Section VII. Technical Specifications

Technical Specifications

Lot 1 : HVAC-R Equipment, Tools and Instrument

APPROVED BUDGET FOR THE CONTRACT Fourteen Million Seven Hundred Thirty-Four Thousand Seven Hundred Three Pesos and 41/100 (₱14,734,703.41)

No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	VRV Air-Conditioning Trainer						
2	Centrifugal Fan Air and Ducting Trainer						
3	Commercial Air- conditioning Trainer- Water Chiller Type with Water Cooled Condenser						
4	Motor Control Trainer						
5	Gauge Manifold R-22						
6	Gauge Manifold R-32						
7	Digital VOM/Multi- tester						
8	Digital Clamp Ammeter						
9	Vacuum pump	Kindly refer to the					
10	HVAC Single Cylinder Refrigerant Recycling and Recovery Machine	technical specifications attached as Annex D1.					
11	Refrigerant Charging Meter						
12	Insulation tester						
13	Anemometer						
14	Phase sequence meter						
15	Salinity tester						
16	Flaring with Swaging Tools Set						
17	Tube Cutter						
18	Digital Vernier Caliper						
19	Digital Micrometer Caliper						
20	Combination Wrench Set						

No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
21	Socket Wrench						
22	Screw Driver Set						
23	Allen Wrench Set						
24	Combination Pliers						
25	Long Nose Plier	,					
26	Diagonal Cutting						
	Plier						
27	Adjustable Wrench						
28	Hacksaw with Blade			L			
29	Tap and Dies Set						
30	Pull-Push Rule						
31	Spirit Level Bar						
32	Steel Square						
33	Try Square						
34	Combination Square						
35	Angle Grinder						
36	Portable hand drill						

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

schedule.	eliver all the above requirements in accor	dance with the above
Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date



ANNEX D1

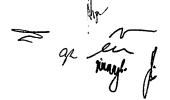
Lot No.	Lot	Code	Technology Areal Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
4	HVAC-R Equipment, Tools and Instrument	08-003	VRV Air-Conditioning Trainer	refer to Technical Specification of Item Code 08-003	Learning Systems	refer to Technical Specification of Item Code 08-003	refer to Technical Specification of Item Code 08-003	Yes
1	HVAC-R Equipment, Tools and Instrument	08-004	Centrifugal Fan Air and Ducting Trainer	refer to Technical Specification of Item Code 08-004	Learning Systems	refer to Technical Specification of Item Code 08-004	refer to Technical Specification of Item Code 08-004	Yes
1	HVAC-R Equipment, Tools and Instrument	08-009	Commercial Air-conditioning Trainer- Water Chiller Type with Water Cooled Condenser	refer to Technical Specification of Item Code 08-009	Learning Systems	refer to Technical Specification of Item Code 08-009	refer to Technical Specification of Item Code 08-009	Yes
1	HVAC-R Equipment, Tools and Instrument	08-012	Motor Control Trainer	refer to Technical Specification of Item Code 08-012	Learning Systems	refer to Technical Specification of Item Code 08-012	refer to Technical Specification of Item Code 08-012	Yes
	HVAC-R Equipment, Tools and Instrument	16-006	Gauge Manifold R-22	2 valves Three (3) hoses Nigh side gauge pressure: 0-500 pslg low side gauge pressure: 30 in Hg vacuum 250 pslg For refrigerants R-22 and R-134-a Hose length; 36 inches 2,500 pslg burst	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	16-008	Gauge Manifold R-32	2 valves Three (3) hoses high side gauge pressure: 0-500 psig low side gauge pressure: 30 in Hg vacuum 250 psig For refrigerants R-32 and R-134-a Hose length: 36 inches 2,500 psig burst	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes

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	HVAC-R Equipment, Tools and Instrument	16-007	Digital VOM/Multi-tester	Measurement ranges: - DC Voltage: 400mv-1000V - AC Voltage: 4-750V - DC Current: 40uA-20A - AC Current: 40uA-20A - Resistance: 400hm-40M0hm or higher - Display count: 4000-6000 counts Features: - hfE - Dlode Test - Continuity Test - True RMS - Data Hold - Backlighted - Ruber and plastic material - Manual/Automatic range selection Accessories: - 1 pair of measuring probes	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and instrument	16-009	Digital Clamp Ammeter	Clamp Diameter: 30mm 600 Ampere AC Current: 60/600A AC Voltage: 0.1 - 600 V DC Voltage: 0.1 - 600 V Resistance: 0.1Ω to 1000Ω Size/ Mass: H187 x W50 x D29mm/ 210g Approximate: t- 5mm tolerance Accessory: 1 pair of measuring probes	Measuring instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - Accuracy testing using two other Digital Clamp Ammeter, acctual readout should be within +2% of the readout of the two Digital Clamp Ammeter. The two Digital Clamp Ammeter should be provided by the IAC.	Yes
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	HVAC-R Equipment, Tools and Instrument	16-010	Vacuum pump	220 V, 60Hz, 5-10 Cfm, 2-Stage, 40 microns, 1/4 to 3/4 hp	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	16-011	HVAC Single Cylinder Refrigerant Recycling and Recovery Machine	220V, 60HZ, 1Hp motor, Refrigerant: CFC, HCFC, HFC	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	16-013	Refrigerant Charging Meter	Weighing range: 100kg Power: DC9V/AC 220V	Measuring Instruments	Brochure with picture and data sheet	Brochure with picture and data sheet	Yes



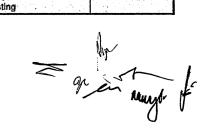
1	HVAC-R Equipment, Tools and Instrument	16-014	Insulation tester	Digital Testing voltage: 5KV Power supply 220V, 60 Hz Operating temperature: -10~40°C Measuring Range: 0.1M-200GΩ Accessory: - 1 pair of measuring probes	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	18-015	Anemometer	Digital Measuring range: 0.4-30m/s Power supply: 9V	Measuring instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	18-016	Phase sequence meter	Digital 3phase AC current: 0-20A AC Voltage: 0-600V	Measuring instruments	Brochure with picture and data sheet	Checking the conformity with the quantity including parts and accessories Checking the conformity of hardware vis-a-vis offered specifications Functionality testing	Yes
	HVAC-R Equipment, Tools and Instrument	18-018	Salinity tester	Range:0.00-14.00 pH; EC: 0-19990uS/cm; TDS: 0-19999ppm; 10.1-200ppt; 0-25% Accuracy:0.01-5.00% (±0.1%) 5.10- 25.00%(±1%) Resolution:0.01 pH	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	16-002	Fiaring with Swaging Tools Set	Screw type feed Two bars cover 9 sizes Swivel type swaging adapters and Flaring cone hardened steel, chromed finished Slip on forge steel yoke includes: Flares 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" OD Five (5) swage adapter for tubes sizes: 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" OD	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	16-003	Tube Cutter	Heavy duty For 1/8 inch to 1 1/8 inches pipe Dimension: 6.8 x 3.3 x 1.3 inches Materials: High strongth zinc alloy with spare cutter wheel on the knob	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	15-001	Digital Vernier Caliper	Stainless steel Dual reading scales on Vernier (English reading on top and Metric reading at bottom) (6 inches) 150 mm Least Count = 0.02 mm	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - Accuracy Testing	Yes



	HVAC-R Equipment, Tools and Instrument	15-002	Digital Micrometer Caliper	LCD Digimatic Resolution: 0.001mm Range: 0-25 mm with English metric conversion	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - Accuracy testing	Yes
· ·	HVAC-R Equipment, Tools and Instrument	15-003	Combination Wrench Set	16 pcs sizes: 6mm, 8mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 17mm, 19mm, 21mm, 22mm, 24mm, 27mm, 30mm and 32mm Drop forged alloy or chrome vanadium steel construction Lobular box end design	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, ten times, the item should not break/deform. Scratch or kink (not bigger than 2mm diameter) on the surface of the item is still acceptable.	N/A
1	HVAC-R Equipment, Tools and Instrument	15-004	Socket Wrench	Chrome Vanadium Steel (Cr-V) Drive: 1/2" Socket points: 6 points Socket size: Metric 18 pcs Socket: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 27, 30, 32 mm Ratchet Handle: 250 mm (±5mm) Swivel/ Power Handle: 380 mm (±5mm) Sliding T-Handle: 300 mm (±5mm) Universal Joint: 70 mm (±5mm) Extension bar length: 250 mm (±5mm) Extension bar length: 125 mm (±5mm) Extension bar length: 125 mm (±5mm)	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
1	HVAC-R Equipment, Tools and Instrument	15-006	Screw Driver Set	4 pleces per set Flat Blade Tip Screw Driver: - 6X150mm - 5X100mm - Phillips Blade tip Screw Driver: - 5X100mm - 6X150mm - Plastic and rubberized handle - Chrome Vanadium	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the Item should not break/deform. Scratch or kink on the shaft/handle of the Item is still acceptable.	N/A
	HVAC-R Equipment, Tools and Instrument	15-007	Allen Wrench Set	• 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, 8.0 mm, 10 mm • 5" (+/- 2%) length • Chrome Vanadium steel	Tools	Brochure with picture and data sheet	Checking the conformity with the quantity including parts and accessories Checking the conformity of hardware vis-a-vis offered specifications	N/A

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1	HVAC-R Equipment, Tools and Instrument	15-008	Combination Pliers	Overall length: 8*, Steel Alloy Handle finish: plastic-dipped or dyna grip	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the Item should not break/deform. Scratch or kink on the shaft/handle of the Item is still acceptable.	N/A
	HVAC-R Equipment, Tools and Instrument	15-009	Long Nose Piter	Overall Length: 8" ±1/2" Material: Carbon Steel Handle Finish: Ergonomic grip rubberized cushion	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the item should not break/deform. Scratch or kink on the shaftmandle of the item is still acceptable.	NIA
1	HVAC-R Equipment, Tools and Instrument	15-011	Diagonal Cutting Piler	Overall Length: 8" ±1/2" Material: Carbon Steel Handle Finish: Ergonomic grip rubberized cushion	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the Item should not break/deform. Scratch or kink on the shaft/handle of the Item is still acceptable.	N/A
	HVAC-R Equipment, Tools and Instrument	15-012	Adjustable Wrench	• 10 inches (254 mm) length • Forged heat-treated alloy steel • Chrome	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
1	HVAC-R Equipment, Tools and Instrument	15-013	Hacksaw with Blade	Adjustable aluminum alloy frame with grip handle 90° adjustable blade angle 12 inches bl-metal hacksaw blade 24 TPI	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
1	HVAC-R Equipment, Tools and Instrument	15-016	Tap and Dies Set	Alloy Steet Metric 20 pcs Threads Sizes: M3 x 0.5, M4 x 0.7, M5 x 0.8, M6 x 1.0, M7 x 1.0, M8 x 1.25, M9 x 1.25, M10 x 1.5, M12 x 1.75	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A



1	HVAC-R Equipment, Tools and Instrument	15-019	Pull-Push Rule	Measuring standard: Metric & English Blade length: 8 m Blade width: Min. 25 mm (1*) High Impact ABS case with rubber coated	Measuring instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
	HVAC-R Equipment, Tools and Instrument	15-020	Spirit Level Bar	Aluminum frame Non Magnetic 3 vials 36" length	Measuring Tools	Brochure with ploture and data sheet	Checking the conformity with the quantity including parts and accessories Checking the conformity of hardware vis-a-vis offered specifications Functionality testing	N/A
1	HVAC-R Equipment, Tools and Instrument	15-021	Steel Square	Carpenter's framing square: 50.8mm x 406.4mm x 609.6mm (2"x16"x24") Steel Engraved Metric and English Graduation	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
	HVAC-R Equipment, Tools and Instrument	15-024	Try Square	Size: 8" x 12" Thickness: 1.8-2 mm Material: Spring Steel Handle Material: Aluminum Alloy Engrave Metric and English Graduations	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	NA
1	HVAC-R Equipment, Tools and Instrument	15-026	Combination Square	Stainless Steel (12 inches) 300 mm Combination Square Set (Blade and Handle)	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
	HVAC-R Equipment, Tools and Instrument	15-028	Angle Grinder	Portable 4" capacity Input Voltage: 220-240V, 50-60Hz	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
1	HVAC-R Equipment, Tools and Instrument	15-029	Portable hand drill	• Input Power: 500W-850W • Input Voltage: 220-240V, 50-60Hz • No load speed: 0~380/1300rpm	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes

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Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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TECHNICAL SPECIFICATION

Name of The Learning System	VRV Air-Conditioning Trainer
Item Code	08-003
Technology Area(s)	Heating, Ventilation and Air-Conditioning

Required Topics/Lessons:

Mock-up that will allow learners to simulate the following:

- Electrical circuit connection
- Familiarization with Variable Refrigerant Volume (VRV) Air Conditioning components
- Familiarization with Variable Refrigerant Volume (VRV) Air Conditioning cycle
- Plotting Refrigeration Cycle into Pressure-Enthalpy (P-H) Diagram
- System Performances Analysis: Refrigeration Capacity, Coefficient of Performance and
- Compression Ratio
- · Effect of Varying Load
- Troubleshooting Exercises on System Electrical Circuit and Components: High pressure switch, Air thermistor, Discharge thermistor, Low pressure sensor, Indoor fan motor, Gas thermistor, Fuse control board, Float switch, etc.

Hardware:

- VRV Air-conditioner training trainer with the following specification and components:
 - o Indoor Unit (Ceiling Cassette, Wall Mounted, Floor Standing)
 - o Outdoor Unit 3HP-5HP
 - o Expansion Valve
 - Refrigerant Pressure Gauges
 - o High pressure gauge w/ sensor
 - o Low pressure switch w/ sensor
 - Control Panel w/ Ampere meter, volt meter
 - o Sight Glass
 - o Filter/drier
 - o Hand valve
 - o Oil Separator
 - Remote control
 - Reversing Valve for reverse cycling heating

Specification of all sub-components will depend on the engineering design of the air-conditioning trainer as a system.

• Three Phase 220VAC, 60Hz

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 Dimension: The equipment when installed should not consume more than 6sqm space and not over 1.9m for the overall height.

Other Equipment & Accessories:

- Flow meter for viewing the flow rate of the refrigerant.
- Electronic interactive fault insertion system with test points: featuring silk screened diagram of the electrical circuit with LED display of the fault locations and electrical test points at strategic locations. The system includes 10 faults which are electronically activated with Micro Switch and can be instantly reset. LED displays can be switched off for student testing.
- Multi point digital temperature meter with 10 sensors/thermocouples
- Watt meter, digital, panel mounted type, three phase

Training:

The following are the required topics on the training component of this item:

- · Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

Other requirements:

Requirements	Printed copy	Digital copy
Includes instructional video covering topics indicated in this specification		Х
Quizzes and test(s) with key to corrections	Х	Х
 Presentation materials and/or teaching aids covering all topics in this specification 	Х	Х
Equipment service and operation manual	Х	х

All materials are in English language

Post Evaluation Parameter(s):

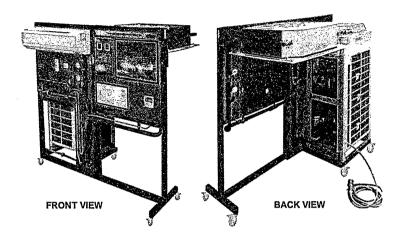
- Brochure/catalog with picture indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

the print.

- · Checking the conformity with the quantity including parts and accessories
- · Checking the conformity of hardware vis-a-vis offered specifications
- · Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- Commissioning and training

Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder Signature over Printed Name of Date
Authorized Representative

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TECHNICAL SPECIFICATION

Name of The Learning System	Centrifugal Fan and Air Ducting Trainer
Item Code	08-004
Technology Area(s)	Heating, Ventilation and Air-Conditioning

Required Topics/Lessons:

- · Examination of typical components, fabrication, installation and assembly techniques used in air handling systems.
- Investigation of pressure losses in bends, branches, changes of section and over straight lengths of duct, together with the variation in pressure drop with velocity.
- Determination of the 'k' factor for the pressure loss of the above components in each particular configuration.
- Investigation of the fan pressure and volume flow characteristics at various fan speeds (a simulation of supply voltage influence to fan performance).
- Examination of standard types of panel and bag filters and their pressure drop against face velocity.
- Measurement of airflow rate using pitot-static traverse, orifice pressure differential and anemometer methods.
- Balancing of airflow distribution in a series or two branch parallel distribution system using either main damper or fan speed flow control.
- Allows an additional parallel branch and two diffusers to be investigated.
- Allows an additional tee branch and two diffusers to be investigated.
- Carry out commissioning leak testing on all of the above components.

Hardware:

Centrifugal Fan and Air Ducting Trainer with the following specification and components:

- Trainer Configuration
 - The system has a multipurpose centrifugal fan;
 - Air duct unit made of powder coated steel with internal insulation mounted on a trolley;
 - Includes test points for air pressure, air flow, temperature and humidity along the duct.
 - There should be a system to inject/simulate steam humidity, heat and variable air speed.
 - There should be a chamber into which different types of heating or cooling elements and filters may be introduced
- Ducting Joints, Diffusers and Filters
 - Set of 3 types of basic ducting joints such as "Y", 90-degree offset,

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- Set of 4 additional types of ducting joints.
- Set of 3 types of basic diffusers
- Set of 3 types of filter elements.
- Additional parallel branch set with 2 diffusers
- Additional T branch set with 2 diffusers
- 3 x 2 meter length duct extensions (6m total)
- · Measuring Instruments
 - Air flow velocity meter, vane anemometer type
 - Pitot tube and manometer for measurement of air flow
 - Digital temperature meter, single probe
 - Control console including voltmeter, ammeter, ON/OFF controls, ELCB and miniature circuit breaker. Console can also accommodate variable speed control for fan speed control
- Accessories:
 - Variable speed control for the centrifugal fan.
 - System for cooling simulation
 - System for heating simulation
 - Steam generator for steam simulation

Specification of all sub-components and accessories will depend on the engineering design of the trainer as a system.

- System power: Three Phase 220VAC, 60Hz
- Dimension: The equipment when installed should not consume more than 8 sqm space and not over 1.9m for the overall height.

Training:

The following are the required topics on the training component of this item:

- Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

Other requirements:

Requirements	Printed copy	Digital copy
 Includes instructional video covering topics indicated in this specification 		Х
Quizzes and test(s) with key to corrections	X	Х

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 Presentation materials and/or teaching aids covering all topics in this specification 	Х	Х
Equipment service and operation manual	Х	Х

All materials are in English language

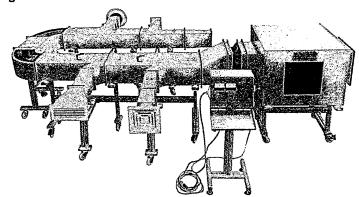
Post Evaluation Parameter(s):

- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- · Checking the conformity with the quantity including parts and accessories
- · Checking the conformity of hardware vis-a-vis offered specifications
- Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- · Commissioning and training

Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder Signature over Printed Name of Date

Authorized Representative

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TECHNICAL SPECIFICATION

Name of The Learning System	Commercial Air-Conditioning Trainer - Water Chiller Type with Water Cooled Condenser
Item Code	08-009
Technology Area(s)	Heating, Ventilation and Air-Conditioning

Required Topics/Lessons:

Mock-up that will allow learners to simulate the following:

- Familiarization and operational functions of water chiller refrigeration system components.
- · Evacuating and charging water chiller refrigeration system.
- · Measurement of refrigerant pressures, temperatures and flow rate.
- Observation of thermostatic expansion valve and capillary tubes performance for water chiller system.
- Understanding and plotting thermodynamic cycle in pressure-enthalpy diagram
- Calculate the refrigeration capacity from the p-h diagram
- Calculate the coefficient of performance.
- · Loads variation on water chiller system
- Controlling chilled water temperature in the water chiller system.

Hardware:

- 2HP-5HP Commercial Air-Conditioning Trainer Water Chiller Type with the following components:
 - Indoor Air Handling Unit (AHU)
 - Heat Exchanger (water type)
 - Fan and Controls
 - o Liquid to Liquid Heat Exchanger Condenser
 - o High Pressure switch
 - o Low pressure switch
 - o Thermal expansion valve (TXV)
 - o Water Flow Meter
 - Water Pressure Gauges
 - o Thermostat
 - o Filter/drier
 - o Refrigerant Pressure Gauges
 - o Hand valves
 - Water cooling tower
 - Water Pumps and connections
 - o Instrument Control Panel with Voltmeter and Ammeter
 - o Maintenance spare part and consumables
 - Electrical circuit Panel

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Specification of all sub-components will depend on the engineering design of the air-conditioning trainer as a system.

- Three Phase 220VAC, 60Hz
- Dimension: The equipment when installed should not consume more than 6sqm space and not over 1.9m for the overall height.

Training:

The following are the required topics on the training component of this item:

- · Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

Other requirements:

Requirements	Printed copy	Digital copy
Includes instructional video covering topics indicated in this specification		х
Quizzes and test(s) with key to corrections	х	Х
Presentation materials and/or teaching aids covering all topics in this specification	Х	Х
Equipment service and operation manual	Х	Х

All materials are in English language

Post Evaluation Parameter(s):

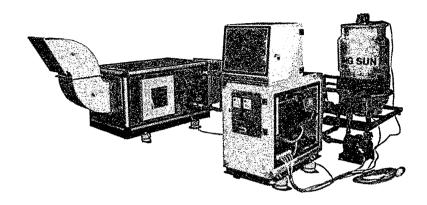
- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

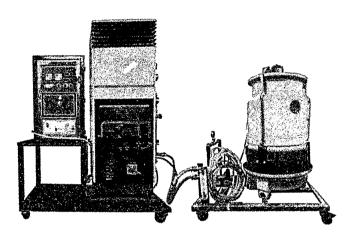
Inspection and Acceptance Parameters:

- Checking the conformity with the quantity including parts and accessories
- Checking the conformity of hardware vis-a-vis offered specifications
- Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- · Commissioning and training

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Sample Image:





Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder Signature over Printed Name of Date
Authorized Representative

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TECHNICAL SPECIFICATION

Name of The Learning System	Motor Control Trainer
Item Code	08-012
Technology Area(s)	Heating, Ventilation and Air-Conditioning

Brief Description:

This learning system will develop the learner's ability to apply control technology using various types of magnetic contactors, electromechanical and electronic switches both in AC and DC circuits.

Required Topics/Lessons:

Specifically, this learning system will cover the following topics:

- Starting DC Motor with Manual Starter
- Starting DC Motor with Motor Control Switch / Cam Switch
- Starting DC Motor with Selector Switch and Resistance
- Starting DC Motor with Time Delay
- Starting DC Motor with Push Button and Magnetic Contactor
- DC Motor Braking with Resistance
- Definite Time Brake Control of DC Motor with Magnetic Brake
- Forward and Reverse DC Motor Using Reversing Starter
- Forward and Reverse DC Motor Using Magnetic Contactor
- DC Motor Control from Two Locations
- Start-Stop-Jog DC Motor
- · Counter of EMF Starting Of DC Motor
- Direct On Line Starting Of Single Phase Induction Motor Using DPDT Toggle Switch
- Direct On Line Starting Of Single Phase Induction Motor Using Manual Starter
- Direct On Line Starting Of Single Phase Induction Motor Using Motor Control Switch
- Start-Stop-Jog Single Phase Induction Motor
- Forward and Reverse Single Phase Induction Motor Using Magnetic Contactor
- Forward and Reverse Three Phase Induction Motor Using Reversing Starter
- Forward Reverse Control of a Three Phase Induction Motor Using Mechanical Interlock
- Forward Reverse Control of a Three Phase Induction Motor Using Electrical Interlock
- Forward and Reverse Three Phase Induction Motor Using Both of Interlocking methods
- Primary Resistors Starting Control of a 3 phase Induction Motor
- Autotransformer Starting Control of a 3phase Induction Motor
- Delayed Start Control of Three Phase Induction Motor
- Control of Three Phase Induction Motor Using Limit Switch and Push Button
- Three Phase Induction Motor Control from Two Locations

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- Start-Stop-Jog Control of Three Phase Induction Motor
- Digital Logic
- Sequence Time Motor Control
- Three Phase Induction Motor Using Control Relay That Controlled by Photoelectric Sensor
- · Control of Three Phase Induction Motor Using Inductive Proximity Switch
- · Starting Star-Delta Motor with Star Delta Switch
- Starting Star-Delta Motor with Manual Star Delta Starter
- Starting Star-Delta Motor with Automatic Star Delta Starter
- Running Pole Changing Motor (Dahlander) at Low Speed
- Running Pole Changing Motor (Dahlander) at High Speed
- · Pole-Changing Circuit
- · Start-Stop-Jog Control Circuit with the Magnetic Brake
- Definite Time Brake Control of Pole Changing Motor with Magnetic Brake
- Definite Time DC Motor Starter

Hardware Requirements:

The hardware requirements for this learning system are as follows:

- Device modules:
 - o Magnetic Contactor, 3-phase with auxiliary contact NO-NC
 - o Single Phase Motor Circuit Breaker
 - o Three Phase Motor Circuit Breaker
 - o Thermal Overload, 3-phase
 - o Phase Failure & Reverse Phase Relay, 3 Phase
 - o Temperature Controller Relay
 - o Miniature Circuit Breaker, 1-phase, AC
 - o Miniature Circuit Breaker, 3-phase, AC
 - o Control Transformer 24 VAC
 - o Rectifier Module
 - o Control Relay 2NO-2NC, 24VAC
 - o Control Relay 2NO-2NC, 24VDC
 - o Push button NO-NC, set of 2
 - o Selector Switch
 - o Limit Switch NO-NC
 - o Reversing Starter, (for AC application)
 - o Reversing Starter, (for DC application)
 - o Star-Delta Switch
 - o Motor Control Switch, ON-OFF
 - o Indicator Lamp, set of 4 lamps, AC
 - o Toggle Switch DPDT, set of 2
 - o DC Motor Starter/Controller (4 quadrant)
 - o Manual Starter for AC motor
 - o Manual Starter for DC motor
 - o Time Delay
 - o Resistor Module (Starting, Braking)

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- o DC Power Supply, 0-240 VDC
- o Photo Electric Sensor
- o Proximity Switch
- o Solid State Relay
- o DC Compound motor 0.375 kW
- o AC Induction motor, 1 ph., 0.375 kW
- o AC Induction motor, 3 ph, Dahlander/pole changing, 0.375 kW
- Set of Test Leads
- 2 Level Frame
- 3 Level Frame
- 4 Level Mobile Frame
- Storage Cabinet
- Three Phase 220VAC, 60Hz
- Dimension: The equipment when installed should not consume more than 6sqm space and not over 1.9m for the overall height.

Software Requirements:

This learning system should come with a software with electrical device catalog and can be used to simulate various motor control circuits and application for 26 users with perpetual license.

Training:

The following are the required topics on the training component of this item:

- Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

Other requirements:

Requirements	Printed copy	Digital copy
Includes instructional video covering topics indicated in this specification		X
Quizzes and test(s) with key to corrections	Х	Х
Presentation materials and/or teaching aids covering all topics in this specification	Х	х
Equipment service and operation manual	Х	X

All materials are in English language.

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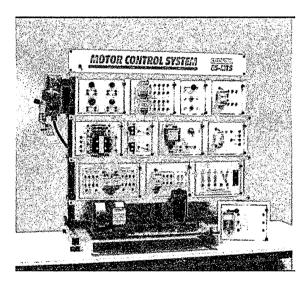
Post Evaluation Parameter(s):

- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- Checking the conformity with the quantity including parts and accessories
- Checking the conformity of hardware vis-a-vis offered specifications
- Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- · Commissioning and training

Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder	Signature over Printed Name of	Date
	Authorized Representative	

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Lot 2

: Air Conditioning System

APPROVED BUDGET FOR THE CONTRACT

Three Million Six Hundred Twenty-Two Thousand Nine Hundred Sixty-Two Pesos and 64/100 (₱3,622,962.64)

No.	ltem	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	Air Conditioning Unit, 5 Tons (Split - Floor Mounted)						
2	Air Conditioning Unit, 3 Tons (Split - Ceiling Mounted)						
3	Air Conditioning Unit, 3 Tons (Split - Floor Mounted)	Kindly refer to the technical					
4	Airconditioning Unit, 5 Tons, Floor Mounted	specifications attached as Annex D2.					
5	Airconditioning Unit, 5 Tons, Cassette Type						
6	Airconditioning Unit, 3 Tons, Cassette Type						

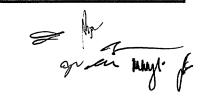
^{*} Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced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

I hereby commit to comply and c schedule.	leliver all the above requirements in accord	dance with the above
Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date



ANNEX D2

Lot No.	Lot	Code	Technology Areal Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
2	Air Conditioning System	13-001	Air Conditioning Unit, 5 Tons (Split Floor Mounted)	Stonner Split Type (Floor Mounted) Inverter Cooling Capacity: 30,900 – 53,300 kJ/Hr Power Consumption: 2,000 – 5,370 Watts Energy Efficiency Ratio (EER):15.4 – 11.3 kJ/W-hr Indoor Level @ Low: 51 dBA Power Supply: 230 V / 60 Hz / 1 Ph Refrigerant Type: R410A stipply, delivery, installation and commissioning	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
2	Air Conditioning System	13-002	Air Conditioning Unit, 3 Tons (Split- Ceiling Mounted)	3 tonner Split Type (Ceiling Mounted) Inverter Cooling Capacity: 14,300 – 40,090 kJ/Hr Power Consumption: 3,100 – 43,00 Watts Energy Efficiency Ratio (EER) 17.7 – 11.3 kJ/W-hr Indoor Noise Level @ Low: 48 dBA Power Supply: 230 V / 60 Hz / 1 Ph Refrigerant Type: R410A supply, delivery, installation and commissioning	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
2	Air Conditioning System	13-003	Air Conditioning Unit, 3 Tons (Split- Floor Mounted)	3 tonner Split Type (Floor Mounted) Inverter Cooling Capacity 10,020 – 40,000 kJ/Hr Power Consumption 3,200 Watts Energy Efficiency Ratio (EER) 17.7 – 11.3 kJ/W-hr Indoor Noise Level @ Low 48 dBA Power Supply 230 V / 60 Hz / 1 Ph Refrigerant Type R410A supply, delivery, installation and commissioning	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
2	Air Conditioning System	13-004	Alrconditioning Unit, 5 Tons, Floor Mounted	Stonner Spilt Type (Floor Mounted) Inverter Power Consumption: 3,100W Rated Power: 18A EER: 12.3 BTU/h-W Indoor Noise Level (Lo): 51 dB(A) Indoor Air Flow (Hi): 2060 m3/h Power Supply: 220-240 volts/ 60 Hz 1 phase supply, delivery, installation and commissioning	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yas



2	Air Conditioning System	Airconditioning Unit, 5 Tons, Cassette Type	5 tonner Split Type (Cassette Type) Inverter Power Consumption: 3,100 - 6,000 W Rated Power: 18A EER: 10.0 - 12.3 BTU/h-W Indoor Noise Level (Lo): 51 dB(A) Indoor Air Flow (Hi): 2060 m3/h Power Supply: 220-240 voits/ 60 Hz 3 phase supply, delivery, installation and commissioning	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes
2	Air Conditioning System	Airconditioning Unit, 3 Tons, Cassette Type	3 tonner Split Type (Cassette) Inverter Power Consumption: 3,100W Rated Power: 18A EER: 12.3 BTU/h-W Indoor Noise Level (Lo): 51 dB(A) Indoor Air Flow (Hi): 2060 m3/h Power Supply: 220-240 volts/ 60 Hz 1 phase supply, delivery, installation and commissioning	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes

I hereby commit to comply and schedule.	deliver all the above requirements in accord	lance with the above
Name of Company/Bidder	Signature over Printed Name of	Date
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Lot 3

: Electrical Generator

APPROVED BUDGET FOR THE CONTRACT

Three Hundred Seventy-Nine Thousand Five Hundred Ninety-One Pesos and 92/100 (₱379,591.92)

No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	Generator Set	Kindly refer to the technical specifications attached as Annex D3.					

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

I hereby commit to comply and deliver all the above requirements in accordance with the above schedule.

Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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ANNEX D3

70; 70;	Lot	Code	Technology Areal Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
•	Electrical Generator	18,001	Generator set	Diesel Rafed power: 5KW to 2000KW Output type: AC Three Phase Rafed Voltage: 110/120/220/230/380/400 Volts Rafed Current: 20–1500Amps Speed: 1500rpm or 1800rpm Frequency: 50HZ/60HZ Fuel tank capacity: 60 liters or higher Contineoues operation at full load: 8 hrs or higher Dimension (LxWxH); not more than 3.5m x 3.0m x 1.83m	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes

schedule.	deliver all the above requirements in a	ccordance with the above
Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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Lot 4

: Machining Equipment, Tools and Instrument

APPROVED BUDGET FOR THE CONTRACT

Fifty-Nine Million Nine Hundred Thirty-Seven Thousand Five Hundred Forty-Nine and 20/100 (₱59,937,549.20)

No.	ltem	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	CNC Computer Aided Design and Computer- Aided Machining Software						
2	CNC Lathe Performance Turning Center						
3	5-Axis Rotary Table for Multi- Axes Simulation and CNC Machining						
4	CNC Control Simulator (Full Function Control)						
5	CNC Plasma Cutting Machine						
6	Electric Box Furnace	Kindly refer to the					
7	Hardness tester	technical specifications attached as Annex D4 .					
8	Prescision Centerless Grinding Machine						
9	Pipe Bevelling Machine						
10	Plate Bevelling Machine						
11	Universal Horizontal Milling Machine						
12	Digital Vernier Caliper						
13	Digital Micrometer Caliper						
14	Combination Wrench Set						
15	Socket Wrench						



No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
16	Screw Driver Set						
17	Allen Wrench Set				-		
18	Combination Pliers						
19	Long Nose Plier						
20	Diagonal Cutting Plier						
21	Adjustable Wrench						
22	Hacksaw with Blade						
23	Tap and Dies Set						
24	Pull-Push Rule						
25	Spirit Level Bar						
26	Steel Square			,			
27	Try Square						
28	Combination Square						
29	Letter and Number Punch						
30	Screw Pitch Gauge				33451		
31	Angle Grinder						
32	Portable hand drill						

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

I hereby commit to comply and deliver all the above requirements in accordance with the above schedule.

Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date /
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ANNEX D4

Lot No.	Lot	Code	Technology Area/ Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
4	Machining Equipment, Tools and Instrument	09-001	CNC Computer Aided Design and Computer-Aided Machining Software	refer to Technical Specification of Item Code 09-001	Learning Systems	refer to Technical Specification of Item Code 09-001	refer to Technical Specification of Item Code 09-001	Yes
4	Machining Equipment, Tools and Instrument	09-002	CNC Lathe Performance Turning Center	refer to Technical Specification of Item Code 09-002	Learning Systems	refer to Technical Specification of Item Code 09-002	refer to Technical Specification of Item Code 09-002	Yes
4	Machining Equipment, Tools and Instrument	09-003	5-Axis Rotary Table for Multi-Axes Simulation and CNC Machining	refer to Technical Specification of Item Code 09-003	Leaming Systems	refer to Technical Specification of Item Code 09-003	refer to Technical Specification of Item Code 09-003	Yes
4	Machining Equipment, Tools and Instrument	09-004	CNC Control Simulator (Full Function Control)	refer to Technical Specification of Item Code 09-004	Learning Systems	refer to Technical Specification of Item Code 09-004	refer to Technical Specification of Item Code 09-004	Yes
4	Machining Equipment, Tools and Instrument	09-005	CNC Plasma Cutting Machine	refer to Technical Specification of Item Code 09-005	Learning Systems	refer to Technical Specification of Item Code 09-005	refer to Technical Specification of Item Code 09-005	Yes
4	Machining Equipment, Tools and Instrument	09-006	Electric Box Furnace	*Technology Transfer/Training *English Manual *Oven for heat treatment *Loading Capacity: 10-15kg *Max. Temperature 2000-2500F 1000- 1500C *Amps10-15 Phase 1 *Watts 3000-3600 *Nema 6-20 R *Power source: Voltage 220V, 50-60Hz, 20- 30kW	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - Installation, Commisioning and Training	Yes
4	Machining Equipment, Tools and Instrument	09-008	Hardness tester	*Technology Transfer/Training *English Manual *Minor Load 8-10kg *Major load: 60-150kg *Test force application: Dead wieght *Test force control: Hydraulic dashpot system *Result display: Analog dial gauge *Vertical capacity: 6-7" *Throat depth: 6-7" *Height: 5-30" *Width: 8-10" *Depth: 15-20" *Power source: 220VAC, 60Hz, 3 phase	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes

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4	Machining Equipment, Tools and Instrument	09-009	Prescision Centerless Grinding Machine	*Technology Transfer/Training *English Manual *Standard processing range: 1-60 diameter *Grinding wheel sizes (ODxWxID): 400- 455x200-205x200-250 *Adjusting wheel sizes (ODxWxID): 200- 255x200-205x200-100-110 *Grinding wheel speed: 1000-1500rpm *Adjusting wheel speed: 0-250rpm *Grinding wheel drive motor: 10-25kw *Adjusting wheel servo motor: 2-3kw *Hydraulic pump drive motor 0.5-0.75 kw *Power source: 220VAC, 60Hz	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
4	Machining Equipment, Tools and Instrument	14-012	Pipe Bevelling Machine	*English Manual *Functions: External and Internal Bevelling *Facing *Counter boring *Weld Removal *J-prepping and Compound bevels. *Materials: Any kind of steel & exotic alloy *Recommended working range: 3"-16" Diameter *Power: Pnuematic *Option of electric: 110-220VAC 50-60Hz	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
4	Machining Equipment, Tools and Instrument	14-013	Plate Bevelling Machine	*English Manual *Self propelled *Max. bevel width: 40mm *Bevel angle: 15-60 degree *Plate thickness: 6-60mm *Bevelling speed: 0-1.6 m/min. *Motor power: 3000 w *Motor idle speed: 800 rpm *Voltage: 400 V/50 Hz, 3-phase *Tooling: 9 changeable inserts; 80 mm diameter	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commissioning and Training	Yes

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4	Machining Equipment, Tools and Instrume nt	14-016	Universal Horizontal Milling Machine	Specification Table size: 320mm X 1325mm Max Longitudinal travel (manual/auto): 900mm/880mm Max transverso travel (manual/auto): 255mm/240mm Max vertical travel (manual/auto): 410mm/390mm Table T-slots: 0.63" (16mm) Max rotary angle: ±45° Maximum Workpiece Weight: 750lbs (340kg) Distance between spindle axis table: 30mm/440mm Spindle speed step: 18 steps Spindle speed rango: 30-1500 Feed range of table travel: 18 steps Overall size (L x W x H): 2294mmX2050mmX1790mm Supply: 220VAC 60Hz 3phase Features Z-automatic feed milling head Rectangular guideway on lifting platform 3. High stability Hardened on X, Y, Z axes. Vertical head swivels +- 45 degree 6. X-axis travel can be with 800mm - with English manual	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
4	Machining Equipment, Tools and Instrument	15-001	Digital Vernier Caliper	Stainless steel Dual reading scales on Vemier (English reading on top and Metric reading at bottom) (6 inches) 150 mm Least Count = 0.02 mm	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - Accuracy Testing	Yöş
4	Machining Equipment, Tools and instrument	15-002	Digital Micrometer Caliper	LCD Digimatic Resolution: 0.001mm Rango: 0-25 mm with English metric conversion	Measuring Instruments	Brochure with picture and data shoot	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality tosting - Accuracy testing	Yes

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4.0	Machining Equipment, Tools and Instrument	15-003	Combination Wrench Set	• 16 pcs • sizes: 6mm, 8mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 17mm, 19mm, 21mm, 22mm, 24mm, 27mm, 30mm and 32mm • Drop forged alloy or chrome vanadlum steel construction • Lobular box end design	Tools	Brochure with picture and data shoot	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, ten times, the itom should not break/deform. Scratch or kink (not bigger than 2mm diamoter) on the surface of the Item is still acceptable.	N/A
4	Machining Equipment, Tools and instrument	15-004	Socket Wrench	• Chrome Vanadium Steel (Cr-V) • Drive: 1/2" • Socket points: 6 points • Socket size: Metric • 18 pcs Socket: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 27, 30, 32 mm • Ratchet Handle: 250 mm (±5mm) • Swivel/ Power Handle: 380 mm (±5mm) • Sliding T-Handle: 300 mm (±5mm) • Universal Joint: 70 mm (±5mm) • Extension bar length: 250 mm (±5mm) • Extension bar length: 125 mm (±5mm) • Extension bar length: 125 mm (±5mm)	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-006	Screw Driver Set	4 pieces per set Flat Blade Tip Screw Driver: 6X150mm 5X100mm Phillips Blade tip Screw Driver: 5X100mm 6X150mm Plastic and rubberized handle Chrome Vanadium	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the item should not break/deform. Scratch or kink on the shaft/handle of the item is still acceptable.	N/A
4	Machining Equipment, Tools and Instrument	15-007	Allen Wrench Set	• 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, 8.0 mm, 10 mm • 5" (+/- 2%) length • Chrome Vanadium steel	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications	N/A



4	Machining Equipment, Tools and Instrument	15-008	Combination Pilers	Overall length: 8", Steel Alloy Handle finish: plastic-dipped or dyna grip	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the item should not break/deform. Scratch or kink on the shaft/handle of the item is still acceptable.	N/A
4	Machining Equipment, Tools and Instrument	15-009	Long Nose Pller	Overall Length: 8" ± 1/2" Material: Carbon Steel Handle Finish: Ergonomic grip rubberized cushion	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the item should not break/deform. Scratch or kink on the shaft/handle of the item is still acceptable.	N/A
4	Machining Equipment, Tools and Instrument	15-011	Diagonal Cutting Piler	Overall Length: 8" ± 1/2" Material: Carbon Steel Handle Finish: Ergonomic grip rubberized cushion	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing - 6 feet drop on concrete test, head first, ten times, the head of the item should not break/deform. Scratch or kink on the shaft/handle of the item is still acceptable.	N/A
4	Machining Equipment, Tools and Instrument	15-012	Adjustable Wrench	10 inches (254 mm) length Forged heat-treated alloy steel Chrome	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-013	Hacksaw with Blade	Adjustable aluminum alloy frame with grip handle 90° adjustable blade angle 12 inches bi-metal hacksaw blade 24 TPI	Tools	Brochure with picture and data sheet	Checking the conformity with the quantity including parts and accessories Checking the conformity of hardware vis-a-vis offered specifications Functionality testing	N/A

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4	Machining Equipment, Tools and Instrument	15-016	Tap and Dies Set	■ Alloy Steel ■ Metric 20 pcs Threads ■ Sizes: M3 x 0.5, M4 x 0.7, M5 x 0.8, M6 x 1.0, M7 x 1.0, M8 x 1.25, M9 x 1.25, M10 x 1.5, M12 x 1.75	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-019	Pull-Push Rule	Measuring standard: Metric & English Blade length: 8 m Blade width: Min. 25 mm (1") Hlgh impact ABS case with rubber coated	Measuring Instruments	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-020	Spirit Level Bar	Aluminum frame Non Magnetic 3 vials 36" length	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-021	Steel Square	Carpenter's framing square: 50.8mm x 406.4mm x 609.6mm (2"x16" x24") Steel Engraved Metric and English Graduation	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-024	Try Square	Size: 8" x 12" Thickness: 1.8-2 mm Material: Spring Steel Handle Material: Aluminum Alloy Engrave Metric and English Graduations	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-026	Combination Square	Stainless Steel (12 Inches) 300 mm Combination Square Set (Blade and Handle)	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/Å
4	Machining Equipment, Tools and Instrument	15-015	Letter and Number Punch	Hardened Steel 36 pcs 4 mm height (letter and number)	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A

4	Machining Equipment, Tools and Instrument	15-025	Screw Pitch Gauge	Metric ● 51 leaves 0.4 to 7 mm pitch	Measuring Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	N/A
4	Machining Equipment, Tools and Instrument	15-028	Angle Grinder	Portable 4" capacity Input Voltage: 220-240V, 50-60Hz	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes
4	Machining Equipment, Tools and Instrument	15-029	Portable hand drill	■ Input Power: 500W-850W ■ Input Voltage: 220-240V, 50-60Hz ■ No load speed: 0~380/1300rpm	Tools	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing	Yes

I hereby commit to comply and schedule.	deliver all the above requirements in accor	dance with the above
Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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TECHNICAL SPECIFICATION

Name of The Learning System	CNC Computer Aided Design and Computer-Aided Machining Software
Item Code	09-001
Technology Area(s)	CNC Machining

Required Topics/Lessons

Specifically, this software will engage the learner to perform and articulate the following:

- Perform Computer Aided Design Using Draw tools
- Perform computer aided design using modify tools
- Perform computer aided design through 2D and 3D modeling surfaces and solids
- Create Toolpaths for CNC Milling and CNC turning machine operations in Multiaxes machine environment
- Perform verify/ dry run/ simulations of created tool paths
- Convert into standard CNC G-code programs the approved tool paths and/ or transfer post processed codes into a CNC Machine

Software:

CADCAM Software consists of the following specification and features:

- Integrated CAD for CAM Software
- Full 3D CAD Modeling
- · Context-sensitive help available from all dialog boxes
- · Powerful Multi Axis cutting
- · Mill-turn for lathe
- Easy pocketing, contouring, and drilling
- Intelligent, stock -aware toolpaths
- · Robust 3D solids and surface machining
- Complete tool library and custom tool support
- With Dynamic Motion feature
- Accelerated Finishing option
- Advanced Toolpaths option
- With Machine Simulation
- Live Tooling
- Intelligent ID and OD Roughing
- Compatible with SOLIDWORKS® environment
- Complete with Dongle key
- · Education Licensed and perpetual software

The software should be compatible with MS Windows 10 and/or MAC

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Training:

The following are the required topics on the training component of this item:

- · Configuration, set-up and maintenance of the software
- Utilization of the software and walkthrough with the learning activities associated with the software.

Other requirements:

Requirements	Printed copy	Digital copy
Includes instructional video covering topics indicated in this specification		х
Quizzes and test(s) with key to corrections	х	Х
 Presentation materials and/or teaching aids covering all topics in this specification 	Х	Х
Equipment service and operation manual	Х	Х

All materials are in English language.

Post Evaluation Parameter(s):

- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- · Checking the conformity with the quantity including parts and accessories
- Checking the conformity of hardware vis-a-vis offered specifications
- · Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- · Training on specified lessons

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Name of Company/Bidder	Signature over Printed Name of	Date
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TECHNICAL SPECIFICATION

Name of The Learning System	CNC Lathe Performance Turning Center
Item Code	09-002
Technology Area(s)	CNC Machining

Brief Description:

A CNC Lathe Machine equipment capable of high-performance multi-axis CNC Machining and Programming. Set-up for flexibility, extreme rigidity and high thermal stability.

Required Topics/Lessons:

Specifically, this learning system will cover the following topics:

- Create CNC Programs using G and M Codes on an Actual Multi-Axes CNC Lathe Machine
- Perform 2/3 Axes Programming and Simulated Multi-Axes CNC Machining
- Simulate 2D/3D graphical dry run of Tool Paths and CNC Machining Operations
- Perform Actual Tool Length Compensation and Measurements (Basic & Advance)
- Perform Actual Set-up Work Offsets (Basic & Advance)
- Perform Actual CNC Lathe Multi-Axis Machine Operations
- Perform Actual manual operations using Jog Mode on a Multi-Axes Environment
- Perform Actual Manual Data Input (MDI)
- · Identify different machine alarms and how to troubleshoot it.
- · Perform routine maintenance checks on oil, coolant, air supply indicators.
- Perform transfer of CAD CAM Programs using USB, Ethernet and Wi-Fi Connectivity

Hardware Requirements:

CNC Multi Axis Lathe Machine consists of the following specification and components:

- Spindle Speed: 6000 RPM
- Drive System: Direct Speed, Belt Drive
- Turret/ Tool Capacity: 12 Station Hybrid BOT/VDI Tool Turret
- Live Tooling: 4000-RPM Live Tooling with C Axis
- Probing System: Automatic Tool Presetter
- CNC Control:
 - o Visual Part Programming System
 - Media Display M-Code:M130
 - Remote Monitoring
 - Rigid Tapping

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- Spindle Orientation to provide repeatable spindle positioning accurate to 0.5 degree
- Ethernet Interface
- Wifi Connection for the CNC Control
- o Standard Program Memory, 1 GB
- Spindle Power: 15 HP / 11.2kW
- Input AC Voltage: 220VAC/ 3 Phase / 60 hz
- Full Load Amps: 40 A
- Spindle Nose: A2-5
- Spindle Bore Diameter: 58.7 mm
- Chuck Size: 165 mm
- Max Cutting Diameter: 356 mm
- Max Cutting Length: 406 mm
- Bar Capacity: 44 mm
- Max Part Diameter: 419 mm
- Over Wedge: 419
- X Axis Travel: 200 mm
- Z Axis Travel: 406 mm
- · Turrets & Live tooling
- Chip & Coolant Management: 30 Gallon Coolant Tank
- · Auto Door Option for Machine
- Air Requirements: 4scfm @ 100psi
- 6.5" Hydraulic Chuck, A2-5
- · Axial Driven Toolholder, ER-32
- Radial Driven Toolholder, ER-32
- Manual Tailstock with Hydraulic Quill
- Machine Size LxWxH: 2621x1827x1864mm
- Toolings:
 - o 1 Set of Bolt-on Tool Holder kit, 3/4"
 - o 1 Set VDI Tool Holder Kit
 - o Bolt-on 1" ID Boring Bar Holder
 - o Bolt-on 1.25" ID Boring Bar Holder
 - o 1 Set of ER-32 Collet
- Dimension: The equipment when installed should not consume more than 8sqm space and not over 1.9m for the overall height.

Training:

The following are the required topics on the training component of this item:

- Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

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Other requirements:

Requirements	Printed copy	Digital copy
 Includes instructional video covering topics indicated in this specification 		Х
Quizzes and test(s) with key to corrections	Х	Х
 Presentation materials and/or teaching aids covering all topics in this specification 	Х	Х
Equipment service and operation manual	Х	Х

All materials are in English language.

Post Evaluation Parameter(s):

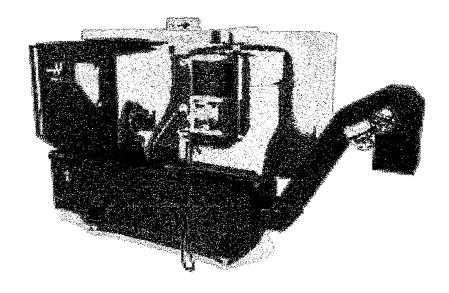
- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- Checking the conformity with the quantity including parts and accessories
- · Checking the conformity of hardware vis-a-vis offered specifications
- · Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- Commissioning and training

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Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder Signature over Printed Name of Date
Authorized Representative

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TECHNICAL SPECIFICATION

Name of The Learning System	5-Axis Rotary Table for Multi-Axes Simulation and CNC Machining
Item Code	09-003
Technology Area(s)	CNC Machining

Brief Description:

This CNC Rotary Table (trunnion) for 5 Axes CNC Milling Machine will upgrade the former 4 axis HAAS VF-2 CNC Milling Machines to become 5 Axes CNC Milling Machine.

Required Topics/Lessons:

Specifically, this equipment will engage the learner to perform the following:

- Perform 4 & 5 Axes CNC Milling Machine Operations
- Perform Actual Tool Length Compensation and Measurements (Advance)
- Perform Actual Set-up Work Offsets (Advance)
- Perform Actual CNC Milling Multi-Axis Machine Operations
- Perform Actual manual operations using Jog Mode on a Multi-Axes Environment
- Perform Actual Manual Data Input (MDI) on a Multi-Axes Environment
- Identify different machine alarms and how to troubleshoot it in a Multi-Axes Environment
- Perform routine maintenance checks on oil, coolant, air supply indicators.
- Perform transfer of CAD CAM Programs using USB, Ethernet and Wi-Fi Connectivity

Hardware:

5 Axis Rotary Table (Trunnion) consists of the following specification and components:

- 4th and 5th Axis Drives and Software version M18.29B or later for true 4th and 5th Axis Operation.
- Platter Diameter: 100 mm
- Max Weight on Platter: 6.8kg
- Part Swing Max: 214 mm
- Spindle -A (Tilt)
 - o Max Speed: 1000° / Sec
 - o Max Torque: 48Nm
 - o Gear Ration 8:1
 - o Brake Torque @ 100psi/6.9 bar: 136Nm
 - o Repeatability: 30 arc-sec
 - o Travel: 120 Degrees
 - o Indexing Resolution: 0.001 degrees
- Spindle C (Rotary)

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o Max Speed: 1000° / Sec

o Max Torque: 22Nm

o Gear Ration 7:1

o Brake Torque @ 100psi/6.9 bar: 68Nm

o Repeatability: 30 arc-sec

o Travel: 360 Degrees

o Indexing Resolution: 0.001 degrees

Air Requirements: 150 PSIRotary Table Weight: 77-80Kg

Training:

The following are the required topics on the training component of this item:

- · Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

Other requirements:

Requirements	Printed copy	Digital copy
 Includes instructional video covering topics indicated in this specification 		х
Quizzes and test(s) with key to corrections	Х	Х
 Presentation materials and/or teaching aids covering all topics in this specification 	х	Х
Equipment service and operation manual	×	Х

All materials are in English language

Post Evaluation Parameter(s):

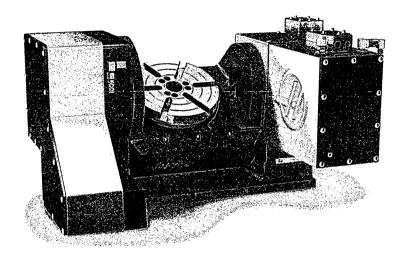
- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- · Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- · Checking the conformity with the quantity including parts and accessories
- · Checking the conformity of hardware vis-a-vis offered specifications
- · Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- Commissioning and training

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Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder Signature over Printed Name of Date
Authorized Representative

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TECHNICAL SPECIFICATION

Name of The Learning System	CNC Control Simulator (Full Function Control)
Item Code	09-004
Technology Area(s)	CNC Machining

Brief Description:

An External CNC Machine Control Simulator for CNC technology training which uses a real, full-function CNC control panel and keypad. This is an add-on to the existing CNC machine of the beneficiary center, as such it should be compatible with Haas VF-2 vertical milling machine.

Features include:

- Includes Simulated Graphic dry run
- Tool length measurement
- · Work Offsets,
- True DNC
- Visual Programming System
- · CNC Mill and Lathe Control Software
- 3/4/5 Axes
- · Built-in USB, Ethernet, and WiFi Connectivity
- Software is Upgradable to Future Versions
- Industry 4.0 Ready

Required Topics/Lessons:

Specifically, this learning system will cover the following topics:

- Create CNC Programs using G and M Codes for both CNC Lathe and Milling Machine Operations.
- Perform 2/3/4/5 Axes Programming and Simulated Multi-Axes CNC Machining
- Simulate 2d/3d graphical dry run of Tool Paths and CNC Machining Operations
- Perform Tool Length Compensation and Measurements
- Set-up Work Offsets
- Engage the learner to manipulate actual controls of a CNC machine and familiarize itself on the different functions of each button.
- Perform Edit mode
- Perform Memory Run
- · Perform manual operations using Jog Mode
- Perform Manual Data Input (MDI)
- Identify different machine alarms and how to troubleshoot it.
- · Perform routine maintenance checks on oil, coolant, air supply indicators.
- Perform transfer of CAD CAM Programs using USB, Ethernet and Wi-Fi Connectivity

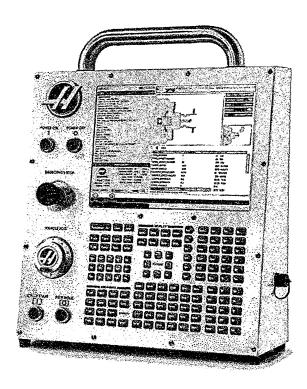
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- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- Checking the conformity with the quantity including parts and accessories
- Checking the conformity of hardware vis-a-vis offered specifications
- · Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- Commissioning and training

Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above schedule.

Name of Company/Bidder

Signature over Printed Name of Authorized Representative Date

TECHNICAL SPECIFICATION

Name of The Learning System	CNC Plasma Cutting Machine
Item Code	09-005
Technology Area(s)	CNC Machining

Required Topics/Lessons:

- 1. History of Plasma Arc Cutting
- 2. Plasma Arc Cutting Safety
- 3. CNC Plasma Cutting Machine
- 4. CNC Software & Coordinate System
- 5. G-Code Programming
- 6. Introduction to Tool Paths
- 7. CNC Plasma Cutting Driver Software interface
- 8. Test cutting
- 9. Introduction to CAD
- 10. Importing Images to CAD
- 11. Basic CAD Project

Specification

- Working area 4ft x 8ft
- Cutting capabilities: Mild Steel plate 22mm max, Stainless steel 20mm max, Aluminum 20mm max
- Max travel speed: 15,000 mm/min
- Electrical input: 220VAC, 3 phase, 60 Hz
- CAD/CAM Software
- Accessories:
 - o Consumable starter kit (swirl ring, electrode, nozzle, retaining cap, shield)
 - o Piston type air compressor
- Dimension: The equipment when installed should not consume more than 6sqm space and not over 1.9m for the overall height.

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Training:

The following are the required topics on the training component of this item:

- Configuration, set-up and maintenance of the training equipment
- Utilization of the training equipment and walkthrough with the learning activities associated with the training equipment.

Other requirements:

Requirements	Printed copy	Digital copy
 Includes instructional video covering topics indicated in this specification 		х
Quizzes and test(s) with key to corrections	x	Х
 Presentation materials and/or teaching aids covering all topics in this specification 	х	Х
Equipment service and operation manual	Х	х

All materials are in English language

Post Evaluation Parameter(s):

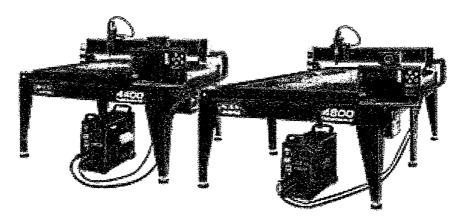
- Brochure/catalog with pictures indicating the make and model of the equipment being offered
- Technical data sheet
- · Curriculum/course outline of learning activities

Inspection and Acceptance Parameters:

- · Checking the conformity with the quantity including parts and accessories
- · Checking the conformity of hardware vis-a-vis offered specifications
- · Checking of teaching aids vis-a-vis listed course outline
- Functionality testing
- . Commissioning and Training

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I hereby commit to comply and deliver all the above requirements in accordance with the above stated schedule.

Name of Company/Bidder Signature over Printed Name of Date
Authorized Representative

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Lot 5

: Welding Machine

APPROVED BUDGET FOR THE CONTRACT Seven Hundred Nine Thousand Two Hundred Fifteen Pesos and

14/100 (₱709,215.14)

No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	4-in-1 Welding Machine	Kindly refer to the technical					
2	Oxy- Acetylene Welding Set	specifications attached as Annex D5.					

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

I hereby commit to comply and schedule.	deliver all the above requirements in acco	rdance with the above
Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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ANNEX D5

Lot No.	Lot	Code	Technology Area <i>l</i> Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
5	Welding Machine	12-002	4-in-1 Welding Machine	*Technology Transfer/Training *English Manual *Multi-process capability welding equipment - Stick welding - DC TIG - Pulsed DC TIG - MIG - Pulsed MIG - Pulsed MIG - Flux-Cored *Voltage:220VAC-60 Hz *with accessories: MIG torch assembly, argon or CO2 regulator with Flowmeterwelding mask hand type with lens, 3 meters welding cable, 3 meters ground cable w/ ground clamp	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
5	Welding Machine	12-014	Oxy-Acetylene Weiding Set	Handle mixer cutting attachment Check valves Cutting tips Welding tip Single stage oxygen regulator Single stage fuel gas regulator Accessories 6 m hose (4300591) goggles (4304482) Lighter (26s) Filnts (26l) Tip cleaner Cylinder key 2 cylinders Acetylene Tank and 4 cylinders Oxygen Tank	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commissioning and Training	Yes

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•	Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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Lot 6

: Metal Fabrication Equipment

APPROVED BUDGET FOR THE CONTRACT Twenty-Four Million One Hundred Twenty-Two Thousand Seventy-Four Pesos and 62/100 (₱24,122,074.62)

No.	ltem	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	Hydraulic Press Brake Machine						
2	Hydraulic Shearing Machine						
3	Lock Forming Machine						
4	Hydraulic Plate Bending Roller Machine	Kindly refer to the technical					
5	Hydraulic Iron Worker Machine	specifications attached as Annex					
6	Automatic Sheet and Plate Rolling Machine	D6.					
7	Multi-function Pipe Bending Machine						
8	Power Hacksaw						
9	Horizontal Bandsaw						
10	Shaper Machine						

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

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Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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ANNEX D6

Lot No.	Lot	Code	Technology Area/ Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (inspection and Acceptance)	English Manual
6	Metal Fabrication Equipment	14-001	Hydraulic Press Brake Machine	*Technology Transfer/Training *English Manual *Bending length: 3000-3500mm *Pressure: 1600kn *Throat depth: 300-350mm *Stroke adjustment range: 100-150mm/sec. *Idle stroke speed: 40-80 mm/sec. *Working Stroke Speed: 6-10mm/s *Return stroke speed: 40-50mm/s *Input power: 220VAC 60Hz *Main motor: 10-11Kw *with following accessories: controller system, main motor, main electrics, hydraulic valve, cylinder, oil pump, servo motor, pipe connector, sealings, grating ruler, ball screw and linear guide, foot pedal, fast clamping, punch and die, hydraulic compensation, side and back safeguard, and standard axis	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commistening and Training	Yes
6	Metal Fabrication Equipment	14-002	Hydraulic Sheating Machine	*Technology Transfer/Training *English Manual *Max. shearing Thickness: 3-4mm *Max. shearing Width: 1000-1500mm *No. of stoke: 20-30/minute *Motor power: 3-4kw *Shear angle 2-2.4 degreesing *Power source: 220VAC, 60 Hz *with following accessories: valve, cylinder, oil pump connector, main electrics, main motor, inverter, sealings, mounds and die, ball screw and linear guide, and NC controller	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commissioning and Training	Yes
6	Metal Fabrication Equipment	14-003	Lock Forming Machine	*Technology Transfer/Training *English Manual *Motor 1.5kw. 3 Phase *Plate thickness: 1-2mm *5-7 rolls shape *Welght 100- 250kg *Size atleast 1120X550X950mm:LxWxH *Power source: 220VAC, 60 Hz	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commissioning and Training	Yes

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66	Metal Fabrication Equipment	14 004	Hydraulic Plate Bending Roller Machine	*Technology Transfer/Training *English Manual *Machine type: synchronize *Length of Working Table: 1500-1600mm *Motor power: 5-6kw, Voltage: 220V. *Key selling points: high accuracy *Silide stroke: 150-200mm *Automatic teyel: fully automatic *Throat dopth: 300 350mm *Width of working Table: 50-60 mm *Nominal Pressure: 500-650 kN *Power source: 220VAC, 60 Hz with following accessories: valve, cylinder, oil pump connector, main electrics, main motor, inverter, sealings, mounds and die, ball screw and linear guide, and NC controller	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yec
6	Metal Fabrication Equipment	14-005	Hydraulic Iron Worker Machine	*Technology Transfer/Training *English Manual *Machine type: synchronize *Length of Working Table: 1500-1600mm *Motor power: 5-6kw,Voltage: 220V. *Key solling points: high accuracy *Silde stroke: 150-200mm *Automatic level: fully automatic *Throat depth: 300-350mm *Width of working Table: 50-60 mm *Nominal Pressure: 500-650 kN *Power source: 220VAC, 60 Hz	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
6	Metal Fabrication Equipment	14-006	Automatic Sheet and Plate Rolling Machine	*Technology Transfer/Training *English Manual *4 roller bending roll machine *Rolling services at up to 10mm thick *Can roll different kinds of metal into round or conical shapes. *Width size minimum: 2000mm *Power source: 6-7.5 kw, Voltage 220VAC, 60Hz *Accessories: - Digital Road Out (DRO) .001 inch/ .01 mm reading - Forward/Reverse Foot Pedal - Cone Bending Device - Cable Type Emergency Stop Device	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
6	Metal Fabrication Equipment	14-009	Multi-function Pipe Bending Machine	- Capis 1756 Emercons Stob Device - Circular pipe mould (mm): 16, 19, 22, 25, 32, 38, 51, 63, 76 - Square pipe mould (mm): 16, 19, 22, 25, 30, 38, 40, 50 - Bending pipe wall thickness: 0.5-2 - Motor power: 220V/60Hz/1Ph or 220V/60Hz/3Ph - With english manual	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -installation, Commissioning and Training	Yes



6	Metal Fabrication Equipment	14-010	Power Hacksaw	Horizontal Hack Saw Machine 18* Cutting Scope: Round Bar (mm) Ø 250 Shape Bar (mm) 220x220 Oblique Bar 45 degrees Frequency of Sawing Bow Reciprocation 75; 90; 108 Stroke of Sawing Bow Cutting (mm) 135 Hack Saw Blade Size (mm) 450 x 45 x 2.25 (18inches) input Voltage (kW/V/Hz/Ph) 1.5 / 220 / 50 / 1 Dimensions (LxWxH)(M) 1262x863x967mm Weight (Kg) 800	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes
6	Metal Fabrication Equipment	14-011	Horizontal Bandsaw	Drive Motor: 2 Hp (1.5kw) 230/460v 3 phase Hydraullc Motor: 0.25 Hp (.19kw) Coolant Pump: 0.125 Hp (.19kw) Band Wheel Dia: 15.4" (391mm) Blade Size: 1" x .035" x 11'-4.5" (25 x .9 x 3467mm) Bed Height: 21.75" (552mm) Vise Opening: 18" (457mm) Blade Speeds: 80-360 fpm (24-110 m/min) Variable Speed - 45" Cutting Capacity Round: 8" (203 mm) Square: 8" x 8" (203 x 203mm) Rectangular: 8" x 12" - with English manual	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commissioning and Training	Yes
6	Metal Fabrication Equipment	14-015	Shaper Machine	*English Manual *Heavy duty *Machine size: 36" *Maximum stroke: 38" *Length of ram: 66" *Max. Distance of Table to ram: 2" *Max. vertical travel to tool slide: 7" *Len and width to table top: 36"x18" *Len of crosslide: 48 *Width of ram: 13" *No. of speeds: 4 *Electrical: 220-380VAC 50-60Hz *Accessories: - Shaper vise 10" jaw opening - Tool holder, 3/8 High Speed tool bit - Tool holder, 1/2 High Speed tool bit - Allen bolt and nut M12 x 1.75 (100 pcs) - HSS tool bit, 3/8 (20 box) - HSS tool bit, 1/2 (20 box)	Equipment	Brochure with picture and data sheet	- Checking the conformity with the quantity including parts and accessories - Checking the conformity of hardware vis-a-vis offered specifications - Functionality testing -Installation, Commisioning and Training	Yes

I hereby commit to comply and deliver all the above requirements in accordance with the above schedule. Name of Company/Bidder Signature over Printed Name of Authorized Representative Date 98

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Lot 7 : ICT Equipment and accessories

APPROVED BUDGET FOR THE CONTRACT Ten Million Six Hundred Seventy-Nine Thousand Four Hundred

Twenty-Six Pesos and 25/100 (₱10,679,426.25)

No.	ltem	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	Laptop						
2	Multimedia Projector						-
3	A4 Inkjet Printer		-				
4	A3 Inkjet Printer						
5	HDMI Cable	Kindly refer to the technical					
6	Smart TV	specifications attached					
7	Interactive Whiteboard Solution	as Annex D7.					
8	Sound System						
9	Surveillance Security Camera System						

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

I hereby commit to comply and schedule.	deliver all the above requirements	in accordance with the above
Name of Company/Bidder	Signature over Printed Name Authorized Representative	

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ANNEX D7

Lot No.	Lot	Code	Technology Area <i>l</i> Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
7	ICT Equipment and accessories	01-001	Laptop	Intel® Core i7 8th Generation, 8MB cache, 4 cores (higher generation, cache size and/or core number is better) 8Gb RAM DDR4-2400 SD RAM (higher RAM size is better) Dual storage 1TB 5400rpm SATA and 128 GB SSD (higher rpm and/or storage size is better) 4GB DDR5 Dedicated video (higher video memory size is better) 15.6" diagonal FHD IPS BrightView microedge WLED-backlit Resolution 1920 x 1080 higher resolution is better Wired and wireless Ethernet connection At least two (2) USB 3.0 Port Includes Mouse Windows 10 or latest OS Microsoft Office 2019 (Full Installation) Educational License	Equipment	Brochure with picture and data sheet	- Measurement of monitor - Functionality test - Checking of specification (offered vs. actual) - Check package completeness - 24 Burn-in test using PassMark	Yes
7.	ICT Equipment and accessories	01-002	Multimedia Projector	Projection system LCD/ DLP chip technology Brilliant Color Images: with 16.7 M color reproduction Projected image size: 30 to 300 inches Distance: 1 to 13.5 meters Brightness: 5,000 - 6,000 lumens Resolution: WXGA (1024 x 768) pixels Lamp life: 3,000 hours USB port: Type Bx1 Interface: wired/ wireless	Equipment	Brochure with picture and data sheet	→ Functionality test → Check package completeness	Yes
7	ICT Equipment and accessories	01-003	A4 Inkjet Printer	With Print, Scan, Copy, Fax features Tank type ink system Supports A4 and Legal Paper sizes Approximately 15 page per minute (Black) Can scan documents over network environment Photo Quality WiFi Connectivity	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes

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7	ICT Equipment and accessories	01-004	A3 Inkjet Printer	print, scan, copy, fax wide format inkjet printer 1200 x 4800 dpi print resolution print width 291mm, 297mm (borderless) 250 sheets input tray 100 sheets output tray WiFi Connectivity		Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes
7	ICT Equipment and accessories	01-005	HDMI CABLE			Brochure with picture and data sheet	- Functionality test - Check package completeness	N/A
7	ICT Equipment and accessories	01-006	Smart TV	65 Inches Resolution: Ultra High Definition (3,840 × 2,160) Audio: Dolby Digital Plus Mobile to TV - Mirroring, DLNA High Dynamic Range SMART Features Ethernet and Wireless Connectivity USB, HDMI and AVV port with wall mount provision Multi-system compatible	Equipment	Brochure with picture and data sheet	- Measurement of monitor - Functionality test	Yes

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7	ICT Equipment and accessories	01-007	Interactive Whiteboard Solution	Sensor Portable and can be installed in any flat and smooth surface Minimum active work area: 17 x 11 in (43 x 28 cm) Maximum active work area: 16 x 5 ft (4.9 x 1.5 m) Connectivity: USB or wireless data transfer Stylus Power: Il-polymer rechargeable battery Marker Power: Rechargeable, micro-USB Wireless Specifications Frequency: 2.4 to 2.485 GH Maximum data rate: 2.1 MB/s Bluetooth V2.1+EDR (Class 2) Maximum intended range: 10m (33ft) Compatibility Windows 7 or higher Ubuntu 10.04/12.04 IOS 8 or higher Android 4 or higher Chromebooks English Manual Warranty 2 yrs	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes
7	iCT Equipment and accessories	01-008	Sound System	8-channel mixer with 2 x 325-350 watts amplified output, bluetooth, USB, Stereo Rec. Phone jack, graphic equalizer, FX and Reverb 1 pair 2-way bass reflex passive speaker 12" x 500 watts, 8 ohms, plastic molded, 45Hz~20Khz	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes

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7	ICT Equipment and accessories	01-009	Surveillance Security Camera System	- with built-in microphone - motion detection - Infrared/Night vision (atleast 10 meters distance) - Onvif - waterproof IP Cmera PTZ x 1pc - 2.0 Megapixels, 30X optical zoom - PoE -1080p - Infrared/Night vision (atleast 60 m) - Waterproof - Onvif Accesories: - NVR power supply 220VAC 60Hz - 19" LCD Monitor 220VAC HDMI/VGA	Equipment	Brochure with picture and data sheet	- Functionality test - Check package completeness	Yes
				- NVR power supply 220VAC 60Hz - 19" LCD Monitor 220VAC HDMI/VGA				

I hereby commit to schedule.	comply and deli	ver all the above requi	rements in accord	ance with the above
- In	0pcs RJ45 Jacket estallation guide			

Lot 8

: Office Furniture

APPROVED BUDGET FOR THE CONTRACT Five Million Eight Hundred Eleven Thousand Seven Hundred Three Pesos and 28/100 (₱5,811,703.28)

No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
1	Training Table						
2	Stackable Chair						
3	Office Table						
4	Office Table with						
	keyboard drawer						
5	Office Table no						
	drawer						
6	Gas Lift Chair						
	(Fabric)						
7	Office Chair						
	(Mesh)		<u> </u>				
8	Executive Chair						
9	3-layer Lateral						
	Filing Cabinet						
10	Full Height Glass						
	Sliding Door File						
-44	Cabinet		-				
11	Movable						
40	Presenter Table	Kindly refer to the		-		 	
12	Locker Cabinet	technical					
13	4-Layer	specifications attached as Annex					
	Collapsible Metal Rack	D8.					
14	Executive Table						
'	with L-Type						
	Drawer						
15	4-Layer Lateral						
	Filing Cabinet						
16	2-seater Sofa						
17	Center Table						
18	Conference						
	Table						
19	Table						
20	Chair						
21	Collapsible						
	Display Board						
22	Steel Floor						
	Stand Poster						
	Holder						
23	Gang Chair						/
24	Workstation			L			

No.	Item	Agency Specifications	Qty	Unit	Statement of Compliance*	Make Brand / Model	Reference
25	Storage Cabinet						
26	Movable White						
	Board						
27	Flip chart						
	stand/portable		1				
	white board						
28	Kitchen Table						

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

I hereby commit to comply and o schedule.	leliver all the above requirements in ac	ccordance with the above
Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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ANNEX D8

Lot No.	Lot	Code	Technology Area <i>l</i> Learning System	Agency Specification	Classification	Test Parameters (Post Evaluation)	Test Parameters (Inspection and Acceptance)	English Manual
8	Office Furniture	03-001	Training Table	Width:120-130 cm (table top) Lenght: 60-70 cm (table top) Height: 70-75 cm (floor to table top) Filp top Table top panel: 25 mm thick +-10%, MDF Board Modesty panel Powder coated steel frame Double Castor Wheels with Brakes	Furnitures	Brochure with picture and data sheet	- Measurement of LxWxH - Thickness of table top panel - Folding functionality of legs - Functionality of castor wheels and brake	N/A
8	Office Furniture	03-002	Stackable Chair	Midback chair Stackable Fabric Cushion, Color: Blue Metal Frame, Color: Black Seat dimensions: 18 - 19"W x 16 - 17"D Back dimensions: 18 - 19"W x 13 - 14"H Seat height 18"	Furnitures	Brochure with picture and data sheet	Measurement of Seat and backrest (Dimension and Height Type of materials used	N/A
8	Office Furniture	03-003	Office Table	Free Standing Table Dimension: 180W x 70D x 75Hcm Materials: MFC Table, Steel legs & Modesty, Bullnose Edge Finish: Beechwood Top & Light Gray Frame With two 3-Drawer Mobile Pedestal File Cabinet with Lock(15-16"W x17-19"D x23-24"H)	Furnitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension	N/A
8	Office Furniture	03-004	Office Table with keyboard drawer	Dimension: W 48" x D 24" x H 28.5" Gray or Dark Walnut top Gray metal body and legs Center keyboard drawer 1 side table 3-layer drawer with Lock	Furnitures	Brochure with picture and data sheet	Type of materials used Measurement of dimension	N/A
8	Office Furniture	03-005	Office Table no drawer	Dimensions: W 100 x D 45 cm x H 75 cm Materials: Metal Color: Beige top body and legs Grommet Holes no drawer	Fumitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension	N/A
8	Office Furniture	03-006	Gas Lift Chair (Fabric)	Midback chair with armrest Material: Fabric seat and back Armrest and starbase Gas Lift: 75mm - 85mm Caster Type: Polypropylene Plastic Chair Seating Capacity: 120- 130kgs Till-Lock Function Pneumatic Height Adjustment 360° Swivel Function	Furnitures	Brochure with picture and data sheet	- Type of Materials used - Measurement of height of max. lift - Measurement of welght of seating capacity	N/A



8	Office Furniture	03-007	Office Chair (Mesh)	Chair Seating Capacity: Max 100kgs Tilt-Lock Function Pneumatic Height Adjustment Soo' Swivel Function	Furnitures.	Brochure with picture and data sheet	- Measurement of backrest - Type of materials used	N/A
8	Office Furniture	03-008	Executive Chair	Base Height: 45 cm +_10% (floor to top of seat pad) Material: Backrest: foam covered with black PU faux leather/leather-like material; Seat: foam covered with black PU Faux Leather/leather-like material Armrest: Polypropylene (Pp) Plastic covered with black PU faux Leather/leather-like material Gas Lift Wheel Caste: nylon/pp Butterfly Mechanism Adjustable seat height Swivel 360 degrees Tilt locking at 90-135 degrees angle	Fumilures	Brochure with picture and data sheet	Measurement of backrest Type of materials used	N/A
8	Office Furniture	03-009	3-layer Lateral Filing Cabinet	3 drawer lateral cabinet Metal Construction Width: 35 Inches +-10% (outer side of the cabinet) Depth: 17 inches +-10% (outer side of the cabinet) Height: 40 inches +-10% (from floor to top edge of the drawer) Powder coated, color: TLight Grey AA/F4 File Storage Anti-tilt, central locking mechanism Plastic divider, movable hanger	Fumilures	Brochure with picture and data sheet	Measurement of base height Checking of cover and frame materials Functionality of tillt locking feature	N/A
8	Office Furniture	03-010	Full Height Glass Sliding Door File Cabinet	Steel Cabinet with Glass Silding Door W: 450 cm (outer side of the cabinet) Depth: 90 cm +-10% (outer side of the cabinet) Helght: 185 cm +- 10% (from floor to top edge of the cabinet) • A4 IF4 file storage • 4 adjustable shelves, 5 levels • Centralized Locking Mechanism • Color: Textured Light Grey	Furnitures	Brochure with picture and data sheet	- Measurement of dimension - Functionality test	N/A

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8	Office Furniture	03-011	Movable Presenter Table	Multi-purpose fectern Modern standing height adjustable Podium Min Height 101.16 - 104.14cm Podium Max Height 124.46 - 127cm Top shelf is 58.42 - 6.9cm Wide x 40.64 - 43.18cm Deep with a 40-degree angle with paper stopper and grommet hole Steel Frame with the 4 furniture casters (two casters have locking brake)	Furnitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension - Functionality test	N/A
8	Office Furniture	03-012	Locker Cabinet	18-door locker 6-Layer Utility Cabinet Material: High-quality coid-rolled steel Color: Textured Light Gray Dimension: W900-1000 x D400-500 x H1850-2000 mm Gauge: 22mm with hasp provision for padiock and built-in locking mechanism	Furnitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension - Lock Functionality test	N/A
. 8	Office Furniture	03-013	4-Layer Collapsible Metal Rack	Width: 90 cm Depth 40 cm +-10% Height: 180 cm +-10% (floor to top edge of the shelves) Boltless Rack 4 layers of metal shelving Metal Frame Thickness: 1.5 mm Color: Textured Light Grey 3/4 inches +-10% wooden deck	Furnitures	Brochure with picture and data sheet	- Measurement of dimension - Functionality test	N/A
8	Office Furniture	03-014	Executive Table with L-Type Drawer	- Main Table: L 160cm x D 80cm x H 77cm - Side Table (with casters): L 118cm x D 39cm x H 64cm - Mobile Pedestal (2-drawers with casters): L 39.5cm x D 47cm x H 57cm - Materials: MDF Board with PVC Laminate - Colors: Mahogany - Key Features: - L-Type Drawers - Side Drawers with centralized locking system	Furnitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension	N/A
				Dimension: W 900mm x D 450mm x H 1380mm				
8	Office Furniture	03-016	4-Layer Lateral Filing Cabinet	A drawer lateral cabinet Material: Steef A4/F4 File Storage Color: Off-White	Furnitures	Brochure with picture and data sheat	Measurement of base height Checking of cover and frame materials Functionality of tilt tocking feature	N/A
8	Office Furniture	03-017	2-seater Sofa	- 54" L x 34" W x 27" H - Color : Gray (seat and legs) - Uphoistery: felt fabric, solid wood frame - leg size 4" solid wood - with armrest - 2 free pillowcase	Furnitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension - Color	N/A

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	Office Furniture	03-018	Conter Table	L 29" x W 16" x H 15" Materials: Tempered Glass top, metal legs and frame Color of legs and frame: chrome	Farnitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension - Color	NIA
8	Office Furniture	03-019	Conference Table	Dimension: Length 320cm x Width 132cm x Height 76cm 12-seaters conference table Color and material of table top and legs: black solid wood table top round edge	Furnitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension - Capacity	N/A
8	Office Furniture	03-020	Table	Monoblock Square Table High Grade Plastic Width: 36* Length: 36* Height: 28" Stackable Colour: White	Furnitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension	N/A
В	Office Furniture	03-021	Chair	Monoblock Chair Material: High Grade Plastic Stackable Color: White Seat Width: 383 mm Seat Height: 446 mm Thickness: 45 mm Seat Depth: 330 - 400 mm Backrest Height: 800 - 900 mm	Furnitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension	N/A
	Office Furniture	03-022	Collapsible Display Board	6 Panel display board Collapsible Aluminum Frame Each panel measures width: 600mm +- 10%, height: 900 mm +- 10% Fabric covered, uphoistered both side. Color: Royal Blue Gear edge hinge system so frame can be positioned at any angle With Header Panel refer to Technical Specification of item Code 03-022 to see sample image	Fumilures	Brochure with picture and data sheet	- Measurement of panel - Type of materials used	N/A
8	Office Furniture	03-023	Steel Floor Stand Poster Holder	H-Frame Stand Double Side For indoor/ outdoor advertising Frame Material: Steel Poster Material: PVC Height: 154 cm (+-5cm) Frame Dimension:50*70 cm (+-5cm) Poster Dimension: 49*89 cm (+-5cm) With fisicial board	Furniwres	Brochure with picture and data sheet	- Type of materials used - Measurement of height, and frame and poster dimension	N/A

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8	Office Furniture	03-024	Gang Chair	3-seater All with PU Cover 1-163*W62*H76 (cm) Seat Width: 46CM Arm and leg are 1.0mm metal chrome Gross Weight 26 KG Weight-bearing 150KG per seat Blue Color Materials: Leg frames are steel with chrome plated finish, beam section steel, powder coaled Leatherette seat and back Backrest height: 52 cm	Fumitures	Brochure with picture and data sheet	- Type of materials used - Dimension; LxWxH - Color	N/A
8	Office Furniture	03-025	Workstation	4-seater workstation/table Dimension: L420 cm +- 10% x W120 cm +- 10% x H75 cm +-10% Material: Table top: MDF + Metal with Glass Divider 3-drawer mobile cabinet per station With cable management	Furnitures	Brochure with picture and data sheet	- Type of materials used - Measurement of dimension	N/A
8	Office Furniture	03-026	Storage Cabinet	Material: Steel 5 shelves (4 adjustable) 2-Door with lock Dimension: H1800 x W855 x D390 mm Color: Textured Light Gray	Fumitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension - Door lock Functionality test	N/A
8	Office Furniture	03-027	Movable White Board	Overall Dimension: 96" x 48" Writing Surface Size: 94"x 46" Both sides magnetic drywipe, 360 rotatable and lockable when in position With 4 castors, 2 of the 4 are lockable Board material: Porcelain Aluminum frame and stand, include pentray	Furnitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension - Functionality test	N/A
8	Office Fumiture	03-028	Filp chart stand/portable white board	magnetic white board: 62cm x 92cm (WxH) with easel clip at the top Foldable/ adjustable aluminum tripod stand with rubber foot with pentray	Furnitures	Brochure with picture and data sheet	- Type of Material used - Measurement of dimension - Functionality test	N/A
8	Office Furniture	03-029	Kitchen Table	Stainless steel two casters with locking brake, two normal casters large layers Dimension: 48 x 24 x 32 inch Thickness: 1.0	Fumitures	Brochure with picture and data sheet	- Type of materials used - Dimension: LxWxH	N/A

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Name of Company/Bidder	Signature over Printed Name of Authorized Representative	Date

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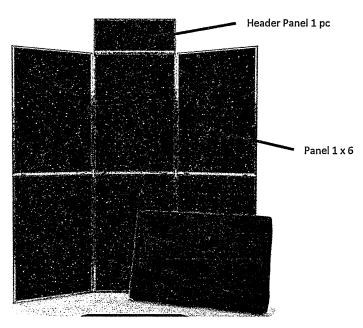
TECHNICAL SPECIFICATION

Name of Furniture	Collapsible Display Board
Item Code	03-022
Lot	Office Furniture

Specification:

- 6 Panel display board
- Collapsible
- Aluminum Frame
- Each panel measures:
 - o Width: 600mm +-10%
 - o Height: 900 mm +- 10%
- Fabric covered, upholstered both sides. Color: Royal Blue
- Gear edge hinge system so frame can be positioned at any angle
- With Header Panel

Sample Image:



Picture for reference only

I hereby commit to comply and deliver all the above requirements in accordance with the above schedule.

Name of Company/Bidder Signature over Printed Name of Date
Authorized Representative

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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

Class "A" Documents			
<u>Legal Documents</u>			
	(a)	Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);	
	(b)	or 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,	
	(c)	and 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;	
	(d)	and Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).	
Technical Documents			
10	(e)	Statement of the prospective bidder of all its ongoing government and	
	(-)	private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; (Annex E) <u>and</u>	
	(f)	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 (Annex F) and	
	(g)	Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;	
		or Original copy of Notarized Bid Securing Declaration; (Annex G) and	
	(h)	Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; <u>and</u>	
	(i)	Original duly signed Omnibus Sworn Statement (OSS) (Annex H); 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.	
Financial Documents			
	(j)	The Supplier's audited financial statements, showing, among others, the Supplier's total and current assets and liabilities, stamped	

	(k)	"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; <u>and</u> The prospective bidder's computation of Net Financial Contracting Capacity (NFCC); or A committed Line of Credit from a Universal or Commercial Bank in		
		A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.		
		Class "B" Documents		
	(I)	If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence (Annex I);		
		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)				
		[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.		
	(n)	Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.		
FINANCIAL COMPONENT ENVELOPE				
	(a)	Original of duly signed and accomplished Financial Bid Form; (Annex J) and		
	(b)	Original of duly signed and accomplished Price Schedule(s). (Annexes K and L)		
		•		

II.

STATEMENT OF (i) ONGOING CONTRACTS (ii) AWARDED BUT NOT YET STARTED CONTRACTS This is to certify that has the following ongoing and awarded but not yet started contracts: (company) **Date of the Contract Contracting Party** Kind of Goods Bidder is **Amount of** Value of Name of Outstanding A) Manufacturer Contract Sold Contract B) Supplier Contracts C) Distributor Name and Signature of Date Authorized Representative

*Instructions:

a) State all ongoing contracts including those awarded but not yet started (government and private contracts which may be similar or not similar to the project called for bidding) as of:

i. The day before the deadline of submission of bids.

b) If there is no ongoing contract including awarded but not yet started as of the aforementioned period, state none or equivalent term.

c) 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) in case an NFCC is submitted as an eligibility document.

d) "Name of Contract". Indicate here the Nature/ Scope of the Contract for easier tracking of the entries/ representations

STATEMENT OF SINGLE LARGEST COMPLETED CONTRACT SIMILAR TO THE CONTRACT TO BE BID This is to certify that (company) has the following completed contracts within five (5) years prior to the date of submission and receipt of bids, a contract similar to the Project Date of the Contracting Name of Kind of Goods Date of Date of Official Amount of Bidder is Delivery/ A) Manufacturer Contract **Party** Contract Sold Contract Receipt B) Supplier End-user's C) Distributor Acceptance Name and Signature of Date **Authorized Representative**

^{*} Instructions:

a) Cut-off date as of:

⁽i) Up to the day before the deadline of submission of bids.

b) In the column under "Dates" indicate the dates of Delivery/ End-user's Acceptance and Official Receipt.

c) "Name of Contract". Indicate here the Nature/ Scope of the Contract for the Procuring Entity to determine the relevance of the entry with the Procurement at hand.

Bid Securing Declaration Form

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

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

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

I/We², 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.

-

 $^{^2}$ 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 OR ITS AUTHORIZED REPRESENTATIVE]
[Insert Signatory's Legal Capacity]
Affiant

[place of execution], Philippines. Affiant/s identified by me through competent evid on Notarial Practice (A.M. No. 02-8-13-type of government identification card up	before me this day of [month] [year] at is/are personally known to me and was/were ence of identity as defined in the 2004 Rules SC). Affiant/s exhibited to me his/her [insert sed], with his/her photograph and signature and his/her Community Tax Certificate No.
Witness my hand and seal this	_ day of [month] [year].
Serial Notary Roll of PTR N	OF NOTARY PUBLIC No. of Commission Public for until Attorneys No o [date issued], [place issued] o [date issued], [place issued]
Doc. No Page No Book No Series of	[aato loodod], [place looded]

*The identification card shall be at least one of the acceptable proofs of identity as identified under the provisions of the 2014 Rules on Notarial Practice

"Sec. 12. Competent Evidence of Identity— The phrase "competent evidence of identity" refers to the identification of an individual based on:

At least one current identification document issued by an official agency bearing the photograph and signature of the individual, such as but not limited to, passport, driver license, Professional Regulations Commission ID, National Bureau of Investigation clearance, police clearance, postal ID, voter's ID, Barangay certification, Government Service and Insurance System (GSIS) e-card, Social Security System (SSS) card, Philhealth card, senior citizen card, Overseas Workers Welfare Administration (OWWA) ID, OFW ID, seaman's book, alien certificate of registration/immigrant certificate of registration, government office ID, certification from the National Council for the Welfare of Disabled Persons (NCWDP), Department of Social Welfare and Development (DSWD) certification:

The Board Resolution or Secretary's Certificate referring to the said Board Resolution designating the bidder's authorized representative and signatory need not specifically indicate the particular project where such authority is given provided that the said authority covers activities by TESDA.

OMNIBUS SWORN STATEMENT (REVISED)

[shall be submitted with the Bid]

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, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- 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 enduser 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 responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
- [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.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services,

to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code. IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at ___, Philippines. [Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

*The identification card shall be at least one of the acceptable proofs of identity as identified under the provisions of the 2014 Rules on Notarial Practice

"Sec. 12. Competent Evidence of Identity — The phrase "competent evidence of identity" refers to the identification of an individual based on:

At least one current identification document issued by an official agency bearing the photograph and signature of the individual such as but not limited to, passport, driver's license, Professional Regulations Commission ID, National Bureau of Investigation clearance, police clearance, postal ID, voter's ID, Barangay certification, Government Service and Insurance System (GSIS) e-card, Social Security System (SSS) card, Philhealth card, senior citizen card, Overseas Workers Welfare Administration (OWWA) ID, OFW ID, seaman's book, alien certificate of registration/immigrant certificate of registration, government office ID, certification from the National Council for the Welfare of Disabled Persons (NCWDP), Department of Social Welfare and Development (DSWD) certification;

The Board Resolution or Secretary's Certificate referring to the said Board Resolution designating the bidder's authorized representative and signatory need not specifically indicate the particular project where such authority is given provided that the said authority covers activities by TESDA.

JOINT VENTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This JOINT VENTURE AGREEMENT (hereinafter referred to as the "Agreement"), entered into this day of 20 at City, Philippines by and among:
a domestic corporation duly organized, registered and existing under and by virtue of the laws of the Republic of the Philippines, with office address at, represented by its, hereinafter referred to as "";
- and -
a domestic corporation duly organized, registered and existing under and by virtue of the laws of the Republic of the Philippines, with office address at, represented by its, hereinafter referred to as,
- and —
a foreign corporation organized and existing under and by virtue of the laws of, represented by its, hereinafter referred to as;
(Henceforth collectively referred to as the "Parties")
WITNESSETH: That
WHEREAS , the Technical Education and Skills Development Authority (TESDA) has recently published an Invitation to Apply for Eligibility and to Bid for the Supply and Delivery of for the;
WHEREAS, the parties have agreed to pool their resources together to form the " Joint Venture", hereinafter referred to as the Joint Venture, under the laws of the Philippines, for the purpose of participating in the abovementioned procurement of TESDA-CO;
NOW, THEREFORE, for and in consideration of the foregoing premises and the covenants hereto set forth, the Parties have agreed as follows:

ARTICLE I ORGANIZATION OF THE JOINT VENTURE

SECTION 1. Formation — The Parties do hereby agree and bind themselves to establish, form and organize a Joint Venture pursuant to the laws of the Republic of the Philippines, in order for the JV to carry on the purposes and objectives for which it is created;			
SECTION 2. Name — The name and style under which the JV shall be conducted is "";			
SECTION 3. Principal Place of Business — The JV shall maintain its principal place of business at;			
SECTION 4. Preparation and Documentation — The Parties shall secure and/or execute such certifications, documents, deeds and instruments as may be required by the laws of the Republic of the Philippines for the realization of the JV and in compliance with the Project. Further, they shall do all other acts and things requisite for the continuation of the JV pursuant to applicable laws;			
SECTION 5. The Joint Venture shall be represented by the in all biddings, related procurement transactions and other official dealings that it shall enter into with the TESDA-CO and third parties, such transactions to include, among others, the submission of eligibility documents, bids, registration documents obtaining bonds, performing the principal contract in the event that the contract is awarded in favor of the Joint Venture, receipt of payment for goods delivered, and similar and related activities.			
SECTION 6. The period of the Joint Venture shall begin upon execution of this Agreement and shall continue until the complete performance of its contractual obligations to TESDA-CO, as described in Article II hereof, or upon its termination for material breach of any term or condition of this Agreement, by service of a written statement in English on the other Party, not less than 90 days prior to the intended date termination			
ARTICLE II PURPOSE			
SECTION 1. The primary purpose of the Joint Venture is to participate in the public bidding to be conducted by the TESDA-CO Bids and Awards Committee for the supply and delivery of for the			
SECTION 2. If the above-described contract/s is/are awarded to the Joint Venture, the Joint Venture shall undertake the performance thereof to TESDA-CO, and such other incidental activities necessary for the completion of its contractual obligations.			

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ARTICLE III SOLIDARY LIABILITY OF THE PARTIES

SECTION 1. In the performance of the contract/s that may be awarded to the Joint Venture by the TESDA-CO, and all other related activities/obligations, as described in Article II hereof, - the Parties bind themselves jointly and solidarily, in the concept of solidarily debtors, subject to the right of reimbursement, as provided in the relevant provisions of the Civil Code of the Philippines.

ARTICLE IV CONTRIBUTION AND OTHER ARRANGEMENTS

SECTION I. Contribution — The Parties shall contribute the amount of _____ (Php ___) to support the financial requirements of the Joint Venture, in the following proportion:

Additional contributions to the Joint Venture shall be made as may be required for contract implementation. In addition, shall contribute any labor and contract management requirements.

SECTION 2. Profit Sharing — The share of the Parties to the JV from any profit derived or obtained from the implementation and execution of the Project shall be distributed pro rata to each, in accordance with the contribution and resources each has provided to the JV;

SECTION 3. Liquidation and Distributions — Any sum remaining after deducting from the total of all moneys or benefits received for the performance of the contract, all costs incurred by the JV after award of the contract for the Project pursuant to the accounting practices established for the JV, shall be distributed in accordance with the relative balances in the accounts of each Party pursuant to Sec.1 of this Article upon completion, final accounting, termination and liquidation of the JV. In the event of liquidation and termination of JV, and after taking into account the shares of the Parties in all income, gain, deductions, expenses, and losses, should the account of a Party contain a negative balance, such Party shall contribute cash to the JV sufficient to restore the said balance to zero:

SECTION 4. Sharing of Burden of a Net Loss — In case a net loss is incurred, additional contributions shall be made by the Parties in accordance with their respective shares.

ARTICLE V MISCELLANEOUS PROVISIONS

SECTION 1. The provisions of the Instructions to Bidders, Supplemental Bid Bulletin, and other bidding documents issued by the TESDA-CO in relation to the contract described in Article II hereof, shall be deemed incorporated in this Agreement and made an integral part thereof.

SECTION 2. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective-successors and assigns.

SECTION 3. The Parties herein are duly represented by their authorized officers.

SECTION 4. Governing Law - This Agreement shall be governed by and construed according to the laws of the Republic of the Philippines. Venue of any court action arising from this Agreement shall be exclusively laid before the proper court of the Philippines.

REOF, the parties have set their hands and ce first above-stated.	affixed their signatures
 ······································	
	-
	-
Signed in the Presence of:	
	-

ACKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES) CITY/MUNICIPALITY OF) PROVINCE OF (in the case of Municipality)	S.S.
BEFORE ME, a Notary Public for and also the Province in the case of Municipality year) personally appeared the following:	d in the City/Municipality of <u>(indicate</u> _ , this <u> </u>
Name ID Name, Number a	nd Validity Date
Known to me and to me known to be foregoing instrument and they acknowledge voluntary act and deed and that of the corpor	e the same persons who executed the to me that the same is their free and ration(s) they represent.
This instrument refers to a Joint Ven- pages, including the page on which this Ack the parties and their instrumental witnesses.	ture Agreement consisting of nowledgement is written, and signed by
WITNESS MY HAND AND NOTARIAL above written.	SEAL on the place and on the date first
	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 Note:	

"Sec. 12. Competent Evidence of Identity — The phrase "competent evidence of Identity" refers to the Identification of an individual based on:

At least one current identification document issued by an official agency bearing the photograph and signature of the individual such as but not limited to, passport, driver's license, Professional Regulations Commission ID, National Bureau of Investigation clearance, police clearance, postal ID, voter's ID, Barangay certification, Government Service and Insurance System (GSIS) ecard, Social Security System (SSS) card, Philhealth card, senior citizen card, Overseas Workers Welfare Administration (OWWA) ID, OFW ID, seaman's book, alien certificate of registration/immigrant certificate of registration, government office ID, certification from the National Council for the Welfare of Disabled Persons (NCWDP), Department of Social Welfare and Development (DSWD) certification.

Bid Form for the Procurement of Goods

[shall be submitted with the Bid]

Supplemental or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to [supply/deliver/perform] [description of the Goods] in conformity with the said PBDs for the sum of [total Bid amount in words and figures] or the total calculated bid price, as evaluated and corrected for computational errors, and other bid modifications in accordance with the Price Schedules attached herewith and made part of this Bid. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein or in the Price Schedules, If our Bid is accepted, we undertake: a. to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBDs); b. to provide a performance security in the form, amounts, and within the times prescribed in the PBDs; c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period. [Insert this paragraph if Foreign-Assisted Project with the Development Partner:	BID FORM					
Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to [supply/deliver/perform] [description of the Goods] in conformity with the said PBDs for the sum of [total Bid amount in words and figures] or the total calculated bid price, as evaluated and corrected for computational errors, and other bid modifications in accordance with the Price Schedules attached herewith and made part of this Bid. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein or in the Price Schedules, If our Bid is accepted, we undertake: a. to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBDs); b. to provide a performance security in the form, amounts, and within the times prescribed in the PBDs; c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period. [Insert this paragraph if Foreign-Assisted Project with the Development Partner: 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:		Date : Project Identification No. :				
Goods] in conformity with the said PBDs for the sum of <i>[total Bid amount in words and figures]</i> or the total calculated bid price, as evaluated and corrected for computational errors, and other bid modifications in accordance with the Price Schedules attached herewith and made part of this Bid. The total bid price includes the cost of all taxes, such as, but not limited to: <i>[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]</i> , which are itemized herein or in the Price Schedules, If our Bid is accepted, we undertake: a. to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBDs); b. to provide a performance security in the form, amounts, and within the times prescribed in the PBDs; c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period. <i>[Insert this paragraph if Foreign-Assisted Project with the Development Partner:</i> 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:	To: [name an	d address of Procuring Entity]				
 a. to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBDs); b. to provide a performance security in the form, amounts, and within the times prescribed in the PBDs; c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period. [Insert this paragraph if Foreign-Assisted Project with the Development Partner: 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: 	Supplemental acknowledged Goods] in comor the total call bid modification this Bid. The the applicable	or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly I, we, the undersigned, offer to [supply/deliver/perform] [description of the formity with the said PBDs for the sum of [total Bid amount in words and figures] culated bid price, as evaluated and corrected for computational errors, and other ons in accordance with the Price Schedules attached herewith and made part of total bid price includes the cost of all taxes, such as, but not limited to: [specify taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv)				
Schedule of Requirements of the Philippine Bidding Documents (PBDs); b. to provide a performance security in the form, amounts, and within the times prescribed in the PBDs; c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period. [Insert this paragraph if Foreign-Assisted Project with the Development Partner: 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:	If our Bid is accepted, we undertake:					
prescribed in the PBDs; c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period. [Insert this paragraph if Foreign-Assisted Project with the Development Partner: 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:	a.					
binding upon us at any time before the expiration of that period. [Insert this paragraph if Foreign-Assisted Project with the Development Partner: 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:	b.					
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:	C.					
Name and address Amount and Purpose of	Comm	issions or gratuities, if any, paid or to be paid by us to agents relating to this Bid,				
of agent Currency Commission or gratuity						

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.

(if none, state "None")]

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 pursuant to the PBDs.

The undersigned is authorized to submit the bid on behalf of [name of the bidder] as evidenced by the attached [state the written authority].

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.

Name:	
Legal capacity:	
Signature:	
Duly authorized to sign the Bid for and behalf of:	
Date:	

Price Schedule for Goods Offered from Abroad

[shall be submitted with the Bid if bidder is offering goods from Abroad]

For Goods Offered from Abroad								
Name	of Bidder .						Page	of
1	2	3	4	5	6	7	8	9
ltem	Description	Country of origin	Quantity	Unit price CIF port of entry (specify port) or CIP named place (specify border point or place of destination)	Total CIF or CIP price per item (col. 4 x 5)	Unit Price Delivered Duty Unpaid (DDU)	Unit price Delivered Duty Paid (DDP)	Total Price delivered DDP (col 4 x 8)
Name:								
Legal Capacity:								
Signature:								
Duly a	Duly authorized to sign the Bid for and behalf of:							

Price Schedule for Goods Offered from Within the Philippines

[shall be submitted with the Bid if bidder is offering goods from within the Philippines]

For Goods Offered from Within the Philippines Name of Bidder _____ _____ Project ID No.____ Page ___of___ 2 3 4 5 6 7 8 9 10 1 Description Country Quantity Unit Transportation Sales and Cost of Total Total Price Item and all other Incidental delivered of origin price other Price, Services, if per unit Final EXW costs taxes per item incidental to payable if applicable, Destination delivery, per Contract per item (col item is 5+6+7+ (col 9) x awarded, 8) (col 4) per item Name: Legal Capacity:

Duly authorized to sign the Bid for and behalf of:

Signature:

Republic of the Philippines

Government Procurement Policy Board