



**MULTI-PURPOSE BUILDING  
ENTRANCE**



**PROCUREMENT FOR THE SUPPLY,  
DELIVERY, AND INSTALLATION OF GOODS  
(FURNITURE AND EQUIPMENT) FOR THE  
NATIONAL ACADEMY OF SPORTS (NAS) –  
PHASE 1 AT NEW CLARK CITY**

**NOVEMBER 2021**



**ACADEMIC AND ADMINISTRATION BUILDING**



**SECTION II.**

# **INSTRUCTION TO BIDDERS**

# INSTRUCTIONS TO BIDDERS

## 1. Scope of Bid

The Procuring Entity, BCDA wishes to receive Bids for the Supply, Delivery and Installation of Goods (Furniture and Equipment) for the National Academy of Sports (NAS) – Phase 1 at New Clark City referred herein as “Project”).

The Procurement Project or the Project is composed of four (4) lots, with the name, and identification provided in the BDS and the TOR, and the details of each are described in Section VII Technical Specification. The contracting strategy and basis of evaluation of lots is described in ITB Clause 19.

## 2. Funding Information

2.1. The GOP through the source of funding as indicated below for *the Procurement of Goods and Equipment for the National Academy of Sports (NAS) – Phase 1 at New Clark City* in the amount of **One Hundred Thirty Million One Hundred Sixteen Thousand Pesos (PhP130,116,000.00)**, for *the first year, inclusive of government taxes and fees.*

2.2. The source of funding is GAA 2021.

## 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 Manuals 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 **IB** 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 verified and accepted the general requirements of this Project, including 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, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, 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. If applicable, Foreign ownership exceeding those allowed under the rules may participate pursuant to:
  - i. When a Treaty or International or Executive Agreement as provided in Section 4 of the RA No. 9184 and its 2016 revised IRR allow foreign bidders to participate;
  - ii. Citizens, corporations, or associations of a country, included in the list issued by the GPPB, the laws or regulations of which grant reciprocal rights or privileges to citizens, corporations, or associations of the Philippines;
  - iii. When the Goods sought to be procured are not available from local suppliers; or
  - iv. When there is a need to prevent situations that defeat competition or restrain trade.

Foreign ownership limited to those allowed under the rules may participate in this Project.

- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to equivalent to at least fifty percent (50%) of the ABC on a per lot basis; or at least two (2) similar completed contracts with the aggregate amount equivalent to at least fifty percent (50%) of the ABC on a per lot basis. The similar contract shall have been completed within five (5) years from the date of submission and receipt of bid.

For this purpose, contracts similar to the Project shall be those described in the **Bid Data Sheet** and completed within five (5) years from the date of submission and receipt of bid.

- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.
- 5.5. For the supply of select goods or equipment, the Bidder is required to submit additional eligibility documents specified in **Section III Annex A Terms of Reference**.

## 6. Origin of Goods

There is no restriction on the origin of goods other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the

Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

## **7. Subcontracts**

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than twenty percent (20%) of the Project.

BCDA has prescribed that subcontracting is allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS**, which shall not exceed twenty percent (20%) of the contracted Goods.

7.2. The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criteria stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.

7.3. The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

7.4. Subcontracting of any portion of the Project does not relieve the Supplier of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Supplier's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

## **8. Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on **18 November 2021, 2021 at 10:00 AM** at the **BCDA Corporate Center, 2<sup>nd</sup> Floor, Bonifacio Technology Center 31<sup>st</sup> Street corner 2<sup>nd</sup> Avenue, Bonifacio Global City Taguig City** and/or through video conferencing thru Google/Zoom meet, which shall be open to prospective bidders. To be able to join the online pre-bid conference, a scanned written request shall be made/e-mailed to the BAC Secretariat.

## **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 VIII (Checklist of Technical and Financial Documents)**.
- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within five **(5) years** prior to the deadline for the submission and receipt of bids.
- 10.3. 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. Similar to the required authentication above, 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.

## **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 VIII (Checklist of Technical and Financial Documents)**.
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. 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.
- 11.5. Financial proposals for single or multi-year Framework Agreement shall be submitted before the deadline of submission of bids as prescribed in the **IB**. For multi-year Framework Agreement, evaluation of the financial proposal during this stage is for purposes of determining eligibility and whether or not such financial proposal is within the ABC.

## **12. Bid Prices**

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
  - a. For Goods offered from within the Procuring Entity's country:

- i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
  - ii. The cost of all customs duties and sales and other taxes already paid or payable;
  - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
  - iv. The price of other (incidental) services, if any, listed in e.
- b. For Goods offered from abroad:
  - i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
  - ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications)**.

12.2. For Framework Agreement, the following should also apply in addition to Clause 12.1:

- a. For a single year Framework Agreement, the prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation or escalation on any account. Price schedules required under Clause 12.1 shall be submitted with the bidding documents.
- b. For a multi-year Framework Agreement, the prices quoted by the Bidder during submission of eligibility documents shall be the ceiling and the price quoted during mini-competition must not exceed the initial price offer. The price quoted during call for mini-competition shall be fixed during the Bidder's performance of that Call-off and not subject to variation or escalation on any account. Price schedules required under Clause 12.1 shall be submitted with the bidding documents.

### **13. Bid and Payment Currencies**

13.1. For Goods that the Bidder will supply from outside the Philippines, the 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.

13.2. Payment of the contract price shall be made in Philippine Pesos.



## 14. Bid Security

- 14.1. The Bidder shall submit a Bid Securing Declaration<sup>1</sup> 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**.
- 14.2. The Bid and Bid Security shall be valid until one hundred twenty (120) calendar days from its issuance. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.
- 14.3. In the case of Framework Agreement, other than the grounds for forfeiture under the 2016 revised IRR, the bid security may also be forfeited if the successful bidder fails to sign the Framework Agreement, or fails to furnish the performance security or performance securing declaration. Without prejudice on its forfeiture, bid securities shall be returned only after the posting of performance security or performance securing declaration, as the case may be, by the winning Bidder or compliant Bidders and the signing of the Framework Agreement.

## 15. Sealing and Marking of Bids

**Each Bidder shall submit one copy of the first and second components of its Bid.**

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 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.

## 16. Deadline for Submission of Bids

- 16.1. 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**.
- 16.2. For multi-year Framework Agreement, the submission of bids shall be for the initial evaluation of their technical and financial eligibility. Thereafter, those declared eligible during the said initial eligibility evaluation and entered into a Framework Agreement with the Procuring Entity shall submit anew their best financial offer at the address and on or before the date and time indicated in the Call for each mini-competition.

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<sup>1</sup> In the case of Framework Agreement, the undertaking shall refer to entering into contract with the Procuring Entity and furnishing of the performance security or the performance securing declaration within ten (10) calendar days from receipt of Notice to Execute Framework Agreement.



## 17. Opening and Preliminary Examination of Bids

17.1. 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.

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

## 18. Domestic Preference

18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

18.2. For multi-year Framework Agreement, determination of margin of preference shall be conducted every call for Mini-Competition.

## 19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring 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 the 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.

19.3. The detailed descriptions of the lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.

19.4. The Project shall be awarded as follows one Project having several items, which shall be awarded as separate contracts per item.

19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the

committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

## **20. Post-Qualification**

20.1. 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**

21.1. 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**.

21.2. At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.

21.3. Within ten (10) calendar days from receipt of the Notice of Award from BCDA, the successful Bidder or its duly authorized representative shall formally enter into an Agreement with BCDA provided that all the documentary requirements are complied with.

21.5. The following documents shall form part of the Contract:

- a. Contract Agreement;
- b. Bidding Documents;
- c. Call-offs;
- d. Winning bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted (e.g., bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;
- e. Performance Security or Performance Securing Declaration, as the case may be;
- f. Notice of Award of Contract; and
- g. Other contract documents that may be required by existing laws and/or specified in the **BDS**.

## INVITATION TO BID

### PROCUREMENT FOR THE SUPPLY, DELIVERY, AND INSTALLATION OF GOODS (FURNITURE AND EQUIPMENT) FOR THE NATIONAL ACADEMY OF SPORTS (NAS) – PHASE 1 AT NEW CLARK CITY

- The **BASES CONVERSION AND DEVELOPMENT AUTHORITY (BCDA)**, through its Bids and Awards Committee for Goods (BAC-G), intends to apply the **Approved Budget for the Contract (ABC) of One Hundred Thirty Million One Hundred Sixteen Thousand Pesos (PhP130,116,000.00)**, inclusive of all applicable taxes and fees, for the **Supply, Delivery and Installation of Goods (Furniture and Equipment) for the NAS – Phase 1**. The ABC shall be the payments under the contract for each lot detailed as follows:

LOT	DESCRIPTION	ABC (PhP)
A	Utilities Equipment	20,993,460.00
B	ICT Equipment	46,690,400.00
	Network Infrastructure	
	Audio Visual Equipment	
C	Sports Equipment	47,098,640.00
	Fitness Testing and Monitoring Equipment	
	Physical Therapy and Rehabilitation Equipment	
D	Classroom Furniture	15,333,500.00
	Office Equipment	
	Office Furniture and Fixtures	
	Kitchen Equipment and Dining Hall Furniture	
<b>TOTAL ABC (PhP)</b>		<b>130,116,000.00</b>

Bids received in excess of the **ABC** that is set for each respective Lot shall be automatically rejected at the bid opening.

- BCDA now invites bids for the **SUPPLY, DELIVERY AND INSTALLATION OF GOODS (FURNITURE AND EQUIPMENT) FOR THE NATIONAL ACADEMY OF SPORTS (NAS) – PHASE 1 AT NEW CLARK CITY**. The delivery of the Furniture & Equipment is required within sixty (60) calendar days for Lots A, C, and D and within ninety (90) calendar days for Lot B upon issuance of the Notice to Proceed.
- Bidders should have completed, within five (5) years (November 2016 to November 2021) from the date of submission and receipt of bids, a contract similar to the Lot. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II, Instructions to Bidders.
- Bidding will be conducted through competitive bidding procedure using a non-discretionary “pass/fail” criterion as specified in the 2016 Revised Implementing Rules and Regulations (RIRR) of Republic Act (RA) 9184, otherwise known as the “Government Procurement Reform Act”.

5. Bidding is limited to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.
6. Interested bidders may obtain further information from BCDA and inspect the Bidding Documents at the address given below during business hours from 8:00 AM – 3:00 PM and/or at the BCDA website (<https://bcda.gov.ph/bids>).
7. A complete set of Bidding Documents may be acquired by interested Bidders from the BCDA Corporate Center, 2<sup>nd</sup> Floor Bonifacio Technology Center, 31<sup>st</sup> St. cor. 2<sup>nd</sup> Avenue, Bonifacio Global City, Taguig City, starting 11 November 2021 (Thursday) up to 02 December 2021 (Thursday) from 8:00 AM to 3:00 PM except Saturdays, Sundays and Holidays, up until 12:00 NN on 03 December 2021 (Friday), upon the payment of a non-refundable fee of bidding documents for the following lots, pursuant to Section 17.4 of RIRR of RA 9184:

Lot	Description	Total (PhP)
A	Supply, delivery and installation of various Utilities Equipment	25,000.00
B	Supply, delivery and installation of various ICT equipment, network infrastructure and audio-visual Equipment	25,000.00
C	Supply, delivery and installation of various goods and equipment for sports and physical therapy	25,000.00
D	Supply, Delivery and installation of various furniture for classroom, office, kitchen and dining hall	25,000.00

In case a bidder decides to participate in the bidding for two (2) or more lots, the bidder shall purchase the bidding documents for a total non-refundable fee of P50,000.

The Procuring Entity shall allow the bidder to present its proof of payment for the fees *in cash or manager's check*.

The bidding documents may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of BCDA ([www.bcda.gov.ph](http://www.bcda.gov.ph)), provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

8. BCDA will hold a Pre-Bid Conference (online coverage) on **18 November 2021 (Thursday) at 10:00 AM** at the BCDA Corporate Center, 2<sup>nd</sup> Floor Bonifacio Technology Center, 31<sup>st</sup> St. cor. 2<sup>nd</sup> Avenue, Bonifacio Global City, Taguig City, and via video conferencing thru Google/Zoom Meet, which shall be open to prospective bidders. To be able to **join the online pre-bid conference**, a scanned written request shall be made/e-mailed to the BAC Secretariat.

9. Bids must be duly received by the BAC Secretariat at the BCDA Corporate Center, 2nd Floor Bonifacio Technology Center, 31st St. cor. 2nd Avenue, Bonifacio Global City, Taguig City on or before **03 December 2021 (Friday) at 12:00 NN**. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB Clause 18**.
10. Bid opening shall be held on **03 December 2021 (Friday) at 1:30 PM** at the BCDA Corporate Center, 2nd Floor Bonifacio Technology Center, 31st St. cor. 2nd Avenue, Bonifacio Global City, Taguig City. Bids will be opened in the presence of the bidders' representatives who choose to attend the Bid Opening at the given address and at the same time, via video conferencing through Google Meet. An email invitation will be sent to bidders who purchased the bid documents.

Late bids shall not be accepted.

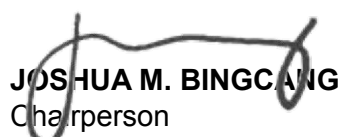
11. BCDA reserves the right to waive minor defects in forms and requirements as long as they do not affect the genuineness and authenticity of the documents submitted.
12. BCDA reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.

For further information, please refer to:

Raul G. Buensalida (BAC Secretariat Head) at telephone no. *8575-1731* and via an email address, *rgbuensalida@bcda.gov.ph*.

## **BIDS AND AWARDS COMMITTEE FOR GOODS**

By:

  
**JOSHUA M. BINGCANG**  
Chairperson

**SECTION III.**

# **BID DATA SHEET**

## BID DATA SHEET

ITB Clause																									
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		PHP 1,049,673.00 <b>5% of the ABC</b>	Surety Bond
	B	PHP 933,808 <b>2% of the ABC</b>	Cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit
		PHP 2,334,520.00 <b>5% of the ABC</b>	Surety Bond
	C	PHP 941, 972.80 <b>2% of the ABC</b>	Cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit
		PHP 2,354,932.00 <b>5% of the ABC</b>	Surety Bond
	D	PHP 306, 670.00 <b>2% of the ABC</b>	Cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit
		PHP 766, 675.00 <b>5% of the ABC</b>	Surety Bond

19.3

The ABCs applicable to each respective lot are as follows:

Lot	Description	ABC (Php)
A	Supply, delivery and installation of various Utilities Equipment	<b>20,993,460.00</b>
B	Supply, delivery and installation of various ICT equipment, network infrastructure, and audio visual equipment	<b>46,690,400.00</b>
C	Supply, delivery and installation (for select items) of various goods and equipment for sports and physical therapy	<b>47,098,640.00</b>
D	Supply, Delivery and installation (for select items) of various furniture and equipment for classroom, office, kitchen and dining hall	<b>15,333,500.00</b>
<b>TOTAL ABC (Php)</b>		<b>130,116,000.00</b>

20.1

Submission of any sample for the post qualification purposes shall not be allowed.  
Inspection and functional testing shall be done upon the BCDA's determination prior to acceptance and payment of each Lot.

	<p>The Bidder is required to submit <b>Product Brochures</b> and other related documents containing the description and specifications of the item to be offered as part of their technical envelope.</p>				
<p>21.2</p>	<p>a. The cost of proposal shall be inclusive of all applicable taxes, applicable cost of installation and service requirements, fees and other charges relative to the bid;</p> <p>b. The bid price shall be written in words and figures in the prescribed form. In case of discrepancy between the words and figures, the amount written in words shall prevail.</p> <p>c. The bidding shall be conducted on the date, time, and location as published in the Invitation to Bid. The bid date will be schedule for one (1) day and the sequence of bidding will be as follows:</p> <p style="margin-left: 40px;"><b>Opening of the ff:</b></p> <table style="margin-left: 80px; border: none;"> <tr> <td style="padding-right: 20px;">• Eligibility Requirements</td> <td><b>17 November 2021</b></td> </tr> <tr> <td>• Financial Proposal</td> <td><b>1:30 PM</b></td> </tr> </table> <p>d. The Contract will be awarded to the bidder who is declared as the “Lowest Calculated and Responsive Bid”.</p> <p>e. In case of a tie, after the post qualification the provisions of the GPPB Circular 06-2005 (Tie Breaking Method) shall apply e.g. coin toss.</p> <p>f. A bid price higher than the specified ABC, either taken as a whole or on a per lot basis shall automatically be disqualified.</p>	• Eligibility Requirements	<b>17 November 2021</b>	• Financial Proposal	<b>1:30 PM</b>
• Eligibility Requirements	<b>17 November 2021</b>				
• Financial Proposal	<b>1:30 PM</b>				

**SECTION IV.**

# **SCHEDULE OF REQUIREMENTS**

# 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.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

## 2. Advance Payment and Terms of Payment

2.1. Advance payment of the contract amount is provided under Annex "D" of the revised 2016 IRR of RA No. 9184.

2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

2.3. For a single-year Framework Agreement, prices charged by the Supplier for Goods delivered and/or services performed under a Call-Off shall not vary from the prices quoted by the Supplier in its bid.

2.4. For multi-year Framework Agreement, prices charged by the Supplier for Goods delivered and/or services performed under a Call-Off shall not vary from the prices quoted by the Supplier during conduct of Mini-Competition.

## 3. Performance Security

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to 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 of RA No. 9184.

## 4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC, Section VII (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be

conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

## **5. Warranty**

6.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.

6.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

## **6. Liability of the Supplier**

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

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

**SECTION V.**

**SPECIAL  
CONDITIONS OF  
THE CONTRACT**

## SPECIAL CONDITIONS OF CONTRACT

GCC Clause	
1	<p>Additional requirement for the completion of the Contract.</p> <p><b>A. Delivery and Documents –</b></p> <p>For purposes of the Contract, “EXW,” “FOB,” “FCA,” “CIF,” “CIP,” “DDP” and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p>For Goods supplied from abroad, the delivery terms applicable to the Contract are Delivered Duty Paid (“DDP”) delivered in New Clark City Capas Tarlac Philippines. In accordance with International Commercial Terms “INCOTERMS.”</p> <p>For Goods supplied from within the Philippines, the delivery terms applicable to this Contract are delivered in New Clark City Capas, Tarlac Philippines. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.”</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause the Procuring Entity’s Representative at the Project Site is the <b>Project Manager, National Academy of Sports</b></p> <p><b>B. Incidental Services –</b></p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirement:</p> <ol style="list-style-type: none"> <li>a. performance or supervision of on-site assembly and/or start-up of the supplied Goods. In cases where supplied goods are required to be stored on the designated site prior to installation or assembly, the Supplier shall store properly such goods at an area identified by BCDA and shall transfer all such goods and equipment in the delivery.</li> <li>b. furnishing of tools required for assembly and/or maintenance of the supplied Goods;</li> <li>c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;</li> <li>d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty</li> </ol>



- obligations under this Contract; and
- e. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods;
  - f. performance of demonstration activities and functional testing and evaluation activities of the supplied equipment prior to the issuance of Notice of Acceptance or the signing of any applicable Testing Report by BCDA.

The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

### **C. Spare Parts –**

The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- a. such spare parts as BCDA may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and
- b. in the event of termination of production of the spare parts:
  - i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and
  - ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.

The spare parts and other components required are listed in **Section VI (Schedule of Requirements)** and the cost thereof are included in the contract price.

The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of that is three times the warranty period that is specified for each select goods and equipment.

Spare parts or components shall be supplied as promptly as possible, but in any case, within not more than two (2) months from placing the order.

### **D. Packaging –**

The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme

temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by BCDA.

The outer packaging must be clearly marked on at least four (4) sides as follows:

Name of the Procuring Entity:

Name of the Supplier

Contract Description

Final Destination

Gross weight

Any special lifting instructions

Any special handling instructions

Any relevant HAZCHEM classifications

A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.

#### **E. Transportation**

Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.

Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.

BCDA accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods

	<p>supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.</p> <p><b>F. Intellectual Property Rights –</b></p> <p>The Supplier shall indemnify BCDA against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.</p>
2.2	Terms of Payment as specified in Section VIII Annex A Terms of Reference.
4	<p>Inspection and Test</p> <p>BCDA shall inspect and accept the delivery made by the Supplier by seeing that the quantity and quality of the Good or Equipment is in accordance with the requirements under Section VII Technical Specifications.</p> <p>BCDA shall determine appropriate course of actions as regards the issues and concerns in connection with the delivery, inspection, testing and acceptance for all the Lots included in this bidding on a case to case basis.</p> <p>For the purpose of acceptance, the Supplier shall have to pass the functional testing and evaluation requirement of BCDA. BCDA shall determine the number of goods or equipment that will be subjected to functional testing. The item selected for testing shall be part of the delivery, however, before acceptance, any worn-out or damaged parts shall be replaced immediately</p> <p>All incidental expenses including handling, shipping, and item replacements, shall be shouldered by the winning Bidder.</p> <p>Only after the successful functional rest and final acceptance of a specific lot, the items will be paid by the BCDA.</p>

**SECTION VI.**

# **SCHEDULE OF REQUIREMENTS**

# SCHEDULE OF REQUIREMENTS

## Lot A

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

	Description	Qty.	Delivered, Weeks/Months
<b>LOT A – UTILITIES EQUIPMENT</b>			
A1.1	500kVA/400kW Stand by Generator Set	1	Within 60 calendar days from receipt of Notice to Proceed
A1.2	Medium Voltage Switchgear	1	
A1.3	500kVA Pad Mounted Transformer	1	
A1.4	500GPM Fire Pump	1	
A1.5	26GPM Jockey Pump	1	
A1.6	Multi-Sport Gym - Constant Pressure System Booster Pump (Triplex with Individual VFD)	1	
A1.7	ACADEMIC/ADMIN BUILDING - CONSTANT PRESSURE SYSTEM BOOSTER PUMP (TRIPLEX WITH INDIVIDUAL VFD)	1	
A1.8	LANDSCAPE - CONSTANT PRESSURE SYSTEM BOOSTER PUMP	1	
A1.9	SUMP PUMP - 250GPM DUPLEX, NON-CLOG SUBMERSIBLE, QUICK DISCONNECT PUMP	1	
A1.10	Sewage Treatment Plant (multi-stage biological process incorporating biological nutrient removal (BNR), )	1	

BCDA shall subject the delivered items to functional testing prior to acceptance. All such items that were subjected to functional testing shall be part of the delivery, however, before acceptance the worn-out or damaged parts shall be replaced.

All incidental expenses including handling, shipping, and functional testing shall be shouldered by the winning bidder/supplier.

The Bidder hereby commits to deliver the goods and equipment following the requirements in Section VII Technical Specification, within the specified day to comply with the additional conditions for delivery and acceptance as determined by the BCDA.

**Bidder's Authorized Representative:**

\_\_\_\_\_  
Signature over Printed Name

\_\_\_\_\_  
Principal Bidder / Supplier

# SCHEDULE OF REQUIREMENTS

## Lot B

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

	Description	Qty	Delivered, Weeks/Months
<b>LOT B1 – ICT EQUIPMENT</b>			
B1.1	External Hard Drive	4	Within 90 calendar days from receipt of Notice to Proceed
B1.2	27-inch Screen Extended Display	8	
B1.3	Standard Desktop Printer	10	
B1.4	(3 in 1) : Printer, Scanner, Copier -- High speed and Legal Size Scanner	10	
B1.5	3 in 1 High End Printer	4	
B1.6	ID Printer	1	
B1.7	Standard Scanner	2	
B1.8	55" Smartboard	4	
B1.9	DESKTOP (supporting Windows 10)	30	
B1.10	DESKTOP (supporting Windows 10 with graphics)	22	
B1.11	DESKTOP (supporting Mac OS)	2	
B1.12	VOICE RECORDERS	15	
B1.13	LAPTOP (supporting Mac OS)	4	
B1.14	Uninterruptible Power Supply	60	
<b>LOT B2 – NETWORK INFRASTRUCTURE</b>			
B2.1	Data Center Facility	1	Within 90 calendar days from receipt of Notice to Proceed
B2.2	Traditional Virtualization	3	
B2.3	Network Attached Storage (NAS) (Quantity: 1)	1	
B2.4	Active Directory Server	1	
B2.5	Internet Router	2	
B2.6	CORE SWITCH	2	
B2.7	ACCESS SWITCH -ADMIN AND ACAD BLDG 170,000.00	10	
B2.8	ACCESS SWITCH - MULTI SPORT 48P PoE SWITCH	3	
B2.9	MANAGEMENT SWITCH (24-port Switch)	1	
B2.10	SERVER SWITCH	2	
B2.11	OUTDOOR ACCESS POINT	6	

B2.12	POINT TO POINT ACCESS POINT	2		
B2.13	Directional Antenna 500m	2		
B2.14	Door Access System			
B2.15	CABLING	1		
B2.16	Firewall	1		
B2.17	+ 10G SFP Transceiver	4		
B2.18	ENDPOINT SECURITY	109		
B2.19	Server protection + annual maintenance (Endpoint + Server)	6		
B2.20	Virtual Firewall	1		
B2.21	Virtual Web Application Firewall	1		
B2.22	Mobile Device Management	100		
B2.23	IPPBX (Appliance) with ISDN port	2		
B2.24	High Availability	1		
B2.25	Executive Phone	9		
B2.26	Manager's Phone	17		
B2.27	Operator Phone	1		
B2.28	Conference Phone	6		
B2.29	E1/T1 Gateway	1		
<b>LOT B3 – AUDIO VISUAL EQUIPMENT</b>				
B3.1	SMART TV LED TV 50"	10		Within 90 calendar days from receipt of Notice to Proceed
B3.2	SMART LED TV 65"	30		
B3.3	SMART LED TV 43"	10		
B3.4	SMART LED TV 32"	10		
B3.5	TV Accessories	1		
B3.6	Audio System	20		
B3.7	Broadcast System	30		
B3.8	AV Integration Unit	20		
B3.9	White Board	40		
B3.10	Silver Screen For Projector	30		
B3.11	Wireless Projector	30		
B3.12	Audio Visual Accessories	1		

BCDA shall subject the delivered items to functional testing prior to acceptance. All such items that were subjected to functional testing shall be part of the delivery, however, before acceptance the worn-out or damaged parts shall be replaced.



All incidental expenses including handling, shipping, and functional testing shall be shouldered by the winning bidder/supplier.

The Bidder hereby commits to deliver the goods and equipment following the requirements in Section VII Technical Specification, within the specified day to comply with the additional conditions for delivery and acceptance as determined by the BCDA.

**Bidder's Authorized Representative:**

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Signature over Printed Name

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Principal Bidder / Supplier

# SCHEDULE OF REQUIREMENTS

## Lot C

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

	Description	Qty .	Delivered, Weeks/Months
<b>LOT C1 – SPORTS EQUIPMENT</b>			
C1.1	Basketball Backstop	1	Within 60 calendar days from receipt of Notice to Proceed
C1.2	Basketball Scoreboard With Controller	1	
C1.3	Basketball Shot Clock With Controller	1	
C1.4	Tabletop Scoreboard (Digital)	6	
C1.5	Professional Volleyball Set	1	
C1.6	Long Table	2	
C1.7	Sports Team Benches	8	
C1.8	Handball Goal	1	
C1.9	Movable Badminton Post And Net	5	
C1.10	Badminton Umpire Chair	5	
C1.11	Badminton Scoreboard	5	
C1.12	Badminton Feeder	5	
C1.13	Balance Beam For Training (Adjustable)	2	
C1.14	Trampoline	1	
C1.15	Chalk Stand	2	
C1.16	Scoreboard For Table Tennis	4	
C1.17	Table Tennis Ball Feeder	4	
C1.18	Table Tennis Court Fence	60	
C1.19	Table Tennis Table	6	
C1.20	Table Tennis Net And Post	6	
C1.21	Competition Hurdles	30	
C1.22	Starting Block	8	
C1.23	High-Power Treadmill (Regular Commercial Treadmill)	4	
C1.24	Manual Curved Treadmill	2	
C1.25	Indoor Cycling Bike	3	
C1.26	Air Powered Functional Trainer	3	
C1.27	Functional Trainer Accessories	3	
C1.28	Compressor	1	
C1.29	Base Jammer	1	
C1.30	Athletic Power Rack	4	
C1.31	Weightlifting Platform	4	
C1.32	Multi-Adjustable Bench	4	
C1.33	Flat Olympic Bench With Weight Storage	2	
C1.34	Rubber Dumbbell Set with Urethane Handles And Return Rack	2	
C1.35	Plate-Loaded ISO Lateral Shoulder Press Machine	1	

C1.36	Plate-Loaded ISO Lateral Wide Chest	1	
C1.37	Adjustable Pulley Outrigger	1	
C1.38	Hip And Glute Machine	1	
C1.39	Plate-Loaded Linear Hack Squat	1	
C1.40	Plate -Loaded ISO Lateral Leg Extension	1	
C1.41	Plate-Loaded ISO Leg Curl	1	
C1.42	Olympic Bumper Plates	12	
C1.43	Olympic Bar with locks	12	
C1.44	Rubber Olympic Disc Set	4	
C1.45	Medicine Ball	2	
C1.46	Suspension Trainer	4	
C1.47	Kettlebell with Chrome Handle Set	3	
C1.48	Wall Mounted Gym Trainer	1	
C1.50	Velocity Based Tracker	5	
C1.51	Open Trap bar	4	
C1.52	Plyo Boxes	6	
C1.53	1080 Sprint	1	
C1.54	Slide Board	4	
C1.55	Contact Grid	1	
C1.56	Dual Force Plates	1	
C1.57	Seated Calf Raise Machine	1	
<b>LOT C2 – FITNESS TESTING &amp; MONITORING EQUIPMENT</b>			
C2.1	Bioelectrical Impedance Analyzer	1	Within 60 calendar days from receipt of Notice to Proceed
C2.2	Timing Gates	6	
C2.3	Super Treadmill	1	
C2.4	Physiological Monitoring System	15	
C2.5	Heart Rate Monitors (Sensor)	30	
C2.6	Cycle Ergometer	1	
C2.7	High Resolution Camera	10	
C2.8	Refractometer For Urine Specific Gravity	10	
C2.9	Strength Dynamometer	5	
C2.10	Sit And Reach Box	5	
C2.11	Goniometer	10	
C2.12	Vertec	5	
C2.13	Field Speaker - Trolley Type	3	
C2.14	Weighing Scale - Eye Level Beam Type With Stadiometer	5	
<b>LOT C3 – PHYSICAL THERAPY &amp; REHABILITATION EQUIPMENT</b>			
C3.1	Anti-Gravity Treadmill	1	Within 60 calendar days from receipt
C3.2	Overhead / Ceiling- Mounted Track And Harness	1	
C3.3	Therapeutic Ultrasound	2	
C3.4	Portable Electrotherapy Machine	2	
C3.5	Shockwave	2	
C3.6	Portable Percussion Massage Gun	2	
C3.7	Thermal Regulated Pneumatic Compression	2	
C3.8	Inflatable Ice Bath System	1	
C3.9	Cervical And Lumbar Mechanical Traction Machine	1	

C3.10	Traction Bed	1	of Notice to Proceed
C3.11	Parallel Bars	1	
C3.12	Medicine Balls (All Sizes)	1	
C3.13	Vinyl Coated Dumbbell	1	
C3.14	Cuff Weights	1	
C3.15	Resistance Bands	1	
C3.16	Plyometric Box	1	
C3.17	Cognitive & Coordination Training Platform	1	
C3.18	Treatment Table	2	
C3.19	Ergo Chair	4	
C3.20	Working Table	2	
C3.21	Hydro collator	1	
C3.22	Freezer	1	
C3.23	Hot packs (All Sizes)	2	
C3.24	Cold packs	10	
C3.25	Paraffin Wax Bath	1	

BCDA shall subject the delivered items to functional testing prior to acceptance. All such items that were subjected to functional testing shall be part of the delivery, however, before acceptance the worn-out or damaged parts shall be replaced.

All incidental expenses including handling, shipping, and functional testing shall be shouldered by the winning bidder/supplier.

The Bidder hereby commits to deliver the goods and equipment following the requirements in Section VII Technical Specification, within the specified day to comply with the additional conditions for delivery and acceptance as determined by the BCDA.

**Bidder's Authorized Representative:**

\_\_\_\_\_  
Signature over Printed Name

\_\_\_\_\_  
Principal Bidder / Supplier

# SCHEDULE OF REQUIREMENTS

## Lot D

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

	Description	Qty.	Delivered, Weeks/Months
<b>LOT D1 – CLASSROOM FURNITURE</b>			
D1.1	Collaborative Student Desk	720	Within 60 calendar days from receipt of Notice to Proceed
D1.2	Student Chair	720	
<b>LOT D2 – OFFICE EQUIPMENT</b>			
D2.1	Binding Machine	4	Within 60 calendar days from receipt of Notice to Proceed
D2.2	Paper Shredder	4	
D2.3	Paper Trimmer Cutting Machine	4	
D2.4	Floor Mounted (Tight Fit UV)	4	
D2.5	Infrared Thermal Scanner w/ stand, K3	10	
D2.6	Non-Contact Infrared Forehead Thermometer	10	
D2.7	Automatic Alcohol Dispenser with Stand	30	
D2.8	ULV Generator Misting Machine Cold Fogger	4	
D2.9	Atomizing Disinfection Gun of Blue Nano Disinfection Sprayer	10	
D2.10	Coffee Maker	20	
D2.11	Coffee Vending Machines	10	
D2.12	Microwave Oven	10	
D2.13	Weighing Scale with Height & Weight	1	
D2.14	Dental Chair & Accessories	1	
D2.15	4.0 cu.ft. Personal Refrigerator	12	
D2.16	8.0 cu.ft. Top Freezer Two Door Refrigerator	4	
<b>LOT D3 – OFFICE FURNITURE AND FIXTURES</b>			
D3.1	Executive Office Table - Type 1	2	Within 60 calendar days from receipt of Notice to Proceed
D3.2	Executive Office Table - Type 2	2	
D3.3	Executive Conference Table	1	
D3.4	Executive Chair	4	
D3.5	Executive Visitors Chair	20	
D3.6	Office Table - Type 1	32	
D3.7	Office Table - Type 2	106	
D3.8	Office Chair - Type 1	66	
D3.9	Office Chair - Type 2	194	
D3.10	Office Chair - Type 3	130	
D3.11	Office Visitors Chair	44	
D3.12	Sofa 3-Seater (Type 1)	3	
D3.13	Sofa Single-Seater (Type 1)	5	
D3.14	Sofa 3-Seater (Type 2)	6	
D3.15	Center Table	4	
D3.16	Side Table	8	
D3.17	Meeting Table - Rectangular	11	
D3.18	Meeting Table - Square	12	

D3.19	Meeting Table - Round	3	
D3.20	Folding Table Type 1	4	
D3.21	Folding Table Type 2	2	
D3.22	Folding Table Type 3	2	
D3.23	Faculty Workstation Desk	24	
D3.24	Student Locker Cabinet	80	
D3.25	Steel Filing Cabinet	50	
D3.26	Low Height Shelving Cabinet - Closed	40	
D3.27	Low Height Shelving Cabinet - Open	20	
D3.28	Printer Cabinet With Open Shelvings	20	
<b>LOT D4 – KITCHEN EQUIPMENT AND DINING HALL FURNITURE</b>			
D4.1	Dining Table Square - Outdoor	80	Within 60 calendar days from receipt of Notice to Proceed
D4.2	Dining Chair- Outdoor	250	
D4.3	Dining Table Square - Indoor	10	
D4.4	Dining Table Rectangle - Indoor	10	
D4.5	Dining Chair- Indoor	100	
D4.6	Kitchen Cabinet	6	
D4.7	Kitchen Overhead Cabinet	6	
D4.8	Stainless Steel Preparation Table	5	
D4.9	Commercial Hood Ranges	2	
D4.10	Stainless Steel Rack Cabinet	2	
D4.11	Stainless Working Tables (180cmx80cmx80cm)	5	
D4.12	Rubber floor mats	20	
D4.13	Commercial Kitchen Fire Suppression System	2	
D4.14	First aid kit	5	
D4.15	Air Purifier with HEPA Filter	4	
D4.16	Steel Cabinets - 10 drawers	2	
D4.17	Steel Cabinets - 8 drawers	2	
D4.18	Lockers - 18 doors steel locker	1	
D4.19	Office Cabinets - Glass & Metal Swing Door Cabinet	2	
D4.20	Utility Office Table (200x60)	1	
D4.21	Height Adjustable Table for Para-athletes	2	

BCDA shall subject the delivered items to functional testing prior to acceptance. All such items that were subjected to functional testing shall be part of the delivery, however, before acceptance the worn-out or damaged parts shall be replaced.

All incidental expenses including handling, shipping, and functional testing shall be shouldered by the winning bidder/supplier.

The Bidder hereby commits to deliver the goods and equipment following the requirements in Section VII Technical Specification, within the specified day to comply with the additional conditions for delivery and acceptance as determined by the BCDA.

**Bidder's Authorized Representative:**

\_\_\_\_\_  
Signature over Printed Name

\_\_\_\_\_  
Principal Bidder / Supplier

**SECTION VII.**

**TECHNICAL  
SPECIFICATIONS**

# TECHNICAL SPECIFICATIONS

## Lot A

Bidders must indicate whether the goods and equipment offered are “Compliant” or “Non-Compliant” to the corresponding specifications prescribed by BCDA using this form.

<b>SUPPLY, DELIVERY, AND INSTALLATION OF GOODS (FURNITURE AND EQUIPMENT)nk FOR THE NATIONAL ACADEMY OF SPORTS (NAS) – PHASE 1 AT NEW CLARK CITY</b>					
<b>TECHNICAL SPECIFICATIONS COMPLIANCE FORM</b>					
LOT	ITEM	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-Compliant
A1.1	1	Unit	<p><b>500kVA/400kW Stand by Generator Set</b></p> <p><b>QUALIFICATIONS OF THE BIDDER</b></p> <ul style="list-style-type: none"> <li>• The bidder must be an accredited distributor / partner.</li> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <p>1) ENGINE-GENERATOR SET</p> <p>A. Factory-assembled and -tested, engine-generator set.</p> <p>B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.</p> <ul style="list-style-type: none"> <li>a. Rigging Diagram: Inscribed on metal plate permanently attached to mounting frame to indicate location and lifting capacity of each lifting attachment and generator-set center of gravity.</li> </ul> <p>C. Capacities and Characteristics:</p> <ul style="list-style-type: none"> <li>a. Power Output Ratings: 1 unit of 500kVA (400KW), 400V, 3Phase, 60Hz Standby rated</li> <li>b. Output Connections: Three-phase, four wire</li> <li>c. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of component.</li> </ul> <p>D. Generator-Set Performance:</p> <ul style="list-style-type: none"> <li>a. Steady-State Voltage Operational Bandwidth: 3 percent of rated output voltage from no load to full load.</li> <li>b. Transient Voltage Performance: Not more than 20 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within three seconds</li> <li>c. Steady-State Frequency Operational Bandwidth: 0.5 percent of rated frequency from no load to full load</li> <li>d. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the</li> </ul>		



steady-state operational band and no hunting or surging of speed

- e. Transient Frequency Performance: Less than 5 percent variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within five seconds
- f. Output Waveform: At no load, harmonic content measured line to line or line to neutral shall not exceed 5 percent total and 3 percent for single harmonics. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent
- g. Sustained Short-Circuit Current: For a 3-phase, bolted short circuit at system output terminals, system shall supply a minimum of 250 percent of rated full load current for not less than 10 seconds and then clear the fault automatically, without damage to generator system components
- h. Start Time: Comply with NFPA 110, Type 10, system requirements.

## 2) ENGINE

- A. Fuel: Fuel oil, Grade DF-2
- B. Rated Engine Speed: 1800 rpm
- C. Maximum Piston Speed for Four-Cycle Engines: 2250 fpm (11.4 m/s)
- D. Lubrication System: The following items are mounted on engine or skid:
  - a. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow
  - b. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe
  - c. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.
- E. Engine Fuel System:
  - a. Main Fuel Pump: Mounted on engine. Pump ensures adequate primary fuel flow under starting and load conditions.
  - b. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.
- F. Coolant Jacket Heater: Electric-immersion type, factory installed in coolant jacket system. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity.
- G. Governor: Adjustable isochronous, with speed sensing.
- H. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.
  - a. Minimum sound attenuation of 25 dB at 500 Hz.

- b. Sound level measured at a distance of 10 feet (3 m) from exhaust discharge after installation is complete shall be 85 dBA or less.
- I. Air-Intake Filter: Heavy-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
- J. Starting System: 24-V electric, with negative ground.
  - a. Components: Sized so they will not be damaged during a full engine cranking cycle with ambient temperature at maximum specified in Part 1 "Project Conditions" Article
  - b. Cranking Motor: Heavy-duty unit that automatically engages and releases from engine flywheel without binding.
  - c. Cranking Cycle: As required by NFPA 110 for system level specified
  - d. Battery: Adequate capacity within ambient temperature range specified in Part 1 "Project Conditions" Article to provide specified cranking cycle at least three times without recharging.
  - e. Battery Cable: Size as recommended by engine manufacturer for cable length indicated. Include required interconnecting conductors and connection accessories.
  - f. Battery Compartment: Factory fabricated of metal with acid-resistant finish and thermal insulation. Thermostatically controlled heater shall be arranged to maintain battery above 10 deg C regardless of external ambient temperature within range specified in Part 1 "Project Conditions" Article. Include accessories required to support and fasten batteries in place.
  - g. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation and 35-A minimum continuous rating
  - h. Battery Charger: Current-limiting, automatic-equalizing and float-charging type.
    - i. Operation: Equalizing-charging rate of 10 A shall be initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit shall then be automatically switched to a lower float-charging mode and shall continue to operate in that mode until battery is discharged again.
    - ii. Automatic Temperature Compensation: Adjust float and equalize voltages for variations in ambient temperature from minus 40 deg C to plus 60 deg C to prevent overcharging at high temperatures and undercharging at low temperatures.
    - iii. Automatic Voltage Regulation: Maintain constant output voltage regardless of input voltage variations up to plus or minus 10 percent.
    - iv. Ammeter and Voltmeter: Flush mounted in door. Meters shall indicate charging rates.

- v. Safety Functions: Sense abnormally low battery voltage and close contacts providing low battery voltage indication on control and monitoring panel. Sense high battery voltage and loss of ac input or dc output of battery charger. Either condition shall close contacts that provide a battery-charger malfunction indication at system control and monitoring panel.
- vi. Enclosure and Mounting: NEMA 250, Type 1, wall-mounted cabinet.

### 3) FUEL OIL STORAGE

- A. Comply with NFPA 30.
- B. Day Tank: Freestanding, factory-fabricated fuel tank assembly, with integral, float controlled transfer pump and the following features:
  - a. Containment: Integral rupture basin with a capacity of 150 percent of nominal capacity of day tank.
    - i. Leak Detector: Locate in rupture basin and connect to provide audible and visual alarm in the event of day-tank leak.
  - b. Tank Capacity: As indicated in the drawings (to provide 8 hours capacity).
  - c. Pump Capacity: Exceeds maximum flow of fuel drawn by engine-mounted fuel supply pump at 110 percent of rated capacity, including fuel returned from engine.
  - d. Low-Level Alarm Sensor: Liquid-level device operates alarm contacts at 25 percent of normal fuel level.
  - e. High-Level Alarm Sensor: Liquid-level device operates alarm and redundant fuel shutoff contacts at midpoint between overflow level and 100 percent of normal fuel level.
  - f. Piping Connections: Factory-installed fuel supply and return lines from tank to engine; local fuel fill, vent line, overflow line; and tank drain line with shutoff valve.
  - g. Redundant High-Level Fuel Shutoff: Actuated by high-level alarm sensor in day tank to operate a separate motor device that disconnects day-tank pump motor. Sensor shall signal solenoid valve, located in fuel suction line between fuel storage tank and day tank, to close. Both actions shall remain in shutoff state until manually reset. Shutoff action shall initiate an alarm signal to control panel but shall not shut down engine-generator set.

### 4) CONTROL AND MONITORING

- A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of generator set. When mode-selector switch is switched to the on position, generator set starts. The off

position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.

- B. Manual Starting System Sequence of Operation: Switching on-off switch on the generator control panel to the on position starts generator set. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.
- C. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common control and monitoring panel mounted on the generator set. Mounting method shall isolate the control panel from generator-set vibration.
- D. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common wall-mounted control and monitoring panel.
- E. Configuration: Operating and safety indications, protective devices, basic system controls, engine gages, instrument transformers, generator disconnect switch or circuit breaker, and other indicated components shall be grouped in a combination control and power panel. Control and monitoring section of panel shall be isolated from power sections by steel barriers. Panel features shall include the following:
  - a. Wall-Mounting Cabinet Construction: Rigid, self-supporting steel unit complying with NEMA ICS 6. Power bus shall be copper.
  - b. Switchboard Construction: Freestanding unit complying with Division 16 Section "Switchboards."
  - c. Switchgear Construction: Freestanding unit complying with Division 16 Section "Switchgear."
  - d. Current and Potential Transformers: Instrument accuracy class.
- F. Indicating and Protective Devices and Controls: As required by NFPA 110 for Level 2 system, and the following:
  - a. AC voltmeter
  - b. AC ammeter
  - c. AC frequency meter
  - d. DC voltmeter (alternator battery charging)
  - e. Engine-coolant temperature gauge
  - f. Engine lubricating-oil pressure gauge
  - g. Running-time meter
  - h. Ammeter-voltmeter, phase-selector switch (es)
  - i. Generator-voltage adjusting rheostat
  - j. Start-stop switch
  - k. Over speed shutdown device
  - l. Coolant high-temperature shutdown device
  - m. Coolant low-level shutdown device
  - n. Oil low-pressure shutdown device
  - o. Fuel tank derangement alarm
  - p. Fuel tank high-level shutdown of fuel supply alarm

- q. Generator overload
- G. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator, unless otherwise indicated
- H. Common Remote Audible Alarm: Comply with NFPA 110 requirements for Level 1 systems. Include necessary contacts and terminals in control and monitoring panel
  - a. Over crank shutdown
  - b. Coolant low-temperature alarm
  - c. Control switch not in auto position
  - d. Battery-charger malfunction alarm
  - e. Battery low-voltage alarm
- I. Common Remote Audible Alarm: Signal the occurrence of any events listed below without differentiating between event types. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset
  - a. Engine high-temperature shutdown
  - b. Lube-oil, low-pressure shutdown
  - c. Over speed shutdown
  - d. Remote emergency-stop shutdown
  - e. Engine high-temperature pre alarm
  - f. Lube-oil, low-pressure pre alarm
  - g. Fuel tank, low-fuel level
  - h. Low coolant level
- J. Remote Alarm Annunciator: Comply with NFPA 99. An LED labeled with proper alarm conditions shall identify each alarm event and a common audible signal shall sound for each alarm condition. Silencing switch in face of panel shall silence signal without altering visual indication. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset. Cabinet and faceplate are surface- or flush-mounting type to suit mounting conditions indicated
- K. Remote Emergency-Stop Switch: Flush; wall mounted, unless otherwise indicated; and labeled. Push button shall be protected from accidental operation.

5) GENERATOR OVERCURRENT AND FAULT PROTECTION

- A. Generator Circuit Breaker: Insulated-case, electronic-trip type; 100 percent rated
  - a. Tripping Characteristics: Adjustable long-time and short-time delay and instantaneous
  - b. Trip Settings: Selected to coordinate with generator thermal damage curve
  - c. Shunt Trip: Connected to trip breaker when generator set is shut down by other protective devices
  - d. Mounting: Adjacent to or integrated with control and monitoring panel
- B. Generator Disconnect Switch: Molded-case type, 100 percent rated
  - a. Rating: Matched to generator output rating
  - b. Shunt Trip: Connected to trip switch when signaled by generator protector or by other protective devices

- C. Generator Protector: Microprocessor-based unit shall continuously monitor current level in each phase of generator output, integrate generator heating effect over time, and predict when thermal damage of alternator will occur. When signaled by generator protector or other generator-set protective devices, a shunt-trip device in the generator disconnect switch shall open the switch to disconnect the generator from load circuits. Protector shall perform the following functions:
  - a. Initiates a generator overload alarm when generator has operated at an overload equivalent to 110 percent of full-rated load for 60 seconds. Indication for this alarm is integrated with other generator-set malfunction alarms.
  - b. Under single or three-phase fault conditions, regulates generator to 300 percent of rated full-load current for up to 10 seconds
  - c. As overcurrent heating effect on the generator approaches the thermal damage point of the unit, protector switches the excitation system off, opens the generator disconnect device, and shuts down the generator set
  - d. Senses clearing of a fault by other overcurrent devices and controls recovery of rated voltage to avoid overshoot

6) GENERATOR, EXCITER, AND VOLTAGE REGULATOR

- A. Comply with NEMA MG 1
- B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor
- C. Electrical Insulation: Class F
- D. Stator-Winding Leads: Brought out to terminal box to permit future reconnection for other voltages if required
- E. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, over speed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity
- F. Instrument Transformers: Mounted within generator enclosure
- G. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified
  - a. Adjusting rheostat on control and monitoring panel shall provide plus or minus 5 percent adjustment of output-voltage operating band
- H. Strip Heater: Thermostatically controlled unit arranged to maintain stator windings above dew point
- I. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding
- J. Subtransient Reactance: 12 percent, maximum.

7) MOTORS

- A. General requirements for motors:

- a. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0
- b. Controllers, Electrical Devices, and Wiring: Electrical devices and connections are specified in Division 16 Sections.

8) VIBRATION ISOLATION DEVICES

- A. Elastomeric Isolator Pads: Oil- and water-resistant elastomer or natural rubber, arranged in single or multiple layers, molded with a nonslip pattern and galvanized steel baseplates of sufficient stiffness for uniform loading over pad area, and factory cut to sizes that match requirements of supported equipment.
  - a. Material: Standard neoprene
  - b. Durometer values range from 30 to 70 and are measures of hardness or, indirectly, deflection. Lower durometer values indicate softer material with more deflection
  - c. Durometer Rating: 50
  - d. Number of Layers: Two
- B. Restrained Spring Isolators: Freestanding, steel, open-spring isolators with seismic restraint
  - a. Housing: Steel with resilient vertical-limit stops to prevent spring extension due to wind loads or if weight is removed; factory-drilled baseplate bonded to 1/4-inch- (6-mm-) thick, elastomeric isolator pad attached to baseplate underside; and adjustable equipment mounting and leveling bolt that acts as blocking during installation
  - b. Outside Spring Diameter: Not less than 80 percent of compressed height of the spring at rated load
  - c. Minimum Additional Travel: 50 percent of required deflection at rated load
  - d. Lateral Stiffness: More than 80 percent of rated vertical stiffness
  - e. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.

9) FINISHES

- A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

10) SOURCE QUALITY CONTROL

- A. Project-Specific Equipment Tests: Before shipment, factory test engine-generator set and other system components and accessories manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:
  - a. Test components and accessories furnished with installed unit that are not identical to those on tested prototype to demonstrate compatibility and reliability.

			<ul style="list-style-type: none"> <li>b. Full load run</li> <li>c. Maximum power</li> <li>d. Voltage regulation</li> <li>e. Transient and steady-state governing</li> <li>f. Single-step load pickup</li> <li>g. Safety shutdown</li> <li>h. Provide 14 days' advance notice of tests and opportunity for observation of tests by Owner's representative</li> <li>i. Report factory test results within 10 days of completion of test.</li> </ul> <p>11) PERMIT</p> <p>A. Secure all necessary permits from LGU</p> <p>Warranty: 2 years against factory defect</p>		
A1.2	1	Unit	<p><b>MEDIUM VOLTAGE SWITCH GEAR</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <p>1) MANUFACTURED UNITS</p> <p>A. Description: Factory assembled and tested, and complying with IEEE C37.20.1</p> <p>B. Ratings: Suitable for application in 3-phase, 60-Hz, solidly grounded-neutral system</p> <p>C. System Voltage: 13.8kV nominal; 15 kV maximum</p> <p>D. The brand must have at least 5 years of existence in the market.</p> <p>2) VACUUM CIRCUIT-BREAKER SWITCHGEAR</p> <p>A. Nominal Interrupting-Capacity Class: 750 MVA.</p> <p>B. Ratings:</p> <ul style="list-style-type: none"> <li>a. Main-Bus Rating: 1200 A, continuous</li> </ul> <p>C. Circuit Breakers: Three-pole, single-throw, electrically operated, drawout-mounting units using three individual, vacuum-sealed interrupter modules and including the following features:</p> <ul style="list-style-type: none"> <li>a. Designed to operate at rated voltage to interrupt fault current within its rating within five cycles of trip initiation. For systems with X/R ratio of 17 or less, transient voltage during interruption shall not exceed twice the rated line-to ground voltage of the system</li> <li>b. Contact-Wear Indicator: Readily accessible to field maintenance personnel</li> <li>c. Minimum of six Type A and six Type B spare contacts</li> <li>d. Interchangeability: Circuit breakers are interchangeable with vacuum circuit breakers of same current and interrupting ratings</li> </ul>		1



- e. Internal sulfur hexafluoride pressure is not to exceed 2.5 bars during normal operation
  - i. Current Rating of Main Circuit Breaker: 630 A
  - ii. Continuous Current Rating of Feeder Circuit Breaker: 630 A
- f. Operating Mechanism: Electrically charged, mechanically and electrically trip-free, stored-energy operated
  - i. Closing speed of moving contacts to be independent of both control and operator
  - ii. Design mechanism to permit manual charging and slow closing of contacts for inspection or adjustment
    - (a) Control Power: 48-V dc for closing and tripping
    - (b) Control Power: 240-V ac for closing and tripping
  - iii. Provide shunt trip capability independent of overcurrent trip
- D. Test Accessories: Relay and meter test plugs
- E. Low-DC-Voltage Alarm: Switchgear shall have a monitor for dc control power voltage with a remote alarm located where indicated. Alarm shall sound if voltage falls to an adjustable value to indicate an impending battery failure. Factory set alarm value at 80 percent of full-charge voltage
- F. Grounding and Testing Device: Suitable for phasing out, testing, and grounding switch gear bus or feeder if device is installed in place of circuit breaker. Include the following:
  - a. Portable Grounding and Testing Device: Interchangeable with drawout- mounting medium-voltage circuit breakers to provide interlocked electrical access to either bus or feeder; electrically operated
  - b. System control cabinet permanently mounted near switchgear
  - c. Control-Cabinet Coupler Cable: Of adequate length to connect device inserted in any switchgear cubicle and control cabinet
  - d. Permanent Control Power Wiring: From control cabinet to power source
  - e. Protective Cover: Fabricated of heavy-duty plastic and fitted to device
  - f. Approval of Grounding and Testing Device System: Obtain approval of final system design from utility company and agency designated by Owner to handle future maintenance of medium-voltage switchgear
- G. Circuit-Breaker Test Cabinet: Separately mounted and containing push buttons for circuit-breaker closing and tripping, control relay, fuses, and secondary coupler with cable approximately 108 inches (2740 mm) long. Include a set of secondary devices for operating circuit breaker if removed from switchgear and moved near test cabinet. Include provision for storage of test and maintenance accessories in cabinet

		<p>H. Remote-Tripping Device: Wall-mounting emergency control station to open circuit breakers; located in red cast-metal box with break-glass operation</p> <p>I. The brand must have at least 5 years of existence in the market</p> <p>3) FABRICATION</p> <p>A. Indoor NEMA 2: not less than US gauge 12 (2.657mm)</p> <p>B. Finish: Manufacturer's standard gray finish over rust-inhibiting primer on phosphatizing-treated metal surfaces</p> <p>C. Bus Transition Unit: Arranged to suit bus and adjacent units</p> <p>D. Incoming-Line Unit: Arranged to suit incoming line</p> <p>E. Outgoing Feeder Units: Arranged to suit distribution feeders</p> <p>F. Auxiliary Compartments: Arranged to suit house meters, relays, controls, and auxiliary equipment; isolated from medium-voltage components</p> <p>G. Key Interlocks: Arranged to effect interlocking schemes indicated</p> <p>H. Provisions for Future Key Interlocks: Mountings and hardware required for future installation of locks, where indicated.</p> <p>4) COMPONENTS</p> <p>A. Main Bus: Copper, silver plated at connection points; full length of switchgear</p> <p>    a. Ground Bus: Copper, tin plated; minimum size 6 by 50mm; full length of switchgear</p> <p>B. Bus Insulation: Covered with flame-retardant insulation</p> <p>C. Instrument Transformers: Comply with IEEE C57.13</p> <p>    a. Potential Transformers: Secondary voltage rating of 230 V and NEMA accuracy class of 0.3 with burdens of W, X, and Y</p> <p>    b. Current Transformers: Burden and accuracy class suitable for connected relays, meters, and instruments</p> <p>D. Multifunction Digital-Metering Monitor: Microprocessor-based unit suitable for three or four-wire systems, listed and labelled by an NRTL, and with the following features:</p> <p>    a. Inputs from sensors or 5-A current-transformer secondaries, and potential terminals rated to 600 V</p> <p>    b. Switch-selectable digital display with the following features:</p> <p>        i. Phase Currents, Each Phase: Plus or minus 1 percent</p> <p>        ii. Phase-to-Phase Voltages, Three Phase: Plus or minus 1 percent</p> <p>        iii. Phase-to-Neutral Voltages, Three Phase: Plus or minus 1 percent</p> <p>        iv. Three-Phase Real Power: Plus or minus 2 percent</p> <p>        v. Three-Phase Reactive Power: Plus or minus 2 percent</p> <p>        vi. Power Factor: Plus or minus 2 percent</p> <p>        vii. Frequency: Plus or minus 0.5 percent</p>		
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- viii. Integrated Demand, with Demand Interval Selectable from 5 to 60 Minutes: Plus or minus 2 percent
    - ix. Accumulated energy, in megawatt hours (joules), plus or minus 2 percent; stored values unaffected by power outages for up to 72 hours
  - c. Mounting: Display and control unit that is flush or semiflush mounted in instrument compartment door
- E. Analog Instruments: Rectangular, 4-1/2 inches (115 mm) square, 1 percent accuracy, semiflush mounting, with antiparallax 250-degree scale and external zero adjustment, and complying with ANSI C39.1
  - a. Voltmeters: Cover an expanded scale range of normal voltage plus 10 percent
  - b. Voltmeter Selector Switch: Rotary type with off position to provide readings of phase-to-phase and phase-to-neutral voltages
  - c. Ammeters: Cover an expanded scale range of bus rating plus 10 percent
  - d. Ammeter Selector Switch: Permits current reading in each phase and keeps current-transformer secondary circuits closed in off position
  - e. Locate meter and selector switch on circuit-breaker compartment door for indicated feeder circuits only
  - f. Watt-Hour Meters: Flush- or semiflush-mounting type, 5 A, 120 V, 3 phase, 3 wire; with 3 elements, 15-minute indicating demand register, and provision for testing and adding pulse initiation
  - g. Recording Demand Meter: Usable as totalizing relay or indicating and recording maximum demand meter with 15-minute interval
    - i. Operation: Counts and records a succession of pulses entering two channels
    - ii. Housing: Drawout, back-connected case arranged for semiflush mounting
- F. Relays: Comply with IEEE C37.90, integrated digital type; with test blocks and plugs
- G. Surge Arresters: Distribution class, metal-oxide-varistor type. Comply with NEMA LA 1
  - a. Install in cable termination compartments in each phase of circuit
  - b. Coordinate rating with circuit voltage
- H. Control Power Supply: DC battery system
- I. Control Power Supply: Control power transformer supplies 120-V control circuits through secondary disconnect devices. Include the following features:
  - a. Dry-type transformers, in separate compartments for units larger than 3 kVA, including primary and secondary fuses
  - b. Two control power transformers in separate compartments with necessary interlocking relays; each transformer connected to line side of associated main circuit breaker

- i. Secondary windings connected through relay(s) to control bus to affect an automatic transfer scheme
    - ii. Secondary windings connected through an internal automatic transfer switch to switchgear control power bus
  - c. Control Power Fuses: Primary and secondary fuses provide current limiting and overload protection
- J. Control Wiring: Factory installed, complete with bundling, lacing, and protection; and complying with the following:
  - a. Flexible conductors for No. 8 AWG and smaller, for conductors across hinges, and for conductors for interconnections between shipping units.
  - b. Conductors sized according to PEC for duty required.

5) CONTROL BATTERY SYSTEM

- A. System Requirements: Battery shall have number of cells and ampere-hour capacity based on an initial specific gravity of 1.210 at 25 deg C with electrolyte at normal level and minimum ambient temperature of 13 deg C. Cycle battery before shipment to guarantee rated capacity on installation. Arrange battery to operate ungrounded
- B. Battery: Lead-calcium type in sealed, clear plastic or glass containers, complete with electrolyte, fully charged and arranged for shipment with electrolyte in cells. Limit weight of each container to not more than 70 lb (32 kg) and cells per container to not more than 3. System batteries shall be suitable for service at an ambient temperature ranging from minus 18 to 25 deg C. Limit variation of current output to 0.8 percent for each degree below 25 deg C down to minus 8 deg C
- C. Rack: Two-step rack with electrical connections between battery cells and between rows of cells; include two flexible connectors with bolted-type terminals for output leads. Rate battery rack, cell supports, and anchorage for seismic requirements
- D. Accessories:
  - a. Set of socket wrenches and other tools required for battery maintenance
  - b. Wall-mounting, non-metallic storage rack fitted to store above items
  - c. Set of cell numerals
- E. Charger: Static-type silicon rectifier equipped with automatic regulation and provision for manual and automatic adjustment of charging rate. Unit shall automatically maintain output voltage within 0.5 percent from no load to rated charger output current, with ac input-voltage variation of plus or minus 10 percent and input frequency variation of plus or minus 3 Hz. Other features of charger include the following:
  - a. DC ammeter
  - b. DC Voltmeter: Maximum error of 5 percent at full-charge voltage; operates with toggle switch to select between battery and charger voltages
  - c. Ground Indication: Two appropriately labelled lights to indicate circuit ground, connected in series between

negative and positive terminals, with midpoint junction connected to ground by normally open push-button contact

- d. Capacity: Sufficient to supply steady load, float-charge battery between 2.20 and 2.25 V per cell and equalizing charge at 2.33 V per cell
- e. Charging-Rate Switch: Manually operated switch provides for transferring to higher charging rate. Charger operates automatically after switch operation until manually reset
- f. AC power supply is 120 V, 60 Hz, subject to plus or minus 10 percent variation in voltage and plus or minus 3-Hz variation in frequency. After loss of ac power supply for any interval, charger automatically resumes charging battery. Charger regulates rate of charge to prevent damage due to overload and to prevent fuses or circuit breakers from opening
- g. Protective Feature: Current-limiting device or circuit, which limits output current to rating of charger but does not disconnect charger from either battery or ac supply; to protect charger from damage due to overload, including short circuit on output terminals
- h. Electrical Filtering: Reduces charger's audible noise to less than 26 dB

#### 6) IDENTIFICATION

- A. Materials: Refer to Division 16 Section "Electrical Identification." Identify units, devices, controls, and wiring
- B. Mimic Bus: Continuous mimic bus applied to front of switchgear, arranged in single line diagram format, using symbols and lettered designations consistent with approved final mimic-bus diagram
  - a. Mimic-bus segments coordinated with devices in switchgear sections to which applied, to produce a concise visual presentation of principal switchgear components and connections
  - b. Medium: Painted graphics, as approved
  - c. Color: Contrasting with factory-finish background; selected by ARCHITECT

#### 7) SOURCE QUALITY CONTROL

- A. Before shipment of equipment, perform the following tests and prepare test reports:
  - a. Production tests on circuit breakers according to ANSI C37.09
  - b. Production tests on completed switchgear assembly according to IEEE C37.20.2
- B. Assemble switchgear and equipment in manufacturer's plant and perform the following:
  - a. Functional tests of all relays, instruments, meters, and control devices by application of secondary three-phase voltage to voltage circuits and injection of current in current transformer secondary circuits

			<p>b. Functional test of all control and trip circuits. Connect test devices into circuits to simulate operation of controlled remote equipment such as circuit breaker trip coils, close coils, and auxiliary contacts. Test proper operation of relay targets</p> <p>C. Prepare equipment for shipment</p> <p>a. Provide suitable crating, blocking, and supports so equipment will withstand expected domestic shipping and handling shocks and vibration</p> <p>b. Weatherproof equipment for shipment. Close connection openings to prevent entrance of foreign material during shipment and storage</p> <p>8) FACTORY FINISHES</p> <p>A. Finish: Manufacturer's standard color finish applied to equipment before shipping</p> <p>Warranty: 1 year against factory defect</p>		
A1.3	1	Unit	<p><b>500kVA PAD MOUNTED TRANSFORMER</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <p>A. Acceptable Manufacturers: <b>See Section 16007 "Acceptable Equipment and Suppliers"</b>.</p> <p>B. Liquid-filled Secondary Distribution Transformers: ANSI C57.12.00; 3-phase, self-cooled transformer, dead front construction, loop feed; frequency, 60 Hz</p> <p>C. Capacity: 500kVA, 3Ø, 13.8kV primary voltage-400Y/230Volts secondary, 60 Hz</p> <p>D. Primary Voltage: Primary voltage shall be wye connected. Provide two each 2.5% percent full capacity above normal and full capacity below normal primary taps, with externally-operated tap change</p> <p>E. Secondary Voltage: 400 volts</p> <p>F. Impedance: 5.75 %± ANSI tolerance</p> <p>G. Sound Level: 58 db ave</p> <p>H. BIL: 150 kV</p> <p>I. Cooling and Temperature Rise: ANSI C57.12.00; Class OA. 65°C</p> <p>J. Liquid: Contain less-flammable biodegradable fluid with no detectable level of PCB, less than 1PPM at the time of manufacture</p> <p>K. Accessories: ANSI C57.12.00 standard accessories and magnetic dial-type liquid level gauge, dial-type thermometer with alarm contact, stainless steel diagrammatic nameplate on side of unit, 1-inch upper filter press and filling plug, 1-inch drain valve with sampling device, vacuum-pressure gauge, pressure relief valve, six (6) 200A HV bushing wells, six (6) load break inserts (Dead front), three (3) 27 kV elbow arrester 35 kV interface, three (3) fused Bayonet no isolation</p>	1	

		<p>link and three (3) oil immersed partial range current limiting fuse, 4 position T-blade switch, elbow connectors for XLPE</p> <p>L. Windings: Copper</p> <p>M. Primary Terminations: Air-filled compartment. Bushings shall be porcelain or cast resin epoxy side mounted on opposite side of transformer from secondary bushings</p> <p>N. Secondary Terminations: or bussed to switchgear as indicated on the one-line diagrams. Bushings shall be porcelain or cast resin epoxy side mounted on opposite side of transformer from primary bushings</p> <p>O. Other Accessories: Secondary current transformers to IEEE C57.13</p> <p>P. Finish: Tank cleaned in phosphatized solution, coated with rust-inhibiting primer, followed with baked enamel finish. Finish shall have a minimum dry film thickness of 3 mils. Color shall be ANSI 70, light gray</p> <p>Q. Factory Tests and Reports: Provide certified test reports to the Contractor on each unit for the following:</p> <ol style="list-style-type: none"> <li>a. Winding resistance test report</li> <li>b. Ratio, polarity, and phase measurements Test Report</li> <li>c. No-load, full-load loss tests</li> <li>d. Exciting current, impedance, X/R ratio</li> <li>e. Applied and induced potential tests. All tests per IEEE C57.12.90</li> <li>f. Core loss and Copper loss Test (at least 3 different loading/efficiency)</li> <li>g. Sound Level Test Report</li> <li>h. Factory-Installed Nameplates: Temporary tape labels</li> <li>i. Field-Installed Nameplates: Laminated plastic with engraved letters on each unit</li> </ol> <p>Warranty: 1 year against factory defect</p>		
A1.4		<p><b>500 GPM FIRE PUMP</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <p>A. Flow Rate = 500 gallons per minute</p> <p>B. Total Dynamic Head = 289 FT.</p> <p>C. BHP = 75 Horsepower</p> <p>D. Voltage = 400 V</p> <p>E. Phase = 3 P</p> <p>F. Hertz = 60 Hz</p> <p>G. Electrically and mechanically interlocked</p> <p>H. With complete controller &amp; accessories</p> <p>1) GENERAL REQUIREMENTS FOR CENTRIFUGAL FIRE PUMPS</p> <p>A. Description: Factory-assembled and -tested fire-pump and driver unit.</p> <p>B. Base: Fabricated and attached to fire-pump and driver unit with reinforcement to resist movement of pump during seismic events when base is anchored to building substrate.</p>	1	

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|  |  | <p>C. Finish: Red paint applied to factory-assembled and -tested unit before shipping.</p> <p>2) HORIZONTALLY MOUNTED, MULTI-STAGE SPLIT-CASE FIRE PUMPS (BY OTHERS)</p> <p>A. Manufacturers: Subject to compliance with requirements, provide available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>a. Provide packaged type fire pumps and jockey pump system, all assembled on a common base-plate. All components shall be FM approved listed where applicable, and in accordance with the following specifications.</li> <li>b. Refer to Schedule for duty. Provide horizontal multi stage, split-case centrifugal pump, hydrostatically tested to twice the maximum working pressure. Provide ductile iron casing and cover with cast iron motor bracket, bronze impeller and wearing ring, and bronze shaft sleeve. Connected to a 3,600 rpm (max), solid shaft, open drip proof type motor.</li> <li>c. Provide pumping unit complete with the following accessories: <ul style="list-style-type: none"> <li>i. One (1) concentric increaser, attached to the fire pump discharge complete with 20 mm automatic air release valve and 20 mm circulation relief valve set approximately 10% above operative discharge pressure</li> <li>ii. One (1) FM approved and labelled fire pump control panel, and with a circuit breaker interrupting capacity amperes RMS symmetrical of two (2) complete with pressure switch suitable for 350 psi range</li> </ul> </li> </ul> <p>B. Standard: FM approved, for split-case pumps for fire service</p> <ul style="list-style-type: none"> <li>a. Number of Stages: Two</li> <li>b. Casing: Axially split case, cast iron with ASME B16.1 pipe-flange connections</li> <li>c. Impeller: Cast bronze, statically and dynamically balanced, and keyed to shaft</li> <li>d. Wear Rings: Replaceable bronze</li> <li>e. Shaft and Sleeve: Steel shaft with bronze sleeve. <ul style="list-style-type: none"> <li>i. Shaft Bearings: Grease-lubricated ball bearings in cast-iron housing</li> <li>ii. Seals: Stuffing box with minimum of four rings of graphite-impregnated braided yarn and bronze packing gland</li> </ul> </li> <li>f. Mounting: Pump and driver shafts are horizontal, with pump and driver on same base</li> </ul> <p>C. Coupling: Flexible and capable of absorbing torsional vibration and shaft misalignment. Include metal coupling guard</p> <p>D. Driver:</p> <ul style="list-style-type: none"> <li>a. Standard: FM approved</li> <li>b. Type: Electric motor; NEMA MG 1, polyphase Design B</li> </ul> |  |
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|  |  | <p>E. Capacities and Characteristics: (Refer to Equipment Schedule)</p> <p>3) FIRE-PUMP ACCESSORIES AND SPECIALTIES</p> <p>A. Pipe sizes for pump test header, relief valves, discharge cones, and number and size of manifold hose valves are set by NFPA 20, so are not required in this article</p> <p>B. Automatic Air-Release Valves: Comply with NFPA 20 for installation in fire-pump casing</p> <p>C. Circulation Relief Valves: FM approved, brass, spring loaded; for installation in pump discharge piping</p> <p>D. Relief Valves:</p> <ul style="list-style-type: none"> <li>a. Description: FM approved, bronze or cast iron, spring loaded; for installation in fire suppression water-supply piping</li> </ul> <p>E. Inlet Fitting: Eccentric tapered reducer at pump suction inlet</p> <p>F. Outlet Fitting: Concentric tapered reducer at pump discharge outlet.</p> <p>G. Discharge Cone: Closed type</p> <p>H. Hose Valve Manifold Assembly:</p> <ul style="list-style-type: none"> <li>a. Standard: Comply with requirements in NFPA 20</li> <li>b. Header Pipe: ASTM A 53/A 53M, Schedule 40, galvanized steel with ends threaded according to ASME B1.20.1 or approved equal</li> <li>c. Header Pipe Fittings: ASME B16.4, galvanized cast-iron threaded fittings</li> <li>d. Automatic Drain Valve: FM approved</li> <li>e. Manifold: <ul style="list-style-type: none"> <li>i. Test Connections: Comply with FM approved except provide outlets without clappers instead of inlets</li> <li>ii. Body: Flush type, brass or ductile iron, with number of outlets required by NFPA 20</li> <li>iii. Nipples: ASTM A 53/A 53M, Schedule 40, galvanized-steel pipe with ends threaded according to ASME B1.20.1.</li> <li>iv. Adapters and Caps with Chain: Brass or bronze, with outlet threaded according to NFPA 1963 and matching local fire-department threads</li> <li>v. Escutcheon Plate: Brass or bronze; rectangular</li> <li>vi. Hose Valves: FM approved, bronze, with outlet threaded according to NFPA 1963 and matching local fire-department threads</li> <li>vii. Exposed Parts Finish: chrome plated</li> <li>viii. Escutcheon Plate Marking: Equivalent to "FIRE PUMP TEST."</li> </ul> </li> <li>f. Manifold: <ul style="list-style-type: none"> <li>i. Test Connections: Comply with FM approved except provide outlets without clappers instead of inlets</li> <li>ii. Body: Exposed type, brass, with number of outlets required by NFPA 20</li> <li>iii. Escutcheon Plate: Brass or bronze; round</li> </ul> </li> </ul> |  |
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		<ul style="list-style-type: none"> <li>iv. Hose Valves: FM approved, bronze, with outlet threaded according to NFPA 1963 and matching local fire-department threads. Include caps and chains</li> <li>v. Exposed Parts Finish: chrome plated</li> <li>vi. Escutcheon Plate Marking: Equivalent to "FIRE PUMP TEST."</li> </ul> <p>4) FLOWMETER SYSTEMS</p> <ul style="list-style-type: none"> <li>A. Description: FM-Approved, fire-pump flow meter system with capability to indicate flow to not less than 175 percent of fire-pump rated capacity</li> <li>B. Pressure Rating: 350 psig (2413 kPa)</li> <li>C. Sensor: Annubar probe, orifice plate, or venturi unless otherwise indicated. Sensor size shall match pipe, tubing, flow meter, and fittings</li> <li>D. Permanently Mounted Flowmeter: Compatible with flow sensor; with dial not less than 4- 1/2 inches (115 mm) in diameter. Include bracket or device for wall mounting <ul style="list-style-type: none"> <li>a. Tubing Package: NPS 1/8 or NPS 1/4 (DN 6 or DN 10) soft copper tubing with copper or brass fittings and valves</li> </ul> </li> <li>E. Portable Flowmeter: Compatible with flow sensor; with dial not less than 4-1/2 inches (115 mm) in diameter and with two 12-foot- (3.7-m-) long hoses in carrying case</li> </ul> <p>5) SOURCE QUALITY CONTROL</p> <ul style="list-style-type: none"> <li>A. Testing: Test and inspect fire pumps according to FM approved requirements for "Operation Test" and "Manufacturing and Production Tests." <ul style="list-style-type: none"> <li>a. Verification of Performance: Rate fire pumps according to FM approved</li> </ul> </li> <li>B. Fire pumps will be considered defective if they do not pass tests and inspections</li> <li>C. Prepare test and inspection reports</li> </ul> <p>Warranty: 1 year against factory defect</p>		
A1.5		<p><b>26GPM JOCKEY PUMP</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <ul style="list-style-type: none"> <li>A. Flow Rate = 26 gallons per minute</li> <li>B. Total Dynamic Head = 312 FT.</li> <li>C. BHP = 5 Horsepower</li> <li>D. Voltage = 400 V</li> <li>E. Phase = 3 P</li> <li>F. Hertz = 60 Hz.</li> <li>G. With complete controller &amp; accessories</li> <li>H. The brand must have at least 5 years of existence in the market</li> </ul>	1	

			<p>1) VERTICAL IN-LINE, PRESSURE-MAINTENANCE PUMPS (BY OTHERS)</p> <p>A. Acceptable Manufacturers: See section 13007 "Alternative Equipment and Supplier"</p> <p>B. Description: Factory-assembled and -tested, vertical, multistage, open-line-shaft turbine pump as defined in HI 2.1-2.2 and HI 2.3; with pump motor mounted above pump head</p> <p>C. Pump Construction:</p> <ul style="list-style-type: none"> <li>a. Pump Head: Cast iron, for surface discharge, with flange except connections may be threaded in sizes in which flanges are not available</li> <li>b. Pump Head Seal: Stuffing box and stuffing</li> <li>c. Line Shaft: Stainless steel or steel, with corrosion-resistant shaft sleeves</li> <li>d. Line Shaft Bearings: Rubber sleeve, water lubricated</li> <li>e. Line Shaft: Steel</li> <li>f. Line Shaft Bearings: Corrosion resistant, oil lubricated</li> <li>g. Impeller Shaft: Monel metal or stainless steel</li> <li>h. Bowl Section: Multiple cast-iron bowls with closed-type bronze or stainless-steel impellers</li> <li>i. Column Pipe: ASTM A 53/A 53M, Schedule 40, galvanized-steel pipe with threaded ends and cast-iron or steel fittings, in sections 10 feet (3 m) or less, with strainer of cast or fabricated bronze or stainless steel at bottom</li> </ul> <p>D. Motor: Single speed with permanently lubricated ball bearings. Comply with requirements in Division 15 Section "Common Motor Requirements for Fire Suppression Equipment."</p> <ul style="list-style-type: none"> <li>a. Power Cord: Factory-connected to motor for field connection to controller and at least 10 feet (3 m) long</li> </ul> <p>E. Base: Cast iron or steel with hole for electrical cable</p> <p>F. Nameplate: Permanently attached to pump and indicating capacity and characteristics</p> <p>G. Capacities and Characteristics: Refer to Equipment Schedule</p> <p>2) MOTORS</p> <p>A. Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors specified in Division 15 Section "Common Motor Requirements for Fire Suppression Equipment."</p> <ul style="list-style-type: none"> <li>a. Motor Sizes: Minimum size as indicated; if not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0</li> <li>b. Electrical Devices, and Wiring: Comply with requirements for electrical devices and connections specified in Division 16 Sections</li> </ul> <p>Warranty: 1 year against factory defect</p>		
A1.6	1	Set	<p><b>Multi-Sport Gym - Constant Pressure System Booster Pump (Triplex with Individual VFD)</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market</li> </ul>		1

- The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region

- A. Vertical In-Line Multistage Pump
- B. Flow Rate = 100 gallons per minute
- C. Total Dynamic Head = 170 FT.
- D. BHP = 7.5 Horsepower
- E. Voltage = 400 V
- F. Phase = 3
- G. Hertz = 60 Hz.
- H. With complete controller & accessories

1) WATER PUMPS

A. General:

- a. Pumps shall be so selected that the operating duty point is within 5% of the maximum efficiency point. The pump casing so selected shall have ample space to take an impeller one size larger than that capable of performing the operating duty
- b. The pump shall have a speed of not more than 1500 rpm unless otherwise approved by the MEEPF CONSULTANT. All pumps and motors shall be of minimum vibration and noise level during operation. Vibration isolators shall be provided for all pump sets
- c. Facilities shall be provided to prevent starting of pumps when the water tank is at low water level. An indicator for this low water level alarm shall be provided and interfaced with the electronics system
- d. Facilities to select which pump to be duty pump and standby pump automatically shall be provided and be interchangeable
- e. Leakage from pump gland shall be drained to the nearest floor waste
- f. Pump curves for all pumps offered shall be submitted. All curve indicating excessive shutoff head will not be approved
- g. Each pump shall be provided with a gate valve at suction and discharge, approved check valve at discharge, approved strainer at suction, flexible connections at pump suction and discharge, eccentric reducer at suction, concentric reducer at discharge, pressure gauges at suction and discharge, circulation relief valve and automatic air relief valve
- h. Appropriate vibration isolation mountings shall be provided for each pump sets
- i. Supply and install a control panel on 16 swg drip proof metal cubicle enclosing the control switchgear and other electrical and control components for each pumping installation. All sensors shall be connected to a separate extra-low voltage termination compartment within the control panel
- j. Power supply to all sensors and external devices associated to the control and monitoring of the pumps and tanks shall be taken from the pump control panel.

B. Pumps:

- a. Pumps shall be of capacities as shown on the drawings
- b. Pumps shall be horizontal end suction, single inlet centrifugal pumps with variable speed control. Pumps shall be complete with mechanical seals with its faces of tungsten carbide against tungsten carbide. The pump shaft shall be of 316 stainless steel, spline type, while the impellers, intermediate chambers and outer sleeve shall be of 304 stainless steel or bronze. The cast iron parts in contact with water shall be electro-coated with primer so as to prevent the formation of rust.
- c. Each pump shall be checked and regulated for proper differential pressure, voltage and amperage draw. This data shall be noted on a permanent tag or label and fastened to the pump for owner / client reference
- d. Pressure Rating: Refer to Section 15140 "Domestic Water Pipng"

C. Floatless Type Level Switch in Water Tanks:

- a. Supply and install floatless type switch probes in the water tanks as indicated below and shown on the drawings.
  - i. Main RC Water Tanks at Underground Level
    - 1. High level alarm (over-flow);
    - 2. Low level alarm;
    - 3. Low level cut-out of booster pumps;
    - 4. Earthing probe
- b. Each probe shall be of the correct length for the particular application and tank location. Electrodes shall be of polished stainless steel 20 mm OD. Electrode holders shall be weatherproof in all respect.
- c. The earthing probes shall be connected and wired to the building earth systems of the building.
- d. Each set of electrodes shall be installed inside a 230 mm diameter PVC pipe acting as a wave barrier.
- e. The level switch set shall operate with a stepped down voltage at 24V maximum. Stepped down transformers shall be provided for each set of control probes and shall be installed inside centralised control cubicles inside pump room.
- f. Mechanical steel stuffing boxes shall be used.

D. Control of Duty / Standby Pumps:

- a. Operation of the duty and standby pumps shall be carried out by the following method:
  - i. Automatically by means of pressure sensor (i.e. pressure switches);
  - ii. Manually by means of a local start/stop push buttons on pump local motor control panel and emergency stop switch.
  - iii. The pressure switch shall be installed next to the manual release valve. When the pressure drops to the pre-determined level, a signal will be sent to the pump local motor control panel to start the pump.

iv. Automatic controls shall be operated by electronic, floatless type level switches.

E. Pump Indicator:

- a. The following audible and visible indication shall be provided at the pump local control panels as applicable:
  - i. Red "overflow level" indicator with buzzer for the associated water tanks;
  - ii. Amber "extra high water level" indicator for the associated water tank;
  - iii. Amber "high water level" indicator;
  - iv. Amber "low water level" indicator;
  - v. Red "pump trip" indicator for each pump;
  - vi. Green "pump on" indicator for each pump;
  - vii. "Pump electrical supply healthy" indicator for each pump;
  - viii. Amber "remote/local" status indicator.

2) DOMESTIC BOOSTER PUMP SETS (VARIABLE SPEED DRIVE)

- A. The fully automatic domestic water booster set with variable speed controller shall be of robust design, supplied ready for connection. Booster pumps and pressure tanks shall be mounted on a vibration absorbing mild steel baseplate. Each set shall comprise of the following:
  - a. Triplex type approved pattern vertical multi stage pumps.
  - b. One (1) set pressure tank with rubber bag
  - c. One set factory assembled pre-wired fully automatic control cubicle (variable speed controller) in weather-proof mild steel enamel finished steel enclosure
  - d. Associate pipework including control valves, water hammer absorbers, check valves, flexible connectors, pressure regulating valves, located in the common pump delivery pipe etc.
  - e. Vibration-absorbing baseplate
  - f. Pressure gauges, pressure switches, and safety valves, etc.
  - g. Thermal relay, indicator lamp, fuse magnetic controller auxiliary relay, alternative relay, terminal board
  - h. 70% pump efficiency.
- B. Only one pump is in operation at a time, the other one on standby. The pumps are changed over after each cycle by an automatic device. But the second pump will be automatically switched on when the water pressure drops down to the minimum set pressure and then the two pumps are in parallel operation with one in variable speed and the other at full load. Dry running protection should also be provided
- C. Pressure tank shall be of stainless steel cylindrical pre-changed pressure vessel with epoxy or polypropylene anti-corrosion lining in the internal surface. A rubber bag shall be fitted for separation of the water nitrogen gas. Externally treated in synthetic enamel. An approved type valve shall be fitted for pre-pressure adjustment. Baseplate is manufactured in heavy gauge fabricated mild steel, zinc plate finish

		<p>D. All pipings, flexible connectors, gate valve and non-return valves shall be as described in the <b>Pipework, Fitting and Valve Section</b></p> <p>E. The following accessories shall be provided;</p> <ol style="list-style-type: none"> <li>a. One (1) no. pressure gauge with syphon pipes and isolating valves in the pressure tank air chamber.</li> <li>b. Three (3) nos. adjustable pressure switches for incoming and outgoing pressure adjustable individually and low water pressure (no flow) cut-out of booster pumps</li> <li>c. One (1) no. bronze drain cock at the bottom of the pressure tank</li> <li>d. One (1) no. 25mm diaphragm type safety valve at the air chamber of pressure tank.</li> </ol> <p>A test certificate for the performance and test pressure of the tank issued by the manufacturer must be submitted</p> <p>Warranty: 1 year against factory defect</p>		
A1.7		<p><b>ACADEMIC/ADMIN BUILDING - CONSTANT PRESSURE SYSTEM BOOSTER PUMP (TRIPLEX WITH INDIVIDUAL VFD)</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <ol style="list-style-type: none"> <li>A. Vertical In-line Multi-Stage Pump</li> <li>B. Flow Rate = 100 gallons per minute</li> <li>C. Total Dynamic Head = 150 FT.</li> <li>D. BHP = 7.5 Horsepower</li> <li>E. Voltage = 400 V</li> <li>F. Phase = 3</li> <li>G. Hertz = 60 Hz.</li> <li>H. The brand must have at least 5 years of existence in the market</li> <li>I. With complete controller &amp; accessories</li> </ol> <p>1) WATER PUMPS</p> <p>A. General:</p> <ol style="list-style-type: none"> <li>a. Pumps shall be so selected that the operating duty point is within 5% of the maximum efficiency point. The pump casing so selected shall have ample space to take an impeller one size larger than that capable of performing the operating duty</li> <li>b. The pump shall have a speed of not more than 1500 rpm unless otherwise approved by the MEEPF CONSULTANT. All pumps and motors shall be of minimum vibration and noise level during operation. Vibration isolators shall be provided for all pump sets</li> <li>c. Facilities shall be provided to prevent starting of pumps when the water tank is at low water level. An indicator for this low water level alarm shall be provided and interfaced with the electronics system</li> </ol>		

- d. Facilities to select which pump to be duty pump and standby pump automatically shall be provided and be interchangeable
- e. Leakage from pump gland shall be drained to the nearest floor waste
- f. Pump curves for all pumps offered shall be submitted. All curve indicating excessive shutoff head will not be approved
- g. Each pump shall be provided with a gate valve at suction and discharge, approved check valve at discharge, approved strainer at suction, flexible connections at pump suction and discharge, eccentric reducer at suction, concentric reducer at discharge, pressure gauges at suction and discharge, circulation relief valve and automatic air relief valve
- h. Appropriate vibration isolation mountings shall be provided for each pump sets
- i. Supply and install a control panel on 16 swg drip proof metal cubicle enclosing the control switchgear and other electrical and control components for each pumping installation. All sensors shall be connected to a separate extra-low voltage termination compartment within the control panel
- j. Power supply to all sensors and external devices associated to the control and monitoring of the pumps and tanks shall be taken from the pump control panel.

B. Pumps:

- a. Pumps shall be of capacities as shown on the drawings
- b. Pumps shall be horizontal end suction, single inlet centrifugal pumps with variable speed control. Pumps shall be complete with mechanical seals with its faces of tungsten carbide against tungsten carbide. The pump shaft shall be of 316 stainless steel, spline type, while the impellers, intermediate chambers and outer sleeve shall be of 304 stainless steel or bronze. The cast iron parts in contact with water shall be electro-coated with primer so as to prevent the formation of rust
- c. Each pump shall be checked and regulated for proper differential pressure, voltage and amperage draw. This data shall be noted on a permanent tag or label and fastened to the pump for owner / client reference
- d. Pressure Rating: Refer to Section 15140 "Domestic Water Piping"

C. Floatless Type Level Switch in Water Tanks:

- a. Supply and install float less type switch probes in the water tanks as indicated below and shown on the drawings
  - i. Main RC Water Tanks at Underground Level
    - 1. High level alarm (over-flow);
    - 2. Low level alarm;
    - 3. Low level cut-out of booster pumps;
    - 4. Earthing probe
- b. Each probe shall be of the correct length for the particular application and tank location. Electrodes



- shall be of polished stainless steel 20 mm OD. Electrode holders shall be weatherproof in all respect.
- c. The earthing probes shall be connected and wired to the building earth systems of the building
- d. Each set of electrodes shall be installed inside a 230 mm diameter PVC pipe acting as a wave barrier
- e. The level switch set shall operate with a stepped down voltage at 24V maximum. Stepped down transformers shall be provided for each set of control probes and shall be installed inside centralised control cubicles inside pump room
- f. Mechanical steel stuffing boxes shall be used

D. Control of Duty / Standby Pumps:

- a. Operation of the duty and standby pumps shall be carried out by the following method:
  - i. Automatically by means of pressure sensor (i.e. pressure switches);
  - ii. Manually by means of a local start/stop push buttons on pump local motor control panel and emergency stop switch
  - iii. The pressure switch shall be installed next to the manual release valve. When the pressure drops to the pre-determined level, a signal will be sent to the pump local motor control panel to start the pump
  - iv. Automatic controls shall be operated by electronic, floatless type level switches.

E. Pump Indicator:

- a. The following audible and visible indication shall be provided at the pump local control panels as applicable:
  - i. Red "overflow level" indicator with buzzer for the associated water tanks;
  - ii. Amber "extra high water level" indicator for the associated water tank;
  - iii. Amber "high water level" indicator;
  - iv. Amber "low water level" indicator;
  - v. Red "pump trip" indicator for each pump;
  - vi. Green "pump on" indicator for each pump;
  - vii. "Pump electrical supply healthy" indicator for each pump;
  - viii. Amber "remote/local" status indicator

2) DOMESTIC BOOSTER PUMP SETS (VARIABLE SPEED DRIVE)

A. The fully automatic domestic water booster set with variable speed controller shall be of robust design, supplied ready for connection. Booster pumps and pressure tanks shall be mounted on a vibration absorbing mild steel baseplate. Each set shall comprise of the following:

- a. Triplex type approved pattern vertical multi stage pumps
- b. One (1) set pressure tank with rubber bag
- c. One set factory assembled pre-wired fully automatic control cubicle (variable speed controller) in weather-proof mild steel enamel finished steel enclosure

		<p>d. Associate pipework including control valves, water hammer absorbers, check valves, flexible connectors, pressure regulating valves, located in the common pump delivery pipe etc</p> <p>e. Vibration-absorbing baseplate</p> <p>f. Pressure gauges, pressure switches, and safety valves, etc.</p> <p>g. Thermal relay, indicator lamp, fuse magnetic controller auxiliary relay, alternative relay, terminal board</p> <p>h. 70% pump efficiency.</p> <p>B. Only one pump is in operation at a time, the other one on standby. The pumps are changed over after each cycle by an automatic device. But the second pump will be automatically switched on when the water pressure drops down to the minimum set pressure and then the two pumps are in parallel operation with one in variable speed and the other at full load. Dry running protection should also be provided.</p> <p>C. Pressure tank shall be of stainless steel cylindrical pre-changed pressure vessel with epoxy or polypropylene anti-corrosion lining in the internal surface. A rubber bag shall be fitted for separation of the water nitrogen gas. Externally treated in synthetic enamel. An approved type valve shall be fitted for pre-pressure adjustment. Baseplate is manufactured in heavy gauge fabricated mild steel, zinc plate finish.</p> <p>D. All pipings, flexible connectors, gate valve and non-return valves shall be as described in the Pipework, Fitting and Valve Section.</p> <p>a. The following accessories shall be provided;</p> <p>i. One (1) no. pressure gauge with syphon pipes and isolating valves in the pressure tank air chamber</p> <p>ii. Three (3) nos. adjustable pressure switches for incoming and outgoing pressure adjustable individually and low water pressure (no flow) cut-out of booster pumps</p> <p>iii. One (1) no. bronze drain cock at the bottom of the pressure tank</p> <p>iv. One (1) no. 25mm diaphragm type safety valve at the air chamber of pressure tank.</p> <p>A test certificate for the performance and test pressure of the tank issued by the manufacturer must be submitted</p> <p>Warranty: 1 year against factory defect</p>		
A1.8		<p><b>LANDSCAPE - CONSTANT PRESSURE SYSTEM BOOSTER PUMP</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>The brand must have at least 10 years of existence in the market.</li> <li>The Bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul> <p>A. Vertical In-Line Multistage Pump</p> <p>B. Flow Rate = 75 gallons per minute</p>		

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|  |  | <p>C. Total Dynamic Head = 260 FT.<br/> D. BHP = 10 Horsepower<br/> E. Voltage = 400 V<br/> F. Phase = 3<br/> G. Hertz = 60 Hz.<br/> H. The brand must have at least 5 years of existence in the market.<br/> I. With complete controller &amp; accessories</p> <p>1) LEVEL PROBES IN TANKS</p> <p>A. The Sub-Contractor shall supply and install level probes in water tanks as indicated below and shown on the Drawings</p> <ol style="list-style-type: none"> <li>a. Underground water tank: <ol style="list-style-type: none"> <li>i. High level alarm (overflow)</li> <li>ii. Low level alarm</li> <li>iii. Low water level cut-out for the transfer water pumps</li> <li>iv. Earthing probe</li> <li>v. Additional probe (refer to Schematic Diagram)</li> </ol> </li> <li>b. Each probe shall be of the correct length for its particular application and tank location. Electrodes shall be of polished stainless steel 20mm O.D. Electrode holders shall be weather-proof in all respect</li> <li>c. The earthing probes shall be connected and wired to the building earth systems of the building</li> <li>d. Each set of electrodes shall be installed inside a Ø 250 diameter PVC pipe acting as a wave barrier</li> <li>e. The level switch set shall operate with a stepped down voltage at 24V maximum. Stepped down transformers shall be provided of control probes and shall be installed inside control cubicles.</li> </ol> <p>2) ANTI-VORTEX PLATES</p> <p>A. Anti-vortex plates shall be installed at the end of the pump suction tanks as shown on Drawings.</p> <p>3) ANTI-VIBRATION MOUNTINGS</p> <p>A. Anti-vibration mountings shall be inertia base, springs, neoprene pads or rubber-inshear isolators, with the specified static deflection and selected to provide isolating efficiency of not less than 95%.</p> <p>4) TANK FITTINGS</p> <p>A. Outlet, inlet, overflow and rain pipes connected to reinforced cement concrete water tanks shall be:</p> <ol style="list-style-type: none"> <li>a. Screwed joint tank ferrules for the use in nominal pipe sizes up to 50mm and flanged joint for use in nominal pipe sizes over 50mm.</li> </ol> <p>B. Overflow pipes shall be:</p> <ol style="list-style-type: none"> <li>a. With minimum internal diameter larger than the internal diameter of inlet pipes.</li> <li>b. Dipped down inside tanks so as to terminate in a position maximum 150mm above bottom of tanks.</li> <li>c. Provided with metal hinged flaps at outlets, and wire mesh screen, to prevent vermin and insects entering.</li> <li>d. Discharging in conspicuous position.</li> </ol> |  |
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- C. Float valves or flow switches shall shut off the supply when the water level is 10 cm below the invert level of overflow pipes.
- D. Invert level of inlet pipes shall be minimum 10 cm above the top overflow pipes.
- E. Vent pipes at the top of tanks shall be bent to the required shape and be fitted with wire mesh screen to prevent vermin and insects entering.
- F. Unless otherwise specified, all overflows, vents, silencing pipe and drain pipes shall be galvanized steel pipes medium grade and pipe fittings shall be the same as described in "Pipework" Section.

5) FLEXIBLE PUMP CONNECTORS

- A. Flexible connections at inlets and outlets of pumps shall be of twin sphere neoprene rubber impregnated fabric reinforcement, below shape with flanged ends. The flexible connectors shall be designed for excellent vibration and noise protection. Isolated tension members shall be provided to prevent excessive elongation. Flexible connections shall be suitable for the specified working fluid and specified working pressure and temperature.

6) STRAINERS

- A. Provide Spirax Limited pipeline strainers with stainless steel screens according to the following:
  - a. Pipe Schedule:
  - b. Steel: Up to 50mm, Type Y, IT Cast Iron Model and 0.76mm 20 mesh
  - c. Steel: 65mm to 150mm, Type Y, IF Standard for Water Model and 3mm
- B. Supply one extra set of strainer screens and install after systems have been thoroughly cleaned.
- C. Equip each strainer 40 mm and smaller in size, with plugged blow off tapings.
- D. Equip each strainer 50 mm and larger in size, with blow off tapping. Provide blow off piping complete with capped shut off valve. Terminate in downward vertical position. Size blow off piping and valve the same size as the blow off tapping.
- E. Ensure that each strainer can be isolated from piping systems with isolating valves on each side of strainer, and which are not more than 3 metres away from strainer.
- F. Provide strainers in the following locations:
  - a. At the suction side of each domestic water pump
  - b. Immediately upstream of each pressure reducing valve
  - c. Where shown on Detail Drawings

7) RECIRCULATING PUMP

- A. Max. Working Pressure: 125 psi
- B. RPM: 3250
- C. Stainless Steel Cartridge
- D. Ceramic Shaft
- E. IFC Model with integrated check valve

Warranty: 1 year against factory defect

A1.9

**SUMP PUMP - 250GPM DUPLEX, NON-CLOG  
SUBMERSIBLE, QUICK DISCONNECT PUMP**

**QUALIFICATION OF THE BIDDER**

- The brand must have at least 10 years of existence in the market.
- The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region

- A. Non-clog Submersible, Quick Disconnect Pump
- B. Flow Rate = 250 gallons per minute
- C. Total Dynamic Head = 70 FT.
- D. BHP = 15 Horsepower
- E. Voltage = 400 V
- F. Phase = 3
- G. Hertz = 60 Hz.
- H. With complete controller & accessories

**1) SUBMERSIBLE SUMP PUMPS**

- A. Submersible, Quick-Disconnect, Double-Seal Sump Pumps:
  - a. Description: Factory-assembled and -tested sump-pump unit with guide-rail supports.
  - b. Pump type: Submersible, end-suction, single-stage, close-coupled, overhung impeller, centrifugal sump pump as defined in HI 1.1-1.2 and HI 1.3.
  - c. Pump Casing: Cast iron, with open inlet, and discharge fittings for connection to guide-rail support.
  - d. Impeller: Statically and dynamically balanced, stainless steel, nonclog, open, or semi open design for solids handling, and keyed and secured to shaft.
  - e. Pump and Motor Shaft: Stainless steel, with factory-sealed, grease-lubricated ball bearings.
  - f. Seals: Mechanical.
  - g. Moisture-Sensing Probe: Internal moisture sensor and moisture alarm.
  - h. Motor: Hermetically sealed, capacitor-start type; with built-in overload protection; lifting eye or lug; and three-conductor, waterproof power cable of length required and with grounding plug and cable-sealing assembly for connection at pump
  - i. Motor Housing Fluid: Oil
  - j. Controls:
    - i. Enclosure: NEMA 3R
    - ii. Switch Type: Pedestal-mounted float switch with float rods and rod buttons
    - iii. Automatic Alternator: Start pumps on successive cycles and start multiple pumps if one cannot handle load
    - iv. Float Guides: Pipe or other restraint for floats and rods in basins of depth greater than 60 inches (1500 mm)
    - v. High-Water Alarm: Cover-mounted, compression-probe alarm, with electric bell; 120-V ac, with transformer and contacts for remote alarm bell.
  - k. Controls:

			<ul style="list-style-type: none"> <li>i. Enclosure: NEMA 250, wall-mounted</li> <li>ii. Switch Type: Mechanical-float type, in NEMA 250, Type 6 enclosures with mounting rod and electric cables</li> <li>iii. Automatic Alternator: Start pumps on successive cycles and start multiple pumps if one cannot handle load</li> <li>iv. High-Water Alarm: Rod-mounted, NEMA 250, Type 6 enclosure with mechanical-float switch matching control and electric bell; 120-V ac, with transformer and contacts for remote alarm bell.</li> </ul> <ul style="list-style-type: none"> <li>I. Control-Interface Features: <ul style="list-style-type: none"> <li>i. Remote Alarm Contacts: For remote alarm interface</li> <li>ii. Auxiliary contacts in pump controls for interface to building automation system and capable of providing the following: <ul style="list-style-type: none"> <li>1. On-off status of pump</li> <li>2. Alarm status</li> </ul> </li> </ul> </li> <li>m. Guide-Rail Supports: <ul style="list-style-type: none"> <li>i. Standard: SWPA's "Submersible Sump Pumping Systems (SWPA) Handbook."</li> <li>ii. Guide Rails: Vertical pipes or structural members, made of galvanized steel or other corrosion-resistant metal, attached to baseplate and basin sidewall or cover</li> <li>iii. Baseplate: Corrosion-resistant metal plate, attached to basin floor, supporting guide rails and stationary elbow</li> <li>iv. Pump Yoke: Motor-mounted or casing-mounted yokes or other attachments for aligning pump during connection of flanges</li> <li>v. Movable Elbow: Pump discharge-elbow fitting with flange, seal, and positioning device</li> <li>vi. Stationary Elbow: Fixed discharge-elbow fitting with flange that mates to movable-elbow flange and support attached to baseplate</li> <li>vii. Lifting Cable: Stainless steel; attached to pump and cover at manhole</li> </ul> </li> </ul> <p>Warranty: 1 year against factory defect</p>		
A1.10	1	unit	<p><b>SEWAGE TREATMENT PLANT (MULTI-STAGE BIOLOGICAL PROCESS INCORPORATING BIOLOGICAL NUTRIENT REMOVAL (BNR))</b></p> <p>QUALIFICATION OF THE BIDDER</p> <ul style="list-style-type: none"> <li>• The brand must have at least 10 years of existence in the market.</li> <li>• The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region</li> </ul>		

**PERFORMANCE SPECIFICATIONS AND PARAMETERS**

A. The WINNING BIDDER shall supply and install the Sewage Treatment Plant, designed to meet the following:

- DPWH Standard Specification (Blue Book);
- National Building Code;
- Fire Code of the Philippines; and
- specification and parameters described below:

1) DESIGN CRITERIA

A. Process

a. The proposed treatment method will be a multi-stage biological process incorporating biological nutrient removal (BNR), considering technologies with lower unit energy consumption and reduced sludge production, or other best practice process to remove nitrogen, phosphorus, and other impurities from the effluent. Preferred BNR technologies are as follows: Fixed-Bed Biofilm Activated Sludge (FBAS), Moving Bed Biofilm Reactor (MBBR), or Membrane Aerated Biofilm Reactor (MABR).

b. Influent Characteristics

Particular	STP
Average Daily Flow, m <sup>3</sup> /day	120
Peak Hour Flow, m <sup>3</sup> /hr	5

B. Sewage Characteristics

The pollutant loading from each building or facility will conform to the specified maximum permissible parameters before discharge to the sewerage system

Parameter	Maximum Permissible
BOD	300 mg/L
COD	400 mg/L
TSS	200 mg/L
TKN	35 mg/L
NH <sub>3</sub>	26 mgN/L
Total Phosphorus	8 mgP/L
Fecal Coliform	1x10 <sup>7</sup> /100 mL

C. Effluent Characteristics

Effluent from the wastewater treatment shall conform with the standards required under existing laws rules and regulations and shall be atleast Water Body Class C as specified in the Water Quality Guidelines and General Effluent Standards of 2016 as

specified under Administrative Order 2016-08 issued by the Department of Environment and Natural Resources. The key parameters are presented below:

PARAMETER	MAXIMUM PERMISSIBLE
Ammonia	0.5 mg/L
BOD	50 mg/L
Boron	3 mg/L
Chloride	450 mg/L
COD	100 mg/L
Color	150 TCU
Cyanide as Free Cyanide	0.2 mg/L
Fluoride	2 mg/L
Nitrate as NO3-N	14 mg/L
pH	6.0-9.5
Phosphate	1 mg/L
Selenium	0.04 mg/L
Sulfate	550 mg/L
Surfactants (MBAS)	15 mg/L
Temperature Change	3 oC change
TSS	100 mg/L
Oil and Grease	5 mg/L
Dissolved Oxygen (Minimum 5 mg/L)	

The characteristics and the aforementioned parameters are subject to change pursuant to any updates and/or revisions issued by DENR

#### D. Sewage Treatment Plant Area and Volume

The total space allocated for the proposed STP is approximately 150 m<sup>2</sup> with a 6.5 m depth from finish ground line. Proposed location of the STP is shown in the Site Plan

#### E. Content of Proposals

All proposals shall include, but not limited to, the following items:

- a. The characteristics and the aforementioned parameters are subject to change pursuant to any updates and/or revisions issued by DENR.



F. Sewage Treatment Plant Area and Volume

- a. The total space allocated for the proposed STP is approximately 150 m<sup>2</sup> with a 6.5 m depth from finish ground line. Proposed location of the STP is shown in the Site Plan.
- b. Content of Proposals  
All proposals shall include, but not limited to, the following items:
  - i. Catalogs/brochures showing the Technical data of equipment, such as weights, physical dimensions and performance characteristics.
  - ii. Plant layout showing the arrangement and dimensions of all concrete/steel tanks and equipment mounting.
  - iii. Process flow diagram of Sewage Treatment Plant interrelated with other trades within the institutional/commercial complex.
  - iv. Control and instrumentation diagrams of proposed Sewage Treatment Plant.
  - v. Testing and commissioning procedures, as well as, operation and maintenance manuals for the start-up, operation, and maintenance of STP.
  - vi. Complete list of chemicals to be used in the proposed Sewage Treatment Plant. Chemicals needed for the Sewage Treatment Plant must be available in the local market.
  - vii. A full breakdown of plant operating and maintenance cost table on a monthly basis; assuming that the plant is treating 100%, 75%, 50% and 25% of the design flows, and also expressed as a cost per cubic meter of effluent treated.
  - viii. Equipment parts list indicating the source of supply and recommended spare parts
  - ix. Details of proposed construction installation and commissioning schedule within the framework of the Owner's schedule as in this document.
  - x. Company profile showing the Contractor's background and experience including a list of past and present Sewage Treatment Plant projects done in the last five years.
  - xi. Propose future facilities treatment and space requirements within the allocated space to comply with DAO2016-08 Section 11.0 Paragraph 2, No effluent shall cause the quality of the receiving water body to fall below the prescribed WQG in accordance with its Classification.

G. Compliance with DENR-EMB

- a. The complete system shall meet the requirement of the Department of Environment and Natural

Resources - Environmental Management Bureau (DENR-EMB) on the quality of the effluent and all other requirements. The contractor shall obtain permit to construct and the final permit to operate the Sewage Treatment Plant.

- b. The Contractor must also obtain the discharge permit from DENR-EMB

H. Schedule of Operation

- a. Contractors are advised to consider in their proposal the commissioning, operation and maintenance (from start-up until the full capacity is utilized) starting from the acceptance of the works
- b. Design Parameters
  - i. Odourless
  - ii. Aesthetically pleasing
  - iii. Flood protected

I. Sewage Treatment Plant Component

- a. Pre-treatment: Screening and disposal
- b. Wastewater flows under gravity or is pumped (by others) to the inlet of the WWTP. Screening must be provided to remove rag and other material that has the potential to block the plant's pumps. Screening with a maximum 6mm mesh size in two dimensions is required. An automatic system for cleaning the screen and delivering the screening to a suitable storage container for disposal shall be included. In the event of failure of the automated cleaning system, the screen shall be designed to facilitate manual cleaning. A bypass shall be included to accommodate 100% of the flow. The container for storage of rag shall be provided by the Contractor

J. Grit Removal Facilities

- a. Grit removal shall follow fine screening and storm separation and sized to handle peak design flow.
- b. The following grit removal systems can be considered for the WWTP
- c. Process selection is subject to specific site requirements:
  - i. Vortex flow separator;
  - ii. Detritus tanks;
  - iii. Settling channels; or
  - iv. Aerated grit basins
- d. The contractor shall provide mechanical grit removal together with grit withdrawal facilities and grit classifier and washer.
- e. Each mechanical grit removal unit shall have less than 50mm head loss. The design shall be capable of removing grit from raw unscreened sewage and depositing grit into the grit classifiers.
- f. All equipment shall be shipped in one piece, with pre-mounted components and provided with enclosures to prevent odour and vector nuisance. All

			<p>wetted parts and screen bars shall be SS 316L as a minimum.</p> <ul style="list-style-type: none"> <li>g. Liquors from the dewatering compactors shall be returned to the flow by gravity or pumped if necessary. The liquors shall be returned upstream of the screens.</li> <li>h. The conditioning and cleaning of screened material and grit is undertaken such that no visual fecal matter and that the screenings are in a suitable condition for road transport and ultimate offsite disposal.</li> <li>i. The Contractor shall provide suitably sized and an appropriate number of skips at least 1 skips per units for coarse screenings, fine screenings and grit chamber to facilitate the collection and transfer of screenings and grit from site. The Contractor shall undertake skip transfer frequently, and dispose waste materials generated daily or as directed by the Employer. The Contractor shall ensure that the management of skips is appropriate to the amount of waste anticipated</li> <li>j. The skips as a minimum are required to be covered in order to reduce the potential level of odor generation on site and prevent the collection of water in them.</li> <li>k. Penstocks shall be provided upstream and downstream of the grit chambers, so that each of them can be isolated during maintenance servicing</li> </ul> <p>K. Fat, Oil and Grease (FOG) Removal System</p> <ul style="list-style-type: none"> <li>a. FOG removal is typically combined with grit and screenings removal system.</li> <li>b. Mechanical emulsified oil and grease removal unit shall be provided if the FOG concentration of the influent wastewater is excessively high. It may be provided to protect downstream equipment / processes where: <ul style="list-style-type: none"> <li>i. Lamella plate settlers are used at downstream processes.</li> <li>ii. Influent FOG concentration is high (e.g.&gt; 100 mg/L on average)</li> </ul> </li> <li>c. The design capacity shall be able to treat the design peak flow.</li> <li>d. FOG separation by diffused air is preferred.</li> <li>e. Effective FOG removal mechanism shall be provided. Removed FOG can be sent to sludge holding tanks for further treatment in anaerobic digesters), where applicable, unless inhibitory substances exist.</li> <li>f. The removal of emulsified oils and greases shall be performed before the equalization tank to minimize the build-up of oil and grease in the equalization tank.</li> <li>g. The collected emulsified oils and grease shall be mixed with the sludge for treatment and handling.</li> </ul>		
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- h. To protect downstream processes, emulsified oils and grease shall be removed prior to any biological treatment.
- i. Oil and grease levels entering the sewage are anticipated to be highly variable in concentration and will consist of free oil and grease as well as emulsified oil and grease

L. Wastewater treatment

- a. The Fixed Bed Activated Sludge (FBAS) treatment technology is the preferred technology as secondary biological treatment process. However, other similar technologies can be offered as long as that it will have a better CAPEX and OPEX compared to FBAS technology. The offered technology will be designed and installed to meet the requirements of this Performance Specification, especially the effluent quality standard.
- b. Wastewater treatment will remove the required amount of BOD, ammonia, nitrogen, phosphorus, and other impurities to ensure the effluent quality specified in DENR Class C is met. The wastewater treatment plant is required to comply with both nitrogen and phosphorus removal requirements by denitrification in the anoxic zones of the activated sludge system.
- c. Secondary treatment of the WWTP can be a combination of attached growth (fixed film), suspended growth, hybrid biological processes, or other innovative treatment technology designed to consistently meet the performance and effluent requirements. Proposed technologies shall have proven records to work in previous projects undertaken. BCDA has the option to inspect previous projects performance for confirmation. Any false representation in the bid shall be ground for disqualification by the Bidder.
- d. Consistent with the requirement for optimized design, the contractor shall be responsible for setting the optimum hydraulic profile, the optimum number of modules/trains and the optimum dimensions of the different components based on optimum design parameters such that the effluent quality is met at minimum life-cycle cost of the plant.
- e. Each aeration tank shall be provided with online monitors for DO, MLSS, TSS, pH, and temperature.
- f. The design shall include means of draining down all basins or tanks one at a time for maintenance purposes. All sewage removed during a drain down shall be returned to a point in the process where the load can be evenly distributed to the basins in service to prevent shock loading. The draining facilities shall be capable of draining a basin fully within forty-eight (48) hours.

M. Final Sedimentation

- a. This is required to produce a clear effluent and to ensure that the total suspended solids meets the discharge standard.

Table 1. Final Sedimentation Technologies

SECONDARY TREATMENT TECHNOLOGIES	SOLIDS SEPARATION (TYPICAL)
Fixed-Bed Biofilm Activated Sludge (FBAS)	Secondary Clarifier, Disc Filter
Moving Bed Biofilm Reactor (MBBR)	DAF, high rate filter, Secondary Clarifier
Integrated Fixed Film Activated Sludge (IFAS)	Secondary Clarifier
Advance Oxidation Process	Discharge Filter

N. Secondary Clarifier

- a. For biological treatment processes, the secondary clarifier shall be designed using values of design parameters that are consistent with the design of the aeration tank, especially the sludge retention time and the mixed liquor suspended solids. The sizing must consider also the costs of sludge storage, dewatering and disposal. In short, the design of the secondary clarifier should consider the life-cycle costs of the upstream and downstream components.

O. Disc Filter

- a. For biological treatment processes, disc filters shall be fully enclosed, free-standing units or may be semi-submerged units located in a covered tank. The filter will consist of a series of rotating discs which will be partially submerged in the plant flow through the disc filter tank. Each disc filter unit will be sized for ADWF and have capacity for peak flows. Level monitoring using ultrasonic level gauges is preferred but alternate means of level detection will be considered.
- b. The backwash operation will use treated wastewater. Each unit will be equipped with a dedicated backwash pump (if necessary, i.e. assuming that recycled waste water pressure is below a required pressure) per filter and sprayed on the non-submerged portion of the filter elements. Backwashed sludge will be discharged to the sludge holding tank.

P. Disinfection

- a. Disinfection may be required to reduce pathogens prior to release to the environment. The Contractor shall demonstrate their proposed method of disinfection control, to ensure that overdosing is not a risk, and that downstream ecology is not adversely affected. The

		<p>Contractor shall state the pathogen log removal offered by the supplied wastewater treatment plan. For biological treatment processes, disinfection shall be included as a final step in the treatment process.</p> <ul style="list-style-type: none"> <li>b. UV disinfection shall be provided as required to meet the overall pathogen reduction specified in the effluent discharge requirements and/ or reuse requirements.</li> <li>c. Chlorination disinfection and UV are required, with UV taking precedence.</li> </ul> <p>Q. Effluent Discharge</p> <ul style="list-style-type: none"> <li>a. After treatment, the effluent shall discharge by gravity from the contact tank above the maximum flood level. Discharge of final effluent from the wastewater treatment plant to water bodies shall comply with current applicable DENR and other relevant national standards.</li> </ul> <p>R. Sludge Management</p> <ul style="list-style-type: none"> <li>a. Sludge will be collected in a holding tank where it will be kept in aerated and agitated condition using diffused aeration system. Sludge dewatering shall be accomplished by mechanical means and will not occur in sludge drying beds or lagoons. Dewatered sludge shall be transferred to covered skips or similar and the Contractor will be responsible for conveyance off-site to an approved disposal location</li> <li>b. The Contractor will be responsible for conveyance offsite to an approved disposal location.</li> </ul> <p>2) Buildings</p> <p>A. All buildings such as administration/laboratory, air blowers building, chemical building and dewatering facility building shall follow the Philippine Building Code. All buildings shall be provided with proper lighting, ventilation, air conditioning, noise barriers, etc. that may be required for the smooth operation of the building.</p> <p>B. Piping and Valves</p> <ul style="list-style-type: none"> <li>a. Materials for pipelines shall be resistant to corrosive attack and mechanically satisfactory for the duty.</li> <li>b. Preferred pipe materials are as follows: <ul style="list-style-type: none"> <li>i. Sewage transmission</li> <li>ii. Reinforced concrete</li> <li>iii. Sewage network HDPE</li> </ul> </li> <li>c. Pipe pressure ratings shall be determined according to test and working pressure requirements for the design flow at the end of the concession period.</li> <li>d. All valves required for operation of the utility infrastructure shall be provided by the Contractor and where applicable integrated with the SCADA system. Such valves will include isolating valves, air valves, washout valves, and pressure regulating valves</li> </ul> <p>C. Duty and standby equipment items shall be equipped with an isolating valve at the feed and outlet to enable removal for off-line maintenance.</p> <p>D. Monitoring Devices</p>		
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		<p>a. pH and DO probe with indicators shall be installed at the equalization tank and aeration tanks for monitoring purposes.</p> <p>3) Sewage Treatment Plant Equipment</p> <p>A. General</p> <p>a. Under this section, mechanical equipment will include the furnishing, installation, and testing under operational conditions, of all items required by the STP. Insofar as possible and practicable, equipment items will be standard units of reputable manufacturers regularly engaged in the design, fabrication and testing of their product preferably from the United States of America, Japan, Europe, Israel, Singapore and the like. These specifications stipulate that the contractor shall engage the services of competent personnel to test the installed equipment and to acquaint and train the treatment plant personnel on operation and maintenance procedures. Country of origin is a matter of preference. Others of similar quality and reliability may be considered, especially if they are licensed manufacturers from preferred source.</p> <p>b. Unless otherwise specified, contractors shall provide two sets of electro-mechanical equipment with one set normally operating and the second set serving as stand-by.</p> <p>4) Equipment</p> <p>A. Lift Pumps: Furnish and install at least two (2) sets of Lift Pumps with adequate capacity to handle the daily sewage flow. Each lift pump shall have the capacity equivalent to average flow.</p> <p>Pump casing, shaft, impeller, bearing, housing, pump pedestal, and motor pedestal will be fabricated of materials suitable to handle wastewater and resistant to corrosive environment. Lift pumps shall originate preferably from the United States of America, Japan, Europe, Israel, Singapore and the like and should be factory assembled. Country of origin is a matter of preference. Others of similar quality and reliability may be considered, especially if they are licensed manufacturers from preferred source.</p> <p>B. Bar screen: The influent box shall be furnished with a removable stainless steel bar screen and the necessary fasteners for connecting to the plant influent box.</p> <p>C. Aeration system: Furnish and install a complete aeration system designed to provide adequate aeration for the daily design sewage flow. The aeration equipment shall consist of removable components or sub-assemblies made of corrosion-resistant material for easy maintenance and shall be equipped with a regulating valve for adjusting or shutting off air flow.</p> <p>D. Air Supply System: For biological treatment processes, the air requirement of the plant shall be supplied thru three (3)</p>		
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rotary positive displacement blowers of identical capacities. The capacity of each blower shall be fifty percent (50%) of the total air requirement at the ultimate design flow.

Each blower shall be provided with an inlet filter, silencer regulator to vary the air output, a weighted type air relief valve and shut-off valve. Blower shall originate preferably from the United States of America, Japan, Europe, Israel, Singapore and the like. Country of origin is a matter of preference. Others of similar quality and reliability may be considered, especially if they are licensed manufacturers from preferred source.

- E. Secondary Clarifiers: For biological treatment processes, secondary clarifiers must be designed to produce an effluent TSS concentration not greater than 100 mg/L to effectively reduce total phosphorus to below 1.0 mg/L. Sidewater depth should be designed such that the clarifier can be operated with minimal upflow velocity through the sludge blanket. Clarifier shall be equipped with automatic scraping and desludging devices. Flow distribution channel/chamber shall be provided for flow isolation or to equalize the flow distribution.

For shorter detention time for settling sludge and to accommodate in-tank flocculation chamber, circular clarifiers are preferred. Lamella plate clarifiers may also be used provided it has a higher efficiency than the circular clarifiers

- F. Chlorination: Furnish and install an automatic chlorinator capable of delivering the required dosage of solution in a variable sewage flow condition. The equipment shall be equipped with discharge tubing, motor, sensor/transmitters, chlorine solution tanks and chlorine residual analyzers for chlorine residual monitoring.
- G. Test Kit: Furnish with the plant a portable test kit to include the necessary equipment and chemical reagents to determine dissolved oxygen, settleable solids, relative stability and hydrogen ion concentrations (pH). The kit shall be provided with instructions/manual for performing the analysis. The equipment and reagents shall be completely contained in a portable container with a hinged cover and carrying handle.

5) Motors

A. General Requirements

- a. Motors shall be furnished with driven equipment to assure proper coordination of motor and control characteristics with requirements of driven equipment. Contractor is responsible for proper correlation of horsepower, starting torque, other characteristics of electrical equipment with requirement of driven equipment.



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|--|--|--|--|
|  |  | <ul style="list-style-type: none"> <li>b. All necessary accessories essential to the proper operation of the motor and the driven equipment shall be provided</li> <li>B. Miscellaneous Metal Works <ul style="list-style-type: none"> <li>a. Miscellaneous metalwork including pipe handrails, grating supports, ladders, rung, seat angles, guards, stop gates and guides, weir plates, launders and through, pipe hangers and supports, anchor bolts, and all required anchors and appurtenances, shall be stainless steel 316.</li> </ul> </li> <li>C. General Conditions <ul style="list-style-type: none"> <li>a. All sections under this Division shall be subject to the requirements of the Department of Environment and Natural Resources and Environmental Management Bureau.</li> <li>b. The term Contractor in these Specifications shall mean the Contractor for the Sewage Treatment Plant.</li> </ul> </li> <li>D. General Description <ul style="list-style-type: none"> <li>a. The work to be done shall consist of the design, supply and installation, complete in all details, of the Sewage Treatment Plant Works, at the subject premises, and all work and materials incidental to the work that are expressly stated to be done by others.</li> <li>b. All work shall be in accordance with the governing Codes and Regulations and with these Specifications, except where same shall conflict with existing codes, etc., in which latter shall then govern.</li> <li>c. The requirements with regards to materials and workmanship specify the required standards for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings. These specifications are intended to provide a broad outline of the required installation, but are not intended to include all details of design, supply and installation.</li> <li>d. The Contractor shall adopt his proprietary technique to guarantee the safety and performance of the system in accordance with the concepts and criteria set by these Specifications. The Contractor must be experienced in Sewage Treatment Plant works.</li> <li>e. No consideration will be granted for any alleged misunderstanding on the quality of materials to be furnished or work to be done, it being understood that the submission of a proposal is an Agreement to all items and conditions referred to immediately place an order as soon as the project is awarded to him. Any exceptions, omission or substitutions shall be presented in writing with the Contractor's Bid.</li> <li>f. The Contractor, before commencing work, shall examine the proposed location of the STP and all adjoining areas on which this work is in any way dependent for perfect workmanship according to the intent of these specifications and shall report to the Owner's representative any condition which will prevent the Contractor from performing first class work. No waiver of responsibility for defective work will be</li> </ul> </li> </ul> |  |
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considered unless notice has been filed at the time the Contractor submits his proposal.

E. Work Included

Under this Division of the Specifications, provide all materials and equipment and perform all the work necessary for the complete execution of all Sewage Treatment Plant (STP) works as herein specified, except as otherwise but not be limited to the following principal items of work:

- a. Furnishing, delivery to the project site and installation of complete Sewage Treatment Plant including all equipment, valves, and piping, motor and controls and all accessories necessary to complete the system.
- b. Preparation of installation drawings and design calculations of the above STP including selection of mechanical equipment capacities, design of tank dimensions, piping and all accessories to comply with the concepts and criteria set by these Specifications.
- c. Electrical Controls of the above systems including motor control center, remote control switches, motor controllers and starters, wires and cables, conduits and other required accessories.
- d. Sanitary sewer connection of effluent pipe from STP to the main sanitary sewer system.
- e. Corrosion protection and painting of all equipment and piping including all exposed and embedded materials.
- f. Interim Operations and Maintenance, and Complete testing and commissioning of the entire Sewage Treatment Plant, satisfying dry and wet conditions, including supply of all instruments for operating and testing the various systems and submission of reports.
- g. Full instruction after completing the job to the maintenance personnel regarding operation and maintenance of the entire installation. Provide complete printed/typewritten instruction booklets (hardbound) covering maintenance, operation and adjustments of each piece of equipment and list of spare parts for each piece of equipment.
- h. If anything has been omitted in any item of work or materials usually furnished, which are necessary for the completion of the STP Work as outlined herein before, then such items must be and are hereby included in this Division of the Work.
- i. Acquisition of Authority to Construct, Discharge Permit, and Permit to Operate from DENR and Building Permit.
- j. Prepare Environmental Impact Assessment (EIA) and other documentary requirements and facilitate the application until issuance of Environmental Compliance Certificate.
- k. Coordinate and facilitate service application to Shin Clark Power Holdings Incorporated for Primary or Secondary metering and costs for any specialty voltages, frequencies, DC (if required) that should include the necessary transformers, rectifiers, inverter/converter for a stable operation.

- I. Coordinate and facilitate water service application with Primewater Tahal PAVI MGS Corporation.
- m. The Contractor shall prepare all plans, applications, permits, etc., and shall complete all tests, forms, etc., required by all rules, regulations, etc. of all the Government Authorities having jurisdiction and such shall be completed by personnel of proper caliber, in particular engineers, where so required

F. Codes, Inspections, Permits and Fees

- a. The work under this Contract is to be installed according to the latest applicable codes, ordinances and requirements of the following:
  - i. National Plumbing Code of the Philippines
  - ii. Sanitation Code of the Philippines
  - iii. Department of Health
  - iv. Department of Agriculture
  - v. Effluent Regulations of 1990 – Environmental Management Bureau (EMB) formerly National Pollution Control Commission (NPCC)
  - vi. Rules and Regulations of the EMB for Domestic and Industrial Wastewater Disposal (Section 6g of Presidential Decree No. 984, otherwise known as the National Pollution Control Decree of 1976)
  - vii. DENR Administrative Order (DAO) 2016-08
  - viii. DENR Administrative Order (DAO) 2021-19
  - ix. NCC Design Standards and Guidelines
  - x. NCC Minimum Performance Standards and Specifications for Water and Wastewater Infrastructure

The Contractor’s bid shall be deemed to include all costs to comply with the various code, inspections, permits and fees

Nothing contained in this Specification shall be construed as to conflict with National and Local Ordinances or Laws governing the installation of Sewage Treatment Plant Work and all such laws and ordinances are hereby made part of this Specification. The Contractor is required to meet the requirements hereof.

- b. Codes and Standards of following organizations other than mentioned above are referenced in this Specification. The Contractor’s price shall be deemed to include compliance with the following:
  - i. American National Standards Institute (ANSI)
  - ii. American Society for Testing and Materials (ASTM)
  - iii. American Water Works Association (AWWA)
  - iv. International Organization for Standardization (ISO)
  - v. National Electrical Manufacturers Association (NEMA)
  - vi. Underwriters’ Laboratories (UL)

- vii. Uniform Plumbing Code by IAPMO
- viii. U.S. Federal Specifications (FS)

- c. All construction permits and fees required for this work shall be obtained by and at the expense of the Contractor. The Contractor shall furnish the Architect, the Engineer and the Owner final certificates of inspection and approval from the proper government authorities after the completion of the work.
- d. Approval from authorities of all plans for construction shall be secured by the Contractor.

6) Record Drawings

- A. The Contractor shall, during the progress of work keep record of all deviations of the actual installation from that shown in the approved Installation Drawings.
- B. Upon completion of work, the Contractor shall submit two (2) copies of the as-built drawings, signed and dry-sealed by the Contractor's registered sanitary engineer, indicating the work as actually and finally installed, including new information not originally shown in the approved Installation Drawings, to the Engineer for approval as to conformance with these Specifications and compliance with pertinent Code provisions. The Contractor shall also submit two (2) sets of operating and maintenance instructions, equipment and parts lists for approval.
- C. After such approvals, the Contractor shall submit the as-built originals (sepia) and two (2) sets of prints to the Owner, as well as three (3) sets of operating and maintenance instructions, equipment and part lists, including addresses of manufacturers or suppliers of major equipment and materials.
- D. Approval of the as-built drawings by the Engineer shall be a requirement for final acceptance of the completed works and for final payment.

7) Installation Drawings and other Submittals

- A. The Contractor shall prepare and submit for approval the following:
  - a. Dimensional layout drawings of the Sewage Treatment Plant and its auxiliary equipment, pumping and piping systems, concrete tanks, control system and other systems which are complete in nature, or which require close coordination with other work of this trade and/or the work of other trades.
  - b. Calculation of sewage treatment processes, equipment sizing and selections, and other processes involved in the preparation of proposed construction of the Sewage Treatment Plant.
  - c. Dimensional drawings of all concrete tanks and other structures required in the review of structural design.
  - d. Electrical control components to include MCC's, starters, breakers, wires, etc.
  - e. Complete control schematic and wiring diagrams for all equipment.

- f. Manufacturer's catalog sheets, marked as necessary to indicate materials or equipment being furnished for the following:
    - i. Pumps, blowers and other STP equipment complete with ratings and dimensions
    - ii. Controls, magnetic starters, pressure switches, valves, etc.
    - iii. Valves: Gate, check and pressure reducing valve
    - iv. Pipes and fittings
    - v. Flexible couplings
    - vi. Riser supports, hangers and sleeves
  - g. Marked sets of piping drawings showing mark number and exact location of hangers, anchors, guides and sway braces, and approximate location of random hangers.
  - h. Details of all anchors, guides and sway braces.
  - i. List of miscellaneous materials proposed, including pipe, fittings, valves, etc., and manhole accessories, identifying manufacturer and type
  - j. Field test reports
  - k. Such other drawings as the Engineer may require
  - B. All drawings should be signed and dry sealed by the Contractor's Registered Sanitary Engineer, Structural Engineer and other Professional Engineers concerned.
  - C. All drawings, etc., shall be submitted sufficiently in advance of field requirements to allow ample time for checking and no extension of the contract time will be granted this Contractor, by reason of his failure in this respect.
  - D. All submittals shall be complete and shall contain all required information and details.
- 8) Coordination
- A. Coordinate schedule of installation with works of other trades.
  - B. Systems provided shall be complete and operable, and shall include required accessories, fastenings and supports.
  - C. All equipment shall be installed in strict accordance with manufacturer's recommendation.
  - D. Coordinate and facilitate with the necessary stakeholders and Government agencies for the implementation and operation of the Project.
- 9) Guarantee
- A. The Contractor shall guarantee the Sewage Treatment Plant's complete and successful operation against defects on the equipment and defects in workmanship for a period of two (2) years from date of completion of the Contract certified by the Architect. Said warranty shall include repair works and labor.
  - B. The Contractor shall guarantee the performance of the STP for one (1) year in terms of complying with the required effluent characteristics as stated in Section 3.4 Effluent Characteristics.
  - C. All equipment furnished and installed shall be new and free of defects in design materials and workmanship. The Contractor shall replace, without additional cost to the Owner,

		<p>any defective material or equipment within two (2) years after final acceptance of the plant.</p> <p>D. Replacement of defective components, labor to trouble-shoot or repair of the systems shall be furnished by the Contractors at no charge to the Owner during the guarantee period.</p> <p>E. The Contractor shall indemnify and save harmless the Owner and the Engineer from and against all liability for damages arising from injuries or disabilities to persons or damage to property occasioned by any act or omissions of Contractor or any of his Sub-Contractors, including any and all expenses, legal or otherwise which may be incurred by the Owner or the Engineer, in the defense of any claim, action or suit.</p> <p>10) Workmanship</p> <p>A. The work throughout shall be executed in the best and most thorough manner to the satisfaction of the Architect and the Engineer who will jointly interpret the meaning of the Drawings and Specifications and shall have power to reject any work and materials which in their judgment are not in full accordance therewith.</p> <p>B. The Contractor shall assume full responsibility for the design, supply, installation, testing, commissioning and hand-over of Sewage Treatment Plant and guarantee its satisfactory performance.</p>		
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**Bidder's Authorized Representative:**

\_\_\_\_\_  
Signature over Printed Name

\_\_\_\_\_  
Principal Bidder / Supplier

# TECHNICAL SPECIFICATIONS

## Lot B

Bidders must indicate whether the goods and equipment offered are “Compliant” or “Non-Compliant” to the corresponding specifications prescribed by BCDA using this form.

<b>SUPPLY, DELIVERY AND INSTALLATION OF GOODS AND EQUIPMENT FOR THE NATIONAL ACADEMY OF SPORTS (NAS) - PHASE 1 AT NEW CLARK CITY</b>					
<b>TECHNICAL SPECIFICATIONS COMPLIANCE FORM</b>					
			SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant
<b><i>SUPPLY, DELIVERY AND INSTALLATION OF ICT EQUIPMENT</i></b>					
LOT	ITEMS	UNIT			
		<b>LS</b>	<b>Project Management</b>		
			BCDA shall require the Winning Bidder to have at least three (3) certified project managers. A project manager to act as the project lead and oversee the entire project, and the other two to assist and act as backup in the case of leave or resignation of the project lead.		
			The three (3) project managers must hold a non-expired Project Management Professional (PMP) certification and must be a regular employee (not project-base) by the Winning Bidder for at least a year.		
			<b>Trainings</b>		
			The Winning Bidder must provide comprehensive hours training on design, configuration, administration and troubleshooting for at least 4 (4) IT personnel designated by BCDA.		
			The training must be conducted by certified engineer/instructor.		
			All cost relative to the conduct of the training must be at the expense of the Winning Bidder, including transportation, food, accommodation and training materials of the participants.		
			<b>Technical Support Services</b>		
			BCDA requires that an adequate technical support be provided after project completion. Details are discussed in the next subsections.		
			Remote Helpdesk - This service is provided for one (1) year from the acceptance of the project. The Technical Support Team should be available to answer technical questions and		

			troubleshoot problems relating to the solutions provided from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding holidays.		
			On-site Support (1 year) all offered components		
			Forty Eight (48) days 8x5 Onsite Support consumable in one year		
			Response time - The Winning Bidder must provide four (4) hour response time upon receipt of call/notice by acknowledging that there is a problem and a resolution must be drawn up by them. A ticket number must be automatically generated assigned to the case, this shall also be provided to the person who raised the case.		
			Support Procedure - Winning Bidder must provide a procedure on support and problem escalation.		
			All cost relative to the requirement for Technical Support Services shall be at the expense of the Winning Bidder.		
<b>B1.1</b>	<b>4</b>	<b>Nos</b>	<b>External Hard Drive</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Storage: at least 4TB		
			Connectivity: SuperSpeed USB 3.0 port (required for USB 3.0 transfer speeds or backwards compatible with USB 2.0 ports at USB 2.0 transfer speeds.)		
			Inclusions: 1) 18-inch USB 3.0 cable 2) Quick start guide 3) Warranty: 3 years limited warranty		
			<b>Warranty: 3 years replacement (no onsite)</b>		
			TRAININGS		
			None		
<b>B1.2</b>	<b>8</b>	<b>Nos</b>	<b>27-inch Screen Extended Display</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Picture/Display - LCD panel type - VA LCD Backlight type Panel Size: 27 inch / 68.6 cm Display Screen Coating Anti-Glare, 3H, Haze 25% W-LED system Effective viewing area: 597.9 (H) x 336.3 (V) - at a 1800R curvature*  Aspect ratio: 16:09 Optimum resolution: 1920 x 1080 @ 60 Hz		



		Pixel Density: 82 PPI	
		Response time (typical): 4 ms (Gray to Gray)*	
		Brightness: 250 cd/m <sup>2</sup>	
		Contrast ratio (typical): 3000:01:00	
		SmartContrast: 20,000,000:1	
		Viewing angle: 178° (H) / 178° (V) @ C/R > 10	
		Pixel pitch: 0.311 x 0.311 mm	
		Flicker-free: Yes	
		Picture enhancement: SmartImage game	
		Color gamut (typical): NTSC 102%*, sRGB 128%*	
		Display colors: 16.7 M	
		Scanning Frequency: 30 - 83 kHz (H) / 50 -76 Hz (V)	
		Srgb: Yes	
		AMD FreeSync™ technology: Yes	
		LowBlue Mode: Yes	
		Connectivity: Signal Input	
		VGA (Analog )	
		HDMI (digital, HDCP)	
		Sync Input	
		Separate Sync	
		Sync on Green	
		Audio (In/Out)	
		HDMI audio out	
		Convenience	
		User convenience	
		Power On/Off	
		Menu	
		Brightness	
		Input	
		SmartImage Game	
		Other convenience	
		Kensington lock	
		VESA mount (100x100mm)	
		Plug & Play Compatibility	
		DDC/CI	
		Mac OS X	
		sRGB	
		Windows 10 / 8.1 / 8 / 7	
		Stand	
		Tilt	
		-5/20 degree	
		Power	
		On mode	

			34.47 W (typ.)		
			Standby mode		
			< 0.5 W (typ.)		
			Off mode		
			< 0.3 W (typ.)		
			Power LED indicator		
			Operation - White		
			Standby mode- White (blinking)		
			Power supply		
			External		
			100-240VAC, 50-60Hz		
			WARRANTY: 3 years parts and labor, (no onsite)		
			TRAININGS		
			None		
<b>B1.3</b>	<b>10</b>	<b>Nos</b>	<b>Standard Desktop Printer</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			FUNCTIONS		
			Print, copy, scan		
			MULTITASKING SUPPORTED		
			No		
			FIRST PAGE OUT (READY)		
			Black: As fast as 15 sec [3]		
			DUTY CYCLE (MONTHLY, A4)		
			Up to 1000 pages		
			RECOMMENDED MONTHLY PAGE VOLUME		
			50 to 100		
			PRINT TECHNOLOGY		
			Thermal Inkjet		
			PRINTER DRIVERS INCLUDED		
			PCL 3 GUI		
			PRINT QUALITY BLACK (BEST)		
			Black: Up to 1200 x 1200 rendered dpi Color: Up to 4800 x 1200 optimized dpi color (when printing from a computer on selected photo papers and 1200 input dpi)		
			DISPLAY		
			None		
			NUMBER OF PRINT CARTRIDGES		
			2 (1 each black, tri-color)		
			PRINT LANGUAGES		
			PCL 3 GUI		
			AUTOMATIC PAPER SENSOR		
			No		
			WIRELESS CAPABILITY		
			No		
			CONNECTIVITY, STANDARD		
			1 Hi-Speed USB 2.0		
			MINIMUM SYSTEM REQUIREMENTS		
			Windows 10, 7: 1 GHz 32-bit (x86) or 64-bit (x64) processor, 2 GB available hard disk space, Internet connection, USB port, Internet Explorer		

		COMPATIBLE OPERATING SYSTEMS
		Windows 10, 7
		MOBILE PRINTING CAPABILITY
		Mobile Print Capability not supported
		MEMORY, STANDARD
		Integrated memory
		MAXIMUM MEMORY
		Integrated memory
		PAPER HANDLING INPUT, STANDARD
		60-sheet input tray
		PAPER HANDLING OUTPUT, STANDARD
		25-sheet output tray
		DUPLEX PRINTING
		Manual (driver support provided)
		MEDIA SIZES SUPPORTED
		A4; B5; A6; DL envelope
		MEDIA SIZES, CUSTOM
		89 x 127 to 215 x 279 mm
		MEDIA TYPES
		Plain paper, Photo paper, Brochure paper
		MEDIA WEIGHTS, RECOMMENDED
		75 g/m <sup>2</sup>
		BORDERLESS PRINTING
		No
		SCANNER TYPE
		Flatbed
		SCAN FILE FORMAT
		JPEG, TIFF, PDF, BMP, PNG
		SCAN RESOLUTION, OPTICAL
		Up to 1200 dpi
		BIT DEPTH
		24-bit
		SCAN SIZE, MAXIMUM
		216 x 297 mm
		DIGITAL SENDING STANDARD FEATURES
		No
		SCAN INPUT MODES
		Front-panel scan
		COPY RESOLUTION (BLACK TEXT)
		Up to 600 x 300 dpi
		COPY RESOLUTION (COLOR TEXT AND GRAPHICS)
		Up to 600 x 300 dpi
		COPIES, MAXIMUM
		Up to 9 copies
		POWER
		Input voltage: 100 to 240 VAC (+/- 10%), 50/60 Hz (+/- 3 Hz). Input voltage: 200 to 240 VAC (+/- 10%), 50/60 Hz (+/- 3Hz) (China & India). Not dual voltage, power supply varies by part number with # Option code identifier.
		POWER CONSUMPTION
		0.05 watts (Off), 1.83 watts (Ready), 0.83 watt (Sleep), 0.05 watts (Auto-off) [2]
		ECOLABELS
		CECP; SEPA
		RECOMMENDED OPERATING HUMIDITY RANGE
		20 to 80% RH
		MINIMUM DIMENSIONS (W X D X H)

			425.2 x 304.1 x 149.1 mm 16.47 x 11.97 x 5.87 in [1]		
			MAXIMUM DIMENSIONS (W X D X H)		
			425.2 x 304.1 x 149.1 mm 16.47 x 11.97 x 5.87 in [1]		
			WEIGHT		
			3.42 kg 7.55 lb		
			PACKAGE WEIGHT		
			4.45 kg 9.87 lb		
			CABLE INCLUDED		
			AP EM only: Yes 1.5 m (USB) cable; AMS/EMEA: No, please purchase (USB) cable separately		
			SOFTWARE INCLUDED		
			WW: Printer Software, available online;		
			MANUFACTURER WARRANTY		
			One-year limited hardware warranty; 24-hour, 7 days a week support		
<b>B1.4</b>	<b>10</b>	<b>Nos</b>	<b>(3 in 1) : Printer, Scanner, Copier -- High speed and Legal Size Scanner</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			<b>FUNCTIONS</b>		
			Print, Copy, Scan, Fax		
			FIRST PAGE OUT BLACK (A4, READY)		
			As fast as 11.8 sec		
			FIRST PAGE OUT BLACK (A4, SLEEP)		
			As fast as 13.4 sec		
			PRINT SPEED BLACK (ISO, A4)		
			Normal: Up to 16 ppm Measured using ISO/IEC 24734, excludes first set of test documents.		
			PRINT SPEED COLOR (ISO, A4)		
			Up to 16 ppm Measured using ISO/IEC 24734, excludes first set of test documents.		
			FIRST PAGE OUT (READY)		
			Black: As fast as 11.8 sec Measured using ISO/IEC 17629.		
			FIRST PAGE OUT (SLEEP)		
			Black: As fast as 13.4 sec Measured using ISO/IEC 17629.		
			FIRST COPY OUT		
			As fast as 12.2 sec		
			FIRST COPY OUT (SLEEP)		
			As fast as 12.3 sec		
			DUTY CYCLE (MONTHLY, A4)		
			Up to 30,000 pages		
			RECOMMENDED MONTHLY PAGE VOLUME		

		150 to 1500
		PRINT TECHNOLOGY
		Laser
		PRINT QUALITY BLACK (BEST)
		Up to 600 x 600 dpi
		PRINT QUALITY COLOR (BEST)
		Up to 600 x 600 dpi
		PRINT LANGUAGES
		PCL6; PCL5c; postscript level 3 emulation; PWG raster; PDF; PCLm; PCLm-S; URF
		DISPLAY
		2-Line LCD
		PROCESSOR SPEED
		800 MHz
		AUTOMATIC PAPER SENSOR
		No
		DUPLEX PRINTING
		Manual (driver support provided)
		MOBILE PRINTING CAPABILITY
		ePrint; Apple AirPrint™; Mobile Apps; Mopria™ Certified; Wi-Fi® Direct Printing
		WIRELESS CAPABILITY
		Built-in 802.11 b/g/n; authentication via WEP, WPA/WPA2, or 802.1X; encryption via AES or TKIP; WPS; Wi-Fi Direct
		CONNECTIVITY, STANDARD
		Hi-Speed USB 2.0 port; built-in Fast Ethernet 10/100 Base-TX network port, 802.11n 2.4/5GHz wireless, Fax port
		MINIMUM SYSTEM REQUIREMENTS
		Windows® 10, 8.1, 8, 7: 32-bit or 64-bit, 2 GB available hard disk space, CD-ROM/DVD drive or Internet connection, USB port, Internet Explorer. Windows Vista®: (32-bit), 2 GB available hard disk space, CD-ROM/DVD drive or Internet connection, USB port, Internet Explorer 8. Windows® XP SP3 or higher (32-bit only): any Intel® Pentium® II, Celeron® or 233 MHz compatible processor, 850 MB available hard disk space, CD-ROM/DVD drive or Internet connection, USB port, Internet Explorer 8. Windows Server support is provided via the command line installer and supports Win Server 2008 R2 and higher. Apple® macOS Sierra (v10.12) macOS High Sierra (v10.13) macOS Mojave (v10.14) macOS Catalina(v10.15); 200MB HD; Internet required for download; USB
		COMPATIBLE OPERATING SYSTEMS
		Windows® 10, 8.1, 8, 7: 32-bit or 64-bit, 2 GB available hard disk space, Internet connection, USB port, Internet Explorer. Windows Vista®: (32-bit only), 2 GB available hard disk space, Internet connection, USB port, Internet Explorer 8. Windows® XP SP3 or higher (32-bit only): any Intel® Pentium® II, Celeron® or 233 MHz compatible processor, 850 MB available hard disk space, Internet connection, USB port, Internet Explorer 8. Windows Server support is provided

		via the command line installer and supports Win Server 2008 R2 and higher. Apple® macOS Sierra (v10.12) macOS High Sierra (v10.13) macOS Mojave (v10.14) macOS Catalina(v10.15); 200MB HD; Internet required for download; USB. Linux
		MEMORY
		256 MB DDR, 128 MB Flash
		MEMORY, MAXIMUM
		256 MB DDR, 128 MB Flash
		PAPER HANDLING INPUT, STANDARD
		150-sheet input tray
		PAPER HANDLING OUTPUT, STANDARD
		100-sheet output bin
		MAXIMUM OUTPUT CAPACITY (SHEETS)
		Up to 100 sheets (10 mm stack height)
		DUPLEX PRINTING
		Manual (driver support provided)
		MEDIA SIZES SUPPORTED
		Letter(216 x 280); Legal(216 x 356); Executive(184 x 267); Oficio 8.5x13(216 x 330); 4 x 6(102 x 152); 5 x 8(127 x 203); A4(210 x 299); A5(148 x 210); A6(105x148); B5(JIS)(182 x 257); B6(JIS)(128 x 182); 10x15cm(100 x 150); Oficio 216x340mm(216 x 340); 16K 195x270mm(195x270); 16K 184x260mm(184x260); 16K 197x273mm(197x273); Postcard(JIS)(100 x 147); Double Postcard(JIS)(147 x 200); Envelope #10(105 x 241); Envelope Monarch(98 x 191); Envelope B5(176 x 250); Envelope C5(162 x 229); Envelope DL(110 x 220); A5-R(210 x 148)
		MEDIA SIZES, CUSTOM
		76 x 127 to 216 x 356 mm
		MEDIA TYPES
		Paper (bond, brochure, colored, glossy, heavy, letterhead, light, photo, plain, preprinted, prepunched, recycled, rough), transparencies, labels, envelopes, cardstock
		MEDIA WEIGHT, SUPPORTED
		60 to 163 g/m <sup>2</sup> (Uncoated/Matte, recommended), however up to 175 g/m <sup>2</sup> Postcards and 200 g/m <sup>2</sup> is allowed in the driver; 60 to 163 g/m <sup>2</sup> (Coated/Glossy, recommended), however up to 175 g/m <sup>2</sup> Postcards and 220 g/m <sup>2</sup> is allowed in the driver.
		MEDIA WEIGHTS, SUPPORTED ADF
		70 to 90 g/m <sup>2</sup>
		SCANNER TYPE
		Flatbed, ADF
		SCAN FILE FORMAT
		JPG, RAW (BMP), PNG, TIFF, PDF
		SCAN RESOLUTION, OPTICAL
		Up to 300 dpi (color and mono, ADF); Up to 1200 dpi (color and mono, flatbed)
		SCAN SIZE (ADF), MAXIMUM
		215.9 x 355.6 mm
		SCAN SIZE (ADF), MINIMUM
		148.5 x 210 mm
		SCAN SPEED (NORMAL, A4)
		Up to 15.0 ppm (B/W); 8 ppm (Color)
		DUPLEX ADF SCANNING
		No
		AUTOMATIC DOCUMENT FEEDER CAPACITY
		Standard, 35 sheets

			FILE FORMAT SUPPORTED		
			PDF; JPG		
			SCAN INPUT MODES		
			Front-panel copy, fax; Scan software; and user application via TWAIN or WIA		
			COPY SPEED (NORMAL)		
			Black: Up to 16 ppm Color: Up to 16 ppm [8]		
			COPY RESOLUTION (BLACK TEXT)		
			Up to 600 x 600 dpi		
			COPY RESOLUTION (COLOR TEXT AND GRAPHICS)		
			Up to 600 x 600 dpi		
			COPY REDUCE / ENLARGE SETTINGS		
			25 to 400%		
			COPIES, MAXIMUM		
			Up to 99 copies		
			FAXING		
			Yes		
			FAX TRANSMISSION SPEED		
			33.6 kbps (maximum); 14.4 kbps (default)		
			FAX MEMORY		
			Up to 1300 pages		
			FAX RESOLUTION BLACK (BEST)		
			Up to 300 x 300 dpi		
			FAX SPEED DIALS, MAXIMUM NUMBER		
			Up to 120 numbers		
			FAX BROADCAST LOCATIONS		
			119		
			POWER		
			110-volt input voltage: 110 to 127 VAC (+/- 10%), 50 Hz (+/- 3 Hz), 60 Hz (+/- 3 Hz); 220-volt input voltage: 220 to 240 VAC (+/- 10%), 50 Hz (+/- 3 Hz), 60 Hz (+/- 3 Hz)(Not dual voltage, product varies by part number with # Option code identifier). Not dual voltage, power supply varies by part number with # Option code identifier.		
			ECOLABELS		
			EPEAT® Silver; ENERGY STAR® qualified		
			BLUE ANGEL COMPLIANT		
			Yes, Blue Angel DE-UZ 205—only ensured when using Original HP supplies		
			CABLE INCLUDED		
			Yes, 1 USB; Yes, 1 phone cord.		
			SOFTWARE INCLUDED		
			No CD, Downloadable Software		
			MANUFACTURER WARRANTY		
			One-year limited hardware warranty; 24-hour, 7 days a week support		
<b>B1.5</b>	<b>4</b>	<b>Nos</b>	<b>3 in 1 High End Printer</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		

			Print, Scan, Copy, and Wireless: Yes		
			Print speed: Black A4: 21 ppm (ISO); Color A4: 21 ppm (ISO)		
			Print quality: Black & Color (best): Up to 600 x 600 dpi		
			Print size: Paper (bond, brochure, colored, glossy, heavy, letterhead, light, photo, plain, preprinted, prepunched, recycled, rough), transparencies, labels, envelopes, cardstock; Max custom: 216 x 356 mm		
			Scanner: ADF: 215.9 x 355.6 mm (legal) / Flatbed: 215.9 x 297 mm ; Up to 1200 x 1200 dpi (Flatbed)		
			Digital scanning: Scan to email; scan to folder; scan to USB drive		
			Display: 2.7" colour graphic touch screen with 3 button at left side (Home, Help, Back)		
			Copy speed: Black A4: Up to 21 cpm (ISO); Color: Up to 21 cpm (ISO)		
			Connectivity: Hi-Speed USB 2.0 port; built-in Fast Ethernet 10/100/1000 Base-TX network port, 802.11n 2.4/5GHz wireless, Front Host USB"		
			Paper Handling: 250-sheet input tray, 50 sheet ADF, 150-sheet output tray		
			Duplex: No		
			Mobile Printing: ePrint; Apple AirPrint™; Mopria™-certified; Wireless Direct Printing; Mobile Apps		
			Memory: 256 MB DDR, 256 MB Flash		
			Duty Cycle: Up to 40,000 pages; Recommended monthly volume: 150 to 2,500pages		
			Printer Management: Yes		
			REQUIREMENTS FOR THE BIDDER		
			The winning bidder must be an authorized reseller and of the product being proposed		
			WARRANTY		
			High-End Printer: 3 years return to bench		
			TRAININGS		
			None		
			The brand must have at least 5 years of existence in the market.		
<b>B1.6</b>	<b>1</b>	<b>Nos</b>	<b>ID Printer</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			TYPE		
			Double-sided printer		
			PRINT MODE		
			300dpi colour dye sublimation, monochrome thermal printing and rewritable technology.		
			PRINT SPEED		
			>100 cards per hour for colour; 7 seconds per card for monochrome.		
			VISUAL SECURITY		



			Option to print a HoloKote® security watermark across the card surface. When used with HoloPatch® cards, one area of the HoloKote watermark is highlighted as a high visibility security seal.		
			<b>CARD ENCODING OPTIONS</b>		
			Magnetic stripe encoding: HiCo and LoCo encoder ISO 7811. Smart card encoding: Contact chip, MIFARE, DESFire and iClass.		
			<b>INTERFACES</b>		
			USB rev1.1 (USB 2.0 compatible), Ethernet.		
			<b>SOFTWARE DRIVERS</b>		
			Windows 2000 Professional (SP4), XP, Vista, 7, 8, 8.1 & 10 (32/64 bit compatible), Server 2003 R2 SP2, 2008 (32/64 bit compatible) and Mac OS X.		
			<b>CARD CAPACITY</b>		
			100-card feeder, 30-card stacker.		
			<b>PRINTER WEIGHT</b>		
			12 lbs (5.5kg).		
			<b>POWER SOURCE</b>		
			External power supply 100-240V 50-60Hz autoranging		
			<b>WARRANTY: 3 years (no onsite)</b>		
			The brand must have at least 5 years of existence in the market.		
			<b>TRAININGS</b>		
			None		
<b>B1.7</b>	<b>2</b>	<b>Nos</b>	<b>Standard Scanner</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Scanner Type: Flatbed		
			Scanner Element: Colour Contact Image Sensor (CIS)		
			Light Source: 3-colour (RGB) LED		
			Optical Resolution: 4800 x 4800dpi		
			Selectable Resolution: 25 – 19200dpi		
			Scan Bit Depth:		
			Greyscale: 16-bit input		
			8-bit output		
			Colour: 48-bit input (16-bit for each colour)		
			Win: 48-bit*3 or 24-bit output (16-bit or 8-bit for each colour)		
			Mac: 24-bit output (8-bit for each colour)		
			Preview Speed: Approx. 7 secs		
			Scan Speed:		
			Colour, A4 (300dpi): Approx. 8 secs		
			Colour, 4 x 6" (300dpi): Approx 4 secs		
			Scan Speed (Reflective):		
			Greyscale, B&W: 8.2msec/line (4800dpi)		
			4.3msec/line (2400dpi)		
			2.2msec/line (1200dpi)		
			1.3msec/line (600dpi)		
			1.7msec/line (300dpi)		
			Colour: 25.4msec/line (4800dpi)		
			14.8msec/line (2400dpi)		
			6.6msec/line (1200dpi)		

			3.8msec/line (600dpi)		
			1.7msec/line (300dpi)		
			Maximum Document Size: A4 / Letter		
			System Requirements:		
			Windows: Windows 10 / 8.1 / 7 SP1		
			Mac: Mac OS 10.12 ~10.13, Mac OS X v10.11.6		
			Scanner Buttons (EZ buttons): 5 buttons (PDF x 2, AUTOSCAN, COPY, SEND)		
			Interface: USB 2.0 High-Speed Type-C		
			Power Supply: via USB port		
			Power Consumption:		
			Maximum during operation: Approx. 4.5W		
			Stand-by: Approx. 0.3W		
			Environment		
			Regulation: RoHS (EU, China), WEEE (EU)		
			Eco-label: Energy Star		
			Weight: Approx 1.7kg		
			WARRANTY		
			1 year parts and service (no onsite)		
			TRAININGS		
			None		
<b>B1.8</b>	<b>4</b>	<b>Nos</b>	<b>55" Smartboard</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<b>Specifications</b>		
			Diagonal Screen Size (in): 54.6		
			Active Area H x V (mm): 1209.6 x 680.4		
			Panel Technology: ADS		
			Resolution: 3840 x 2160		
			Brightness (cd/m2): 350		
			Contrast Ratio: 1200:1		
			Viewing Angle H/V (deg): 178/178		
			Response Time: 8 ms		
			Operation Hours: 18hrs x 7 days		
			MTBF: 50,000 hrs		
			Operating System: Android 8.0		
			DDR: 4GB		
			Memory (eMMC): 32GB		
			External Storage: TF (MicroSD)		
			Input: HDMI 2.0, USB3.0, USB2.0, LAN RJ45 Ethernet 10/100Mbps		
			Output: HDMI 2.0, Audio-Out 3.5 mm jack		
			OPS Type Compatible: Yes		
			Touch: IR-HE 20 point multi touch		
			Wi-Fi: 2.4G/5G IEEE802.11 b/g/n 2T*2R		
			Bluetooth: Option		
			OPS/SDM Slot: OPS Slot		
			Power Management: Yes		
			Cloud CMS: Yes		

			Panel Orientation: Landscape		
			Built-in Speaker: 8w x 2		
			Power Supply: AC 90V-264V @50Hz/@60Hz		
			WARRANTY		
			3 years parts and labor (no onsite)		
			TRAININGS		
			None		
<b>B1.9</b>	<b>30</b>	<b>Nos</b>	<b>DESKTOP CONFIG- STANDARD</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			· Category		
			o Branded and Brand New		
			· Processor		
			o 10th Gen, 8 cores, 16 threads 16MB Cache up to 4.30 GHz frequency or higher		
			· Form Type		
			o Small Form Factor		
			· Memory (RAM)		
			o 16 GB or Higher		
			· Storage		
			o 256GB M.2 SSD + 1TB 7200RPM HDD or higher		
			· Video Controller		
			o Integrated Graphics or higher		
			· Keyboard/mouse		
			o USB Keyboard and USB optical mouse		
			· Networking		
			o Onboard Gigabit Ethernet Controller		
			· Standard I/O Ports		
			o Headphone/microphone combo		
			o Two (2) SuperSpeed USB Type-A 10Gbps signaling rate		
			o Three (3) SuperSpeed USB Type-A 5Gbps signaling rate		
			o Four (4) USB Type-A 480Mbps signaling rate		
			o Audio-out		
			o Power connector		
			o RJ45		
			o HDMI		
			o DisplayPort		
			· Power Supply Wattage		
			o 180 Watts internal power supply		

			<ul style="list-style-type: none"> <li>· Software</li> </ul>		
			<ul style="list-style-type: none"> <li>o Windows 10 Professional</li> </ul>		
			<ul style="list-style-type: none"> <li>· Warranty (parts and service)</li> </ul>		
			<ul style="list-style-type: none"> <li>o At least three (3) years Parts, Labor and Onsite.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Monitor</li> </ul>		
			<ul style="list-style-type: none"> <li>o 23.8 Inches Display Size</li> </ul>		
			<ul style="list-style-type: none"> <li>o FHD (1920x1080) Resolution</li> </ul>		
			<ul style="list-style-type: none"> <li>o Anti-glare Screen</li> </ul>		
			<ul style="list-style-type: none"> <li>o Low blue light mode</li> </ul>		
			<ul style="list-style-type: none"> <li>o IPS Display</li> </ul>		
			<ul style="list-style-type: none"> <li>o 5ms GTG Response Ratio</li> </ul>		
			<ul style="list-style-type: none"> <li>· Others</li> </ul>		
			<ul style="list-style-type: none"> <li>o The unit models being offered are current and not in “End of Life” as reflected in the current product line found in the manufacturer’s official website / brochure.</li> </ul>		
			<ul style="list-style-type: none"> <li>o The unit models being offered will have product parts available and serviceable for at least five (5) years.</li> </ul>		
			All the components in the product being offered conform to international standards and factory installed with corresponding part number and verifiable via web.		
			Warranty (parts and service)		
			<ul style="list-style-type: none"> <li>o At least three (3) years Parts, Labor and Onsite.</li> </ul>		
<b>B1.10</b>	<b>22</b>	<b>Nos</b>	<b>DESKTOP - MID</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			<ul style="list-style-type: none"> <li>· Category</li> </ul>		
			<ul style="list-style-type: none"> <li>o Branded and Brand New</li> </ul>		
			<ul style="list-style-type: none"> <li>· Processor</li> </ul>		
			<ul style="list-style-type: none"> <li>o 10th Gen, 8 cores, 16 threads 16MB Cache up to 4.80 GHz frequency or higher</li> </ul>		
			<ul style="list-style-type: none"> <li>· Form Type</li> </ul>		
			<ul style="list-style-type: none"> <li>o Small Form Factor</li> </ul>		
			<ul style="list-style-type: none"> <li>· Memory (RAM)</li> </ul>		
			<ul style="list-style-type: none"> <li>o 16 GB or Higher</li> </ul>		
			<ul style="list-style-type: none"> <li>· Storage</li> </ul>		
			<ul style="list-style-type: none"> <li>o 256GB M.2 SSD + 1TB 7200RPM HDD or higher</li> </ul>		
			<ul style="list-style-type: none"> <li>· Video Controller</li> </ul>		
			<ul style="list-style-type: none"> <li>o 4GB dedicated</li> </ul>		
			<ul style="list-style-type: none"> <li>· Keyboard/mouse</li> </ul>		
			<ul style="list-style-type: none"> <li>o USB Keyboard and USB optical mouse</li> </ul>		
			<ul style="list-style-type: none"> <li>· Networking</li> </ul>		

			o Onboard Gigabit Ethernet Controller		
			· Standard I/O Ports		
			o Headphone/microphone combo		
			o Two (2) SuperSpeed USB Type-A 10Gbps signaling rate		
			o Three (3) SuperSpeed USB Type-A 5Gbps signaling rate		
			o Four (4) USB Type-A 480Mbps signaling rate		
			o Audio-out		
			o Power connector		
			o RJ45		
			o HDMI		
			o DisplayPort		
			· Power Supply Wattage		
			o 180 Watts internal power supply		
			· Software		
			o Windows 10 Professional		
			Warranty (parts and service)		
			o At least three (3) years Parts, Labor and Onsite.		
			· Monitor		
			o 23.8 Inches Display Size		
			o FHD (1920x1080) Resolution		
			o Anti-glare Screen		
			o Low blue light mode		
			o IPS Display		
			o 5ms GTG Response Ratio		
			· Others		
			o The unit models being offered are current and not in "End of Life" as reflected in the current product line found in the manufacturer's official website / brochure.		
			o The unit models being offered will have product parts available and serviceable for at least five (5) years.		
			All the components in the product being offered conform to international standards and factory installed with corresponding part number and verifiable via web.		
<b>B1.1</b>	<b>2</b>	<b>Nos</b>	<b>DESKTOP - HIGH END</b>		
<b>1</b>			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			27-inch 5k Retina display, true tone technology		
			Dual core Intel i5, with turbo boost up to 3.6GHz		
			Facetime HD Camera simultaneously supports full time native resolution on the built-in display at million colors		

			512GB SSD		
			Intel Iris plus /Graphics 640		
			8GB (2 x4GB) 2666MHz DDR4; four So-DIMM slots		
			Keyboard and mouse		
			Mac OS		
			10/100/1000 Base T- gigabit Ethernet		
			802.11 ac wifi with Bluetooth 5.0 wireless technology		
			3.5mm headphone jack; SDXC card slot; Four (4) USB A-ports; 2 thunderbolt 3 (USB-C) with support for		
			-Display port		
			-Thunderbolt (uo to 40Gbps)		
			-USB 3.1Gen2 (up to 10Gbps)		
			-Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately)		
			Kensington lock slot		
			Stereo speakers; Microphone; Studio-quality three-mic array with high signal-to-noise ratio and directional beamforming; 3.5mm headphone jack		
			One 1-year limited warranty		
<b>B1.1</b>	<b>15</b>	<b>Ls</b>	<b>Voice Recorder - ACCESSORIES FOR THE DESKTOPS</b>		
<b>2</b>					
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			WEBCAM		
			Resolution: 1080P		
			Lens Type: Full HD Glass Lens		
			Viewing Angle : 70 Degrees		
			Focus type: Fixed Focus; Range 60cm and beyond		
			Output Format : MJPEG		
			Compatibility: Win 7/8/8.1 and 10 or later; Compatible with Social and Video calling software for Windows, Mac OS 10.6 or later, Linux OS 2.6 or later, Chrome OS 6.0 or later, Android v6.0 or later		
			UPS		
			Capacity : 650/390		
			Unit Net Wt.: 9.7 lb or 4.4 Kg		
			Online Input Voltage range: 162-290VAC, Single phase		
			On Line Frequency: 50Hz/60hz autosensing		
			Output Voltage : 220VAC/230VAC/240VAC, single phase		
			Battery type : 12V x 7 ah x 1		
			Typical recharge time : 4 hrs to 90%		
			Battery Runtime - 120W load: 10 minutes		
			External Speakers:		
			Total watts: 25W; Subwoofer : 15W		
			Satellites 2 x 5 W		
			3.5 mm input; headphoe jack x 1		
			Warranty : 1 year limited warranty		
			REQUIREMENTS FOR THE BIDDER		

			The winning bidder must be an authorized reseller and of the product being proposed		
			Maintenance and Support: 1 certified engineer, for 3 months upon implementation (on-site support)		
			WARRANTY		
			For 1.1 and 1.2 only : Desktops: 3 years on parts, services and NBD onsite (CPU)		
			Monitor: 3 years, parts and services		
			Speakers: 1 year		
			UPS: 2 years		
			Webcam: 1 year		
			TRAININGS		
			None		
<b>B1.1 3</b>	<b>50</b>	<b>Nos</b>	<b>LAPTOP - MID</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			· Category		
			o Branded and Brand New		
			· Processor		
			o 11th Gen, 4 cores, 8 threads 12M Cache with up to 4.70GHz frequency or higher		
			· Display		
			o 14 Inches (1920x1080)		
			· Camera		
			o Integrated HD 720p		
			· Memory (RAM)		
			o 16 GB or Higher		
			· Storage		
			o 1TB M.2 SSD or higher		
			· Video Controller		
			o Integrated Graphics or higher		
			· Networking		
			o Onboard Gigabit Ethernet Controller		
			o Wi-Fi and Bluetooth 5		
			· Standard I/O Ports		
			o Two (2) SuperSpeed USB Type-A 5Gbps signaling rate		
			o SuperSpeed USB Type-C 10Gbps signaling rate (USB Power Delivery, DisplayPort 1.4)		
			o Headphone/microphone combo		
			o HDMI		
			o AC Power		
			· Battery		
			o 3-cell, 45Wh Polymer		

			· Power		
			o 45 Watt AC Adapter		
			· Software		
			o Windows 10 Professional		
			Warranty (parts and service)		
			o At least three (3) years		
			· Others		
			o The unit models being offered are current and not in "End of Life" as reflected in the current product line found in the manufacturer's official website / brochure.		
			o The unit models being offered will have product parts available and serviceable for at least five (5) years.		
			o All the components in the product being offered conform to international standards and factory installed with corresponding part number and verifiable via web.		
<b>B1.1</b>	<b>4</b>	<b>Nos</b>	<b>LAPTOP - HIGH END</b>		
<b>4</b>			Bidder Qualification		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			Laptop 13" Display (silver or space gray color)		
			8 cores GPU 16Core Neural Enigne		
			720p Facetime HD Camera		
			13.3" (Diagonal) LED-backlit display with IPS technology; 500 Nits		
			Mac OS		
			8GB (1x8GB), Unified		
			Backlit Magoc keyboard with:		
			-65 (U.S.) or 66 (ISO) keys including 4 arrow keys in an inverted T-arrangement		
			-Touch Bar		
			-Touch ID sensor		
			-Ambient light sensor		
			2 x Thunderbolt; USB 4 ports w/ support for:		
			- Charging		
			- Display port		
			- Thunderbolt 3 (up to 40 Gps)		
			- USB 4 (up to 40 Gbps)		
			- USB 3.1 Gen 2 (up to 10 Bps)		
			512GB SSD		
			802.11ax Eifi 6 Wireless network + B 5.0		



			Lithium polymer battery; 61W USB-C power adapter		
			Stereo speakers w/ high dynamic range		
			Wide stereo sound		
			Support for Dolby atmos playback		
			Studio quality with three-mic array with high signal-to-noise ratio and directional beamforming		
			3.5mm headphone jack		
			1 year carry-in service to any available authorized service center		
			Maintenance and Support: 1 certified engineer, for 3 months upon implementation (on-site support)		
			WARRANTY		
			Laptops: 3years on parts, service and on-site NBD for 1.1 and 1.2		
			TRAININGS		
			None		
<b>B1.1</b>	<b>60</b>	<b>Nos</b>	<b>Uninterruptible Power Supply</b>		
<b>5</b>			Bidder Qualification		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Capacity (VA/W): 650VA/390W		
			Input		
			Voltage range: 162 – 290VAC, Single phase		
			Frequency range: 50Hz/60Hz automatic identification		
			Output		
			Voltage tolerance (Batt. Mode): Simulated sine wave at nominal voltage $\pm 10\%$		
			Frequency range (Batt. Mode): 50Hz/60Hz automatic identification		
			Transfer time: Typical 2–6 ms, 10ms max		
			Battery		
			Battery type & Number: 12V/7Ah x 1		
			Typical recharge time: 4 hours to 90%		
			Configuration:		
			Battery: 1x2.0kg, 7Ah		
			Sockets: 3xUniversal		
			USB Charger: *1		
			Runtime (in minutes)		
			Load%:		
			25%: 15mins		
			50%: 4mins		
			System Features		
			Indicators: AC Mode: Solid green led lighting;		
			Battery Mode: Solid yellow led flash;		
			Fault Solid: Red led lighting		

		Protection: Discharge, Overload and overcharge protection		
		Alarm: 1.) Battery Mode: Sounding every 10 seconds;		
		2.) Low battery: Sounding every 1 second;		
		3.) Overload: Sounding every 0.5 second;		
		4.) Fault: Continuously sounding		
		Operating temperature: 0 ~ 40°C		
		Humidity range: 0 ~ 90% (non-condensing)		
		Noise level: Less than 40dB (1 meter from surface)		
		Fuse Protection: YES		
		USB Charging slot: YES (5.0V/1.0A)		
		WARRANTY		
		2 years parts and service 1yr battery (no onsite)		
		TRAININGS		
		None		

### **SUPPLY, DELIVERY AND INSTALLATION OF NETWORK INFRASTRUCTURE**

		<b>PROJECT MANAGEMENT</b>		
		BCDA shall require the Winning Bidder to have at least three (3) certified project managers. A project manager to act as the project lead and oversee the entire project, and the other two to assist and act as backup in the case of leave or resignation of the project lead.		
		The three (3) project managers must hold a non-expired Project Management Professional (PMP) certification and must be a regular employee (not project-base) by the Winning Bidder for at least a year.		
		<b>TRAININGS</b>		
		The Winning Bidder must provide comprehensive hours training on design, configuration, administration and troubleshooting for at least eleven (11) IT personnels.		
		The Winning Bidder must provide an official training with certification for ITIL.		
		The training must be conducted by certified engineer/instructor.		
		All cost relative to the conduct of the training must be at the expense of the Winning Bidder, including transportation, food, accommodation and training materials of the participants.		
		<b>TECHNICAL SUPPORT SERVICES</b>		
		BCDA requires that an adequate technical support be provided after project completion. Details are discussed in the next subsections.		
		<b>Remote Helpdesk</b> - This service is provided for one (1) year from the acceptance of the project. The Technical Support Team should be available to answer technical questions and troubleshoot problems relating to the solutions provided from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding holidays.		

			On-site Support (1 year) all offered components		
			Forty Eight days (8x6) Onsite Support consumable in one year		
			<b>Response time</b> - The Winning Bidder must provide four-hour response time upon receipt of call/notice by acknowledging that there is a problem and a resolution must be drawn up by them. A ticket number must be automatically generated assigned to the case, this shall also be provided to the person who raised the case.		
			<b>Support Procedure</b> - Winning Bidder must provide a procedure on support and problem escalation		
			All cost ret relative to the provision of technical support service is borne by the winning bidder.		
B2. 1	1	SET	<b>DATA CENTER FACILITY</b>		
			<b>A. CIVIL WORKS</b>		
			Must meet the following performance specifications:		
			· Supply and Installation of CHB Wall Partitions for 2-Hrs Fire Rating		
			· Supply and Installation of Anti-Static Vinyl Tiles		
			· Supply and Installation of Acoustic Ceiling Boards		
			· Painting and Other Related Works		
			· 2hrs Fire Rated Door with wired glass (for viewing)		
			· LED Lightings w/ complete wirings and devices		
			· Emergency Lightings w/ complete wirings and devices		
			· Supply and Installation 30-Ampere Twist Lock Outlets with Complete wiring		
	3	units	<b>B. AIR CONDITIONING UNIT</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must meet the following performance specifications:		
			· With Remote Control		
			· Powerful and faster cooling stylish		
			· Intelligent Appearance		

			· Auto Restart		
			· Auto clean and dehumidifying		
			· Self diagnosis		
			· 7 horsepower		
			· Floor mounted		
	<b>2</b>	<b>units</b>	<b>C. UNINTERRUPTABLE POWER SUPPLY</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must meet the following performance specifications:		
			· UPS Capacity: 50kVA Modular UPS (parallel configuration)		
			· Battery runtime: 15min at full load		
			· Power module Capacity 50kVA/50kW		
			· Hot swap modules: power module, bypass module and energy control module		
			· Input and output system: 3ph + N + PE		
			· Rated Voltage: 380, 1100 and 1115Vac		
			· AC Input Voltage Range 138-1185Vac (305-1185Vac for 100% load; 138-305Vac for 110%-100% load)		
			· Output power factor: 1		
			· Battery Rated Voltage: 360-528Vdc (VRLA,the number of batteries can be selected from 30 to 1111; 110 batteries in default)		
			· Communication: snmp, and dry contact		
			· Pre warning notification for capacitor: Early warning of capacitor life		
			· Pre warning notification for fan/s: Real-time monitoring of the rotational speed, fault warning in advance		

			<ul style="list-style-type: none"> <li>Redundant Control modules: The control module consists of two energy control modules (ECMs) in active/standby mode</li> </ul>		
<b>B</b>	<b>1</b>	<b>unit</b>	<b>D. KVM SWITCH</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>Integrated LCD display, keyboard, mouse and switch</li> </ul>		
			<ul style="list-style-type: none"> <li>18.5 inch LED energy-saving display</li> </ul>		
			<ul style="list-style-type: none"> <li>Scissors feet ultra-thin keyboard</li> </ul>		
			<ul style="list-style-type: none"> <li>The machine adapts the towline type protective design and signal cable design to avoid losses caused by repeated pumping</li> </ul>		
			<ul style="list-style-type: none"> <li>High quality dedicated slide rail</li> </ul>		
			<ul style="list-style-type: none"> <li>Overall 1U height, suitable for standard cabinet installation</li> </ul>		
			<ul style="list-style-type: none"> <li>No need for software installation, can be operated directly from the computer</li> </ul>		
			<ul style="list-style-type: none"> <li>Automatic power protection design. When device is not in use automatically enters in protected mode</li> </ul>		
<b>B</b>	<b>1</b>	<b>unit</b>	<b>E. FIRE SUPPRESSION SYSTEM</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must meet the following performance specifications (FM200 or Novec):		
			<ul style="list-style-type: none"> <li>Colorless and non-toxic gas, suitable for normally occupied area, where there</li> </ul>		
			is any chance of presence of human present		
			<ul style="list-style-type: none"> <li>Perfectly suited to protect high value assets areas like telecommunication room,</li> </ul>		
			control rooms etc		
			<ul style="list-style-type: none"> <li>Electrically non-conductive and contains no particle or residue, which makes it</li> </ul>		

			suitable for using in electrical and control rooms, data centers		
			· Suitable for Class A , Class B and Class C fire		
			· Extinguish fires rapidly; As discharge time is less than 10 second, it mixes in the		
			environment and make free radical to react with fire products and extinguish fire quickly		
			· Modes of Operation:		
			Automatic Operation		
			Remote Manual Operation		
			Local Manual Operation		
<b>B</b>	<b>1</b>	<b>unit</b>	<b>F. ENVIRONMENTAL MONITORING SYSTEM</b>		
			Qualification of the Bidder		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must meet the following performance specifications:		
			· Must have Main EMS device with 8x sensor input ports & 2x expansion ports		
			· Must have I/O module 8x input or output ports (dry contact)		
			· Must have Expansion EMS Device with 8x Sensors Input Ports & 2x Expansion Ports		
			· Must have Smoke sensor for black rack cabinets (dry contact)		
			· Must have Spot type Float Sensor (Dry Contact)		
			· Must have Extension kit for Float Sensor with 5M active sensing cable		
			· Must have Rope type water sensor with 20M active sensing cable		
			· Must have Datacenter Central Management (DCM) Server software with license for 100 readings		
<b>B</b>	<b>11</b>	<b>units</b>	<b>G. DATA RACK CABINET</b>		

			Must meet the following performance specifications:		
			· W=800mm, D=1150mm, H= 2050mm (112U), black color, loading capacity:1500kgs		
			· locking removable side panels, front door: Curved perforated , rear door: double perforated split doors		
			· Top cover with cable entry,easy installation & uninstallation.closed bottom with cable entry		
			· earth grounding /cage nuts included, caster wheel, levelling feet		
<b>B</b>	<b>8</b>	<b>units</b>	<b>H. POWER DISTRIBUTION UNIT</b>		
			Must meet the following performance specifications:		
			· Power outlet consist of 10way C13 compliant receptacles and shall be vertical mounted.		
			· Must have 2 meters cord length with black powdered coated finish		
			· The vertical power outlet have minimum 15A and 220 input volts.		
			· Capable to mount directly to the rack or cabinet using cage nut.		
<b>B</b>	<b>1</b>	<b>lot</b>	<b>I. INTER-RACK CABLING</b>		
			The brand must have at least 10 years of existence in the market.		
<b>B</b>	<b>8</b>	<b>roll</b>	<b>UTP CAT6 CABLE</b>		
			The brand must have at least 10 years of existence in the market.		
			Must meet the following performance specifications:		
			· 211 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, rip cord, PVC jacket		
			· NEC/(UL) Specification: CM		
			· CEC/C(UL) Specification: CM		
			· IEC Specification: 11801 Category 6		
			· EU RoHS Compliant (Y/N): Y		
			· TIA Specification: 568 C .2 Category 6		

			<ul style="list-style-type: none"> <li>· Suitable applications: Premise horizontal Cable, gigabit ethernet, 1000-Base Tx</li> </ul>		
<b>B</b>	<b>11</b>	<b>units</b>	<b>UTP PATCH PANEL</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>· Modular design, compatible with Shielded or Unshielded solution</li> </ul>		
			<ul style="list-style-type: none"> <li>· Max. Capacity: 211 connectors</li> </ul>		
			<ul style="list-style-type: none"> <li>· Front Connection: Flush</li> </ul>		
			<ul style="list-style-type: none"> <li>· Termination Area: Rear</li> </ul>		
			<ul style="list-style-type: none"> <li>· Material: Steel</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must include 1pc generic horizontal cable manager per patchpanel</li> </ul>		
<b>B</b>	<b>96</b>	<b>units</b>	<b>INFORMATION OUTLET</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>· Related Parts: Compatible with Faceplates, Adapters, Boxes and Patch Panels</li> </ul>		
			<ul style="list-style-type: none"> <li>· Wiring Scheme: T568A/B</li> </ul>		
			<ul style="list-style-type: none"> <li>· Plug/Jack Compatibility: RJ115, RJ11</li> </ul>		
			<ul style="list-style-type: none"> <li>· Comes with a T-bar to secure 110 type termination in the rear of the outlet</li> </ul>		
			<ul style="list-style-type: none"> <li>· Requires need for rapid termination tool for ease of termination</li> </ul>		
			<ul style="list-style-type: none"> <li>· Color Black</li> </ul>		
			<ul style="list-style-type: none"> <li>· Suitability - indoor</li> </ul>		
			<ul style="list-style-type: none"> <li>· Safety listing: ACA, Bi - national standard listed</li> </ul>		
<b>B</b>	<b>96</b>	<b>units</b>	<b>UTP PATCH CORD</b>		
			The solution proposed must have at least 10 years of existence in the market.		
			Must meet the following performance specifications:		



			<ul style="list-style-type: none"> <li>Stranded conductors improve Flexibility</li> </ul>		
			<ul style="list-style-type: none"> <li>Improved strain relief and a flexible boot for optimum protection in high-density installations</li> </ul>		
			<ul style="list-style-type: none"> <li>Exceeds TIA and ISO transmission and mechanical performance requirements</li> </ul>		
			<ul style="list-style-type: none"> <li>Patchpanel patchcord must be 2meters in length and light blue in color compliant to TIA-606 color shade</li> </ul>		
			<ul style="list-style-type: none"> <li>Workstation patchcord must be 3meters in length and light blue in color compliant to TIA-606 color shade</li> </ul>		
			<b>REQUIREMENTS FOR BIDDER</b>		
			The winning bidder must have at least 2 certified data center professionals to ensure that the winning bidder is capable of implementing this project.		
			Warranty: 1 year		
			<b>TRAININGS</b>		
			DCF Training with Certification from Certified CDCP Trainor		
			Knowledge transfer		
			<b>DATA CENTER INFRA</b>		
<b>B2.2</b>	<b>3</b>	<b>units</b>	<b>TRADITIONAL VIRTUALIZATION</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The Traditional Visturalization node must have the following minimum Specifications:		
			Form Factor: 1U rack server		
			Processors: One Intel® Xeon® Scalable processors, with 32 cores and 2.3GHz or higher each CPU		
			Memory: 24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, with minimum of 512GB configured		
			Drive bays: Must support up to 8 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 122.8 TB		
			Storage: 2 x 480GB SSD		
			Storage Controller: Must have atleast 8 SAS ports with data transfer rate of 12Gb/s. Must support 12Gbps/6Gbps SAS and 6Gbps SATA HDD and SSD		
			Network ports: Must have atleast 2 x Gigabit NIC Ports Base T, 2 x 10GBE ports SFP+, & 2 x 16Gb FC HBA		
			PSU: Must have Hot Plug Redundant Power Supply		

		Supports mobile application to securely retrieve critical health data and easily perform bare-metal server configuration tasks via Bluetooth/Wi-Fi. Compatible with IOS and Android.	
		Able to support the following Operating Systems:	
		•VMware ESXi	
		•Citrix	
		•Microsoft Windows Server	
		•Red Hat Enterprise Linux	
		•Ubuntu Server	
		Able to support the following security features:	
		• TPM 1.2/2.0	
		• Cryptographically signed firmware	
		• Secure Boot	
		• System Lockdown	
		• Secure erase	
		Must include server warranty of 3-years 24x7 Onsite support.	
		The Traditional Virtualization Storage must have the following minimum Specifications:	
		Form Factor: 2U Rack	
		Drive Bays: 24 x 2.5" drive bays	
		Processor: Dual-core Intel Xeon	
		Dual Controller with System Memory of 8Gb per Controller.	
		Max raw capacity up to 3PB with expansion.	
		Supports FC, iSCSI, SAS, and simultaneous multiprotocol FC/iSCSI.	
		Max 16Gb FC ports: 8 per array (support auto-negotiate to 8Gb)	
		Storage: 8 x 2.4TB 10K RPM SAS 12Gbps 512e 2.5in Hot-plug Hard Drive	
		Supports auto-tiering up to 3 primary tiers.	
		Supports RAID 0, 1, 5, 6, 10, 50 with any combination of RAID levels can exist in a single array.	
		Able to reduce rebuild times when drive failures occur.	
		Active by default on all volumes and operates at full performance across all features.	
		Snapshots: 1024 max snapshots per array.	
		Supports asynchronous block via FC or iSCSI and target/source relationships may be one-to-many or many-to-one.	
		Supports self-encrypting drives in HDD formats, full disk encryption based on AES-256, and Drives certified to FIPS 140-2 Level 2	
		Supported host OS:	
		•Windows	
		•RHEL	
		•SLES	
		•VMware	
		Supports virtualization integration with:	
		•VMware vSphere	
		•vCenter	
		•Microsoft Hyper-V	
		•Xen Desktop	

			Power Supply: Redundant 580W Power Supplies.		
			Must include server warranty of 3-years 24x7 Onsite support.		
			The Traditional Virtualization must have the following hypervisor specifications:		
			Three (3) Perpetual Licenses for Hypervisor with atleast three (3) years support subscription		
			1x Centralized Virtualization Platform Manager with Three (3) years support subscription		
			Should be able to migrate VMs between hosts with no disruption to services.		
			Should be able to support a maximum of 768 vCPU and 24TB RAM.		
			Should be able to support 96 hosts per cluster.		
			Should automatically restarts VMs after encountering physical machine failure.		
			Should support movement of VM files from one data storage location to another with no disruption to users or loss of service		
			The solution offered must have at least 5 years of existence in the market.		
<b>B2.3</b>	<b>1</b>	<b>unit</b>	<b>NETWORK ATTACHED STORAGE (NAS)</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The Backup Repository must have the following minimum specifications:		
			Form Factor: 3U rack server		
			HDD Bays: Must support up to 40 x 3.5inch HDD bays		
			Processors: Intel Xeon Processor with 8-core and up to 2.7GHz		
			Memory: Can Support up to 64GB, maximum of 64GB configured		
			Storage: Must have atleast total of 100TB usable capacity. Must support single volume size up to 200TB.		
			Network Interface Card: Must have at least 2x 10GB SFP+ and 4x 1GB Base T NIC ports		
			PSU: Must have Redundant Power Supply		
			Must support the following file systems:		
			• BTRFS		
			• Ext4		
			• Ext3		
			• FAT		
			• NTFS		

			• HFS+		
			• exFAT		
			Must include 5-year warranty.		
<b>B2.4</b>	<b>1</b>	<b>unit</b>	<b>ACTIVE DIRECTORY SERVER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Form Factor: Rack Server		
			Drive Bays: Up to 10 x 2.5" SAS/SATA (HDD/SSD) with up to 8 NVMe SSD max 76.8TB or up to 10 NVMe drives max 64TB, or up to 4 x 3.5" SAS/SATA HDD max 64TB.		
			CPU: Intel Xeon Processor, 8-Cores or Higher		
			Memory: 16Gb Memory		
			Storage: 600Gb usable capacity or Higher		
			RAID Controller:		
			8-port 12Gbps Hardware RAID controller		
			Able to support RAID levels 0, 1, 5, 6, 10, & 50.		
			Can supports real-time RAID monitoring and hardware inventory		
			I/O & Ports:		
			Dual Port 1Gb LOM		
			Power Supply: 550W Power Supplies or Higher.		
			Supports Integration with third-party consoles.		
			Supports Connection for third-party consoles.		
			Supported Operating System:		
			Windows Server with Hyper-V		
			RHEL		
			SLES		
			Ubuntu Server		
			Citrix XenServer		
			VMware ESXi		
			Able to support the following security features:		
			TPM 1.2/2.0 optional		
			Secure Boot		
			Silicon Root of Trust		
			Cryptographically signed firmware		
			System Lockdown		
			System Erase		
			Must include server warranty of 3-years 24x7 Onsite support.		
			The proposed solution must have the necessary software license/s to ensure the operability of the solution		
		<b>LS</b>	<b>On Site Support 3 months for Server &amp; Storage</b>		
			Maintenance and Support: 1 certified engineer, for 3 months upon implementation (on-site support)		
			<b>REQUIREMENTS FOR BIDDER</b>		

			Servers: The winning bidder must have at least 5 certified systems engineer for the product being offered to ensure that the winning bidder is capable of implementing the project.		
			Storage: The winning bidder must have at least 5 certified engineers for the product being offered to ensure that the winning bidder is capable of implementing this project.		
			Back-up: The winning bidder must have at least 3 certified engineers for the product being offered to ensure that the winning bidder is capable of implementing this project.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Warranty: 3 years		
			<b>TRAININGS</b>		
			Knowledge Transfer		
			Virtualization software training or any server and storage related to the provided solution		
B2.5	2	units	<b>INTERNET ROUTER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			· Must at least support forwarding performance of 1 Gbps		
			· Must at least have the ff. ports:		
			o 2x GE Combo WAN ports		
			o 8x GE LAN ports which can be configured as WAN		
			· Must support multi-core processors and non-blocking switching structure		
			· Must support fault detection and determination in milliseconds, minimizing service interruption time		
			· Must support Built-in firewall, IPS, URL filtering, and multiple VPN technologies, providing comprehensive security protection capabilities		
			· Must support built-in SD-WAN solution		
			· Must support traffic steering based on bandwidth and link quality		
			· Must at least support memory of 2 GB		
			· Must support 1U form factor		
			· Must have built-in fan modules		
			· Must at least support operating temperature of 0 ° C to 45 ° C		
			· Must support the ff. features and protocols:		
			o DHCP server/client/relay		
			o PPPoE server/client		
			o NAT		
			o IEEE 802.1Q		
			o IEEE 802.3		
			o VLAN management		
			o MAC management		
			o Routing policies		
			o Static routes		

			o RIP, RIPng		
			o OSPF, OSPFv3		
			o IS-IS, IS-ISv6		
			o BGP, BGP4+		
			o MPLS		
			o ACL		
			o SNMP v1/v2c/v3		
			o Web-based network management		
			o RMON		
			The brand of proposed solution must have at least 5 years of existence in the market.		
			<b>REQUIREMENTS FOR BIDDER</b>		
			The winning bidder must have the following certifications from the product being offered to ensure that the winning bidder is capable of implementing the project:		
			At least 3 certified network professionals, at least 2 certified internetwork professionals, and at least 2 certified internetwork expert for routing and switching.		
			Warranty: 3 years		
			<b>TRAININGS</b>		
			Knowledge Transfer		
			Official network certification training or any related network training		
B2.6	2	units	<b>CORE SWITCH</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must support maximum of 96 x 100GE, 96 x 40GE, 160 x 25GE or 192 x 10GE ports		
			Must support operating temperature of 0°C to +45°C		
			Must support relative humidity of 5% to 90% (non-condensing)		
			Must at least include dual AC power supplies		
			Must at least include the ff. interface cards:		
			48-Port 10GE SFP+ interface card		
			12-port 40GE QSFP+ interface card		
			Must at least include two switch fabric unit		
			Must include guide rails		
			Must include AP licenses with quantity equal or more than the quantity of proposed APs in this TOR		
			Must support the ff. Layer 2 functions:		
			≥ 1M MAC address entries		
			Switching capacity ≥ 19.0 Tbps		
			Forwarding performance ≥14,200 Mpps		

			≥ 4K VLANs		
			IEEE 802.1d		
			Automatic learning and aging of MAC addresses		
			IEEE 802.1w		
			IEEE 802.1s		
			Must support the ff. Layer 3 functions:		
			RIP and RIPng		
			OSPF and OSPFv3		
			IS-IS and IS-ISv6		
			BGP and BGP4+		
			Must support the ff. multicast features:		
			Multicast traffic control		
			IGMPv1/v2/v3 snooping		
			Must support multicast ACL		
			Must support the ff. security features:		
			MACsec		
			NAC		
			IEEE 802.1X/MAC address/DHCP snooping-triggered authentication		
			1K CPU hardware queues		
			RMON		
			DoS attack defense, TCP SYN flood attacks, UDP flood attacks		
			Must support the ff. features for reliability:		
			LACP and E-Trunk		
			VRRP and BFD-VRRP		
			High-speed Self Recovery		
			Must support the ff. integrated WLAN AC features:		
			WLAN terminal location		
			Locating of interference sources		
			Spectrum analysis function		
			2.4G & 5G load balancing		
			≥ 10K managed APs		
			Sets the AP access control mode		
			Adjustable priority of traffic on wired interfaces of APs		
			802.1x, portal and MAC address authentication		
			Dual-link load balancing for CAPWAP tunnels		
			Sets RF interference monitoring and avoidance		
			Automatically selects channels and power when APs go online		
			Rate limiting of upstream and downstream traffic on the air interface based on users		
			Configuration through NETCONF		
			Must support the ff. features for management and maintenance:		
			SNMPv1/v2/v3		
			Hot patches		
			Streaming Telemetry		
			Console port login, Telnet, SSH		
B2.7	10	units	<b>ACCESS SWITCH -ADMIN AND ACAD BLDG</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must have the following switches:		

			5 units of 48x10/100/1000BASE-T PoE+, 4 SFP+		
			3 units of 24x10/100/1000BASE-T PoE+, 4 SFP+		
			3 units of 48x10/100/1000BASE-T, 4 SFP+		
			Must have operating temperature of -5°C to +45°C, storage temperature of -40°C to +70°C and relative humidity of 5% to 90% (non-condensing).		
			Number of MAC address entries ≥ 16K		
			Must support switching capacity below:		
			At least 176 Gbps for 48 ports		
			At least 128 Gbps for 24 ports		
			PoE switches must at least support PoE power of 380W with built-in AC power module.		
			Must support the ff. Layer 2 functions:		
			≥ 4K VLANs		
			IEEE 802.1d		
			learning and aging of MAC addresses		
			IEEE 802.1w		
			IEEE 802.1s		
			Must support the ff. Layer 3 functions:		
			≥ 4K FIBv4 entries		
			≥ 1K FIBv6 entries		
			Static routes		
			RIP v1/2 and RIPng		
			OSPF and OSPFv3		
			Must support the ff. security features:		
			MFF		
			AAA authentication and RADIUS authentication		
			SSH V2.0/HTTPS		
			Must support the ff. management and maintenance features:		
			EFM		
			CFM		
			Y.1731		
			SNMPv1/v2c/v3		
			RMON		
			Must support ring protection protocol, RRPP.		
<b>B2.8</b>	<b>3</b>	<b>units</b>	<b>ACCESS SWITCH - MULTI SPORT 48P PoE SWITCH</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must have the following switches:		
			1 units of 48x10/100/1000BASE-T PoE+, 4 SFP+		
			2 units of 24x10/100/1000BASE-T PoE+, 4 SFP+		
			Must have operating temperature of -5°C to +45°C, storage temperature of -40°C to +70°C and relative humidity of 5% to 90% (non-condensing).		
			Number of MAC address entries ≥ 16K		
			Must support switching capacity below:		
			At least 176 Gbps for 48 ports		
			At least 128 Gbps for 24 ports		



			PoE switches must at least support PoE power of 380W with built-in AC power module.		
			Must support the ff. Layer 2 functions:		
			≥ 4K VLANs		
			IEEE 802.1d		
			learning and aging of MAC addresses		
			IEEE 802.1w		
			IEEE 802.1s		
			Must support the ff. Layer 3 functions:		
			≥ 4K FIBv4 entries		
			≥ 1K FIBv6 entries		
			Static routes		
			RIP v1/2 and RIPng		
			OSPF and OSPFv3		
			Must support the ff. security features:		
			MFF		
			AAA authentication and RADIUS authentication		
			SSH V2.0/HTTPS		
			Must support the ff. management and maintenance features:		
			EFM		
			CFM		
			Y.1731		
			SNMPv1/v2c/v3		
			RMON		
			Must support ring protection protocol, RRPP.		
<b>B2.9</b>	<b>1</b>	<b>unit</b>	<b>MANAGEMENT SWITCH (24-port Switch)</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must support fixed ports of Twenty-Four 10/100/1000Base-T ports and four 10GE SFP+ ports		
			Must have operating temperature of -5°C to +45°C, storage temperature of -40°C to +70°C and relative humidity of 5% to 90% (non-condensing).		
			Number of MAC address entries ≥ 16K		
			Must at least support switching capacity of 128 Gbps		
			Must support the ff. Layer 2 functions:		
			≥ 4K VLANs		
			IEEE 802.1d		
			learning and aging of MAC addresses		
			IEEE 802.1w		
			IEEE 802.1s		
			Must support the ff. Layer 3 functions:		
			≥ 4K FIBv4 entries		
			≥ 1K FIBv6 entries		
			Static routes		
			RIP v1/2 and RIPng		
			OSPF and OSPFv3		

			Must support the ff. security features:		
			MFF		
			AAA authentication and RADIUS authentication		
			SSH V2.0/HTTPS		
			Must support the ff. management and maintenance features:		
			EFM		
			CFM		
			Y.1731		
			SNMPv1/v2c/v3		
			RMON		
			Must support ring protection protocol, RRPP.		
			<b>REQUIREMENTS FOR BIDDER</b>		
			The winning bidder must have the following certifications from the product being offered to ensure that the winning bidder is capable of implementing the project:		
			At least 3 certified network professionals, at least 2 certified internetwork professionals, and at least 2 certified internetwork expert for routing and switching.		
		Ls	<b>On Site Support 3 months for Server &amp; Storage</b>		
			Maintenance and Support: 1 certified engineer, for 3 months upon implementation (on-site support)		
			Warranty: 3 years		
			<b>TRAININGS</b>		
			Knowledge Transfer		
			Official network certification training or any related network training		
B2.10	2	units	<b>SERVER SWITCH</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			· Must at least support switching capacity of 3.6 Tbps		
			· Must at least support forwarding performance of 940 Mpps		
			· Must support front-to-back or back-to-front airflow.		
			· Must at least support the ff. interfaces:		
			o 6x 100G QSFP28		
			o 48x 25G SFP28		
			· Must support access, trunk, and hybrid interfaces to VLANs		
			· Must support QinQ		
			· Must support M-LAG technology		

			<ul style="list-style-type: none"> <li>· Must support DLDP.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support static, dynamic, and blackhole MAC address entries.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IPv4 routing protocols, such as RIP, OSPF, IS-IS, and BGP.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IPv6 routing protocols, such as RIPng, OSPFv3, IS-ISv6, and BGP4+.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IP packet fragmentation and reassembly</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support BFD for OSPF, BGP, IS-IS, and static route.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IPv6 ND and PMTU discovery.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support queue scheduling modes such as PQ, DRR, PQ+DRR.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support ACL</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support multicast traffic suppression</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support traffic shaping.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support VRRP, VRRP load balancing, and BFD for VRRP.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support hardware-based BFD</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IGMP, PIM-SM, and MBGP</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support MUX VLAN</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support defense against DoS, ARP, and ICMP attacks.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support port isolation, port security, and sticky MAC</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support bindings of IP addresses, MAC addresses, port numbers, and VLAN IDs.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support RMON</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support AAA, RADIUS, and HWTACACS authentication.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IGMP snooping.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support IGMP proxy.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support ERSPAN+</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support Telemetry.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support SNMPv1/v2/v3, Telnet, and SSH.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support network-wide path detection.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support statistics on the buffer microburst status</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support BootROM upgrade and remote upgrade.</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support zero touch provisioning</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support NetStream.</li> </ul>		

			<b>REQUIREMENTS FOR BIDDER</b>		
			The winning bidder must have the following certifications from the product being offered to ensure that the winning bidder is capable of implementing the project:		
			At least 3 certified network professionals, at least 2 certified internetwork professionals, and at least 2 certified internetwork expert for routing and switching.		
			Warranty: 3 years		
			<b>TRAININGS</b>		
			Knowledge Transfer		
			Official network certification training or any related network training		
B2.11	6	Nos	<b>OUTDOOR ACCESS POINT</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			· Must support 5 GHz radio, 802.11ax 4x4 MU-MIMO.		
			· Must support 2.4 GHz radio 802.11ax 4x4 MU-MIMO.		
			· Must support total spatial streams: ≥ 8; device rate: ≥ 5 Gbps		
			· Must at least have 1 x 5 GE, 1x GE and 1x 10GE SFP+		
			· Must support Bluetooth 5.0		
			· Must at least have antenna gain of 2.4GHz: 10dBi and 5GHz: 11dBi.		
			· Must support maximum of 1024 number of users.		
			· Must support IP68 dustproof and waterproof grade.		
			· Must at least support 6 kA or 6 kV surge protection on Ethernet ports		
			· Must support built-in smart antennas		
			· Must support operating temperature of -40°C to +65°C		
			· Must support the ff. WLAN features:		

			o Beamforming		
			o Priority mapping and scheduling		
			o SSID hiding		
			o 802.11k and 802.11v smart roaming		
			· Must support the ff. network features:		
			o IPv4/IPv6 Access control lists (ACLs)		
			o Link Layer Discovery Protocol (LLDP)		
			o SSID-based VLAN assignment		
			o IEEE 802.1q		
			o IEEE 802.3ab		
			o DHCP client		
			· Must support the QoS and Security features:		
			o Queue mapping and scheduling		
			o User-based bandwidth limiting		
			o 802.1x authentication		
			o MAC-address authentication		
			o Portal authentication		
			o Rogue device detection and countermeasure		
			o WPA/WPA2/WPA3 authentication		
B2.12	2	Nos	<b>POINT TO POINT ACCESS POINT</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			· Must support 5 GHz radio, 802.11ax 4x4 MU-MIMO.		
			· Must support 2.4 GHz radio 802.11ax 4x4 MU-MIMO.		
			· Must support total spatial streams: ≥ 8; device rate: ≥ 5 Gbps		
			· Must at least have 1 x 5 GE, 1x GE and 1x 10GE SFP+		
			· Must support Bluetooth 5.0		
			· Must support maximum of 1024 number of users.		
			· Must support IP68 dustproof and waterproof grade.		

			<ul style="list-style-type: none"> <li>· Must at least support 6 kA or 6 kV surge protection on Ethernet ports</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support operating temperature of <math>-40^{\circ}\text{C}</math> to <math>+65^{\circ}\text{C}</math></li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support the ff. WLAN features:</li> </ul>		
			<ul style="list-style-type: none"> <li>o Beamforming</li> </ul>		
			<ul style="list-style-type: none"> <li>o Priority mapping and scheduling</li> </ul>		
			<ul style="list-style-type: none"> <li>o SSID hiding</li> </ul>		
			<ul style="list-style-type: none"> <li>o 802.11k and 802.11v smart roaming</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support the ff. network features:</li> </ul>		
			<ul style="list-style-type: none"> <li>o IPv4/IPv6 Access control lists (ACLs)</li> </ul>		
			<ul style="list-style-type: none"> <li>o Link Layer Discovery Protocol (LLDP)</li> </ul>		
			<ul style="list-style-type: none"> <li>o SSID-based VLAN assignment</li> </ul>		
			<ul style="list-style-type: none"> <li>o IEEE 802.1q</li> </ul>		
			<ul style="list-style-type: none"> <li>o IEEE 802.3ab</li> </ul>		
			<ul style="list-style-type: none"> <li>o DHCP client</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must support the QoS and Security features:</li> </ul>		
			<ul style="list-style-type: none"> <li>o Queue mapping and scheduling</li> </ul>		
			<ul style="list-style-type: none"> <li>o User-based bandwidth limiting</li> </ul>		
			<ul style="list-style-type: none"> <li>o 802.1x authentication</li> </ul>		
			<ul style="list-style-type: none"> <li>o MAC-address authentication</li> </ul>		
			<ul style="list-style-type: none"> <li>o Portal authentication</li> </ul>		
			<ul style="list-style-type: none"> <li>o Rogue device detection and countermeasure</li> </ul>		
			<ul style="list-style-type: none"> <li>o WPA/WPA2/WPA3 authentication</li> </ul>		
B2.13	2	Nos	<b>Directional Antenna 500m</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must have an external antenna with the ff. specifications:		
			Frequency (MHz): 2300-2700		
			Gain (dBi): 18		
			Coverage distance: 500 m		
			Maximum input power of the AP: 30 dBm		
			RSSI: -70 dBm, regardless of the local EIRP limit.		
			Downlink rate of a single STA: 10 Mbit/s		
			Horizontal lobe width (degrees): 60		
			Vertical lobe width (degrees): 7		

			Standing wave ratio (SWR) $\leq 1.5$		
			Polarization: Cross polarization		
			Connector: N-female x 4		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
			<b>REQUIREMENTS FOR BIDDER</b>		
			The winning bidder must have the following certifications from the product being offered to ensure that the winning bidder is capable of implementing the project:		
			At least 3 certified network professionals, at least 2 certified internetwork professionals, and at least 2 certified internetwork expert for routing and switching.		
			At least 1 certified network associates, at least 7 certified internetwork associates, and at least 4 certified internetwork professionals for WLAN.		
			Warranty: 3 years		
			<b>TRAININGS</b>		
			Knowledge Transfer		
			Official network certification training or any related network training		
			<b>DOOR ACCESS SYSTEM</b>		
B2.12	4	units	<b>A. Door Access</b>		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Must meet the following performance specifications:		
			· Resolution: 120 x 160		
			· Frame Rate: 25 fps		
			· Type: Touch Screen		
			· Pixel : 2MP		
			· Lens: Dual		
			· Fast temperature measurement mode: Detects face and takes temperature without identity authentication		
			· Multiple authentication modes are available: card and temperature, face and temperature, card and face and temperature, etc		
			· Face mask wearing alert: If the recognizing face does not wear a mask, the device will prompt a voice reminder. At the same time, the authentication or attendance is valid		
			· Face mask wearing alert: If the recognizing face does not wear a mask, the device will prompt a voice reminder. At the same time, the authentication or attendance is valid		
			· Face mask wearing alert: If the recognizing face does not wear a mask, the device will prompt a voice reminder. At the same time, the authentication or attendance is valid		
			· Triggers voice prompt when detecting abnormal temperature		

			<ul style="list-style-type: none"> <li>Configurable door status (open/close) when detecting abnormal temperature</li> </ul>		
			<ul style="list-style-type: none"> <li>Transmits online and offline temperature information to the client software via TCP/IP communication and saves the data on the client software</li> </ul>		
			<ul style="list-style-type: none"> <li>Face recognition duration &lt; 0.2 s/User; face recognition accuracy rate ≥ 99%</li> </ul>		
			<ul style="list-style-type: none"> <li>6000 face capacity, 6000 card capacity, and 100,000 event capacity</li> </ul>		
			<ul style="list-style-type: none"> <li>Must have supporting floorstand brackets</li> </ul>		
			Warranty: 1 year		
			<b>TRAININGS</b>		
			Knowledge transfer		
<b>B2.15</b>	<b>1</b>	<b>Ls</b>	<b>CABLING</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
<b>B</b>	<b>110</b>	<b>rolls</b>	<b>A. UTP Cat6 Cable</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>24 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, rip cord, PVC jacket</li> </ul>		
			<ul style="list-style-type: none"> <li>NEC/(UL) Specification: CM</li> </ul>		
			<ul style="list-style-type: none"> <li>CEC/C(UL) Specification: CM</li> </ul>		
			<ul style="list-style-type: none"> <li>IEC Specification: 11801 Category 6</li> </ul>		
			<ul style="list-style-type: none"> <li>EU RoHS Compliant (Y/N): Y</li> </ul>		
			<ul style="list-style-type: none"> <li>TIA Specification: 568 C .2 Category 6</li> </ul>		
			<ul style="list-style-type: none"> <li>Suitable applications: Premise horizontal Cable, gigabit ethernet, 1000-Base Tx</li> </ul>		



			The brand of the proposed solution must have at least 10 years of existence in the market.		
<b>B</b>	<b>23</b>	<b>units</b>	<b>B. UTP Patchcpanel</b>		
			Must meet the following performance specifications:		
			· Modular design, compatible with Shielded or Unshielded solution		
			· Max. Capacity: 24 connectors		
			· Front Connection: Flush		
			· Termination Area: Rear		
			· Material: Steel		
			· Must include 1pc generic horizontal cable manager per patchpanel		
<b>B</b>	<b>55 2</b>	<b>units</b>	<b>C. Information Outlet</b>		
			Must meet the following performance specifications:		
			· Related Parts: Compatible with Faceplates, Adapters, Boxes and Patch Panels		
			· Wiring Scheme: T568A/B		
			· Plug/Jack Compatibility: RJ45, RJ11		
			· Comes with a T-bar to secure 110 type termination in the rear of the outlet		
			· Requires need for rapid termination tool for ease of termination		
			· Color Black		
			· Suitability - indoor		
			· Safety listing: ACA, Bi - national standard listed		
<b>B</b>	<b>62</b>	<b>units</b>	<b>C. Pop-Up Stainless Steel Square Module</b>		
			Must meet the following performance specifications:		
			· Available in simplex, duplex, triplex configuration		

			<ul style="list-style-type: none"> <li>Must include information outlet for each module</li> </ul>		
<b>B</b>	<b>18</b> <b>7</b>	<b>units</b>	<b>D. Faceplate</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>Max. Capacity: 1-port</li> </ul>		
			<ul style="list-style-type: none"> <li>Front Connection: Flush</li> </ul>		
			<ul style="list-style-type: none"> <li>Material: Plastic</li> </ul>		
			<ul style="list-style-type: none"> <li>Suitability - indoor</li> </ul>		
			<ul style="list-style-type: none"> <li>Safety listing: Bi-national Standard Listed</li> </ul>		
			<ul style="list-style-type: none"> <li>must include cat6 information outlet</li> </ul>		
<b>B</b>	<b>76</b> <b>2</b>	<b>units</b>	<b>E. UTP Patchcord</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>Stranded conductors improve Flexibility</li> </ul>		
			<ul style="list-style-type: none"> <li>Improved strain relief and a flexible boot for optimum protection in high-density installations</li> </ul>		
			<ul style="list-style-type: none"> <li>Exceeds TIA and ISO transmission and mechanical performance requirements</li> </ul>		
			<ul style="list-style-type: none"> <li>Patchpanel patchcord must be 2meters in length and light blue in color compliant to TIA-606 color shade</li> </ul>		
			<ul style="list-style-type: none"> <li>Workstation patchcord must be 3meters in length and light blue in color compliant to TIA-606 color shade</li> </ul>		
<b>B</b>	<b>14</b> <b>2</b>	<b>units</b>	<b>F. Modular Connector</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>Plug housing: polycarbonate, UL 94V0-2 Rated</li> </ul>		
			<ul style="list-style-type: none"> <li>Conductor Type: solid; stranded</li> </ul>		
			<ul style="list-style-type: none"> <li>UL specification: UL1863</li> </ul>		
			<ul style="list-style-type: none"> <li>EIA Specification: EIA - 364</li> </ul>		

			<ul style="list-style-type: none"> <li>· EU RoHS Compliant</li> </ul>		
			<ul style="list-style-type: none"> <li>· Must have external boots</li> </ul>		
<b>B</b>	<b>7</b>	<b>units</b>	<b>G. Data Cabinet (3ft)</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>· Compatible with metric ETSI and 19 inch international standard</li> </ul>		
			<ul style="list-style-type: none"> <li>· W=600mm, D=600mm, H=21RU</li> </ul>		
			<ul style="list-style-type: none"> <li>· Front tough glass with spring and lock</li> </ul>		
			<ul style="list-style-type: none"> <li>· Removable side panels</li> </ul>		
			<ul style="list-style-type: none"> <li>· Rear Solid Metal Door</li> </ul>		
			<ul style="list-style-type: none"> <li>· The lock is rotary lock</li> </ul>		
			<ul style="list-style-type: none"> <li>· Top Cover with cable entry and easy installation</li> </ul>		
			<ul style="list-style-type: none"> <li>· Closed bottom with cable entry, Earth grounding, Cage nuts, Double Top-mounted Fan</li> </ul>		
<b>B</b>	<b>7</b>	<b>units</b>	<b>H. Power Distribution Unit</b>		
			The brand must have at least 10 years of existence in the market.		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>· Shall have 6way C13 output ports</li> </ul>		
			<ul style="list-style-type: none"> <li>· Shall be horizontally mounted</li> </ul>		
			<ul style="list-style-type: none"> <li>· Power cord must be 2meters in length</li> </ul>		
			<ul style="list-style-type: none"> <li>· Shall have a 10A ampere capacity and 220v input volts</li> </ul>		
			<ul style="list-style-type: none"> <li>· Capable to mount directly to the rack or cabinet using cage nut</li> </ul>		
<b>B</b>	<b>7</b>	<b>units</b>	<b>I. Uninterruptable Power Supply</b>		
			The brand must have at least 10 years of existence in the market.		

			Must meet the following performance specifications:		
			· Must have LCD multi-languare color display		
			· Must have unity output power factor		
			· Top-level on on-line double conversion UPS for mission critical applications		
			· Must be 2000va/2000w		
			· Rated Frequency 50hz/60hz		
			· Input wiring: C20		
			· Output Receptacles: IEC60320-C13 x 6, IEC60320-C19 x 1		
			· Waveform (On Battery): Sinewave		
<b>B</b>	<b>1200</b>	<b>meters</b>	<b>J. Fiber Optic Cable (12core – OM3)</b>		
			The brand must have at least 10 years of existence in the market.		
			Must meet the following performance specifications:		
			· Suitable applications: high degree of flexibility suitable for backbone, horizontal, inner and inter-building installation.		
			· Excellent flame retardant performance for indoor application		
			· 12core optical fibers, 900micron PVC tight buffer		
			· Outdoor jacket material: PVC		
			· NEC/(UL) specification: OFNR		
			· CEC/C(UL) specification: OFN		
			· EU RoHS compliant		
<b>B</b>	<b>9</b>	<b>units</b>	<b>K. Fiber Patch Panel</b>		
			Must meet the following performance specifications:		
			· Fiber Patch Panel, that can accommodate SC duplex adapter and SC connectors		

			<ul style="list-style-type: none"> <li>Fiber Patch Panel should be modular-type that can fit 2 fiber frames and can terminate upto 48-fiber in 1RU</li> </ul>		
			<ul style="list-style-type: none"> <li>Typically used in Server rooms, Network rooms, Data Centres and Small offices</li> </ul>		
			<ul style="list-style-type: none"> <li>Can be mounted directly on any 19" rack or cabinet</li> </ul>		
			<ul style="list-style-type: none"> <li>Must have 12-fiber SC duplex adapter as Load</li> </ul>		
<b>B</b>	<b>14 4</b>	<b>units</b>	<b>L. Fiber Connector - Pigtail (SC – OM3)</b>		
			Must meet the following performance specifications:		
			<ul style="list-style-type: none"> <li>Must have SC type Connector</li> </ul>		
			<ul style="list-style-type: none"> <li>Optical Characteristic : OM3</li> </ul>		
			<ul style="list-style-type: none"> <li>Telecommunication Standards: TIA-568.3-D</li> </ul>		
			<ul style="list-style-type: none"> <li>Connector Standards: IEC 61754, TIA 604</li> </ul>		
			<ul style="list-style-type: none"> <li>Flame Rating: PVC jacket: OFNR rating</li> </ul>		
<b>B</b>	<b>53</b>	<b>units</b>	<b>M. Fiber Patchcord</b>		
			Must meet the following performance specifications:		
			32pcs Patchcords		
			<ul style="list-style-type: none"> <li>Conforms Standard: TIA/EIA 568 C.3</li> </ul>		
			<ul style="list-style-type: none"> <li>Fiber type: OM3</li> </ul>		
			<ul style="list-style-type: none"> <li>Connector 1: SC - LC</li> </ul>		
			<ul style="list-style-type: none"> <li>Cable Construction: duplex</li> </ul>		
			17pcs Patchcords		
			<ul style="list-style-type: none"> <li>Conforms Standard: TIA/EIA 568 C.3</li> </ul>		
			<ul style="list-style-type: none"> <li>Fiber type: OM3</li> </ul>		
			<ul style="list-style-type: none"> <li>Connector: LC - LC</li> </ul>		

			· Cable Construction: duplex		
			4pcs Patchcords		
			· Conforms Standard: TIA/EIA 568 C.3		
			· Fiber type: Single mode		
			· Connector 1: LC - LC		
			· Cable Construction: duplex		
			<b>REQUIREMENTS FOR BIDDERS</b>		
			The winning bidder must have at least 2 certified data center professionals to ensure that the winning bidder is capable of implementing this project.		
			Must offer a single brand for the the SCS components (cables, outlets, panels, cords and pop-up box)		
			Warranty: Cabling: 20 years		
			Others: 1 year		
			<b>TRAININGS</b>		
			DCF Training with Certification from Certified CDCP Trainor		
<b>B2.16</b>	<b>1</b>	<b>units</b>	<b>Firewall</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
<b>B</b>	<b>4</b>	<b>units</b>	<b>+ 10G SFP Transciever</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Hardware Specification (2 set)		
			a. 1 set appliance with license , 1 set appliance without license(for HA setup)		
			b. 8 port 1G Copper		

			c. 2 port 10G Fiber SR		
			Performance Specifications		
			a. The proposed firewalls shall support at least 80 Gbps of Firewall Throughput.		
			b. The proposed firewalls shall support at least 37 Gbps of Firewall IMIX Throughput.		
			c. The proposed firewalls shall support at least 35 Gbps of IPS Throughput.		
			d. The proposed firewalls shall support at least 8 Gbps of Threat Protection Throughput.		
			e. The proposed firewalls shall support at least 17 million concurrent sessions.		
			f. The proposed firewalls shall support at least 450,000 new connections/sec.		
			g. The proposed firewalls shall support at least 16 Gbps of IPsec VPN Throughput.		
			General Management		
			a. The proposed firewalls shall be purpose-built and shall have streamlined user interface and firewall rule management for large rule sets with grouping with at-a-glance rule feature and enforcement indicators.		
			b. The proposed firewalls shall have Two-factor authentication (One-time-password) support for administrator access, user portal, IPsec and SSL VPN		
			c. The proposed firewalls shall have advanced troubleshooting tools in GUI (e.g. Packet Capture)		
			d. The proposed firewalls shall have High Availability (HA) support in clustering two devices in active-active or active-passive mode with plug-and-play Quick HA setup		
			e. The proposed firewalls shall have full command-line-interface (CLI) accessible from GUI		
			f. The proposed firewalls shall have automated firmware update notification with easy automated update process and roll-back features.		
			g. The proposed firewalls shall have self-service user portal		
			h. The proposed firewalls shall have configuration change tracking		
			i. The proposed firewalls shall support SNMPv3 and Netflow		
			j. The proposed firewalls shall support Central Management via Cloud-based Unified Console		
			k. The proposed firewalls shall support API for 3rd party integration		

		l. The proposed firewalls shall have remote access option from the firewall vendor support.		
		m. The proposed firewalls shall have Cloud-based license management via Licensing Portal		
		n. The solution provider must have at least 5 certified engineer of the proposed product.		
		Central Firewall Management		
		a. The proposed firewalls shall include a centralized management and shall be a Cloud-based management and reporting for multiple firewalls, provides group policy management and a single console for all IT security products of the same brand.		
		b. The proposed central firewall management shall support Group policy management which allows objects, settings, and policies to be modified once and automatically synchronized to all firewalls in the group		
		c. The proposed central firewall management shall have Task Manager for providing a full historical audit trail and status monitoring of group policy changes		
		d. The proposed central firewall management shall have Backup Firmware Management which stores the last five configuration backup files for each firewall with one that can be pinned for permanent storage and easy access		
		e. The proposed central firewall management shall support firmware updates which offer one-click firmware updates to be applied to any device		
		f. The proposed central firewall management shall support Zero-touch deployment which enables the initial configuration to be performed in Cloud-based management and then exported for loading onto the device from a flash drive at startup, automatically connecting the device back to the central firewall management.		
		Firewall, Networking & Routing		
		a. The proposed firewalls shall have Packet processing architecture that provides extreme levels of visibility, protection, and performance through stream-based packet processing		
		b. The proposed firewall shall support DPI Engine that provides stream scanning protection for IPS, AV, Web, App Control, and TLS Inspection in a single high-performance engine		
		c. The proposed firewalls shall support Network Flow FastPath which delivers policy-driven and intelligent acceleration of trusted traffic automatically		
		d. The proposed firewalls shall be able to enforce policy across zones, networks, or by service type		
		e. The proposed firewalls shall have Default zones for LAN, WAN, DMZ, LOCAL, VPN and WiFi		
		f. The proposed firewalls shall support Custom zones on LAN or DMZ		
		g. The proposed firewalls shall support Customizable NAT policies with IP masquerading and full object support to redirect or forward multiple services in a single rule with a convenient NAT rule wizard to quickly and easily create complex NAT rules in just a few clicks		



		h. The proposed firewalls shall support Flood protection: DoS, DDoS and portscan blocking		
		i. The proposed firewalls shall support Country blocking by Geo-IP		
		j. The proposed firewalls shall support Upstream proxy support		
		k. The proposed firewalls shall support Protocol independent multicast routing with IGMP snooping		
		l. The proposed firewalls shall support Bridging with STP support and ARP broadcast forwarding		
		m. The proposed firewalls shall have VLAN DHCP support and tagging		
		n. The proposed firewalls shall have VLAN bridge support		
		o. The proposed firewalls shall have WAN link balancing: multiple Internet connections, auto-link health check, automatic failover, automatic and weighted balancing, and granular multipath rules		
		p. The proposed firewalls shall support 802.3ad interface link aggregation		
		q. The proposed firewalls shall support Dynamic DNS (DDNS)		
		r. The proposed firewalls shall have IPv6 Ready Logo Program Approval Certification		
		SD-WAN		
		a. The proposed firewalls shall have SDWAN feature		
		b. The proposed firewalls SDWAN feature shall have Support for multiple WAN link options including VDSL, DSL, cable, and 3G/4G/LTE cellular with essential monitoring, balancing, failover and fail-back		
		c. The proposed firewalls SDWAN feature shall support Application path selection and routing, which is used to ensure quality and minimize latency for mission-critical applications such as VoIP		
		d. The proposed firewalls SDWAN feature shall support application identification that comes with the sharing of application control information between managed endpoints of the same brand which added clarity and reliability of identifying applications.		
		e. The proposed firewalls SDWAN feature shall support application routing over preferred links via firewall rules or policy-based routing		
		f. The proposed firewalls SDWAN feature shall support flexible, and zero-touch or low-touch deployment		
		g. The proposed firewalls SDWAN feature shall have Robust VPN support including IPsec and SSL VPN		
		h. The proposed firewalls SDWAN feature shall have Centralized VPN orchestration		

			i. The proposed firewalls SDWAN feature shall support Unique Remote Ethernet Device Layer 2 tunnel with routing		
			Base Traffic Shaping & Quotas		
			a. The proposed firewalls shall support Flexible network or user based traffic shaping (QoS) (enhanced Web and App traffic shaping options included with the Web Protection subscription)"		
			b. The proposed firewalls shall support Set user-based traffic quotas on upload/download or total traffic and cyclical or non-cyclical		
			c. The proposed firewalls shall support Real-time VoIP optimization		
			Authentication		
			a. The proposed firewalls shall support the sharing of currently logged in Active Directory user ID between the managed endpoints of the same brand without an agent on the AD server or client.		
			b. The proposed firewalls shall support Authentication via: Active Directory, eDirectory, RADIUS, LDAP and TACACS+		
			c. The proposed firewalls shall support Server authentication agents for Active Directory SSO, Transparent authentication and Thin Client Authentication.		
			d. The proposed firewalls shall support Single sign-on for Active directory, eDirectory, RADIUS Accounting		
			e. The proposed firewalls shall support Client authentication agents for Windows, Mac OS X, Linux 32/64		
			f. The proposed firewalls shall support Browser SSO authentication: Transparent, proxy authentication (NTLM) and Kerberos		
			g. The proposed firewalls shall support Authentication certificates for iOS and Android		
			h. The proposed firewalls shall support Authentication services for IPSec, SSL, L2TP, PPTP		
			i. The proposed firewalls shall have Google Chromebook authentication support for environments with Active Directory and Google G Suite		
			j. The proposed firewalls shall support API-based authentication		
			User Self-Serve Portal		
			a. The proposed firewalls shall have a self-serve portal to Download SSL remote access client (Windows) and configuration files (other OS)		
			b. The proposed firewalls shall have a self-serve portal for Hotspot access information		
			c. The proposed firewalls shall have a self-serve portal for Changing user name and password		
			d. The proposed firewalls shall have a self-serve portal to View personal internet usage		

			Base VPN Options		
			a. The proposed firewalls shall support Site-to-site VPN: SSL, IPSec, 256-bit AES/3DES, PFS, RSA, X.509 certificates, pre-shared key		
			b. The proposed firewalls shall support Remote Ethernet Device (RED) site-to-site VPN tunnel (robust and light-weight)		
			c. The proposed firewalls shall support L2TP and PPTP		
			d. The proposed firewalls shall have Remote access: SSL, IPSec, iPhone/iPad/ Cisco/Andriod VPN client support		
			VPN Client		
			a. The proposed firewalls VPN client shall support Authentication: Pre-Shared Key (PSK), PKI (X.509), Token and XAUTH		
			b. The proposed firewalls VPN client shall be able to enable the connection of FW and Endpoint security and Monitoring of the health status of the managed Enpoints for remote connected users		
			c. The proposed firewalls VPN client shall support Intelligent split-tunneling for optimum traffic routing		
			d. The proposed firewalls shall have Client-monitor for graphical overview of connection status		
			e. The VPN client shall have Mac and Windows Support		
			Network Protection Subscription		
			Intrusion Prevention (IPS)		
			a. The proposed firewalls shall have High-performance, next-gen IPS deep packet inspection engine with selective IPS patterns that can be applied on a firewall rule basis for maximum performance and protection		
			b. The proposed firewalls shall have Thousands of signatures		
			c. The proposed firewall shall have Support for custom IPS signatures		
			d. The proposed firewalls shall have IPS Policy Smart Filters which enable dynamic policies that automatically update as new patterns are added		
			ATP and Endpoint Health monitoring		
			a. The proposed firewalls shall have Advanced Threat Protection (detect and block network traffic attempting to contact command and control servers using multi-layered DNS, AFC, and firewall)		
			b. The proposed firewalls shall have automated policies that can limit access to network resources or completely isolate compromised systems until they are cleaned		

		c. The proposed firewalls shall have Lateral Movement Protection to further isolates compromised systems by having healthy managed endpoints, of the same brand, reject all traffic from unhealthy endpoints preventing the movement of threats even on the same broadcast domain		
		Clientless VPN		
		a. The proposed firewalls shall support Unique encrypted HTML5 self-service portal with support for RDP, HTTP, HTTPS, SSH, Telnet, and VNC		
		Web Protection Subscription		
		Web Protection and Control		
		b. The proposed firewalls Web Protection and Control shall support Fully transparent proxy for anti-malware and web-filtering		
		c. The proposed firewalls Web Protection and Control shall have Enhanced Advanced Threat Protection		
		d. The proposed firewalls shall have URL Filter database with millions of sites across 92 categories backed by OEM Labs		
		e. The proposed firewalls Web Protection and Control shall have Advanced web malware protection with JavaScript emulation		
		f. The proposed firewalls Web Protection and Control shall have Live Protection real-time in-the-cloud lookups for the latest threat intelligence		
		g. The proposed firewalls Web Protection and Control shall have Second independent malware detection engine for dual-scanning		
		h. The proposed firewalls Web Protection and Control shall have High performance web content caching		
		i. The proposed firewalls Web Protection and Control shall support Forced caching for Managed Endpoint (of the same brand) updates		
		j. The proposed firewalls Web Protection and Control shall support SafeSearch enforcement (DNS-based) for major search engines per policy (user/group)		
		k. The proposed firewalls Web Protection and Control shall support Web keyword monitoring and enforcement to log, report or block web content matching keyword lists with the option to upload customs lists		
		l. The proposed firewalls shall support Web policy override option to temporarily allow access to blocked sites or categories that are fully customizable and manageable by select users		
		m. The proposed firewalls Web Protection and Control shall support User/Group policy enforcement on Google Chromebooks		
		Cloud Application Visibility		
		a. The proposed firewalls shall support Control Center widget which displays amount of data uploaded and downloaded to cloud applications categorized as new, sanctioned, unsanctioned or tolerated		

		b. The proposed firewalls shall be able to Discover Shadow IT at a glance		
		c. The proposed firewalls shall be capable to Drill down to obtain details on users, traffic, and data		
		d. The proposed firewalls shall support One-click access to traffic shaping policies		
		e. The proposed firewalls shall be capable to Filter cloud application usage by category or volume		
		f. The proposed firewalls shall be able to provide Detailed customizable cloud application usage report for full historical reporting		
		Application Protection and Control		
		a. The proposed firewalls shall be able to automatically identify, classify, and control all unknown Windows and Mac applications on the network by sharing information between managed endpoints of the same brand.		
		b. The proposed firewalls shall support Signature-based application control with patterns for thousands of applications		
		c. The proposed firewalls shall support Cloud Application Visibility and Control to discover Shadow IT		
		d. The proposed firewalls shall support App Control Smart Filters that enable dynamic policies which automatically update as new patterns are added		
		e. The proposed firewalls shall support Micro app discovery and control		
		f. The proposed firewalls shall support Application control based on category, characteristics (e.g., bandwidth and productivity consuming), technology (e.g. P2P), and risk level		
		Web & App Traffic Shaping		
		a. The proposed firewalls shall support Custom traffic shaping (QoS) options by web category or application to limit or guarantee upload/download or total traffic priority and bitrate individually or shared		
		Zero-Day Protection Subscription		
		Dynamic Sandbox Analysis		
		b. Dynamic Sandbox Analysis shall support Full integration into your security solution dashboard		
		c. Dynamic Sandbox Analysis shall be able to Inspect executables and documents containing executable content (including .exe, .com, and .dll, .doc, .docx, docm, and .rtf and PDF) and archives containing any of the file types listed above (including ZIP, BZIP, GZIP, RAR, TAR, LHA/LZH, 7Z, Microsoft Cabinet)		
		d. Dynamic Sandbox Analysis shall be able to Detect sandbox evasion behavior		

		e. Dynamic Sandbox Analysis shall support Machine Learning technology with Deep Learning scans all dropped executable files
		f. Dynamic Sandbox Analysis shall include exploit prevention and Anti-ransomware Protection technology from endpoint security
		g. Dynamic Sandbox Analysis shall be able to provide In-depth malicious file reports and dashboard file release capability
		h. Dynamic Sandbox Analysis shall be able to provide Optional data center selection and flexible user and group policy options on file type, exclusions, and actions on analysis
		i. Dynamic Sandbox Analysis shall Support one-time download links
		Threat Intelligence Analysis
		a. All files containing active code downloaded via the web or coming into the firewall as email attachments such as executables and documents containing executable content (including .exe, .com, and .dll, .doc, .docx, docm, and .rtf and PDF) and archives containing any of the file types listed above (including ZIP, BZIP, GZIP, RAR, TAR, LHA/LZH, 7Z, Microsoft Cabinet) are automatically sent for Threat Intelligence Analysis
		b. Files are checked against massive threat intelligence database and subjected to multiple machine learning models to identify new and unknown malware
		c. Threat Intelligence Analysis shall be able to provide Extensive reporting including a dashboard widget for analyzed files, a detailed list of the files that have been analyzed and the analysis results, and a detailed report outlining the outcome of each machine learning model.
		Reporting
		a. Central Firewall Reporting
		b. The proposed firewall must have a centralized management that shall have Pre-defined reports with flexible customization options
		c. The proposed firewall with centralized management shall be able to provide Report dashboard which has an at-a-glance view of events for at least the past 24 hours
		d. The proposed firewall with centralized management shall be able to Easily identify network activities, trends, and potential attacks
		e. The proposed firewall with centralized management shall have Easy backup of logs with quick retrieval for audit needs
		Warranty and Support and Subscription
		a. The proposed solution shall have 24/7 support, feature updates, advanced replacement hardware warranty for term
		b. The proposed solution shall have Machine Learning and Sandboxing File Analysis, reporting
		c. The proposed solution shall have TLS and DPI engine, Web Security and Control, Application Control, reporting

			d. The proposed solution must have Networking, Unlimited Remote Access VPN, Site-to-Site VPN, reporting		
			e. The Proposed solution shall provide thee (3) years corrective / Remedial Maintenance and Annual health check visit from the date of acceptance.		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
B2.18	set		<b>ENDPOINT SECURITY AND SERVER PROTECTION (Servers: 8)</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
109	lics		<b>ENDPOINT SECURITY</b>		
6	lics		<b>Server protection + annual maintenance (Endpoint + Server)</b>		
			Integrated Management		
			Must have a unified console for managing multiple products. Advanced Endpoint Protection, Server Security, Mobile Control.		
			All settings for these products must be configured from a Central Dashboard without the need to access additional consoles.		
			Multi-factor Authentication (MFA)		
			Must provide an additional layer of security, other than password. (i.e. Google Authenticator and Manufacturer Authenticator).		
			<b>REQUIREMENTS FOR BIDDER</b>		
			Windows, Mac and Linux machines must be managed from one management console.		
			The solution must support Windows Server, Linux, Public Cloud (Microsoft Azure, Amazon AWS, and Google Cloud Platform).		
			Role-base Management (RBAC)		
			Must have the capability to allow the separation of estate management to different administrator login.		
			Microsoft AD Synchronization		
			Must have the capability to only allow outbound synchronization of Users/Groups from the local Active Directory servers to the Cloud Dashboard for policy management.		
			Policies		
			Selected policies should be able to be applied to either users or devices.		

			Policies must be able to be disabled automatically based on a scheduled time and date.
			Enhanced Tamper Protection
			The endpoint solution must have the capability to monitor or stop local administrative users or malicious processes to disable the endpoint protection:
			Advanced Deep Learning Mechanism
			Must have advanced form of machine learning that detects/block both known and unknown threats without relying on a virus definition updates.
			Exploit Prevention/Mitigation on the following known exploits
			Must have the ability to deny attackers using different exploitation techniques to take advantage of any software vulnerabilities to delivery malware
			Anti-ransomware Protection
			Must have the ability to track computers and processes attempting to modify/encrypt documents and other files.
			Must have the ability for the encrypted files to be rolled back to a pre-encrypted state.
			Root Cause Analysis
			Must have the capability to identify what happened, where a breach originated, what files were impacted, and provides guidance on how to strengthen an organization's security posture.
			Advanced System Clean
			Must have the capability to trigger a deep clean upon any active detection from exploit or ransomware detection. Uniquely examines the whole system not only removing malware, but also removing the traces left behind on your system, such as other files and registry keys.
			Endpoint Protection Features
			Must have Download Reputation
			Must have Web Control / URL Category Blocking
			Must have Peripheral Control (e.g. USB)
			Must have Application Control
			Must have a Pre-execution Behavior Analysis (HIPS)
			Must be able to block Potentially Unwanted Application (PUA)



			Must have Data Loss Prevention		
			Synchronized Security		
			Must be able to automatically isolate infected endpoints on the public and local area networks.		
			Must be able to identify all apps on the network.		
			Must be able to link threats to individual users and computers.		
			Additional Features for Server Protection		
			Must be able to lock down your server with a single click, securing servers in a safe state and preventing unauthorized applications from running.		
			Must be able to protect Windows, Linux, and UNIX system		
			Must be able to defend your data from malware without sacrificing server performance.		
			Must include Malicious Traffic Detection, which monitors for traffic associated with malware, enabling early detection and removal.		
			Must be able to give you the broadest protection for your servers and data, including from zero-day attacks		
			Must be able to manage the connections between applications and the associated files, such as DLLs, data files and scripts.		
<b>B2.20</b>	<b>1</b>	<b>unit</b>	<b>Virtual Firewall</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Virtual Appliance Specification		
			a. 8 Core		
			b. 16 RAM		
			c. Up to 800 total weighted users		
			General Management		
			a. The proposed firewalls shall be purpose-built and shall have streamlined user interface and firewall rule management for large		

		rule sets with grouping with at-a-glance rule feature and enforcement indicators.	
		b. The proposed firewalls shall have Two-factor authentication (One-time-password) support for administrator access, user portal, IPsec and SSL VPN	
		c. The proposed firewalls shall have advanced troubleshooting tools in GUI (e.g. Packet Capture)	
		d. The proposed firewalls shall have full command-line-interface (CLI) accessible from GUI	
		e. The proposed firewalls shall have automated firmware update notification with easy automated update process and roll-back features.	
		f. The proposed firewalls shall have self-service user portal	
		g. The proposed firewalls shall have configuration change tracking	
		h. The proposed firewalls shall support SNMPv3 and Netflow	
		i. The proposed firewalls shall support Central Management via Cloud-based Unified Console	
		j. The proposed firewalls shall support API for 3rd party integration	
		k. The proposed firewalls shall have remote access option from the firewall vendor support.	
		l. The proposed firewalls shall have Cloud-based license management via Licensing Portal	
		m. The solution provider must have at least 5 certified engineer of the proposed product.	
		Central Firewall Management	
		a. The proposed firewalls shall include a centralized management and shall be a Cloud-based management and reporting for multiple firewalls, provides group policy management and a single console for all IT security products of the same brand.	
		b. The proposed central firewall management shall support Group policy management which allows objects, settings, and policies to be modified once and automatically synchronized to all firewalls in the group	
		c. The proposed central firewall management shall have Task Manager for providing a full historical audit trail and status monitoring of group policy changes	
		d. The proposed central firewall management shall have Backup Firmware Management which stores the last five configuration backup files for each firewall with one that can be pinned for permanent storage and easy access	
		e. The proposed central firewall management shall support firmware updates which offer one-click firmware updates to be applied to any device	
		f. The proposed central firewall management shall support Zero-touch deployment which enables the initial configuration to be performed in Cloud-based management and then exported for	

		loading onto the device from a flash drive at startup, automatically connecting the device back to the central firewall management.	
		Firewall, Networking & Routing	
		a. The proposed firewalls shall have Packet processing architecture that provides extreme levels of visibility, protection, and performance through stream-based packet processing	
		b. The proposed firewall shall support DPI Engine that provides stream scanning protection for IPS, AV, Web, App Control, and TLS Inspection in a single high-performance engine	
		c. The proposed firewalls shall support Network Flow FastPath which delivers policy-driven and intelligent acceleration of trusted traffic automatically	
		d. The proposed firewalls shall be able to enforce policy across zones, networks, or by service type	
		e. The proposed firewalls shall have Default zones for LAN, WAN, DMZ, LOCAL, VPN and WiFi	
		f. The proposed firewalls shall support Custom zones on LAN or DMZ	
		g. The proposed firewalls shall support Customizable NAT policies with IP masquerading and full object support to redirect or forward multiple services in a single rule with a convenient NAT rule wizard to quickly and easily create complex NAT rules in just a few clicks	
		h. The proposed firewalls shall support Flood protection: DoS, DDoS and portscan blocking	
		i. The proposed firewalls shall support Country blocking by Geo-IP	
		j. The proposed firewalls shall support Upstream proxy support	
		k. The proposed firewalls shall support Protocol independent multicast routing with IGMP snooping	
		l. The proposed firewalls shall support Bridging with STP support and ARP broadcast forwarding	
		m. The proposed firewalls shall have VLAN DHCP support and tagging	
		n. The proposed firewalls shall have VLAN bridge support	
		o. The proposed firewalls shall have WAN link balancing: multiple Internet connections, auto-link health check, automatic failover, automatic and weighted balancing, and granular multipath rules	
		p. The proposed firewalls shall support 802.3ad interface link aggregation	
		q. The proposed firewalls shall support Dynamic DNS (DDNS)	
		r. The proposed firewalls shall have IPv6 Ready Logo Program Approval Certification	
		Base Traffic Shaping & Quotas	

		a. The proposed firewalls shall support Flexible network or user based traffic shaping (QoS) (enhanced Web and App traffic shaping options included with the Web Protection subscription)"		
		b. The proposed firewalls shall support Set user-based traffic quotas on upload/download or total traffic and cyclical or non-cyclical		
		c. The proposed firewalls shall support Real-time VoIP optimization		
		Authentication		
		a. The proposed firewalls shall support the sharing of currently logged in Active Directory user ID between the managed endpoints of the same brand without an agent on the AD server or client.		
		b. The proposed firewalls shall support Authentication via: Active Directory, eDirectory, RADIUS, LDAP and TACACS+		
		c. The proposed firewalls shall support Server authentication agents for Active Directory SSO, Transparent authentication and Thin Client Authentication.		
		d. The proposed firewalls shall support Single sign-on for Active directory, eDirectory, RADIUS Accounting		
		e. The proposed firewalls shall support Client authentication agents for Windows, Mac OS X, Linux 32/64		
		f. The proposed firewalls shall support Browser SSO authentication: Transparent, proxy authentication (NTLM) and Kerberos		
		g. The proposed firewalls shall support Authentication certificates for iOS and Android		
		h. The proposed firewalls shall support Authentication services for IPSec, SSL, L2TP, PPTP		
		i. The proposed firewalls shall have Google Chromebook authentication support for environments with Active Directory and Google G Suite		
		j. The proposed firewalls shall support API-based authentication		
		Base VPN Options		
		a. The proposed firewalls shall support Site-to-site VPN: SSL, IPSec, 256-bit AES/3DES, PFS, RSA, X.509 certificates, pre-shared key		
		b. The proposed firewalls shall support Remote Ethernet Device (RED) site-to-site VPN tunnel (robust and light-weight)		
		c. The proposed firewalls shall support L2TP and PPTP		
		d. The proposed firewalls shall have Remote access: SSL, IPsec, iPhone/iPad/ Cisco/Andriod VPN client support		
		VPN Client		
		a. The proposed firewalls VPN client shall support Authentication: Pre-Shared Key (PSK), PKI (X.509), Token and XAUTH		

		b. The proposed firewalls VPN client shall be able to enable the connection of FW and Endpoint security and Monitoring of the health status of the managed Endpoints for remote connected users	
		c. The proposed firewalls VPN client shall support Intelligent split-tunneling for optimum traffic routing	
		d. The proposed firewalls shall have Client-monitor for graphical overview of connection status	
		e. The VPN client shall have Mac and Windows Support	
		Network Protection Subscription	
		Intrusion Prevention (IPS)	
		a. The proposed firewalls shall have High-performance, next-gen IPS deep packet inspection engine with selective IPS patterns that can be applied on a firewall rule basis for maximum performance and protection	
		b. The proposed firewalls shall have Thousands of signatures	
		c. The proposed firewall shall have Support for custom IPS signatures	
		d. The proposed firewalls shall have IPS Policy Smart Filters which enable dynamic policies that automatically update as new patterns are added	
		ATP and Endpoint Health monitoring	
		a. The proposed firewalls shall have Advanced Threat Protection (detect and block network traffic attempting to contact command and control servers using multi-layered DNS, AFC, and firewall)	
		b. The proposed firewalls shall have automated policies that can limit access to network resources or completely isolate compromised systems until they are cleaned	
		c. The proposed firewalls shall have Lateral Movement Protection to further isolates compromised systems by having healthy managed endpoints, of the same brand, reject all traffic from unhealthy endpoints preventing the movement of threats even on the same broadcast domain	
		Reporting	
		a. Central Firewall Reporting	
		b. The proposed firewall must have a centralized management that shall have Pre-defined reports with flexible customization options	
		c. The proposed firewall with centralized management shall be able to provide Report dashboard which has an at-a-glance view of events for at least the past 24 hours	
		d. The proposed firewall with centralized management shall be able to Easily identify network activities, trends, and potential attacks	

			e. The proposed firewall with centralized management shall have Easy backup of logs with quick retrieval for audit needs		
			Warranty and Support and Subscription		
			a. The proposed solution shall have 24/7 support, feature updates, advanced replacement hardware warranty for term		
			b. The proposed solution must have Networking, Unlimited Remote Access VPN, Site-to-Site VPN, reporting		
			c. The Proposed solution shall provide thee (3) years corrective / Remedial Maintenance and Annual health check visit from the date of acceptance.		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
<b>B2.21</b>	<b>1</b>	<b>unit</b>	<b>Virtual Web Application Firewall</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Virtual Specification		
			General Feature		
			A. The proposed solution must have the following feature:		
			a. Server Load Balancing (SLB) for TCP/UDP based protocols		
			b. TLS (SSL) Offload supporting TLS 1.0, 1.1, 1.2, 1.3 and SSL v3		
			c. Layer 7 Content Switching		
			d. Transparent caching for HTTP/HTTPS		
			e. Optimized compression of static and dynamic HTTP/HTTPS content		
			f. IPv6 support for addressing and features		
			g. Support for Direct Server Return (DSR) configurations		
			h. VLAN Trunking (802.1Q)		
			i. Link interface bonding (802.3ad)		
			j. HTTP/2 Layer 7 Proxy		
			k. Up to 1000 Virtual and 1000 Real Servers		
			Performance		
			A. The proposed WAF shall support Load Balancer throughput up to 3 Gbps		
			B. The proposed WAF shall support Max servers/ Virtual Cluster up to 1,000		

			C. The proposed WAF shall support Minimum 3,000,000 L4 concurrent connections
			D. The proposed WAF shall support SSL TPS 4,000
			E. The proposed WAF shall support TCP/IP Multiplexing
			F. The proposed WAF shall support Scheduling and Balancing Methods such as:
			a. Round Robin
			b. SDN Adaptive
			c. Weighted Round Robin
			d. Least Connection
			e. Weighted Least Connection
			f. Agent-based Adaptive
			g. Chained Failover (Fixed Weighting)
			h. Source-IP Hash
			i. Layer 7 Content Switching
			j. Global Server Load Balancing (GSLB)
			G. The proposed WAF shall support Session Persistence Methods such as:
			a. Source IP (L4)
			b. TLS (SSL) SessionID (L4)
			c. HTTP/HTTPS Browser-session (L7)
			d. HTTP/HTTPS WebClient-session (L7)
			e. RDP Login ID (L7)
			f. Port Following for mixed HTTP/HTTPS sessions
			H. The proposed WAF shall support Health-check Mechanism such as:
			a. Aggregated health checks
			b. ICMP health checking
			c. Layer 7 checking against any target server port
			d. Stateful Failover
			e. Scale-out Clustering
			f. Aggregated health checks
			Web Application Firewall (WAF)
			A. The proposed WAF shall support Real Time Application threat mitigation

		B. The proposed WAF shall support Daily rule updates		
		C. The proposed WAF shall support Can mitigate Cross Site Scripting, SQL Injection, Cookie tampering, Dataloss prevention, PCI-DSS Section 6.6 Compliance		
		Security		
		A. The proposed WAF shall support SNORT-Rule Compatible L7 Intrusion Prevention System (IPS)		
		D. The proposed WAF shall support Permit /Deny Access Control Lists		
		E. The proposed WAF shall support IP address filtering		
		F. The proposed WAF shall support 3DDoS mitigation, including L7 rate based attacks		
		G. The proposed WAF shall support IPSec VPN to Azure, AWS and vCloud Air public clouds		
		H. The proposed WAF shall support Configurable TLS (1.0, 1.1, 1.2, 1.3) and SSL (2.0, 3.0)		
		I. The proposed WAF shall support Support for EV (Extended Validation) certificates		
		J. The proposed WAF shall support Server Name Identification (SNI) support		
		K. The proposed WAF shall support Multi-domain authentication & SSO		
		L. The proposed WAF shall support RADIUS,Active Directory, SAML & LDAP		
		M. The proposed WAF shall support X.509 client certificate authentication		
		N. The proposed WAF shall support Two factor authentication		
		Health Checking & High Availability		
		A. The proposed WAF shall support Aggregated health checks		
		B. The proposed WAF shall support ICMP health checking		
		C. The proposed WAF shall support Layer 7 checking against any target server port		
		D. The proposed WAF shall support Active/Hot Standby configurations for High Availability Stateful Failover		
		E. The proposed WAF shall support Scale-out Clustering		
		F. The proposed WAF shall support Support Global Server Load Balancing (GSLB)		
		Administration		
		A. The proposed WAF shall support Flexible administration Options such as:		
		a. Web User Interface (WUI)		
		b. SSH		
		c. RESTful and PowerShell APIs		
		d. VMware vRealize Orchestrator		
		e. Change Auditing		



			f. Context based help (WUI)		
			g. Real time display of performance and availability		
			h. Application templates		
			i. Automated configuration backup		
			j. Connection draining		
			k. Diagnostic shell with in-line tcp dump		
			l. SNMP support		
			Centralized Management		
			A. The proposed WAF shall support Centralized management and orchestration		
			B. The proposed WAF shall support Included with Enterprise support subscription, and Enterprise Plus support subscription		
			C. The proposed WAF shall support LoadMaster configuration management		
			D. The proposed WAF shall support Automated LoadMaster backups		
			E. The proposed WAF shall support Centralized & scheduled firmware updates		
			F. The proposed WAF shall support LoadMaster logfile consolidation		
			G. The proposed WAF shall support Performance management		
			H. The proposed WAF shall support 3rd party load balancer support		
			Support Subscriptions		
			A. The proposed WAF shall support 24x7 Customer Support		
			B. The proposed WAF shall support Software Updates		
			C. The proposed WAF shall support Security Patches		
			D. The proposed WAF shall support Web Application Firewall (WAF) with rule updates		
			E. The proposed WAF shall support GSLB with IP Reputation		
			F. The Proposed WAF shall provide thee (3) years corrective / Remedial Maintenance and Annual health check visit from the date of acceptance.		
B2.22	100	lics	<b>Mobile Device Management</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			General Requirement		
			· Must support the following devices:		
			o Android 7.x or later		

		o iOS 12.x or later	
		o Windows 10 version 1803 or later (desktop OS)	
		o macOS 10.14 (Mojave) or later	
		o Chrome OS 77 or later	
		Admin User Interface	
		· Must have an easy-to-use cloud-hosted management console.	
		· Must have a flexible Dashboard with different user-selectable widgets and filter mechanism.	
		· The management console must have role-based access.	
		· Must support the following push notification services:	
		o APN	
		o GCM	
		o Baidu	
		o WNS	
		· The management console must have a customizable administrator user interface.	
		Self-Service Portal	
		· Must have a self-service portal that has the following capabilities:	
		o Register new device	
		o Device wipe	
		o Device lock	
		o Device locate	
		o Passcode reset for Device, App Protection (Android), Application Container (iOS, Android)	
		o Trigger device check-in	
		o Decommission device (incl. corporate wipe on iOS, Samsung, LG, Sony, and Windows 10 Mobile)	
		o Delete decommissioned device from inventory	
		o Monitor device status and compliance information	
		o Show acceptable use policy with new device registration	
		o Display post-enrollment message	
		o Control registration by OS type	
		o Configure maximum number of devices per user	
		o Company-specific configuration of commands available to users	
		o Customizable branding	
		User Directory and Management	
		· Must have comprehensive password policies.	
		· Must be capable of Active Directory integration.	
		Device Compliance Enforcement Rules	
		· Must have the following Device Compliance Enforcement Rules:	
		o Group assignment or ownership-based compliance rules	
		o Compliance violations analytics	
		o Device under management	
		o Jailbreak or rooting detection	
		o Encryption required	
		o Passcode required	
		o Minimum OS version required	
		o Maximum OS version allowed	
		o Last synchronization of the device	
		o Last synchronization of the MDM app	
		o Blacklisted apps	
		o Whitelisted apps	

			o Mandatory apps
			o Block installation from unknown sources (side-loading)
			o Data roaming setting
			o USB debugging setting
			o MDM client version
			o Malware detection (classical AV plus machine learning)
			o System Integrity Protection required
			o Firewall required (macOS)
			o Suspicious apps detection
			o Side-loaded apps detection
			o Unmanaged configuration profile detection
			o Potentially unwanted apps detection
			o Last malware scan
			o Locate app-enabled Compliance rule templates for HIPAA and PCI Administrator guidance to resolve compliance issues
			o Man-in-the-middle attack detection
			Security
			· Must have the following security features:
			o Encrypted connection to the cloud-based management console
			o Encrypted communication with devices
			o Control email access by compliance state (Exchange gateway, Office 365 access control)
			o 2FA device authentication at the Exchange gateway (password, certificate)
			o Define allowed email clients at the Exchange gateway
			o Control network access by compliance (Generic NAC interface, Sophos UTM or Wireless, Cisco ISE, Check Point)
			o USSD code protection (e.g., *#2314#)
			o Text message phishing detection
			o Protection from malicious websites (web filtering)
			o Protect corporate apps with additional authentication (App Protection)
			o Web productivity filtering by 14 categories + allow/deny lists by IP address, DNS name, and IP range
			o Manage and store passwords using KeePass format
			Inventory
			· Must have the capability to create device groups.
			· Must have a user-oriented device view.
			· Must be able to automatically transfer unique device ID (IMEI, MEID, UDID) and further device data.
			· Must have automatic OS version detection.
			· Must have automatic device model resolution into a user-friendly name.
			· Must be able to use the actual device name for device inventory.
			· Must have a marker for company-owned and privately-owned devices.
			· Must have customer-defined device properties with template support.
			· Must have the capability to import/export device information.
			· Must have savable extended filters for devices.
			Provisioning / Device Enrollment
			· Must have the following provisioning/device enrollment capabilities:
			o Device management (MDM) enrollment
			o Container-only Management enrollment

			o Device enrollment wizard for admins
			o Device enrollment by emails
			o Online registration from the device
			o Bulk provisioning (by email)
			o Apple Configurator deployment
			o Apple DEP enrollment (Device Enrollment Program)
			o Android Zero-touch device enrollment
			o Samsung Knox Mobile Enrollment
			o Admin enrollment w/o installed app (no iTunes account required)
			o Definition of standard rollout packages for personal or corporate devices
			o Automatic assignment of initial policies and groups based on user directory group membership
			o Enrollment using provisioning package files (*.ppkg)
			Task Management
			· Must be able to generate scheduled tasks.
			· Must be able to generate tasks for a single device or group of devices.
			· Must have detailed status tracking for each task.
			· Must have intelligent strategies for task repetition.
			Reporting
			· Must have the capability to export inventory using applied filters.
			· Must have the capability to export all reports as XLS or CSV.
			· Must have the following reports available:
			o A compliance log of all administrator activities
			o A detailed Alert log
			o Malware reports
			o Compliance violation reports
			o Device reports
			o App reports
			o Certificate reports
			MDM App Functionality
			· Must have the capability to create an Enterprise App Store.
			· Must be able to show compliance violations (including help for the end-user to fix reported compliance issues).
			· Must be able to show server messages.
			· Must be able to show technical contact.
			· Must have the capability to trigger device synchronization.
			· Must be able to show privacy information.
			Application Management
			· Must have the capability to install apps (with or without user interaction, including managed apps on iOS).
			· Must have the capability to uninstall apps (with or without user interaction).
			· Must be able to list all installed apps.
			· Must be able to support Apple Volume Purchasing Program (VPP).
			· Must have the capability to Allow/forbid the installation of apps.
			· Must have the capability to Block app uninstallation.
			· Must have the capability to configure company apps (managed settings) remotely.
			· Must have the capability to block specific apps from running (app blocker).

		· Must be able to manage and configure Microsoft Office 365 apps.
		Device Security
		· Must have the following device security features:
		o Jailbreak (iOS)/Rooting (Android) detection
		o Tamper detection
		o Anti-theft protection: Remote wipe
		o Anti-theft protection: Remote lock
		o Anti-theft protection: Device
		o Enforce password strength and complexity
		o Inactivity time (time in minutes until a password is required)
		o Maximum number of attempts until the device will be reset
		o Minimum password length
		o Password history
		o Password expiration time
		o Minimum length of lower/upper case, non-letter or symbol characters in the passcode
		o Passcode reset (unlock)/administrator defines new passcode
		o Activation lock bypass
		o Activation of storage encryption
		o Access to the memory card can be prohibited
		o Activation/deactivation of device data encryption
		o Block installation from unknown sources (sideloading)
		o Block Wi-Fi
		o Block Bluetooth
		o Block data transfer via Bluetooth
		o Block data transfer via NFC
		o Block USB connections
		o Block camera
		o Protection of settings against modification/removal by the user
		o Allow/forbid the use of the iTunes Store / Google Play / Windows Store
		o Allow/forbid the use of Browser
		o Allow/forbid explicit content
		o Allow/forbid camera on the lock screen
		o Allow/forbid 3rd party app usage of email
		o Allow/forbid iCloud auto-sync
		o Allow/forbid manual Wi-Fi configuration
		o Allow/forbid to send crash data to Apple / Google / Samsung / Microsoft (Telemetry)
		o Allow/forbid certificates from untrusted sources
		o Allow/forbid WiFi auto-connect
		o Allow/forbid shared photostream
		o Allow/forbid Apple Wallet/Passbook on the lock screen
		o Allow/forbid device act as a hotspot
		o Allow/forbid recent contacts to sync
		o Allow/forbid Siri (iOS) or Cortana (Microsoft)
		o Allow/forbid Siri to query content from the web
		o Allow/forbid "Open with..." functionality to share data between managed and unmanaged apps
		o Allow/forbid fingerprint reader (Touch ID) to unlock the device
		o Allow/forbid account modification
		o Allow/forbid modification of cellular data usage per app
		o Allow/forbid Control Center on the lock screen
		o Allow/forbid Notification Center on the lock screen
		o Allow/forbid Today view on the lock screen
		o Allow/forbid over-the-air PKI updates

			<ul style="list-style-type: none"><li>o Allow/forbid find my friends modification</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid host pairing</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid iris scan authentication</li></ul>
			<ul style="list-style-type: none"><li>o Prevent email forwarding</li></ul>
			<ul style="list-style-type: none"><li>o S/MIME enforcement</li></ul>
			<ul style="list-style-type: none"><li>o Support for SCEP certificate provisioning (incl. auto-renew)</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid AirDrop</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid single app mode (app lock or kiosk mode)</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid iBooks store</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid explicit sexual content in the iBooks store</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid iMessage</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid the user to reset the device</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid device unenrollment from MDM management</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid the user to create screenshots</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid the user to use copy/paste</li></ul>
			<ul style="list-style-type: none"><li>o Filter access to web sites (blacklisting) or whitelist web sites with bookmarks</li></ul>
			<ul style="list-style-type: none"><li>o Delay or block OS upgrade</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid password auto-fill</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid password sharing</li></ul>
			<ul style="list-style-type: none"><li>o Allow/forbid password proximity requests</li></ul>
			<ul style="list-style-type: none"><li>o Configure Device Guard settings</li></ul>
			Device Configuration
			· Must have the following device configuration settings:
			<ul style="list-style-type: none"><li>o Microsoft Exchange settings for email</li></ul>
			<ul style="list-style-type: none"><li>o IMAP or POP settings for email</li></ul>
			<ul style="list-style-type: none"><li>o LDAP, CardDAV and CalDAV settings</li></ul>
			<ul style="list-style-type: none"><li>o Configuration of access points</li></ul>
			<ul style="list-style-type: none"><li>o Proxy settings</li></ul>
			<ul style="list-style-type: none"><li>o Wi-Fi settings</li></ul>
			<ul style="list-style-type: none"><li>o VPN settings</li></ul>
			<ul style="list-style-type: none"><li>o Install root certificates</li></ul>
			<ul style="list-style-type: none"><li>o Install client certificates</li></ul>
			<ul style="list-style-type: none"><li>o Per-app VPN</li></ul>
			<ul style="list-style-type: none"><li>o Single sign-on (SSO) for 3rd party apps (app protection) and company webpages</li></ul>
			<ul style="list-style-type: none"><li>o Distribution of bookmarks (Web Clips)</li></ul>
			<ul style="list-style-type: none"><li>o Force iOS update on supervised devices (and display pending iOS updates)</li></ul>
			<ul style="list-style-type: none"><li>o Configure the iOS lock screen and home screen</li></ul>
			<ul style="list-style-type: none"><li>o Automatically receive Wi-Fi and VPN settings from Sophos UTM appliances</li></ul>
			<ul style="list-style-type: none"><li>o Managed domains</li></ul>
			<ul style="list-style-type: none"><li>o Firewall configuration</li></ul>
			<ul style="list-style-type: none"><li>o Kernel Extension policy</li></ul>
			<ul style="list-style-type: none"><li>o Kiosk Mode</li></ul>
			<ul style="list-style-type: none"><li>o App permissions</li></ul>
			<ul style="list-style-type: none"><li>o Enable iOS Lost Mode</li></ul>
			<ul style="list-style-type: none"><li>o Configure Google Accounts</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure password policy (workspace)</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure password policy (device)</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure restrictions</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure Wi-Fi</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure app protection</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure app control</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure app permissions</li></ul>
			<ul style="list-style-type: none"><li>o Android enterprise: Configure Exchange</li></ul>

			o Android enterprise: Install the root certificate
			o Android enterprise: Install a client certificate
			o Android enterprise: Install client certificate via SCEP
			o Samsung Knox: Container handling (create, lock, decommission)
			o Samsung Knox: Configure restrictions
			o Samsung Knox: Configure Exchange
			o Samsung Knox: Manage container password
			o Samsung Knox: Allow/block data and file sync between Knox Workspace and personal area
			o Samsung Knox: Allow/block Iris scan authentication for Knox Workspace
			o Configure devices to use AirPrint printers
			Device Information
			· Must be able to show the following device information:
			o Internal memory utilization (free/used)
			o Battery charge level
			o IMSI (unique identification number) of SIM card
			o Currently used cellular network
			o Roaming mode
			o OS version
			o List of installed profiles
			o List of installed certificates
			o Malware detected on device
			· Must have the capability to do remote screen sharing (via TeamViewer or AirPlay device)
			Secure Email
			· Must have an email app that's fully-featured, secure, and containerized personal information management (PIM) app for Android and iOS that lets you isolate information like business email, calendars, and contacts from private data on the mobile device.
			· Email app must have the following features:
			o Sync email with Microsoft Exchange or any other ActiveSync compatible email service.
			o Geo-fencing / Time-fencing / Wi-Fi fencing
			o Control cut and copy
			o Control screenshot
			o Show event details
			o Export contacts to device
			o Define out of office message in the email app
			o Unified calendar view
			o Anti-phishing protection for links in emails
			Corporate Browser
			· Must have a Corporate Browser feature for secure access to intranets or corporate websites.
			· Corporate Browser feature must have the following capabilities:
			o Browsing restricted to predefined corporate domains
			o Preconfigured corporate bookmarks
			o Password manager
			o Client or user certificates to authenticate against corporate websites
			o Root certificates
			o Restricted cut, copy, and paste
			Content Management

		<ul style="list-style-type: none"> <li>· Must have a containerized mobile Content Management app for iOS and Android that provides a secure way to manage, distribute, and edit business documents and view web content.</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must have the capability to edit Office format documents without leaving the container environment to ensure encrypted content remains secure.</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must be able to store documents securely with AES-256 encryption.</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must support the following storage providers:</li> </ul>		
		<ul style="list-style-type: none"> <li>o Dropbox</li> </ul>		
		<ul style="list-style-type: none"> <li>o Google Drive</li> </ul>		
		<ul style="list-style-type: none"> <li>o Microsoft OneDrive personal and business</li> </ul>		
		<ul style="list-style-type: none"> <li>o Box</li> </ul>		
		<ul style="list-style-type: none"> <li>o Telekom MagentaCloud</li> </ul>		
		<ul style="list-style-type: none"> <li>o Egnyte</li> </ul>		
		<ul style="list-style-type: none"> <li>o OwnCloud</li> </ul>		
		<ul style="list-style-type: none"> <li>o WebDAV (for example Windows Server, Strato Hi-Drive, etc.)</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must have the capability to control data leaving the container (e.g., restrict copy and paste, open with, etc.)</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must have the following capabilities:</li> </ul>		
		<ul style="list-style-type: none"> <li>o Geo-fencing / Time-fencing / Wi-Fi fencing</li> </ul>		
		<ul style="list-style-type: none"> <li>o Lock container access on non-compliant devices</li> </ul>		
		<ul style="list-style-type: none"> <li>o Request call home based on time or by unlocking count</li> </ul>		
		<ul style="list-style-type: none"> <li>o Edit or create Word, Excel, PowerPoint, and text format files</li> </ul>		
		<ul style="list-style-type: none"> <li>o Annotate PDF files</li> </ul>		
		<ul style="list-style-type: none"> <li>o Fill PDF forms</li> </ul>		
		<ul style="list-style-type: none"> <li>o View Sophos SafeGuard format password-protected HTML5 files</li> </ul>		
		<ul style="list-style-type: none"> <li>o Share documents as password-protected HTML5 files</li> </ul>		
		<ul style="list-style-type: none"> <li>o Anti-phishing protection for links in documents</li> </ul>		
		<ul style="list-style-type: none"> <li>o View with Secure Workspace access to encrypted documents from other apps</li> </ul>		
		<ul style="list-style-type: none"> <li>o Unlock app via a fingerprint reader</li> </ul>		
		<ul style="list-style-type: none"> <li>o View, manage and create Zip and 7z compressed archives</li> </ul>		
		<ul style="list-style-type: none"> <li>o Manage and store passwords securely using KeePass format</li> </ul>		
		<ul style="list-style-type: none"> <li>o Telecom Cost Control</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must have a Telecom Expense Management (TEM) feature that can monitor cellular data usage of individual devices.</li> </ul>		
		<ul style="list-style-type: none"> <li>· Must have the following capabilities:</li> </ul>		
		<ul style="list-style-type: none"> <li>o Disable data while roaming</li> </ul>		
		<ul style="list-style-type: none"> <li>o Disable voice while roaming</li> </ul>		
		<ul style="list-style-type: none"> <li>o Control sync while roaming</li> </ul>		
		<ul style="list-style-type: none"> <li>o Configure APN or Carrier settings</li> </ul>		
		<ul style="list-style-type: none"> <li>o Define data usage upper limit per device</li> </ul>		
		<ul style="list-style-type: none"> <li>o Compare data usage against limit</li> </ul>		
		<ul style="list-style-type: none"> <li>o Per app network usage rules</li> </ul>		
		<b>REQUIREMENTS FOR BIDDER</b>		
		Network Protection: The winning bidder must have at least 2 certified architects of the product being offered to ensure that the winning bidder is capable of implementing the project.		
		Endpoint Security and Server Protection: The winning bidder must have at least 4 certified architects of the product being offered to ensure that the winning bidder is capable of implementing the project.		
		Cloud Web Application Firewall: The winning bidder must have at least 4 certified technical professional of the product being offered		



			to ensure that the winning bidder is capable of implementing the project		
			The brand of the proposed solution/s must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<b>SUPPORT</b>		
			Maintenance and Support: 1 certified engineer, for 3 months upon implementation (on-site support)		
			<b>WARRANTY</b>		
			Network Protection: Based on Subscription		
			Endpoint Security and Server Protection: Based on Subscription		
			Cloud Web Application Firewall: 3 years		
			<b>TRAININGS</b>		
			Network and Endpoint Training with certification related to the solution		
			<b>IP TELEPHONY AND UNIFIED COMMUNICATIONS</b>		
			Must be an IP based extension protocol that allows Proprietary and/or 3rd party SIP based devices to be connected and used within the main system.		
			The breakdown of Telephony System and other Active Component on each site must be:		
			Main Office:		
<b>B2.23</b>	<b>2</b>	<b>units</b>	<b>IPPBX (Appliance) with ISDN port</b>		
			· Support E1 T1 J1 network		
			· Gigabit Network port with integrated POE+ support		
			· 1 Ghz quad core cortex A9 processor		
			· 1 GB RAM 32 GB Flash Memory		
			· Support 2000 Sip user account		
			· Integrated LDAP and XML phonebooks		
			· Quickly setup and provision endpoints using the Auto-Discovery and Zero Config feature within the product's web user interface		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
<b>B2.24</b>	<b>1</b>	<b>unit</b>	<b>High Availability</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			· Connects and constantly monitors two IPPBX together for high availability		

			<ul style="list-style-type: none"> <li>Smart failover solution that automatically switches to a hot-standby secondary IPPBX if the primary one fails</li> </ul>		
			<ul style="list-style-type: none"> <li>Up to 14 LED indicators showing real-time status of all of the telecom lines, network links, auxiliary devices, etc</li> </ul>		
			<ul style="list-style-type: none"> <li>Gratuitous ARP forces SIP endpoints to refresh the MAC address of the new IPPBX without interruptions</li> </ul>		
			<ul style="list-style-type: none"> <li>Fast 10 to 50 second system switching time depending on the number of registered endpoints</li> </ul>		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
<b>B2.25</b>	<b>9</b>	<b>units</b>	<b>Executive Phone</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<ul style="list-style-type: none"> <li>Supports 2 SIP accounts and 4 multi-purpose line keys</li> </ul>		
			<ul style="list-style-type: none"> <li>Includes built-in dual-band WiFi support</li> </ul>		
			<ul style="list-style-type: none"> <li>Swappable faceplate to allow for easy logo customization</li> </ul>		
			<ul style="list-style-type: none"> <li>HD audio supporting all major codecs, including wideband codecs G.722 and Opus</li> </ul>		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
<b>B2.26</b>	<b>17</b>	<b>units</b>	<b>Manager's Phone</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<ul style="list-style-type: none"> <li>8 lines, 8 dual-color line keys (with 4 SIP accounts), 4 XML programmable context sensitive soft keys</li> </ul>		
			<ul style="list-style-type: none"> <li>32 digitally programmable &amp; customizable BLF/fast dial keys</li> </ul>		
			<ul style="list-style-type: none"> <li>HD wideband audio, full duplex speakerphone with advanced acoustic echo cancellation</li> </ul>		
			<ul style="list-style-type: none"> <li>5-way audio conferencing for easy conference calls</li> </ul>		
			<ul style="list-style-type: none"> <li>Dual-switched Gigabit. integrated PoE</li> </ul>		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
<b>B2.27</b>	<b>1</b>	<b>unit</b>	<b>Operator Phone</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<ul style="list-style-type: none"> <li>4.3 inch (480X272) colored screen LCD</li> </ul>		

			<ul style="list-style-type: none"> <li>Support 4 lines 4 Sip account</li> </ul>		
			<ul style="list-style-type: none"> <li>Dual Gigabit ports with Integrated POE</li> </ul>		
			<ul style="list-style-type: none"> <li>Integrated Bluetooth for use with Bluetooth headset</li> </ul>		
			<ul style="list-style-type: none"> <li>HD audio speaker and handset</li> </ul>		
			The brand of the proposed solution must have at least 10 years of existence in the market.		
	<b>1</b>	<b>unit</b>	<b>Extension Module</b>		
			<ul style="list-style-type: none"> <li>128x384 Backlit LCD display</li> </ul>		
			<ul style="list-style-type: none"> <li>20 programmable dual-color buttons</li> </ul>		
			<ul style="list-style-type: none"> <li>2 pages per module for total of 40 contact</li> </ul>		
			<ul style="list-style-type: none"> <li>BLF (Busy Lamp Field) for speed dial</li> </ul>		
			<ul style="list-style-type: none"> <li>Daisy-chain up to 4 modules for up to 160 contacts/extensions</li> </ul>		
<b>B2.28</b>	<b>6</b>	<b>units</b>	<b>Conference Phone</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<ul style="list-style-type: none"> <li>6 lines, 6 SIP accounts, 7-way voice conferencing</li> </ul>		
			<ul style="list-style-type: none"> <li>Runs Android 4.4 and offers access to the Google Play Store</li> </ul>		
			<ul style="list-style-type: none"> <li>Bluetooth to support syncing of headsets and mobile devices</li> </ul>		
			<ul style="list-style-type: none"> <li>Built-in 7-way conference bridge</li> </ul>		
			<ul style="list-style-type: none"> <li>4.3" (800x480) capacitive touch screen for easy use</li> </ul>		
			<ul style="list-style-type: none"> <li>Auto-sensing Gigabit port, built-in PoE support</li> </ul>		
<b>B2.29</b>	<b>1</b>	<b>unit</b>	<b>E1/T1 Gateway</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<ul style="list-style-type: none"> <li>Software configurable E1/T1/ J1 ports, support PRI, SS7, MFC R2</li> </ul>		
			<ul style="list-style-type: none"> <li>Dual Gigabit auto- sensing RJ45 network ports with integrated NAT router</li> </ul>		

		<ul style="list-style-type: none"> <li>Supports a wide- range of voice codecs, including Opus, G.722, G.729, iLBC, and more</li> </ul>		
		<ul style="list-style-type: none"> <li>TLS and SRTP security encryption technology to protect calls and accounts</li> </ul>		
		<ul style="list-style-type: none"> <li>Automated provisioning by HTTP/TFTP with XML config files</li> </ul>		
		The brand of the proposed solution must have at least 10 years of existence in the market.		
		<ul style="list-style-type: none"> <li><b>Supports T.38 Fax for creating Fax-over-IP</b></li> </ul>		
		Must be a versatile system capable of handling at least 2,000 end points for flexible capacity requirements without having multiple management system.		
		The system must be capable of having an app-based mobile phone capable of connecting through internet and will be considered as local extensions. System should include this mobile app extension without requiring any license.		
		At any rate there shall be no system replacement (rip and replace) as the system upgrades and expands from a SOHO to SME to LE capacity configuration.		
		System Upgrade must be based on Rack and Stack technology (rack mountable) with direct Gigabit LAN connections.		
		Total networked site manifesting a single system image and single management portal		
		<ul style="list-style-type: none"> <li>At any rate, capacity and phase of the upgrade, the System must always be managed from a single system management interface.</li> </ul>		
		<ul style="list-style-type: none"> <li>All the system applications must be managed from only one admin portal interface.</li> </ul>		
		<ul style="list-style-type: none"> <li>The management portal is web based for easy access anywhere.</li> </ul>		
		<ul style="list-style-type: none"> <li>The management portal must be secure and provide different user access level.</li> </ul>		
		<ul style="list-style-type: none"> <li>The system must be capable of providing a paging system</li> </ul>		
		Non-hard disk-based processing allows for a longer Mean Time Before Failure (MTBF). The Dial-tone of the system should reside in the Solid State Technology and not on Hard disk based platform for more reliability and resiliency.		
		Must be Appliance base Data Rack Grade (19") mountable.		
		System is provided with a dual network/LAN connection and able to configure as Routing or switch mode function.		
		On the unavailability of commercial power, an analogue trunk is automatically relayed to a pre-designated analog extension		
		There should be no single point of failure for the system. There shall be no system backplanes and common highways that at any time may be a single point of failure.		
		The system should NOT utilize backplane technology or modular architecture to ensure no single point of failure.		
		In the need of back-up power supply, a system commercial power back up should be data center grade UPS and not vehicle type back up battery.		

		N+1 Redundancy design allows for a redundancy coverage of the whole system with just a single appliance without the need for a full 100% component duplication.		
		Appliance should support High Availability and Automatic failover (Hardware Base)		
		Main System even the Back up or redundancy units should not have licensed and make use of the primary system license to avoid double charging/ billing of unnecessary unused licenses.		
		The system must be capable of providing a paging system.		
		A built-in auto-attendant in the system avoids unnecessary use of external servers and unnecessary use of analog or ISDN or IP resources.		
		Built in auto-attendant must be capable of Multi level AVR		
		Must work with Active Directory or LDAP		
		IP Phones must have High Definition Audio Quality		
	Ls	<b>IP TELEPHONY PROVIDER (On Site Support 3 months for Server &amp; Storage)</b>		
		Must be represented by a Country Manager and/or a Technical engineer. Local Support with Certification for .		
		There must be existing installation/deployment in the Philippines on the following Scenario.		
		a. Single Network Deployment		
		b. Multi Site Deployment for Future Expansion		
		The Winning Bidder must Present Project Completion as supported documents on the following Deployment.		
		a. Single Office/Network Deployment		
		b. Multi Site Deployment for Future Expansion		
		The brand must be a seasoned player in the telephony industry and has undergone several telephony technologies.		
		<b>LICENSE</b>		
		There should be NO System licenses in all components/hardware regardless of site.		
		NO System licenses in using Peer/Registered SIP Trunk		
		From Main System to Remote Offices		
		NO System licenses in terms of (user licenses, trunk licenses, inter-pbx licenses, application licenses) should be one-time purchase/payment. No annual licenses to be renewed.		
		No Licenses should be required in all unified communications module if additional SIP Account / Extension will be added		
		<b>SCOPE OF WORK AND ACTIVITIES</b>		
		Setup and configuration of all hardware involved		
		Onsite Configuration Nationwide		
		-Main Office		
		Conduct Technical Training		

			"Telephony System Admin"		
			Conduct Orientation to User "Handset Functionality"		
			The bidder must be a Certified Partner for the product being offered		
			Certification issued by the Manufacturer of the proposed hardware endorsing the bidder to "Bid, Sell, Support and Maintain the product being offered".		
			<b>WARRANTY</b>		
			1 Year warranty for all IP telephony products including:		
			• Unified communication module		
			• IP Phones		
			• Operator Phones & Ext module		
			• E1/T1 Gateway		
			• Audio Conferencing device		
			<b>SUPPORT</b>		
			Maintenance and Support: 1 certified engineer, for 3 months upon implementation (on-site support)		
			<b>TRAININGS</b>		
			Official network certification training or any related network training		
			<b>HOST AND CLUSTERS</b>		
			Deployment		
			Solution could be deployed on;		
			- On Premises		
			- Cloud		
			<b>Data Access</b>		
			Solution does not charge for egress and ingress of data		
			No utilization charges		
			Hypervisor		
			Should be able to support the following hypervisors		
			- LXD		
			- KVM		
			Should be able to perform the following;		
			- Snapshot		
			- Lock and Unlock		

			- Suspend		
			- Stop		
			- Power Off		
			- Undeploy		
			- Reboot		
			- Reboot Hard		
			Marketplace		
			Should have a marketplace available		
			Imaging		
			Solution should support imaging and has the following features		
			- Clone		
			- Lock/Unlock		
			- Enable/Disable		
			- Delete		
			<b>USERS AND GROUPS</b>		
			User Management		
			User accounts within the system are managed by an admin or a group administrator using the web portal.		
			User Quotas		
			Solution should have a quota system tracks user and group usage of system resources and allows the system administrator to set limits on the usage of the resources.		
			Should be able to track and limit usage on		
			- Datastores		
			- Compute		
			- Network		
			- Images		
			Should be able to track the usage via web interface		
			Managing Groups		
			It is possible to isolate users and resources		
			A user can optionally see and use the shared resources from other users belonging to the same group		
			Can make the following virtual resources available to group users:		
			- Virtual Machine Templates		

			- Service Templates		
			- Images		
			- Files & Kernels		
			Managing Permissions		
			Solution can set permissions for the owner, users or in a group		
			<b>APPLIANCES</b>		
			Appliance Categories		
			Must be able to cater the following Windows operating systems		
			- Windows 10		
			- Windows Server 2012		
			- Windows Server 2016		
			- Windows Server 2019		
			Must be able to cater the following Linux operating systems		
			- Debian		
			- Ubuntu		
			- CentOS		
			- Fedora		
			- Devuan		
			- Alpine Linux		
			- OpenSUSE		
			- Ttylinux		
			- FreeBSD		
			Must be able to cater the following Linux operating systems for containers		
			- ubuntu_xenial-LXD		
			- ubuntu_bento-LXD		
			- debian_buster-LXD		
			- centos_7-LXD		
			- centos_8-LXD		
			-alpine_3.11-LXD		
			Opensource Appliances (GNU/Linux)		
			<b>TEMPLATES</b>		



		Template Accessibility		
		Allows admins to manage templates that can be accessed by the end user		
		General Properties		
		Solution should display the following;		
		- Name		
		- Memory		
		- CPU		
		- vCPU		
		Storage		
		Templates should be able to support disks;		
		- Persistent Image		
		- Non-Persistent Image		
		- Volatile		
		Networks		
		Templates should be able to define networks;		
		- Manual selection		
		- Automatic selection		
		Allows to have more than one IP on each network interface by defining a network interface alias		
		OS and CPU		
		Should be able to set the CPU Topology of a Template		
		Contextualization		
		Solution uses a method called contextualization to send information to the VM at boot time		
		Should be able to set several properties to the template		
		- User credentials		
		- SSH Public key authentication		
		- Startup Script		
		- Custom Networks		
		<b>IMAGE MANAGEMENT</b>		
		Image Types		
		Should be able to support the following image types;		
		- OS		

			- CDROM		
			- Datablock		
			Should be able to control how data is managed inside the image		
			Solution should be able to;		
			- Upload new images		
			- Clone Images		
			- Share Images		
			<b>VM MANAGEMENT</b>		
			VM Creation		
			Should be able to create VMs from scratch		
			Should be able to create VMs from an existing template		
			VM Accessibility		
			VMs should be able to be secured using SSH public keys		
			Windows-based VMs should be accessible via RDP		
			Linux-based VMs should be accessible via SSH		
			Solution should also provide an out-of-band connectivity to the VMs		
			VM Modification		
			Virtual Machines' specifications can be resized		
			Virtual Machine Disk can be added to an existing VM		
			CPU Topology can be modified		
			vNIC can be hot plugged to a running VM		
			VM Configuration can be locked to prevent unintended modifications		
			VM Migration		
			Should be able to do the following;		
			- Migration (VMs are shut down)		
			- Live Migration (VM state is preserved)		
			Scheduled Actions		
			Solution can set certain actions during the lifecycle of the Virtual Machine;		
			- Punctual Actions		
			- Relative Actions		
			<b>VM GROUPS</b>		

		Group Definition	
		Should consist of the following;	
		- Roles	
		- Placement Constraints for the roles	
		Can specify a set of hosts where the VMs of a role can be allocated	
		Can specify whether the VMs of a role have to be placed together or separately	
		Can specify whether VMs of a role have to be placed together or separately	
		<b>VIRTUAL NETWORK</b>	
		Networks	
		Should use at least 3 networks	
		- Management Network (used by solution's Services)	
		- Client Network (Private IPs)	
		- Public Network (contains public IPs)	
		Features	
		Should be able to leverage the following features;	
		- High Availability (optional)	
		- OpenVPN based client VPNs with unlimited clients	
		- IPSEC based S2S VPNs	
		- Automatic renewal of SSL certificates for orchestrator web portal	
		- Masquerading for Private IPs	
		Virtual Network Types	
		Should have the following capabilities;	
		- Bridged	
		- Bridged with Security Groups	
		- Bridged with VLAN	
		Virtual Network Configuration	
		Should be able to add and modify virtual networks	
		Can set manual VLAN IDs and Hardware IDs	
		Can set limits to a virtual network so every VM connected to this Virtual network will be individually capped and for both inbound and outbound traffic	
		Should be also able to modify the configurations via Contexts	

			<b>NETWORK FUNCTIONS VIRTUALIZATION</b>		
			Security Features		
			Should include security features but not limited to the following;		
			- S2S VPN		
			- L7 Load Balancing		
			- Masquerading		
			- VPN		
			- SD-WAN		
			Management		
			Should be deployed and managed like a Virtual Router in the Solution		
			Should be a virtual appliance and obtainable in the solution's marketplace		
			Can be deployed as a standalone virtual appliance		
			Should be accessible via SSH and OOB in the solution's console		
<b>B</b>		<b>Ls</b>	<b>PROFESSIONAL SERVICES, PROJECT MANAGEMENT AND IMPLEMENTATION SERVICES</b>		

<b>SUPPLY, DELIVERY AND INSTALLATION OF AUDIO-VISUAL EQUIPMENT</b>					
<b>B3.1</b>	<b>10</b>	<b>Nos</b>	<b>SMART LED TV 50"</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			Dimensions: 24.8 x 95.6 x 64.6 cm		
			Resolution: 3840 x 2160		
			X4 Master Engine Pro II		
			Direct LED		
			4K HDR		
			YouTube / Netflix		
			Google Assistant		
			Auto POver: 10W + 10W		
			Original Surround		
			3 HDMI Ports		

			2 USB Ports		
			Bluetooth		
			Built-in Wi-Fi		
			Wireless LAN		
			Ethernet LAN		
			Wattage: 88 watts		
			Voltage: 110-220 Volts		
			<b>2 Year Manufacturers Warranty</b>		
<b>B3.2</b>	<b>30</b>	<b>Nos</b>	<b>SMART LED TV 65"</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			Weight: 21.81 kg		
			Dimensions: 28.19 x 144.034 x 87.12 cm		
			PICTURE		
			QLED Technology with 100% Color Volume		
			Real 4K Resolution		
			Quantum Processor Lite with 4K Upscaling		
			Quantum HDR		
			Supreme UHD Dimming		
			Dual LED		
			SOUND		
			Virtual Object Tracking Sound		
			Adaptive Sound		
			Q-Symphony Lite		
			SMART		
			Smart TV		
			Bixby on TV		
			Ambient Mode		
			Multi View		
			Tap View		
			SmartThings App Support		
			Google Duo App		
			STYLE		
			3-Side Bezel Less Design		
			Stylish Slim Design (Air Slim)		

			OTHERS		
			Super Ultrawide Gameview		
			Gamebar		
			Native Refresh Rate (60hz)		
			Wireless LAN Built-In (WiFi)		
			HDMI (3 ports)		
			USB (1 port)		
			<b>2 Year Manufacturer Warranty</b>		
<b>B3.3</b>	<b>10</b>	<b>Nos</b>	<b>SMART LED TV 43"</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			Weight: 7.2 kg		
			Dimensions: 21.64 x 96.66 x 61.9 cm		
			HIGH QUALITY PICTURE & SOUND		
			4K HDR		
			4K Colour Engine		
			Hexa Chroma Drive		
			HDR 10 + Signal Support		
			HDR 10		
			Super Bright Panel		
			Backlight Dimming		
			dbx-tv		
			SMART FEATURES		
			Android TV – P / 9.0		
			Google Assistant built-in		
			Chromecast built-in		
			Bluetooth Audio Link		
			Internet Apps		
			Media Player		
			USB HDD Recording		
			Wireless LAN Built-In		
			Bluetooth® 4.2 (2 ways) (Audio/Game Pad/Headphone)		
			3 HDMI Terminals (HDMI2.1[ARC, ALLM])		
			2 USB Terminals		
			Hbb TV		
			DDR Memory – 2.0 GB		
			Flash Memory – 16.0 GB		

			<b>2 Years Manufacturer Warranty</b>		
<b>B3.4</b>	<b>10</b>	<b>Nos</b>	<b>SMART LED TV 32"</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			Weight: 3.45 kg		
			Dimensions: 7.31 x 48.1 x 18.22 cm		
			<b>SYSTEM</b>		
			Operating System: Google Android 8.0 Oreo		
			Random Access Memory: 1.5GB		
			Internal Memory: 8GB		
			Graphics Processing Unit/GPU: Mali470 Dual Core		
			Total CPU Cores: Hexa Core		
			<b>PICTURE</b>		
			Dynamic Contrast (DCC): ff/ECO/Brightness+		
			Natural Light Technology		
			Backlight Adjustable		
			Picture Mode: Standard/Smart HDR/Sport/Movie/Dynamic		
			Dynamic Noise Reduction: Low, Middle, High, Auto, Off		
			Adaptive Deinterlacing		
			<b>PANEL SPECIFICATION</b>		
			Backlight Unit: Direct LED		
			Display Resolution: 1366 x 768		
			Viewing Angle: 178°/178°		
			Color: 16.7 Million 8(bit)		
			Refresh Rate: 60Hz		
			<b>SOUND</b>		
			Speakers: Integrated Speaker Box (Bottom Side)		
			Audio Power Output: 5W x 2		
			Smart Volume		
			Smart Sound: Standard/Movie/Music/Voice/Game/Stadium/Personal		
			Sound Control: 5 Band Adjustable Frequency		
			Dolby Audio: Yes (MS12 config D)		
			Sound Features: Desk top/Wall mount (Dolby Audio)		

			BASIC INFORMATION		
			AV System: PAL, NTSC		
			Power Supply: AC 200V-240V 50/60Hz		
			Power Consumption-TV on: 50W		
			Power Consumption-Standby: <0.5W		
			<b>2 Years Manufacturer Warranty</b>		
<b>B3.5</b>	<b>1</b>	<b>Lot</b>	<b>TV ACCESSORIES</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			3D Glasses		
			Evolution Kit		
			Floor Stand		
			TV Wall Mount Bracket		
			HDMI Cable		
			Invisible Connection		
			Remote Controller		
			TV Camera		
			Customizable Frame		
			USB Power Cable		
			Remote Control Holder		
			Electronics TV Cable Organizer		
			<b>12 months Manufacturer Warranty</b>		
<b>B3.6</b>	<b>20</b>	<b>Set</b>	<b>AUDIO SYSTEM</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			System - 3Way 5Speaker		
			Tweeter Unit - 2"x2		
			Mid Unit: 3"x2		
			Woofer Unit - 8"		
			Impedance (TW/Mid/Woofer) - 8Ω / 4Ω / 6Ω		
			USB (2 input)		
			Optical input		
			Guitar input - 1EA (Φ6.3)		



			Mic input - 1EA (Φ6.3)		
			Bluetooth (4.0)		
			<b>12 months Manufacturer Warranty</b>		
<b>B3.7</b>	<b>30</b>	<b>Set</b>	<b>BROADCAST SYSTEM</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			2/3/4G wireless IP network		
			Playback format: MP3		
			Transmission mode: TCP/IP/UPD/SIP		
			Input: RJ45		
			Application Fields: Radio Station Fm Transmitter		
			Function: Remote Audio		
			Output Power: 10-2000W		
			Support: Multiple IP Audio		
			Certification: ISO		
			<b>12 months Manufacturer Warranty</b>		
<b>B3.8</b>	<b>20</b>	<b>Set</b>	<b>AV INTEGRATION UNIT</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			(2) RJ-45 ports, allowing for connection to other discussion system components		
			(7) Euroblock connectors for audio and control options		
			(6) Euroblock connectors for LED power and general-purpose input/output (GPIO)		
			includes a mic input, speaker output, headphone output, control input (Talk On, Vol. Up, Vol. Down, Channel Select), LED status output, and GPIO		

			plug-and-play functionality		
			24-bit/48k - Hz uncompressed digital audio for natural-sounding voice reproduction		
			12-band feedback suppressor that enables higher volume levels		
			Dynamic Range: 106 d - B, A-weighted - Frequency Response: 20 Hz to 20 k - Hz (+1.0, -2.0 d - B)		
			Audio Sampling: 24-bit / 48 kHzSignal-to-Noise: 86 d - B, A-weighted - Headroom: 20 d - B		
			Phantom Power: DC +48 V		
			Power Requirement: DC +48 V		
			Power Consumption: 3.4 W		
			Operation Temperature: 32 °F to 104 °F (0 °C to 40 °C)		
			Operation Humidity: 25% - 85%		
			Dimensions (W x H x D): 4.57" x 0.98" x 6.81" (116 x 25 x 173mm)		
			Net Weight: 16.2 oz. (460 g)		
			Connectors:2x RJ-4539-pin		
			<b>12 months Manufacturer Warranty</b>		
<b>B3.9</b>	<b>40</b>	<b>Set</b>	<b>WHITE BOARD</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Product Type: Whiteboard - wall mountable		
			Size: 72 in x 48 in		
			Surface: Melamine		
			Frame Color: Aluminum		
			Frame Material: Aluminum		
			Features: Dry erase, scratch-resistant, stain-resistant, ghosting-resistant, Interlocking Fastener System, Command Picture Hanging Strips, Magnetic		
<b>B3.10</b>	<b>30</b>	<b>Set</b>	<b>SILVER SCREEN FOR PROJECTOR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Product Type: Projection screen - motorized		
			Placing / Mounting: Ceiling mountable, wall mountable		

			Package Content: Wall control switch, mounting hardware		
			Image Diagonal Size: 120" (120.1 in)		
			Image Width: 105 in		
			Image Height: 59 in		
			Screen Surface: MaxWhite FG		
			Aspect Ratio: 16:09		
			Gain: 1.1x		
			Viewing Angle: 160°		
			Features: Mildew-resistant, washable, black backing, flame retardant, fiberglass backing, tubular motor		
			Miscellaneous:		
			Features: Moisture-resistant, aluminum enclosure		
			Compliant Standards: Plug and Play, GOST, CB, FCC, ETL, GREENGUARD, ISO 9001:2008, NFPA 701		
			<b>12 months Manufacturer Warranty</b>		
<b>B3.11</b>	<b>30</b>	<b>Set</b>	<b>WIRELESS PROJECTOR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be a Gold Partner of the Brand offered as solution to the requirement		
			Exceptional image quality		
			Horizontal and Vertical Keystone correction		
			Lightweight & ultra-slim form factor		
			Free iProjection app		
			Split screen capability		
			Projection Technology: RGB liquid crystal shutter projection system		
			Brightness*2:		
			White Light Output (Normal): 3,000lm		
			Colour Light Output: (Normal / Eco): 3,000lm / 1,900lm		
			Connectivity:		
			Network: Wireless LAN; In-built		
			Analog Input: D-Sub 15 pin; 1(Blue) Composite; RCA x 1		

		Digital Input: HDMI; 1(MHL)
		Audio Input: Stereo Mini Jack: 1
		Network I/O: USB Type A: 1 (For USB memory, USB Document Camera, Firmware Update) USB Type B: 1 (For USB Display, mouse, K/B, Control, Firmware update)
		Contrast Ratio:
		Auto Iris: 10,000:1
		Wireless Specifications:
		Supported Speed for Each Mode: IEEE 802.11b: 11 Mbps; IEEE 802.11g: 54 Mbps; IEEE 802.11n: 130 Mbps
		Wireless LAN Security: Quick Mode: WPA2-PSK; Advanced Mode: WPA2-PSK, WPA/WPA2-PSK
		Supported Connection Mode: Infrastructure, Access Point
		Screen Size (Projected Distance):
		Standard Size: 60" screen 1.35 – 1.62m
		Zoom : Wide:30" – 300" (0.67 – 6.81m)
		Zoom : Tele:30" – 300" (0.80 – 8.18m)
		Operating Temperature:
		Operating Temperature:5°C – 40°C < 41°F - 104°F> (0 m / 0 ft to 2,286m / 7,500ft)
		5°C – 35°C < 41°F - 95°F> (over 2,286m / 7,500ft) (20% – 80% humidity, No condensation)
		Operating Altitude:
		Operating Altitude:0m – 3,000m (0ft – 9,843 ft) (over 1,500m / 4,921ft: with high altitude mode)
		Start-Up Period:
		Start-Up Period:About 7.2 seconds, Warm-up period: 30 seconds
		Cool Down Period:
		Cool Down Period:Instant off
		Internal Speaker(s):
		Sound Output:Monaural: 1W X 1
		Direct Power On/Off:
		Direct Power On/Off:Yes/Yes
		Dimension Excluding Feet (W x H x D):
		Dimension Excluding Feet (W x H x D):292mm x 44mm x 213mm
		Fan Noise:
		Fan Noise (Normal / Eco):39 dB / 30dB

			<b>3 years Manufacturer Warranty</b>		
<b>B3.12</b>	<b>1</b>	<b>Ls</b>	<b>AUDIO VISUAL ACCESSORIES</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			adapters/cables		
			charging stations		
			cursors		
			ear pad covers for headphones		
			iPad accessories		
			keyboards for computers or laptops		
			replacement cords		
			timers		
			utility cart marts		

## 1. Technical Specification for Lot C

Bidders must indicate whether the goods and equipment offered are “Compliant” or “Non-Compliant” to the corresponding specifications prescribed by BCDA using this form.

SUPPLY, DELIVERY AND INSTALLATION OF GOODS AND EQUIPMENT FOR THE NATIONAL ACADEMY OF SPORTS (NAS) - PHASE 1 AT NEW CLARK CITY					
TECHNICAL SPECIFICATIONS COMPLIANCE FORM					
LOT	ITEMS	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant
<b>SUPPLY, DELIVERY AND INSTALLATION OF SPORTS EQUIPMENT</b>					
<b>BASKETBALL &amp; VOLLEYBALL</b>					
C1.1	1	pair	<b>BASKETBALL BACKSTOP</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			Complete portable backstop		
			325 cm projection		
			spring assisted mechanism with DSF 1-step setup system		
			Tempered glass backboard (FIBA Dimensions)		
			180 degree multi directional breakaway ring		
			anti-whip net		
			safety padding to front, siders and backboard and neck		
			floor connector set and floor hook		
			FIBA World Cup standards		
			FIBA Approved		
			<b>Limited Warranty: 25 years</b>		
C1.2	1	Set	<b>Basketball scoreboard with controller</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			Transmission: Radio (868 MHz) wireless		

			Readability: 110m, angle > 160 deg		
			Dimensions: 3100mm x 1150mm, 90mm thick		
			Weight: 57kg		
			Power Suply: 230V, 50-60Hz		
			Score: 2 x3 Red LED Digits (25cm); Period: 1 Green LED Digits (20cm)		
			Ball Possession: 2 Red LED Arrows		
			Timer/Rest Period: 4 White LED Digits (25cm) + Blinking points		
			Team Foul: 2x3 Yellow LED Digits (20cm)		
			Timeout: 2x3 Green LED Digits		
			FIBA Approved		
			<b>Limited Warranty: 5 years</b>		
<b>C1.3</b>	<b>1</b>	<b>pair</b>	<b>Basketball shotclock with controller</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			Digit Height: 25cm and 16cm		
			2 display unites with integrated horn		
			main timer repeater (4 Yellow LED Digits) + shotclock countdown (2 red LED digits)		
			transmission radio-operated, must match the digital scoreboard		
			installation behind basketball backcourt (with supplied brackets)		
			brackets included		
			FIBA Approved		
			<b>Limited Warranty: 5 years</b>		
<b>C1.4</b>	<b>6</b>	<b>Nos</b>	<b>Tabletop Scoreboard (digital)</b>		

			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			Readability: 35m		
			Max Digits height: 9cm		
			Weight: 5.5 kg		
			High Brightness SMD LED		
			Angle view: 160 deg		
			Power Suply: 230V (mains or battery)		
			<b>Limited Warranty: 5 years</b>		
<b>C1.5</b>	<b>1</b>	<b>Set</b>	<b>Professional Volleyball set</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			official volleyball uprights: weight: 44kg/pair		
			official safety pads, weight: 6.8kg/set		
			official referee stand, weight: 80kg/set		
			ground sleeves: weight: 7kg/pair		
			antennae pocket,weight: 0.3kg/pair		
			official volleyball net: weight: 5kg/pc		
			official volleyball antennae: 1kg/pair		



			with official FIVB Net		
			<b>Warranty: 12 months</b>		
			The brand of the proposed solution must have at least 5 years of existence in the market.		
<b>C1.6</b>	<b>2</b>	<b>Nos</b>	<b>Long table</b>		
			metal legs		
			foldadable		
			2.4 meters long x 0.6 meter		
			<b>Warranty: 12 months</b>		
<b>C1.7</b>	<b>8</b>	<b>Nos</b>	<b>Sports Team Benches</b>		
			Luxury comfortable leather seats		
			High grade aluminium material		
			Electrostatic epoxy powder painting, environmental protection, anti-acid, anti-wet		
			Professional competition, training, sports center, gymnasium, community, club, univerties, school etc.		
			12 seat capacity		
			<b>Warranty: 12 months</b>		
<b>HANDBALL / FUTSAL</b>					
<b>C1.8</b>	<b>1</b>	<b>pair</b>	<b>HANDBALL GOAL</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			IHF Approved		
			freestanding		

			Tecton, 300 x 200cm		
			aluminum square posts and crossbar 80 x 80mm		
			wall thickness 2mm		
			rounded corners, slide profile with net hooks		
			bottom posts filled with plastic floor protectors		
			foldable net supports for freehanging net suspension and fixed collapsable floor bracket		
			net support depth 100cm at the top, 150cm at the bottom		
			knocked down for site assembly		
			<b>Warranty: 12 months</b>		

**BADMINTON**

<b>C1.9</b>	<b>5</b>	<b>Sets</b>	<b>MOVABLE BADMINTON POST AND NET</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			BWF Approved		
			the post is seamless steel pipe, the base is solid steel		
			weight: 180kg		
			height: 155cm		
			Post diameter: 4.2cm		
			Base: 53cmx33cmx20.5cm		
			Net spcification: 6.10mx0.76m(BWF Standard)		
			Mesh size: 1.8cmx1.8cm		

			Material:Nylon		
			<b>Warranty: 12 months</b>		
			The brand of the proposed solution must have at least 5 years of existence in the market.		
<b>C1.10</b>	<b>5</b>	<b>Nos</b>	<b>BADMINTON UMPIRE CHAIR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			LxWxHtxSeat hight: 1000x800x1850x1530mm		
			comprised of three parts: base, supports and seats		
			high quality square pipe welding		
			<b>Warranty: 12 months</b>		
<b>C1.11</b>	<b>5</b>	<b>Nos</b>	<b>BADMINTON SCOREBOARD</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			WXH - 600x2000 mm		
			consists of base, post and flip type score card		
			<b>Warranty: 12 months</b>		
<b>C1.12</b>	<b>5</b>	<b>Nos</b>	<b>BADMINTON FEEDER</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			10mph - 90mph speed		
			1.2 - 1.4sec per shuttle		

			200 shuttlecock capacity		
			capable of multiple badminton strokes		
			58x53x49cm		
			<b>Warranty: 2 years</b>		
			The brand of the proposed solution must have at least 5 years of existence in the market.		

**GYMNASTICS**

<b>C1.13</b>	<b>2</b>	<b>Set</b>	<b>Balance Beam for Training (adjustable)</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			length 500cm, top width is 10cm, and height is 16cm, covered with special fiber leather and hygroscopic material for better damping effect		
			height adjustment scope is 70cm-125cm,with each increment of 5cm		
			The metal part of the brackets is welded with oval tubes for safety and stability.		
			features: special rubber damping system increases overall flexibility of the beam, the handle can quickly adjust height of beam, fast and solid locking, and foam end block to maximize the protection of athletes from injury		
			it consists of beam and main legs		
			<b>Warranty: 5 years</b>		
<b>C1.14</b>	<b>1</b>	<b>Set</b>	<b>TRAMPOLINE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			main frame welded by special oval tube if 6.5cmx3.5cm. The size is 520cmx305cmx115cm		
			mesh size is 426cmx213cm and the material is nylon		
			spring part is 8 large springs and 110 middle springs		
			spring part is equipped with special protective pad		
			size of auxilliary bed is 175cmx260cmx115cm		
			suited for professional competition and training		
			<b>Warranty: 10 years</b>		

<b>C1.15</b>	<b>2</b>	<b>Nos</b>	<b>CHALK STAND</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			specification: 90cm		
			material: the bottom seat is stamped and formed from a high quality metal plate		
			powder box body is molded by glass fiber reinforced plastic at high temperature		
			<b>Warranty: 12 months</b>		
			<b>TABLE TENNIS</b>		
<b>C1.16</b>	<b>4</b>	<b>Nos</b>	<b>SCOREBOARD FOR TABLE TENNIS</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			bench type, mainly consists of frame and scoreboard.		
			frame of the scoreboard us made with plastic parts.		
			scorekeeper is made with dark blue PVC board, divided into 2 groups		
			52 pcs for each group		
			<b>Warranty: 12 months</b>		
<b>C1.17</b>	<b>4</b>	<b>Nos</b>	<b>TABLE TENNIS BALL FEEDER</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			holds 100 balls and shoots 90 balls per minute		
			wireless remote control		
			memory, frequency +/-, oscillation +/-, topspin +/-, backspin +/-		

			dimensions 19 x 11 inches		
			compatible with all standard size table tennis tables		
			<b>Warranty: 2 years</b>		
<b>C1.18</b>	<b>60</b>	<b>Nos</b>	<b>TABLE TENNIS COURT FENCE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			length 1.4mx0.75m		
			(30pcs/court)(7mx14m)		
			<b>Warranty: 12 months</b>		
<b>C1.19</b>	<b>6</b>	<b>Nos</b>	<b>TABLE TENNIS TABLE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			special 25mm competition tabletop. Playing surface in latest coating technique for even ball bounce		
			metal frame - 50mm		
			transport system-4 wheels on each half		
			stable, powder-coated metal undercarriage		
			double anti-tilting device		
			low storage soace		
			foldable		
			ITTF Standards		
			<b>Warranty: 5 years</b>		
<b>C1.20</b>	<b>6</b>	<b>Sets</b>	<b>TABLE TENNIS NET AND POST</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			micro vertical adjustment system		

			solid metal body		
			large 14mm mounting screws, allow the net to be easily and securely mounted to the table for use		
			net is made of cotton-steel yarn for long-lasting qualities		
			ITTF Standards		
			<b>Warranty: 12 months</b>		
<b>ATHLETICS</b>					
<b>C1.21</b>	<b>30</b>	<b>Nos</b>	<b>COMPETITION HURDLES</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The proposed solution is manufactured by an ISF recognized company		
			manufactured from high-grade aluminum profiles,		
			wooden upper crossbars are made of high quality, durable and extremely flexible wood.		
			extension is made of square pipe with internal counterweights		
			weight is moved depending on height by means of star knob screw		
			height adjustment by pressure springs according to regulations in 6 heights: approx. 1.067m - 0.991m - 0.914m - 0.838m - 0.762m and 0.685m		
			upper crossbar: top quality wood, 70x15mm.		
			suitable for all competitions		
			<b>Warranty: 5 years</b>		
<b>C1.22</b>	<b>8</b>	<b>Nos</b>	<b>STARTING BLOCK</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		

			The proposed solution is manufactured by an ISF recognized company		
			made of aluminum		
			parts are extruded.		
			block is fixed to the ground with spikes		
			the steps are covered with rubber and are height adjustable		
			IAAF certified		
			<b>Warranty: 5 years</b>		

**WEIGHTLIFTING**

<b>C1.23</b>	<b>4</b>	<b>Nos</b>	<b>High-power Treadmill (regular commercial treadmill)</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Assembled Dimensions (LxWxH): 82" x 36" x56"		
			Weight: 193kg (425lbs)		
			Max User Weight: 400lbs (181kg)		
			Belt: Seigling E8 multi-ply polyester belt		
			Running surface width: 22"		
			Motor: 4hp (8.0hp Peak) AC motor		
			Speed Range (mph): 0.5 - 14mph (0.8 - 23 km/h) in 0.1 increments		
			Step Up Height: 8"		
			Hadrails: 16"		
			Incline: 15%		



			Rollers: 3.5 inch / 9 centimeter diameter, precision-crowned, front and back		
			Contact heart rate: Yes		
			Telemetry: Yes		
			Lower Side Rail material: Plastic		
			End caps: Plastic		
			Console: LED Display, membrane buttons, optional attachable TV, 4 numbers of workout, displays Speed Time Distance HR Calories Incline Resistance		
			<b>Warranty:</b> <b>Drive Motor: 30 years</b> <b>Parts Electrical Wear Items Cosmetics: 5-10 years</b> <b>Labor Parts Motor Cosmetics: 2 years</b>		
<b>C1.24</b>	<b>2</b>	<b>Nos</b>	<b>MANUAL CURVED TREADMILL</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Weight: 280lb/127kg;		
			Length: 69.9in/177.5 cm		
			Width: 32.8in/83.3cm		
			Height: 64in/162.6cm		
			Max User Weight: 350 lb / 158.8 kg		
			Steel Frame & Handrails + Corrosion-resistant Hardware		
			Motor-free treadmill / indoor running machine		
			Built-in handle and transport wheels		
			Uses no electricity - low carbon foot print		
			<b>Warranty: 5 years</b>		
<b>C1.25</b>	<b>3</b>	<b>Nos</b>	<b>INDOOR CYCLING BIKE</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		

			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Height: 47.2" (120cm)		
			Length: 52" (132cm)		
			Weight: 112lbs (51kg)		
			Max User Weight: 330lbs (150kg)		
			Frame: Steel		
			Pedals: Dual-sided SPD & toe cage		
			Handlebar Design: Ergo-formed, multi position, soft PVC w/vertical & horizontal adjustments		
			Saddle: Unisex padded sport saddle w/vertical & horizontal adjustments		
			Accessory Holder: Dual, integrated on handlebar		
			Transport Wheels: Yes, 3		
			Drive System: Poly-V belt		
			Resistance System: Magnetic Via Lever		
			Flywheel: Rear, aluminum, evenly-weighted		
			Q-Factor: 155mm/ 6.2		
			<b>Warranty:</b> <b>Frame: 15 years</b> <b>Carbon Drive Belt: 10 years</b> <b>Mechanical Systems: 3 years</b> <b>Electronics: 1 year</b> <b>Wear Items (Saddle and Pedals): 6 months</b>		
<b>C1.26</b>	<b>3</b>	<b>Nos</b>	<b>AIR POWERED FUNCTIONAL TRAINER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Width: 96"		

			Depth: 31"		
			Weight: 143lbs (65kg)		
			Height Arms up: 101"		
			Resistance/Handle: 50lbs (22kg)		
			Cable length- both handles together: 70" / 1778 mm		
			Cable length- single handle: 140" / 3556 mm		
			<b>Warranty: 5 years</b>		
<b>C1.27</b>	<b>3</b>	<b>Nos</b>	<b>FUNCTIONAL TRAINER ACCESSORIES</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Lat/Back Strap: 2' long from handles to d-ring 4' from handle to handle		
			Ankle Cinch Strap: 4 1/2" wide nylon and thick neoprene padding, with a steel D-ring to accomodate up to a 44" waist		
			Chop Bar: 3', made of a knurled lightweight Aluminum tubing		
			Thigh Cinch Strap: made of 4 1/2" wide nylon and thick neoprene padding		
			Resistance/Handle: 50lbs (22kg)		
			Triceps Rope: 3' long x 1" diameter PolyPropylene rope		
			<b>Warranty: 2 years</b>		
<b>C1.28</b>	<b>1</b>	<b>Nos</b>	<b>COMPRESSOR</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Quiet 220V 50H-BLK		
			Supports 6 machines International Electric System		
			<b>Warranty: 3 years</b>		
<b>C1.29</b>	<b>1</b>	<b>Nos</b>	<b>BASE JAMMER</b>		
			<b>Qualification of the Bidder</b>		

			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 79" x 66" x 83" (202 cm x 167 cm x 212 cm)		
			Machine Weight: 370 lb (168 kg)		
			Starting Resistance:8 lbs (3.6 kg)		
			Standard Weight Horns: 6		
			Max User Weight: 300 lb (136 kg)		
			Frame Description: 11-gauge steel frame ensures maximum structural integrity; Each frame receives an electrostatic powder coat finish to ensure maximum adhesion and durability		
			<b>Warranty: 5 years</b>		
<b>C1.30</b>	<b>4</b>	<b>Nos</b>	<b>ATHELETIC POWER RACK</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 76.8" x 65.5" x 97.5" (195.1cm x 166cm x 248cm)		
			Machine Weight: 515lb (234kg)		
			Max User Weight: 350lb (159kg)		
			Max Training Weight: 675lb (306kg)		
			<b>Warranty: 5 years</b>		
<b>C1.31</b>	<b>4</b>	<b>Nos</b>	<b>WEIGHTLIFTING PLATFORM</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			For serious weight training facility		
			Platforms clearly define training areas		
			offer stable training surface		

			protect existing flooring and help to dampen sound		
			Insert size varies by rack; 8cm thickness for outstanding durability and reduced noise		
			Steel tube side frames and gusseted corners provide structural integrity and a finished look		
			<b>Warranty: 2 years</b>		
<b>C1.32</b>	<b>4</b>	<b>Nos</b>	<b>MULTI-ADJUSTABLE BENCH</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 53" x 32" x 45"		
			Machine Weight: 125 lbs (57 kg)		
			Vertical height from floor to Seat Pad: 17" (43.2 cm) at the flat position		
			Seat Pad Size (at the widest point of the contoured sides): 11" x 17" (27.9 x 43.2 cm)		
			Back Pad Size (at the widest point of the contoured sides): 11" x 32" (27.9 x 81.3 cm)		
			Max User Weight: 500 lbs (227 kg)		
			Adjustments: Spring assisted seat adjustments		
			<b>Warranty: 2 years</b>		
<b>C1.33</b>	<b>2</b>	<b>Nos</b>	<b>FLAT OLYMPIC BENCH WITH WEIGHT STORAGE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 49" x 51" x 51"		
			Machine Weight: 150 lbs (68 kg)		
			Vertical height from floor to Seat Pad: 17" (43.2 cm) at the flat position		
			Vertical height from floor to Top Bar Support: 38.5" (97.8cm)		
			Vertical height from floor to Bottom Bar Support; 32" (81.3 cm)		
			Head Pad Size (at the widest point of the contoured sides): 10" x 9" (25.4 x 22.8 cm)		
			Back Pad Size (at the widest point of the contoured sides): 11" x 36" (27.9 x 91.4 cm)		

			Max User Weight: 500 lbs (227 kg)		
			<b>Warranty: 5 years</b>		
<b>C1.34</b>	<b>2</b>	<b>Sets</b>	<b>RUBBER DUMBBELL SET WITH URETHANE HANDLES AND RETURN RACK</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			2.5kg-25kg		
			(2.5kg increments) / 10 pairs		
			Weight 275kg total with rack		
			<b>Warranty: 5 years</b>		
<b>C1.35</b>	<b>1</b>	<b>Nos</b>	<b>PLATE-LOADED ISO LATERAL SHOULDER PRESS MACHINE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 52" x 60" x 73"		
			Standard Weight horns: 8		
			Machine Weight: 350 lb (158.8 kg)		
			Starting Resistance: 10lbs (4.5kg) per workarm		
			Frame Description: 11-gauge steel frame ensures maximum structural integrity: each frame receives an electrostatic powder coat finish to ensure maximum adhesion and durability		
			Separate weight horns engage independent diverging motions for equal strength development and muscle stimulation variety		
			The Back pad is angled 40 degrees for stabilization and to eliminate hyperextension of the spine		
			<b>Warranty: 5 years</b>		
<b>C1.36</b>	<b>1</b>	<b>Nos</b>	<b>PLATE-LOADED ISO LATERAL WIDE CHEST</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H) 77" x 45" x 75"		
			Machine Weight: 305 lb (138.3 kg)		

			Frame Description: 11-gauge steel frame ensures maximum structural integrity		
			Each frame receives an electrostatic powder coat finish to ensure maximum adhesion and durability		
			Starting Resistance: 2lbs (.09kg)		
			Separate weight horns engage independent diverging and converging motions for equal development and muscle stimulation variety		
			Machine offers a higher degree of converging motion and the decline press and accommodates larger exerciser		
			<b>Warranty: 5 years</b>		
<b>C1.37</b>	<b>1</b>	<b>Nos</b>	<b>ADJUSTABLE PULLEY OUTRIGGER</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Assembled Dimensions: 28.5 in x 142 in x 94 in (73 cm x 361 cm x 239 cm)		
			Weight: 720 lbs (327 kg)		
			Weight in stack: 190lbs (95kg)		
			Cables: 7x19 strand construction, lubricated, nylon-coated cable meets U.S. military specifications		
			Cushioning: Contoured cushions utilize a molded foam for superior comfort and durability		
			Frame Description: 11-gauge steel frame ensures maximum structural integrity; Standard rubber feet protect base of the frame and prevent the machine from slipping; Each frame receives an electrostatic powder coat finish to ensure maximum adhesion and durability		
			Hand Grips: Grips retained with aluminum collars, preventing them from slipping during use; Hand grips are a durable urethane composite		
			Instructional Placards: Easy-to-follow instructions illustrate proper use and muscles trained		
			Pulleys: 4-1/2" (11 cm) and 6" (15 cm) diameter fiberglass-impregnated nylon pulleys feature sealed bearings		
			Weight Plates And Guide Rods: 7/16" (11 mm) diameter weight selector pin magnetically locks in place and is connected to stack to prevent loss; Solid-steel weight plates. Top weight plate is fitted with self-lubricating bushings		

			<b>Warranty: 5 years</b>		
<b>C1.38</b>	<b>1</b>	<b>Nos</b>	<b>HIP AND GLUTE MACHINE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 65" x 39" x 72"		
			Recommended Live Area: 94" x 39" x 72"		
			Machine Weight: 515 lb (234 kg)Weight Stack(s): 295 lb (138 kg)		
			Max User Weight: 300 lb (136 kg)		
			Cables: 7x19 strand construction, lubricated, nylon-coated cable meets U.S. military specifications		
			<b>Warranty: 5 years</b>		
<b>C1.39</b>	<b>1</b>	<b>Nos</b>	<b>PLATE-LOADED LINEAR HACK SQUAT</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 84" x 61 " x 54" (213 cm x 155 cm x 137 cm)		
			Recommended Live Area: 94" x 39" x 72"		
			Machine Weight: 410 lbs (186 kg)		
			Starting Resistance: 60 lbs (27.2 kg)		
			Standard Weight Horns: 2		
			Max User Weight: 300 lb (136 kg)		
			Frame Description: 11-gauge steel frame ensures maximum structural integrity; Each frame receives an electrostatic powder coat finish to ensure maximum adhesion and durability		
			<b>Warranty: 5 years</b>		



<b>C1.40</b>	<b>1</b>	<b>Nos</b>	<b>PLATE -LOADED ISO LATERAL LEG EXTENSION</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 47" x 64" x 51"		
			Max User Weight: 350 lb (158.8 kg)		
			Starting Resistance: 4lbs (1.8kg) per work arm		
			Max weight capacity: 5 - 45lbs (4 - 25kg) plates / rod		
			Separate weight horns engage independent diverging motions for equal strength development and muscle stimulation		
			Two Resistance loading positions provide dual strength curves depending on exercise goals		
			<b>Warranty: 5 years</b>		
<b>C1.41</b>	<b>1</b>	<b>Nos</b>	<b>PLATE-LOADED ISO LEG CURL</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size (L x W x H): 67" x 57" x 40"		
			Machine Weight: 285 lb (130 kg)		
			Max User Weight: 350 lb (158 kg)		
			Frame Description: 11-gauge steel frame ensures maximum structural integrity. Each frame receives an electrostatic powder coat finish to ensure maximum adhesion and durability		
			separate weight horns engage independent diverging and converging motions for equal strength development and muscle stimulation		
			divergent angle hip and chest pads help reduce lower-back tension		
			<b>Warranty: 5 years</b>		
<b>C1.42</b>	<b>12</b>	<b>Sets</b>	<b>Olympic Bumper Plates</b>		

			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Black Bumper Plates 2pcs x 20kg; 15kg; 10kg; 5kg; 2.5kg, (5 pairs/set) IWF Standards		
			<b>Warranty: 12 months</b>		
<b>C1.43</b>	<b>12</b>	<b>Sets</b>	<b>Olympic Bar with locks</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			22mm, chrome bushing, Mens 20kg x 4pcs and Womens 15kg x 8pcs - with lock, IWF Standards		
			<b>Warranty: 12 months</b>		
<b>C1.44</b>	<b>4</b>	<b>Sets</b>	<b>Rubber Olympic Disc Set</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Set 107.5kg Total (2 x 20kg; 15kg; 10kg; 5kg; 2.5kg; 1.25kg)		
			<b>Warranty: 12 months</b>		
<b>C1.45</b>	<b>2</b>	<b>Nos</b>	<b>MEDICINE BALL</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			(1x1kg;2kg;3kg;4kg;5kg)		
			Hollow interior for more bouncing and dropping		
			Weight: 1kg-5kg (5pcs)		
			Textured rubber surface for improved grip		

			Oversized numbering for easy weight identification		
			<b>Warranty: 12 months</b>		
<b>C1.46</b>	<b>4</b>	<b>Nos</b>	<b>SUSPENSION TRAINER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Features equalizer loop, locking loop, barrel lock adjusters, padded triangles, antimicrobial handles and adjustable foot cradles.		
			<b>Warranty: 12 months</b>		
<b>C1.47</b>	<b>3</b>	<b>Sets</b>	<b>KETTLEBELL WITH CHROME HANDLE SET</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			60kg Total (1x 20kg; 16kg; 12kg; 8kg; 4kg)		
			Black Rubber Cover		
			Chrome Handles		
			5pcs total		
			<b>Warranty: 12 months</b>		
<b>C1.48</b>	<b>1</b>	<b>Nos</b>	<b>WALL MOUNTED GYM TRAINER</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Digital		
			wall-mounted		
			electronically operated		

			<b>Warranty: 3 years</b>		
<b>C1.50</b>	<b>5</b>	<b>Nos</b>	<b>Velocity Based Tracker</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Linear Positional Transducer with Horizontal Displacement Sampling Rate of 50hz (downsampled from 115200Hz)" Rechargeable 2.6Ah Li Polymer battery Battery life = 28 hours continuous use" Weight – 900g Dimensions – 115 x 85 x 85mm" Tether Length 3m Max Velocity 7m/s Angle Range -15° – 50°+"		
			<b>Warranty: 3 years</b>		
<b>C1.51</b>	<b>4</b>	<b>Nos</b>	<b>Open Trapbar</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			1850mm X 206mm x 596mm (L x W x H) Sleeve length 36 cm Stainless sleeves 46 to 48mm diameter Nickel Plated handles with knurlings. 25kg weight		
			<b>Warranty: 12 months</b>		
<b>C1.52</b>	<b>6</b>	<b>Sets</b>	<b>Plyo Boxes</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			4 Boxes Material: PVC + foam Surface dimension: 36" x 30" Product Height: 6" / 12" / 18" / 24" Weight capacity: 350 lbs		
			<b>Warranty: 12 months</b>		

<b>C1.53</b>	<b>1</b>	<b>Sets</b>	<b>1080 Sprint</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Continuous resistance range 0-150N Maximum resistance in both directions: < 300N during maximum 10s and < 450N during 3s Maximum speed 14 m/s (46 ft/s) Length of line 90m (295ft) Line type: 130 kg (286 lbs), 1.7 mm (0.067") diameter Motor 1.5kW Weight: 29 kg (63 lbs) Recorded frequency of force, speed and power: 111 samples per second Tablet with touch screen interface or laptop Operating system: Windows 7 or 8 Dimensions (LxWxH): 1004x330x216 mm (39.5x13.0x8.5")		
			<b>Warranty: 5 years</b>		
<b>C1.54</b>	<b>4</b>	<b>Nos</b>	<b>Slide Board</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			55lbs 48 × 24 × 2 in		
			<b>Warranty: 12 months</b>		
<b>C1.55</b>	<b>1</b>	<b>Sets</b>	<b>Contact Grid</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The data allows calculation of Jump height, stiffness, power etc. Width 870mm Range 3-40m Resolution < 2ms Combine with Laser and DSU Kit to measure both contact times and stride length. 6 lbs 40 × 4 × 4 in		

			<b>Warranty: 12 months</b>		
<b>C1.56</b>	<b>1</b>	<b>Sets</b>	<b>Dual Force Plates</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			605 x 360 x 070 13kg Li-ion 6000mA.h 3.75V Stainless Steel (303) / Aircraft Aluminium (L168) Standard Wi-Fi Direct ≈100m clear-view 0 – 20 kN 150% max range Beam Load Cell		
			<b>Warranty: 12 months</b>		
<b>C1.57</b>	<b>1</b>	<b>Sets</b>	<b>Seated Calf Raise Machine</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			55"L x 27"W x 48"H		
			Hold down grips on both back and thigh pads for support and stability.		
			Oversize 8" foam rollers pop-pin adjust both vertically and horizontally for a proper fit.		
			Main frame is constructed of 2" x 3", 11-gauge heavy steel, perfect for commercial use		
			<b>Warranty: 5 years</b>		
<b>TAEKWANDO &amp; JUDO</b>					
<b>1</b>	<b>247</b>	<b>Nos</b>	<b>PUZZLE MATS</b>		
			Total area TKD: 190sqm		
			Total Area Judo: 175 sqm		
			1 set = 16 sqft		
			oft, textured EVA foam is free of Toxic phthalates		

1	6	Nos	<b>JUDO LANDING MATS</b>		
			Dimensions: length 18000mm×width 18000mm×height 50mm		
			Material: outer jacket is made of judo leather, inner tube is made of XPE, compressed sponge, fiberboard bonding structure		
			Gross weight: 2950Kg		
1	4	Nos	<b>COMMERCIAL AIR COOLER</b>		
			100-liter water capacity		
			8000 m <sup>3</sup> /h airflow		
			912x570x1334mm		
			With remote controller		
1	3	Nos	<b>SLAM BALL</b>		
			(1x5kg;10kg;15kg;20kg)		
			Textured surface offers improved grip		
			Will not roll or bounce once slammed		
			An unstable deadweight that will push you		
			4 balls total		

<b>SUPPLY, DELIVERY AND INSTALLATION OF FITNESS TESTING &amp; MONITORING EQUIPMENT</b>					
C2.1	1	Set	<b>BIOELECTRICAL IMPEDANCE ANALYZER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			A. Bioelectrical Impedance Analysis Measurements - Bioelectrical Impedance(Z) : 10		

			Impedance measurements are taken by using two (2) different frequencies (20kHz, 100kHz) in each of the 5 body segments (right arm, left arm, trunk, right leg, left leg)		
			B. Electrode Method - 8-Point Tactile Electrode Method		
			C. Technology - Direct Segmental Multi-frequency Bioelectrical Impedance Analysis Method, DSM-BIA Type		
			D. Body Composition Calculation		
			E. Outputs (LCD Screen) - Weight, Body Fat (Percent Body Fat), Muscle (Skeletal Muscle Mass), BMI		
			F. Applied Rating Current - 100 uA		
			G. Power Consumption - DC 6V (1.5V AA Battery 4 each)		
			H. Display Type - Customized LCD		
			I. Storage Environment – -4 ~ 158°F, 10 ~ 95% RH, 50 ~ 106 kPa (no condensation)		
			J. Dimensions - 12.2 (W) x 14 (L) x 2.3 (H): inch		
			K. Equipment Weight - 5.9 lbs (2.7 kg)		
			L. Total Test Time - 8 seconds		
			M. Operational Environment - 50 ~ 104°F, 30 ~ 75% RH, 70 ~ 106 kPa		
			N. User Weight Range - 22 ~ 330 lbs (10 ~ 150 kg)		
			O. Height Range - 1 ft. 7.7 in. ~ 9 ft. 10.1 in. (50-300 cm)		
			<b>Warranty: 12 months</b>		
<b>C2.2</b>	<b>6</b>	<b>Sets</b>	<b>TIMING GATES</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		



			A. Weight 169g, battery included		
			B. Dimensions 75 x 103 x 48 mm		
			C. Operating temperature 0° C/+45°C		
			D. Minimum resolution 0.125 ms		
			E. Delay with respect to the event 1 ms		
			F. Optical range 12 m		
			G. Radio module Multi-Frequency Transceiver 433-434MHz		
			H. Radio transmission 10 mW		
			I. Impulse transmission accuracy ±0.4 ms		
			J. Radio transmission range Approx. 150 meters		
			K. Processing unit 16-bit microprocessor		
			L. Time base 8 MHz quartz, stability ±30ppm between 0°C and +45°C		
			M. Power supply Internal lithium ion battery, external power supply 5VDC		
			N. Battery life > 10 hours		
			O. Connections MICRO USB type B connector for charging and connecting to a PC Jack connector for external input connection or double photocells.		
			<b>Warranty: 12 months</b>		
<b>C2.3</b>	<b>1</b>	<b>Set</b>	<b>SUPER TREADMILL</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		

			Applications: endurance training walking and running, stress device for performance testing, gait analysis and gait training.		
			Control: via UserTerminal MCU5 with keyboard and display, integrated interface or via optional remote control		
			Running surface: L: 170 cm (5ft 6.9") B: 65 cm (2ft 1.6")		
			Special sizes available at extra charge access height: 23 cm (9.06") - shock load reduction for the joints - running belt with slip resistant surface - reinforced running belt with profiled surface, 5 mm thick - max. permissible load: 200 kg (440 lbs) - optional 300 kg (660 lbs) at extra charge		
			Speed range: 0...40.0 km/h (0...11.1 m/s) (0...24.8 mph)		
			special speed available at extra charge: 0...45 km/h (0...27.8 mph)		
			Acceleration: 7 acceleration / deceleration levels between 131 s and 3 s from 0 to max. or from max. to 0; equals 0.084... 3.70 m/s <sup>2</sup> programmable via para control PC software		
			Elevation: 0...28 % (0...15.6°) motorized adjustment (-28 %...+28 % when using optional reverse belt rotation		
			Running direction: switch for reversing running belt direction at extra charge. max. permissible reverse speed 5 km/h (3.1 mph) if no safety-harness with fall-stop prevention system is used.		
			Motor system: 4.3 kW (5.8 PS) 3-phase AC motor, maintenance free and brushless; 20 years warranty on main drive motor. For high-performance applications we recommend models with a running surface min. 190/65 cm.		
			Power transmission: frequency inverter, poly-V-belt, very quiet operation		
			Safety systems: CE0123; medical device directive 93/42/EEC + 2007/47/EC; MDD; machinery directive 2006/42/EC; IEC 60601-1; EN 60601-1-2 (EMC approved); EN 60601-1-6; EN 62304; EN 62353; ISO 20957-1; EN 957-6; EN 14971; EN ISO 13485; emergency-off safety stop switch (mushroom push button for drive system power-off); emergency stop switch (safety lanyard with actuator, pull cord and clip); potential equalization bolt; transformer for potential-isolation from the mains.		
			Earth leakage current < 0.2 mA		
			Ambient condition: temperature: +10...+40 °C (-30...+50 °C on request) humidity: 30...70 % (up to 100 % on request) air pressure: 700...1060		

			hPa; 3,000 m (~10,000 ft) max. altitude without pressurization		
			Display (resolutions): 6 LCD displays, 4 LEDs for operation modes, 20 LEDs for display of units & profile no, steps, etc. speed (0.1 km/h or m/s or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1 % or degrees) distance (1 m...999.9 km or miles), METS (1 MET) program step/number, energy (1 kJ/kcal), fitness index (1) power (1 Watt), heart rate (1 bpm / beat per minute)		
			Heart rate monitoring: POLAR wireless transmitter, 1 channel receiver; ECG-accurate measurement; automatic control of speed and elevation according to programmed target heart rate		
			Handrails: steel tube handrails $\varnothing$ 60 mm on both sides, over 1/3 of treadmill length with front-handrail crossbar other handrail designs at extra charge		
			Voltage supply: 400 Volt AC 3~N/PE 50/60 Hz 15-16A fuse; dedicated circuit, line and protection		
			Size of frame: L: 230 cm (7ft 6.6") B: 105 cm (3ft 5.3") H: 145 cm (4ft 9.1")		
			Net weight: device approx. 380 kg (838 lbs)		
			Gross weight: device approx. 530...580 kg (1166...1276 lbs)		
			<b>Warranty:</b> <b>Drive Motor: 30 years</b> <b>Parts Electrical Wear Items Cosmetics: 5-10 years</b> <b>Labor Parts Motor Cosmetics: 2 years</b>		
<b>C2.4</b>	<b>15</b>	<b>Sensors</b>	<b>PHYSIOLOGICAL MONITORING SYSTEM</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Bluetooth Connectivity to receiver or external sensors		
			802.15.4 Connectivity		
			Heart Rate 0 – 240 BPM ( $\pm$ 1 BPM)		

			Breathing Rate 0 – 120 BPM ( $\pm 1$ BPM)		
			Device Temperature 10 – 60°C ( $\pm 2$ °C)		
			Position/posture $\pm 180^\circ$ (Laying, standing)		
			Activity in VMU (Stationary, walk, run)		
			3 axis Acceleration to 16g		
			Red / Orange / Green subject status indication		
			Transmit and/or Logging Modes		
			250Hz ECG Transmission & Logging		
			100Hz Accelerometer Logging		
			USB connectivity for data download & charging		
			Up to 500+ hours data storage		
			Internal algorithms for: o Estimated core temperature o Jump Test o Dash Test o Fall detection o Heart Rate Variability o Human Real Data		
			<b>Warranty: 12 months</b>		
<b>C2.5</b>	<b>30</b>	<b>Sets</b>	<b>HEART RATE MONITORS (SENSOR)</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			<u>Compatibility:</u> iOS mobile devices with iOS 13 or later; Android mobile devices with Bluetooth 4.0 capability and Android 7 or later; Huawei mobile devices with Huawei AppGallery and Huawei Mobile Services installed.		
			<u>Updates:</u> Via mobile phone using Polar Beat app or Polar Flow app.		

			Memory: One training session		
			<u>Battery life</u> 400 hours with Bluetooth Low Energy and 5 kHz transmission active		
			Battery type: CR 2025		
			Connector size: 34x65x10 mm		
			Weight: Connector 21 g (0.74 oz), strap 39 g (1.38 oz)		
			<u>Materials:</u> Connector: ABS, ABS + GF, PC, Stainless steel. Strap: 38% Polyamide, 29% Polyurethane, 20% Elastane, 13% Polyester, Silicone prints.		
			Water resistance: 30 m (Suitable for swimming)		
			Operating temperature: -10 °C to +50 °C / 14 °F to 122 °F		
			Connectivity: ANT+, Bluetooth Low Energy, 5 kHz		
			Available in sizes: XS-S: 51-66 cm M-XXL: 65-93 cm		
			<b>Warranty: 5 years</b>		
<b>C2.6</b>	<b>1</b>	<b>Set</b>	<b>CYCLE ERGOMETER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Type: Sports, perfect fit		
			Handlebar: Racing handlebar		
			Stem: Adjustable, horizontal 200 mm, vertical 500-910 mm		
			Seatpost: Adjustable, horizontal 200 mm, vertical 530-940 mm		
			Saddle: Racing		

			BB: 68/107 mm		
			Crank Steel: 172.5 mm		
			Pedals: 9/16", combi SPD		
			RESISTANCE: System - Pendulum, Flywheel: 20 kg		
			DISPLAY: RPM-Yes, HR - ANT+, bluetooth smart, Time-Yes, Speed-Yes, Distance-Yes, Watt-Yes		
			Connectivity: RS232: Yes, Usb: Yes		
			Weight & Measurements: Max user weight 180 kg		
			Length (mm): 1405-1630 mm		
			Width (mm): 640 mm		
			Height (mm): 1265 mm at display,1240 mm at saddle		
			Weight (kg): 77 kg		
			Power Requirements: 220V (12V, 5,0A)		
			<b>Warranty: 12 months</b>		
<b>C2.7</b>	<b>10</b>	<b>Nos</b>	<b>HIGH RESOLUTION CAMERA</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			A. Body Type – VR/Action Camera		
			B. Sensor – 12 Megapixels, CMOS		
			C. Image – Digital, Hypersmooth 2.0, RAW		
			D. Optics & Focus – Digital Zoom		

			E. Screen/Viewfinder – Fixed LCD, 2 Inch Screen Size, Touch Screen		
			F. Videography Features – H.264, H.265 Format, Multiple Microphones		
			G. Storage/Connectivity – USB 3.0, USB Charging, Microphone Port, Wireless (WiFi + Bluetooth)		
			H. Physical Specs– Environmentally Sealed, Waterproof, Shockproof, Built in Battery, 1220mAh Lithium-ion, 126 grams, 66x49x28mm		
			I. Other Features – Timelapse Recording, Built in GPS		
			<b>Warranty: 12 months</b>		
<b>C2.8</b>	<b>10</b>	<b>Nos</b>	<b>REFRACTOMETER FOR URINE SPECIFIC GRAVITY</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Portable, economic design with rubber grip, 0-18% brix scale, +0.1% accuracy		
			<b>Warranty: 5 years</b>		
<b>C2.9</b>	<b>5</b>	<b>Nos</b>	<b>STRENGTH DYNAMOMETER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Portable, 50kg capacity		
			<b>Manufacturer Limited Warranty: 2 years</b>		
<b>C2.10</b>	<b>5</b>	<b>Nos</b>	<b>SIT AND REACH BOX</b>		
			<b>Qualification of the Bidder</b>		

			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Storage and Transport: The Baseline Sit n' Reach Testing Box measures 30" x 2" x 13" weighing only 14 lbs. , making the item easy to store when not in use or compact enough to travel with.		
			<b>Warranty: 12 months</b>		
<b>C2.11</b>	<b>10</b>	<b>Nos</b>	<b>GONIOMETER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			portable protactor like devices used to measure joint angles		
			<b>Warranty: 12 months</b>		
<b>C2.12</b>	<b>5</b>	<b>Nos</b>	<b>VERTEC</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Measures in 1/2-inch increments		
			Steel frame construction		
			Color-coded vanes for easy reading of measurements		
			Provides you with an accurate measurement of vertical jump		
			Allows you adjust height of vanes to measure		
			<b>Warranty: 12 months</b>		



<b>C2.13</b>	<b>3</b>	<b>Nos</b>	<b>FIELD SPEAKER - TROLLEY TYPE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			10 inch*1+tweeter*1, MDF+plastic, With MP3/SD/USB TWS Functions & With FM Radio & Karaoke function with 2 mic jacks input, giftbox packing,with Bluetooth function, woofer with light.		
			With remote control		
			One Wireless microphone		
			<b>Warranty: 12 months</b>		
<b>C2.14</b>	<b>5</b>	<b>Nos</b>	<b>Weighing Scale - Eye Level Beam Type with Stadiometer</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Capacity: 450 lb x 4 oz , 200 kg x 100 g, or 440 lb x 4 oz / 200 kg x 100 g		
			Height Measurement Range (on select models): 24-84 in / 60-212 cm		
			Height Graduation (on select models): 0.125 in / 0.1 cm		
			Platform Size: 14.75 in x 10.75 in / 37.5 cm x 27.3 cm		
			Overall Width: 17.5 in / 44.5 cm		
			Overall Height: 58.25 in / 148 cm		
			Overall Depth (without wheels): 20.5 in / 52 cm		
			Overall Depth (with wheels): 23.25 in / 59 cm		
			Construction: Mild steel with powder coat paint finish		
			<b>Warranty: 5 years</b>		

	5	Nos	<b>BLOOD LACTATE ANALYZER</b>		
			Portable devices that analyzes blood lactate		

LOT	ITEMS	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant
<b>SUPPLY, DELIVERY AND INSTALLATION OF PHYSICAL THERAPY &amp; REHABILITATION EQUIPMENT</b>					
<b>GAIT TRAINING &amp; ANALYSIS AND BIOMECHANICS</b>					
C3.1	1	Set	<b>ANTI-GRAVITY TREADMILL</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			• Fits individuals from 4'8" (142 cm) to 6'4" (193 cm); 18.5" (47 cm) hip width, 58" (147 cm) hip circumference.		
			<b>PERFORMANCE</b>		
			• User weight capacity: 85 - 400 pounds (181.4 kg)		
			• Body Weight Range Adjustment:		
			o Up to 320 lbs (145.2 kg) 20% – 100% of user's body weight		
			o >320 lbs (145.2 kg) 35% - 100% of user's body weight		
			• Running surface area:		
			- 20 inches (51 cm) wide		
			- 58 inches (147 cm) long		
			• Speed range:		

			- Forward M320/F320 0 – 12 mph (19.3 km/hr)		
			- Reverse M320/F320 3 mph (4.8 km/hr)		
			• Elevation: M320/F320 0 - 15%		
			DIMENSIONS		
			• Length: 84 inches (213 cm)		
			• Width: 38 inches (96.5 cm)		
			• Height: 74 inches (188 cm)		
			• Weight: 750 pounds (340 kg), approximately		
			• Step-up height: 8" (20 cm)		
			RECOMMENDED ROOM DIMENSIONS		
			• Provide a footprint at least 12ft (3.66 meters) long by 8ft (2.44 meters) wide for		
			adequate spacing around the machine		
			• A minimum 8 foot (2.44 meters) ceiling height is recommended		
			ELECTRICAL		
			• Power Requirements: 220 VAC 20A, 50/60 Hertz, NEMA 6-20R receptacle		
			• Locate the front of the system within 10ft (3.05 meters) of the electrical outlet.		
			ENVIRONMENTAL		
			Operating Conditions:		
			• Ambient Temperature: 55°F to +84°F (+13°C to +29°C)		
			• Relative Humidity: 20 to 95%		
			Transportation & Storage Conditions:		
			• Temperature Range: 0°F to +120°F (0°C to +49°C)		

			• Relative Humidity: 20 to 95%		
			<b>Warranty: Free from manufacturing defects for a period of 1 year from date purchase</b>		
<b>C3.2</b>	<b>1</b>	<b>Set</b>	<b>OVERHEAD / CEILING-MOUNTED TRACK AND HARNESS</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Ceiling-Mounted Track System with Different Harness Sizes		
			Four different design options including Straight, J-Shaped, U-Shaped, and Oval designs.		
			Length:		
			-straight track: 7.5ft and 10ft segment		
			-curved track: 6ft and 8ft lengths.		
			Tracks can be installed on virtually any type of ceiling regardless of height.		
			Can safely accommodate weight up to 500lbs		
			<b>Warranty: 12 months</b>		
<b>PT MODALITY CART</b>					
<b>C3.3</b>	<b>2</b>	<b>Nos</b>	<b>THERAPEUTIC ULTRASOUND</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Mains voltage: 100 - 240 Volt		
			Frequency: 50/60 Hz		

			Max. power input: 100 VA		
			Patient leakage current: typically, 1 $\mu$ A		
			Idem single fault condition: typically, 2 $\mu$ A		
			Main Unit Dimensions stand alone: 24 x 32 x 12 cm (w x d x h)		
			Dimensions on inclination foot: 24 x 30.5 x 18.2 cm (w x d x h)		
			Dimensions on Vacotron: 24 x 30.5 x 21.6 cm (w x d x h)		
			Weight 2 kg		
			Weight including optional battery 3 kg		
			<b>Warranty: 12 months</b>		
<b>C3.4</b>	<b>2</b>	<b>Nos</b>	<b>PORTABLE ELECTROTHERAPY MACHINE</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			2-channel electrostimulator with a clearly legible LCD screen		
			65 Programs		
			●● 12 Sport		
			●● 8 Fitness, Beauty & Wellness		
			●● 16 Pain (TENS)		
			●● 9 Prevention		
			●● 11 Rehabilitation		
			●● 3 Incontinence		
			●● 6 Free programs		

			PROGRAMMABLE: 6 free memory positions to create customized programs		
			PRESET PROGRAMS; 59 specific programs for functional rehabilitation and pain		
			FAST MENU: makes navigation faster		
			SYNCRO-STIM: increase the intensity of the 2 channels simultaneously using only one button.		
			BACKLIT DISPLAY: the clearly legible LCD display contributes to optimal usability and ease-of-operation		
			BATTERY OPERATED		
			<b>Standard accessories included:</b>		
			Carrying bag		
			2 Cables for electrode connection		
			4 Self-adhesive square electrodes (50x50mm)		
			4 Self-adhesive rectangular electrodes (50x90mm)		
			Charger		
			User manual		
			<b>Warranty: 2 years</b>		
<b>C3.5</b>	<b>2</b>	<b>Nos</b>	<b>SHOCKWAVE</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dosage / Energy settings: 60 mJ to 180 mJ in steps of 10 and 180 mJ - 185mJ (at 16 Hz maximum 120 mJ and at 22 Hz maximum 90 mJ). In comparison with a pressure-driven unit this is: 1 / 2 / 3 and 5 Bar.		
			Save and update: on SD cards Handpiece: Ergonomic, anodised aluminium housing.		
			Dimensions device: length 35 cm, width 25 cm, height 14 cm Dimensions handpiece: length 23 cm, 5 cm diameter		

			Weight device appr. 2,7 kg		
			Weight handpiece: appr. 0.85 kg (with cable) Service life: minimum of 2,000,000 shots		
			Applicators: 6 mm, 15 mm and 25 mm diameter, with a minimum life time of 150,000 shots		
			Electrical connection: 100 – 240 VAC / 50-60Hz 2.5A		
			Approvals: IEC/ EN 60601-1		
			<b>Warranty: 3 years</b>		
<b>C3.6</b>	<b>2</b>	<b>Nos</b>	<b>PORTABLE PERCUSSION MASSAGE GUN</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			portable percussion massage gun		
			Powered by a long-lasting lithium ion battery		
			cordless		
			Quiet Glide technology		
			Weight: 2.5 lbs		
			Battery Life: Up to 3 hours		
			Battery Type: Lithium ion		
			Speed: Up to 3,200 percussions per minute		
			Interchangeable heads: 5		
			<b>Warranty: 5 years</b>		
<b>RECOVERY EQUIPMENT</b>					
<b>C3.7</b>	<b>2</b>	<b>Sets</b>	<b>THERMAL REGULATED PNEUMATIC COMPRESSION</b>		
			<b>Qualification of the Bidder</b>		

			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			Three settings of cyclical pneumatic (air) compression		
			-High (5 to 75 mm Hg) Approximately 2 to 3 minutes of inflation and 1 minute of deflation.		
			-Medium (5 to 50 mm Hg) Approximately 2 to 3 minutes of inflation and 1 minute of deflation.		
			-Low (5 to 15 mm Hg) Approximately 4 to 5 minutes of inflation and 1 minute of deflation.		
			ADJUSTABLE SET-POINT COLD: between 35°F to 50°F		
			DIGITAL TIMER & PRESET PROTOCOLS: upto 90minutes		
			Dimensions: 7.5" W x 16" L x 7.75" H (19cm W x 40.6cm L x 19.7cm H)		
			Weight: (Empty) 7.3 lbs (3.3kg)		
			Hose Connections: 1 port		
			<b>Warranty: 5 years</b>		
<b>C3.8</b>	<b>1</b>	<b>Set</b>	<b>INFLATABLE ICE BATH SYSTEM</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Portable and Inflatable Mobile Pool with water capacity of 170 liters		
			Equipped with portable fast cooling machine		
			<b>Warranty: 12 months</b>		
<b>TRACTION AND SPINE AREA</b>					
<b>C3.9</b>	<b>1</b>	<b>Nos</b>	<b>CERVICAL AND LUMBAR MECHANICAL TRACTION MACHINE</b>		



			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Form of therapy: Static, Intermittent, Pro- and Regressive, Cyclic		
			Traction force: 15 - 900 N / 1.5 - 90 kg / 3.4 - 202 Lbs		
			Traction force / base force hold time: 1 sec. - 1 hour (1 sec. intervals) Repeats (intermittent and cyclic): 1 - 100		
			Steps hold time (pro- and regressive): 1 sec.- 5 min. (1 sec. intervals)		
			Steps (pro- and regressive): 1 - 25 Speed (change of traction force): 1 - 50 N/sec. (1 N intervals) 0.1 - 5.0 kg/sec. 0.2 - 11.2 Lbs/sec.		
			Treatment time: 1 sec. - 150 min.		
			Programmable favorites: 100+		
			Clinical protocols: Yes (3)		
			Sequential programming: Yes (up to 5 forms of therapy)		
			Safety control for traction force above: 200 N / 20 kg / 45.2 Lbs		
			Touch screen: 4.3 inch, full colour, capacitive		
			Mains voltage: 100 - 240 V (50/60 Hz)		
			Max. power consumption: 50 VA		
			Dimensions: 30 x 34 x 22 cm		
			Weight: 10 kg		
			<b>Warranty: 1 year</b>		
<b>C3.10</b>	<b>1</b>	<b>Nos</b>	<b>TRACTION BED</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		

			Safe working load and lifting capacity of 240Kg		
			Integral rolling top design to provide effective application of traction forces		
			Adjustable height mount for traction machine with offset positioning for changing angle of traction application		
			Adjustable angle backrest from horizontal to +80°		
			Adjustable angle head/foot section from -25° to +75°		
			Head section includes breathing hole and plug		
			Power assisted backrest and foot sections incorporate anti-trap design		
			Choice of hydraulic or electric height elevation		
			Excellent height range from 50cm to 101cm		
			Retractable wheel design with adjustable foot for stability on uneven surfaces		
			Fixation point for optional cervical traction accessory		
			Purpose made precision bearings on all pivot points		
			Hand switch fitted as standard on electric models		
			Standard width 70cm upholstery		
			<b>Warranty: 2 years</b>		

**FUNCTIONAL AND EXERCISE EQUIPMENT**

<b>C3.11</b>	<b>1</b>	<b>Nos</b>	<b>PARALLEL BARS</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			7 ft. Platform Mounted Parallel Bars		
			Width Range: 18" - 28"		
			Height Range: 26" - 39"		

			CLI-3-2007 Shipping : 2 packages - 1 package weighing 103 lbs. measuring 97" x 41" x 6" and 1 package weighing 110 lbs. measuring 86" x 10" x 9"		
			<b>Warranty: 1 year</b>		
<b>C3.12</b>	<b>1</b>	<b>Set</b>	<b>MEDICINE BALLS (ALL SIZES)</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Physioball, Ø 85 mm		
			Physioball, Ø 95 mm		
			<b>Warranty: 2 years</b>		
<b>C3.13</b>	<b>1</b>	<b>Set</b>	<b>VINYL COATED DUMBBELL</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dumb-bell, 1 kg, set of 2 Dumb-bell, 2 kg, set of 2		
			Dumb-bell, 3 kg, set of 2		
			Dumb-bell, 4 kg, set of 2		
			Dumb-bell, 5 kg, set of 2		
			<b>Warranty: 2 years</b>		
<b>C3.14</b>	<b>1</b>	<b>Set</b>	<b>CUFF WEIGHTS</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Wristlet 3,5 kg		

			Wristlet 5,0 kg		
			Wristlet 0,5 kg		
			Wristlet 1,0 kg		
			Wristlet 2,0 kg		
			Wristlet 3,0 kg		
			<b>Warranty: 2 years</b>		
<b>C3.15</b>	<b>1</b>	<b>Set</b>	<b>RESISTANCE BANDS</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Rep exercise band level 1 peach 5,5 m		
			Rep exercise band level 2 orange 5,5 m		
			Rep exercise band level 3 green 5,5 m		
			Rep exercise band level 4 blue 5,5 m		
			Rep exercise band level 5 purple 5,5 m		
			Rep exercise band level 1 peach 45 m		
			Rep exercise band level 2 orange 45 m		
			Rep exercise band level 3 green 45 m		
			Rep exercise band level 4 blue 45 m		
			Rep exercise band level 5 purple 45 m		
			Dispenser for 5 rolls		
			<b>Warranty: Free from manufacturing defects for 90 days</b>		
<b>C3.16</b>	<b>1</b>	<b>Set</b>	<b>PLYOMETRIC BOX</b>		

			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			- Heavy-duty firm foam construction allows for added stability		
			- Soft material helps prevent injury		
			- Slip-free surface		
			- No assembly required		
			- Rotate the box for more challenging heights		
			Overall Height: 16"		
			Foam: Foam		
			Overall Width: 18"		
			Weight Capacity: 330 lbs.		
			Overall Length 20"		
			Product Weight: 24 lbs.		
			<b>Warranty: 5 years</b>		
<b>C3.17</b>	<b>1</b>	<b>Set</b>	<b>COGNITIVE &amp; COORDINATION TRAINING PLATFORM</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			commercial software license for sports, fitness, brain health, and education applications:		
			- 8 folders of gamified categories with variable difficulties and challenges, including: tack, seek (multiple choices), metronome, Go-no-Go, memory spelling, wquations, and more - turnkey programming - trainer-client management capability - easy customisable programming design and reporting/exporting options		

			1 CPU controller		
			1 interactive system made up of 2 joined 46"x46" panels		
			9 IED multi-functional targets - 16"x16" dot matrix		
			<b>Warranty: 12 months</b>		
<b>TREATMENT AREA</b>					
<b>C3.18</b>	<b>2</b>	<b>Nos</b>	<b>TREATMENT TABLE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Safe working load and lifting capacity of 240Kg		
			Power assisted head section is adjustable from -25° to +75°		
			Power assisted backrest adjustable from horizontal to 80°		
			Head section and backrest incorporate anti-trap design		
			Choice of hydraulic or electric height elevation		
			Excellent height range from 45cm to 98cm		
			Retractable wheel design with adjustable foot for stability on uneven surfaces		
			Breathing hole and plug included as standard		
			Purpose made precision bearings on all pivot points		
			Clearance beneath frame for mobile hoist		
			Hand switch fitted as standard on electric models		
			65cm wide upholstery finished with standard vinyl/hessian backing or...		
			Easy Clean Upholstery only available on standard & basic head models at width of 70cm only.		
			<b>Warranty: 10 year alum frame 5 year steel/wood frame</b>		

			<b>3 year laminate, phenolic or plastic 2 year electrical components</b>		
<b>C3.19</b>	<b>4</b>	<b>Nos</b>	<b>ERGO CHAIR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Safe working load and lifting capacity of 150Kg		
			Manufacturer's 5 Year Warranty		
			Choice of height range - 45cm-59cm or 54cm-74cm		
			360° Swing Around Arm fitted as standard		
			All-Round Height Adjustment Ring beneath seat		
			Foot Support Ring fitted as standard on High Model MC6163		
			Chrome-finished gas strut & base		
			Seat Pad Dimensions: 400mm x 400mm x 90mm		
			Choice of 15 Standard Upholstery Colours		
<b>C3.20</b>	<b>2</b>	<b>Nos</b>	<b>WORKING TABLE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Office table in Melamine finish.		
			Wood Grain Cherry finish		
			Contemporary Chamfered edges		
			25mm thick laminated board with ducknose edging		
			1.25 inches thick table leg profile		
			center drawer and side drawer		

			<b>Warranty: 12 months</b>		
<b>HYDRO ROOM</b>					
<b>C3.21</b>	<b>1</b>	<b>Nos</b>	<b>HYDROCOLLATOR</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			UL Safety Certified		
			220V AC, 60Hz, 1,500W Max.		
			Volume: 80 Liters		
			Capacity: 12 Hot Moist Packs		
			Internal Size: 50x38x45cm (WxDxH)		
			External Size: 58.5x47x71cm		
			<b>Warranty: 12 months</b>		
<b>C3.22</b>	<b>1</b>	<b>Nos</b>	<b>FREEZER</b>		
			<b>Qualification of the Bidder</b>		
			The brand must have at least 10 years of existence in the market.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			The bidder must be an accredited distributor / partner.		
			3.5 cu. ft		
			2 Years Warranty on Parts & Service		
			10 Year Warranty on Compressor		



<b>C3.23</b>	<b>2</b>	<b>Sets</b>	<b>HOTPACKS (ALL SIZES)</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			570x170mm (450g)		
			395x300mm (850g)		
			490x300mm (1.15kg)		
			580x300mm (1.3kg)		
			580x350mm (1.4kg)		
			<b>Warranty: 12 months</b>		
<b>C3.24</b>	<b>10</b>	<b>Nos</b>	<b>COLDPACKS</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			230x130mm Gel Type		
			<b>Warranty: 12 months</b>		
<b>C3.25</b>	<b>1</b>	<b>Nos</b>	<b>PARAFFIN WAX BATH</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size: 33 * 27 * 19cm		
			Capacity: 2.8L		
			Power: 200w		
			Temperature range: 45-60 degrees Celsius		

			<b>Warranty: 6 months</b>		
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# TECHNICAL SPECIFICATIONS

## Lot D

Bidders must indicate whether the goods and equipment offered are “Compliant” or “Non-Compliant” to the corresponding specifications prescribed by BCDA using this form.

<b>SUPPLY, DELIVERY AND INSTALLATION OF GOODS AND EQUIPMENT FOR THE NATIONAL ACADEMY OF SPORTS (NAS) - PHASE 1 AT NEW CLARK CITY</b>					
<b>TECHNICAL SPECIFICATIONS COMPLIANCE FORM</b>					
LOT	ITEMS	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant
<b><i>SUPPLY, DELIVERY AND INSTALLATION OF CLASSROOM FURNITURE</i></b>					
D1.1	720	Nos	<b>COLLABORATIVE STUDENT DESK</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			·Trapezoid student desk are available for a 6 desk grouping (approx. 6' Circle)		
			·16-gauge steel tube frame are available in 30" fixed height		
			Size:700*500*780mm;		
			Hollow out metal book box with powder coating iron wire;		
			25 mm MDF Wood with laminated film or Curved Plywood with laminated is optional for Desk Board;		
			Injected PU Edge, protect the student hurt from crashing the desk;		
			Arched feet make more stable put on the floor,with non-slip glide;		
			Pen groove involved.		
			<b>WARRANTY:</b> <b>DepEd School Furniture 8-Year Replacement Program:</b> Compliance With the Mandatory Neutral School Desks Law, Readiness for Information Technology Devices, and Flexibility to Address Social Distancing		

D1.2	720	Nos	STUDENT CHAIR		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Size: 380*400*460mm;		
			Frame: 1.2mm thick oval steel tube with pantone color powder coating;		
			Original Blown PP chair seat and chair back, with micro hole for breathable.		
			WARRANTY: <b>DepEd School Furniture 8-Year Replacement Program:</b> Compliance With the Mandatory Neutral School Desks Law, Readiness for Information Technology Devices, and Flexibility to Address Social Distancing		

**SUPPLY, DELIVERY AND INSTALLATION OF GOODS AND EQUIPMENT FOR THE NATIONAL ACADEMY OF SPORTS (NAS) - PHASE 1 AT NEW CLARK CITY**

**TECHNICAL SPECIFICATIONS COMPLIANCE FORM**

LOT	ITEMS	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant
<b>SUPPLY, DELIVERY AND INSTALLATION OF OFFICE EQUIPMENT</b>					
D2.1	4	Nos	BINDING MACHINE		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Heavy Duty Comb Ring Binding Machine (A3 SIZE)		
			<b>Free Service Warranty: 2 years</b>		
D2.2	4	Nos	PAPER SHREDDER MACHINE		
			<b>Qualification of the Bidder</b>		

			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Micro-Cut shredders		
			<b>Free Service Warranty: 2 years</b>		
<b>D2.3</b>	<b>4</b>	<b>Nos</b>	<b>PAPER TRIMMER CUTTING MACHINE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Paper Trimmer Electron A3 9 (Manual)		
			<b>Free Service Warranty: 2 years</b>		
<b>D2.4</b>	<b>4</b>	<b>Sets</b>	<b>Floor Mounted (Tight Fit UV)</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Floor Mounted (Tight Fit UV)		
			<b>Warranty on all parts: 5 years</b>		
<b>D2.5</b>	<b>10</b>	<b>Sets</b>	<b>Infrared Thermal Scanner w/ stand, K3</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Temperature measurement: Front if the thermometer and approach it with in 5-10cm Celsius temperature or Fahrenheit temperature display Alarm setting Language settings Volume settings Automatic Shut down : A1 Mode ; A0 Mode (always on)		
			Screen : Digital Display Accuracy : ±0.2 Degress Response time : 0.5s Abnormal Automatic Alarm : Flashing+voice Automatic Measurement : Measuring Distance 5~10cm Input : USB DC4.2-5V Infrared Measuring Range : 0°C ~50°C Environment Temperature : 10°C~40°C Weight : 227g Dimension : 155 x 104 x 84mm Standby : About One week Thermometer Scanner Stand User manual		

			<b>Warranty: 12 months</b>		
<b>D2.6</b>	<b>10</b>	<b>Sets</b>	<b>Non-Contact Infrared Forehead Thermometer</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Non Contact Thermometer Forehead / Infrared Colour Screen Indicator Green – Less than 37.4C Orange – 37.5-37.9C Red – Greater than 38C 1 Second fast response Memory records 20 sets Auto Standby		
			<b>Warranty: 12 months</b>		
<b>D2.7</b>	<b>30</b>	<b>Sets</b>	<b>AUTOMATIC ALCOHOL DISPENSER WITH STAND</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Personal Protective Automatic Alcohol Dispenser with Stand Continuous Spraying Function The Infrared Sensor Helps To Remove The Liquid Immediately, Preventing The Transmission Of Contact-Induced Bacteria. The Automated Power-Saving Chip Is Environmentally Friendly And Cost-Effective, Feasible For Use In Public Circumstances. The Automatic Disinfection Machine Is Easy To Operate, Widely Suitable For Train Station, Office, Mall, Hospital, Gym, And Restaurant And So On. Capacity: 1000ml Battery: 4pcs Batteries (not included) DC Power supply (included) Size: 12.5*11.1*26cm/ 4.91*4.36*10.22inch (L*W*H)		
			<b>Warranty: 12 months</b>		
<b>D2.8</b>	<b>4</b>	<b>Sets</b>	<b>ULV Generator Misting Machine Cold Fogger</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			QUALITY: *Manufactured from strong durable resistant thermoplastics *More powerful electric motor *Producing greater aerosol volume at higher velocity *More uniform droplet spectrum *Droplet size can be regulated by increasing or decreasing the solution flow.		
			ADVANTAGES: *Range of application includes space and surface treatment *Easy handling and operation of the unit *Range of the fog is deeper than with comparable units *Ideal equipment for the application of insecticides, disinfectants, etc. *Highly versatile		

			This unit is equipped with a 700 Watt electric motor producing greater aerosol volume at higher velocity with deeper penetration. fitted with an infinitely adjustable flow regulator enabling different output quantities.		
			<b>Manufacturer Warranty: 3 years</b>		
<b>D2.9</b>	<b>10</b>	<b>Sets</b>	<b>Atomizing Disinfection Gun of Blue Nano Disinfection Sprayer</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Product Parameters: Color: White Product Material: ABS+Hardware Product size: 23.5*7*22 Water Tank Capacity: 800ml Product Power: 10W Rated Voltage: 110V-240V/50HZ Output Voltage: DC 12V battery capacity: 2600mah Charging Time 2h Use time: 3 hours Product Use: Remove formaldehyde, Sterilize, Remove peculiar smell, Purify the air Packing List: Spray gun*1 ,USB charging cable*1, English manual*1		
			<b>Warranty: 12 months</b>		
<b>D2.10</b>	<b>20</b>	<b>Nos</b>	<b>Coffee Maker</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			300ml Capacity Grind and Brew Coffeemaker One-touch switching Weight 1.7 kg Dimensions 24.5 × 17 × 29.3 cm Compact Size for 1 – 2 cups Grind and Brew Coffeemaker Drip coffee type 300ml Capacity One-touch switching Easy to clean Detachable Water Tank Power: 600 Watts Voltage: 110V 50 / 60Hz 1 Year Warranty on Parts & Service		
			<b>Warranty: 12 months</b>		
<b>D2.11</b>	<b>10</b>	<b>Nos</b>	<b>Coffee Vending Machines</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dimension : 300*560*690mm Power : 1600W After-sales Service Provided : Online support, Free spare parts, Field maintenance and repair service, Field installation, commissioning and training, Video technical support Warranty : 1 Year colour : black or white drink selection : Three hot drinks powder : instant powder only water supply : top of machine or water pump canister : 3 canister canister capacity : 2kg selling : main in south of		

			asia heater boiler : 1.6L heater highest temperature : 95-98degree machine meterial : metal		
			<b>Warranty: 12 months</b>		
<b>D2.12</b>	<b>10</b>	<b>Nos</b>	<b>Microwave Oven</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			30 Liters Microwave Oven Digital LED display Push button/knob controls with electronic clock Stainless steel body with mirrorized front 10 program settings 5 microwave power levels Express cooking Auto defrost setting Turntable glass plate Easy-to-clean grey enamel coating Child safety lock Output power: 900 watts Power Supply: 220v / 5.0A / 60Hz 1 Year Warranty on Parts & Service		
			<b>Warranty: 12 months</b>		
<b>D2.13</b>	<b>1</b>	<b>Nos</b>	<b>Weighing Scale with Height &amp; Weight</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Superior Accuracy		
			Heavy duty understructure		
			Die cast beam, and aluminum on black insert		
			Easily read from either side		
			Factory assembled		
			Capacity: 400 lb x 4 oz (180 kg x 100 g)		
			Platform Size: 10-1/2 x 14-1/2 inches (267 x 368 mm)		
			Height Rod: Measures 30-78 inches (76-198 cm)		
			Scale height: 59 inches (1.5 m)		
			Cartoon size: Height: 57" x Width: 19 1/2" x Length: 5 1/2"		



			20kg		
			<b>Warranty: 3 years</b>		
<b>D2.14</b>	<b>1</b>	<b>Set</b>	<b>DENTAL CHAIR &amp; ACCESSORIES</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be an accredited distributor / partner.		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Auto spittoon flush and cup filler control system-3-program control system-Assistant control system-Luxurious cuspidor-Saliva ejector with strong and weak suction-High-grade articulated headrest-Purified water supply system-3-way syringe (cold/hot water)-LED film viewer-Multi-functional foot pedal-LED operating lamp with sensor-Dentist stool DF-201A-High Resilience Foam + Seamless PU leather cushion-Instrument tray: low-mounted-Full function Control Panel-Reflecting LED lamp-3-Memory Position-Power voltage: 220V – 60Hz-Motor Voltage: 24V-Air Pressure: 0.2 Mpa – 0.4 Mpa-Max. Loading Capacity 180 KG-Height range of patient chair: 380-800mm		
			<b>Warranty Period: 20 years</b>		
<b>D2.15</b>	<b>12</b>	<b>Nos</b>	<b>4.0 cu.ft. Personal Refrigerator</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Weight: 26 kg		
			Dimensions: 54.2 × 53.2 × 89 cm		
			4.0 cu. ft. Personal Refrigerator		
			Manual Defrost		
			Full-Width Door Racks		
			Crisper Pan		
			Refrigerant R600A		

			Adjustable Leveler		
			Recessed Handle		
			Scratch Proof Cabinet		
			Tempered Glass Shelves		
			LED Light		
			2 Years Warranty on Parts & Service		
			10 Year Warranty on Compressor		
<b>D2.16</b>	<b>4</b>	<b>Nos</b>	<b>8.0 cu.ft. Top Freezer Two Door Refrigerator</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Weight: 42 kg		
			Dimensions: 58.5 × 55.5 × 152 cm		
			8.0 cu.ft. Two Door No-Frost Refrigerator		
			Smart Inverter Compressor		
			Tempered Glass Shelf		
			Transparent Door Basket		
			Vegetable Bin		
			Multi-Air Flow		
			Deodorizer		
			Egg Tray		
			Deodorizer		
			LED Lights		

			R600a Refrigerant		
			2 Years Warranty on Parts & Service		
			10 Year Warranty on Compressor		

**SUPPLY, DELIVERY AND INSTALLATION OF GOODS AND EQUIPMENT FOR  
THE NATIONAL ACADEMY OF SPORTS (NAS) - PHASE 1  
AT NEW CLARK CITY**

**TECHNICAL SPECIFICATIONS COMPLIANCE FORM**

LOT	ITEMS	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant

**SUPPLY, DELIVERY AND INSTALLATION OF OFFICE FURNITURE AND  
FIXTURES**

D3.1	2	Nos	<b>EXECUTIVE OFFICE TABLE - TYPE 1</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Main Table: 2200mm L x 900mm D x 750mm Ht		
			Side Cabinet: 1400mm L x 450mm D x 650mm Ht		
			Table top and legs : 50mm thick board		
			Sidings in 2mm PVC edge band		
			Carcass: Melamine		
			Finish: HPL Laminated available in more than 100 finishes		
			Inclusion:		
			With built in 1 wire management top cover in silver aluminum finish (16cm L x 8cm D)		
			With 3 drawer cabinet with central lock mechanism in soft closed		
			With 2 sliding door cabinet with lock and key		

			With 2 layer opens shelves at back cabinet area
			Adjustable feet leveler
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D3.2</b>	<b>2</b>	<b>Nos</b>	<b>EXECUTIVE OFFICE TABLE - TYPE 2</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Main Table: 2200mm L x 900mm D x 750mm Ht
			Side Cabinet: 1400mm L x 450mm D x 650mm Ht
			Table top and legs : 50mm thick board
			Sidings in 2mm PVC edge band
			Carcass: Melamine
			Finish: HPL Laminated available in more than 100 finishes
			Inclusion:
			With built in 1 wire management top cover in silver aluminum finish (16cm L x 8cm D)
			With 3 drawer cabinet with central lock mechanism in soft closed
			With 2 sliding door cabinet with lock and key
			Metal legs: 1×3 metal steel in customized powder coated finish
			Adjustable feet leveler
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D3.3</b>	<b>1</b>	<b>Nos</b>	<b>EXECUTIVE CONFERENCE TABLE</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region

			Main Table: 4800mm L x 1200mm D x 750mm Ht
			Table top : 50mm thick board
			Sidings in 2mm PVC edge band
			Carcass: Melamine
			Finish: HPL Laminated available in more than 100 finishes
			Inclusion:
			Adjustable feet leveler
			Wire management is optional
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D3.4</b>	<b>4</b>	<b>Nos</b>	<b>EXECUTIVE CHAIR</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Specifications (WDH): 610 mm x 740 mm x 1,120 mm
			Height Adjustable up to:
			Seat (Off the Ground): 600 mm
			Chair: 1,180 mm
			Polyurethane Upholstered
			Chrome Base
			Nylon Casters
			Gas Lift
			Tilt-Lock Mechanism
			Chrome Armrests

			Available Colors: Black		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.5</b>	<b>20</b>	<b>Nos</b>	<b>EXECUTIVE VISITORS CHAIR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Specifications (WDH): 650mm x 650mm x 950 mm		
			Upholstered in Black leatherette		
			Seat: Density Mold Foam Cushion Fabric Seat		
			Armrest: PU		
			With tilting mechanism		
			Base: Metal sled chrome Base		
			Available Colors: Black		
			Weight capacity: 120kg		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.6</b>	<b>32</b>	<b>Nos</b>	<b>OFFICE TABLE - TYPE 1</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Main Table: 1800mm L x 800mm D x 750mm Ht		
			Side Cabinet: 1000mm L x 400mm D x 750mm Ht		
			Structure: Melamine		
			Finish: Dark Cherry with White front cabinet carcass		
			Top +legs : 25mm thick board		

			Side cabinet carcass in 18mm thick melamine board
			Sidings in 2mm PVC edge band
			3 Drawers: 45cm L x 45cm D x 60cm H
			3 drawer cabinet and 2 swing door cabinet 100cm W x 40cm D x 60cm H
			Max Weight Capacity 80Kg
			Features:
			With built in 1 wire management PVC grommet
			Aluminum Bar type handles
			Metal Brackets
			3 drawer cabinet in central lock mechanism
			Adjustable feet leveler
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D3.7</b>	<b>106</b>	<b>Nos</b>	<b>OFFICE TABLE - TYPE 2</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Main Table: 1500mm L x 600mm D x 750mm Ht
			Table top and legs : 25mm thick board
			Cabinet carcass: 18mm thick board
			Sidings in 2mm PVC edge band
			Carcass: Melamine
			Finish: MFC Laminated available in 9 finishes
			Inclusion:

			With 1 PVC grommet for wire way		
			Adjustable feet leveler		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.8</b>	<b>66</b>	<b>Nos</b>	<b>OFFICE CHAIR - TYPE 1</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Specifications (WDH): 750 mm x 650 mm x 1,040 mm		
			Polyurethane Upholstered		
			Nylon Base		
			Polyurethane Casters		
			Gas Lift		
			Tilt-Lock Mechanism		
			Padded Polyurethane Armrests		
			Available Colors: Black		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.9</b>	<b>194</b>	<b>Nos</b>	<b>OFFICE CHAIR - TYPE 2</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Mid back office chair		
			Specifications (WDH): 660mm x 660mm x 905 mm		
			Height Adjustable up to: 940 mm		
			Back Rest: PU Leather Finish		



			Seat: PU Leather Finish		
			With tilting mechanism		
			Base: Steel Chrome Base		
			Casters: Floor-safe PU Casters		
			Available Colors: Black		
			Weight capacity: 120kg		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.10</b>	<b>130</b>	<b>Nos</b>	<b>OFFICE CHAIR - TYPE 3</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Mid back office chair		
			Specifications (WDH): 630mm x 567mm x 920mm		
			Height Adjustable up to: 950 mm		
			Back Rest: Mesh Fabric in Nylon Fiberglass Frame is		
			Seat: Density Mold Foam Cushion Fabric Seat		
			Armrest: PU Adjustable		
			With tilting mechanism		
			Base: Aluminum Star Base		
			Casters: Floor-safe PU Casters		
			Available Colors: Black		
			Weight capacity: 105kg		
			<b>Lifetime Warranty of at least minimum 5 years</b>		

<b>D3.11</b>	<b>44</b>	<b>Nos</b>	<b>OFFICE VISITORS CHAIR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dimension: 440 mm L x 575 mm W x 828 mm H		
			Mid Back Leather Finish Chair		
			Sled Legs in high quality steel Chrome Finish		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.12</b>	<b>3</b>	<b>Nos</b>	<b>SOFA 3-SEATER (TYPE 1)</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			2000mm L x 700mm D x 850mm Ht.		
			Customize: Fabric/ German leatherette fin.		
			Uratex foam with tufting at the back		
			Legs: Solid wood mahogany duco paint fin		
			Inclusive of 2 pillows in standard size 450mm D x 450mm W		
			<b>WARRANTY Workmanship (body/ stitching) : 5 years Fabric : 1 year</b>		
<b>D3.13</b>	<b>5</b>	<b>Nos</b>	<b>SOFA SINGLE-SEATER (TYPE 1)</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			600mm L x 650mm D x 800mm Ht.		
			Customize: Fabric/ German leatherette fin.		

			Uratex foam with tufting at the back
			Legs: Solid wood mahogany duco paint fin
			Inclusive of 1 pillows in standard size 450mm D x 450mm W
			<b>WARRANTY</b> <b>Workmanship (body/ stitching) : 5 years</b> <b>Fabric : 1 year</b>
<b>D3.14</b>	<b>6</b>	<b>Nos</b>	<b>SOFA 3-SEATER (TYPE 2)</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			2000mm L x 700mm D x 850mm Ht.
			Customize: Fabric/ German leatherette fin.
			Uratex foam with tufting at the back
			Legs: Solid wood mahogany duco paint fin
			Inclusive of 2 pillows in standard size 450mm D x 450mm W
			<b>WARRANTY</b> <b>Workmanship (body/ stitching) : 5 years</b> <b>Fabric : 1 year</b>
<b>D3.15</b>	<b>4</b>	<b>Nos</b>	<b>CENTER TABLE</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Table top : 10mm thick tempered tinted glass in polished edge
			Carcass: 25mm Melamine
			Finish: HPL Laminated available in 100 plus finishes
			Inclusion:
			Adjustable feet leveler

			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D3.16</b>	<b>8</b>	<b>Nos</b>	<b>SIDE TABLE</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Table top : 10mm thick tempered tinted glass in polished edge
			Carcass: 25mm Melamine
			Finish: HPL Laminated available in 100 plus finishes
			Inclusion:
			Adjustable feet leveler
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D3.17</b>	<b>11</b>	<b>Nos</b>	<b>MEETING TABLE - RECTANGULAR</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Main Table: 2400mm L x 1200mm D x 750mm Ht
			Table top : 25mm thick board
			Sidings in 2mm PVC edge band
			Carcass: Melamine
			Finish: HPL Laminated available in more than 100 finishes
			Metal legs: 2x2 metal steel in customized powder coated finish
			Inclusion:
			Adjustable feet leveler
			Wire management is optional

			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.18</b>	<b>12</b>	<b>Nos</b>	<b>MEETING TABLE - SQUARE</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Main Table: 1200mm L x 1200mm D x 750mm Ht		
			Table top : 25mm thick board		
			Sidings in 2mm PVC edge band		
			Carcass: Melamine		
			Finish: HPL Laminated available in more than 100 finishes		
			Metal legs: 2x2 metal steel in customized powder coated finish		
			Inclusion:		
			Adjustable feet leveler		
			Wire management is optional		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.19</b>	<b>3</b>	<b>Nos</b>	<b>MEETING TABLE - ROUND</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Main Table: 1200mm D x 750mm Ht		
			Table top : 25mm thick board		
			Sidings in 2mm PVC edge band		
			Carcass: Melamine		
			Finish: HPL Laminated available in more than 100 finishes		

			Metal legs: 1×3 metal steel in customized powder coated finish
			Inclusion:
			Adjustable feet leveler
			Wire management is optional
			<b>Lifetime Warranty of at least minimum 5 years</b>
			<b>FOLDING TABLE</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
<b>D3.20</b>	<b>4</b>	<b>Nos</b>	TYPE 1 : 1200mm L x 400mm D x 750mm Ht.
<b>D3.21</b>	<b>2</b>	<b>Nos</b>	TYPE 2 : 1600mm L x 400mm D x 750mm Ht.
<b>D3.22</b>	<b>2</b>	<b>Nos</b>	TYPE 3 : 1800mm L x 400mm D x 750mm Ht.
			Structure: Melamine
			Finish: MFC Laminated available in White/ Light grey finish only
			Top : 25mm thick board
			Legs: Metal legs in 2mm thick in black powder coated finish
			With caster wheel
			Sidings in 2mm PVC edge band
			Max Weight Capacity 40Kg
			<b>Warranty of at least minimum 5 years</b>
<b>D3.23</b>	<b>24</b>	<b>Nos</b>	<b>FACULTY WORKSTATION DESK</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region

			Size for 1 pax:
			Main table: 1500mm L x 600mm D x 750mm Ht; Side table: 1200mm L x 450mm D x 750mm Ht
			Specifications:
			Structure: Melamine
			Finish: MFC Laminated available in 9 finishes
			Top : 25mm thick board
			Legs: Metal steel 1×3 in customized powder coated finish
			Sidings in 2mm PVC edge band
			Features:
			With built in grommet wire management for each staff
			Metal Brackets
			Adjustable feet leveler
			<b>Warranty of at least minimum 5 years</b>
<b>D3.24</b>	<b>80</b>	<b>Nos</b>	<b>STUDENT LOCKER CABINET</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			6 Doors Metal Locker Cabinet (2 tune)
			Built-In Steel Handles
			Built-In Cardholders
			Louvers per Door
			Padlock Hasps per Door
			Hanger Rod and Shoe Rack

			Dimensions: 72" H x 36" W x 18" D
			Opening: 31-1/2" H x 10" W
			Color: Beige / Gray
			Finish: Powder Coated (Plain)
			Thickness: 0.6 / 0.7
			Option (s): Individual Lock / Individual Combination Lock / Multi-colored Doors
			<b>WARRANTY: Rust proofed material: 5 years</b>
<b>D3.25</b>	<b>50</b>	<b>Nos</b>	<b>STEEL FILING CABINET</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			STEEL FILING CABINET - LATERAL (4S)
			4 Drawers with Lock
			Full Extension Ball Bearing Drawer Slides
			Provision for Vertical and Horizontal Filing
			1 Vertical Steel Divider per Drawer
			Dimensions: 52" H x 33-1/8" W x 18" D
			Color: Beige / Gray / Light Gray
			Finish: Powder Coated (Plain)
			Thickness: 0.7
			Option (s): Double Rail / Combination Lock / Multi-colored Handles
			<b>WARRANTY: Rust proofed material: 5 years</b>
<b>D3.26</b>	<b>40</b>	<b>Nos</b>	<b>LOW HEIGHT SHELVING CABINET - CLOSED</b>



			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dimension: 1400mm L x 500mm D x 1000mm H		
			Material: MDF		
			Color: Wenge or Cherry or Old Rose		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.27</b>	<b>20</b>	<b>Nos</b>	<b>LOW HEIGHT SHELVING CABINET - OPEN</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dimension: 1400mm L x 500mm D x 1000mm H		
			Material: MDF		
			Color: Wenge or Cherry or Old Rose		
			<b>Lifetime Warranty of at least minimum 5 years</b>		
<b>D3.28</b>	<b>20</b>	<b>Nos</b>	<b>PRINTER CABINET WITH OPEN SHELVINGS</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Dimension: 1200mm L x 600mm D x 1000mm H		
			Material: MDF		
			Color: Wenge or Cherry or Old Rose		
			<b>Lifetime Warranty of at least minimum 5 years</b>		

**SUPPLY, DELIVERY AND INSTALLATION OF GOODS AND EQUIPMENT FOR  
THE NATIONAL ACADEMY OF SPORTS (NAS) - PHASE 1  
AT NEW CLARK CITY**

**TECHNICAL SPECIFICATIONS COMPLIANCE FORM**

LOT	ITEMS	UNIT	SPECIFICATIONS	COMPLIANCE	
				Compliant	Non-compliant

**SUPPLY, DELIVERY AND INSTALLATION OF KITCHEN EQUIPMENT & DINING HALL FURNITURE**

<b>D4.1</b>	<b>80</b>	<b>Nos</b>	<b>DINING TABLE SQUARE - OUTDOOR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		
			Material: Plastic/ Wood		
			Color: White/ Natural		
			Dimension: L30" x D30" x H29.15"		
			Foldable Metal Legs		
			With UV Protection		
			<b>Warranty: 12 months</b>		
<b>D4.2</b>	<b>250</b>	<b>Nos</b>	<b>DINING CHAIR- OUTDOOR</b>		
			<b>Qualification of the Bidder</b>		
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region		

			Color: Black, Blue and Red
			Dimension: H80cm x W45cm
			Material: Plastic
			Metal Legs
			With UV Protection
			<b>Warranty: 12 months</b>
<b>D4.3</b>	<b>10</b>	<b>Nos</b>	<b>DINING TABLE SQUARE - INDOOR</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Material: Plastic/ Wood
			Color: White/ Natural
			Dimension: L30" x D30" x H29.15"
			Foldable Metal Legs
			With UV Protection
			<b>Warranty: 12 months</b>
<b>D4.4</b>	<b>10</b>	<b>Nos</b>	<b>DINING TABLE RECTANGLE - INDOOR</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Material: Plastic/ Wood
			Color: White/ Natural
			Dimension: L72" x D30" x H29.15"
			Foldable Metal Legs

			With UV Protection
			<b>Warranty: 12 months</b>
<b>D4.5</b>	<b>100</b>	<b>Nos</b>	<b>DINING CHAIR- INDOOR</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Color: Black, Blue and Red
			Dimension: H80cm x W45cm
			Material: Plastic
			Metal Legs
			With UV Protection
			<b>Warranty: 12 months</b>
<b>D4.6</b>	<b>6</b>	<b>Nos</b>	<b>KITCHEN CABINET</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Dimension: Length varies x 600mm D x 1000mm H
			Custom-made Solid Wood Sideboard Pine Locker Kitchen Cupboard
			Cabinet with 5-Door panels
			with 5 wooden drawers
			Material: MDF (moisture-resist)
			Color: Wenge or Cherry or Old Rose
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D4.7</b>	<b>6</b>	<b>Nos</b>	<b>KITCHEN OVERHEAD CABINET</b>

			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Dimension: Length varies x x 400mm D x 800mm H
			Custom-made Solid Wood Kitchen Wall Cupboard
			Wall Hanging Cabinet Wall-Mounted Storage
			With open shelving below
			4-door panels
			Material: MDF (moisture-resist)
			Color: Wenge or Cherry or Old Rose
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D4.8</b>	<b>5</b>	<b>Nos</b>	<b>Stainless Steel Preparation Table</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Dimension: 60cmx60cmx150cm
			Stainless Steel Preparation Table - 3 Layers
			with cabinet and top shelves
			<b>Warranty: 3 years</b>
<b>D4.9</b>	<b>2</b>	<b>Nos</b>	<b>Commercial Hood Ranges</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Material : 304 stainless
			Electrical: 220v 60hz. With fan , light and switch

			Comes with industrial type oil filter.
			2 oil drain cups on sides
			<b>Manufacturer Warranty: 5 years</b>
<b>D4.10</b>	<b>2</b>	<b>Nos</b>	<b>Stainless Steel Rack Cabinet</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Dimension: 60/70cm x 60cm x 150cm
			Stainless Steel Plain Rack - 4 layers
			<b>Warranty: 5 years</b>
<b>D4.11</b>	<b>5</b>	<b>Nos</b>	<b>Stainless Working Tables (180cmx80cmx80cm)</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Dimension: 180cmx80cmx80cm
			Stainless Steel Table - 2 layers
			<b>Warranty: 5 years</b>
<b>D4.12</b>	<b>20</b>	<b>Nos</b>	<b>Rubber floor mats for Kitchen</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Material: PVC
			pattern: plain
			Style: simple and modern

			Size: 30Cmx30cm
			Applicable space: bathroom
			Cleaning type: hand washable vacuum cleaner
			Applicable scenarios: home bathroom kitchen balcony etc.
			---Sold per piece Free Stitching and you can DIY for what cut you want
			---Bathroom puzzle mat non-slip
			---Safety use
			---Easy to apply
			---Good Quality
			---Affordable
			---You can choose what color you like
			-100- Brand new and high quality.
			Slip impermeable in the bathroom the kitchen can be nice and practical.
			-It can be spliced or cut bump points design the roll of foot massage.
			Three-dimensional round hole splicing floor mat
			Strong anti-skid comfortable foot feeling
			Can be spliced arbitrarily
			Safety and environmental protection
			Soft and comfortable massage the soles of the feet
			Environmentally friendly TPE zero formaldehyde and no odor you can use it with confidence and take care of your family's health
			The water will be cleaned as soon as the water is flushed and the hair will not stick to the hair. The bathroom hair problem is completely avoided
			Simple and easy to splice create the desired space

			Preferred TPE elastic material durable not twisted and deformed comfortable and tough
			High temperature resistant will not burn
<b>D4.13</b>	<b>2</b>	<b>Nos</b>	<b>Commercial Kitchen Fire Suppression System</b>
			<b>Qualification of the Bidder</b>
			The brand must have at least 10 years of existence in the market.
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Commercial Kitchen Fire Suppression System
			<b>Warranty: 20 years upon original installation</b>
<b>D4.14</b>	<b>5</b>	<b>Sets</b>	<b>First aid kit - complete set</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			First aid kit - complete set
			SPECIFICATIONS: Bag color: red
			Bag size: 5.5" x 4"Material: Nylon
			PACKAGE INCLUDES: 1 x First Aid Bag 1 x Triangular Bandage 1 x Gauze (5cm x 4.5m) 2 x Alcohol Pad 2 x Iodine Povidone Swab 1 x Non-Woven Surgical Tape 1 x Scissors 10 x Small Adhesive Bandages 10x pins 22 x sterile cotton swab applicator (Q-tips) TOTAL- 51
			PIECESFEATURES:100% Brand New and High Quality.
			Full set of first aid tools
			Smart solution for correct processing wound, prevent infection



			Convenient handle for easy-carrying
			Full open zipper for easy pick-and-place items
			Perfect for outing/Hiking/Camping
			Striking cross symbol to make you easier to find in the outdoors
			It also can be used for family and for timely handling unexpected emergencies
<b>D4.15</b>	<b>4</b>	<b>Nos</b>	<b>Air Purifier with HEPA Filter</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Applicable area m <sup>2</sup> (ft <sup>2</sup> ): 26 (280)
			Air Volume m <sup>3</sup> /min: High 3.5, Medium 2.0, Low 1.0
			Power Consumption W: High 20, Medium 9, Low 6
			Noise dB(A): High 44, Medium 32, Low 18
			HEPA Filter: Yes
			Filter Replace Indicator / Filter Life Check: Yes
			Motor Type: DC
			3D Circulation Airflow: Yes
			House Dust Catcher: Yes
			Auto Mode: Yes
			Turbo Mode: Yes
			Sleep Mode (8 hours): Yes
			Clean Sign: Yes
			Child Lock: Yes

			Seamless Drive: Yes
			Dimension (H x W x D) mm: 520 x 300 x 189
			Weight kg: 4.8
			HEPA Composite Air Filter / Composite Filter: F-ZXMP35Z
			Deodorising Filter: F-ZXFD35X
			Humidifying Filter: none
			<b>Warranty: 12 months</b>
<b>D4.16</b>	<b>2</b>	<b>Nos</b>	<b>Steel Cabinets - 10 drawers</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			10 Drawers Cabinet
			Structure: NON K/D Structure, 10 Drawers w/o Slide, Inter Lock;
			Materials: 0.5MM Cold Rolling Steel Plate.
			Surface: Powder Coating,
			Finish: Smooth,
			Color: White & Dark Grey
			Size: H93.8*W37.5*D46.2(cm)
			Carton Size: 95.8*39.5*48.2(cm)
			Weight: 30Kg.
			<b>WARRANTY: Rust proofed material: 5 years</b>
<b>D4.17</b>	<b>2</b>	<b>Nos</b>	<b>Steel Cabinets - 8 drawers</b>
			<b>Qualification of the Bidder</b>

			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			8-Drawer Cabinet
			Thickness: 0.6mm
			Size: W28*D41*H109(CM)
			Carton Size: 116*47*7(CM)
			N.W.: 18.2Kgs.
			G.W.: 20.2Kgs
			With metal handle and movable wheels
			<b>WARRANTY: Rust proofed material: 5 years</b>
<b>D4.18</b>	<b>1</b>	<b>Nos</b>	<b>Lockers - 18 doors steel locker</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Model: 6-Layer Utility Cabinet (CC-C18)
			Standard Size: H1850*W900*D400 mm
			Packaging Dimension H157*W10*L95cm
			Weight 52kgs
			Thickness: 0.6mm
			<b>WARRANTY: Rust proofed material: 5 years</b>
<b>D4.19</b>	<b>2</b>	<b>Nos</b>	<b>Office Cabinets - Glass &amp; Metal Swing Door Cabinet</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region

			Model: 5-Layer Glass & Metal Swing Door
			Standard Size: H1850*W900*D400 mm
			Packaging Dimension H188*W20*L81
			Weight 48kgs
			Thickness: 0.6mm
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D4.20</b>	<b>1</b>	<b>Nos</b>	<b>Utility Office Table (200x60)</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Steel Frame
			Dimension: W2000*D600*H750mm
			<b>Lifetime Warranty of at least minimum 5 years</b>
<b>D4.21</b>	<b>2</b>	<b>Nos</b>	<b>Height Adjustable Table for Para-athletes</b>
			<b>Qualification of the Bidder</b>
			The bidder must be capable of providing after sales service within service centers in Region III or National Capital Region
			Electric-Height Adjustable Single Motor Desk
			Table top: Waterproof MDF Sealed with Carbon Fiber textured ABS
			Intelligent High Memory
			Intelligent Sedentary Reminder
			Materials: P2PB/ ABS/ Carbon Steel
			Lifting Range: 74-119cm (Speed: 2M/Second)
			Color: Black

			Product Size: 110*60*74-119CM
			Carton Size: 118*69.5*12CM
			Weight Capacity: 100Kg
			Net Weight: 19Kg
			Gross Weight: 22.6Kg
			<b>Lifetime Warranty of at least minimum 5 years</b>

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**SECTION VIII.**

**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
- (e) Original Copy of the Receipt for the Purchase of the Bidding Document

#### Technical Documents

- (f) 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; **and**
- (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; **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; **and**
- (i) Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; **and**
- (j) Original duly signed Omnibus Sworn Statement (OSS);  
**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  
ADDITIONAL REQUIREMENTS in the Bidding Documents
- (k) Notarized Proof of Partnership with the manufacturer or distributor (Manufacturer's Authorization Form)
- (l) Notarized Statement of After Sales Support Service Availability
- (m) Certificate of Gold Partner from the brand manufacturer of the items to be supplied by the Bidder (applicable for Bidders of Lot B)
- (n) Notarized Manufacturer Certification stating that the brand of the item/s to be supplied by the Bidder are existing in the market for at least ten (10)

- years;
- (o) Product Brochure containing the description of the item to be offered during the Opening and Evaluation of Bid and Post qualification.

Financial Documents

- (p) The Supplier's audited financial statements, showing, among others, the Supplier'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**
- (q) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC);  
**or**  
A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

**Class "B" Documents**

- (r) If applicable, a duly signed joint venture agreement (JVA) 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.

Other documentary requirements under RA No. 9184 (as applicable)

- (s) *[For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos]* Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- (t) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

**25 FINANCIAL COMPONENT ENVELOPE**

- (a) Original of duly signed and accomplished Financial Bid Form; **and**
- (b) Original of duly signed and accomplished Price Schedule(s)



***Annex “A”***  
***TERMS OF REFERENCE (TOR)***

## TERMS OF REFERENCE

### PROCUREMENT FOR THE SUPPLY, DELIVERY AND INSTALLATION OF GOODS (FURNITURE AND EQUIPMENT) FOR THE NATIONAL ACADEMY OF SPORTS (NAS) – PHASE 1 AT NEW CLARK CITY

#### I. GENERAL BACKGROUND

1. The Bases Conversion and Development Authority (BCDA) is implementing the New Clark City Project (NCC), a flagship project of the Government of the Republic of the Philippines. This 9,450-hectare metropolis is a planned city landscape north of Metro Manila that will host businesses, domestic and international trade, schools and hospitals, research and development entities, regional tourism centers, national government offices, and international headquarters.
2. On 09 June 2020, the Republic Act No. 11470 or the National Academy of Sports Act (“NAS Act”) was created to establish the National Academy of Sports System (NAS System) for secondary education program integrated with special curriculum on sports to be offered to natural-born Filipino citizens with offered on a full scholarship basis. The NAS System shall be attached to the Department of Education (DepEd), in close coordination with the Philippine Sports Commission (PSC).
3. The NAS Act mandates the BCDA with critical undertakings towards the establishment of the NAS System by requiring the provision the project site, undertake the construction and ensure that funding for the construction works is secured:

(Section 5) Construction and Site of the NAS Main Campus.

“Provide the land for the site by way of usufruct in perpetuity”, and “be in charge of the construction of classrooms, dormitories, and other sports facilities, and related amenities as may be determined by the Board of Trustees at the New Clark City campus”.

(Section 21) Appropriations.

“BCDA shall likewise immediately include in its procurement plan the construction of classrooms, dormitories, and other sports facilities and related amenities for the NAS main campus whose funding shall also be included in the General Appropriations Act.”

4. The construction program for the infrastructure development of the NAS System is divided by phases to manage the works required. This project covers the Phase 1 construction works, which is prioritized to provide the facilities that should be present to accommodate the first batch of students under the junior high school level. Phase 2 development, which is targeted to commence in 2023, will include the provision of expansion works as well as the provision of dormitory, kitchen hall,

and more sporting facilities to provide a full-service facility for the campus as both the administrative and the academic population reaches their optimal level.

## II. SCOPE OF WORK

The scope of works required for each respective Lot is provided in Section VII Technical Specifications where the instructions for the supply, delivery and installation of the materials, goods and equipment involved are described in detail.

As part of the delivery, BCDA shall also conduct inspection and functional testing prior to the acceptance and payment for each respective Lot.

## III. QUALIFICATIONS OF BIDDER

1. With at least TEN (10) years of existence as a reliable provider of any particular lot.
2. The Bidder must have completed a single contract that is similar to the project, equivalent to at least fifty percent (50%) of the ABC on a per lot basis; or at least two (2) similar completed contracts with the aggregate amount equivalent to at least fifty percent (50%) of the ABC on a per lot basis. The similar contract shall have been completed within five (5) years from the date of submission and receipt of bid.

For this purpose, contracts similar to the Project shall be:

Lot	Description	Similar Project
A	Utilities Equipment	Supply and delivery of electrical and/or mechanical equipment.
B	ICT Equipment	Supply and delivery of ICT Equipment and/or Network Infrastructure and/or Audio Visual Equipment.
	Network Infrastructure	
	Audio Visual Equipment	
C	Sports Equipment	Supply and delivery of Sports equipment and/or Fitness Testing & Monitoring Equipment and/or Physical Therapy & Rehabilitation Equipment.
	Fitness Testing & Monitoring Equipment	
	Physical Therapy & Rehabilitation Equipment	
D	Classroom Furniture	Supply and delivery of furniture and/or fixture and/or equipment.
	Office Equipment	
	Office furniture and fixtures	
	Kitchen Equipment and Dining Hall furniture	

## 3. ADDITIONAL REQUIREMENTS

### 3.1 BIDDER FOR LOT A: ADDITIONAL QUALIFICATIONS

1. The Bidder shall secure a Notarized Manufacturer's Certification that the brand of the item supplied is existing in the market for at least ten (10) years.

2. The Bidder is required to submit a duly notarized **“Manufacturer’s Authorization Form”** (template provided in Annex B Bidding Forms) as proof of partnership with manufacturer/brand (i.e. Authorized reseller/distributor) with the manufacturer for the supply of select Goods or Equipment as stipulated in this section.

3. The Bidder must submit the duly notarized **”Statement of After Sales Support Availability”** stating the Bidder commitment to extend their full guarantee and warranty as per the warranty clause for the goods offered under the submitted bid with explicit warranty requirement in Section VII Technical Specification. The location of such specific service centers shall be within the **National Capital Region** or **Central Luzon Region 3**. The after sales support center shall be available for **24/7** technical support **for the entire duration of the warranty period required for each select goods or equipment.**

The After Sales Support Service Availability refers to the service centers which bears the same brand name as that of the items supplied by the supplier, and is an office capable of providing required manufacturer’s spare parts for the goods and equipment and must be operational for at least the specified warranty period for each select goods and equipment after the Award of the Contract.

The Bidder is required to accomplish and submit the forms specified in this section covering the following goods and equipment:

	Description	Notarized Manufacturer Authorization Form	Notarized Statement of Aftersales Support Service Availability	Notarized Manufacturer’s Certificate that brand of item supplied is existing in the market for atleast 10 years
A1.1	500kVA/400kW Stand by Generator Set	Yes	Yes	Yes
A1.2	Medium Voltage Switchgear	n/a	Yes	Yes
A1.3	500kVA Pad Mounted Transformer	n/a	Yes	Yes
A1.4	500GPM Fire Pump	n/a	Yes	Yes
A1.5	26GPM Jockey Pump	n/a	Yes	Yes
A1.6	Multi-Sport Gym - Constant Pressure System Booster Pump (Triplex with Individual VFD)	n/a	Yes	Yes
A1.7	ACADEMIC/ADMIN BUILDING - CONSTANT PRESSURE SYSTEM BOOSTER PUMP	n/a	Yes	Yes

	(TRIPLEX WITH INDIVIDUAL VFD)			
A1.8	LANDSCAPE - CONSTANT PRESSURE SYSTEM BOOSTER PUMP	n/a	Yes	Yes
A1.9	SUMP PUMP - 250GPM DUPLEX, NON-CLOG SUBMERSIBLE, QUICK DISCONNECT PUMP	n/a	Yes	Yes
A1.10	Sewage Treatment Plant (multi-stage biological process incorporating biological nutrient removal (BNR), )			

### 3.2 BIDDER FOR LOT B: ADDITIONAL QUALIFICATIONS

<p>1. The Bidder must submit all supporting documents for each employee nominated to satisfy the requirements specified in Lot B under Section VII Technical Specifications.</p> <p>The Bidder must submit the following supporting documents for each expert/personnel required:</p> <ol style="list-style-type: none"> <li>Certificate of employment stating that personnel has been employed by the prospective bidder minimum of 24 months before submission and opening of bids;</li> <li>Company identification cards;</li> <li>Proof of certificates valid before submission and opening of bids.</li> </ol>
<p>2. The Bidder shall secure a Notarized Manufacturer's Certification that the brand of the item supplied is existing in the market for at least ten (10) years for the supply of select Goods or Equipment as stipulated in this section.</p>
<p>3. The Bidder is required to submit a certification from the manufacturer stating that the Vendor/Supplier is at least a <b>Gold Partner</b> for the supply of select Goods or Equipment as stipulated in this section.</p>
<p>4. The Bidder must submit the duly notarized" Statement of <b>After Sales Support Availability</b>" stating the Bidder commitment on warranty coverage of the proposed goods and equipment as required in Section VII Technical Specification. The location of such specific service centers shall be within the <b>National Capital Region</b> or <b>Central Luzon Region 3</b>. The after sales support center shall be available for <b>24/7</b> technical support <b>for the entire duration of the warranty period required for ALL goods under LOT B</b>.</p> <p>The After Sales Support Service Availability refers to the service centers which bears the same brand name as that of the items supplied by the supplier, and is an office capable of providing required manufacturer's</p>

spare parts for the goods and equipment and must be operational for at least the specified warranty period for each select goods and equipment after the Award of the Contract.

The Bidder is required to accomplish and submit the forms specified in this section covering the following goods and equipment:

	Description	Bidder's Distribu torship from Manufa cturer	After Sales Services (Service Center)	Notariz ed Manuf acterur 's Certific ate that brand of item supplie d is existin g in the market for atleast 10 years	Gold Partn er
<b>ICT EQUIPMENT</b>					
B1.1	External Hard Drive	n/a	Yes	n/a	n/a
B1.2	27-inch Screen Extended Display	n/a	Yes	n/a	n/a
B1.3	Standard Desktop Printer	n/a	Yes	Yes	n/a
B1.4	(3 in 1) : Printer, Scanner, Copier -- High speed and Legal Size Scanner	n/a	Yes	Yes	Yes
B1.5	3 in 1 High End Printer	n/a	Yes	Yes	n/a
B1.6	ID Printer	n/a	Yes	n/a	n/a
B1.7	Standard Scanner	n/a	Yes	n/a	n/a
B1.8	55" Smartboard	n/a	Yes	n/a	n/a
B1.9	DESKTOP CONFIG-STANDARD	n/a	Yes	Yes	Yes

B1.10	DESKTOP - MID	n/a	Yes	Yes	Yes
B1.11	DESKTOP – High End	n/a	Yes	Yes	Yes
B1.12	VOICE RECORDERS	n/a	Yes	n/a	n/a
B1.13	LAPTOP - MID	n/a	Yes	Yes	Yes
B1.14	LAPTOP - HIGH END	n/a	Yes	Yes	Yes
B1.15	Uninterruptible Power Supply	n/a	Yes	Yes	n/a
<b>B2 NETWORK INFRASTRUCTURE</b>					
B2.1	DATA CENTER FACILITY	n/a	(Refer to Annex A Technical Specification for requirement per component)	(Refer to Annex A Technical Specification for requirement per component)	n/a
B2.2	TRADITIONAL VIRTUALIZATION	n/a	Yes	Yes	n/a
B2.3	NETWORK ATTACHED STORAGE (NAS) (Quantity: 1)	n/a	Yes	Yes	n/a
B2.4	ACTIVE DIRECTORY SERVER	n/a	Yes	Yes	n/a
B2.5	INTERNET ROUTER	n/a	Yes	Yes	n/a
B2.6	CORE SWITCH	n/a	Yes	Yes	n/a
B2.7	ACCESS SWITCH -ADMIN AND ACAD BLDG 170,000.00	n/a	Yes	Yes	n/a
B2.8	ACCESS SWITCH - MULTI SPORT 48P PoE SWITCH	n/a	Yes	Yes	n/a

B2.9	MANAGEMENT SWITCH (24-port Switch)	n/a	Yes	Yes	n/a
B2.10	SERVER SWITCH	n/a	Yes	Yes	n/a
B2.11	OUTDOOR ACCESS POINT	n/a	Yes	Yes	n/a
B2.12	POINT TO POINT ACCESS POINT	n/a	Yes	Yes	n/a
B2.13	Directional Antenna 500m	n/a	Yes	n/a	n/a
B2.14	Door Access System			Yes	
B2.15	CABLING	n/a	Yes	Yes	n/a
B2.16	Firewall	n/a	Yes	Yes	n/a
B2.17	+ 10G SFP Transceiver	n/a	Yes	n/a	n/a
B2.18	ENDPOINT SECURITY	n/a	Yes	Yes	n/a
B2.19	Server protection + annual maintenance (Endpoint + Server)	n/a	Yes	Yes	n/a
B2.20	Virtual Firewall	n/a	Yes	Yes	n/a
B2.21	Virtual Web Application Firewall	n/a	Yes	Yes	n/a
B2.22	Mobile Device Management	n/a	Yes	Yes	n/a
B2.23	IPPBX (Appliance) with ISDN port	n/a	Yes	Yes	n/a
B2.24	High Availability	n/a	Yes	n/a	n/a
B2.25	Executive Phone	n/a	Yes	n/a	n/a
B2.26	Manager's Phone	n/a	Yes	n/a	n/a
B2.27	Operator Phone	n/a	Yes	n/a	n/a
B2.28	Conference Phone	n/a	Yes	n/a	n/a
B2.29	E1/T1 Gateway	n/a	Yes	n/a	n/a
<b>AUDIO VISUAL EQUIPMENT</b>					



B3.1	SMART TV LED TV 50"	n/a	Yes	Yes	Yes
B3.2	SMART LED TV 65"	n/a	Yes	Yes	Yes
B3.3	SMART LED TV 43"	n/a	Yes	Yes	Yes
B3.4	SMART LED TV 32"	n/a	Yes	Yes	Yes
B3.5	TV ACCESSORIES	n/a	Yes	n/a	n/a
B3.6	AUDIO SYSTEM	n/a	Yes	Yes	Yes
B3.7	BROADCAST SYSTEM	n/a	Yes	Yes	n/a
B3.8	AV INTEGRATION UNIT	n/a	Yes	n/a	n/a
B3.9	WHITE BOARD	n/a	Yes	n/a	n/a
B3.10	SILVER SCREEN FOR PROJECTOR	n/a	Yes	n/a	n/a
B3.11	WIRELESS PROJECTOR	n/a	Yes	n/a	Yes
B3.12	AUDIO VISUAL ACCESSORIES	n/a	Yes	n/a	n/a

### 3.3 BIDDER FOR LOT C: ADDITIONAL QUALIFICATIONS

1. The Bidder shall secure a Notarized Manufacturer's Certification that the brand of the item supplied is existing in the market for at least ten (10) years.
2. The Bidder is required to submit a duly notarized "**Manufacturer's Authorization Form**" (template provided in Annex B Bidding Forms) as proof of partnership with manufacturer/brand (i.e. Authorized reseller/distributor) for the supply of select Goods or Equipment as specified in below reference list.
3. The Bidder must submit a notarized Certificate OF Authenticity proving that the source or manufacturing brand of goods and equipment as specified in below reference list is recognized by the International Sports Federation.
4. The Bidder must submit a duly notarized "Statement of After Sales Support Availability" stating that the Bidder assigns at least one after sales support center located within the **National Capital Region** or within the **Central Luzon Region 3**. The after sales support center shall be available for **24/7 technical support for the entire duration of the warranty period required for the specified goods or equipment.**

**Reference for Lot C**

	<b>Description</b>	Manufacturer's Authorization Form	Statement of Aftersales Support Service Availability	Notarized Manufacturer's Certificate that brand of item supplied is existing in the market for at least 10 years	Certificate of Authenticity
<b>Sports Equipment</b>					
C1.1	Basketball Backstop	n/a	Yes	n/a	Yes
C1.2	Basketball Scoreboard With Controller	n/a	Yes	Yes	Yes
C1.3	Basketball Shot Clock With Controller	n/a	Yes	Yes	Yes
C1.4	Tabletop Scoreboard (Digital)	n/a	Yes	n/a	Yes
C1.5	Professional Volleyball Set	n/a	Yes	Yes	Yes
C1.6	Long Table	n/a	n/a	n/a	n/a
C1.7	Sports Team Benches	n/a	n/a	n/a	n/a
C1.8	Handball Goal	n/a	Yes	n/a	Yes
C1.9	Movable Badminton Post And Net	n/a	Yes	n/a	Yes
C1.10	Badminton Umpire Chair	n/a	Yes	n/a	Yes
C1.11	Badminton Scoreboard	n/a	Yes	n/a	Yes
C1.12	Badminton Feeder	n/a	Yes	n/a	Yes
C1.13	Balance Beam For Training (Adjustable)	n/a	Yes	n/a	Yes
C1.14	Trampoline	n/a	Yes	n/a	Yes
C1.15	Chalk Stand	n/a	Yes	n/a	n/a
C1.16	Scoreboard For Table Tennis	n/a	Yes	Yes	Yes
C1.17	Table Tennis Ball Feeder	n/a	Yes	n/a	Yes
C1.18	Table Tennis Court Fence	n/a	Yes	n/a	Yes
C1.19	Table Tennis Table	n/a	Yes	n/a	Yes
C1.20	Table Tennis Net And Post	n/a	Yes	n/a	Yes
C1.21	Competition Hurdles	n/a	Yes	n/a	Yes

C1.22	Starting Block	n/a	Yes	n/a	Yes
C1.23	High-Power Treadmill (Regular Commercial Treadmill)	Yes	Yes	Yes	n/a
C1.24	Manual Curved Treadmill	Yes	Yes	n/a	n/a
C1.25	Indoor Cycling Bike	Yes	Yes	Yes	n/a
C1.26	Air Powered Functional Trainer	n/a	Yes	Yes	n/a
C1.27	Functional Trainer Accessories	n/a	Yes	Yes	n/a
C1.28	Compressor	n/a	Yes	Yes	n/a
C1.29	Base Jammer	n/a	Yes	Yes	n/a
C1.30	Athletic Power Rack	n/a	Yes	n/a	n/a
C1.31	Weightlifting Platform	n/a	Yes	n/a	n/a
C1.32	Multi-Adjustable Bench	n/a	Yes	n/a	n/a
C1.33	Flat Olympic Bench With Weight Storage	n/a	Yes	n/a	n/a
C1.34	Rubber Dumbbell Set with Urethane Handles And Return Rack	n/a	Yes	n/a	n/a
C1.35	Plate-Loaded ISO Lateral Shoulder Press Machine	n/a	Yes	n/a	n/a
C1.36	Plate-Loaded ISO Lateral Wide Chest	n/a	Yes	n/a	n/a
C1.37	Adjustable Pulley Outrigger	n/a	Yes	n/a	n/a
C1.38	Hip And Glute Machine	n/a	Yes	n/a	n/a
C1.39	Plate-Loaded Linear Hack Squat	n/a	Yes	n/a	n/a
C1.40	Plate -Loaded ISO Lateral Leg Extension	n/a	Yes	n/a	n/a
C1.41	Plate-Loaded ISO Leg Curl	n/a	Yes	n/a	n/a
C1.42	Olympic Bumper Plates	n/a	Yes	n/a	n/a
C1.43	Olympic Bar with locks	n/a	Yes	n/a	n/a
C1.44	Rubber Olympic Disc Set	n/a	Yes	n/a	n/a
C1.45	Medicine Ball	n/a	Yes	n/a	n/a
C1.46	Suspension Trainer	n/a	Yes	Yes	n/a
C1.47	Kettlebell with Chrome Handle Set	n/a	Yes	n/a	n/a
C1.48	Wall Mounted Gym Trainer	n/a	Yes	n/a	n/a

C1.50	Velocity Based Tracker	Yes	Yes	Yes	n/a
C1.51	Open Trap bar	n/a	Yes	Yes	n/a
C1.52	Plyo Boxes	n/a	Yes	n/a	n/a
C1.53	1080 Sprint	n/a	Yes	Yes	n/a
C1.54	Slide Board	n/a	Yes	n/a	n/a
C1.55	Contact Grid	n/a	Yes	n/a	n/a
C1.56	Dual Force Plates	n/a	Yes	n/a	n/a
C1.57	Seated Calf Raise Machine	n/a	Yes	n/a	n/a
<b>FITNESS TESTING &amp; MONITORING EQUIPMENT</b>					
C2.1	Bioelectrical Impedance Analyzer	Yes	Yes	Yes	n/a
C2.2	Timing Gates	Yes	Yes	Yes	n/a
C2.3	Super Treadmill	Yes	Yes	Yes	n/a
C2.4	Physiological Monitoring System	Yes	Yes	Yes	n/a
C2.5	Heart Rate Monitors (Sensor)	n/a	Yes	Yes	n/a
C2.6	Cycle Ergometer	Yes	Yes	Yes	n/a
C2.7	High Resolution Camera	Yes	Yes	Yes	n/a
C2.8	Refractometer For Urine Specific Gravity	n/a	Yes	Yes	n/a
C2.9	Strength Dynamometer	Yes	Yes	Yes	n/a
C2.10	Sit And Reach Box	n/a	Yes	n/a	n/a
C2.11	Goniometer	Yes	Yes	Yes	n/a
C2.12	Vertec	Yes	Yes	Yes	n/a
C2.13	Field Speaker - Trolley Type	n/a	Yes	n/a	n/a
C2.14	Weighing Scale - Eye Level Beam Type With Stadiometer	n/a	Yes	Yes	n/a
<b>PHYSICAL THERAPY &amp; REHABILITATION EQUIPMENT</b>					
C3.1	Anti-Gravity Treadmill	Yes	Yes	Yes	n/a
C3.2	Overhead / Ceiling- Mounted Track And Harness	n/a	Yes	Yes	n/a
C3.3	Therapeutic Ultrasound	n/a	Yes	Yes	n/a

C3.4	Portable Electrotherapy Machine	n/a	Yes	Yes	n/a
C3.5	Shockwave	n/a	Yes	Yes	n/a
C3.6	Portable Percussion Massage Gun	n/a	Yes	n/a	n/a
C3.7	Thermal Regulated Pneumatic Compression	Yes	Yes	Yes	n/a
C3.8	Inflatable Ice Bath System	n/a	Yes	Yes	n/a
C3.9	Cervical And Lumbar Mechanical Traction Machine	n/a	Yes	n/a	n/a
C3.10	Traction Bed	n/a	Yes	n/a	n/a
C3..1 1	Parallel Bars	n/a	Yes	n/a	n/a
C3.12	Medicine Balls (All Sizes)	n/a	Yes	n/a	n/a
C3.13	Vinyl Coated Dumbbell	n/a	Yes	n/a	n/a
C3.14	Cuff Weights	n/a	Yes	n/a	n/a
C3.15	Resistance Bands	n/a	Yes	n/a	n/a
C3.16	Plyometric Box	n/a	Yes	n/a	n/a
C3.17	Cognitive & Coordination Training Platform	n/a	Yes	n/a	n/a
C3.18	Treatment Table	n/a	Yes	n/a	n/a
C3.19	Ergo Chair	n/a	Yes	n/a	n/a
C3.20	Working Table	n/a	Yes	n/a	n/a
C3.21	Hydro collator	Yes	Yes	Yes	n/a
C3.22	Freezer	Yes	Yes	Yes	n/a
C3.23	Hot packs (All Sizes)	n/a	Yes	n/a	n/a
C3.24	Cold packs	n/a	Yes	n/a	n/a
C3.25	Paraffin Wax Bath	n/a	Yes	n/a	n/a

### 3.4 BIDDER FOR LOT D: ADDITIONAL QUALIFICATIONS

1. The Bidder is required to submit a duly notarized “**Manufacturer’s Authorization Form**” (template provided in Annex B Bidding Forms) (template provided in Annex B Bidding Forms) as proof of partnership with manufacturer/brand (i.e. Authorized

reseller/distributor) for the supply of select Goods or Equipment as specified in the reference list below.

- The Bidder must submit a duly notarized "Statement of After Sales Support Availability" stating that the Bidder assigns at least one after sales support center located within the **National Capital Region** or within the **Central Luzon Region 3**. The after sales support center shall be available for **24/7** technical support **for the entire duration of the warranty period required for the specified goods or equipment**.

#### Reference for Lot D

	Description	Manufacturer's Authorization Form	Statement of Aftersales Support Service Availability	Notarized Manufacturer's Certificate that brand of item supplied is existing in the market for at least 10 years
<b>Classroom Furnitures</b>				
D1.1	Collaborative Student Desk	n/a	Yes	n/a
D1.2	Student Chair	n/a	Yes	n/a
<b>Office Equipment</b>				
D2.1	Binding Machine	n/a	Yes	n/a
D2.2	Paper Shredder	n/a	Yes	n/a
D2.3	Paper Trimmer Cutting Machine	n/a	Yes	n/a
D2.4	Floor Mounted (Tight Fit UV)	n/a	Yes	n/a
D2.5	Infrared Thermal Scanner w/ stand, K3	n/a	Yes	n/a
D2.6	Non-Contact Infrared Forehead Thermometer	n/a	Yes	n/a
D2.7	Automatic Alcohol Dispenser with Stand	n/a	Yes	n/a
D2.8	ULV Generator Misting Machine Cold Fogger	n/a	Yes	n/a
D2.9	Atomizing Disinfection Gun of Blue Nano Disinfection Sprayer	n/a	Yes	n/a
D2.10	Coffee Maker	n/a	Yes	n/a
D2.11	Coffee Vending Machines	n/a	Yes	n/a
D2.12	Microwave Oven	n/a	Yes	n/a
D2.13	Weighing Scale with Height & Weight	n/a	Yes	n/a

D2.14	Dental Chair & Accessories	Yes	Yes	n/a
D2.15	4.0 cu.ft. Personal Refrigerator	n/a	Yes	n/a
D2.16	8.0 cu.ft. Top Freezer Two Door Refrigerator	n/a	Yes	n/a
<b>Office Furniture and Fixtures</b>				
D3.1	Executive Office Table - Type 1	n/a	Yes	n/a
D3.2	Executive Office Table - Type 2	n/a	Yes	n/a
D3.3	Executive Conference Table	n/a	Yes	n/a
D3.4	Executive Chair	n/a	Yes	n/a
D3.5	Executive Visitors Chair	n/a	Yes	n/a
D3.6	Office Table - Type 1	n/a	Yes	n/a
D3.7	Office Table - Type 2	n/a	Yes	n/a
D3.8	Office Chair - Type 1	n/a	Yes	n/a
D3.9	Office Chair - Type 2	n/a	Yes	n/a
D3.10	Office Chair - Type 3	n/a	Yes	n/a
D3.11	Office Visitors Chair	n/a	Yes	n/a
D3.12	Sofa 3-Seater (Type 1)	n/a	Yes	n/a
D3.13	Sofa Single-Seater (Type 1)	n/a	Yes	n/a
D3.14	Sofa 3-Seater (Type 2)	n/a	Yes	n/a
D3.15	Center Table	n/a	Yes	n/a
D3.16	Side Table	n/a	Yes	n/a
D3.17	Meeting Table - Rectangular	n/a	Yes	n/a
D3.18	Meeting Table - Square	n/a	Yes	n/a
D3.19	Meeting Table - Round	n/a	Yes	n/a
D3.20	Folding Table Type 1	n/a	Yes	n/a
D3.21	Folding Table Type 2	n/a	Yes	n/a
D3.22	Folding Table Type 3	n/a	Yes	n/a
D3.23	Faculty Workstation Desk	n/a	Yes	n/a
D3.24	Student Locker Cabinet	n/a	Yes	n/a
D3.25	Steel Filing Cabinet	n/a	Yes	n/a

D3.26	Low Height Shelving Cabinet - Closed	n/a	Yes	n/a
D3.27	Low Height Shelving Cabinet - Open	n/a	Yes	n/a
D3.28	Printer Cabinet With Open Shelvings	n/a	Yes	n/a
<b>Kitchen Equipment and Dining Hall Furniture</b>				
D4.1	Dining Table Square - Outdoor	n/a	Yes	n/a
D4.2	Dining Chair- Outdoor	n/a	Yes	n/a
D4.3	Dining Table Square - Indoor	n/a	Yes	n/a
D4.4	Dining Table Rectangle - Indoor	n/a	Yes	n/a
D4.5	Dining Chair- Indoor	n/a	Yes	n/a
D4.6	Kitchen Cabinet	n/a	Yes	n/a
D4.7	Kitchen Overhead Cabinet	n/a	Yes	n/a
D4.8	Stainless Steel Preparation Table	n/a	Yes	n/a
D4.9	Commercial Hood Ranges	n/a	Yes	n/a
D4.10	Stainless Steel Rack Cabinet	n/a	Yes	n/a
D4.11	Stainless Working Tables (180cmx80cmx80cm)	n/a	Yes	n/a
D4.12	Rubber floor mats	n/a	Yes	n/a
D4.13	Commercial Kitchen Fire Suppression System	n/a	Yes	Yes
D4.14	First aid kit	n/a	Yes	n/a
D4.15	Air Purifier with HEPA Filter	n/a	Yes	n/a
D4.16	Steel Cabinets - 10 drawers	n/a	Yes	n/a
D4.17	Steel Cabinets - 8 drawers	n/a	Yes	n/a
D4.18	Lockers - 18 doors steel locker	n/a	Yes	n/a
D4.19	Office Cabinets - Glass & Metal Swing Door Cabinet	n/a	Yes	n/a
D4.20	Utility Office Table (200x60)	n/a	Yes	n/a
D4.21	Height Adjustable Table for Para-athletes	n/a	Yes	n/a

#### IV. DELIVERY SCHEDULE



Each of the procured items shall be delivered within the respective Delivery Period upon the date of receipt of Purchased Order/Notice to Proceed.

Lot	Description	Delivery Period (Calendar Days)
A	Utilities Equipment	60
B	ICT Equipment	90
	Network Infrastructure	
	Audio Visual Equipment	
C	Sports Equipment	60
	Fitness Testing & Monitoring Equipment	
	Physical Therapy & Rehabilitation Equipment	
D	Classroom Furniture	60
	Office Equipment	
	Office furniture and fixtures	
	Kitchen Equipment and Dining Hall furniture	

#### V. PLACE OF DELIVERY

The place of delivery will be at New Clark City Capas, Tarlac.

#### VI. APPROVED BUDGET OF THE CONTRACT (ABC)

The total ABC is **One Hundred Thirty Million One Hundred Sixteen Thousand (Php130,116,000.00)**, inclusive of all applicable government taxes and fees, divided into four (4) lots. Any bid with a financial component exceeding the ABC for a particular lot shall not be accepted.

Lot	Description	Qty.	ABC (Php)
A	Utilities Equipment	1	<b>20,993,460.00</b>
B	ICT Equipment	1	<b>46,690,400.00</b>
	Network Infrastructure		
	Audio Visual Equipment		
C	Sports Equipment	1	<b>47,098,640.00</b>
	Fitness Testing & Monitoring Equipment		
	Physical Therapy & Rehabilitation Equipment		
D	Classroom Furniture	1	<b>15,333,500.00</b>
	Office Equipment		
	Office furniture and fixtures		
	Kitchen Equipment and Dining Hall furniture		
<b>TOTAL ABC (Php)</b>			<b>130,116,000.00</b>

Bidders shall have the option of submitting a proposal on any or all lots. Evaluation

and contract award will be undertaken on a per lot basis. Lots shall not be divided further into sub-lots for the purpose of bidding, evaluation, and contract award. In all cases, the NFCC computation must be at least equivalent to the particular lot to be bid.

## **VII. TERMS OF PAYMENT**

In consideration of the requirements under this TOR, payment to the winning Bidder shall be made upon completion of the scope of works for each lot subject to the usual auditing and accounting procedures.

- A. Payments shall be made only upon a certification by the BCDA to the effect that the Goods have been supplied, delivered, and installed in accordance with the terms of this Contract and have been duly inspected and accepted. Except with the prior approval of the President, no payment shall be made for services not yet rendered or for supplies and materials not yet delivered under this Contract.
- B. The currency in which payment is made to the Supplier under this Contract shall be in Philippine Pesos.

## **VIII. WARRANTY**

In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty security shall be required from the contract awardee for a minimum period of one (1) year after acceptance by the BCDA of the delivered supplies in accordance with Section 62.1 of the 2016 revised IRR of RA No. 9184.

The obligation for the warranty shall be covered by either retention money in an amount equivalent to at least one percent (1%) of every progress payment, or a special bank guarantee equivalent to at least one percent (1%) of the total contract price. The said amounts shall only be released after the lapse of the warranty period.

## **IX. CORRUPT, FRAUDULENT, COLLUSIVE AND COERCIVE PRACTICE**

Any attempt by the bidder to influence the BAC or its authorized representatives in the evaluation of the bids or contract award decisions shall result in the rejection of its bid or revocation of award as the case may be, and the application of other sanctions and remedies provided by law.

## **IX. RESERVATION CLAUSE**

BCDA reserves the right to accept or reject any and all proposals, to terminate the procurement process, or to reject all proposals at any time prior to the contract award, without thereby incurring any liability to the affected proponent bidders.

***Annex “B”***

***Bidding Forms***

## Bid Form

---

Date: \_\_\_\_\_

Invitation to Bid N<sup>o</sup>: \_\_\_\_\_

To: BASES CONVERSION AND DEVELOPMENT AUTHORITY  
2<sup>nd</sup> Floor Bonifacio Technology Center  
31<sup>st</sup> St., Cor. 2<sup>nd</sup> Ave., Bonifacio Global City  
Taguig City

Gentlemen and/or Ladies:

Having examined the Bidding Documents including Bid Bulletin Numbers *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to *Bid for the **Procurement of Goods and Equipment for the National Academy of Sports (NAS) – Phase 1 at New Clark City*** in conformity with the said Bidding Documents for the following specifications:

ITEM(S)	TOTAL BID AMOUNT IN FIGURES	TOTAL AMOUNT IN WORDS

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we undertake to provide a performance security in the form, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in **BDS** provision for **ITB** Clause 18.2 and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:<sup>1</sup>

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity
(if none, state "None")		

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

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

We certify/confirm that we comply with the eligibility requirements as per **ITB** Clause 5 of the Bidding Documents.

We likewise certify/confirm that the undersigned, *[for sole proprietorships, insert: as the owner and sole proprietor or authorized representative of Name of Bidder, has the full power and authority to participate, submit the bid, and to sign and execute the ensuing contract, on the latter's behalf for the Name of Project of the Name of the Procuring Entity] [for partnerships, corporations, cooperatives, or joint ventures, insert: is granted full power and authority by the Name of Bidder, to participate, submit the bid, and to sign and execute the ensuing contract on the latter's behalf for Name of Project of the Name of the Procuring Entity].*

We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
[signature]

\_\_\_\_\_  
[in the capacity of]

Duly authorized to sign Bid for and on behalf of \_\_\_\_\_

<sup>1</sup> Applicable only if the Funding Source is the ADB, JICA or WB.



## Omnibus Sworn Statement

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REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

### AFFIDAVIT

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]*, as shown in the attached duly notarized *Special Power of Attorney*;

*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]*, as shown in the attached *[state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, 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. \_\_\_\_\_

*issued]*

PTR No. \_\_\_\_\_ *[date issued]*, *[place*

*issued]*

IBP No. \_\_\_\_\_ *[date issued]*, *[place*

Doc. No. \_\_\_\_\_

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Book No. \_\_\_\_\_

Series of \_\_\_\_\_

## BID SECURING DECLARATION FORM

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REPUBLIC OF THE PHILIPPINES)  
CITY OF \_\_\_\_\_) S.S.

X-----X

### BID SECURING DECLARATION Invitation to Bid: *[Insert Reference number]*

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

I/We<sup>2</sup>, 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 the 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 the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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<sup>2</sup> Select one and delete the other. Adopt the same instruction for similar terms throughout the document.

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. \_\_\_\_\_ 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 \_\_\_\_\_

# Sample Forms: Goods and Services for Ongoing and Completed Contracts

SF-G&S-19A

## Statement of All Ongoing Government and Private Contracts Including Contracts Awarded but not yet Started

Business Name : \_\_\_\_\_

Business Address : \_\_\_\_\_

Name of the Contract	Date of the Contract	Contract Duration	Owner's Name and Address	Kinds of Goods	Amount of Contract	Value of Outstanding Contracts	Date of Delivery
<u>Government Contracts:</u>							
1.							
2.							
<u>Private Contracts:</u>							
1.							
2.							
<b>Total Amount:</b>							

\*Continue in a separate sheet if necessary..

Submitted by : \_\_\_\_\_  
Signature over Printed Name of Authorized Representative

Date : \_\_\_\_\_

**Note:**

- If there is no ongoing contract including those awarded but not yet started, state none or equivalent term.
- The total amount of the ongoing and awarded but not yet started contracts should be consistent with those used in the Net Financial Contracting Capacity (NFCC).

**Statement of Single Largest Completed Contract (SLCC)  
Similar in Nature to the Contract to be Bid**

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Business Name : \_\_\_\_\_  
Business Address : \_\_\_\_\_

Name of the Contract	Date of the Contract	Contract Duration	Owner's Name and Address	Kinds of Goods	Amount of Contract	Date of Delivery

Submitted by : \_\_\_\_\_  
Signature over Printed Name of Authorized Representative

Date : \_\_\_\_\_

**Note:**

**This statement shall be supported by ANY of the following:**

- End User's Acceptance; or
- Official Receipt of the last payment received; or
- Sales Invoice

Standard Form Number: SF-GOOD-14  
Revised on: May 24, 2004

**FINANCIAL DOCUMENTS FOR ELIGIBILITY CHECK**

- A. Summary of the Applicant Supplier's/Distributor's/Manufacturer's assets and liabilities on the basis of the attached income tax return and audited financial statement, stamped "RECEIVED" by the Bureau of Internal Revenue or BIR authorized collecting agent, for the immediately preceding year and a certified copy of Schedule of Fixed Assets particularly the list of construction equipment.

		Year 20
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Net Worth (1-3)	
6.	Net Working Capital (2-4)	

- B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:  
NFCC = K (current asset – current liabilities) minus value of all outstanding works under ongoing contracts including awarded contracts yet to be started

NFCC = P \_\_\_\_\_

*K = 15*

Submitted by:

\_\_\_\_\_  
Name of Supplier / Distributor / Manufacturer

\_\_\_\_\_  
Signature of Authorized Representative  
Date : \_\_\_\_\_

**NOTE:**

1. If Partnership or Joint Venture, each Partner or Member Firm of Joint Venture shall submit the above requirements.



*[Letterhead of Manufacturer]*

**Manufacturer's Authorization Form**

*(select one: Lot A/ LOT B/ LOT D)*

**BASES CONVERSION AND DEVELOPMENT AUTHORITY**

**ENGR. JOSHUA M. BINGCANG**

Chairperson

BCDA Corporate Center 2<sup>nd</sup> Floor Bonifacio Technology Center

31<sup>st</sup> St. Cor. 2<sup>nd</sup> Avenue Bonifacio Global City Taguig

Project Name: Supply, Delivery and Installation of Goods and Equipment of National Academy of Sports Phase 1 in New Clark City

We, *[name of manufacturer]* located at *[business address]* is an established reputable manufacturer of the following goods and equipment:

*[specific goods/equipment]*

Lot #	Good/equipment

This form is issued to inform your office that our partner, *[name of bidder]* with office address at *[bidder's office address]* is an authorized distributor [or reseller] of the products offered in this bidding and that we hereby authorize and support their submission of Bid to the Bases Conversion and Development Authority.

This certification is being issued upon the request of *[name of bidder]* as per your invitation to bid.

*[name over signature of Manufacturer representative]*

*[Designation]*

Contact Information

*[Date]*

*[Letterhead of Manufacturer]*



**Certificate of Authenticity  
(LOT C)**

**BASES CONVERSION AND DEVELOPMENT AUTHORITY  
ENGR. JOSHUA M. BINGCANG**

Chairperson

BCDA Corporate Center 2<sup>nd</sup> Floor Bonifacio Technology Center  
31<sup>st</sup> St. Cor. 2<sup>nd</sup> Avenue Bonifacio Global City Taguig

**Project Name: Supply, Delivery and Installation of Goods and Equipment of National Academy of Sports Phase 1 in New Clark City**

We, [*name of manufacturer*] located at [business address] is an established reputable manufacturer of the following goods and equipment  
[specific goods/equipment]

Lot #	Good/equipment

This form is issued to inform your office that our partner, [*name of bidder*] with office address at [*bidder's office address*] is an authorized distributor [or reseller] of the products offered in this bidding and that we hereby authorize and support their submission of Bid to the Bases Conversion and Development Authority.

Further, we also certify that [*name of manufacturer*] is **recognized and accredited by the International Sports Federation.**

This certification is being issued upon the request of [name of bidder] as per your Invitation to Bid.

[name over signature]

[Designation]

Contact Information

[Date]

[Letterhead of Bidder]

**Statement of  
After Sales Support Availability**

**BASES CONVERSION AND DEVELOPMENT AUTHORITY  
ENGR. JOSHUA M. BINGCANG**

Chairperson

BCDA Corporate Center 2<sup>nd</sup> Floor Bonifacio Technology Center  
31<sup>st</sup> St. Cor. 2<sup>nd</sup> Avenue Bonifacio Global City Taguig

**Project Name: Supply, Delivery and Installation of Goods and Equipment of National Academy of Sports Phase 1 in New Clark City (select one: Lot A/ LOT B/ LOT C/ LOT D)**

We, [name of bidder] located at [business address] is an established reputable company and authorized distributor of the following goods and equipment  
[specific goods/equipment]

<b>Lot #</b>	<b>Good/equipment</b>

This form is issued to inform your office that we hereby extend our full guarantee and warranty as per the warranty clause for our goods offered under our bid.

This is to further certify that the after sales service centers situated in the following location/s are available 24/7:

<b>Store Name</b>	
<b>Brand Covered</b>	
<b>Location</b>	
<b>Contact information</b>	

[add as necessary for other Brands]

[name over signature]  
[Bidder Representative/Designation]  
Contact Information  
[Date]

**PROCUREMENT OF GOODS AND EQUIPMENT FOR THE NATIONAL ACADEMY  
OF SPORTS (NAS) – PHAASE 1 AT NEW CLARK CITY**

**SCHEDULE OF BIDDING ACTIVITIES\***

1	Pre-Procurement Conference	09 November
2	Posting / Publication (Website, PhilGEPS, BCDA Premises & Newspaper)	11 November
3	Issuance of Bid Documents	11 November - 01 December
4	<b>Pre-Bid Conference</b>	<b>10:00 AM; 18 November</b>
5	Deadline for Request for Clarification, if any	22 November
6	Issuance of Bid Bulletin, if any	24 November
7	<b>Deadline for Submission of the ff:</b>  <ul style="list-style-type: none"> <li>· <b>Eligibility Requirements</b></li> <li>· <b>Financial Proposal</b></li> </ul>	<b>01 December</b>  <b>12:00 NN</b>
8	<b>Opening of the ff:</b>  <ul style="list-style-type: none"> <li>· <b>Eligibility Requirements</b></li> <li>· <b>Financial Proposal</b></li> </ul>	<b>01 December</b>  <b>1:30 PM</b>
9	Bid Evaluation (TWG 's detailed evaluation of the submitted bids)	01 - 03 December
10	Sending of letter to the Bidder with LCB advising them on the conduct of Post Qualification	06 December
11	Post Qualification on the Bidder with LCB or succeeding LCB (if any)	07 - 10 December

12	Deliberation by BAC of the Results of Post qualification	13 December
13	Issuance of BAC's Recommendation (based on the Results of Post-Qual)	On or before 15 December 2021
14	Approval of BAC Resolution and Issuance of Notice of Award*	On or before 17 December 2021
15	Issuance of Notice to Proceed and Contract Signing	On or before 22 December 2021

***\*Subject to change***

