighting System

a. Precision Approach Path Indicator (PAPI) System for Runway 13 and Runway 31 shall comprise a total of four (4) light units placed at left side of the runway and right angles to the runway center line.

b. Each light beam angle of elevation setting for 3 degree PAPI approach slope shall be 2º30', 2º50', 3º10, 3º30' respectively for both runway 13-31.

3.0 Light Units

a. Each unit shall contain three (3) high intensity tungsten halogen lamps 6.6A 200W., 1,000 hours average rated life and shall comprise a aluminum plate housing containing the optical projectors, filters, lamps, lead cables, etc. with an adjustable positioning frame and four (4) FAA mounting legs with adjustable sleeve and frangible coupling to give an adjustment in lateral, transversal, horizontal and elevation angle.

b. The color transition from red to white in the vertical plane shall be such as to appear to an observer at a distance to occur up to vertical angle of not more than 3 minutes.

c. The light distribution of each unit shall be in accordance with the specification of Appendix 2, Figure 2, 23 of ICAO Annex 14.

d. The intensity of the completely red beam immediately below the transition sector shall not be less than 15% of the intensity of the completely white beam immediately above the transition sector.

e. The light unit housing shall be guaranteed against distortion due to sun or other climatic conditions prevailing on the site.

f. Each light unit and supporting pipe shall be of lightweight, frangible construction suitable for concrete mounting base and shall be sufficient strength to withstand aircraft engine blast.

g. Exterior finished color of light units shall be yellow.

4.0 Installation

a. Each light unit shall be installed on top of concrete mounting base using a breakable coupling on aluminum frangible pipe.

b. Four (4) light units shall be in the level when checked by precision level meter and electronic survey equipment.

c. Exact position of light units to be installed shall be subject to the approval of the Engineer. Prior to erecting the concrete base, the Contractor shall place temporary markings to identify the actual installation positions of the light units determined by him through detailed site survey, against the corresponding positions indicated on the Drawings, and shall notify the Engineer accordingly.

d. In azimuth the axis of the beams of all light units shall be parallel with the center line of the runway.

5.0 Isolating Transformer

A rubber-molded isolating transformer for the Precision Approach Path Indicator shall be installed in the transformer box.

6.0 Power Supply System

The Precision Approach Path Indicator System to be installed at Runway 13 and Runway 31 shall be supplied with power from the AGL Power Substation respectively, by means of constant current high voltage series loop circuit of 6.6 amperes at 100% brilliance. Both PAPI systems shall be fed through the 5 KVA CCR, 230 Volt, 60 Hz, Single Phase with Circuit Selector for alternate operation.

The CCR and Circuit Selector shall be located to the Powerhouse and primary series cables shall be installed from the powerhouse to the new PAPI units.

7.0 Brilliancy Control

The Precision Approach Path Indicator System shall be controlled in five (5) brilliancy steps of 100%, 25%, 5%, 1% and 0.2% of the full brilliance, by means of Remote-Control Panel installed at ATC Controller at Tower.

8.0 Spare Parts

The Contractor shall assure the availability of spare parts of the same type or substitutes of equal or better quality for at least **ten (10) years** after the issue of the Acceptance Certificate.

9.0 Civil Works (Site)

General

a. This work shall be applied for the installation of mounting light bases, foundations, and outdoor cable trench.

b. Foundations for equipment shall be sufficient size and thickness as recommended by the equipment manufacturer.

10.0 Excavation and Backfill Work

a. The depth and width of excavation shall be minimum for the installation of above facilities. The bottom plane of excavation shall be flat.

b. Excavated material may be used for backfill provided it is free of stones and other objects that can cause cable damage. Backfilling shall be put in horizontal layers not to exceed every 250mm in depth, and shall be compacted to the satisfaction of the Engineer.

c. The backfill of the trenches shall be in accordance with the specifications of ICAO Aerodrome Design Manual Part 5- Electrical Systems.

d. The cables in the trenches shall be carefully laid over 100mm of sand cushion, on top of the cables another 100mm of sand layer shall be added before backfilling. Detectable Caution Tape 150mm width with legend Electric cable below shall be installed on top of the sand bedding.

11.0 Test and Inspection

11.1 Scope of Testing

a. The Contractor shall perform all the test activities specified in this Section.

b. The Contractor shall prepare and submit, at **least Five (5) days** prior to any test carried out by the Contractor, two sets of detailed test procedures and schedules to the CAAP for consideration and approval. Test procedures shall be comprehensive and shall demonstrate equipment hardware compliance with all the requirements of this Specification.

c. The entire work to be executed by the Contractor is subject to inspection and tests by the CAAP during installation and on completion at the Site, but the approval of the CAAP or the passing of any such inspection or test shall not, however, prejudice the right to reject the items or equipment if they do not comply with the Specification when installed.

11.2 Documents for Tests and Inspection

a. Before execution of test and inspection, the Contractor shall prepare and submit the following documents to the Engineer for his approval:

   i. Complete description in writing about procedure of tests at Site.

   ii. Complete description in writing about procedure of commissioning tests at the Site.

b. Certified reading and data of all tests to be carried out by the Contractor shall be submitted to the Engineer from time upon completion of each test and the Contractor shall prepare additional four (4) copies of complete set of these test data bound in book form for submission at the time of the commissioning test.

12.0 Test at Site during Construction

During the course of installation, the Engineer shall have full right for making tests and inspection for the work, as he may deem necessary always with the participation of the Employer's personnel in all tests at Site if so, requested by CAAP for the purpose of on-the-job training. In this case, the Contractor may have part of the tests conducted by such personnel but shall assume final responsibilities for test results.

13.0 Commissioning Tests

a. Commissioning tests of the system shall be carried out after it has been installed and tested. No commissioning test shall be commenced without prior approval of the Engineer to the schedule and procedure which are to be followed. At least five (5) working days' notice of the Contractor's readiness to start each site test shall be given to the Engineer.

b. The contractor shall conduct the commissioning tests which, however, shall be carried out under the direction of the Engineer.

14.0 Reliability Tests

a. When the Contractor considers that the installations are ready for commercial service, the Engineer shall be notified accordingly after the commissioning tests. When the Engineer agrees that the Works are ready for commercial service, each system will be required to operate under the working conditions, either continuously or intermittently as may be convenient, without failure or interruption of any kind for a period of not less than Three (3) days.

b. The system shall be operated by the Employer's staff during the reliability test period, but the Contractor will be allowed to make any minor adjustment which may be necessary, provided that such adjustments do not in any way interfere with, or prevent commercial use by the Employer.

15.0 Other Test

a. The Contractor shall carry out any test other than specified herein above wherever so required by the CAAP. All tests shall be carried out in the presence of the CAAP.

b. Cost of Flight Check shall be borne by CAAP; However, the contractor shall provide assistance during flight check.

16.0 Retest

Should the systems or any portion thereof fail under test to give the performance required, then any further test(s) which may be considered necessary by the CAAP shall be carried out in a similar manner, but the whole cost of the repeated test(s) shall be borne by the Contractor.

17. Rejection

In any item fails to comply with the requirements specified in the Specification in any respect whatsoever at any stage of manufacture, test, erection or on final completion, the CAAP may reject the item or defective component thereof, whichever is considered necessary, and after adjustment or modification as directed by the CAAP, the Contractor shall submit the item for further inspection and/or test. In the event of the defect of any item being of such a nature that the requirements in the Specification cannot be fulfilled by adjustment or modification, such item is to be replaced by the Contractor at his own expense, to the entire satisfaction of the CAAP.

18.0 Operation and Maintenance Manual

Three (3) sets of Complete Operation and Maintenance Manuals in English shall be submitted to the CAAP not later than five (5) days before any site testing and commissioning.

19.0 Cable Works

General

a. Airfield lighting power and control cables shall be installed in ducts, conduit or trench. Counterpoise wire and underground cable marker sheet shall be installed on top of the trench of cable ducts and underground cable.

b. The cable conductor size in the Specification and on the Drawings are given in mm or in mm2.

c. The following information shall be marked repeatedly on suitable part of the cable.

   i. Manufacturer's Name and/or Trademark

   ii. Size of Stranded Conductor Cross Section (for 5KV)

   iii. Voltage Rating

d. Cable length per cable drum shall be less than 2,000 meter, and a total weight of cable and drum shall be less than 5 tons, for easy transportation. The Contractor shall submit AFL power cable length list to the CAAP for approval before manufacturing.

e. Where cable end projects from a drum they shall be adequately protected to prevent damage during handling and transportation, and a thick PVC wrapper (cap) shall be placed over the cable to prevent the ingress of dirt, dust and grit, etc.

f. Each drum shall bear a distinguishing number which is branded with hot iron or neatly chiseled on the outside of one flange. Painted markings shall not be accepted.

g. Particulars of the cable, i.e type of cable, rated voltage, length, conductor size, number of cores, gross and net weights, as well as position of cable end, manufacturer's name and year and a month of manufacturer shall be clearly shown on the drum. The direction of rolling shall be indicated by an arrow.

20.0 Bare Copper Wire (Counterpoise Wires)

a. Bare copper wires for counterpoise installations shall be stranded or PVC insulated wire with a minimum size of 14mm2.

b. The grounding wires to be used in this work shall be manufactured and tested in accordance with the appropriate Standards authorized in the country of manufacture or equivalent.

21.0 Power and Control Cable Joint

a. Joints and terminations of the power cable and control cables shall be executed in a manner to be approved by the CAAP. For the sake of easy access for maintenance, in principle all joints shall be made in the manholes or hand-holes.

b. The Contractor submit joining point location plan for the CAAP approval within twenty (20) days from the Commencement Date.

c. Full details of jointing materials shall be submitted to the CAAP for written approval, before shipment.

22.0 Installation

a. The approximate routes of the cables are shown on the Drawings. Actual laying positions of the cable ducts and of cable supports shall be determined with due regard to any obstacles that might exist as well as to accessibility of all such routes, subject to the approval of the CAAP prior to the installation.

b. The series circuit cables, power cables, control cables and cables of radio navigational aids and communications shall be allocated separate duct pipes.

c. All cables shall be buried at least 600 mm below finished graded.

d. Minimum spacing between underground cables to be maintained:

Between same voltages	60mm
Between 6 kV cables and 600 V cables	150mm
Between 6 kV cables and light-current cables	300mm
Between 5 kV cables and 600 V cables	150mm
Between 5 kV cables and light-current cables	300mm
Between 6 kV cables and light-current cables	300mm

e. Each underground cable shall bear cable identification circuit markers for a non-corrodible material, as directed by the CAAP.

23.0 Grounding System

a. A stranded bare copper wire 14 mm^2 minimum size, shall be installed for lightning protection of the underground cables in trenches.

b. The copper wire shall be installed in the same trench for the entire length of the insulated cables; it shall be placed at a depth of approximately 300 mm or as indicated in the drawing above the insulated cables.

c. The grounding rods shall be installed not more than 300 m apart around the entire cable length. The grounding rods shall be made of copper clad steel, coupled type, 3.0m length 19mm in diameter. The grounding resistance as a whole shall be less than 10 ohms. The grounding resistance of each electrode shall be not more than 20 ohms.

III. AERODROME BEACON (ABN)

1.0 Scope

This work includes the supply and installation of the Aerodrome Beacon Lights (ABN).

2.0 Lighting System

a. The Aerodrome Beacon shall show aviation green flashes alternating with white flashes with the light distribution of intensity as specified in 5.3.3.6 and 5.3.3.7 of ICAO Annex 14. The frequency of total flashes shall be from 20 to 30 per minute.
b. The effective intensity of the flash of the main beam shall be not less than 2,000 candelas.
c. The Aerodrome Beacon shall not give glare to pilots of aircraft in flight, and to aerodrome controllers in the VFR room of the control tower. If necessary, adequate louver, shield, cover and screens in significant directions shall be provided to prevent glare.

3.0 Light Fitting

a. The Aerodrome Beacon shall consist of two main assemblies:
    i. An upper part with a rotating shaft equipped with two sets of white & green filters, four (4) x high intensity 1000 watts lamps (two regular lamps & two standby lamps).
    ii. A base part with motor, gear assembly, control unit electrical connections.
b. The two standby (back-up) lamps are used as back-up which shall be automatically exchanged / energized when regular lamp fails.
c. An obstacle light conforming to L-810, 100 watts, 230 VAC shall be provided with the Beacon and shall be installed and automatically lighted when the regular lamp fails.

d. The lantern housing shall be made of aluminum alloy and shall contain the optical system, color filter mounting assembly, aviation green filter, double lamp holder and changing mechanism.

e. The base housing shall be made of aluminum alloy or fiberglass reinforced plastic construction, coated in aviation orange, completely weatherproof, including slip rings, induction motor, reduction gear box assembly, and incoming cable terminal board incorporating main switch, motor fuse, etc.

4.0 Installation

a. The Beacon shall be mounted on the supporting structure on the concrete base located on the roof of the Control Tower.

b. A power cable shall be laid vertically along cable ladder and cable rack inside of Control Tower Building.

c. Exact position of Beacon to be installed shall be subject to the approval of the CAAP.

5.0 Power Supply System

The beacon shall be supplied with a single phase 3-wire,

230-volt, 60 Hz and shall be remotely controlled at the AGL *(Airfield Ground Lights)* control Panel at the Tower Cab.

Technical Specifications

Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of **ITB** Clause and/or **GCC** Clause.

The Bidder shall also indicate the appropriate reference section including its page number in documents submitted to support the compliance statement indicated in the table of Technical Specifications. The Bidder shall indicate "Will Supply" if items required are to be supplied by the Bidder with corresponding prices indicated in the Financial Proposal

Item No.	Specification	Statement of Compliance	Reference to support statement (also INDICATE PAGE No.)
I	**PRECISION APPROACH PATH INDICATOR (PAPI)** **(Pilot & Co-pilot at Runway 09/27)**		
	PAPI Light units complete with fittings accessories and : * Three (3) x200W, 6.6A pre-focus halogen lamp 1000hrs ave. rated life hours at full intensity. * Three (3) IsolationTransformer,200W, 6.6A/6.6A, 5KV 60 Hz, DEB, with earthing terminal. * Three (3) x core flexible cables fitted w/ molded two pole plug. * One (1) hardened heat resistant clear front glass to protect the lenses. * Three (3) x Red Filters. * Four (4) x legs fitted with differential setting sleeve. * Four (4) x Aluminum anchoring legs with breakable couplings mounted on flange and anchor bolts.		
	Hot-dipped galvanized light base transformer housing L-867B (12") complete with the following: * Base plate cover with O-ring gasket. * Stainless Steel bolts & washers. * Internal and external earthing lugs.		

	Constant Current Regulator (CCR), thyristor controlled, type 5 KVA, 6.6 A, 220 VAC input, single phase, imported complete with the following: * 5 steps brightness control * Local & Remote Control, On/Off switch * Circuit Breaker & Lightning arresters * Back Indication & Remote Control (24-60VDC) * Open circuit & Overcurrent Protection * Earth Fault Detector * Serial Mode Communication (Jbus/Mod-bus) * With built-in Circuit Selector * Fitting Accessories * Manual in English & Schematic Diagram		
	Circuit Selector, complete with back indication panel, imported complete w/ * On/Off switch with Runway In Use Switch Selector * Manual/Auto Selector Switch		
	Primary Airfield Lighting Cable, #8 mm. sq., 5 KV, XLPE or EPR/PCP insulation, stranded, DEB, PVC Jacketed,13.50 to 14.20 mm. cable dia. with manufacturer's trademark printed throughout the length of the cable.		
	Primary Connector Kit w/ static lock,		
	Splicing kit		
	Rubber tapes		
	PVC electrical tape		
II	**POWER AND CONTROL SYSTEM**		
	Airfield lighting Distribution Panel		
	Control Cable No. 19/8 pairs, DEB, shielded		
	Marshalling Panel		
	Remote control Desk for AGL system		
III	**AERODROME BEACON (ABN)**		
	Supply Installation Testing & Commissioning Aerodrome Rotating Beacon Lights, complete with fittings accessories & 220/240VAC 60 Hz. Single Phase Motor Gear Assembly. Four(4)head lamps of 1000 W, 220/240 VAC, Two (2) sets of green & white filters, One (1) FAA L810 Obstruction lights, 100 Watts 230 VAC, w/ tell-tale relay for automatic to back-up lamp & lighting of obstruction light in case of failure/burnt-out of normal lamp, control unit, circuit		

	breaker magnetic contactor, terminal blocks, electrical connections & other fittings. The beacon shall be made of fiberglass reinforced material. Remote control box with back indication of normal or back up lamp at Control Tower Cab & control wires, Two sets of complete instruction manuals in English.		
IV	**CALIBRATION INSTRUMENT**		
	PAPI Levelling Instrument		

Section VII. Drawings

[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]

Section VIII. Bill of Quantities

Bill of Quantities, Bid Proposal & Detailed Estimate should be submitted together with the Annex "C" Form 1 to 7 in pages 86 to 95

Non-attachment of Annex "C" Form 1 to 7 shall be automatically disqualified.

BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
1	General Requirements	1	lot		
2	Site Works	1	lot		
3	Underground cable ducts, conduits, Manholes, Groundings	1	lot		
4	Power, Control and Monitoring System	1	lot		
5	Precision Approach Path Indicator (PAPI) System	1	lot		
6	Aerodrome Rotating Beacon	1	lot		
7	Miscellaneous	1	lot		
	TOTAL BID AMOUNT				

Signature: _____
Printed Name: _____
Position: _____
Name of Company: _____
Date:: _____

Section IX. Bidding Forms

TABLE OF CONTENTS

Bidding Forms

(ANNEX "A")

{ATTACH COMPANY LETTERHEAD/LOGO}

Statement of all its ON-GOING government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid

Name of Project: _____
Location of Project: _____

Name of Company : _____
Address of Company: _____

Name of Contract	a. Owner's Name b. Address c. Telephone No.	Nature of Work	Contractor's Role		Contract Amount at Award	a. Date Awarded b. Date of Contract c. Contract Duration d. Date Started e. Date Completed	Accomplishment		Values of Outstanding Works
			Description	%			Planned	Actual	
Government									
Private									
							Total value of outstanding works		

Submitted by: _____
(Print Name & Signature)

Designation: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Statement of single largest COMPLETED contract similar to the contract to be bid

Name of Project: _____
Location of Project: _____

Name of Company : _____
Address of Company: _____

Name of Contract	a. Owner's Name b. Address c. Telephone No.	Nature of Work	Contractor's Role		Contract Amount at Award	a. Date Awarded b. Date of Contract c. Contract Duration d. Date Started e. Date Completed
			Description	%		

Submitted by: _____
(Print Name & Signature)

Designation: _____

Date: _____

JOINT RESOLUTION

Whereas, _____ (Bidder / Name of Particular JV Partner), duly organized and existing under the Laws of the _____, with office address at _____, represented herein by its _____, _____, and _____ (Name of Particular JV Partner), duly organized and existing under the Laws of the _____, with main office address at _____, represented by herein by its _____, have entered into a Joint Venture (JV) Agreement to undertake the following project / contract:

(Name of Project / Contract)

Whereas, in order to facilitate the orderly execution and conduct of the contract that was entered into by the joint venture in the name of the joint venture, it is hereby resolved by the parties in the Joint Venture as follows:

a. To appoint _____ as the Authorized Managing Officer and Official Representative, to represent, to manage the Joint Venture and is empowered to enter in contract in the name of the Joint Venture, or to sign for any document in the name of the Joint Venture required by the (Procurement Agency) or any entities pursuant to the terms of the Joint Venture Agreement:

b. That, the parties agreed to make _____(Name of Particular Lead Partner) _____ as the Lead Partner of the Joint Venture and (Name of Authorized Officer) _____ as the Official Representative & Managing Partner of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Eligibility Check, Bidding and Undertaking of the said contract in the name of the Joint Venture, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation. _____ is fully authorized and empowered to sign any or all documents pertaining to the above stated project / contract in the name of the Joint Venture.

c. That the parties agree to be jointly and severally liable for their participation in the Eligibility Check, Bidding and Undertaking of the said contract.

d. That the terms of the JV Agreement entered into the parties shall be valid and is co-terminus with the final completion and turnover of the Name of Contract / Project to the agency of the government, which in this case, the (Name of Procurement Entity);

IN WITNESS THEREFORE, We hereby sign jointly this Joint Resolution this _____ day of _____, 20 ____ in _____.

Name of Bidder (Lead Partner)

By: _____

Signature & Name of
Managing Officer

_____

Designation / Position

Name of Bidder (Member Partner)

By: _____

Signature & Name of Authorized
Authorized Representative

_____

Designation / Position

Name of Bidder (Member Partner)

By: _____

Signature & Name of
Managing Officer

_____

Designation / Position

Name of Bidder (Member Partner)

By: _____

Signature & Name of Authorized
Authorized Representative

_____

Designation / Position

SIGNED IN THE PRESENCE OF:

_____
_____
_____
_____

A C K N O W L E D G E M E N T

REPUBLIC OF THE PHILIPPINES)

CITY OF_____)S.S.

BEFORE ME, a Notary Public, for and in the City of _____, Philippines, this _____ day of _____, 20____ personally appeared the following persons:

NAME	**Community Cert. No.**	**Date / Place of Issue**

Representing to be the _____ of _____ and _____ of _____ respectively, known to me and to me known to be the same persons who executed the foregoing instrument for and in behalf of said corporations and who acknowledge to me that same is their free and voluntary act and deed as well as of the corporations which they represent, for the uses, purposes, and considerations therein set forth and that they are duly authorized to sign the same.

This Instrument consists of THREE (3) pages including this page wherein this Acknowledgement is written and signed by the parties and their instrumental witnesses on each and every page thereon.

WITNESS MY HAND AND NOTARIAL SEAL at the place and date hereinafter first above written.

NOTARY PUBLIC

Doc. No. _____

Book No. _____

Page No. _____

Series of _____

Bidding Forms

(ANNEX "B")

Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

CERTIFICATE OF SITE INSPECTION

This is to CERTIFY that _____, employee of _____, has conducted the required Site Inspection for the bidding of the project "_____" at _____.

Issued this **_____, 20__**

Airport Manager/Officer-in-Charge:

_____
Signature over Printed Name

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.
x----------x

Invitation to Bid *[Insert reference number]*

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1 (f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.

3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:

    a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;

    b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;

    c. I am/we are declared as the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of *[month] [year]* at *[place of execution]*.

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this __ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ___ day of *[month] [year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*
Doc. No. ___
Page No. ___
Book No. ___
Series of ____.

Contractor's Organizational Chart for the Project

Submit Copy of the Organizational Chart that the Contractor intends to use to execute the contract if awarded to him. Indicate in the chart the names of the Key Engineering Personnel who will be assigned in the Project.

{ATTACH COMPANY LETTERHEAD/LOGO}

Attach the required Proposed Organizational Chart for the Contract as stated above.

Submitted by: _____

Designation : _____

Date : _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Qualification of Key Personnel Proposed to be Assigned to the Project

Name of Project: _____
Location of Project: _____

Name of Company: _____
Address of Company: _____

	Project Manager/Engineer	Material Engineer	Foreman	Construction Safety and Health Personnel	Other Position deemed required by the Applicant for this project
1. Name					
2. Address					
3. Date of Birth					
4. Employed Since					
5. Experience					
6. Previous Employment					
7. Education					
8. PRC License					

Note: Attached individual PRC License of the (professional) personnel.

Submitted by : _____
(Signature over Printed Name)
Designation : _____
Date : _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Date: _____

CAPTAIN DONALDO A. MENDOZA
Chairman, Bids and Awards Committee
Civil Aviation Authority of the Philippines
Mia Road, Pasay City, M.M. 1300
Tel: 02 7 944-2358

Subject: Contractor's Letter-Certificate to Procuring Entity

Dear Sir:

Supplementing our Organizational Chart for the Contract, we have the honor to submit herewith, and to certify as true and correct, the following pertinent information:

That I/we have engaged the service of *(Name of Employee)*, to be the *(Designation)* of the *(Name of Project)*, who is a *(Profession)* with Professional License Certificate No. _ issued on _____ and who has performed the duties in the construction of the project enumerated in the filled Annex "B" Form 5b.

That *(Name of Employee)* shall personally perform the duties of the said position in the above-mentioned project, if and when the same is awarded in our favor.

That *(Name of Employee)* shall employ the best care, skill and ability in performing his duties in accordance with the Contract Agreement, Conditions of Contract, Plans, Specifications, Special Provisions, and other provisions embodied in the proposed contract.

That *(Name of Employee)* shall be personally present at the jobsite all the time to supervise the phase of the construction work pertaining to his assignment as *(Designation)*.

That *(Name of Employee)* is aware that he shall be authorized to handle only one contract at a time.

That in order to guarantee that *(Name of Employee)* shall perform his duties properly and be personally present in the Job Site, he is hereby required to secure a

certificate of appearance for the Procuring Entity's Engineer at the end of every month.

That in the event that I/we elect or choose to replace *(Name of Employee)* with another Engineer, the Procuring Entity will be accordingly notified by us in writing at least twenty one (21) days before making replacement. We will submit to the Procuring Entity, for prior approval, the name of the proposed new *(Designation)*, his qualification, experience, list of projects undertaken and other relevant information.

That any willful violation on my/our part of the herein conditions may prejudice my/our standing as a reliable contractor in future bidding of the Procuring Entity.

Very truly yours,

_____

(Authorized Representative of Bidder)

CONCURRED BY:

_____

(Name of Engineer)

{ATTACH COMPANY LETTERHEAD/LOGO}

Date: _____

CAPTAIN DONALDO A. MENDOZA
Chairman, Bids and Awards Committee -
Civil Aviation Authority of the Philippines
Mia Road, Pasay City, M.M. 1300
Tel: 944-2358

Subject: Key Personnel's Certificate of Employment

Dear Sir:

I am *(Name of Employee)* a License _____ Engineer with Professional License No. issued on *(Date of Issuance)* at *(Place of Issuance)* .

I hereby certify that *(Name of Bidder)* has engaged my services as *(Designation)* for *(Name of the Project)* , if awarded in their favor.

As *(Designation)* , I know I will have to stay in the job site all the time to supervise and managed the Contract works to the best of my ability, and aware that I am authorized to handle only one (1) contract at a time.

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of *(Designation)*

As *(Designation)* , I supervised the following completed projects similar to the contract under bidding:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED

At present, I am supervising the following project:

NAME OF PROJECT	OWNER	COST	DATE COMPLETION

In case of my separation for any reason whatsoever from the above-mentioned Contractor, I shall notify the _____*(Name of the Procuring Entity)* at least twenty one (21) days before the effective date of my separation.

_____

(Signature of Engineer)

SUBSCRIBED AND SWORN to before me this ___ day of _____, 20___ affiant exhibiting to me his/her Residence Certificate No. _____ issued on _____ at _____, Philippines.

_____

Notary Public

Until 31 December 20_
PRT No.: _____
Issued at: _____
Issued on: _____
TIN No.: _____

Doc. No._____
Page No._____
Book No. _____
Series of_____

KEY PERSONNEL

(FORMAT OF BIO-DATA)

Give the detailed information of the following personnel who are scheduled to be assigned as full-time field staff for the project. Fill up a form for each person.

1. Authorized Managing Officer / Representative: _____

2. Sustained Technical Employee:

Name: _____

Date of Birth: _____

Nationality: _____

Education and Degrees: _____

Specialty: _____

Registration: _____

Length of Service with the Firm:

_____Year From _____ (months) _____ (year)

To _____ (months) _____ (year)

Years of Experience:

If Item 7 is less than ten (10) years, give name and length of service with previous employers for a ten (10) year period (attached additional sheet/s, if necessary:

Name and Address of Employer Length of Service

_____ _____ year(s) from _____to _____

_____ _____ year(s) from _____to _____

_____ _____ year(s) from _____to _____

Experience:

This should cover the past ten (10) years of experience. (Attached as many pages as necessary to show involvement of personnel in projects using the format below).

a. Name: _____
b. Name and Address of Owner: _____
_____

c. Name and Address of the Owner's Engineer (Consultant):_____
_____
d. Indicate the Features of Project (particulars of the project components and any other particular interest connected with the project): _____
_____
e. Contract Amount Expressed in Philippine Currency: _____
f. Position: _____
g. Structures for which the employee was responsible: _____
_____
h. Assignment Period: from _____(months) _____ (years)
to _____(months) _____ (years)

_____
Name and Signature of Employee

It is hereby certified that the above personnel can be assigned to the _____ Project, if the contract is awarded to our company.

_____ _____
(Place and Date) (The Authorized Representative)

List of Equipment, Owned or Leased and/or under Purchased Agreements, Pledge to the Proposed Project

Name of Project: _____
Location of Project: _____

Name of Company: _____
Address of Company: _____

Description	Model/Year	Capacity/ Performance/ Size	Plate No.	Motor No./ Body No.	Location	Condition	Proof of Ownership/ Lessor or Vendor
A. Owned							
I.							
II.							
III.							
IV.							
V.							
B. Leased							
I.							
II.							
III.							
IV.							
V.							
C. Under Purchased Agreement							
I.							
II.							
III.							
IV.							
V.							

Submitted by : _____
(Signature over Printed Name)
Designation : _____
Date : _____

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

A F F I D A V I T

I, *[Name of Affiant]*, of legal age, *[Civil Status]*, *[Nationality]*, and residing at *[Address of Affiant]*, after having been duly sworn in accordance with law, do hereby depose and state that:

1. ***Select one, delete the other:***

   If a sole proprietorship: I am the sole proprietor or authorized representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

   If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

2. ***Select one, delete the other:***

   If a sole proprietorship: As the owner and sole proprietor or authorized representative of *[Name of Bidder]*, I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for *[Name of the Project]* of the *[Name of the Procuring Entity] [insert "as shown in the attached duly notarized Special Power of Attorney" for the authorized representative]*;

   If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for *[Name of the Project]* of the *[Name of the Procuring Entity]*, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable;

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. ***Select one, delete the rest:***

   If a sole proprietorship: The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

   If a partnership or cooperative: None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

   If a corporation or joint venture: None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:

   a) Carefully examine all of the Bidding Documents;

   b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;

   c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and

   d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

_____
Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ___ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government

identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at _____.

Witness my hand and seal this ___ day of *[month] [year]*.

NAME OF NOTARY PUBLIC
Serial No. of Commission _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. _____ *[date issued], [place issued]*
IBP No. _____ *[date issued], [place issued]*

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

* This form will not apply for WB funded projects.

{ATTACH COMPANY LETTERHEAD/LOGO}

Bid Form

Date: _____

IB[2] N°: _____

To: *[name and address of PROCURING ENTITY]*

Address: *[insert address]*

We, the undersigned, declare that:

(a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract *[insert name of contract]*;

(b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

The total price of our Bid, excluding any discounts offered below is: *[insert information]*;

The discounts offered and the methodology for their application are: *[insert information]*;

(c) Our Bid shall be valid for a period of *[insert number]* days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;

(e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;

(f) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;

(g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;

(h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

[2] If ADB, JICA and WB funded projects, use IFB.

(i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

(j) **We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the *[Name of Project]* of the *[Name of the Procuring Entity]*.**

(k) **We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.**

Name: _____

In the capacity of: _____

Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Date: _____

Bid Forms

(ANNEX "C")

DETAIL OF BILL OF QUANTITIES

PROJECT		**: Purchase/Installation of Precision Approach Path Indicator (PAPI) at Runway 13/31 and Aerodrome Beacon (ABN)**		
Location		**: CATBALOGAN Airport, CATBALOGAN, Western Samar**		
Appropriation		**: DOTr Downloaded Project, 2020**		
Amount Appropriated		**:**		
QTY	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1	lot	**I. GENERAL REQUIREMENTS** I.1 **Mobilization & Demobilization**		
	cu.m	**II. SITE WORKS** II.1 Excavation works		
	cu.m	II.2 Back filling works		
			Labor	
		III. UNDERGROUND CABLE DUCTS, CONDUITS, HANDHOLES, GROUNDINGS:		
	m	III.1 PVC Duct 2 x110mm dia. in concrete encasement with re-bars including		
		excavation, backfilling, compaction and Pavement restoration.		
	m	III.2 PVC Duct 2 x110mm dia. in concrete encasement with re-bars including excavation, backfilling, compaction and pavement restoration		
	pcs	III.3 110mmØ PVC Conduit, schedule 40		
	pcs	III.4 Manhole complete with steel frame, cover and other fittings		
	mts	III.5 Ground wire, #12AWG Bare Copper wire		
	pcs	III.6 Copper clad Grounding Rod 19 mm x 3 meters.		
1	lot	III.7 Exothermic Welding Mould and Powder		
	cu.m	III.8 Fine Sand		
			Materials	
			Labor	
			Sub-Total	

		IV.	**POWER, CONTROL and MONITORING SYSTEM:**		
1	unit	IV.1	**PAPI's Constant Current Regulator (CCR)** Thyristor controlled 5 KVA, 6.6 A, 220 VAC input, single phase, complete with the following; * 5 steps brightness control * Local & Remote Control, On/Off switch * Circuit Breaker & Lightning arresters * Back Indication & Remote Control (24-60VDC) * Open circuit & Overcurrent Protection * Earth Fault Detector * Serial Mode Communication (Jbus/Mod-bus) * Fitting Accessories * Manual in English & Schematic Diagram		
1	unit	IV.2	Circuit Selector, complete w/back indication panel, complete with * On/Off switch with Runway In Use Switch Selector * Manual/Auto Selector Switch		-
	mtrs	IV.3	100mm sq THHN Cable, 600V		
	mtrs	IV.4	60mm sq TW Cable, 600V		
	pcs	IV.5	110mmØ PVC Conduit, schedule 40		
	mtrs	IV.6	Control Cable		
				Materials	
				Labor	
				Sub-Total	
		V.	**PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEM**		
8	unit	V.1	PAPI Light units complete with fittings accessories and: * Three(3) x200W, 6.6A pre-focus halogen lamp 1000hrs average rated life hours at full intensity * Three (3) x core flexible cables fitted w/ molded two pole plug * One (1) hardened heat resistant clear front glass to protect the lenses * Three (3) x Red Filters * Four (4) x legs fitted with differential setting sleeve * Four (4) x Aluminum anchoring legs w/ breakable couplings mounted on flange and anchor bolts		
24	pcs	V.2	Isolation Transformer, 200 watt, 6.6A/6.6A, 5KV, 60Hz DEB, FAA L-830 completely fitted w/molded cable Assembly equipped		

			with FAA L-823 connectors and plug and with earthing terminal		
8	pcs	V.3	Primary Connector kit, 54B-E4-E4 with static lock		
8	lot	V.4	Concrete foundation for PAPI complete w/L-867 transformer base, elbows, baseplate cover fittings and accessories		
	m	V.5	Primary Airfield Lighting Cable, # 8 mm², 5 KV, EPR/PCP insulation stranded, DEB, PVC Jacketed,13.50 to 14.20 mm cable diameter with manufacturer's trademark printed throughout the length of the cable		
24	set	V.6	Secondary connector kit 90P		
8	set	V.7	Splicing kit		
	pcs	V.8	Rubber tapes		
	pcs	V.9	PVC electrical tape		
2	lot	V.10	Concrete pavement		
				Material	
				Labor	
				Sub-Total	
		VI.	**AERODROME ROTATING BEACON (ABN)**		
1	unit	VI.1	Supply Installation Testing & Commissioning Aerodrome Rotating Beacon (ABN) Lights ,complete w/fittings accessories and 220/240VAC 60 Hz, Single Phase Motor Gear Assembly, Four(4) head lamps of 1000Watt, 220/240VAC, Two(2) sets of green & white filters, One (1) FAA Led Obstruction lights, 230 VAC, with tell-tale relay for automatic to back-up lamp & lighting of obstruction light incase of failure/burntout of normal lamp, control unit, circuit breaker, magnetic contactor, terminal blocks, electrical connections & other fittings. with back indication of normal or back up lamp at Control Tower Cab & control wires. Two sets of complete instruction manuals in English.		
	m	VI.2	Cable 600V XLPE/PVC 14.0 sq. mm - 3C		
				Material	
				Labor	
				Sub-Total	
		VII.	**MISCELLANEOUS**		
1	lot	VII.1	Leveling Instruments for PAPI & REDL, Tools		
				Sub-Total	
			Total Materials		
			Total Labor		
			General Requirement		

		Total Direct Cost		
		Overhead (8% of EDC)		
		Contingencies (3%EDC)		
		Miscellaneous (1%EDC)		
		Contractor's Profit (8%)		
		VAT/Contractor's Tax (5% of EDC, OCM and Profit)		
		Total Indirect Cost		
		TOTAL PROJECT COST		
		Say…		

{ATTACH COMPANY LETTERHEAD/LOGO}

CAAP-BAC-SF Annex " C" Form 2

SUMMARY OF BID PROPOSAL

PROJECT:
LOCATION:

ITEM NO.	DESCRIPTION OF WORK	QTY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UP		V.A.T.	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9] [5] x [8]	[10] 5%{[5] +[9]}	[11] [9] +[10]	[12] [5] + [11]	[13] [12] / [3]

SUBMITTED BY:

Signature: _____
Printed Name: _____
Position: _____
Name Company: _____
Date: _____

(ATTACHED COMPANY LETTER HEAD / LOGO)

BILL OF MATERIALS AND COST ESTIMATES

NAME OF PROJECT:	
DESCRIPTION:	
LOCATION:	

				QUANTITY	UNIT
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
A. TOTAL MATERIAL COST					
B. TOTAL LABOR COST					
C. TOTAL EQUIPMENT COST					
D. TOTAL DIRECT COST (TDC)					
INDIRECT COSTS					
1. OCM (12% of TDC)					
2. Contractor's Profit (8 % of TDC)					
E. TOTAL OCM & CONTRACTOR'S PROFIT					
F. VALUE ADDED TAX (VAT), (5% of OCM, TDC, and Contractor's Profit)					
G. TOTAL ESTIMATED INDIRECT COST (E + F), P					
H. TOTAL ESTIMATED UNIT INDIRECT COST (G/Quantity), P/Unit					
TOTAL ESTIMATED COST (D + G), P					
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit					

Submitted by:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

SUMMARY FOR UNIT PRICES OF MATERIALS

PROJECT: _____

LOCATION: _____

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

CAAP-BAC-SF Annex "C" Form 5

{ATTACH COMPANY LETTERHEAD/LOGO}

SUMMARY FOR UNIT PRICES OF LABOR

PROJECT: _____

LOCATION: _____

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

SUMMARY FOR UNIT PRICES OF EQUIPMENT

PROJECT: _____

LOCATION: _____

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Name of Project : _____

Location of Project : _____

CASH FLOW BY QUARTER AND PAYMENY SCHEDULE

PARTICULAR	% W	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
ACCOMPLISHMENT					
CASH FLOW					
CUMULATIVE ACCOMPLISHMENT					
CUMULATIVE CASH FLOW					

Submitted by:

_____
Name of the Representative of the Bidder

_____
Position

_____
Name of the Company

_____
Date

Bidding Forms

(ANNEX "D")

Annex "D" Form 1 ……. Authority of Signatory (Secretary's Certificate)

AUTHORITY OF SIGNATORY

(SECRETARY'S CERTIFICATE)

I,, a duly elected and qualified Corporate Secretary of (Name of the Bidder), a corporation duly organized and existing under and by virtue of the law of the, DO HEREBY CERTIFY, that:

I am familiar with the facts herein certified and duly authorized to certify the same;

At the regular meeting of the Board of Directors of the said Corporation duly convened and held on at which meeting a quorum was present and acting throughout, the following resolutions were approve, and the same have been annulled, revoked and amended in any way whatever and are in full force and effect on the date hereof:

RESOLVED, that*(Name of Bidder)*be, as it hereby is, authorized to participate in the bidding of*(Name of the Project)*by the*(Name of the Procuring Entity)*; and in that if awarded the project shall enter into a contract with the*(Name of the Procuring Entity)*and in connection therewith hereby appoints*(Name of Representative)*, acting as duly authorized and designated representatives of*(Name of the Bidder)*, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent*(Name of the Bidder)*in the bidding as fully and effectively as the*(Name of the Bidder)*might do if personally present with full power of substitution and revocation and hereby satisfying and confirming all that my said representative shall lawfully do or cause to be done by virtue hereof;

RESOLVED FERTHER THAT, the Board hereby authorized its President to:

a. execute a waiver of jurisdiction whereby the*(Name of the Bidder)*hereby submits itself to the jurisdiction of the Philippine government and hereby waives its right to question the jurisdiction of the Philippine court;
b. execute a waiver that the *(Name of the Bidder)* shall not seek and obtain writ of injunctions or prohibition or restraining order against the CAAP or any other agency in connection with this Project to prevent and restrain the bidding procedures related thereto, the negotiating and award of a contract to a successful bidder, and the carrying out of the awarded project.

WITNESS the signature of the undersigned as such officer of the said this.

_

(Corporate Secretary)

SUBSCRIBED AND SWORN to before me this day of, 20affiant exhibited to me his/her Community Tax Certificate No. _____ issued on_____ _____at, Philippines.

Notary Public

Until 31 December 20_____

PRT No.: _____

Issued at: _____

Issued on: _____

TIN No.: _____

Doc. No. _____

Page No.: _____

Book No.: _____

Series of _____

Section X. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
or

☐ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;
and

☐ (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
and

☐ (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR); **and**

Technical Documents

☐ (e) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid. *(Annex "A" Form 1)*; **and**

☐ (f) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules. *(Annex "A" Form 2)*; **and**

☐ (g) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid;
and Joint Resolution *(Annex "A" Form 3)*; **and**

☐ (h) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration *(Annex "B" Form 2)*;
and

(i) Project Requirements, which shall include the following:

☐ 1. Organizational chart for the contract to be bid *(Annex "B" Form 3)*; **and**

☐ 2. List of contractor's key personnel (*e.g.*, Project Manager, Project

Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data *(Annex "B" Form 4, 5a, 5b & 5c)*; **and**

☐ 3. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be *(Annex "B" Form 6)*; **and**

☐ (j) Original duly signed Omnibus Sworn Statement (OSS) *(Annex "B" Form 7)*; **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder; **and**

This shall include all of the following documents as attachment to the Omnibus Sworn Statement:

☐ 1. Certification, under oath, attesting that they have no pending case(s) against the Government, in addition to the eligibility requirements as prescribe under the 2016 Revise Implementing Rules and Regulation (R-IRR) of RA No. 9184; **and**

☐ 2. Legal Clearance to be issued by the CAAP Enforcement and Legal Service with respect to the non-pending cases of the prospective bidders against this Authority; **and**

☐ 3. Bid Bulletins (if applicable); **and**

☐ (k) **Certificate of Site Inspection** *(Annex "B" Form 1)* duly signed by **Airport Manager of CATBALOGAN Airport** or his duly authorized representative; **and**

This shall include all of the following documents as attachment to the Certificate of Site Inspection:

☐ 1. Copy of company ID of the person who conducted the site inspection; **and**

☐ 2. Copy of the airport/facility visitor's logbook appearing the names and signatures of inspectors; **and**

☐ 3. Picture of the proposed site including the personnel who conducted the site inspection together with the Airport Manager/Officer in Charge or his duly authorized representative: **and**

☐ (l) Bid Bulletin (if any)

Financial Documents

☐ (m) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**

☐ (n) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

☐ (o) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
or
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

☐ (p) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

☐ (q) Original of duly signed Bid Prices in the Bill of Quantities *(Annex "C" Form 1)*; **and**

☐ (r) Summary of Bid Proposal *(Annex "C" Form 2)*; **and**

☐ (s) Bill of Materials & Cost Estimates *(Annex "C" Form 3)*; **and**

☐ (t) Summary Sheet indicating the Unit Prices of Construction Materials, Labor Rates, and Equipment Rentals used in coming up with the Bid *(Annex "C" Form 4, 5 & 6)*; **and**

☐ (u) Cash Flow by Quarter and Payment Schedule *(Annex "C" Form 7)*.


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