Annex "A"

Section VI. 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.

Item Number	Description	Quantity	Total	Delivered, Weeks/Months *Please refer to the Technical Specifications (Section VII)*
1	**A. TURNSTILE (4 LANES Swing Gate Barrier 1 Tripod type)**			
	Swing Gate Barrier (left or right)	2	2	
	Swing Gate Barrier (middle) Anti-tail-gating feature built-in to prevent unauthorized entry. Fast opening and closing time. Built-in mechanical lock to prevent forced opening of swing flaps. Fail safe design ensures that the swing flaps retract back into the housing to allow unblocked access in the event of power failure. Active infrared beams are located in the housing passage to detect personnel or object crossing the flap barriers to prevent the flaps from causing injury or damage. Long service life with low operational cost. Environment: Indoor MTBF : 1.5 Million Cycles Passage Width : 550mm Operational Speed : 30 Person/min Dimensions (mm) : 1219(L) x 180(W) x 1000(H) 	3	3	

			1	1	
	Tripod Type Bi-directional Waist-height Anti-tailgate Maintenance free usage for five million cycles Standard 304# stainless steel with thickness of 1.5mm which has resistance against corrosion shock absorber : Hydraulic equipt with fail-safe mechanism compatible with a variety of Card readers 				
	I. Software Client/Server Sofware Able to track student's in and out Able to display student's profile during entry can be integrated to the school system to be used also in the vehicle control access system		1	1	
	II. Controller/Reader **Active Network Control Panel** The active network control panel shall be able to connect to the software via TCP/IP network obeying standard network protocol. The active network control panel shall be able to support at least 30,000 cards and 80,000 transaction events. The controller shall support 255 access levels, 255 time zone, 255 time set and 365 holidays where each time set shall have a minimum of 3 time intervals. 1 The active network control panel shall have a minimum of 32K Bytes of on-board memory and 256K Bytes flash memory which is to retain the database, setting and transaction events in the controller. The data in the on-board memory will still preserved even if the on-board battery fail The active network control panel shall be able to provide 4 Relay Output and 8 configurable Input.		3	3	

	The active network control panel shall be able to support various types of reader technologies as follows: 1. HID-iClass 2. Mifare 3. Hid Prox 4. EM prox			
	Hybrid I/O with 8 inputs & 8 outputs with PSU The Input/output control panel shall be able to connect to the software via RS 485 (2 wire) or TCP/IP The Input/output control panel shall be equipped with an on-board battery to preserve continuous running of the real time clock (RTC) during power failure. The on-board battery shall be able to preserve the memory and RTC operation for at least 30 days without power supply.	1	1	
	Contactless Smart Card Reader The multi-technology contactless smart card reader(s) shall be designed to securely read, interpret, and authenticate access control data from 13.56 MHz contactless smart card credentials and 125 kHz proximity cards. The multi-technology contactless smart card reader shall be optimally designed for use in access control applications by providing: Customized security protection through support of the device-independent Secure Identity Object™ (SIO) portable credential methodology to provide enhanced security and performance features. b. Backwards compatibility with legacy 13.56 MHz contactless smart card and 125 kHz proximity access control formats (E.g. 26-bit, 32, 35-bit, 37-bit, 56-bit, and HID Corporate 1000 formats). Compatibility across the product line shall be assured without the need of special programming. The multi-technology contactless smart card reader shall provide enhanced security technology and features. a. The multi-technology contactless smart card reader shall be Secure Identity Object™ (SIO) enabled. The multi-technology contactless smart card reader platform shall support the standards-based, device-independent Security Identity Object™ (SIO) portable credential methodology to ensure data authenticity and privacy. The SIO shall be able to reside on any number of identity devices, including iCLASS SE, MIFARE Classic SE, and MIFARE DESFire EV1 SE credentials. b. The multi-technology contactless smart card reader shall be a certified end-point (TIP Node) within a Trusted Identity Platform™ (TIP) infrastructure. TIP shall provide a scalable, ondemand, secure identity delivery system that validates, registers and provides lifecycle management support for certified trusted end-point multi-technology contactless smart card readers. c. The multi-technology contactless smart card reader shall increase security by narrowing the possibility of unwanted configuration changes and denials of	10	10	

	service. The multi-technology contactless smart card reader shall utilize TIP-enabled secure configuration of multitechnology contactless smart card readers with counters and uniquely diversified configuration cards. a. The multi-technology contactless smart card reader shall utilize Secure Element Technology™ to protect keys and cryptographic functions to the international standard Evaluation Assurance Level (EAL) 5+. The multi-technology contactless smart card reader shall be configurable to utilize Velocity Checking to provide breach resistance against electronic attacks that invoke multiple improper authentication attempts.			
	Contactless Smart Card Reader/Encoder dual frequency	1	1	
	Push to Exit Button, metal, US Switch Plate (Turnstile by-pass)	8	8	
2	**B. VEHICLE CONTROL ACCESS SYSTEM**			
	I. Controller			
	II. UHF Reader The reader enables automatic identification of tags form distances up to 5 meters (16ft). The reader must be able to be configured through software tool to read specific tags based on user preference. The reader shall have directional reading range with an angle of 45 degrees and should require line of sight between the reader and the tag. The reader shall be featured with an adjustable mounting arm to aim the reader in desired detection area. The reader shall have an input for a sensor that detects the presence of a person or vehicle. When the input is not confirmed, this shall not result in reader output. The reader shall remain in the off position until activated by a vehicle/person crossing the sensor. Once activated, the reader shall generate an RF signal that is reflected from a compatible RF identification tag. The reader unit shall then decode the tag data carried by the reflected signal. This data shall be transmitted to the host system.	2	2	
	Power Supply with battery charger	1	1	
	III. UHF Mounting Bracket Adjustable Mounting Set (with weather protection hood)	2	2	
	IV. Boom Barrier Automated Access Barrier (Heavy Duty) with 4 meters Boom Large front door for quick and easy access. The bar can be assembled either on the right or left. Easily removable reinforced gear motor support.	2	2	

	Photocells integrated inside the barrier body, minimum visual impact and maximum protection. Galvanized steel or stainless steel case (AISI 304) in three sizes from 3 to 7 metres long. Elliptical section bar for lighter weight and higher wind-gust resistance; special profile for fast assembly of the accessories. Optional pivot joint to protect the barrier in the event of collision. The bar can be assembled either on the right or left.		
	Loop Detector	4	4