

## **TERMS OF REFERENCE**

### **PREVENTIVE AND CORRECTIVE MAINTENANCE OF PROJECT AURORA: QUEZON CITY GOVERNMENT UNIFIED CCTV COMMAND SYSTEM**

#### **I. RATIONALE AND BACKGROUND**

The Quezon City Government remains steadfast sustaining itself as a quality community, a progressive and peaceful environment pursuant to the United Nations Sustainable Development Goal (SDG) No. 11, to make cities and human settlements inclusive, safe, resilient, and sustainable. Despite of increase in Crime Solution Rate, the presence of additional CCTV cameras in the community is expected to affect the behavior of the community and this may lead them to abide with the law. Thus, the City Government shall invest on preventive and corrective maintenance of Project Aurora, including CCTV Projects in Barangay Manresa and Barangay San Antonio. This aims to maintain its low crime rate, based on the report of the Quezon City Police District (QCPD).

#### **II. PROJECT DESCRIPTION**

The project aims to provide corrective and preventive maintenance for Project Aurora CCTV including the City's CCTV Project in Barangay Manresa and Barangay San Antonio until 31 December 2025.

#### **III. SCOPE OF WORK AND SERVICE LEVEL AGREEMENT**

##### **A. STATEMENT OF REQUIREMENT**

The Service Provider shall provide QUEZON CITY GOVERNMENT with Preventive and Corrective Maintenance and Technical Support Services for items listed in **Schedule A**.

The Service Provider shall operate and maintain a Technical Support Center to provide after sales maintenance and technical support services for the products and solutions supplied by the company. Which includes routine preventive maintenance, fault isolation and corrective maintenance, remote telephone support and other technical services that may arise may be communicated to us.

The Service Provider shall have qualified and experienced team of technicians and engineers, maintains the operations of the Technical Support Center, which also acts as the 1st and 2<sup>nd</sup> level technical support.

## **B. OVERALL EQUIPMENT QUANTITIES**

- See Schedule A, List of Covered Equipment

## **C. PREVENTIVE & CORRECTIVE MAINTENANCE**

### **Preventive Maintenance**

Preventive Maintenance (PM) shall include instructions and advice on the procedures of maintaining and keeping the system in optimal operating condition, as well as the provision of labor in carrying out the actual maintenance works. Maintenance schedule shall be drawn up according to the actual system and equipment listed in Schedule A, List of Covered Equipment. Schedule of maintenance should be available once needed. Report of the maintenance made will be provided to QUEZON CITY GOVERNMENT through service provider's representative. Completion time of the Annual Preventive Maintenance is until December 31, 2025 including documentation.

### **Corrective Maintenance**

Corrective Maintenance (CM) are on-call maintenance service to be rendered at the request of the end-user to diagnose and correct any malfunction. Any components or parts found defective in the list of Field Equipment under Schedule A Covered Equipment under preventive maintenance will be repaired or replaced.

## **D. SERVICE LEVELS**

### **Definition**

Service level is defined in terms of:

- a. Response time: elapsed time between user call for service and arrival to the site by the Service Provider's service personnel.
- b. Mean Time to Repair and Restore (MTTR): elapsed time between initial actions taken for repair/corrective of the fault until the equipment or system is up for operation use within priority classifications as proposed below.

### **Attributes to the Service Levels proposed:**

1. Service request classification
2. Response time
3. Restoration time

**Service Request Classification:**

Service Request Classification is important to prioritize the fault and resolution. Each service request received from the end-user shall generally be classified to three classes, subject to end-user's acceptance of the classification at the time of drawing up the maintenance agreement.

**Priority 1** shall mean that the fault occurring significantly impacts the operation, management and/or safety of the premises. For example, the Security System software becomes inaccessible to operators or complete loss of control to all devices and sub-system elements.

**Priority 2** shall mean that the fault occurring affects the operation and management of the premises but without compromising the safety of the premises in a significant manner. For example, failure in a redundant link, or loss of control to an end-device.

**Priority 3** shall mean that the fault occurring have only minimal impact on the operation of the building. For example, intermittent degradation in network performance such as reaction times from devices became longer than usual.

**Response time**

Response time depends on the classification of the service request. It is subject to be agreed upon at the time of drawing up the maintenance agreement with the end-user, but shall in general be represented as follows:

**Priority 1:** 48 hours on-site, 8hrs x 5 days coverage.

**Priority 2:** Next 3 business day on-site, 8hrs x 5 days coverage.

**Priority 3:** Next 4 business days on-site, 8hrs x 5 days coverage

**Restoration Time**

Restoration time is the time from acknowledgment of service request to the time of interim fault rectification. This generally depends on the availability of spares at the local site. If spares are available, replacing it with the spare parts can rectify faults. The Service Provider shall return the faulty parts for repair. The time between acknowledgment of service request to the time the faulty part is repaired and returned is the permanent fault restoration time. It is a subject to be agreed upon at the time of drawing up the maintenance agreement with the end-user, but shall in general be represented as follows:

With spares available

**Priority 1:** Within 3 days, 8hrs x 5 days coverage.

**Priority 2:** Within 5 days, 8hrs x 5 days coverage.

**Priority 3:** Within 7 days, 8hrs x 5 days coverage.

#### **E. MAINTENANCE RECORDS AND REPORTING**

The Service provider shall keep records of all routine maintenance and service requests in an efficient manner. The record shall include the commencement and completion of all maintenance and repair and details of all the faults. Faults and degradation detected during preventive maintenance shall be recorded separately from faults detected or reported outside those periods. Meetings shall be held with the end-user on a monthly basis to discuss on technical and maintenance issues, and to update the end-user on the state of the system and equipment viability.

#### **F. SERVICE LEVELS CLASSIFICATION TO SYSTEMS INSTALLED**

- See Schedule B, Service Level per Type of System Installed

#### **MTTR Time**

MTTR time will be three (3) to seven (7) days except in occasion that:

- The spare is not available or waiting for spare retrievable and delivery.
- Heavy repair required such as accident case, any events caused by natural disaster, events beyond the control of the company.
- Mobilization of machinery such as Man-Lifts, Crane and other heavy equipment is required. - Delay in getting approval for access to site.
- Any 3rd party service is required.
- Mobilization of vendor representative.
- Does not include Saturday, Sunday, and Holiday

#### **Service Level Measurement Method**

Response time = Time of attending fault - Time of receiving call.

MTTR = Completion Time of repair and restore - First time of attending the fault.

#### **G. SCHEDULE MAINTENANCE COSTINGS**

- See Schedule C, Schedule, and Fees for preventive & corrective maintenance services

#### **H. SCOPE OF WORKS FOR PREVENTIVE MAINTENANCE**

- See Schedule D, Scope of Works

## **I. SCHEDULE OF PREVENTIVE AND CORRECTIVE MAINTENANCE**

Preventive and Corrective Maintenance schedule will be Mondays to Fridays from 8:30 am to 5:30 pm, in the case that we will be required to work at night or after the schedule time and date, special rate will be imposed.

## **VI. PROJECT STANDARDS & REQUIREMENTS**

### **BIDDERS QUALIFICATION**

- The bidder's brand for CCTV cameras and equipment must have been in the Philippine market for more than 20 years.
- The bidder must have more than 15 years of experience in the electronic security, and surveillance industry.
- Upgrades for new version during maintenance at no additional cost.
- Bidders must submit a certificate that they are the authorized distributor/reseller of the existing brand to be maintained.
- The bidder must have an existing service center and technical support.
- Consider end-user and CCTV Operator training.
- Submit Organizational chart.
- List of Manpower
- The service provider shall have qualified and experienced team of technicians and engineers, maintains the operations of the technical support center, which also acts as the 1st and 2nd level technical support.

## **V. DURATION OF PROJECT**

The project shall be completed until 31 December 2025 upon the issuance of the Notice to Proceed.

## **VI. APPROVED BUDGET FOR THE CONTRACT**

The total budget allocation for Preventive and Corrective Maintenance is Fifty Million Pesos and 00/100 Only (P50,000,000.00).

## **VII. TERMS OF PAYMENT**

The payment method shall be paid on a monthly basis, which shall be based on the successfully conducted preventive and corrective maintenance by the service provider.

## **VIII. PROJECT IMPLEMENTOR**

The Office of the City Administrator shall be the project Implementer on behalf of the Quezon City Government and shall be in-charge of ensuring the successful execution of the project. Further, the Office shall be responsible on project monitoring and strict implementation of the requirements and guidelines in this Terms of Reference.

## SCHEDULE A

### COVERED EQUIPMENT UNDER PREVENTIVE MAINTENANCE AGREEMENT

ITEM	DESCRIPTION	QUANTITY
<b>FIELD EQUIPMENT</b>		
1	3MP IP BULLET DARK LIGHT CAMERA	200
2	5MP IP BULLET DUAL LIGHT CAMERA	141
3	5MP IP BULLET DARK LIGHT DUAL LIGHT CAMERA WITH BUILT IN MICRO SD CARD, POE, WITH ACCESSORIES	446
4	2MP IP BULLET DARK LIGHT DUAL LIGHT CAMERA WITH ACCESSORIES	110
5	2MP IP PTZ DOME CAMERA 18X WITH MICRO SD CARD WIFI LAN	230
6	REMOTE COMMUNICATION BOX WITH SFP MODULES, PATCH CORD, 4G ROUTER AND INDUSTRIAL POE SWITCH, AUTOMATIC VOLTAGE CURRENT PROTECTOR AND AC SURGE PROTECTOR, MOUNTING STRAPS, WIFI ACCESS POINTS (ON SELECTED SITES)	814
7	15U WALL MOUNT DATA CABINET COMPONENTS & ACCESSORIES, PATCH PANELS, PATCH CORDS, 1KVA UPS, MEDIA CONVERTER, SURGE PROTECTION DEVICE, SFP MODULES, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS, SCREWS & NUTS, MOUNTING STRAPS. PORT, 12 OR 28 PORT FULL GIGABIT POE SWITCH WITH ENDURA SPGLDS20	9
8	POWER DISTRIBUTION BOARD COMPONENT AND ACCESSORIES, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS, PATCH CORDS, SURGE PROTECTION DEVICE, 1KVA UPS, MOUNTING STRAPS, 12 OR 28 PORT FULL GIGABIT POE SWITCH WITH ENDURA SPGLDS20	9
<b>COMMAND CENTER EQUIPMENT</b>		
9	42U CLOSED DATA CABINET COMPONENT & ACCESSORIES, PATCH PANELS, PATCH CORDS, UNIVERSAL PDU, FIXED SHELF, SCREW & NUTS, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS. 32 PORTS 10G MANAGED OPTICAL FIBER SWITCH, 28 PORTS L3 10G MANAGED SWITCH, SFP MODULES	2
10	42U CLOSED DATA CABINET COMPONENT & ACCESSORIES, PATCH PANELS, PATCH CORDS, UNIVERSAL PDU, FIXED SHELF, SCREW & NUTS, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS. CLOSED DATA CABINET, UNINTERRUPTIBLE POWER SUPPLY, 36 & 28 PORT 10G NETWORK SWITCH	1
11	42U CLOSED DATA CABINET COMPONENT & ACCESSORIES, PATCH PANELS, PATCH CORDS, UNIVERSAL PDU, FIXED SHELF, SCREW & NUTS, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS. CLOSED DATA CABINET, UNINTERRUPTIBLE POWER SUPPLY, 36 PORT NETWORK SWITCH, Additional 16 Port Network Switch (on selected sites)	2
12	3KVA ON-LINE UPS	7
13	CENTRAL MANAGEMENT SERVER	2
14	DIGITAL VIDEO MATRIX WITH HDMI CABLES & CONNECTORS	2
15	NETWORK VIDEO SERVER with 6TB / 10TB HARD DISK DRIVES	8
16	NETWORK VIDEO SERVER with 10TB HARD DISK DRIVES	3
17	32 CHANNEL 4K NETWORK VIDEO RECORDER with 6TB HARD DISK DRIVES	4
18	OPERATOR WORKSTATION, HARD DISK DRIVES, KEYBOARD & MOUSE, ANTIVIRUS SOFTWARE, OPERATING SYSTEM, CONNECTORS & ADAPTERS, CABLES	7
19	OPERATOR WORKSTATION MONITOR	13
20	46" VIDEO WALL CCTV MONITOR, CABINET, BRACKET, & ACCESSORIES, CABLE)	10
21	49" VIDEO WALL MONITOR, BRACKET, CABLE	2

## SCHEDULE B

### SERVICE LEVEL PER TYPE OF SYSTEM INSTALLED

ITEM	TYPE OF SYSTEM	PRIORITY	RESPONSE TIME	MTTR & DOWNTIME
1	Network Video Recorder / Server,	1	48 hrs	3
2	Camera, Monitor	2	Next 3 days	5
3	Peripherals, Accessories	3	Next 4 days	7

MTTR (Mean Time to Repair and Recover) will be three (3) to seven (7) days except on occasion(s) that:

1. The spare part(s) is(are) not available or waiting for spare part(s) to be retrieved/delivered
2. Heavy repair work is required, such as is(are) caused by accidents, events caused by natural disasters, events beyond the control of the CONTRACTOR
3. Delays in approvals for access to the site
4. Third-party service providers are involved.
5. Mobilization of vendor representative
6. Does not include Saturday, Sunday and Holiday

## SCHEDULE C

### SCHEDULE OF MAINTENANCE COST

ITEM	DESCRIPTION	QUANTITY	UNIT	PRICE IN PHP
1	Administration /Project Management/ Supervision/Project Documentation	1	lot	4,567,040.00
2	Preventive System Maintenance includes labor, materials and consumables. site supervision, and traffic management. Connectivity monitoring, and limited mobile and cloud connectivity. Update device firmware and update network operations platform. Includes mobilization and demobilization.	1	lot	26,758,930.00
3	Corrective Maintenance includes regular maintenance activities, power reset, repair fiber cable and power line, on call field service, check up on site mobile connectivity. Provisions for repair and replacement of defective field equipment, includes mobilization and demobilization.	1	lot	18,674,030.00
TOTAL AMOUNT :				50,000,000.00



## SCHEDULE D

### SCOPE OF WORKS

ITEM	DESCRIPTION
<b>FIELD EQUIPMENT</b>	
1	3MP IP BULLET DARK LIGHT CAMERA
2	5MP IP BULLET DUAL LIGHT CAMERA
3	5MP IP BULLET DARK LIGHT DUAL LIGHT CAMERA WITH BUILT IN MICRO SD CARD, POE, WITH ACCESSORIES
4	2MP IP BULLET DARK LIGHT DUAL LIGHT CAMERA WITH ACCESSORIES
5	2MP IP PTZ DOME CAMERA 18X WITH MICRO SD CARD WIFI LAN Inspect and clean camera lens, viewing windows, camera housing, mounting, wiring, enclosure and Surge Protection Equipment. Replace defective surge and voltage protection devices Replace or repair all defective parts and components Re-crimping/re-tightening or replace connectors to avoid loose connection, voltage fluctuation and video interference, drop in video signal will be addressed with corrective actions. Camera re-focusing and adjustment to the required angle of view. Remove objects obstructing the camera view. Check PTZ camera functionality Restoration & Repair of outdoor pole brackets of camera
6	REMOTE COMMUNICATION BOX WITH SFP MODULES, PATCH CORD, 4G ROUTER AND INDUSTRIAL POE SWITCH, AUTOMATIC VOLTAGE CURRENT PROTECTOR AND AC SURGE PROTECTOR, MOUNTING STRAPS, WIFI ACCESS POINTS (ON SELECTED SITES)
7	15U WALL MOUNT DATA CABINET COMPONENTS & ACCESSORIES, PATCH PANELS, PATCH CORDS, 1KVA UPS, MEDIA CONVERTER, SURGE PROTECTION DEVICE, SFP MODULES, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS, SCREWS & NUTS, MOUNTING STRAPS. PORT, 12 OR 28 PORT FULL GIGABIT POE SWITCH WITH ENDURA SPGLDS20
8	POWER DISTRIBUTION BOARD COMPONENT AND ACCESSORIES, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS, PATCH CORDS, SURGE PROTECTION DEVICE, 1KVA UPS, MOUNTING STRAPS, 12 OR 28 PORT FULL GIGABIT POE SWITCH WITH ENDURA SPGLDS20 Cleaning of enclosure and all devices installed inside the cabinet. Inspection of physical unit's condition Inspection of network switch POE ports, re-crimping/re-tightening of termination, replace connectors to avoid loose connection. Harness wires and cables. Replace defective surge and voltage protection devices Functionality testing of all components inside the communication box, data cabinet, and power distribution board, such as Power Supply, Circuit Breakers, Network Communication Equipment, Surge Protection Equipment, Wifi Access Point, 4G Router, Universal Power Supply and other built-in peripheral. Signs of equipment failure will be addressed with corrective actions. Update device firmware and update network operations platform Replace or repair all defective parts and components Monitoring of data connectivity and data load. Repair or replacement of defective power, data and fiber cables.
<b>COMMAND CENTER EQUIPMENT</b>	
9	42U CLOSED DATA CABINET COMPONENT & ACCESSORIES, PATCH PANELS, PATCH CORDS, UNIVERSAL PDU, FIXED SHELF, SCREW & NUTS, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS. 32 PORTS 10G MANAGED OPTICAL FIBER SWITCH, 28 PORTS L3 10G MANAGED SWITCH , SFP MODULES
10	42U CLOSED DATA CABINET COMPONENT & ACCESSORIES, PATCH PANELS, PATCH CORDS, UNIVERSAL PDU, FIXED SHELF, SCREW & NUTS, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS CLOSED DATA CABINET, UNINTERRUPTIBLE POWER SUPPLY, 36 & 28 PORT 10G NETWORK SWITCH

- 11 42U CLOSED DATA CABINET COMPONENT & ACCESSORIES, PATCH PANELS, PATCH CORDS, UNIVERSAL PDU, FIXED SHELF, SCREW & NUTS, FIBER TERMINAL BOX, FIBER CONNECTORS & ADAPTERS**  
**CLOSED DATA CABINET, UNINTERRUPTIBLE POWER SUPPLY, 36 PORT NETWORK SWITCH , Additional 16 Port Network Switch (on selected sites)**  
 Cleaning of data cabinet and all devices installed inside the cabinet. Inspection of physical unit's condition. Replace all damaged components such as cabinet door, shelf, screws, nuts, patch panel, universal PDU, fiber terminal box, patch cords.  
 Inspection of network switch POE ports, re-crimping/re-tightening of termination, replace connectors to avoid loose connection. Harness wires and cables.  
 Replace defective surge and voltage protection devices  
 Functionality testing of all components inside the communication box, data cabinet, and power distribution board, such as Power Supply, Circuit Breakers, Network Communication Equipment, Surge Protection Equipment, Wifi Access Point, 4G Router, Universal Power Supply and other built-in peripheral. Signs of equipment failure will be addressed with corrective actions.  
 Provide service units on a reasonable time until spares has been procured
- 12 UNINTERRUPTED POWER SUPPLY(UPS)**  
**3KVA ON-LINE UPS**  
 Cleaning and inspection of physical unit's condition and cable termination.  
 Functionality testing  
 Check that LED indicators are properly functioning  
 Check input / output voltage
- 13 CENTRAL MANAGEMENT SERVER**
- 14 DIGITAL VIDEO MATRIX WITH HDMI CABLES & CONNECTORS**
- 15 NETWORK VIDEO SERVER with 6TB / 10TB HARD DISK DRIVES**
- 16 NETWORK VIDEO SERVER with 10TB HARD DISK DRIVES**
- 17 32 CHANNEL 4K NETWORK VIDEO RECORDER with 6TB HARD DISK DRIVES**  
 Clean and inspect physical unit's condition, cable terminations, and port connections.  
 Check and perform device functionality test  
 Update video management software,  
 Check video recordings, storage status, health status, and update system configuration.  
 Check and monitor device connections to cloud service  
 Update device firmware and update operations platform
- 18 OPERATOR WORKSTATION, HARD DISK DRIVES, KEYBOARD & MOUSE, ANTIVIRUS SOFTWARE, OPERATING SYSTEM, CONNECTORS & ADAPTERS, CABLES**  
 Cleaning and inspection of physical unit's condition, and cable termination.  
 Functionality testing of input/output interface, console keyboard, mouse, media drive, hard disk drives , local area network(LAN), and , test network connection  
 Perform system maintenance, and update operating system  
 Update video client software
- 19 OPERATOR WORKSTATION MONITOR**
- 20 46" VIDEO WALL CCTV MONITOR, CABINET, BRACKET, & ACCESSORIES, CABLE)**
- 21 49" VIDEO WALL MONITOR, BRACKET, CABLE**  
 Cleaning and inspection of physical unit's condition, cables, cable termination  
 Check of device LED indicators  
 Management of settings for resolution, brightness and contrast.  
 Adjust settings for an optimized viewer experience

## **IX. PROJECT COST ADJUSTMENT**

As stated in Section 61 of R.A. 9184 and its IRR, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other such as acts of the Government of the Philippines, promulgated after the date of bid opening, a contract price adjustment shall be made, or appropriate relief shall be applied on a no loss basis.

## **X. PENALTIES FOR BREACH OF CONTRACT**

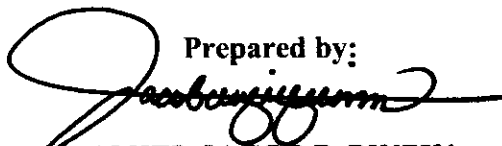
Failure to deliver the services according to the standards and requirements set by the Quezon City Government shall constitute an offense and shall subject the Service provider to penalties and or liquidated damages pursuant to R.A. 9184 and its IRR.


## **XI. CANCELLATION OR TERMINATION OF CONTRACT**


The contract may be canceled or terminated:

- a. Should there be any supervening event resulting from National Government Agency projects and/or Local government projects that may hinder or restrict the operation of the route according to this Terms of Reference such as but not limited to the Schedule of Trips, or
- b. Should there be any dispute, controversy or difference between the parties arising out of this Terms of Reference, the parties shall exert efforts to amicably settle such dispute or difference. However, if any dispute, controversy, or difference cannot be resolved by them amicable to the mutual satisfaction for arbitration in accordance with existing laws, without prejudice for the aggrieved party to seek redress exclusively before a court of competent jurisdiction within Quezon City.

The guidelines contained in R.A 9184 and its IRR shall be followed in the cancellation or termination of this Contract.

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