WAIKĪKĪ TRANSPORTATION MANAGEMENT ASSOCIATION

Request for Information

Parking Technology and Management Services

June 21, 2018

WAIKĪKĪ TRANSPORTATION MANAGEMENT ASSOCIATION
Request for Information
Parking Technology and Management Services

1. Introduction

Over the past several years the Waikīkī Improvement Association (WIA) has been actively working with the City and County of Honolulu's Department of Transportation Services (DTS) to address transportation issues within Waikīkī. One of those issues is how limited curb space is used for parking, loading zones and other purposes. One of the solutions is to better manage curb space including on-street parking through the latest technology applications.

The Waikīkī Transportation Management Association (WTMA) is a special improvement district created by ordinance for the purpose of providing for DTS delegable transportation management services for Waikīkī, including traffic operations, parking control and supply development, mobility enhancements for all modes of travel, physical and operational access improvements, information displays, and the installation and maintenance of related electronic devices.

The WTMA is requesting submittals of from companies who are both capable of, and interested in, providing parking and loading zone management technology, and real-time reporting to the WTMA.

The WTMA's needs are outlined in the following Request for Information (RFI). The RFI provides key information about Waikīkī and its current parking conditions. It includes forms which all respondents are required to use to provide both company information and details about their relevant experience in parking and curb zone enforcement. The RFI will be followed by the release of a Request for Proposals (RFP). The WTMA strongly encourages all capable and interested parties to respond to the RFI.

If you are considering submitting a response to this RFI, please advise Ms. Venessa Frysztacki at TMAWaikiki@gmail.com at your earliest convenience. Only those who do so will be informed of the release of any addenda to this RFI and responses to questions from prospective responders.

The WTMA is interested in identifying capable firms who understand the key concepts of parking technology management, can develop their own management strategies and analytical tools which will allow the contractor to proactively manage its staff, provide good customer service to the public while effectively assisting enforcement of parking and curb zone regulations.

2. Background

DTS completed the Waikīkī Regional Circulator Study (WRCS) in 2013. Many of the study recommendations are being implemented with the City's ongoing Waikīkī Area Transportation Catalytic Improvement Project (WATCIP). WIA sits with others on the Waikīkī Transportation Stakeholders Oversight Committee (WTSOC) to provide direction to the City and its consultants. While WATCIP will implement some WRCS recommendations, many others remain to be addressed, especially those that address curb management problems that have been further examined by subsequent investigations. A list of reference material is included in Attachment A and is available upon request.

Immediate solutions are needed to better manage transportation in Waikīkī. The private sector has been filling this void. The WIA Board authorized the formation of the WTMA to establish those projects, programs, and procedures that will serve Waikīkī with high-quality, multi-modal, transportation facilities and services in cooperation with the City.

The WTMA is concerned about all aspects of parking and transportation in Waikīkī. We view parking to be part of a complex puzzle that can be best solved from dynamic real time management of limited curb space. Some solutions might involve multiple uses of the same curb space by time of day. Others might involve variable parking fees and permit eligibility by time of day.

Some of our private transportation businesses have stepped forward to voluntarily fund the WTMA to provide guidance and support doing whatever we can to better manage transportation within Waikīkī. Our first project was the commercial passenger loading zone along Royal Hawaiian Avenue. The WTMA worked with the City and DFS Galleria to install new regulatory signs along Royal Hawaiian Avenue. The change in regulatory signs is part of an overall plan to improve traffic flow, pedestrian safety and vehicle loading efficiency, and traffic flow improvements are very noticeable.

Royal Hawaiian Avenue is one of several trouble spots. Others include the commercial vehicle operations along Kalākaua, Ala Moana Boulevard, Seaside, Koa and Lewers. Along these streets and others properly permitted commercial passenger and freight vehicles must routinely park where prohibited to keep Waikīkī functioning. Designated on street parking spaces and loading zones are not adequately managed forcing many crucial commercial operators who need to use curb space to do so while illegally parked. It is widely acknowledged that if the Honolulu Police Department (HPD) were to enforce all violations it would cause great economic disruption, but to continue with disregard for

regulatory signs and reasonable safety practices is not acceptable. We have reached a point where action is needed.

The WTMA has possible solutions to these and other problems. Some of the future funding needed to refine, design and implement these solutions is proposed to come from on-street parking revenue generated through the recommendations of the Waikīkī Parking Meter Study and Pricing Plan. One recommendation was to use the WTMA to manage parking and use parking revenue to reinvest in Waikīkī.

3. Objectives

The objectives for the WTMA's Parking Technology and Management Services project include a two-step RFI and RFP process to select a vendor:

- That can provide the full spectrum of services needed.

- That can meet desired basic equipment and service specifications.

- Whose system can support WTMA's performance and financial expectations with advanced rate structure capabilities, daily transaction data transfer to WTMA and other parking service applications.

- With an established back office capability to integrate parking-related data from multiple systems (e.g., on-street paid parking transactions, pay by phone transactions, enforcement handheld ticketing system, license plate recognition systems, etc.)

- With demonstrated delivery of reliable wireless two-way communication.

- Whose equipment and maintenance agreements are "future-proofed;" i.e., that provides flexibility or guarantees for continued function notwithstanding potential changes to cellular networks and obsolete system components.

- Whose equipment is easy to use and has a record of excellent reliability and technical support

- Who is responsive, in a timely manner, to concerns identified by the WTMA, the City and the parking public.

4. Scope of Work and Technical Specifications

A draft scope of work and technical specifications is included in Attachment B. The purpose of this RFI is to seek review and comments from this draft before it is released as an RFP. The WTMA is interested in learning how each vendor can provide technologies and services equal to or better than those provided in Attachment B, which is detailed to relay the level of the expectations and needs of the WTMA.

The WTMA is working with the City to transition from parking meters to pay stations with pay by account, cell phone applications, RFID recognition, license plate recognition technologies and more up and coming technologies being of high interest. Please share your experience and knowledge in these and any other applicable areas that you believe may be beneficial. The WTMA requests details regarding experience, as well as Vendor's views on the advantages and disadvantages of pay by different methods.

The WTMA is interested in understanding the Vendor's approach to product innovation and new technology. There are several innovations and options that WTMA is interested in pursuing either now or at some time in the future.

Such a list could include the ability to:
- Accept other payments (tokens, validations, smart cards)
- Accept various methods of payment (pay station, cell phone, smart phone)
- Charge an alternate price (or no price)
- Allow vehicle license plates to be entered (for pay by plate)
- Select a special type of vehicle (motorcycles, electric vehicles)
- Offer so-called "Entitlement Services" (resident permits, discounts, validations, etc.).
- Enforcement options and parking management solutions
- License plate recognition
- RFID technology

The WTMA is interested in knowing how elements such as these might be developed and incorporated, and how the WTMA and vendor might work together to achieve them.

5. Minimum Qualifications

This RFI seeks expressions of interest from any vendor that considers themselves qualified. WTMA reserves the right to waive the following minimum qualification expected.

1. The vendor or vendor team should have demonstrated the ability to support an on-street paid parking and loading zone operation of the size and complexity of Waikīkī by having worked on at least one single installation of no less than 200 solar-powered, credit card accepting parking payment devices and including one location involving loading zone management.
2. The vendor or vendor team should demonstrate experience with wireless communications by having at least one single installation of no less than 200 parking payment devices using wireless communications to authorize payments and transmit parking payment data in real time. These wireless communication devices shall include high-speed broadband, mobile data, solar-powered, on-street pay stations.
3. The vendor or vendor team should demonstrate the financial and staff resources to successfully complete the delivery of the equipment, operational management system, and installation services by having worked on an installation of at least 200 parking payment devices fully operational over a three-year period.

4. The vendor or vendor team shall demonstrate history and experience in managing, operating, and supporting at least two on-street paid parking operations in a three-year period.
5. The vendor or vendor team shall have pre-existing customer service infrastructure including, but not limited to, a call center, deployment teams, and operations and maintenance staff.

6. Vendor Profile

Vendors interested in responding to the WTMA's RFI and RFP must submit the Respondent Company Profile and Client Profile Forms in Attachment C to present key information about your company and your parking management contracts. Use as many forms as necessary. Such information is of substantial importance to the WTMA in reviewing responses. We request that you submit a minimum of three and a maximum of five client referrals. We also welcome company brochures, marketing material, research papers and any other company documentation you think will be helpful in preparing the RFP's proposed scope of services and technical specifications included in Attachment B.

7. Submittal Requirements

Responses must be addressed and delivered as follows:

> Mr. Rick Egged, President
> Waikīkī Transportation Management Association
> 2250 Kalākaua Avenue, Suite 315
> Honolulu, Hawaii, 96815

The WTMA requests that all responses be provided in a sealed package clearly marked in the lower left-hand corner: "RFI – Parking Technology and Management Services." Please provide two (2) printed copies of your response plus one copy of the response document in pdf format NO LATER THAN 4:00pm HST, on August 3, 2018. The WTMA reserves the right to accept or reject late responses.

The WTMA strongly encourages all capable and interested parties to respond to the RFI. The WTMA is interested in identifying firms who have successfully implemented parking programs, deployed advanced technology systems, understand the key concepts of parking and loading zone management, can develop their own management strategies and analytical tools which will allow the contractor to proactively manage its staff, provide good customer service to the public while effectively enforcing parking regulations.

You may submit questions about the RFI by email no later than 4pm HST, on July 20, 2018, to the attention of Ms. Venessa Frysztacki at tmawaikiki@gmail.com. All questions received will be responded to by e-mail.

WAIKĪKĪ TRANSPORTATION MANAGEMENT ASSOCIATION
Request for Information
Parking Technology and Management Services

ATTACHMENT A – List of Reference Material

Ordinances 17-57 and 17-58

Waikīkī Parking Meter Study and Pricing Plan; Walker Parking Consultants; Prepared for the City and County of Honolulu; June 19, 2015.

Transportation Assessment of Commercial Vehicle Operations Along Ala Moana Boulevard in Waikīkī; Weslin Consulting Services, Inc.; A Technical Analysis Prepared for E Noa Corporation; October 2014.

Royal Hawaiian Avenue Commercial Vehicle Operator Transportation Assessment; Weslin Consulting Services, Inc.; Prepared for E Noa Corporation; December 2013.

Waikīkī Regional Circulator Study; Weslin Consulting Services, Inc.; Prepared for the City and County of Honolulu Department of Transportation Services; June 2013.

Waikīkī Transportation Management Association

ATTACHMENT B – Possible Scope of Services
and Technical Specifications

General System Requirements

In Waikīkī, the WTMA will assist the City by implementing recommendations from several studies. These include converting all 1,017 on street parking spaces and some loading zones to pay station and/or RFID technology-controlled curb zones.

The first stage of this plan will be to address the ±347 unstriped and unmetered parking spaces along the Ala Wai Boulevard, beginning with the ±137 spaces section between Ala Moana Boulevard and Kalākaua Avenue and the 24 stripped and unmetered spaces on Hobron Avenue (see attached graphic). This is a residential area of Waikīkī. The vendor may include an option for the remaining ±210 unstripped, unmetered spaces along the Ala Wai Boulevard between Kalākaua and Kapahulu Avenues. It will be determined if it is advantageous to maintain the truncated pilot area or proceed with installation along the entire span of the Ala Wai Boulevard. The WTMA is interested in strategies to encourage motorcycle parking in new identified smaller stalls versus using full-sized spaces.

WTMA is working toward creating a curb zone management program using technology that allows for the capability for a time of day rate structure, pay by credit card, smart card (Holo card), pay by phone, pay by permit and other pay options. The WTMA would like an option to preserve the ability to accept pay by coin in a limited number of pay stations, with the long-term goal of phasing out this method. The WTMA is interested in learning if including a pay station capable of accepting coins in a zone would be cost efficient and of community benefit.

The need to provide flexible parking rate structures that promote the desired parking and loading zone behavior is crucial. The Vendor's information should reflect the capability of current on-street parking payment and loading zone management technology.

The selected vendor will be responsible for both the removal of the old equipment, where applicable, to a WTMA designated site and installation of the new system. Installation is expected to begin within six months to permit sufficient time for community outreach, curb space design and engineering to be completed.

System Operational Priorities

Effective utilization of the on-street parking and loading zone resource is a key component of the WTMA's traffic management and urban mobility strategy. The paid parking program directly impacts the vitality of the tourist area and livability of the residential streets. A highly reliable and technically advanced paid parking and loading zone management

system, supported by a proactive committed vendor, is extremely important to achieving WTMA and City parking and loading zone program priorities:

Wireless Communication Dependability

The WTMA seeks a vendor with a commitment to robust reliability, problem identification and tracking. Rapid response and resolution of these issues is a key objective of this RFI and RFP process. Reliability of the wireless communications system to ensure real-time, accurate data for parking and loading zone enforcement becomes essential should the WTMA and the City elect to deploy a pay by plate technology.

Performance-Based Parking Program Capabilities and Analytics

WTMA intends to support a Performance-Based Parking Program to be at the leading edge of on-street municipal parking and loading zone control. A vendor whose payment equipment and back-office can provide required technical capabilities as well as advanced and nimble analytics for managing this new and complex environment will be critical. The ability to contribute experiences from other successful parking operations will increase the probability for success. The WTMA is seeking a vendor with an understanding of performance-based parking systems, and one who provides hardware, software and knowledge that advances the attractiveness of a highly sensitive visitor environment.

System Integration

Integrating parking payment and loading zone utilization data and subsequently sharing it with WTMA management and customer service applications provides an opportunity to significantly improve the effectiveness of the on-street paid parking and the loading zone management program. A vendor whose management system has the potential to establish a central coordination point, as the system of record, for on-street transactions will provide a meaningful system efficiency contribution. This data coordination could include multiple payment equipment vendors, pay by phone transactions, alarm notifications, data transfer to WTMA systems as well as application developers, and real-time payment data to the enforcement system. It is critical to have these systems interact seamlessly.

Future Capabilities and "Future-Proofing"

WTMA is looking for a vendor with whom to plan for inclusive changes in technology, cellular communications and parts obsolescence. The WTMA has a limited ability to fund large unanticipated immediate technology upgrades and is looking for a way to normalize these costs and risks using innovative lease, rental or extended warranty agreements. A forward-thinking vendor who will incorporate development and technology solutions into their proposal will facilitate this objective. WTMA welcomes ideas from vendors on how to incorporate this concept into the RFP.

Parking Rate Management Requirements

The WTMA's intent is to require more than a fixed hourly rate during parking payment and loading zone hours to achieve the desired parking and loading zone behavior. Curbside zone management will be done on a block-face by block-face basis with even each block-face having potential variable dynamic real time changes in allowable utilization. WTMA anticipates potentially adding time of day rates, flat rates during certain time periods, seasonal rates, event rates and progressive rates.
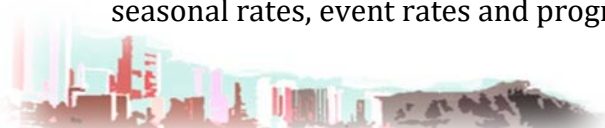
The selected vendor's system must have the following parking rate management and customer notification capabilities:

1. The pay station vendor's back office will eventually be the real-time data source for all payment data. This includes pay by phone transactions and potentially other payment vendor transactions.
2. The pay station vendor's back office must have the capability to manage block face specific parking regulations. Variables include:
    a. Morning peak hour restrictions for certain days of the week
    b. Evening peak hour restrictions for certain days of the week
    c. Combined morning and evening peak hour restrictions for certain days of the week
    d. Bus layover restrictions for certain days of the week
    e. Pre-purchase of parking on non-restricted block faces prior to the next morning's paid parking hours
    f. Maximum parking durations for specific block faces
    g. Different days and hours of operation for areas/block faces
    h. Potentially, different rates for different user classes (e.g. motorcycles/scooters, etc.)
3. In a pay by plate configuration, vehicles will only be allowed to purchase either up to the maximum posted duration or up to the latest legal paid parking time for a specific block face during a continuous parking session. This could include combined on-street and pay by phone purchase transactions. The pay station vendor's system will be the system of record.
4. The purchaser of time at the pay station must be notified during the transaction process when their requested purchase amount exceeds a maximum permitted stay or infringes on a restricted parking period designated for that block face.

Parking rate structure requirements:
The current parking rates in Waikīkī are $3.00 per hour from the hours of 6am to 10pm, but a residential permit program is intended to be implemented to grant residents special parking rates and WTMA requires the following flexibility in rate structures to fine tune rates to market pricing and demand as needed.

1. The following types of rate structures are required:
    a. Fixed rate per hour of parking time during paid parking hours
    b. Multiple fixed rate per hour "time of day" parking rate segments during paid parking hours (for example: 8am to 11am: $1.00 per hour; 11am to 5pm: $1.50 per hour; 5pm to 8pm: $2.00 per hour)
    c. Special event or a fixed flat rate parking for specific or regular times or dates
    d. Multiple progressive "time of day" rate structures during paid parking hours. (For example, a progressive rate structure might be $1.00 per hour for the

first hour, $2.00 per hour for the second hour and $3.00 per hour for the third hour)

2. When parking time is purchased and the purchased time block overlaps two time of day rate structures, the rate management system must correctly calculate the time and cost of time requested during the first rate period and add it to the time and cost of time purchased during the second rate period.
3. Rate must show on display in initial greeting screen.

Enforcement Requirements

The WTMA vendor must be prepared for the development and set-up process for the deployment of a new handheld citation issuance system. The new system will have wireless capability and a data query interface connected to the WTMA on-street parking pay by phone service vendor's back office for vehicle parking payment information by license plate number, location number and block address location.

With the selection of a pay station vendor through this RFI and RFP process, WTMA expects the vendor's back office application to function as the system of enforcement payment record for current pay by phone transactions and potentially for pay by license transactions in the future.

Any hand-held citation issuance devices will need to have established a data query interface to the on-street parking and loading zone payment equipment vendor's back office for vehicle parking and loading zone payment information by license number and block face location. This data exchange interface is necessary to enforce a pay by phone parking payment service. It will also be required for parking management and enforcement efficiency.

The expected data elements that will need to be transferred between the on-street parking and loading zone payment equipment vendor web-based management system and the citation issuance device will be:

1. Numbered space payment status for pay by space parking areas or zone
2. Paid license plate numbers, locations and expiration time for real-time or on-demand download to handheld units. (Paid license plates will include both pay by phone and, potentially, on-street payment transactions)

The WTMA is interested in vendor response on providing parking management and enforcement services as part of their scope of services. The WTMA would also like to use a fee-based system of enforcement versus a municipal parking ticket. The WTMA is interested in vendor experience and available services on these matters.

Transit Requirements

The WTMA requires that the new Honolulu transit smart card, the Holo card, be able to be accepted as payment for parking. The Holo card will enable passengers to load funds to pay for Oahu Transit services including TheBus and the upcoming rail service, upon it's

completion. The Holo card pilot began at the end of April on approximately 10% of the bus fleet and the full roll-out is anticipated by the end of 2018.

Pay stations may also serve as transit ticket vending devices for the Waikīkī Connector, a BRT type service operated consistent with the recommendations of the Waikīkī Regional Circulator Study. No pay station, however, will have to dispense both parking and transit tickets, but if they could, that would be a very attractive feature. The parking and transit pay stations are not co-located, but they could be integrated sharing certain programmatic benefits for users. While multiple fare options, such as child, adult and senior fares, are required, the WTMA is interested in understanding the full range of fare options that are available with the vendor's possible transit fare software. The ability to purchase multiple tickets with a single transaction is considered a plus.

Installation Service Requirements

The vendor will be asked to provide a proposed system installation approach to satisfy the requirement for delivery and deployment of the new parking system along the Ala Wai Boulevard starting during late 2018 to early 2019. The WTMA would like to replace all parking meters in Waikīkī in 2019. As part of the vendor's work plan in the RFP the vendor should address the following items:

1. The proposed system design, set-up, installation team structure and interface with WTMA parking operations and maintenance organizations.

2. Planned work activities required to design, plan and execute a successful system installation program.

3. A timeline for delivery, set-up, training, testing and installation of the required system.

4. System acceptance testing and turnover process.

5. System training and technical support program for the installation period.

6. Maintenance and spare parts inventory set-up to support ongoing operations.

WTMA will work collaboratively with the vendor's installation team to manage any required permitting and space closures. WTMA will also facilitate coordination with the City and property owners.

General System Operational Requirements

The WTMA is interested in the new parking pay stations having the following features and capabilities:

Payment Options

1. Credit and debit cards: Visa, MasterCard American Express and Discover using real-time PCI compliant authorization protocols. The gateway credit card processor must be Level 1 PCI certified; the hardware shall be PSS certified. However, if hold and send capabilities are utilized, the hardware must also be Level 1 PCI certified.
2. A pay by phone vendor
3. Pre-paid magnetic strip smart cards such as the Holo card
4. Permit by PIN, by license plate or another ID.

General Requirements

1. Provide ADA compliance for on-street purchase transactions
2. Support pay and display, pay by space or pay by license parking
3. Transit ticket purchase capability may be required for a limited number of pay stations for City bus services.
4. Be solar powered, with rechargeable battery and wireless communications provided by the vendor as a communications service or alternate acceptable proposal.
5. Communicate real time alerts concerning maintenance and collections conditions and failures to designated WTMA staff.
6. Be supported by a back-office data storage, management and analysis system accessed by the WTMA via a standard web browser.
7. Report transactions in real time and have the back-office application function as the system of enforcement payment record for pay by phone and pay by license transactions

Pay Station Mechanical and Electronic Requirements

Pay Station Housing

1. The pay station housing will be water resistant. Retrofit options must address the need to provide "like-new" water resistant performance for the entire pay station at the end of the retrofit process.
2. The housing will be fabricated of corrosion resistant material suitable for the Hawaii marine environment.
3. The surface will be of a graffiti resistant finish, easily cleaned without discoloring. Retrofit options shall propose improving/refreshing (e.g. cleaning/repainting) exterior.
4. The maintenance compartment and collection vault will be separated with separate access doors and keys.
5. The access doors, hinges and housings will be vandal resistant.
6. The collection door lock will have high security, anti-drill protection.

Maintenance Compartment
1. The component layout will support ease of access for maintenance troubleshooting and replacement.
2. The components will be modular and support rapid field replacement.
3. The WTMA prefers there be a method to manually access the maintenance vault in the event of an electronic lock failure.

Collection Vault
1. The vault door will have an electronic lock.
2. The WTMA prefers there be a method to manually access the vault in the event of an electronic lock failure.
3. Opening the vault door will generate a back-office report that includes an identification of the key used for the entry.

Coin Validator
1. The coin validator will detect foreign coins, slugs and other invalid payment tokens and not accept them as valid payment.
2. Describe the capability to close the coin slot during non-payment hours.
3. Describe the method by which the pay station treats foreign objects deposited in the place of valid coins.
4. If the coin slot is inoperable, the pay station will still accept card payment and display an appropriate customer service message on the pay station display.
5. The pay station may accept, at some time in the future, City designated custom tokens, after appropriate set-up and acceptance calibration testing.
6. Describe the maintenance method to clear blocked coin validator/chute.
7. In a pay and display environment, describe options to return coins to customer prior to their requesting a receipt.

Card Reader
1. The pay station will accept credit/debit card payments using a real time Level 1 PCI vendor managed authorization process.
2. The customer will retain control of their card throughout the swipe process.
3. The card reader will be capable of reading magnetic strip, contactless and chip-based cards.
4. The card reader will accept pre-loaded smart cards, used for refunds and selected customer service responses.
5. If the card slot is inoperable, the pay station will still accept coin payment and display an appropriate customer service message on the pay station display.
6. Describe pay station's ability to sense a card reader failure and issue a maintenance alarm.

Power Supply
1. The pay station will include a solar panel and a rechargeable internal battery.
2. The power supply system will be built into and fully integrated with the unit (as opposed to an add-on solar panel connected to an internal battery).
3. The pay station will contain a separate backup battery to sustain clock, calendar, audit information, and RAM in the event of a main power system failure or during battery replacement.
4. The backup batteries will be replaceable, without the use of special tools.
5. If batteries are lithium, describe the expected life/replacement frequency and disposal cost responsibility.
6. The power supply will have the ability to report battery voltage level and solar charging capacity.
7. The pay station will function properly in outdoor, ambient light locations.
8. Describe the expected main battery life with and without real-time transaction reporting.

Display
1. The display will be backlit in low light situations.
2. The display screen will be protected against scratching and graffiti.
3. Describe the maximum capacity of characters, lines, and fonts on display.
4. The display will have the capability to display messages supplied and downloaded from back office software.
5. The primary on-screen display will be in English. Describe the capability of displaying different languages.
6. Displays will be legible in bright sunlight and dark evenings.
7. The displayed internal clock time will be centrally set and will be consistent across the Honolulu pay station system.
8. Describe expected life of the display unit.

Coin Canister
1. The collection will be performed via a portable cash box system.
2. The canister will be equipped with a self-locking mechanism.
3. The security lock system will be separate from the pay station's other compartments.
4. Describe the coin capacity of the canister.

Printer/Receipts
1. The pay station will include a receipt print option.
2. Describe the printer's capability to either print receipts automatically or upon request by the customer.

3. The printer will be a thermal impression type, where the receipt is printed internally and ejected to the customer.
4. The printer will be equipped with or work in conjunction with a self-sharpening cutter blade.
5. The printer will be capable of printing in different fonts and sizes.
6. Describe the process necessary to modify the receipt design, format, or content.
7. Describe the information that is available to print on a receipt, including a bar code.
8. The printer will print on sticky back receipt paper for pay and display as well as plain paper for pay by plate or pay by space receipts.
9. The printer will be easily removable for repair.
10. Describe the routine maintenance required for the printer and recommended frequency.
11. Describe the specification for the printer paper.

Keypad
1. The pay station will have the capability of including an alphanumeric keypad.
2. Describe the keypad's layout, keys available for special designation and how a customer receives feedback that a button has been pressed.
3. Describe routine maintenance for the keypad and recommended frequencies.
4. Describe the expected life of the keypad and other buttons used for transaction purposes.
5. Describe the pay station's ability to sense a keypad failure and issue a maintenance alarm.

Wireless two-way communications
1. The pay station will be equipped with modem, antenna, and required software to support wireless communications.
2. The wireless communications will be supplied as a "communications service" during the life of the contract, not as a specific type of modem or wireless carrier supply.
3. Describe the modem type: CDMA, GSM and/or Wi-Fi.
4. Identify the likely cellular carrier(s) to be used and the process of determining reliability of signal coverage.
5. The vendor will have an established process to troubleshoot and resolve communication interruptions and failures.
6. Describe the process to identify a communications failure or interruption of wireless service, and associated alarms.
7. Describe the process used by the pay station/back office system for managing transaction data and credit card processing, during a communications interruption or failure.
8. System transactions, both on-street and pay by phone will be communicated to the back-office system in real time to support enforcement queries for pay by phone,

pay by permit and pay by plate. The system will support enforcement queries for vehicle payment status.

9. Describe the credit card payment processing protocol during weak wireless signal occurrences.

Electronic components

1. Key pay station electronic components will be plug-and-play
2. Describe the electronic components that are proprietary and those that are commercially available.
3. Electronic components will be sealed, highly water resistant, and operate in conditions of extreme high humidity and within a temperature range of 40 degrees to 120 degrees Fahrenheit.
4. Describe the tools necessary to replace electronic components.

Mounting

1. Describe the method of installing and securing the pay station in its operating location, including required mounting surface and slope management considerations.

Customer Interface

1. Describe the customer transaction completion sequence with available display prompts, and if there are requirements to follow a specific sequence.
2. The message sequence will clearly indicate when a card swipe does not result in the start of the authorization process and the reason for the problem.
3. The pay station display will clearly confirm the success or failure of a purchase attempt.
4. The display will have various operating status messages to users and maintenance personnel.
5. The customer will have the ability to add and subtract time during a card-based purchase.
6. Describe the ability to modify the incremental change ($ or time) with each add or subtract button push.
7. The vendor will describe its processing of credit card transactions, including processing time (e.g., less than "X" seconds processing time from customer purchase decision to receipt print).
8. Describe the messages to the customer both at the pay station and through the pay by phone service that indicate that either the maximum posted time duration has been reached or that a parking restriction for that block face will impact the amount of time purchase requested (a transaction sequence message tree would be useful).
9. Describe any subscription programs available to support the transition from pay and display to pay by plate. Program shall support a process whereby a customer sets up an account through a subscription application, and by swiping their registered credit

card, be greeted by name and asked to confirm the vehicle license plate already in the system.

10. The WTMA may be interested in customer service call center options. Describe how vendor would provide this service.

Parking Management System Requirements

The parking management system will have the following features and capabilities:

Back Office Operations

1. The back-office application software will be web-based and hosted by the selected vendor, using North American English language descriptions.
2. Describe any limitations on the number of authorized WTMA representatives permitted to have access to the back-office system.
3. The system will have an access management administration feature to grant and control access to data and operational management.
4. General vendor back office application upgrades will be provided to the WTMA during the term of the contract.
5. The back-office system will provide real-time transaction and alarm data available for lookup.
6. Credit card transactions approved off-line due to a wireless communications interruption will be identified in the transaction data.
7. Pay station rate and configuration updates, including holiday schedules, will be managed solely through the back-office parking management system. No pay station visits will be required.
8. Describe the process for WTMA representatives to use the back-office application to set up and send new rate structures, hours of operation, receipt changes and messages to single or groups of pay stations.
9. The system will have map display capabilities and graphic reporting features. WTMA representatives will provide x-y coordinates for pay station locations.
10. The system will be capable of creating multiple pay station management areas.
11. If there is the ability to reprogram a pay station's operating conditions including messages, rate structure, and hours of operation at the unit, describe how these changes are monitored by and reported from the parking management system.
12. Describe the quality control protocols used/available for such issues as ensuring the pay stations are charging the correct rate, are completing credit card transactions, are accepting all credit cards they are supposed to accept, are transmitting all credit card transactions to the banking institution and are transmitting transaction data in real time for accurate pay by plate enforcement.

Reporting
1. The system will provide general reporting and data analysis capabilities including cash box status and revenue collection reporting, alarm status and operation status.
2. There will be a process for requesting and/or developing custom report formats. Describe any development costs that might be included with any proposed services.
3. The system will support the export of selected data and reports in various file formats.
4. A collection report or receipt will be automatically generated at the pay station and recorded in the back-office system upon removal of the cash box. The coin count will reset the level to empty status when a new box is inserted.
5. Describe the data elements available for the collection report.
6. Describe the systems analytical modules and capabilities.

Alarms
1. The system will transmit real-time alarms to designated individuals via management software, email and/or text message. These notifications will be clear and easy to understand.
2. Alarms will clear from the back office in real time, with communications from the pay station.
3. Alarm notifications will be customizable by type, alarm recipient, time of notification, etc.

Data Sharing and Interfaces
1. The WTMA will require a daily transfer of system transaction data. Describe any limitations to storage and transfer of data. Specifically address:
   a. Are there any limitations to periodic client data extractions?
   b. Can data be transferred to another vendor?
   c. Is there a cost for any of the above services?
2. The WTMA will be supportive of sharing real-time transaction data to third-party mobile application developers and for data sharing software. Please describe any objections to such arrangements.
3. In a pay by space, zone or a pay by plate enforcement environment, parking enforcement officers will need to query payment status from the vendor's system. The vendor will be expected to support the development of or provide ability to access payment status data by the enforcement application vendor's system.

Data Security
1. Describe the standards employed for transmitted data encryption.
2. Describe the type of transaction information stored on the pay station, when that information is transferred to the back-office system, how the data transfer is confirmed and how/when information is deleted from the pay station.

3. Describe vendor status and annual review process for compliance with Verification of Payment Card Industry – Data Security Standards (PCI_DSS).
4. Software upgrades necessary to maintain PCI-DSS compliance will be provided to the WTMA during the entire term of the contract.
5. Access to credit card transaction data by WTMA representatives will be through a security controlled standard web browser interface.
6. Describe the vendor's transaction data storage retention policy and storage period.
7. Describe vendor's pay station credit card processing and clearing house.
8. Describe the vendor's credit card processing system and the period between the completion of a transaction and the fund deposit in the WTMA's bank account. Is the deposit time a function of the type of card used?
9. Describe server locations and reliability; discuss any issues that have affected or may affect pay station function.
10. Describe data backup and recovery.
11. Describe how WTMA's data will be secured. Describe how the data will be isolated from other client data.
12. Is regular system penetration testing conducted on the system?
13. Describe what regular IT system health reports are generated and if these are routinely shared with the client.
14. Describe the system redundancy and failover process.

Data Management and Access
1. The hosted applications will be supported by a 24 x 7 automated and alert monitoring system. The vendor is responsible for confirming the integrity and receipt of each data transmission.
2. The vendor will provide and describe the following Recovery services:
    a. Hosting infrastructure and environment recovery process
    b. Application recovery process
    c. Offsite data backup storage via media or cloud including rotation, retention, and periodic testing of data backups
3. The vendor will provide problem management support for all application services. Please provide a description of these services. The WTMA will direct problems encountered with the services provided to a vendor designated Problem Management/Customer Support contact.

Ongoing Warranty and Technical Support Requirements
The vendor will provide the following warranty, maintenance and technical support:
1. A maintenance training program and provisions for advanced and/or refresher training.
2. Electronic maintenance manuals including recommended preventive maintenance schedules.

3. A hardware and software warranty program during the full contract period, including the provision of, or recommendations for local inventory, return procedures, turnaround time and tracking. The Pricing Response Requests Extended Warranty cost, per unit per month. Evaluators will extend costs through the seven-year contract period for comparative purposes. Vendor should state when extended warranty begins. If there are changes in cost over the contract period, the contractor must state these in the Pricing Response.
4. A technical support program including 24/7 access, phone and in field support.
5. Replacement parts for the pay stations will be available during the full contract period, including any mutually agreed to extension, unless specifically identified.
6. Are there options for vendor–supplied labor to provide supplemental resources for intensive operations like large-scale modem changes, etc.
7. The potential for the storage and access to a Vendor-owned inventory at the City maintenance facility or at a vendor-owned maintenance facility nearby.
8. Forecast of expected order/delivery time for non-warranty pay station parts and consumables.
9. Is there a potential for a vendor-supplied parts inventory system? Does system use a barcode to track parts usage and inventory? Could it track both vendor-owned and WTMA-owned parts?

Technology Options

The WTMA is considering multiple pay and display technologies including a pay by plate technology. Please provide any experience and knowledge you may be able to offer with alternative pay technologies. WTMA requests details regarding experience, as well as vendor's views on the advantages and disadvantages of a pay by plate environment, including such issues as the ramifications of storage of license plate data, public acceptance of pay by plate technology, and real-time payment data for error-free enforcement.

Product Innovation and New Technology

The WTMA is interested in understanding the Vendor's approach to product innovation and new technology. There are several innovations and options that WTMA may be interested in pursuing, at some time in the future. Such a list could include:

1. An ability for pay stations to accept other payments, for example, for parking citations.
2. An ability to charge an alternate price (or no price) to users, to "purchase" parking, for example, require permit vehicles enter their license (for pay by plate) or select a special type of vehicle (for pay and display).
3. A "next day purchase" button.
4. An ability to offer so-called "Entitlement Services" (e.g. discounts, validations, etc.).

Parking Technology and Management Services
ATTACHMENT C – Company Profile

Company Name	
Company Address	
Telephone	
Website	
Business Status (i.e. corporation, partnership, joint venture, etc.)	
Years in Business	
Total Employees	
Total Employees in Parking Management/Enforcement	
Major Line(s) of Business	
Years of Experience in Parking Management/Enforcement	
Percentage of Company Revenue from Parking Management/Enforcement	

Contact Individual	
Name	
Title	
Phone	
Email	

Area(s) of Expertise	Years of Expertise	Largest System Operated
Parking Pay Station Installations		
Parking Enforcement		
Parking Revenue Management		
Loading Zone Enforcement		
Disabled Parking/Placard Abuse		

Parking Technology and Management Services
ATTACHMENT C – Company Client _____ of _____

Client Name:	
City, State, Zip:	
Client Contact Name:	
Title:	

Telephone		Email:	
Contract in Effect From:		Contract in Effect To:	

City Size - In Population:		City Size - In Square Miles:	

On-Street Parking and Loading Zones		Additional Information (If Applicable)
Number of Metered Spaces:		
Number of Pay Station Spaces:		
Number of Special Permit Spaces:		
Number of Unpaid on Street Spaces:		
Total Number of On-Street Spaces		
Number of Loading Zones Managed:		

Off-Street Parking	Y/N	Additional Information (If Applicable)
Number of parking facilities managed:		
Revenue control equipment:		

Permit Parking		Additional Information (If Applicable)
Number of Permit Parking Areas		
Approximate Size of Each District in blocks		

Staffing	Number	Additional Information (If Applicable)
Management		
Supervisors		
Other		

Enforcement methods	Number	Additional Information (If Applicable)
Number and types of Patrols		
Towing or Booting		
Electronic Surveillance		
Other (please describe)		

Scope of Work Includes	Y/N	Additional Information (If Applicable)
Expired Paid Parking Time		
Street Cleaning		
Permit Parking		
Loading Zone Management		
Off-Street Facilities		
Revenue Control and Accounting		
Traffic Control		
Other		

Revenue	2013	2014	2015	2016
Annual Gross Parking Revenue Collected				
Annual Net Parking Income				