5. SECTION B - SCOPE OF SERVICES:

5.1. Background

Montgomery County, Maryland, is located on the northern border of Washington, D.C. and has a residential population of approximately 1.08 million. The Montgomery County's Department of Transportation, Division of Parking Management, is responsible for the management and operation of the County's Public Parking Program. This municipal program owns and operates over 21,000 public parking spaces in three distinct and economically-diverse Parking Lot Districts (PLD's): Bethesda, Silver Spring, and Wheaton. Additionally, the County operates on-street parking meters in certain Transportation Management Districts (TMDs) such as North Bethesda, Great Seneca and Friendship Heights. The parking spaces are located both on and off-street. Presently, there are twenty (20) garages, nineteen (19) surface lots and over 3,900 on-street meters. Spaces on-street and some surface lots are operated by single-space meters; while the garages and most surface lots utilize, centralized pay-by-space/pay-by-plate, pay-on-foot equipment, or cashier upon exit.

This request for proposals is for the procurement of a Parking Access and Revenue Control System (PARCS) that will fully replace the existing systems at the following garage:

Garage 31 – Capital Crescent Garage
Pay on Foot System

7171 Woodmont Avenue, Bethesda, MD 20814

Entrances: Woodmont Ave. & Bethesda Ave.

Number of Spaces

Height Clearance	Bicycle	Motorcycle	Accessible	EV	Long-term
7' 2"	20	24	23	6	956

The new system will replace the existing Amano McGann Parking Access and Revenue Control System in Garage 31. The system has ticket issuing mag-tripe readers, entry and exit terminals with RFID pads for HID cards. The new system must include all the hardware and software needed to provide a complete and fully operational PARCS.

5.2. Intent

It is the intent of this RFP for Montgomery County to enter into a contract with a firm (the "Contractor") to provide a scalable, Cloud-Based, Contractor-Hosted solution for an integrated Parking Access and Revenue Control System (PARCS) including hardware and back-office software for a gated controlled environment to support the parking operations of the Capital Crescent Garage 31. The PARCS must use leading, cutting-edge technology that operates on an open architecture platform and which provides a reliable, efficient, customer-friendly, cost-effective parking operation that will improve customer service by reducing system downtime, in-lane queue time, and repair costs.

The proposed PARCS must also be readily upgradable, scalable, and modular in design to accommodate additional equipment, features and functionalities, including the ability to interface with additional third-party applications; and the ability to allow firmware and software upgrades without the need to replace field devices.

The County prefers a system that uses License Plate Recognition (LPR) technology to process and track transactions, access, and inventory of vehicles using the garage. The desired PARCS will also work via any Web browser, function on all mobile platforms, possess intuitive user management, have interactive reporting, and provide multiple media access, such as barcode, HID, AVI, Smart Phone, NFC Access, LPR, etc.; and accepts multiple payment options, including cash, credit card, validations, mobile payments, access cards, etc.

5.3. **Scope of Work**

5.3.1 General Requirements and features

5.3.1.1 Contractor must provide all equipment and services related to the design, installation, setup, testing, and maintenance of a PARCS for the County.

5.3.1.2 Contractor must provide all necessary civil, electrical, and administrative services as well as equipment and other hardware necessary to install in place a fully operating PARCS as specified herein. This includes, but is not limited to, loops, electrical and communication wiring, servers, computers, software, licenses, equipment movement and installation, conduits, concrete work, wire terminations, training, testing, programming, set-up services, and support service.

5.3.1.3 Contractor must remove and properly dispose of all existing PARCS equipment prior to the installation of the new PARCS system. No part of the currently installed systems shall be reused in the implementation of the proposed system. This includes gates, loops, ticket dispensing devices, ticket and card readers, computers, software, communication wiring, control wiring, etc. The system shall be a complete, new turnkey solution. Contractor must remove all existing PARCS components to a location specified by the County. The County will maintain possession of all existing PARCS equipment.

5.3.1.4 The PARCS shall offer integrated License Plate Recognition (LPR) capture and mobile LPR, data storage and a fee calculator. The system shall track and generate electronic trails of each transaction and vehicular ingress and egress for management and audit purposes.

5.3.1.5 Contractor must host the system and provide all needed infrastructure, servers, equipment, communication network, and other elements, at the Contractor's site and County's parking garages. The system will not reside on the County's network.

5.3.1.6 The PARCS system shall be remotely managed using fiber optics, Ethernet, or other communication system(s) that are acceptable to the County.

5.3.1.7 The PARCS shall be able to operate in the following modes:

a. Pay on entry
b. Pay on Foot (POF)
c. Pay at exit
d. Other modes suggested by the PARCS Contractor.

5.3.1.8 The preferred PARCS shall minimize the number of physical devices to reduce operations and maintenance costs and reliance on hardware.

5.3.1.9 The PARCS shall offer as many vehicular entry options as possible, including:

a. Ticket-less options (i.e., LPR, LPR and phone number, etc.)
b. Access and self-service transaction processing using Credit Card In & Out (CCIO); Automated Vehicle Identification (AVI) transponders, proximity card readers and bar code/QR code reader, etc.
c. Frequent parker program using smart phone/cellular technology
d. Other vehicular entry options offered by the Contractor.

5.3.1.10 The PARCS must be sufficiently robust to simultaneously manage nested areas and provide reporting independently for these areas.

5.3.1.11 The PARCS must accurately count vehicles entering and exiting the garage, breaking down these counts based on mode used to enter or exit (monthly, transient, special lease holders, etc.). Counts for nested areas shall be identified separately.

5.3.1.12 The system shall allow County designated staff to remotely access (via internet) all functions and data of the PARCS.

5.3.1.13 The County prefers “open IT architecture” and an equipment agnostic approach that allows future scalability and flexibility.

5.3.1.14 The preferred PARCS shall minimize the number of physical devices to reduce operations and maintenance costs and reliance on hardware.

5.3.1.15 The preferred PARCS shall have hardware modules that are easily replaceable and/or repaired. The Contractor shall provide spare hardware modules to the County. In case of failure or maintenance, the County designated staff shall replace those modules and send them to the Contractor for repair or replacement.

5.3.1.16 The PARCS software shall be user-friendly and dashboard based. The system shall be designed to provide standard and custom dashboards for appropriate use and data manipulation across new as well as existing platforms.

5.3.1.17 The system shall offer a dynamic pricing structure that can be changed on an as-needed basis. County designated staff shall be able to remotely adjust parking pricing structures.

5.3.1.18 Under no circumstances, except for acts of nature, should the PARCS be down without the ability to allow parkers to enter and exit the parking garages and collect parking revenues. In the event of losing revenue collection capabilities, the Contractor must reimburse the County for the loss of revenue for the time the system was down. The amount of parking revenue lost will be determined by the County based on the average hourly revenue collected from the last day the system was in full service.

5.3.1.19 All equipment shall generate real-time alarms and status reports for maintenance needs, reporting by text messages, and/or emails to County designated staff.

5.3.2 PCI Compliance - Credit Card Payments and Vendor Security

5.3.2.1 Vendor must satisfy the County’s PCI compliance and SOC 2 security requirements as set forth in its PCI Security Addendum. The document is an attachment to this RFP. Please see Attachment D.

5.3.2.2 Prior to Contract execution, and during the entirety of the Contract Term, the proposed Vendor’s solution is subject to the County’s PCI compliance and SOC 2 security assessments. The payment solution must (1) use a Merchant ID (“MID”) obtained by and in the name of the Contractor as merchant of record or (2) process credit card payments through the use of a MID obtained by the County’s Department of Finance from its Merchant Card Services Provider by and in the name of the County as merchant of record.

If payment solution uses a MID obtained by and in the name of the Contractor as merchant of record, Contractor must:

a. Provide the amount of any additional cost for Contractor owning the MID and proposed method for payment of those costs,
b. Provide terms/SLA for timely transmittal of revenue to County’s bank,
c. Provide terms/SLA for timely availability of transaction and reconciliation reports, and
d. Provide terms/SLA for handling chargebacks.

5.3.2.3 Vendor must also satisfy the County’s vendor security requirements as set forth in its Vendor Security Addendum (Attachment E to this RFP).

5.3.3 Quality Assurance

5.3.3.1 All PARCS components and their installation must comply with all laws, ordinances, codes, rules, and regulations of the public authorities holding jurisdiction over this part of the project. It shall be the responsibility of the Contractor to meet these and all other

current technical, performance, and safety standards that are applicable to all components and to the entire system.

5.3.3.2 It is the Contractor's responsibility to obtain any and all permits that are required to complete this project.

5.3.3.3 County shall be provided with seven business (7) days' notice to review the completed installation prior to acceptance testing.

5.3.3.4 Parking control system incorporating features which minimize maintenance shall be provided and meet the following requirements:

a. Provide for ease of performance verification and failure detection while minimizing effort required for adjustment.
b. Provide unobstructed access to equipment components.
c. Minimize requirements for special tools and test equipment.
d. Provide for easy removal and replacement of components.
e. Provide a system and components that have a service life of seven years (minimum) and specify periodic maintenance requirements in the maintenance manual to meet that life expectancy.

5.3.3.5 If the Contractor elects to integrate components from different manufacturers, the Contractor shall be responsible for ensuring that all specified features are provided and fully operating system when turned over to the County for testing and acceptance.

5.3.3.6 Equipment housing, conduits, and junction boxes exposed to weather must meet or exceed NEMA 4 or IP65 standards to be moisture-proof and shall provide sufficient protection so that the components continue to function without moisture, dust, particle, heat, or cold-related interruption.

5.3.4 Project Site Conditions

5.3.4.1 **Environmental Conditions:** PARCS components must operate dependably within environmental conditions indigenous to Montgomery County, Maryland. Components located in a 24-hour climate-controlled office shall be capable of normal performance in a business environment. Outdoor equipment shall be capable of operating in temperature extremes (-10°F to 105°F) of the geographic area stated.

5.3.4.2 Electrostatic and electromagnetic forces within the environment, e.g., non-direct lighting strikes, or other types of power interference shall have no effect upon the integrity or operation of the PARCS.

5.3.4.3 **Electrical power and grounding:** Furnish and install on-line, regulating computer grade uninterruptible power supply (UPS) for:

a. Servers and task computers (system controllers) with 60 minutes of back-up battery power.
b. Workstations, entrance machines, POF, and local controllers (both revenue and access) with 60 minutes of back-up battery power.

5.3.4.4 One UPS shall protect no more than two lanes or two workstations or servers.

5.3.4.5 Garage 31 has 480 VAC 3 phases installed, 4 wire feed, 277 VAC, and 120 VAC power circuits. PARCS must operate in any of these circuits. The Contractor shall provide any additional power conditioning required for the operation of the system as described herein.

5.3.4.6 Provide dust and noise protection in strict accordance with equipment manufacturer's recommendations.

5.3.4.7 Equipment layout shall be in strict accordance with manufacturer recommendations to allow proper movement of air through and around equipment.

5.3.5 Facility Description

5.3.5.1 The Capital Crescent Garage 31 is located at 7171 Woodmont Avenue, Bethesda, MD. This garage has four (4) subterranean levels (956 spaces). The garage has entrances through Woodmont Ave. (one entry and one exit lanes), and through

Bethesda Ave. (two entry and two exit lanes). The garage hours of operation are Monday – Saturday from 7:00am to 10:00pm. Incremental fees apply only during these hours. The garage is open to the public 24/7. This Pay-On-Foot operated garage has an hourly flat rate structure and generates an average of 743 transactions per day. Garage 31 operates primarily to provide parking for transient, monthly, overnight customers and has a nested area for residents of adjacent apartment complex.

5.3.6 System Components Performance Specification

5.3.6.1 The PARCS Contractor must provide complete hardware, sub-systems and software systems in accordance with all sections of this RFP. This specification requires that a complete turnkey solution be implemented for this project. All major components to be provided as a part of the proposal must be considered by the manufacturer to be standard products as opposed to a prototype product developed exclusively for this project. The Contractor will be required to demonstrate any individual component in order to authenticate its acceptability. Minor modifications will be accepted; however, such modifications shall be noted in an offeror's proposal. The Offeror will be required to document using flow charts, sample control system reports, and operational narratives of how the proposal meets the specifications. These submittals are to be provided with the offeror's proposal. Each station and control box exposed to weather conditions must have heater units installed with on/off and auto functions.

5.3.7 Barrier Gates

The automatic barrier gates shall meet or exceed the following specifications:

5.3.7.1 Barrier gates shall be installed and shall provide an effective barrier to vehicles in entrance and exit lanes. Barrier arm shall retract quickly in a vertical plane on command signal from the Entry Station, Exit Station, LPR/RFID Permit reader, card reader, or detector loop and return to lower position upon signal from a detector (closing loop) located beyond gate arm. Electronic sensor switches are preferred to control the up and down stopping points of the barrier gate arm.

5.3.7.2 Barrier gates may be online to the central computer and shall be capable of responding to remote "raise," "lower," "open lane," and "close lane" commands through a network device from central computer. A real-time status condition is required for all barrier gates.

5.3.7.3 The cabinet housing shall be constructed of galvanized heavy gauge steel, aluminum or equivalent. The unit shall be designed for all weather use. The exterior of the cabinet will be primed and painted with powder coat paint in a color acceptable to the County.

5.3.7.4 The gate housing shall contain enough room to locate detectors and other electrical components.

5.3.7.5 Each gate shall be equipped with a folding or straight (breakaway) gate arm of aluminum construction. The gate arm shall be a breakaway design that can easily be replaced when broken. The height of the gate arm shall be approximately 36 inches from drive level in the DOWN position. Provide and install articulating gate arms where required by low ceiling height.

5.3.7.6 Each gate shall support a gate arm of up to 11 feet.

5.3.7.7 Ability to support multiple devices in one lane (e.g. card reader and exit terminal).

5.3.7.8 Each gate shall have a sensory unit that will ensure that the gate arm will automatically reverse its direction should an object be struck by the gate arm during its descent. The arm will remain in the open position until automatically reset by a variable with a time range of 2-to-60 seconds.

5.3.7.9 The gate motor shall be equipped with a thermal overload circuit breaker. In addition, all motor relays and solenoid power shall be provided with a circuit breaker.

5.3.7.10 Barrier gates must transmit status messages to the central computer to indicate “UP” and “DOWN” status and gate malfunction or alarm condition.

5.3.7.11 The barrier gate arm shall return to the down position after a programmable period of time if vehicle passage through the gate is not completed and there is no vehicle presence on any detector loops in the lane.

5.3.7.12 Gate shall be equipped with an Auto-Manual-Up switch to test the motor and to raise gates manually. Battery backup shall be provided for barriers to be raised in the event of facility power failure.

5.3.8 Entry Station

5.3.8.1 The Entrance Station shall meet or exceed the following specifications:

a. LCD or LED display.
b. The Entrance Station shall include a programmable/recordable voice annunciation capable of automatically delivering audible message prompts at each step in the transaction process or in response to likely deviations.
c. Integrated Intercom with SIP/VOIP communication that can be routed to any phone number with round-robin capabilities.
d. The vehicular entry should offer the following options, but are not limited to:
   i. Ticket-less options including:
      - Using Automatic License Plate Recognition (ALPR) only
      - Using LPR and phone number
      - Using LPR and driver’s license number
      - Other ticket-less options.
   ii. Access and self-service transaction processing using Credit Card In & Out (CCIO); Automated Vehicle Identification (AVI) transponders, proximity card readers and bar code/QR code readers, etc.
   iii. Pre-Paid Debit/Frequent parker program using AVI.
   iv. Frequent parker program using smart phone/cellular technology.
   v. Other vehicular entry options offered by the Contractor.
e. USB-based System.
f. Ability to be programmed remotely.
g. Plug-and-Play components.
h. Capability to communicate with facility management computer.
i. Ability to buffer transactions in the event of a communication failure (minimum of 2,000 transactions).
j. Ability to arm before a transaction can begin in the lane, as well as the ability to be disabled/locked out if another device is utilizing the same lane.

5.3.8.2 All necessary electronic communication devices, firmware, and electrical connection components that are necessary for this device to function within the overall system shall be provided.

5.3.8.3 Ability to read 3rd-party QR codes or smart phone applications.

5.3.9 Exit Station

5.3.9.1 The Exit Station shall meet or exceed the following specifications:

a. LCD or LED display
b. The Exit Station shall include a programmable/recordable voice announcement capable of automatically delivering audible message prompts at each step in the transaction process or in response to likely deviations.
c. Integrated Intercom with SIP/VOIP communication that can be routed to any phone number with round-robin capabilities.
d. The Exit Station shall be capable and programmed to perform automated processing of credit card exit transactions and process in less than 10 seconds.
e. Alert parking office in the event of malfunction

f. Meet “Chip and Pin” compliancy
g. Meet PA-DSS, FACTA and PCI compliance standards and practices
h. Ability to report a back out alarm to the facility management PC
i. Capability to communicate with facility management computers
j Ability to buffer transactions in the event of a communication failure. Minimum of 2,000 transactions
k. Ability to accept voucher/validation/discounts
l. Ability to accept smart phone applications
m. Ability to be armed before a transaction can begins in the lane, as well as the ability to be disabled/locked out if another device is utilizing the same lane.

5.3.10 Automated Pay-On-Foot Station (POF)

5.3.10.1 The Automated Pay-On-Foot stations shall meet or exceed the following specifications:

General: POF shall be an unmanned central cashiering station that calculates the required parking fee to be paid upon entering a license plate number. The POF shall accept payment by coins, bank notes, credit/debit cards, all major e-wallet systems including Apple-Pay, Samsung Pay and /or Google Wallet. **The proposed locations for new POF are identified in Attachment E.**

a. The POF must meet all ADA-AG installation and operation requirements.
b. The cabinet housing shall be constructed of heavy gauge galvanized steel or aluminum and designed for all weather use. Front access doors will be fitted with appropriate tamper-resistant locking system and provide alarm contacts upon entry.
c. The POF must accept payment by cash (notes), coin, credit card, debit card, QR barcode device, and integrated chip & pin reader.
d. The POF must have a dip-style credit card reader capable of reading and accepting payments from inserted magnetic stripe and EMV chip-based credit cards.
e. The POF must accept and recycle nickels, dimes, and quarters and dispense as required to the parker.
f. The POF will accept notes and escrow One, Five, Ten, and Twenty Dollar denominations in any sequence during the transaction. The note acceptor will reject from escrow all damaged notes and shall store all approved incoming notes into the vault.
g. The POF shall dispense change in both coin and notes. An integral Note to Note dispenser will contain separate vaults for note storage and will dispense as change back when required. Each denomination will have separate vaults for reloading and real-time management.
h. The POF shall accept validations, or other credentials for partial or full payment of parking fee.
i. The POF must provide a Cancel button to allow customers to cancel a transaction once a license plate number has been entered.
j. Exit Grace Period shall be programmable.
k. Pushbutton VOIP intercom integrated into the face of the Pay Station.
l. Utilize visual instructions for parkers to understand the sequence of events to complete a payment transaction.
m. Issues audio voice annunciation instructions to complement the visual instructions.
n. Intuitive parker interface monitor/screen with pictographs as necessary to assist the parker through the payment process.

o. Allow the County to change the grace time (the number of minutes between the time a parking session is paid at a POF and the time a driver exits with vehicle through exit lane).
p. Log when a cabinet has been opened or closed; password entry required to allow software access; date, time and user recorded in real-time on the event log.

5.3.11 Vehicle Detection Loops

5.3.11.1 The Capital Crescent Garage 31 currently has vehicle detection loops.
5.3.11.2 The Contractor must ensure that detectors shall be installed for barrier gates, exit stations, LPR Camera Readers, LPR/RFID Antenna/Reader, PROX/Bar Code readers, count system and any other device that requires loop detection input to function as a complete system.
5.3.11.3 The parking equipment detector loops installed by the Contractor must be complete and terminated at the vehicle detectors without breaks or splices. Approved loop sealant must be used to provide weather and moisture protection for the loops.
5.3.11.4 Contractor shall be responsible for complete installation of the embedded loops, including required saw cuts. Contractors must use care and diligence in making saw-cuts to avoid contact with, or exposure of, embedded concrete reinforcement or cabling.
5.3.11.5 Contractors shall use care and diligence in locating embedded loops so as to avoid interference from other metal objects. Contractor must repair any damage to concrete curbs or islands resulting from the installation.

5.3.12 Intercom and Camera System

5.3.12.1 The Contractor shall provide a turn-key IP intercom system that consists of two host intercom stations, an integrated camera system, and an integrated microphone and speaker in each Entry Station, Exit Station, Automated Pay-on-Foot Stations, etc.
5.3.12.2 The intercom shall be a push-button intercom such that in the event a parker needs assistance while stopped in a lane the button can be pushed and a connection established between the field location and any host intercom station. Calls can also be initiated from within the parking office.
5.3.12.3 The intercom system shall utilize VOIP.
5.3.12.4 The intercom and camera communications shall be directed to a command desk console located in the parking office within the garage with roll-over capabilities to a second call center station as designated by the County. The parking office shall be equipped with an intercom base station that displays the physical location of the incoming intercom call.
5.3.12.5 Once activated, two-way communication shall be possible, and the intercom line remains open until the parking staff member terminates the call.
5.3.12.6 It shall be possible that if one intercom is open, and a second call comes in, the Parking Manager shall be able to place the first call on hold and answer the second call.

5.3.13 License Plate Recognition Specifications

5.3.13.1 System will have License Plate Recognition (LPR) at garage. The intent of this system is to:
a. Capture a vehicle’s license plate/image on the front and/or back of the vehicle as it enters.
b. Store the plate/image in a database.
c. Have the ability to view the plate/image when exiting.

d. Verify the plate matches the image, so the PARC system is notified if parking was paid previously at a Pay-on-Foot machine or a pre-paid credential was used to enter the facility.
e. Besides having the ability to view an image/plate, all images/plates shall be time stamped on entry and exit.

5.3.13.2 The Contractor shall ensure that the proposed PARCS LPR solution successfully integrates with County designated mobile payment providers.

5.3.13.3 The entry cameras shall become active when the vehicle is present on the arming loop. At this time, a time stamped image will be taken of the plate and stored in the database and the license plate number will be verified against the pre-paid credential that is presented. (Note: In the offeror's proposal, the offeror must describe how the LPR will capture front/rear license plates on vehicles.).

5.3.13.4 The exit cameras shall become active when the vehicle is present on the arming loop. At this time, the image will be time-stamped, queried, matched in the database and displayed on the monitor in the parking office. The system will then verify the plate matches the image so:
a. The proper fee is assessed at the exit lane or.
b. The PARC system is notified to vend the gate if payment has been made previously at a Pay-on-Foot machine or a pre-paid credential was used to enter the facility.

5.3.13.5 In the case of a pre-paid credential, the system will verify the license plate images match the record stored in the database.

5.3.13.6 All lanes will be outfitted with color cameras and any necessary illumination lights or devices.

5.3.13.7 The database shall have the ability to query license plates, calculate a rate based on the duration of stay, and allow for supervisor interaction/override and verification of matching image/plate if needed.

5.3.13.8 The system will be able to display the entry/exit plate image(s), duration of stay, a calculated fee based on the entry/exit time stamps and allow staff to verify the match.

5.3.13.9 The system shall be able to sort plates alphabetically or numerically.

5.3.13.10 The system shall have an override feature which will allow interaction from a manager or supervisor.

5.3.13.11 Offeror must describe how the customer will be released in an unattended setting if the LPR system misreads a plate.

5.3.13.12 The system should vend the gate immediately upon LPR recognizing the license plate if the parking charges have been previously paid or fully validated.

5.3.13.13 Offeror's proposals should provide data on capture and accuracy rate for offeror's fixed LPR installations (from the total number of license plates, how many plates read and how many of those plates read were read correctly).

5.3.14 PARCS Data Migration

5.3.14.1 Contractor shall be responsible for the importing of existing data on the current system to the new PARCS.

5.3.14.2 Contractor shall provide a reliable check method to ensure that all required data from the current system export files are passed to the new system.

5.3.15 Technical Support

5.3.15.1 The Contractor shall provide an ongoing management service contract for maintenance of all hardware, software, equipment, servers, hard and soft connections, communication network, and other elements. The Contractor shall identify the costs of a management service contract on a yearly basis.

5.3.15.2 The Contractor shall identify the life expectancy of each piece of equipment, hardware, software and other elements and an estimated schedule for replacing

each item/element under normal usage. Items that are not repairable or fail repeatedly shall be replaced after three repairs.

5.3.15.3 The Contractor shall provide a point of contact that is able to be reached Monday through Friday during normal operating hours (8 a.m. to 6 p.m.), Eastern Time.

5.3.15.4 The Contractor shall also provide a point of contact for after hour requests (6 p.m. to 8 a.m.), weekends, and holidays.

5.3.15.5 Within four (4) hours, the Contractor shall address issues that can be fixed through remote internet access.

5.3.15.6 The Contractor shall send a technician within twelve (12) hours if a technician needs to be onsite to address the issue, including weekends and holidays. Addressing or fixing issues via internet will be acceptable.

5.3.15.7 Under no circumstances, except acts of nature, shall the PARCS be down without the ability of allowing parkers to enter and exit the parking garage and collecting parking revenues.

5.3.15.8 The Contractor shall provide to the County, thirty (30) days before system start up, a regular and preventive maintenance schedule to ensure optimal system performance.

5.3.16 Preventive Maintenance

5.3.16.1 The maintenance services to be provided by the Contractor include maintenance for the PARCS hardware and software components used for the County's parking operations and subsystems. The services proposed by the Contractor shall also cover any additional subsystems that are installed by the Contractor as part of this project.

5.3.16.2 The Contractor shall be required to provide resident technicians at the County parking garage during the preventative maintenance periods to maintain the PARCS after the first lane has been accepted and is in revenue use.

5.3.16.3 As part of the response to this RFP, the offeror should propose a preventative maintenance schedule for the County that does not require resident technicians to report daily to Garage 31.

5.3.16.4 As part of the response to this RFP, the offeror should submit the details of the necessary preventive maintenance tasks for the PARCS. Scheduled preventive maintenance shall include, but not be limited to, inspection, testing, cleaning, lubricating, painting, adjustment, repairs, the replacement of field installable parts, including external cabinets, that are approaching unserviceable status, and all actions necessary to prevent system failures and extend the PARCS useful life. The Contractor must conduct preventative maintenance as accepted by the County in this Contract.

5.3.16.5 The Contractor will be required to conform to the County's on-site reporting procedures at each parking facility regarding technician arrival and departure for normal and off hours work.

5.3.17 Remedial Maintenance

5.3.17.1 Remedial maintenance of the PARCS at the County's parking facility shall consist of service calls from operations personnel and/or County personnel regarding components of the system not working as designed, regardless of the cause.

5.3.17.2 Upon request, the Contractor will be required to perform analysis and diagnosis of problems and other issues with all PARCS software. In the course of discharging this responsibility, the Contractor shall engage the assistance of the manufacturer to resolve issues related to software problems when necessary and where appropriate. On an "as needed" basis, the Contractor will be required to provide the County with technical support and respond to questions with respect to any

equipment and software system. Such support will be provided at no additional charge to the County.

5.3.18 System Updates

5.3.18.1 System updates shall consist of all actions necessary to incorporate hardware and software updates in the PARCS to ensure performance to original Specifications. Maintaining the System to keep it up to update shall be included in software license costs. Contractor shall provide error correction, updates and third-party software only after obtaining the written approval of the County. Vendor supplied documentation of updates to reflect these software changes shall be submitted within fourteen (14) days of completion of said software updates. Contractor shall also make new releases of third-party software available to the County at the County's option and expense.

5.3.18.2 The Contractor shall provide system updates services on a basis that ensures that the system software, including all third-party software, shall be the manufacturer's "current" version. The Contractor shall have fourteen (14) calendar days from the time an update or patch is released by the software manufacturer to process updates and patches in accordance with the requirements stated in the software maintenance section herein, except security vulnerability patches, which must be processed as soon as possible.

5.3.18.3 Contractor shall test all software upgrades, modifications, and changes in the Contractor provided test system prior to implementation in the production system. The County shall provide approval to migrate to a production environment prior to implementation. Depending on the severity of the upgrade, modification or change, the County may choose to witness testing before approving implementation in the production environment.

5.3.18.4 Contractor shall provide a change control methodology to document system changes and approvals prior to implementation.

5.3.18.5 The Contractor shall support upgrades to its application based on operating system patch and upgrade requirements (For example, if the PARCS runs on a Microsoft operating system, the software shall be patched according to the Microsoft patch and upgrade schedule without breaking any application. If Microsoft decommissions a specific version of an operating system, the Contractor shall release code compatible with next operating system upgrade prior to Microsoft ending support for current operating system, at no cost to the County.)

5.3.18.6 The Contractor shall commit to providing corrective patches and upgrades in the event security vulnerability or system availability issues are found within fifteen (15) business days of said discovery or sooner if approved by the County.

5.3.18.7 Copies of all software (and software updates/upgrades made during and after the warranty period) must be provided to the County at the conclusion of the warranty period.

5.3.19 Software Maintenance

For all PARCS Systems (including their component equipment) covered under this Contract, the Contractor shall provide software maintenance for the operating system, applications software, third-party software and third-party tools, and database that was furnished and installed by the Contractor. Software maintenance shall include but not be limited to the following:

5.3.19.1 **Error Correction**: If the system does not meet the operational availability or function in accordance with the manufacturer's stated functionality and performance due to errors in software or any modifications thereto, the Contractor shall correct any such error in the system as identified by the County. Errors shall include, but not be limited to, flaws in operations and errors due to

flaws in the design and coding of the System. Upon notification of the error by the County, or discovery of the error by the Contractor, the Contractor shall dispatch trained personnel to repair, replace and correct all malfunctions required for the System to perform in accordance with the manufacturer's stated functionality and meet the operational availability within one (1) business day from the date of notification. The Contractor shall provide documentation in machine-readable format, if any, relating to the error correction. The corrected software shall be tested by the Contractor in an off-line test environment. The Contractor shall then prepare a test and demonstrate to the County's satisfaction that the error has been corrected and submit it to the County for review and approval before the corrected software is installed into the production System. Such corrections to the software shall be provided at no additional cost to the County. The Contractor's obligations for the performance and completion of such error correction in order to ensure that the equipment meets the operational availability and functions in accordance with the manufacturer's stated functionality and performance within the required timeframe shall be a material and essential requirement. The Contractor guarantees that it will use best efforts to complete the performance of such error correction within the required timeframe.

5.3.19.2 **Software Updates:** The Contractor shall notify the County whenever Contractor furnishes upgrades and/or enhancements to the operating system, the application software, and third- party software or third-party software tools used by the System when they become available. The Contractor shall also provide the County with an analysis of the potential effects of such upgrades/enhancements on the System. This analysis shall include, at a minimum, the following:

e. Compatibility of the application software with the new operating system or third-party software.
f. Compatibility of the upgrade with the system architecture, server and communications infrastructure.
g. Infrastructure improvements required to support the upgrade.
h. Potential increases or decreases in equipment performance.
i. The availability of product support for the current (older) version of the operating system or third-party software.
j. The cost of the software upgrade, including testing and any other tasks which may be associated with the upgrade.

The RPA will then determine whether or not to order the upgrade. If the RPA selects the upgrade, the Contractor shall perform the upgrade on the System, test the System, and update all applicable documentation, in accordance with the contract terms.

5.3.19.3 **Adaptive Changes**: In the event changes to the computing or network environment are disruptive to the System or prevent the System from meeting the operational availability or function in accordance with the manufacturer's stated functionality and performance, the Contractor shall implement corrections to the software or system configuration to mitigate those changes to the computing environment. Upon notification of the disruption by the RPA, or discovery by the Contractor that the system is not operating in accordance with the manufacturer's stated functionality and performance, the Contractor shall dispatch trained personnel to correct the disruption and restore system operation. The Contractor guarantees that it will use its best efforts to implement required corrections as soon as practical based on the nature of the disruption and criticality of the lost services. The Contractor shall implement all changes, test the system, and update all applicable documentation.

5.3.20 Manage Cybersecurity Vulnerabilities

The Contractor shall monitor, evaluate, track, log, and immediately report on any exploited cybersecurity vulnerabilities or other vulnerabilities related to the software used in the equipment. The Contractor shall work with the County to address any identified vulnerabilities and mitigate all security/malware/virus alerts.

5.3.21 Delivery, Storage and Handling

5.3.21.1 Contractor shall be responsible for insuring all shipped items. Any items damaged during shipping shall be replaced and shipped to the project site, by expedited means if requested, at no charge to the County.

5.3.21.2 The County will provide the Contractor with a designated storage/staging area for PARCS equipment that has not been installed.

5.3.21.3 Equipment must be delivered to site in manufacturer's original containers to prevent damage and marked for easy identification.

5.3.21.4 Contractor shall receive, inspect and sign for all deliveries.

5.3.21.5 It is the Contractor's responsibility to protect the delivered equipment from theft and damage until final acceptance including installation of fencing, locks, and any other security measures. Should the stored equipment be stolen or damaged prior to final acceptance, the Contractor shall replace the equipment at no additional cost to the County.

5.3.22 Implementation

5.3.22.1 The Offeror must submit a detailed transition and implementation plan with the proposal for the transition from the existing system to the new PARCS. The Implementation Plan shall be a complete plan for implementation, training and testing and shall include provisions for the new PARCS to operate concurrently with the old system until implementation is complete. This plan shall be developed in an industry standard project management software and should include but not be limited to the following:

a. Milestone dates in the form of a Gantt Chart schedule.
b. Narrative description of phasing to decommission each lane, install new field devices, perform lane acceptance testing (LAT), and activate for public use.
c. A lane switchover approach.
d. Training timing as system is activated.
e. Decommissioning strategy for existing PARCS equipment that maintains all critical systems and functionalities throughout the switchover process.
f. Contractor recommendations that benefit the overall project schedule and switchover process.

5.3.22.2 The Offeror should submit in their proposal details of at least three facilities where similar systems are installed and operational. The County's staff and its representatives may visit these sites to learn and evaluate the capabilities of those systems. These site visits will be organized by the County.

5.3.22.3 The implementation plan shall also include software and hardware testing phase. The schedule shall include fixing any issues that may be identified and retesting the system after the issues are fixed.

5.3.22.4 Provide qualified staff that shall assist, consult, install, train and oversee the implementation of the system.

5.3.22.5 Within ten (10) days of receipt of the executed contract, the Contractor must provide a complete project timeline to the County.

5.3.22.6 Provide integrated implementation process that incorporates on-line tools, onsite and web based technical services and on-site consultation.

5.3.22.7 Assist in the development of reports prior to implementation.

5.3.22.8 Provide an on-site support member during the launch of the new software to help and monitor any issues that may come up.

5.3.23 Installation

5.3.23.1 The design and installation of the proposed PARCS, including electrical, cabling, conduit, and concrete work must be consistent with latest Parking Management Design Criteria and applicable industry standards for safety and best practices. A copy of the As-Built drawing must be provided to the County upon completion of the project.

5.3.23.2 The Contractor and/or all sub-contractors are required to obtain all required permits.

5.3.23.3 Proposals shall provide a detailed description of the installation process including the services that will be performed as part of the installation. The Contractor shall install the parking and revenue control equipment as follows:

a. New communication and control wiring pulls to each device.
b. New communication wire pulls to parking office.
c. Mount in place all equipment.
d. Install all new vehicle detector loops.
e. Inspect the parking and revenue control system.
f. Provide a complete operating system.
g. Any power required and intercoms to make the system functional.

5.3.23.4 Electrical components shall meet all local and national electrical codes. It is the Contractor's responsibility to verify that there is sufficient power to deliver a fully functional system. Electrical requirements shall include:

a. Provide and pull all low-voltage control wire and cable.
b. Hook-up all low-voltage control wire and cable.

5.3.23.5 The Contractor shall be responsible for providing the necessary work to ensure a fully functional system is delivered. All areas of pavement and curbs disrupted during the project must be returned to an acceptable condition that is approved by the County.

5.3.23.6 General - All equipment and accessories are to be installed in accordance with manufacturers' recommendations and final shop drawings, and as specified herein.

5.3.23.7 Protection: Provide final protection necessary to ensure that the equipment will be without damage or deterioration at the time of acceptance.

5.3.23.8 Proposals should provide a detailed description of the process involving removal of existing equipment and any components associated therein.

5.3.24 Training

The Contractor must provide a plan for in-depth technical training for County staff and Contractors. All required instruction manuals, class materials, instructor's costs, travel and lodging costs must be furnished by the Contractor and included in the Cost Proposal (See Attachment F).

5.3.25 Warranty

5.3.25.1 All equipment must be covered by a manufacturer's warranty via the Contractor, covering all parts and labor for a two-year period, excluding misuse or vandalism.

5.3.25.2 The warranty period will start once the equipment is installed, operational, and is approved in writing by the County.

5.3.25.3 Contractor shall provide extended parts and labor warranty for years three, four, and five.

5.3.25.4 Local service shall be provided to maintain all equipment and systems during the warranty period with two (2) regularly scheduled preventative maintenance calls included during each year covered by the warranty.

5.3.25.5 In addition to scheduled maintenance, in the case of any malfunction, the Contractor must respond within two (2) hours of the County's request for service. No equipment, system, or component shall be left non-operable after a 24-hour

period following notification by the County. Saturdays, Sundays and holidays shall be included in the expected repair warranty coverage.

5.3.25.6 During the warranty period, software modifications (upgrades) that improve the functionality of the system shall be provided to the County at no additional cost.

5.3.25.7 All warranties are to be delivered to the County prior to commencement of the warranty period.

5.3.26 Post-Warranty Maintenance Services

Contractor shall provide the cost details for providing system warranty and support services. This includes all equipment, hardware, software and services. Contractor shall describe manufacturer and installer warranties that are provided as part of your proposal. Any required maintenance of the system during the warranty period shall be detailed. Maintenance responsibilities and services with related costs should also be detailed.

5.3.26.1 Preventative maintenance to be carried out on a cyclic basis, with appropriate equipment functions being checked monthly or more frequently if necessary. Documentation shall be made available for customer inspection on site.

5.3.26.2 Fault repair on call out, subject to 2-hour response time and 4-hour repair time for faults reported during normal business hours. For calls outside business hours, maximum response and repair times would be 3 and 6 hours respectively.

5.3.26.3 Normal business hours are 8:00 AM to 5:00 PM Monday-Friday. Additional call out on demand for other periods at predetermined hourly rates.

5.3.26.4 Software update and error correction shall be provided as part of the service support function, so that the system is not outmoded or disadvantaged in terms of reliability, spares availability, and repair diagnosis.

5.3.26.5 Equipment or parts to be excluded from the maintenance contract are to be defined, together with estimates of operational life and replacement costs.

5.3.26.6 A monthly analysis of faults and repair statistics will be required.

5.3.27 Liquidated Damages

In the event of losing entry/exit and/or revenue collection capabilities, the Contractor shall reimburse the County for all lost revenue for the hours, days and nights while the system was down. The amount of lost revenue will be determined by the County based on the average revenue collected over the past two (2) years for the same hours, days and nights.

5.4. **Offeror's Qualifications**

5.4.1 Offeror must have worked successfully with equipment manufacturer for a minimum of three (3) years. Offeror must have current version of each primary component currently operating successfully in one or more parking facilities of similar size and activity. Provide the following for each installation:

a. Name of project
b. Location
c. Contact name, telephone number and email address
d. Date of installation
e. Number of lanes
f. Description of equipment and quantities

5.4.2 Contractor must have approved equipment service center in sufficient proximity to respond to on-site service calls within a two (2) hour period.

5.5. **Contractor's Responsibilities**

5.5.1 The Contractor will be responsible for providing a fully tested, functioning PARCS. The system includes all hardware, software, reports, and support services as described in this RFP.

5.5.2 The Contractor agrees to use the key personnel and sub-contractors identified in the proposal in the performance of work described in this RFP. No changes to the listed key personnel, shall be made without prior written approval of the Contract Administrator or designee. If the key personnel individuals are unable or unavailable to perform the services under the Contract, the Contractor must replace the individuals with key personnel of equal or better qualifications and

must obtain the Contract Administrator's or designee written approval of the replacement personnel.

5.5.3 The Contractor shall designate a Project Manager to act as a coordinator between the County and Contractor during the entire contract period. This person shall be accessible to County staff by cell phone during all hours of operation.

5.6. **County's Responsibilities**

5.6.1. The County will provide electrical power sources for the PARCS.

5.6.2. The County will provide cellular or wire internet connection for the PARCS.

5.6.3. The County will maintain and monitor all PARCS equipment per Contractor's specifications.

5.7. **Financial Reporting**

5.7.1 The PARCS software must provide to the County and allow County staff, at various access levels, the right to generate and format custom reports. Below are the minimum revenue reports required for the new PARC system. The PARC system must be able to generate, query, and deliver reports automatically via email to users (personalized reports) which can be set by the management users. Please include samples and/or screen shots of all reports in Proposals.

Auditing Reports

a. Alarms
b. Audit Report
c. Active Access Card Holder Report
d. Cashier Settlement Report
e. Station Transactions
f. Entry/Exit Gate Transactions
g. Revenue Collection Reports
h. Revenue Replenishment Reports
i. Revenue Balance per Station Before and After Collections
j. All Statistic Reports
k. Length of Stay Statistics
l. Duration of stay report with ability to breakdown by 30-minute increments
m. Operations
n. Hourly Peak Occupancy reports

Revenue Reports

a. Revenue Activity
b. Revenue Comparison
c. Revenue History
d. Revenue Overview
e. Cashier Settlement Report
f. Credit Card Policy settings by Pay Station
g. Credit Card Revenue Transactions
h. Credit Card Request and Response/Settlements
i. Credit Card Revenue by Batch Submitted to the Credit Card Processing Company
j. Credit Card Lost or abandoned transactions
k. Void and Declined Transactions
l. Pay Station Transaction
m. Access Cards

The system should have the option to run each report available by detail and summary. Summary reports must display graphs, charts, or dashboards.

All reports should have the ability for custom ranges of revenue data (current, daily, weekly, monthly, and quarterly).

All reports should be available in Microsoft Word, Microsoft Excel (Ideal for Pivot), Microsoft Excel (Ideal for Graphs), RTF, CSV, Microsoft Word, and PDF.

5.7.2 Additional financial reports may be required to comply with directions from the County's Finance Department or outside auditors. The Contractor must provide any additional reports requested by the County.

6. SECTION C - PERFORMANCE PERIOD

6.1. TERM

The effective date of this Contract begins upon signature by the Director, Office of Procurement. The period in which Contractor must perform all work under the Contract begins upon the County's issuance of a Notice to Proceed and ends after a two (2) year period. The Contractor must also perform all work in accordance with time periods stated in the Scope of Services. Before this term for performance ends, the Director at his/her sole option may (but is not required to) renew the term. The Contractor's satisfactory performance does not guarantee a renewal of the term. The Director may exercise this option to renew this term three (3) times for one (1) year each.

6.2 PRICE ADJUSTMENTS

6.2.1 Prices quoted are firm for a period of two (2) years after execution of the contract. Any request for a price adjustment after this two-year period is subject to the following:

6.2.1.1. Approval or rejection by the Director, Office of Procurement or designee.

6.2.1.2. Submission in writing to the Director, Office of Procurement and accompanied by supporting documentation justifying the Contractor's request. A request for any price adjustment may not be approved unless the contractor submits to the County sufficient justification to support that the Contractor's request is based on its net increase in costs in delivering the goods/services under the contract.

6.2.1.3. Submission within sixty (60) days prior to contract expiration date, if the contract is being amended.

6.2.1.4. The County will not approve a price adjustment request that exceeds the amount of the annual percentage change of the Consumer Price Index (CPI) for the twelve-month period immediately prior to the date of the request. The request must be based upon the CPI for all urban consumers issued for the Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan area by the United States Department of Labor, Bureau of Labor Statistics for ALL ITEMS.

6.2.1.5. The County will approve only one price adjustment for each contract term, if a price adjustment is approved.

6.2.1.6. The price adjustment, including its effective date, must be incorporated into a written contract amendment.

6.2.2. If pricing is based on percentage discounts, the percentage discount is fixed throughout the term of the contract.

7 SECTION D - METHOD OF AWARD/EVALUATION CRITERIA

7.1 PROCEDURES

7.1.1. Upon receipt of proposals, the Qualification and Selection Committee (QSC) will review and evaluate all proposals in accordance with the evaluation criteria listed below under Section D.7.1.9.a.

7.1.2. Vendor interviews will be conducted with the two (2) highest scoring offerors based on the QSC's score for each written proposal. The interview criteria that will then be utilized are listed below under Section D.7.1.9.b. The QSC will also review an offeror for responsibility.