



SUPPLEMENTAL/BID BULLETIN NO. 1

Date: December 26, 2023
Title: IB-2023-12-24 EARLY PROCUREMENT ACTIVITY (EPA) FOR SUPPLY, DELIVERY AND INSTALLATION OF LABORATORY EQUIPMENT
Reference No.: 10412075

This Supplemental/Bid Bulletin is issued to all prospective bidders to clarify, modify, and/or amend items in the Bidding Documents as discussed and agreed during the Pre-Bid Conference held on December 19, 2023, for the above-mentioned procurement project. This shall form an integral part of the Bid Documents.

REFERENCE	GENERAL QUERIES	AMENDMENTS/ CLARIFICATIONS
<p>Section I. Invitation to Bid</p> <p>11. For further information, please refer to:</p> <p>THE SECRETARIAT Bids and Awards Committee Eastern Visayas State University Salazar Street, Quarry District, Tacloban City, Leyte 6500, Philippines Telephone No. 0953-355-7046 Tm Email: evsu.bacsecretariat@evsu.edu.ph</p>		<p>Section I. Invitation to Bid</p> <p>11. For further information, please refer to:</p> <p>THE SECRETARIAT Bids and Awards Committee Eastern Visayas State University Arch. Lino R. Gonzaga Avenue, Tacloban City, Philippines 6500 Telephone No. 0953-355-7046 Tm Email: evsu.bacsecretariat@evsu.edu.ph</p>
<p>Section II. Instruction to Bidders</p> <p>1. Scope of Bid</p> <p>The Procuring Entity, Eastern Visayas State University wishes to receive Bids for the SUPPLY, DELIVERY AND INSTALLATION OF LABORATORY EQUIPMENT with identification number IB-2023-12-23.</p> <p>The Procurement Project (referred to herein as “Project”) is composed of 2 lots, the details of which are described in Section VII (Technical Specifications).</p>		<p>Section II. Instruction to Bidders</p> <p>15.1 Scope of Bid</p> <p>The Procuring Entity, Eastern Visayas State University wishes to receive Bids for the SUPPLY, DELIVERY AND INSTALLATION OF LABORATORY EQUIPMENT with identification number IB-2023-12-24.</p> <p>The Procurement Project (referred to herein as “Project”) is composed of 2 lots, the details of which are described in Section VII (Technical Specifications).</p>



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<p>Section II. Instruction to Bidders</p> <p>5.3 Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA’s CPI, must be at least equivalent to:</p> <p>a. For the procurement of Non-expendable Supplies and Services: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.</p> <p>b. For the procurement of Expendable Supplies: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least twenty-five percent (25%) of the ABC.</p>	<p>For SLCC, is it alright to state or indicate a laboratory equipment contract even though were going to bid for drones?</p>	<p>Yes, since the drone is part of the laboratory equipment under lot 1.</p>
<p>Section II. Instruction to Bidders</p> <p>15.2 The Procuring Entity may request <i>four (4) sets (1 original and 3 authenticated photocopies) hard copies</i> of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.</p>		<p>Section II. Instruction to Bidders</p> <p>15.2 The Procuring Entity may request <i>five (5) sets (1 original and 4 authenticated photocopies) hard copies</i> of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.</p>
<p>Section II. Instruction to Bidders</p> <p>19. Detailed Evaluation and Comparison of Bids</p> <p>19.4 The Project shall be awarded as <i>One Project having several items grouped into several lots, which shall be awarded as separate contracts per lot.</i></p>		<p>Section II. Instruction to Bidders</p> <p>19. Detailed Evaluation and Comparison of Bids</p> <p>19.4 The Project shall be awarded as <i>One Project having several items grouped into several lots, which shall be awarded as separate contracts per lot. However, in case more than one (1) lot is awarded to the same bidder, one (1) contract may be entered into containing all the lots awarded.</i></p>



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<p>Section III. Bid Data Sheet</p> <p>ITB Clause 14.1 The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <table border="1" data-bbox="35 575 618 1216"> <thead> <tr> <th>FORMS OF BID SECURITY</th> <th>AMOUNT OF BID SECURITY (EQUAL TO PERCENTAGE OF THE ABC)</th> </tr> </thead> <tbody> <tr> <td>• Bid Securing Declaration; OR</td> <td>NOTARIZED</td> </tr> <tr> <td>• Cash, Cashier's/ manager's check issued by a Universal or Commercial Bank equivalent to Two Percent (2%); OR</td> <td>608,000.00</td> </tr> <tr> <td>• Surety Bond equivalent to Five Percent (5%) (If security bond, attach the original copy of the official receipt of premium payment and certification issued by the Insurance Commission)</td> <td>1,520,000.00</td> </tr> </tbody> </table>	FORMS OF BID SECURITY	AMOUNT OF BID SECURITY (EQUAL TO PERCENTAGE OF THE ABC)	• Bid Securing Declaration; OR	NOTARIZED	• Cash, Cashier's/ manager's check issued by a Universal or Commercial Bank equivalent to Two Percent (2%); OR	608,000.00	• Surety Bond equivalent to Five Percent (5%) (If security bond, attach the original copy of the official receipt of premium payment and certification issued by the Insurance Commission)	1,520,000.00		<p>Section III. Bid Data Sheet</p> <p>ITB Clause 14.1 The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <table border="1" data-bbox="959 575 1544 1216"> <thead> <tr> <th>FORMS OF BID SECURITY</th> <th>AMOUNT OF BID SECURITY (EQUAL TO PERCENTAGE OF THE ABC)</th> </tr> </thead> <tbody> <tr> <td>• Bid Securing Declaration; OR</td> <td>NOTARIZED</td> </tr> <tr> <td>• Cash, Cashier's/ manager's check issued by a Universal or Commercial Bank equivalent to Two Percent (2%); OR</td> <td>60,800.00</td> </tr> <tr> <td>• Surety Bond equivalent to Five Percent (5%) (If security bond, attach the original copy of the official receipt of premium payment and certification issued by the Insurance Commission)</td> <td>152,000.00</td> </tr> </tbody> </table>	FORMS OF BID SECURITY	AMOUNT OF BID SECURITY (EQUAL TO PERCENTAGE OF THE ABC)	• Bid Securing Declaration; OR	NOTARIZED	• Cash, Cashier's/ manager's check issued by a Universal or Commercial Bank equivalent to Two Percent (2%); OR	60,800.00	• Surety Bond equivalent to Five Percent (5%) (If security bond, attach the original copy of the official receipt of premium payment and certification issued by the Insurance Commission)	152,000.00
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<p>Addition of ITB Clause 19.2 in the BDS</p>		<p>19.2 The Project allows partial bids, bidders may submit a proposal on any of the lots, and evaluation will be undertaken on a per lot basis. In this case, the Bid Security as required by ITB Clause 15 shall be submitted for each lot separately.</p>																
<p>Section VII. Technical Specifications</p> <p>LOT 1: Item No. 1- RTK DRONES WITH FLIGHT PLANNING SOFTWARE AND MAPPING SOFTWARE</p>	<p>RTK Drone specs and model are in the End of Life (EOL) stage. It means that the support for this will become not available so we will offer the upgraded version.</p> <p>Number of people to be train on how to use the drone and do they need a CAAP license after the training?</p>	<p>It is okay to have or offer an upgraded version as long that it not beyond the approve budget for the contract (ABC).</p> <p>There will three faculty members. Minimum requirements for CAAP.</p>																
<p>Section VII. Technical Specifications</p> <p>LOT 1: Item No. 2- TOTAL STATION WITH TRIPOD AND PRISM POLE</p>	<p>Robotic total station quantity (only 1-unit is possible with the budget) or do they need a normal total station not the robotic one?</p>	<p>Please see the Normal Total Station with new specifications (<i>we need to comply the CMO for COPC</i>), as amended in the Schedule of Requirements reflected in Annex "A" and Technical Specification in Annex "B".</p>																



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	For Item No. 2 of Lot 1, are you really procuring 3 units of total station?	Yes, please see amended specifications in Annex “B”
Section VII. Technical Specifications LOT 1: Item No. 3- TRANSIT LEVEL vs. Item No. 4- DIGITAL THEODOLITE	Specs of the transit level and the digital theodolite is the same.	Please see attached amended Schedule of Requirements in Annex “A” and Technical Specification in Annex “B” for reference.
Section VIII. Checklist of Technical and Financial Documents	Do we need authorization from the manufacturer or distributor for the items to make sure they are original or legit? Will that be part of the technical component?	Yes. An authorization from the manufacturer shall be included in the submitted proposal and shall also include calibration requirements. Please see attached amended Checklist of Technical and Financial Documents in Annex “C” for reference.

All statements and formats referring to this clause should be amended/corrected accordingly.

For guidance and information of all concerned.

For further information, please refer to:

(SGD) VINCENT B. CABANTOC
 Head, BAC Secretariat
 CP No. 0953-355-7046 - TM
 Email Add: evsu.bacsecretariat@evsu.edu.ph

Noted:

(SGD) BENEDICTO T. MILITANTE, JR., Ph.D., J.D.
 Vice President for Administration & Finance
 Chairperson, Bids and Awards Committee


ANNEX “A”

Schedule of Requirements


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

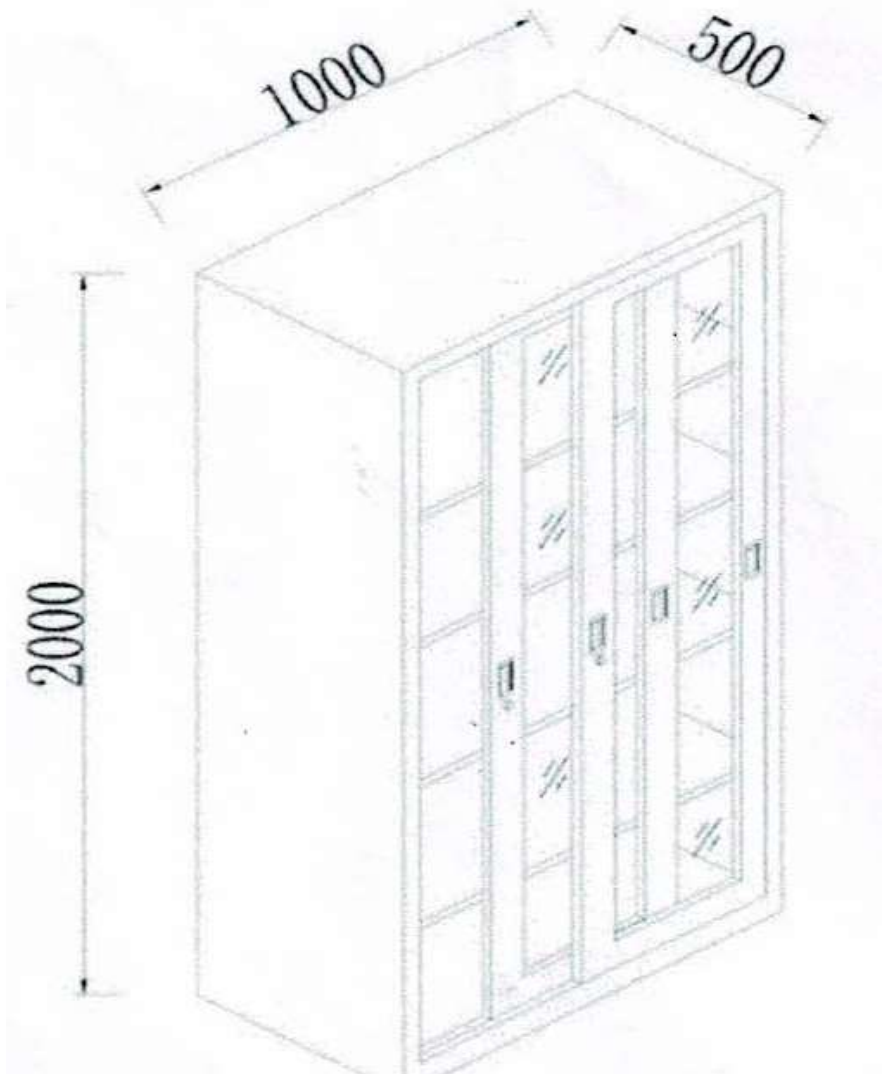
SUPPLY, DELIVERY AND INSTALLATION OF LABORATORY EQUIPMENT																																																			
Item Number	Description	UNIT	QTY	Delivered, Weeks/Months																																															
1	P.R. NO. 11-0717-23 COE	LOT	1																																																
	<p align="center">Item Description</p> <p>RTK DRONES WITH FLIGHT PLANNING SOFTWARE AND MAPPING SOFTWARE</p> <p>Specifications: Takeoff weight: 1391g Max flight time: approx. 30mins. GNSS: GPS+BeiDou+Galileo (Asia) GPS+GLONASS+Galileo (other regions) Sensor: 1” CMOS; 20 M effective pixels Supported SD cards: MicroSD Max capacity: 128 GB D-RTK 2 GNSS mobile station</p> <table border="1"> <tr><td colspan="2">Aircraft</td></tr> <tr><td>Weight (Battery & Propellers included)</td><td>1391 g</td></tr> <tr><td>Diagonal Size (Excluding Propellers)</td><td>350 mm</td></tr> <tr><td>Max Ascent Speed</td><td>6 m/s (automatic flight); 5 m/s (manual control)</td></tr> <tr><td>Max Descent Speed</td><td>3 m/s</td></tr> <tr><td>Max Speed</td><td>31 mph (50 kph) (P-mode); 36 mph (58 kph) (A-mode)</td></tr> <tr><td>Max Tilt Angle</td><td>25° (P- mode); 35° (A-mode)</td></tr> <tr><td>Max Angular Speed</td><td>150°/s (A-mode)</td></tr> <tr><td>Max Service Ceiling Above Sea Level</td><td>19685 ft (6000 m)</td></tr> <tr><td>Max Wind Speed Resistance</td><td>10 m/s</td></tr> <tr><td>Max Flight Time</td><td>Approx. 30 minutes</td></tr> <tr><td>Operating Temperature</td><td>32° to 104° F (0° to 40° C)</td></tr> <tr><td>Operating Frequency</td><td>2.400 GHz to 2.483 GHz (Europe, Japan, Korea) 5.725 GHz to 5.850 GHz (United States, China)</td></tr> <tr><td>EIRP</td><td>2.4 GHz CE (Europe) / MIC (Japan) / KCC (Korea): < 20 dBm 5.8 GHz FCC (United States) / SRRC (Mainland China) / NCC (Taiwan, China): < 26 dBm</td></tr> <tr><td>Hover Accuracy Range</td><td>RTK enabled and functioning properly: Vertical: ±0.1 m; Horizontal: ±0.1 m RTK disabled: Vertical: ±0.1 m (with vision positioning); ±0.5 m (with GNSS positioning) Horizontal: ±0.3 m (with vision positioning); ±1.5 m (with GNSS positioning)</td></tr> <tr><td>Image Position Offset</td><td>The position of the camera center is relative to the phase center of the onboard D-RTK antenna under the aircraft body's axis: (36, 0, and 192 mm) already applied to the image coordinates in Exif data. The positive x, y, and z axes of the aircraft body point to the forward, rightward, and downward of the aircraft, respectively.</td></tr> <tr><td colspan="2">GNSS</td></tr> <tr><td>Single-Frequency High-Sensitivity GNSS</td><td>GPS + BeiDou + Galileo (Asia); GPS + GLONASS + Galileo (other regions)</td></tr> <tr><td>Multi-Frequency Multi-System High-Precision RTK GNSS</td><td>Frequency Used GPS: L1/L2; GLONASS: L1/L2; BeiDou: B1/B2; Galileo: E1/E5 First-Fixed Time: < 50 s Positioning Accuracy: Vertical 1.5 cm + 1 ppm (RMS); Horizontal 1 cm + 1 ppm (RMS). 1 ppm indicates error with a 1 mm increase over 1 km of movement. 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Intelligent Flight Battery (PH4-5870mAh-15.2V)					
Capacity	5870 mAh				
Voltage	15.2 V				
Battery Type	LiPo 4S				
Energy	89.2 Wh				
Net Weight	468 g				
Operating Temperature	14° to 104° F (-10° to 40° C)				
Max Charging Power	160 W				
Intelligent Flight Battery Charging Hub (P4CH)					
Voltage	17.5 V				
Operating Temperature	41° to 104° F (5° to 40° C)				
Remote Controller Intelligent Battery (WB37-4920mAh-7.6V)					
Capacity	4920 mAh				
Voltage	7.6 V				
Battery Type	LiPo 2S				
Energy	37.39 Wh				
Operating Temperature	-4° to 104° F (-20° to 40° C)				
Intelligent Battery Charging Hub (WCH2)					
Input Voltage	17.3 to 28.2 V				
Output Voltage and Current	8.7 V, 6 A; 5 V, 2 A				
Operating Temperature	41° to 104° F (5° to 40° C)				
AC Power Adapter (PH4C160)					
Voltage	17.4 V				
Rated Power	160 W				
Gimbal					
Stabilization	3-axis (pitch, roll, yaw)				
Controllable Range	Pitch: -90° to +30°				
Max Controllable Angular Speed	Pitch: 90°/s				
Angular Vibration Range	±0.02°				
Vision System					
Velocity Range	< 31 mph (50 kph) at 6.6 ft (2 m) above ground with adequate lighting				
Altitude Range	0 - 33 ft (0 - 10 m)				
Operating Range	0 - 33 ft (0 - 10 m)				
Obstacle Sensory Range	2 - 98 ft (0.7 - 30 m)				
FOV	Forward/Rear: 60° (horizontal), ±27° (vertical) Downward: 70° (front and rear), 50° (left and right)				
Measuring Frequency	Forward/Rear: 10 Hz; Downward: 20 Hz				
Operating Environment	Surfaces with clear patterns and adequate lighting (> 15 lux)				
Infrared Sensing System					
Obstacle Sensory Range	0.6 - 23 ft (0.2 - 7 m)				
FOV	70°(Horizontal), ±10°(Vertical)				
Measuring Frequency	10 Hz				
Operating Environment	Surface with diffuse reflection material, and reflectivity > 8% (such as wall, trees, humans, etc.)				
Camera					
Sensor	1" CMOS; Effective pixels: 20M				
Lens	FOV (Field of View) 84°, 8.8 mm (35 mm format equivalent: 24 mm), f/2.8 - f/11, auto focus at 1 m - ∞				
ISO Range	Video: 100 - 3200 (Auto), 100 - 6400 (Manual) Photo: 100 - 3200 (Auto), 100 - 12800 (Manual)				
Mechanical Shutter	8 - 1/2000 s				
Electronic Shutter	8 - 1/8000 s				
Max Image Size	4864×3648 (4:3); 5472×3648 (3:2)				
Still Photography Modes	Single shot				
Video Recording Modes	H.264, 4K: 3840×2160 30p				
Max. Bitrate Of Video	100 Mbps				
Photo	JPEG				
Video	MOV				
Supported File Systems	FAT32 (< 32 GB); exFAT (> 32 GB)				
Operating Temperature	32° to 104° F (0° to 40° C)				

<p>Remote Controller</p> <p>Operating Frequency 2.400 GHz to 2.483 GHz (Europe, Japan, Korea) 5.725 GHz to 5.850 GHz (United States, China)</p> <p>EIRP 2.4 GHz CE / MIC / KCC: < 20 dBm 5.8 GHz SRRC / NCC / FCC: < 26 dBm</p> <p>Max Transmission Distance FCC / NCC: 4.3 mi (7 km); CE / MIC / KCC / SRRC: 3.1 mi (5 km) (Unobstructed, free of interference)</p> <p>Power Consumption 16 W (typical value)</p> <p>Display Device 5.5 inch screen, 1920x1080, 1000 cd/m², Android system, 4G RAM + 16G ROM</p> <p>Operating Temperature 32° to 104° F (0° to 40° C)</p>											
											
<p>TOTAL STATION WITH TRIPOD AND PRISM POLE</p> <p><u>Specifications:</u></p> <p>Telescope</p> <p>Magnification / Resolving power 30x / 2.5"</p> <p>Others Length: 171mm (6.7in.), Objective aperture: 45mm (1.8in.) (48mm (1.9in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.), Reticle illumination: 5 brightness levels</p> <p>Angle measurement</p> <p>Display resolution 1" / 3" (0.0002 / 0.001gon, 0.005 / 0.02mil)</p> <p>Accuracy (ISO 17123-3:2001) 3"</p> <p>Dual-axis compensator / Collimation compensation Dual-axis liquid tilt sensor, working range: ±6' (±111mgon) / Collimation compensation available</p> <p>Distance measurement</p> <p>Laser output *1 Reflectorless mode: Class 3R / Prism / sheet mode: Class 1</p> <p>Measuring range (under average conditions*2)</p> <table border="0"> <tr> <td>Reflectorless*3</td> <td>0.3 to 500m (1.0 to 1,640ft.)</td> </tr> <tr> <td>Reflective sheet*4/*5</td> <td>: 1.3 to 500m (4.3 to 1,640ft.)</td> </tr> <tr> <td>Mini prisms</td> <td>: 1.3 to 2,500m (8,200ft.), : 1.3 to 500m (1,640ft.)</td> </tr> </table>	Reflectorless*3	0.3 to 500m (1.0 to 1,640ft.)	Reflective sheet*4/*5	: 1.3 to 500m (4.3 to 1,640ft.)	Mini prisms	: 1.3 to 2,500m (8,200ft.), : 1.3 to 500m (1,640ft.)	Unit	3			
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	One AP prism	1.3 to 4,000m (4.3 to 13,120ft.) / Under good conditions* ⁶ : 5,000m (16,400ft.)			
	Three AP prisms	to 5,000m (16,400ft.) / Under good conditions* ⁶ : to 6,000m (19,680ft.)			
	Display resolution	Fine/Rapid: 0.001m / 0.01ft. / 1/8in. Tracking: 0.01m / 0.1ft. / 1/2in.			
Accuracy	Reflectorless* ³	(3 + 2ppm x D) mm* ⁷			
(ISO 17123-4:2001)	Reflective sheet* ⁴	(3 + 2ppm x D) mm			
(D=measuring distance in mm)	AP/CP prism	(2 + 2ppm x D) mm			
Measuring time		Fine: 0.9s (initial 1.7s), Rapid: 0.7s (initial 1.4s), Tracking: 0.3s (initial 1.4s)			
Interface and Data management					
Display / Keyboard		Graphic LCD, 192 x 80 dots, backlight, contrast adjustment / Alphanumeric keyboard / 25 keys with backlight			
Control panel location		On both faces			
Trigger key		On right instrument support			
Data storage	Internal memory	750MB			
	Plug-in memory device	USB flash memory (max. 8GB)			
Interface		Serial RS-232C, USB2.0 (Type A, for USB flash memory)			
Bluetooth modem (option)* ¹⁰		Bluetooth Class 1, Ver.2.1+EDR, Operating range: up to 300m (980ft.) * ¹¹			
General					
Laser-pointer* ¹²		Coaxial red laser using EDM beam			
Guide light* ¹²		Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)			
Levels	Graphic	6' (Inner Circle)			
	Circular level	10' / 2mm			
Optical plummet		Magnification: 3x, Minimum focus: 0.3m (11.8in.) from tribrach bottom			
Laser plummet (option)		Red laser diode (635nm±10nm), Beam accuracy: ≤1.0mm@1.3m, Class 2 laser product			
Dust and water protection		IP65 (IEC 60529:2001)			
Operating temperature* ¹³		-20 to +50°C (-4 to +122°F)			
Size with handle* ⁸		Control panel on both faces: W191 x D181 x H348mm (W7.5 x D7.1 x H13.7in.) Control panel on one face: W191 x D174 x H348mm (W7.5 x D6.9 x H13.7in.)			
Weight with handle and battery		Approx. 5.6kg (12.3 lb.)			
Power supply					
Battery	BDC70 detachable battery	Li-ion rechargeable battery			
Operating time (20°C)	BDC70	Approx. 20 hours (single distance measurement every 30 seconds)			

	External battery (option)	BT-73Q: approx. 45 hours (single distance measurement every 30 seconds)																																
	AUTOMATIC LEVEL <u>Specifications:</u> Telescope length: 214mm. Telescope magnification: 28x Stadia constant: 0 Sighting aid: peep sight Horizontal circle Min. division: 1°/1 gon Water resistance: IPX6			Unit	5																													
	TRANSIT LEVEL <u>Specifications:</u> <table border="0"> <tr><td>Image</td><td>Erect</td></tr> <tr><td>Equivalent Focal Length</td><td>178 mm</td></tr> <tr><td>Magnification</td><td>30X</td></tr> <tr><td>Objective Aperture</td><td>40 mm</td></tr> <tr><td>Shortest/Longest Focusing Distance</td><td>1.5/300</td></tr> <tr><td>Stadia Line Ratio</td><td>1:100</td></tr> <tr><td>Additive constant</td><td>0</td></tr> <tr><td>Sensitivity of Plate Bubble</td><td>40"/2 mm</td></tr> <tr><td>Sensitivity of vertical circle bubble</td><td>20"/2</td></tr> </table> Optical Plummet <table border="0"> <tr><td>Magnification</td><td>2.5 X</td></tr> <tr><td>Focusing Range</td><td>0.5 m -infinite</td></tr> <tr><td>Weight (W/out Box)</td><td>6 Kg</td></tr> </table> Vertical Circle & Horizontal Circle <table border="0"> <tr><td>Graduation of Circle</td><td>3600</td></tr> <tr><td>Reading of Vernier</td><td>20"</td></tr> </table>		Image	Erect	Equivalent Focal Length	178 mm	Magnification	30X	Objective Aperture	40 mm	Shortest/Longest Focusing Distance	1.5/300	Stadia Line Ratio	1:100	Additive constant	0	Sensitivity of Plate Bubble	40"/2 mm	Sensitivity of vertical circle bubble	20"/2	Magnification	2.5 X	Focusing Range	0.5 m -infinite	Weight (W/out Box)	6 Kg	Graduation of Circle	3600	Reading of Vernier	20"		Unit	5	
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	DIGITAL THEODOLITE <u>Specifications:</u> <table border="0"> <tr><td>Telescope</td><td>152 mm</td></tr> <tr><td>Aperture</td><td>45 mm</td></tr> <tr><td>Magnification</td><td>30x</td></tr> <tr><td>Image</td><td>Erect</td></tr> <tr><td>Field View</td><td>1</td></tr> <tr><td>Resolving Powe</td><td>2.5"</td></tr> <tr><td>Minimum Focus</td><td>1.0 m</td></tr> <tr><td>Stadia Ratio</td><td>100</td></tr> <tr><td>Stadia Constant</td><td>0</td></tr> <tr><td>Detecting</td><td>Horizontal: 1 side Vertical: 1 side</td></tr> </table> Optical Plummet <table border="0"> <tr><td>Magnification</td><td>3x</td></tr> <tr><td>Minimum Focus</td><td>0.5 m</td></tr> </table> Power Supply <table border="0"> <tr><td>Mode</td><td>4 AA dry cells</td></tr> </table> Hardware <table border="0"> <tr><td>Ingress Protection</td><td>Dust and Water Resistance</td></tr> </table>		Telescope	152 mm	Aperture	45 mm	Magnification	30x	Image	Erect	Field View	1	Resolving Powe	2.5"	Minimum Focus	1.0 m	Stadia Ratio	100	Stadia Constant	0	Detecting	Horizontal: 1 side Vertical: 1 side	Magnification	3x	Minimum Focus	0.5 m	Mode	4 AA dry cells	Ingress Protection	Dust and Water Resistance		Unit	2	
Telescope	152 mm																																	
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2	P.R. NO. 10-0703-23 COE					LOT	1																											
	Item Description			Unit	Qty																													
	TALL STEEL CABINET <u>Specifications:</u> 1,000mm x 500mm x 2,000mm (L*W*H) Steel Structure Galvanized Steel Sheet Gauge 12 or equivalent material with Paint Finish Steel Frame with door lock mechanism Four (4) Layers			Unit	4		MUST BE WITHIN SIXTY (60) CALENDAR DAYS UPON RECEIPT OF THE NOTICE TO PROCEED (NTP)																											

	 <p>A technical drawing of a cabinet. The drawing shows a perspective view of a rectangular cabinet. The dimensions are indicated by arrows and text: the width is 1000, the depth is 500, and the height is 2000. The cabinet has two doors on the front, each with a handle. Inside the cabinet, there are several shelves and drawers. The drawing is a line drawing with some shading to indicate depth.</p>					
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ANNEX “B”

Technical Specifications

SUPPLY, DELIVERY AND INSTALLATION OF LABORATORY EQUIPMENT																																																	
Item Number	Description	Statement of Compliance Comply/ Not Comply																																															
1	P.R. NO. 11-0717-23 COE																																																
	Item Description	Unit	Qty																																														
	<p>RTK DRONES WITH FLIGHT PLANNING SOFTWARE AND MAPPING SOFTWARE</p> <p><u>Specifications:</u> Takeoff weight: 1391g Max flight time: approx. 30mins. GNSS: GPS+BeiDou+Galileo (Asia) GPS+GLONASS+Galileo (other regions) Sensor: 1” CMOS; 20 M effective pixels Supported SD cards: MicroSD Max capacity: 128 GB D-RTK 2 GNSS mobile station</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="2" style="background-color: #f2f2f2;">Aircraft</td></tr> <tr><td>Weight (Battery & Propellers included)</td><td>1391 g</td></tr> <tr><td>Diagonal Size (Excluding Propellers)</td><td>350 mm</td></tr> <tr><td>Max Ascent Speed</td><td>6 m/s (automatic flight); 5 m/s (manual control)</td></tr> <tr><td>Max Descent Speed</td><td>3 m/s</td></tr> <tr><td>Max Speed</td><td>31 mph (50 kph) (P-mode); 36 mph (58 kph) (A-mode)</td></tr> <tr><td>Max Tilt Angle</td><td>25° (P- mode); 35° (A-mode)</td></tr> <tr><td>Max Angular Speed</td><td>150°/s (A-mode)</td></tr> <tr><td>Max Service Ceiling Above Sea Level</td><td>19685 ft (6000 m)</td></tr> <tr><td>Max Wind Speed Resistance</td><td>10 m/s</td></tr> <tr><td>Max Flight Time</td><td>Approx. 30 minutes</td></tr> <tr><td>Operating Temperature</td><td>32° to 104° F (0° to 40° C)</td></tr> <tr><td>Operating Frequency</td><td>2.400 GHz to 2.483 GHz (Europe, Japan, Korea) 5.725 GHz to 5.850 GHz (United States, China)</td></tr> <tr><td>EIRP</td><td>2.4 GHz CE (Europe) / MIC (Japan) / KCC (Korea): < 20 dBm 5.8 GHz FCC (United States) / SRRC (Mainland China) / NCC (Taiwan, China): < 26 dBm</td></tr> <tr><td>Hover Accuracy Range</td><td>RTK enabled and functioning properly: Vertical: ±0.1 m; Horizontal: ±0.1 m RTK disabled: Vertical: ±0.1 m (with vision positioning); ±0.5 m (with GNSS positioning) Horizontal: ±0.3 m (with vision positioning); ±1.5 m (with GNSS positioning)</td></tr> <tr><td>Image Position Offset</td><td>The position of the camera center is relative to the phase center of the onboard D-RTK antenna under the aircraft body's axis: (36, 0, and 182 mm) already applied to the image coordinates in Exif data. The positive x, y, and z axes of the aircraft body point to the forward, rightward, and downward of the aircraft, respectively.</td></tr> <tr><td colspan="2" style="background-color: #f2f2f2;">GNSS</td></tr> <tr><td>Single-Frequency High-Sensitivity GNSS</td><td>GPS + BeiDou + Galileo (Asia); GPS + GLONASS + Galileo (other regions)</td></tr> <tr><td>Multi-Frequency Multi-System High-Precision RTK GNSS</td><td>Frequency Used GPS: L1/L2; GLONASS: L1/L2; BeiDou: B1/B2; Galileo: E1/E5 First-Fixed Time: < 50 s Positioning Accuracy: Vertical 1.5 cm + 1 ppm (RMS); Horizontal 1 cm + 1 ppm (RMS). 1 ppm indicates error with a 1 mm increase over 1 km of movement. Velocity Accuracy: 0.03 m/s</td></tr> <tr><td colspan="2" style="background-color: #f2f2f2;">Mapping Functions</td></tr> <tr><td>Mapping Accuracy*</td><td>Mapping accuracy meets the requirements of the ASPRS Accuracy Standards for Digital Orthophotos Class III.</td></tr> <tr><td>Ground Sample Distance (GSD)</td><td>(H/36.5) cm/pixel, H indicates the aircraft altitude relative to the shooting scene (unit: m)</td></tr> <tr><td>Acquisition Efficiency</td><td>Max operating area of approx. 1 km² for a single flight (at an altitude of 182 m, i.e., GSD is approx. 5 cm/pixel, meeting the requirements of the ASPRS Accuracy Standards for Digital Orthophotos Class III).</td></tr> </table>	Aircraft		Weight (Battery & Propellers included)	1391 g	Diagonal Size (Excluding Propellers)	350 mm	Max Ascent Speed	6 m/s (automatic flight); 5 m/s (manual control)	Max Descent Speed	3 m/s	Max Speed	31 mph (50 kph) (P-mode); 36 mph (58 kph) (A-mode)	Max Tilt Angle	25° (P- mode); 35° (A-mode)	Max Angular Speed	150°/s (A-mode)	Max Service Ceiling Above Sea Level	19685 ft (6000 m)	Max Wind Speed Resistance	10 m/s	Max Flight Time	Approx. 30 minutes	Operating Temperature	32° to 104° F (0° to 40° C)	Operating Frequency	2.400 GHz to 2.483 GHz (Europe, Japan, Korea) 5.725 GHz to 5.850 GHz (United States, China)	EIRP	2.4 GHz CE (Europe) / MIC (Japan) / KCC (Korea): < 20 dBm 5.8 GHz FCC (United States) / SRRC (Mainland China) / NCC (Taiwan, China): < 26 dBm	Hover Accuracy Range	RTK enabled and functioning properly: Vertical: ±0.1 m; Horizontal: ±0.1 m RTK disabled: Vertical: ±0.1 m (with vision positioning); ±0.5 m (with GNSS positioning) Horizontal: ±0.3 m (with vision positioning); ±1.5 m (with GNSS positioning)	Image Position Offset	The position of the camera center is relative to the phase center of the onboard D-RTK antenna under the aircraft body's axis: (36, 0, and 182 mm) already applied to the image coordinates in Exif data. 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Intelligent Flight Battery (PH4-5870mAh-15.2V)				
Capacity	5870 mAh			
Voltage	15.2 V			
Battery Type	LiPo 4S			
Energy	89.2 Wh			
Net Weight	468 g			
Operating Temperature	14° to 104° F (-10° to 40° C)			
Max Charging Power	160 W			
Intelligent Flight Battery Charging Hub (P4CH)				
Voltage	17.5 V			
Operating Temperature	41° to 104° F (5° to 40° C)			
Remote Controller Intelligent Battery (WB37-4920mAh-7.6V)				
Capacity	4920 mAh			
Voltage	7.6 V			
Battery Type	LiPo 2S			
Energy	37.39 Wh			
Operating Temperature	-4° to 104° F (-20° to 40° C)			
Intelligent Battery Charging Hub (WCH2)				
Input Voltage	17.3 to 28.2 V			
Output Voltage and Current	8.7 V, 6 A; 5 V, 2 A			
Operating Temperature	41° to 104° F (5° to 40° C)			
AC Power Adapter (PH4C160)				
Voltage	17.4 V			
Rated Power	160 W			
Gimbal				
Stabilization	3-axis (pitch, roll, yaw)			
Controllable Range	Pitch: -90° to +30°			
Max Controllable Angular Speed	Pitch: 90°/s			
Angular Vibration Range	±0.02°			
Vision System				
Velocity Range	< 31 mph (50 kph) at 6.6 ft (2 m) above ground with adequate lighting			
Altitude Range	0 - 33 ft (0 - 10 m)			
Operating Range	0 - 33 ft (0 - 10 m)			
Obstacle Sensory Range	2 - 98 ft (0.7 - 30 m)			
FOV	Forward/Rear: 60° (horizontal), ±27° (vertical) Downward: 70° (front and rear), 50° (left and right)			
Measuring Frequency	Forward/Rear: 10 Hz; Downward: 20 Hz			
Operating Environment	Surfaces with clear patterns and adequate lighting (> 15 lux)			
Infrared Sensing System				
Obstacle Sensory Range	0.6 - 23 ft (0.2 - 7 m)			
FOV	70°(Horizontal), ±10°(Vertical)			
Measuring Frequency	10 Hz			
Operating Environment	Surface with diffuse reflection material, and reflectivity > 8% (such as wall, trees, humans, etc.)			
Camera				
Sensor	1" CMOS; Effective pixels: 20M			
Lens	FOV (Field of View) 84°, 8.8 mm (35 mm format equivalent: 24 mm), f/2.8 - f/11, auto focus at 1 m - ∞			
ISO Range	Video: 100 - 3200 (Auto), 100 - 6400 (Manual) Photo: 100 - 3200 (Auto), 100 - 12800 (Manual)			
Mechanical Shutter	8 - 1/2000 s			
Electronic Shutter	8 - 1/8000 s			
Max Image Size	4864x3648 (4:3); 5472x3648 (3:2)			
Still Photography Modes	Single shot			
Video Recording Modes	H.264, 4K: 3840x2160 30p			
Max. Bitrate Of Video	100 Mbps			
Photo	JPEG			
Video	MOV			
Supported File Systems	FAT32 (< 32 GB); exFAT (> 32 GB)			
Operating Temperature	32° to 104° F (0° to 40° C)			

Remote Controller

Operating Frequency	2.400 GHz to 2.483 GHz (Europe, Japan, Korea) 5.725 GHz to 5.850 GHz (United States, China)
EIRP	2.4 GHz CE / MIC / KCC: < 20 dBm
	5.8 GHz SRRC / NCC / FCC: < 26 dBm
Max Transmission Distance	FCC / NCC: 4.3 mi (7 km); CE / MIC / KCC / SRRC: 3.1 mi (5 km) (Unobstructed, free of interference)
Power Consumption	16 W (typical value)
Display Device	5.5 inch screen, 1920x1080, 1000 cd/m ² , Android system, 4G RAM + 16G ROM
Operating Temperature	32° to 104° F (0° to 40° C)



TOTAL STATION WITH TRIPOD AND PRISM POLE

Specifications:

Telescope

Magnification / Resolving power 30x / 2.5"

Others Length: 171mm (6.7in.), Objective aperture: 45mm (1.8in.) (48mm (1.9in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.), Reticle illumination: 5 brightness levels

Angle measurement

Display resolution 1" / 3"
(0.0002 / 0.001gon, 0.005 / 0.02mil)

Accuracy (ISO 17123-3:2001) 3"

Dual-axis compensator / Collimation compensation Dual-axis liquid tilt sensor, working range: ±6' (±111mgon) / Collimation compensation available

Distance measurement


Laser output *1 Reflectorless mode: Class 3R / Prism / sheet mode: Class 1

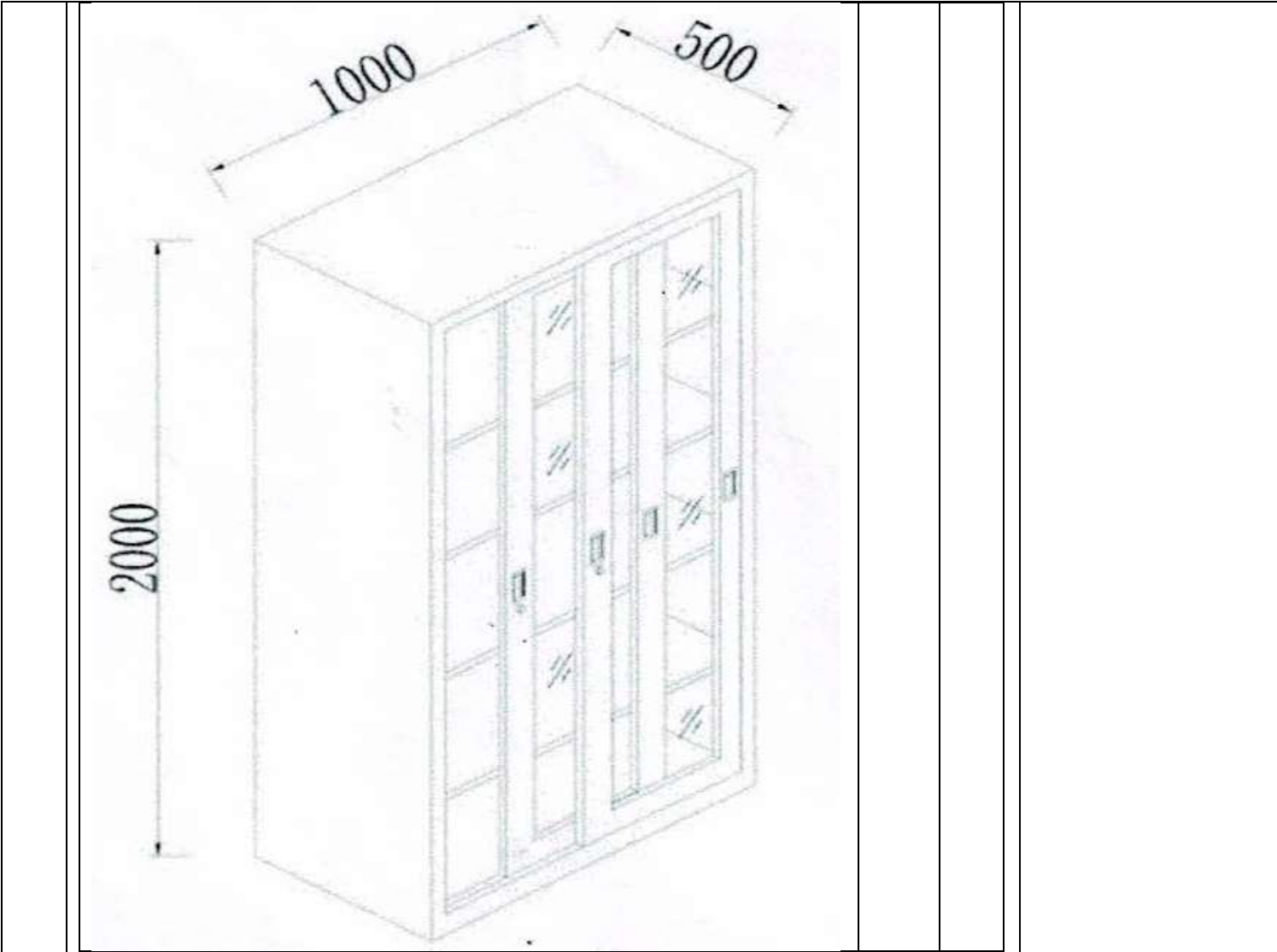
Measuring range (under average conditions*2)	Reflectorless*3	0.3 to 500m (1.0 to 1,640ft.)
	Reflective sheet*4/*5	: 1.3 to 500m (4.3 to 1,640ft.)
	Mini prisms	: 1.3 to 2,500m (8,200ft.), : 1.3 to 500m (1,640ft.)

Unit

3

	One AP prism	1.3 to 4,000m (4.3 to 13,120ft.) / Under good conditions* ⁶ : 5,000m (16,400ft.)		
	Three AP prisms	to 5,000m (16,400ft.) / Under good conditions* ⁶ : to 6,000m (19,680ft.)		
	Display resolution	Fine/Rapid: 0.001m / 0.01ft. / 1/8in. Tracking: 0.01m / 0.1ft. / 1/2in.		
Accuracy	Reflectorless* ³	(3 + 2ppm x D) mm* ⁷		
(ISO 17123-4:2001)	Reflective sheet* ⁴	(3 + 2ppm x D) mm		
(D=measuring distance in mm)	AP/CP prism	(2 + 2ppm x D) mm		
Measuring time		Fine: 0.9s (initial 1.7s), Rapid: 0.7s (initial 1.4s), Tracking: 0.3s (initial 1.4s)		
Interface and Data management				
Display / Keyboard		Graphic LCD, 192 x 80 dots, backlight, contrast adjustment / Alphanumeric keyboard / 25 keys with backlight		
Control panel location		On both faces		
Trigger key		On right instrument support		
Data storage	Internal memory	750MB		
	Plug-in memory device	USB flash memory (max. 8GB)		
Interface		Serial RS-232C, USB2.0 (Type A, for USB flash memory)		
Bluetooth modem (option)* ¹⁰		Bluetooth Class 1, Ver.2.1+EDR, Operating range: up to 300m (980ft.) * ¹¹		
General				
Laser-pointer* ¹²		Coaxial red laser using EDM beam		
Guide light* ¹²		Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)		
Levels	Graphic	6' (Inner Circle)		
	Circular level	10' / 2mm		
Optical plummet		Magnification: 3x, Minimum focus: 0.3m (11.8in.) from tribrach bottom		
Laser plummet (option)		Red laser diode (635nm±10nm), Beam accuracy: ≤1.0mm@1.3m, Class 2 laser product		
Dust and water protection		IP65 (IEC 60529:2001)		
Operating temperature* ¹³		-20 to +50°C (-4 to +122°F)		
Size with handle* ⁸		Control panel on both faces: W191 x D181 x H348mm (W7.5 x D7.1 x H13.7in.) Control panel on one face: W191 x D174 x H348mm (W7.5 x D6.9 x H13.7in.)		
Weight with handle and battery		Approx. 5.6kg (12.3 lb.)		
Power supply				
Battery	BDC70 detachable battery	Li-ion rechargeable battery		
Operating time (20°C)	BDC70	Approx. 20 hours (single distance measurement every 30 seconds)		

	External battery (option)	BT-73Q: approx. 45 hours (single distance measurement every 30 seconds)			
	AUTOMATIC LEVEL <u>Specifications:</u> Telescope length: 214mm. Telescope magnification: 28x Stadia constant: 0 Sighting aid: peep sight Horizontal circle Min. division: 1°/1 gon Water resistance: IPX6			Unit	5
	TRANSIT LEVEL <u>Specifications:</u> Image Erect Equivalent Focal Length 178 mm Magnification 30X Objective Aperture 40 mm Shortest/Longest Focusing Distance 1.5/300 Stadia Line Ratio 1:100 Additive constant 0 Sensitivity of Plate Bubble 40"/2 mm Sensitivity of vertical circle bubble 20"/2 Optical Plummet Magnification 2.5 X Focusing Range 0.5 m -infinite Weight (W/out Box) 6 Kg Vertical Circle & Horizontal Circle Graduation of Circle 3600 Reading of Vernier 20"			Unit	5
	DIGITAL THEODOLITE <u>Specifications:</u> Telescope 152 mm Aperture 45 mm Magnification 30x Image Erect Field View 1 Resolving Power 2.5" Minimum Focus 1.0 m Stadia Ratio 100 Stadia Constant 0 Detecting Horizontal: 1 side Vertical: 1 side Optical Plummet Magnification 3x Minimum Focus 0.5 m Power Supply Mode 4 AA dry cells Hardware Ingress Protection Dust and Water Resistance			Unit	2
2	P.R. NO. 10-0703-23 COE				
	Item Description			Unit	Qty
	TALL STEEL CABINET <u>Specifications:</u> 1,000mm x 500mm x 2,000mm (L*W*H) Steel Structure Galvanized Steel Sheet Gauge 12 or equivalent material with Paint Finish Steel Frame with door lock mechanism Four (4) Layers			Unit	4



ANNEX “C”

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

ITEM NO.	DOCUMENTS	PRESCRIBE D FORMS
<u>Class “A” Documents</u>		
Legal Documents		
1	Valid PhilGEPS Registration Certificate (PLATINUM MEMBERSHIP) (all pages, including its Annexes); 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; 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; AND	-
	Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).	-
Technical Documents		
2	Statement of the 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. The statement shall include for each contract the following: a. name of contract; b. date and period of contract; c. amount of contract and value of outstanding contracts; d. date of delivery/ performance; e. end-user's acceptance or official receipts issued for the contract (if completed); f. copy of the contract AND	ANNEX A
3	Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid , except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; AND	ANNEX B

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4	Original copy of Bid Security.	ANNEX C								
	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 60%;">FORMS OF BID SECURITY</th> <th style="width: 40%;">AMOUNT OF BID SECURITY (EQUAL TO PERCENTAGE OF THE ABC)</th> </tr> </thead> <tbody> <tr> <td>• Bid Securing Declaration; OR</td> <td align="center">NOTARIZED</td> </tr> <tr> <td>• Cash, Cashier's/ manager's check issued by a Universal or Commercial Bank; OR</td> <td align="center">Two Percent (2%)</td> </tr> <tr> <td>• Surety Bond (If security bond, attach the original copy of the official receipt of premium payment and certification issued by the Insurance Commission)</td> <td align="center">Five Percent (5%)</td> </tr> </tbody> </table>		FORMS OF BID SECURITY	AMOUNT OF BID SECURITY (EQUAL TO PERCENTAGE OF THE ABC)	• Bid Securing Declaration; OR	NOTARIZED	• Cash, Cashier's/ manager's check issued by a Universal or Commercial Bank; OR	Two Percent (2%)	• Surety Bond (If security bond, attach the original copy of the official receipt of premium payment and certification issued by the Insurance Commission)	Five Percent (5%)
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5	Conformity with the Schedule of Requirements; <u>and</u>	Section VI of the PBD								
6	Conformity with the Technical Specifications, which shall include: a) production/delivery schedule; b) manpower requirements; c) after-sales/parts, if applicable; d) Certification from the Manufacturer ; and, <u>AND</u>	Section VII of the PBD								
7	Original duly signed Omnibus Sworn Statement (OSS)	ANNEX D								
	It should be supported with Original Notarized Special Power of Attorney if the signatory is other than the owner for sole proprietorship, or 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. <u>OR</u> Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative in accordance with the forms provided in the bidding documents.									
Financial Documents										
8	The Bidder's audited financial statements , showing, among others, the Supplier's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission. <u>and</u>	-								
9	The bidder's computation of Net Financial Contracting Capacity (NFCC) ; <u>or</u> A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation	-								

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Class “B” Documents		
10	If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence; or duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.	ANNEX E
Other documentary requirements under RA No. 9184 (as applicable)		
11	<i>[For foreign bidders claiming by reason of their country’s extension of reciprocal rights to Filipinos]</i> 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	-
12	Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.	-

II. FINANCIAL COMPONENT ENVELOPE

ITEM NO.	DOCUMENTS	PRESCRIBE D FORMS
1	Original of duly signed and accomplished Financial Bid Form.; and	ANNEX F
2	Original of duly signed and accomplished Price Schedule(s).	ANNEX G