CITY of BOSTON

REQUEST FOR PROPOSALS: Curbside Management Solution (CMS)

Boston Transportation Department (BTD)
Nick Gove, Deputy Chief of Streets for Transportation
#EV00015470

IMPORTANT DATES:

EVENT	DATE
RFP Issue Date	**Monday, February 3, 2025** at **12:00PM EST**
Written Questions Due to City	**Wednesday, February 19 at 12:00PM EST**
Proposal Due Date	**Monday, March 3, 2025** at **5:00 PM EST**

**See the full RFP schedule in Section 2.1*

CONTACT INFORMATION:
Stephen Powers, Senior Procurement Analyst | StreetsContracts@Boston.gov

All questions should be emailed with the **Event number (#EV00015470)** in the subject line. You can access this RFP and related documents on the City of Boston Supplier Portal, via boston.gov/procurement.

PROJECT SUMMARY:

The City of Boston (City), acting by and through its Deputy Chief of Streets for Transportation, invites proposals for the provision and operation of a virtual Curbside Management Solution or solutions, to support the City's transportation and curbside management strategies, enforcement operations and goals to improve public safety, mobility, traffic flow, and curbside access. These solutions will play a crucial role in the delivery of basic city services, specifically the equitable and rigorous enforcement of the City of Boston Traffic Rules and Regulations and delivery of a superior customer service experience that ensures transactions are efficiently processed or adjudicated.

Specifically, the Boston Transportation Department (BTD) and the Office of the Parking Clerk (OPC) are seeking virtual solutions to support curbside management and enforcement operations, such as: issuance of parking violations (tickets); vehicle immobilization (booting), towing, and impoundment; administration of adjudication hearings and procedures; revenue collection from parking meters, payment processing, and integration functions such as reconciliation of fines, fees, and late penalties and administration of the City's Resident Permit Parking program. The solution(s) must be capable of handling a high volume of transactions with accuracy and integrity. The solution(s) must also interface with the Massachusetts Registry of Motor Vehicles (RMV) ATLAS Business Portal.

Proponents may submit proposals in response to one or more of the following solution modules, as described in the scope of services.

Module 1: Violation Management Application
Module 2: Permit Management Application
Module 3: Enforcement Technology and Self-Service Kiosks
Module 4: Collections, Mailed Payment Processing and Data Entry Services

The City will evaluate proposals and award contracts **separately** for each module. Proposed solutions must require limited development and the Proponent must be capable of implementing the core functions of the proposed solutions within 60 days of execution of the contract.

WHAT IS A REQUEST FOR PROPOSALS (RFP) AND HOW DOES IT WORK?

What: An RFP is a document that explains what services the City of Boston needs and is looking to purchase from vendors (you!).

Why: The RFP explains what a vendor needs to do to compete for this opportunity, how they will be evaluated, and how the contract will be managed.

How:

- Read through the RFP carefully and decide if you want to compete for the contract.
- Register as a vendor on the Supplier Portal (if you aren't already); you can access the Supplier Portal via boston.gov/procurement, and get assistance by emailing Vendor.Questions@boston.gov or joining their office hours
- Put together your technical proposal and price proposal and ***be sure to keep them separate. Failure to do so will disqualify your proposal.***
- If you have questions, email questions to StreetsContracts@Boston.gov StreetsContracts@Boston.gov by Wednesday, February 19 at 12:00PM EST.
- Submit your final technical and price proposals separately, as well as any other necessary forms. Do not include any price information in your technical proposal or presentation or the City will reject your entire proposal. Read the instructions carefully on how to submit each of these proposals. Be sure to leave plenty of time for submission.

RFP Structure:

Read sections I and II, and Appendix 5

Respond to sections III and IV

Follow the directions in section V

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1. INTRODUCTION AND PROCUREMENT DESCRIPTION

***Read** sections I and II*

IMPORTANT INFORMATION:

- ***By submitting a proposal, each Proponent accepts the RFP specifications, Boston's RFP terms, and Boston's standard contract terms and conditions (found in the APPENDIX 1: RFP TERMS AND CONDITIONS below).***
- Once awarded, **the contract will be governed by the terms and conditions listed in forms CM-10 and CM-11, which must be incorporated by reference into this RFP. Additionally, this contract will be governed by the terms and conditions listed in our CM-11 Supplemental Information Technology Terms And Conditions** which must also be incorporated by reference into this RFP**. Proposals that do not agree to comply with the City's CM-10 Form will not be evaluated.** Please see **Appendix: Contract Forms** for a full list of the forms that the selected vendor will be required to sign and submit during the contracting process if awarded this contract. Please **review** these before submitting your proposal. Failure to agree to the City of Boston's standard contract terms and conditions will result in your Proposal being deemed non-responsive to the solicitation and therefore rejected.

Procurement Methodology

This Request for Proposals (RFP) is being procured in accordance with the provisions of M.G.L. c. 30B. The City reserves the right to waive any defects or informalities, to accept or reject any and all proposals, or any part or parts thereof, and to award a contract in the best interests of the City.

The anticipated contract must be for an initial term of two and a half (2.5) years, as follows: an initial term of thirty months (30) months, commencing July 1, 2025, and ending January 1, 2028, with the option to renew at the sole discretion of the City for an additional six (6) month period ending on June 30, 2028.

Through this RFP, we are looking for Proponents and solutions that can integrate the activities associated with curbside management and parking enforcement, and "go live" by July 1, 2025. We look forward to receiving your proposal.

1.1 BACKGROUND

The City of Boston is implementing flexible curb management strategies to improve safety, increase access, and adapt to changing demands of our curbs and streets. Enforcement and permitting are critical curbside management strategies deployed by the City to ensure compliance with curbside regulations.

This work involves the following departments and units based both out of Boston City Hall and the Boston Transportation Department (BTD) facility located at 200 Frontage Road:

- The Office of the Parking Clerk (OPC) supports compliance with parking regulations by managing curbside management systems, contracts, and data, and by working with residents, visitors, and companies to issue parking and moving permits, adjudicate parking tickets, answer questions related to parking and permitting programs, and collect parking violation and abandoned vehicle revenue. OPC is located on the 2nd floor of Boston City Hall.

- The BTD Parking Enforcement unit employs Parking Meter Supervisors (PMS) to enforce the City of Boston Traffic Rules and Regulations[1]. The PMS patrol by walking and driving vehicles in assigned areas and issue violations using hand-held violation devices. The Parking Enforcement unit is based out of 200 Frontage Road. In FY2024, the City issued 1,001,723 parking violations.

- The BTD Tow and Hold unit employs Vehicle Impound Specialists (VIS) to enforce the City of Boston Traffic Rules and Regulations. The VIS patrol city streets in BTD vehicles and tow trucks to apply and remove vehicle immobilizers (boots), and tow and impound vehicles for safety violations, construction activities, street cleaning (sweeping) and special events. The Tow and Hold unit is based out of 200 Frontage Road. In FY2024, 6,395 vehicles were booted and 9,643 were towed.

- The BTD Meter Maintenance and Meter Collection units employ City personnel to supervise and perform maintenance and collections from the existing single space and multi-space parking meters. On-street collection and day-to-day maintenance of all parking meters will continue to be performed by BTD personnel. Meter Maintenance and Meter Collection staff are based out of 200 Frontage Road.

[1] The City of Boston is scheduled to adopt new Traffic Rules and Regulations on March 1, 2025.

- Also located at 200 Frontage Road, the Systems and Operations unit provides Parking Enforcement, Tow and Hold and the Meter Maintenance and Meter Collection Units with communications and dispatch, security, operational, fleet and technical support and supervises and provides customer service for the impoundment vehicles.

In November 2024, the City of Boston published a Request for Information for Curbside Management Solutions to solicit information, advice, and best practices from industry experts to enable the City to develop this solicitation for curbside management solutions and services. The current contract is set to expire on June 30th, 2025.

In Fiscal Year (FY) 2024, the City collected $84.8 million in curbside management-related revenue from parking meters, parking violations and fines, booting, towing and impoundment, storage and abandoned vehicle fees, lease, rental, taxi surcharge payments, permits:

ITEM	FY24 TOTAL
Window Payments (OPC and Impound Lot)	$7,466,024
Mailed Payments (e.g., check, money order)	$4,623,126
Pay-by-Phone Payments	$2,819,157
Pay-by-Web Payments	$42,470,650
Kiosk Payments	$574,365
Total Ticket Revenue	**$57,953,322**
Revenue at Meters	$12,697,543
ParkBoston Application	$13,324,168
Total Parking Meter Revenue	**$26,021,711**
Surcharge Revenue	$870,644
Abandoned Vehicle Payments	$28,245
Total Revenue	**$84,873,922**

Roughly 20% of parking ticket revenue is derived from tickets issued in the prior fiscal year. As of June 1, 2024, there were approximately 2 million outstanding violations (tickets) in the City's current Parking Violation/Parking Information Services System (PVPMISS).

Customer service point of sale preferences have continued to evolve over the last half decade. In FY24, the City:

- Processed 1,001,723 parking violations.
- Received 88,030 pieces of correspondence.
- Received 224,730 phone calls via the Parking Clerk's IVR phone system.
- Issued 58,729 Resident Parking permits.
- Conducted 5,520 adjudication hearings.
- Booted 6,395 vehicles, towed 9,643, and auctioned 181 vehicles.
- Collected $26 million in parking meter revenue via 7,861,406 transactions - of that, 92% resulted from credit card transactions, either at point-of-sale or via the ParkBoston app, which accounted for 51% of all parking meter revenue.

1.2 SCOPE OF SERVICES

The City of Boston, by and through the Boston Transportation Department (BTD) and Office of the Parking Clerk (OPC), are seeking Proponents and solutions that can support one or more of the functions identified in this RFP. Proposals must be responsive to one or more of the modules described below. All proposed solutions must have integration capabilities.

Functions	Current Needs/ *Potential Future Needs*
MODULE 1: VIOLATION MANAGEMENT APPLICATION	
Violation Data	Real-time updates and record-keeping of violation issuance and enforcement activity data
	Secure cloud storage for data and robust integration capabilities
Ticket Processing and Disputes/ Adjudication	Virtual processing of violation and compliance activities and workflows
	Public correspondence/notice generation, scheduling, and record keeping
	Assessment of late penalties and fees
	Processing disputes, scheduling hearings, recording decisions
Boot and Tow Processing and Management	Identify boot and tow eligibility, track activity and process records
	Vehicle impoundment and inventory management
	Administration of abandoned vehicle auction activities

Multi-Vehicle Commercial Fleet Management	Permitting and compliance
	Administer Multi-Owner" (MO) fleet records
	Invoicing and accounting
Massachusetts Registry of Motor Vehicles, *and out-of-state* DMVs	Data feed for vehicle registration holds/suspensions ("Marks and Clears") activities
	Prepare data reports and notifications
	Verify name, address, and garage indicator confirmation
Access to Pay-by-Plate Meter Payment Data	Integration with parking meter data and revenue collection, including MacKay Meters, IPS (phasing out), Flowbird (phasing out)
	ParkBoston (currently ParkMobile[2])
	Other potential application vendors
Parking Ticket Payment	Payment terminals - provision, maintenance and replacement, as needed
	Parking ticket payment processing, received via online payments, in-person point-of-sale, Interactive Voice Response (IVR) integration, smartphone applications, mailed payment processing
	Online parking ticket payment interface
	Payment Plan
Online Customer Portal	Self-serve online portal searchable by license plate number
	Provide open violations, amount due, current permits, and fleet accounts
	Ticket dispute submission
Integration Management	Integration oversight and management of related solutions, technology, and systems
	Real-time integrations with related CMS systems and technology
MODULE 2: PERMIT MANAGEMENT APPLICATION	

[2] The City's current agreement with ParkBoston ends June 30, 2025. The City will be soliciting a contract for a new mobile application in the spring of 2025.

Permit Processing	Resident Parking Permits/ Special, ad hoc, temporary parking permits/ *Guest permits/Commercial permits/ Valet permits*
	Notice generation and recording
	Permit Payments
Permit Data	Customizable permit types, criteria and workflows
	Complete comprehensive backups, and file archive
Permit Management	Permit Renewals
	Permit Audits (Cross-reference RMV data: Name, Address, and Garage Indicator Confirmation)
Online Customer Portal	Online parking permit application
	Customer account details (current status of applications, permits), and inquires
Integration	Real-time integration with Module 1: Violation Management Application, and Module 3: Collections, Payment Processing and Data Entry Services
MODULE 3: ENFORCEMENT TECHNOLOGY and SELF-SERVICE KIOSKS	
Parking Enforcement Hardware	Handheld hardware to support issuance of violations image capturing, mobile printing, and tow and boot processing
	Hardware maintenance and support
Ticket Issuance System	Software (ticket issuance and boot and tow activities), real-time CMS integrations and data storage
	Enforcement productivity dashboards
	Real-time integration with Module 1: Violation Management Application
License Plate Recognition (LPR) Technology	Camera hardware and software to read license plates and convert to digital data for purposes of parking enforcement
	Support parking enforcement, tow and hold and impoundment activities/ Online software (license plate scanning, tow activities), real-time CMS integrations and data storage
	Real-time integration with Module 1: Violation Management

	Application
Self-Service Kiosks	Provide and maintain self-service kiosks at City Hall and Impound Lot at 200 Frontage Road for customers looking to pay outstanding tickets or release their vehicle.
	Payment processing of parking ticket and other associated fees
	Real-time integration with Module 1: Violation Management Application
MODULE 4: COLLECTIONS, MAILED PAYMENT PROCESSING and DATA ENTRY SERVICES	
Primary Collections and Noticing Management	Mailing Services/ Receipt, Routing and Re-routing
	Primary Collections/Noticing
	Scanning and upload of documentation
Mailed Payment Processing	Mail sorting/scanning and upload of documentation
	Payment processing and accounting
Secondary Collections	Secondary Collections/ Payment Processing and Accounting/ Invoicing
Data Entry	Pick-up/receive, and data entry of handwritten parking tickets
	Scanning and upload of documentation
	Integration with Violation Management and Permit Management Applications
CMS Integration	Integration with Violation Management and Permit Management Applications
REQUIREMENTS ACROSS ALL CMS MODULES and VENDORS	
Continuity of Services	Continue and complete services for pre-contract violations and permits
Warranty and Ownership	CMS hardware and software warranties/ Hardware becomes City property at contract's end
Financial Management	(For all applicable CMS modules) Comprehensive and accurate financial management in line with City requirements

Vendor Organization and Personnel	Single point of responsibility for joint proposals/ Comprehensive service and management plan/ Dedicated key personnel, technical staff and on-site assistance
Consistent System Availability	Online systems availability (24 X 7 X 365)/ Required response/ Tracking and reporting system downtime and communication interruptions
Contract Management	Routine programmatic meetings/ Production Schedules/ Performance expectations/ Systems improvements and development
Efficient Data Access	Integration with City data systems and CMS vendors/ Data-related resources
Dynamic Reporting	Customizable/ Ad-hoc and automated reports / Audit, reconciliation and activity reporting
Network Capability	City network and firewall requirements
Secure and Disaster Proof	Complete comprehensive backup/ Recovery from Catastrophic Failure Plan
Critical Incident Response	Definitions and response expectations for Critical Incidents (Tier 1), Moderate Incidents (Tier 2), and Minor Incidents (Tier 3)
Installation and Migration	Pre-Installation set-up and site preparation/ Test system environment and plan/ Migration standards and data migration plan
User-friendly Customer Support and Training	Virtual and phone support/ In-person and ongoing training/ Systems documentation/ Digital content and educational materials for internal and external end-users

1.2.1. MODULE 1: VIOLATION MANAGEMENT APPLICATION

The Proponent must provide a Violation Management Application (VMA) that facilitates automated processing of violation and compliance activities, based on predetermined, time-based schedules of activities and conditions. The VMA must have the ability to evaluate the current activity of violations to appropriately update the violation status and accurately determine and schedule the next event in the process (e.g., name and address request, non-renewal hold, notice generation, etc.).

Required functionality includes, at a minimum:

1. **Compliance with local, state and federal rules and regulations:** Ensure compliance with the City of Boston Traffic Rules and Regulations, Massachusetts General Law Chapter 90, Chapter 263 of the Acts and Resolves of the Massachusetts Legislature (the "Acts") of 1929, as amended, including, but not limited to, the amendments made under Chapter 608 of the Acts of 1986, the Code of Massachusetts Regulations, Title 540, Chapter 2.00: the Massachusetts Motor Vehicle Regulations, the Boston Municipal Code, as amended, and other applicable laws. Compliance must include periodically updating processes, policies and data on violations, fees and penalties, as required.
2. **Data security standards and authorization controls:** Maintain an updated VMA to remain compliant with city, state, and federal data and security specifications. This requirement includes comprehensive and user-oriented security measures to enable access to and restrict sensitive functions across users, time frames, and job title (including voiding, correction and revision capabilities), data, and workflows to authorized users and specific workstations.
3. **Assessment of penalties:** Based on time limits and specific conditions, automatic calculation and assessment of additional penalties and compliance measures (late fees, booting eligible, towing eligible, etc.), and automatic backing-out, holding in abeyance, re-activating of penalties.
4. **Real-time interoperability:** Re-evaluate, edit, and update scheduled activities, transaction data, and the ticket database in real-time, in light of online and batch transactions and data from fully integrated systems and CMS modules. The Proponent must have functionally (or facilitate an efficient process) to support CMS data entry services of handwritten tickets (Module 4).
5. **Data scheme:** Ability to process payments and transactions, and assess status by numerous attributes, including: name, license plate, number of tickets under certain conditions (e.g., on a specific notice, issued within a specific time period, violation type), ticket number, unpaid tickets, registration status.
6. **Automated and comprehensive integration ability:** Interface with any system, subsystem or system element must be automated and data edit and verification processes must be comprehensive.
7. **Violation record activity maintenance:** Maintain a digitally accessible history of system-generated and manually entered events and processing transactions for each violation. The system utilizes logic to prevent erroneous splits in registration records and allow authorized City personnel and systems/vendors to add or correct records online.
8. **User-friendly and intuitive interface:** Straightforward and accessible interface and screens, intuitively designed for quick access and navigation, efficient data entry, updates and revisions, and retrieval of information. Data

screens should allow for the display of consolidated information and intuitive filtering (e.g., by license plate status: active, open, or terminated), streamlining the viewing process and ensuring easy navigation across records and stages of workflow processes/activities. Display of and screen capture of at least two simultaneous CMS sessions.

9. **Real-Time Data Processing**: Support immediate data capture, inquiry, and updates, minimizing data entry time by integrating with data from multiple systems for connected activities and processes.
10. **Claims Management for Disputes**: Accommodate public inquiries, lease/rental/taxi claims, and general disputes in a flexible manner, providing options to process both individual and grouped tickets across various dispute types, such as dismissed, suspended, and hearing-requested tickets.
11. **Customizable and automated reporting:** Allows for customized features, data fields, logic, integrations, and reports. Provides user-friendly and dynamic reporting tools for statistical analysis of trends, status, and performance of workflows, programs, violations, ticket payments, and processing.

The VMA must have a Representational State Transfer Application Programming Interface (REST API) GraphQL, gRPC, WebSockets, MQTT or Event-Driven Architecture (EDA) for efficient queries that can be integrated with other systems and services included as a part of the Curbside Management Solution (CMS) including payment processing, booting and towing activities, notice mailing, customer service, dispute resolution, and compliance.

The following data must be accessible via query:

- **Primary Identifiers**: Plate number, violation number, registrant name, user/badge number, route identifier, and owner information.
- **Violation Details**: Ticket status, violation type, and issuance information (e.g., date, time, location).
- **Notice Records**: Notices and correspondence history for each ticket or violation, including details like mail date and notice type.
- **Financial Information**: Outstanding violations, balances, penalties, payments, fees, reductions and any surcharge details.
- **Historical Data**: Payment history, notice history, and prior correspondence related to each violation or plate.
- **Ownership and Registrant Data**: Name, address, contact information, and any documented changes to registrant details.
- **Administrative Data**: Authorized modifications to ticket or payment records, audit logs for changes, and notes on account updates.

1.2.1.1. Ticket Processing Workflows, including Adjudication

The VMA must facilitate and integrate numerous violation processing workflows that are managed by different units within OPC and BTD. The VMA must integrate activities conducted by other CMS Modules including:

a) Violation Correspondence
b) Violation Fines and Penalty Fees
c) Violation Payments and Refunds
d) Violation Appeals, Hearings and Decisions
e) Specialized Violation Processing and Payment Workflows (i.e., Fleet Compliance Program; Lease/Rental/Taxi Vehicles)
f) Vehicle Boot and Tow Processes
g) Abandoned and Auctioned Vehicles
h) Violation Notice Generation

1.2.1.1.a) Violation Correspondence

OPC and BTD staff provide customer service to constituents in-person and via phone, email and regular mail. Specifically, the VMA/CMS must facilitate and record communications with constituents:

- **Via phone:** document and associate violation records, attach transcripts, capture notes and comments, and document and track outcomes.
- **Via email:** attach email inquiries and requests to violation records within the system, re-assign, capture notes and comments, and document outcomes.
- **In-person:** document and associate violation records with phone calls or emails, attach transcripts, capture notes and comments, and document and track outcomes.
- **Via mail:** schedule and generate notice letters and correspondence, document notice history, enable attachment of mailed and received correspondence and payments, and document and track outcomes.

The VMA must display data and correspondence workflow in real-time as data and correspondence is entered into the VMA allowing OPC staff to process violations and attach correspondence records. Scanned documents (i.e., mailed payments, data entry by City and/or CMS Proponent(s) staff) must be legible, indexed to the appropriate tickets or account and query accessible.

The system must also provide OPC and BTD staff the ability to process correspondence related to parking tickets not yet available in the VMA. This scenario may arise in relation to handwritten tickets issued by partner agencies when delays occur in the delivery/pick-up of handwritten tickets for data entry

services provided by Module 4 of the CMS. In these cases, the VMA must allow staff to document necessary information, index and process the correspondence, and route the case to a temporary queue whereby no action on the ticket would take place until the handwritten ticket information is entered into the VMA through the CMS data entry services (Module 4).

1.2.1.1.b) Violation Fines and Penalty Fees

Additional penalties and fees may be applied to violations or vehicles. The VMA must automatically calculate and assess the correct type of penalty and fee amount, and re-calculate in real-time to revise the total amount due based on time-based and conditional formulas. The VMA must allow authorized staff to revise or correct any fine or penalty to a zero dollar amount upon completion of any appeal activity. This function must be virtual, in real-time and include a history of the original and revised fee amount. Violations penalty fees include:

- **Late penalty fees:** The VMA must assess the late penalty amount depending on violation type and associated activities, in accordance with the fines and fees detailed in Boston Municipal Code, Chapter VI General Services, Section 6-6 Office of the Parking Clerk, sub-section 6-6.3 Schedule of Fines; automatically applied after 21 days after issuance for unpaid ticket(s).

- **Seizure fees (boot, tow, abandoned vehicle):** Upon confirmation of a vehicle seizure (booted, towed, or abandoned vehicle), the system must immediately assess and apply the associated fees in accordance with Massachusetts General Law Chapter 90 and Chapter VI, and City of Boston Rules and Regulations , and recalculate in real-time the revised total amount due.

- **Storage fees:** For a vehicle that has been towed to the BTD Impound Lot, storage fee charges must begin to accrue immediately (on an virtual/other, real-time basis) upon the vehicle being recorded as entering the lot. . For subsequent days, starting at 24 hours after arrival (and subsequently, 48, 72, etc.), the storage fee formula re-starts until the maximum daily charge is reached during that 24-hour period, through the time the vehicle is released or auctioned. The City may implement a cap on the total amount of storage fees or maximum time period during which storage fees can be assessed.

- **Registration suspension fee:** When vehicles/owners have accumulated a predetermined threshold of unpaid violations, the City places their registration at the MA RMV on suspension ('Marks and Clears' process). The VMA must support this process. For 'marked' registrations, it must automatically assess the registration suspension fee and update the violations records to reflect the total amount due accordingly.

- **Bad check fees:** The City charges a fee when a customer's check bounces . The VMA must intake 'bad check fee' data from City staff and contracted CMS vendors who will support the City to process payments.

In addition, the VMA must be able to support the outcomes of appeals processing, including hearing decisions, such as dismissals or reductions of the violation fine and/or penalty fees, and must automatically update fines and penalties as applicable.

1.2.1.1.c) Violation Payments and Refunds

The VMA must facilitate payment processing related to the City's Code of Ordinances, enforcement and adminstration of the Traffic Rules and Regulations and curbside regulations and programs. The system must have the ability to fully process, record, and report on payment transactions from multiple points of sale, which may be supported by the City and/or a contracted vendor, as described in the CMS RFP. Specifically, the system must be able to integrate, process and record payment transaction data from:

1. In-person cashiering terminals
2. Online customer portal
3. Self-service kiosks (Module 3)
4. Violations collections services, including mailed payment processing
5. Pay-by-phone

Such capability must be fully integrated with the City's payment processing system. The VMA must have the ability to evaluate the current payment and refund activities of violations to update the violation status.

1.2.1.1.d) Violation Appeals, Hearings and Decisions

The VMA must facilitate violation appeal workflows and provide functionality to streamline claims management for violations and processes related to the Fleet Compliance Program, and Lease/Rental/Taxi Vehicles. The VMA must support inquiry responses, processing disputes, and administering hearings. Currently, individuals may submit disputes or appeal requests online, by phone, by mail, and in-person at the Office of the Parking Clerk at City Hall. Hearings may be conducted as scheduled, unscheduled as a walk-in hearings, or via a virtual video-conferencing hearing (under certain conditions).

The VMA must record appeal requests and decisions, support documentation of hearing outcomes (e.g., dismissals or reductions) and update and/or pause fines

and penalties as applicable. Additionally, the VMA must support the following items related to appeals:

- Provide OPC staff the capability to schedule, conduct, document, and review parking ticket hearings on one or multiple tickets.
- Capture information related to hearings, including schedules, assigned hearing officer, and violation details. The VMA must be able to integrate data from third-party calendar applications to manage hearings.
- Enable authorized City staff to view all files associated with a violation hearing case, capture screen data, update registrant information, attach written and audio hearing transcripts, record a disposition code for each ticket involved, record comments, and print hearing outcome forms
- Support routing of appeal and hearing case outcomes/decisions for the required reviews and approvals by supervisory staff - only after which, hearing results must be reflected at the ticket level in the system; this review will either approve or deny the hearing code(s) entered.

VMA system requirements include:

- **Automated Claims Actions**: The system must automate key functions such as temporarily holding penalties, suspending non-renewal actions, scheduling hearings, generating notices and scheduling mailing of notices, and managing claims history.
- **Dispute Categories and Reclassification**: The system must support a range of dispute types (e.g., summary dismissals, requests for hearings, verification requests) with flexibility to reclassify claims as needed.
- **Data Capture and Accuracy**: data retention for both registered owners and vehicle operators is required based on the dispute type.

The VMA must provide an online interface for customers to submit appeal/hearing requests and make payments for outstanding violations. The system should also provide the customer with options for how they would like to receive updated information. For example, the VMA may provide a generated response via email to the customer confirming that their hearing request was received, and providing the date and time of their scheduled hearing.

The system must also provide City staff the ability to conduct, review and document walk-in hearings for tickets not yet available in the VMA. This scenario may arise in relation to handwritten tickets issued by partnered agencies. Delays may occasionally occur in the delivery/pick-up of the handwritten tickets for data entry services. The Proponent's VMA must provide City staff the ability to enter the ticket number, violation type and details, and amount due in order to conduct the hearing as previously described in this document.

As mentioned in other sections of the RFP, the VMA must update in real-time and automatically prompt and track appropriate subsequent correspondence and activities, including boot and tow releases, notice generation and mailing.

1.2.1.1.e) Specialized Violation Processing and Payment Workflows (i.e., Fleet Compliance Program; Lease/Rental/Taxi Vehicles)

In compliance with Massachusetts General Law Chapter 90, Section 22E, the VMA must be customizable to accommodate specialized workflows, such as unique processes and claims handling for lease, rental, and taxi vehicles, and for entities participating in the Fleet Program. Specialized workflows must include unique notices, hearing scheduling and penalty management specific to individual categories. Where applicable, it should provide tools to assign vehicle operator responsibility.

1.2.1.1.f) Vehicle Boot and Tow Processes

The City enforces additional measures for outstanding parking tickets ('Boot and Tow'), including immobilizing vehicles with a wheel immobilizer hereinafter referred to as a "boot", towing to the BTD Impound Lot, or both. Specific violations may also warrant immediate towing ('Violation Tow'), including when a vehicle is parked in violation of posted street cleaning regulations, during a Snow Emergency or when vehicle is blocking a fire hydrant or fire lane. To support these enforcement processes, the City seeks an integrated VMA, compatible with License-Plate Recognition (LPR) technology and mobile handheld devices for parking enforcement (Module 3). The VMA must distinguish and prevent fee or tracking overlap between the two distinct processes and transactions for 'Boot and Tow' versus 'Violation Tow'. Currently, City staff enter and confirm boot vehicles as 'booted' before any tow activity is initiated. In the event that a booted vehicle is subsequently towed, the 'boot' transaction within the system prevents it from incorrectly assessing the Violation Tow fee as an additional fee to distinct 'boot and tow' activity. The VMA must provide automated, real-time functionality to:

- Flag vehicles eligible for booting or towing based on specific criteria.
- Initiate required notifications before enforcement actions.
- Generate and flag notices to be mailed to vehicle owners/operators before and after enforcement actions.
- Document and apply fines related to booting and towing activities.
- Update VMA accounts and Registry of Motor Vehicle records for activities like appeals or payments.

The VMA must track booting and towing processes and activities in real-time and support:

- Queries and reports of vehicles eligible for booting or towing.

- Inventory tracking for vehicles in the impound lot (by registration number) and booted vehicles on the street and in the impound lot (by device number).
- Post boot or tow vehicle status updates.

Boot Eligibility Criteria

Vehicle registrations are eligible for boot and tow after accumulating five unpaid tickets with late penalties, whether contested or uncontested. The VMA must automatically facilitate boot eligibility at both the ticket and vehicle registration ('plate') level, and process eligible vehicles through two sequential stages: first, generating a pre-boot notification to be mailed, and then placing the registration into a Boot Eligible Database (BED) for action. The BED must provide the list of all vehicle registrations eligible for boot and tow. The system must utilize detailed eligibility criteria, edits, and controls to ensure proper boot and tow determinations. These controls include:

- Excluding certain plate types, configurations, and addresses (e.g., unmarked police vehicles).
- Excluding partially paid tickets or vehicles booted within the last ten days.
- Including registrations flagged for issues like stolen, canceled, or expired plates.

Eligibility must be assessed for both Massachusetts and out-of-state registrations. For out-of-state vehicles, registrant addresses are not required, but communication with the respective Department (or Registry) of Motor Vehicles fulfills notification obligations.

Boot Eligible Function

The VMA must update the Boot Eligible Function (BEF) in real-time. This database must be in a virtual query accessible and editable format. The BEF must be able to communicate with the mobile telecommunications handheld devices for parking enforcement, hereinafter referred to as 'handhelds' and License-Plate Reader (LPR) technology (Module 3) for subsequent enforcement actions. The BEF, at minimum, must provide the following reports via query:

- number of boot eligible tickets, notices generated and mailed
- boot vehicle status: date of boot eligibility, booted, tow eligible, towed, paid/dismissed, boot release or tow release scheduled, escaped boot, escaped from Impound Lot, pending auction.

If a boot-eligible license plate has a prior boot escape or tow escape in the historical boot/tow record, the system must flag this in conjunction with the boot eligibility notification.

The VMA's boot and tow functionality must allow for manual entry of boot and tow eligibility and records. The system must record all manual entries and automatically generate a notice letter to be sent to the registrant (mailed via Module 4).

The BEF must include the following information for boot-eligible vehicles:

- Vehicle registration eligibility for boot or tow action.
- Initial authorization entered by Dispatch once Field Crew has initiated boot or tow action.
- Confirmation that a boot or tow action was successful, capturing transaction data that includes: date, time, Field Crew ID number, location (street address), vehicle make, model and color, reason code, boot device number (for boots only), impound lot location (for tows only), and miscellaneous Dispatch or Field Crew notes.
- Authorization to release a booted or towed vehicle upon payment of the boot/tow fee, upon successful appeal of outstanding tickets, or determination of eligibility for administrative release.
- Confirmation that an authorized release of a booted or towed vehicle was completed including date, time, reason code, cashier or other ID number, and amount paid on the released vehicle.
- Determination that no payment/dismissal action has occurred for a booted vehicle within a certain period (currently three days) following boot action, indicating that the vehicle must be removed (towed) from its street location.
- A determination that a booted vehicle has unlawfully 'escaped' from the impound lot or from a boot device (i.e., the device was forcibly removed from the vehicle, and tickets and fees remain outstanding).
- A determination that a vehicle has been auctioned due to non-retrieval by the owner, capturing transaction data that includes: auction date and amount the vehicle was auctioned for. Note: auctions are administered by the Boston Police Department who are responsible for tracking and reporting auction revenue.
- Ticket number of the towed vehicle, with edit capabilities integrated to ticket information in VMA.
- Real-time vehicle registration status (e.g., pending auction, expired or no registration/plate in the tow record, etc.) flagged and visible across system records.

Inventory Function

The VMA must support an integrated real-time Inventory Function (IF) in a virtual query accessible and editable format. The IF must inventory and track the location of all booted vehicles on the street and all towed vehicles at the Impound Lot. The IF must be searchable by license plate. The VMA must update the IF in real-time

and the IF must be able to communicate with handhelds and LPR technology (Module 3) for subsequent enforcement actions. The IF must include the following data for each boot-eligible, booted or towed vehicle: state of registration, registration number, date and time of boot, location of booted vehicle, vehicle make and color, boot number, crew number and status. The IF must sequentially identify booting and towing actions/activities by date and time, total number of boots on vehicles, total number of towed vehicles at the Impound Lot, and enable queries by various data fields.

1.2.1.1.g) Abandoned and Auctioned Vehicles

The VMA must support BTD's administration of the Abandoned Vehicle Program. In accordance with Chapter 90, Section 22C of the Commonwealth of Massachusetts General Laws , following the rules and regulations of the Boston Transportation Department.

The VMA must facilitate and track activities related to this program and store data, including vehicle status updates, notice generation, and automatic application of the abandoned vehicle fine and associated fees, including towing and storage fees.

Auction activities take place outside of the VMA however the VMA must allow users to update the vehicle's status in the VMA to record a vehicle as auctioned and include the auctioned price. The VMA must support activities associated with auctioned vehicles including notice generation, correspondence, adjudication and payment activities.

1.2.1.1.h) Violation Noticing and Collections

The City of Boston, via CMS Module 4, mails paper letter notices through the United States Postal Service (USPS) to alert recipients of overdue parking tickets, appeal decisions and scheduled hearings, violation dismissals, refunds, booting and towing eligibility and activities, and more.

The VMA must support and document communication, notification and collection activities in a virtual query accessible and editable format. The VMA must generate notices, from various inputs including transaction codes and license plate records. The VMA must support the generation of follow-up notices and automated reports on payment and activity outcomes. The VMA must support notice generation for any license plate record and allow for the manual entry of registrant data in cases where records lack complete data fields. Notices may include data fields such as ticket number, violation date, respective violation codes, violation location, registrant name, registration state, amount due including late penalty fees. The VMA system must support customizable notice generation and scheduling on a daily basis. The VMA must provide the flexibility to generate notices on an ad hoc

basis for violators meeting specific criteria. The VMA must include data controls to ensure notices are sent accurately and efficiently.

The VMA must create and re-validate notices based on real-time data to ensure validity. Massachusetts Overdue Violation Notices and Registry Non-Renewal (ORN) Notices must be created or revalidated daily. Other notices must be generated on a schedule to be determined by the City. The VMA must maintain all notification letters. The VMA must allow City staff to correct noticing data and update the respective workflows and all CMS systems and functions. The VMA must have Optical Character Recognition (OCR) capability to convert scanned documents, images of photographs, or printed or handwritten text into a machine-readable text format making it searchable via query and editable.

1.2.1.2. Multi-Vehicle Commercial Fleets

The Vehicle Management Application (VMA) must support the City of Boston in managing entities that operate multi-vehicle commercial fleets, including delivery services, government agencies, car dealers, and rental or lease vehicle providers. The system should streamline processes, ensure compliance with Massachusetts General Law Chapter 90, Section 22E, and reduce redundant notifications and costs for the City.

Fleet Compliance Program

The City's Fleet Compliance Program, which includes over 150 participating entities, consolidates and batches violations for all vehicles associated with a registered entity into "Multi-Owner" (MO) records. Participating entities have late penalties waived and individual notices are replaced with fleet reports and invoices issued every seven weeks. At a minimum, the VMA must support the current program, with automation preferred to improve efficiency. The VMA must centralize services for entities participating in the Fleet Compliance Program, including invoicing, notice generation, appeals, payment processing, and data and record management. The VMA should assign a unique identifier to each entity, grouping all associated license plates under a single account to facilitate compliance and enforcement. The VMA must track, manage, and report surcharges for lease/rental vehicles, with user-friendly tools for data entry and reporting.

The VMA must support the bespoke needs of the following entity types:

- **Delivery Service Vehicles:** replace individual notices with monthly billing.
- **Government Vehicles:** replace individual notices with monthly billing; exempt from certain penalties or enforcement as defined by MGL and City regulations.
- **Vehicle Dealer Plates**: Identify as MO records for notices and enforcement, including boot and tow eligibility.

- **Lease/Rental Vehicles**: Capture and store surcharge collections for rental or lease vehicles used in Boston, with reporting functionality for revenue collection.

Optional Online Portal

The City is interested in exploring an online portal that allows MO entities to manage compliance, view information, and submit payments and inquiries. Features like fleet violation analysis and reporting tools are encouraged to improve driver compliance and ease of use.

1.2.1.3. Massachusetts RMV and out-of-state Departments of Motor Vehicles

The VMA must provide a real-time data exchange with the Massachusetts Registry of Motor Vehicles (RMV). This data will be used to update violation and registration status and be integrated within the VMA. The VMA and Proponent must fulfill the below requirements:

- **Data security standards:** Maintain compliance with city, state, and federal data and security requirements.
- **Interface with motor vehicle agencies:** Establish a collaborative relationship with states' departments of motor vehicles, especially the Massachusetts RMV, which is required for CMS operations.
- **MA RMV data integration:** Transmit electronic violation data with the RMV (including handwritten violation data input into the system via Module 4 Data Entry Services). The VMA must provide data to the MA RMV for unpaid tickets on a schedule provided by the City and RMV. The Proponent must use and integrate RMV data accurately into the VMA. The system must interface with other RMV databases to acquire additional information required by the City, such as the Disability Placard Database and data on stolen vehicles, lessee information, and motor vehicle crashes.
- **MA RMV data requests:** The VMA must support real-time data requests, in addition to the batch processes. The Proponent must support re-requests for data not received or correctly matched, within a predetermined interval (currently 45-days between requests).
- **Non-MA RMV data interface and requests:** The Proponent must seek registrant information for non-MA states, targeting the maximum coverage possible, including Washington D.C. The Proponent must respond to routine requests from non-MA RMVs for unpaid tickets and must follow state-specific rules and data availability. The Proponent must handle re-requests from specific states with high ticket issuance to complete initial data collection.
- **License plate data and attributes**: In accordance with MA RMV system requirements, provide a CMS/VMA that can differentiate and process

multiple license plate types and sub-types, license plate colors (e.g., green, red, blue), and non-alphanumeric characters (e.g., dots or symbols on vanity plates), and accommodate future license plate types, sub-types, characters, and colors. The system must assign tickets accurately when a plate is re-issued to different registrants over time. This functionality is essential for correct owner identification.

- **Eligibility for Boot and Tow:** Eligibility must be assessed for both Massachusetts and out-of-state registrations. For out-of-state vehicles, registrant addresses are not required, but communication with the respective Department of Motor Vehicles fulfills notification obligations.

License and Registration Non-Renewal: 'Mark and Clear' Processing

Per MGL Chapter 90 section 20A½ , the City of Boston may mark a vehicle registrations' records at the MA RMV for non-renewal as a result of unpaid parking tickets. This mark prevents the vehicle owner from renewing their registration until the outstanding ticket(s) and additional penalty fees are paid. To support the license and registration non-renewal process, the VMA must generate and refer a 'mark" to the MA RMV system to the correct RMV database records, in line with the RMV specifications for high-volume non-renewal transactions. The RMV's system requires the following four key components for registration identification: 1) registration number, 2) plate type, 3) plate color, and 4) issue date. When full payment is received, the system must update and generate clear input records referrals to the RMV to allow for the clearing of records marked for non-renewal in real-time.

Upon RMV confirmation of mark for non-renewal, a registration suspension fee must be assessed to each affected violation. The system must have the ability to cancel or re-calculate this additional penalty fee if the violation is dismissed or if the customer's payment is received before confirmation. Mark transactions must be updated in the VMA within 24-hours of receipt. The VMA must comprehensively account for all fees owed by the City to the RMV for non-renewal transactions, including adjustments for fees initially deemed owed but later not required.

Edits and controls must ensure efficient non-renewal mark and clear eligibility determination and acknowledgments. As necessary, the Proponent must identify and resolve the reasons behind referrals that are not initially accepted by the RMV. The Proponent and/or VMA must re-refer referred marks and clear records not accepted by the RMV, at least monthly.

Data Requests

On behalf of the BTD, at both pre-determined and ad-hoc basis, the VMA and/or Proponent must support data and report requests of the MA RMV, and should be

able to trigger conflict notifications or support the update of corresponding data within the VMA.

For example, at least once a year and at the City's direction, the VMA and/or Proponent must securely provide the registrant identification information for the complete file of license plates maintained by the MA RMV. The system should be able to efficiently and accurately apply RMV information. For example, data for any dealer or dealer vanity registrations with outstanding tickets must be updated to the VMA.

In addition, when possible, the City encourages the Proponent to maximize registrant data acquisition by interfacing with Department of Motor Vehicles from non-MA states and from Canadian Provinces to obtain vehicle owner information. In FY24, the City issued approximately 136,700 tickets to out-of-state vehicles and 1,500 tickets to vehicles registered in Canadian Provinces.

Vehicle Owner Data Controls and Manual Entry

The VMA must enable manual data entry of vehicle owner information for license plate records, allowing authorized users to create a registrant record where none exists, or overlay a new registrant record onto an existing one. For overlays, the removed record should be retained in a history file.

Online data entry for registrant information is required for two distinct processes:

1. Creating an initial plate record on an existing blank record
2. Substituting a correct registrant record over an incorrect one.

Each registrant record source must be distinctly noted in the system, and records created through manual entry must be treated as if received from an RMV, allowing vehicle owners to be eligible for time- and event-based criteria, as set by the City. In addition, to ensure consistent collection efforts, the VMA must maintain a full history of registrant name and address changes by license plate record, covering events like combines, splits, SWAPS, and manual data entry of registrant identification. The system must automatically link all tickets issued to a vehicle owner across old and new plates. It additionally must provide functionality to linking of tickets between an expired and current registration, reflecting transactions in real-time across all CMS systems and subsystems.

1.2.1.4. Pay-by-Plate Parking Meter Integration

The VMA must support real-time integration with inventory and transaction data from enforcement technology (CMS Module 3), the City's new MacKay Meters Sentinel Meter Management System (for pay-by-plate multi-space pay stations), single-space meters, and the City's meter payment application, ParkBoston.

ParkBoston is currently supported by a single mobile parking meter payment application/Proponent, ParkMobile, but may expand in the future. The Proponent will be expected to provide a system that can:

- Integrate with all of the City's existing, as well as any future installations of, multi-space pay stations and single-space parking meters.
- Integrate with the City's existing and future installations of pay-by-cell parking applications.
- Handle as many as 25 million mobile transactions per year.
- Communicate with all parking meter systems.

1.2.1.5. Parking Ticket Payment Processing

The City of Boston accepts payments for violations and associated fees via online payment, mail, pay-by-phone, self-service kiosks, and in-person at customer service windows at City Hall and the BTD Impound Lot (200 Frontage Road). The VMA must be able to integrate with the City's payment processing system, which allows for payments via Web, point-of-sale devices, Interactive Voice Response (IVR) payment, and smartphone applications. The online, real-time 'Point-of-Sale' payment processing system allows cashiers at City Hall and the City's Impound Lot facility to efficiently and effectively enter and record payments, record payment adjustments to the violations database, and provide receipts of transactions to the payer. In addition, the Proponent's solution will be required to support current and future point-of-sale processors (cashiering terminals and receipt printers) that the City chooses.

The Proponent's integration with the City's payment processing system must accommodate the high-volume, hybrid nature of parking ticket payment transactions. The payment methods listed below, the payment record, and the location of payment (e.g. Online Payment System, In-Person Payment) must be updated in the violations database:

- Cash
- Personal check
- Money order
- Credit card (MasterCard, Visa, Discover, and American Express)
- Debit card
- Tap-to-Pay/NFC (Near Field Communication) (Apple Pay, Google Pay)

The Proponent's real-time integration with the City's payment processing system must accommodate and provide, at a minimum, the following features:

a) **Flexible and comprehensive payment processing:** Cashiers employed by the City to accept whole or partial payments for:

- A single ticket
- Multiple tickets
- Single or multiple registration payments
- Single or multiple penalty fee payments (e.g. boot fees, disposal fees, trash fees, storage fees, tow fees, bad check fees)
- Abandoned vehicle payments
- Vehicle surcharge payments (e.g., lease, delivery, commercial)

b) Automatic calculations: The system must automatically calculate ticket and plate-level payment summary data including partial, full, and overpayment payments accurately. Including accurate and real-time re-calculation of payment processing data from integrated CMS technology and services, including but not limited to: Self-Service Kiosk (Module 3), Collections and Mailed Payment Processing (Module 4).

c) Authorized and tracked data editing: Capable of providing editing permissions to authorized users to address and adjust incorrectly keyed payment information, as required. The system must display and track the edits, payment type, time and date of adjustments in the records and on screen.

d) Real-time update to violations data records: The online, real-time immediate updating of all cashier transactions and payments to associated violation records in the violations database, as well as any other subsystems required to meet the scope of work as described in this RFP. The system must record all payments, regardless of whether they are associated with a violation.

e) Incomplete payments: The system must support creation of an online 'incomplete record' - containing, at a minimum, violation number, payment disposition date and amount paid - to accommodate processing violation payments when the violations database hasn't yet been updated to reflect the associated violation (for example, to allow for CMS Proponent 4 to continue processing payments received via mailed payment while awaiting completion of data entry services for handwritten tickets). All such payment amounts must be retained in this file as an incomplete payment, and must be matched against and applied to the related new/updated violation records when available in the VMA/violations database.

f) Automatic endorsement of checks and money orders: The system must be able to automatically endorse checks and money orders and imprint registration state and registration number, ticket number, fee and fee type, date and amount paid on the check or money order, and record credit card or debit card payments. Re-endorsement capability must be provided.

g) Payment receipts: Payment receipt generated and printed must show critical ticket data, including the following fields: payment date and time, method of payment, registration information, ticket number, ticket amounts, fee

amounts, and outstanding payments due. Receipt reprint capability must be provided.

h) **Report Functions:** The online payment system must generate real-time regular and ad-hoc payment activity reports to support and streamline cashier closing and reconciliation procedures at the end of each shift. Transaction record reports can be easily generated, printed and saved by authorized system users. All electronic reports must be submitted in City-approved formats, such as Google Sheets.

i) **Automated refunds:** The Proponent must provide an automated, real-time refund functionality for authorized users, that integrates with the City's existing refund processes. The system must apply refund amounts to outstanding tickets and fees in alignment with City policies and accurately record each refund within violation records, and core City systems and records. It must generate accurate reports of all refunds, showing amounts and totals, in a standard format approved by the City, and generate a secure file for Treasury processing.

j) **Automatic Overpayment Reapplications:** In the case of an overpayment transaction, the system must support automatic reapplications of overpayments toward any other outstanding violation fine or penalty feeds on the customer's plate.

While not currently in scope for immediate implementation, the City is interested in exploring strategies and programs that support equitable implementation of curbside management programs, such as the development of violation payment plans and/or new parking permit programs. The CMS Module 1 Proponent should support related development of payment processing systems and integrations, in line with City initiatives.

Payment Interface with Curbside Management Systems and Services

To optimize the customer experience and support different payment preferences, the City offers solutions and services across the CMS system to accept customer payments for violations and associated fees, including:

- **In-person at customer service windows (City Hall and the BTD Impound Lot),** supported by Module 1 Proponent via cashiering terminal devices and VMA payment processing.
- **Online payment,** supported by Module 1 Proponent via online customer portal and VMA payment processing.
- **Self-service kiosks,** supported by Module 3 Proponent, with real-time integration with Module 1: VMA. Currently, there are 3 kiosks in use that run independently 24-hours per day/7-days per week.
- **Cash, mailed check or money order**, collection and mailed payment processing services supported by Module 4 Proponent.

- **Pay-by-phone**, automated phone system and technology supported by City

The VMA payment processing functionalities must provide the ability to collect, process, record, and report violation payment transaction data from all of the City's CMS payment channels.

CMS payment channels may utilize machine-scanning technology for payment processing, including barcode and/or OCR and Tap-to-Pay/NFC (Near Field Communication) (Apple Pay, Google Pay)The Proponent must provide the capability to utilize barcode or similar technology for the payment of parking tickets and updating of parking ticket data to the Proponent's core parking violation system. Such capability must be fully integrated with the City's payment processing system.

Payment Interface with Violation Processing Workflows
The VMA must have the ability to fully process and record payment transactions from the multiple payment channels and update the associated violation records in real-time. The VMA must evaluate payment and refund activities to update the violation status and schedule the next event in the process.

The Module 1 Proponent's payment processing system must be able to provide real-time and automatic authorizations to release suspensions of RMV license and registrations and City of Boston Resident Parking Permits, and booted or towed vehicles. This authorization must be automatically generated upon: a) data input of a boot/tow payment, and b) data input of an administrative release . The automatic release must be initiated without requiring any additional or special release commands. For example, payment of the boot/tow fee could automatically initiate the 'release' action within the violation records and update the status.

Payment transactions captured by the VMA should trigger CMS activities and actions, including the following:

- Release of towed vehicle (via Module 1: VMA)
- RMV registration suspension clear (via Module 1: VMA)
- CMS permit suspension clear (via data transfer to Module 2: Permit Management Application)
- Name and address request, notice generation and scheduling (Module 1: VMA to generate notices accessible for mailing by Module 4: Collection Services)
- Update status of vehicle previously identified for auction

Proponent Responsibility in the Event of Down Time
The Proponent must be responsible for updating the VMA with all payments received by the cashiers at City Hall and the Impound Lot when the downtime

periods of the online payment system aggregate to more than 60 minutes per day. The Proponent will be required to export this updated violations database electronically and upload the file to the City's data warehouse in a format approved by the City. The Proponent must be responsible for providing all the required controls, reports, procedures and documentation required to ensure that all City Hall and Impound Lot payments processed by the Proponent can be reconciled with Proponent data.

In the event of an outage, the Proponent must notify the designated City administrators via phone call, using a contact list to be shared by the City. . This notification must be followed up with a summary email and hour-by-hour updates until such time as the outage is restored.

1.2.1.6. Online Customer Portal

The City requires an online customer portal to enable the public to submit inquiries, information and actions related to City of Boston curbside regulations, violations and parking programs. This data must automatically update within the VMA. The system must have the ability to customize customers' access to data and the timing of delivery or notifications, as determined by the City. The customer portal must comply with the City of Boston's Data Security policy and Language and Disability Access Guidelines. The customer portal must provide authorized and secure access to customers to actions and information regarding:

- City of Boston violation, penalties, and payments
- City of Boston parking permits
- City of Boston fleet accounts
- Appeal decisions and hearing scheduling
- Tow alerts and vehicle's impound lot location
- Notices recieved
- Inquiries, requests, and complaints

1.2.1.7. Archived Files

To ensure efficient management of file storage capacity, the Proponent may archive parking violation records no sooner than 180 days after full payment or final disposition, unless directed otherwise by the City. This requirement also applies to incomplete records. Additionally, the Proponent may archive records of parking violations that have not reached final disposition upon the City's direction, optimizing storage and processing efficiencies. The Proponent must ensure that all archived information, as specified in this RFP, remains readily accessible in formats approved by the City for auditing and reporting purposes. To maintain operational efficiency and transparency, the Proponent's system must allow OPC staff to access archived ticket data through a cloud-based or LAN application to be reviewed in

advance by City of Boston Department of Innovation and Technology staff. This access must support auditing, reporting, and dispute resolution and enable retrieval using key identifiers, including ticket number, vehicle registration, and registrant name.

Archived parking violation records dating back to January 2018, along with any future archives, must remain accessible to City staff as outlined. The Proponent must have the capability to restore archived records into the CMS if needed. Upon archiving, vehicle registration files associated with archived records must be marked with an archive indicator, which should be visible during virtual queries.

1.2.1.8. Integration Management

The CMS Module 1 Proponent will be required to collaborate closely with other related systems, hardware, and processes to ensure seamless interoperability of the CMS Modules. To do so, the Proponent must track, flag, and support resolution of any factors that hinder the successful interoperability of the CMS system, including, but not limited to: data transfer speeds, incompatible data formats, data security concerns, data quality, and inadequate data governance practices.

The CMS Module 1 Proponent must lead problem-solving to resolve any issues related to VMA and CMS integrations, and quickly escalate critical concerns to the City, as required.

Additional Requirements

The Proponent will be responsible for:

- All software support, installation, development and maintenance support
- Managing the integration and interface applications to the CMS systems and subsystems and ensuring all applications function on the City's communication networks.
- Financial transactions and relationships with banks, the City, credit card companies and other involved parties, including clearinghouses that provide real-time authorizations.
- Operational, audit, reporting and reconciliation functions related to this module.
- Maintaining Payment Card Industry (PCI) compliance.
- Conforming to the City's data security standards and to those of Visa, MasterCard, Discover and American Express.
- Satisfying cardholder Information Security Program (CISP) protocol for Visa and Standard Data Protection (SDP) for MasterCard, Discover and American Express.

- Confirming all transactions and transfer of funds to City-designated bank accounts for the next day's reconciliation process. It should be noted that the banking process currently includes a service fee that is payable to the credit card processing company.
- Complying with all relevant federal, state, and local laws relevant to credit card security and personally identifiable information.

Instructions to Proposers:

Prospective Proponents are directed to review all sections and appendices of this RFP.

Prospective Proponents that respond to above requirements are required to describe the design and functionality of their CMS in terms of the following:

- The requirements set forth in this section.
- How it will support modular implementation, including technical staffing details: implementation (development, data migration, testing, training, and launch) and an ongoing basis throughout the life of the contract.
- Data management strategies, integrations with the City's Information Technology Team (DoIT), and how data is stored to prevent loss of service
- How data items are related to each other.
- The file structure/data structure utilized by the software system
- The organization, coherence, linkage and unity of the CMS's various constituent-facing elements.
- The integration and interoperability with City and CMStechnology system, including third-party vendors.
- Handling the large number and unique types of transactions
- Logic to prevent erroneous splits in registration records and allow City personnel to correct records online.
- The capabilities and means of scheduling and producing transactions, events and activities on very flexible schedules (e.g., the production of the same notice type on an hourly basis at various quantity levels specified by the City), and flexibility and ease of modification and enhancement.

This description must also include those portions of a Proponent 's CMS that actually execute actions and events.

In addition, while requirements identified in this RFP for a particular functional area and system element also include the relationship to other functions and system elements, the City requires that prospective Proponents address and describe these requirements in terms of the level of integration of their CMS.

The City encourages vendors to propose a variety of approaches that meet these needs, emphasizing flexibility and innovative solutions that reinforce operational transparency and ease of use.

1.2.2. MODULE 2: PERMIT MANAGEMENT APPLICATION

1.2.2.1. Permit Processing

The Office of the Parking Clerk manages the Resident Permit Parking Program (RPP). RPP was established to reserve certain parking spaces in congested neighborhoods for local residents. Vehicles must display a valid resident parking permit to utilize RPP-designated spaces.

The City requires a Permit Management Application (PMA) is able to integrate with violation records and data, providing, at a minimum, the capability to:

- Support efficient and secure administration of parking and permitting programs, with auditing and renewal processes, performance and activity reports.
- Facilitate digital and in-person/print permit applications and processing
- Create, update, and maintain permit files and data.
- Add, renew, hold/suspend, revoke, and reinstate (reactivate) permits
- Query and provide customizable reports on resident permit data (e.g., by permits by neighborhood, time period, name of permit holder, location, address, household, etc.).
- Support development of new permit types and processes.
- Generate notices, including: renewal notices and labels, permit renewal denial letters and revocation notices.
- Support City's efforts to responsibly archive data no longer required to remain on the online system management.

The PMA must accommodate the issuance of temporary permits for limited periods of time. Such permits may be supplemental to existing neighborhood programs or may represent new neighborhood areas or permit types. The PMA must also accommodate the issuance of special event permits for specific neighborhoods and/or groups specified by the City.

The PMA must accommodate at least five hundred thousand (500,000) permits. The PMA must allow online access via name, permit number, a system-generated control number and vehicle registration number. Information must be readily accessible in formats approved by the City for processing, auditing and reporting purposes, and all permit files for up to at least 7 years after last update. To maintain

operational efficiency and transparency, the Proponent's system must allow OPC staff to access archived ticket data through a cloud-based or LAN application to be reviewed in advance by City of Boston Department of Innovation and Technology staff. Each resident file must record, at a minimum, the following data:

- applicant name and address
- two telephone numbers
- neighborhood and neighborhood code
- permit number
- permit issuance date
- vehicle registration number
- vehicle make and year
- permit classification
- method of permit issuance
- proof of residency submitted
- historical records
- additional notes and documentation storage

The PMA must incorporate security features that will restrict access to certain functions to authorized personnel. The City would prefer for the RPP component to integrate with the Massachusetts RMV database, but at a minimum, the Proponent must, on request, cross reference permit address with the Massachusetts RMV database and the CMS database.

Currently, the Office of the Parking Clerk distributes parking permits free of charge. The Proponent's system, however, must accommodate the payment of a fee for permits via the VMA cashiering solution (Module 1). If that should arise, the Permit Management Application must be able to fully integrate with the City's payment processing system. This feature must be available to the City should the City implement a fee for permits during the term of this contract.

The Proponent must accommodate and support requests to improve the efficiency and effectiveness of current processes and reports. Future integration and development with the Permit Management Application is envisioned, to support potential development of new permit types, such as guest permits, and to improve user experience. For example, to enable a caller to obtain permit account status information over the phone, or to integrate with a public-facing portal or permit application.

1.2.2.2. Permit Management

The Office of the Parking Clerk (OPC) conducts regular and ad-hoc audits to confirm the ongoing eligibility of the City's parking program permit holders. The

PMA must provide City staff with functionality to manage permits and ensure permittees' compliance with parking program criteria.

The PMA must support permit renewal processes through customized data reports and automatic comparisons of the City's permit records against corresponding data within the MA RMV to flag conflicts. For example, OPC staff must use the system's permit records to confirm that permit holders' neighborhood-specific parking permits correctly reflect their updated address within the MA RMV. The data required for this MA RMV cross-reference includes, but is not limited to: name, plate, address, garage indicator, registration status.

In addition, a resident's parking permit can be suspended or revoked if they have any unpaid City of Boston parking tickets on their record by a pre-determined permit renewal data. The Permit Management Application must be able to integrate with the VMA (Module 1) to reflect updated data on unpaid parking tickets tied to a permit holder's license and registration. Upon the pre-scheduled renewal date, the PMA must be able to update the individual's permit and provide notice generation to notify the permittee of their suspended permit and resolution.

1.2.2.3. Online Customer Portal

The City desires an online customer portal to enable the public to submit inquiries, information and actions related to City of Boston parking and permit programs. It must facilitate or support online parking permit applications and document submission, updating the PMA in real-time. The system must have the ability to customize customers' access to data and the timing of delivery or notifications, as determined by the City. The customer portal must comply with the City of Boston's Data Security policy and Language and Disability Access Guidelines. A customer portal may provide authorized and secure access to customers to actions and information regarding:

- City of Boston parking permits
- City of Boston commercial permits
- Permit applications, status and updates
- Payment portal
- Notices recieved
- Inquiries, requests, and complaints

1.2.2.4. Integration

The Permit Management Application must have a Representational State Transfer Application Programming Interface (REST API) GraphQL, gRPC, WebSockets, MQTT or Event-Driven Architecture (EDA) for efficient queries that can be integrated with

other systems and services included as a part of the Curbside Management Solution (CMS) including payment processing, customer service, notice mailing, and compliance. The Proponent is required to collaborate closely with City teams, and contracted Vendors to ensure seamless integrations and interoperability of the CMS system.

Instructions to Proposers:

Prospective Proponents are directed to review all sections and appendices of this RFP.

Prospective Proponents that respond to above requirements are required to describe the design and functionality of their CMS in terms of the following:

- The requirements set forth in this section.
- How it will support modular implementation, including technical staffing details: implementation (development, data migration, testing, training, and launch) and an ongoing basis throughout the life of the contract.
- Data management strategies, integrations with the City's Information Technology Team (DoIT), and how data is stored to prevent loss of service
- How data items are related to each other.
- The file structure/data structure utilized by the software system.
- The organization, coherence, linkage and unity of the CMS's various constituent-facing elements.
- The integration and interoperability with City and CMS technology systems, including third-party vendors.
- Handling the large number and unique types of transactions.
- Logic to prevent erroneous splits in registration records and allow City personnel to correct records online.
- The capabilities and means of scheduling and producing transactions, events and activities on very flexible schedules (e.g., the production of the same notice type on an hourly basis at various quantity levels specified by the City), and flexibility and ease of modification and enhancement.

This description must also include those portions of a Proponent's CMS that actually execute actions and events. In addition, while requirements identified in this RFP for a particular functional area and system element also include the relationship to other functions and system elements, the City requires that prospective Proponents address and describe these requirements in terms of the level of integration of their CMS.

The City encourages vendors to propose a variety of approaches that meet these needs, emphasizing flexibility and innovative solutions that reinforce operational transparency and ease of use.

1.2.3. MODULE 3: ENFORCEMENT TECHNOLOGY AND SELF-SERVICE KIOSKS

The BTD Parking Enforcement team issues about 90% of all parking tickets in Boston. This team includes 210 officers, supervisors and towing supervisors that will be assigned portable enforcement technology supported by Module 3 of the City of Boston's Curbside Management Solution (CMS) RFP. At the start of the CMS contract, the Module 3 Proponent must provide a reliable and ready-to-use turnkey enforcement technology system, with proven products, systems and services. BTD will provide the Proponent required information for programming the handheld ticket writing device, such as violation codes, penalty amounts, enforceable areas, and meter numbers.

The City requires handheld ticket writing devices and printers (HHDs) capable of producing paper parking tickets and of transmitting parking ticket data and other information in real-time to the CMS database. The HHDs must have bar-code and license plate reader capabilities to scan vehicle information from inspection or other stickers for purposes of parking enforcement. HHDs must be capable of retaining parking ticket data in the device for later transmission to the City's CMS system in the event of transmission interruptions. Requirements for the HHDs are fully described in Section 1.2.3.1. below, and also include mobile tablets for tracking booting and towing activities and enforcement supervisory functions, as well as corresponding license-scanners/printers based at the BTD facility at 200 Frontage Road.

The second component of CMS Module 3 includes the provision of and maintenance of License-Plate Reader (LPR) Technology. The City of Boston currently utilizes License-Plate Reader (LPR) technology for two main enforcement functions: (1) installed on mobile patrol vehicle(s) patrolling City streets to support automatic identification of flagged vehicles, and (2) located at entrance/exit gate of the BTD Impound Lot to automatically track vehicles entering and exiting the lot for impound lot inventory control. Full specifications for the LPR Technology and associated services are noted in Section 1.2.3.2.

The third component of CMS Module 3 includes supply and support of high-quality and reliable self-service payment kiosks where the City collects payments for violations. The Kiosks' system must support real-time communication with the VMA violations database to update violation files of successful payment, and allow the VMA to process subsequent actions. The City currently has 3 kiosk stations

located at BTD's facility at 200 Frontage Road, independently operating 24 X 7 X 365. Full specifications for the Self-Service Kiosks are noted in Section 1.2.3.3.

Proponents must clearly demonstrate and substantiate within their RFP response that the proposed hardware, software, existing specifications, and related equipment and service ability and capabilities will meet the needs of the City and not require a significant development process during initial deployment.

1.2.3.1. Handheld Enforcement Devices

BTD Enforcement staff utilize hand-held ticket writing devices (HHD) to enforce traffic rules and regulations, per Chapter 90 of the Massachusetts General Laws and the Parking Rules and Regulations of the City of Boston. HHD's must operate effectively throughout all of Boston's weather and seasons. The devices must include at a minimum: A high-quality weather-proof camera, keyboard, microphone, and ability to connect in real-time to the internet and software, minimum fourth-generation wireless (4G).

The HHDs must be designed to ensure that the data entered into them is accurate. For example, the HHD's must prevent the entry of incorrect or missing data so the wrong person does not get billed for a parking violation.

1. **Real-time Data Access and Transfer to City Systems and Databases**: HHD's must be capable of communicating in real-time with the City's Curbside Management Applications (Modules 1 and 2) and/or be able to store a variety of information downloaded to them from City's databases. The hand-helds must be able to access updated parking permit data so that the City's enforcement officers can determine if a vehicle has a permit. The HHDs must also be able to effectively store downloads and maintain updated information, including the City's Stolen Vehicle File, Amber Alerts, and Missing Persons files. The HHD's connection must be accurate and reliable to enable the City's efficient and effective management of the curbside.

2. **Booting of Vehicles:** The HHD's must also have real-time access to and/or the capacity to store an updated list of the current boot-eligible vehicles of violators ('boot lists'), in addition to other lists like stolen vehicles. HHDs must have functionality to notify the user officer upon the entering of a plate associated with the boot or other lists, to enable communication with the BTD Base/Impound Lot. When a ticket is issued to a plate on the boot list, a message must be automatically transmitted to the Impound Lot dispatch officer and/or a boot crew, notifying a "hit" and the location of the vehicle; the "hit" should then be verified by the VMA or City staff (dispatch or boot

crew staff) to confirm that outstanding tickets have not been paid since the last update of the boot list.

3. **Analytical Studies:** HHDs must also be capable of recording vehicle registration data, including plate number and plate type, and automatically capturing date, time, and geospatial data, for each registration record for time-based and other studies and for this data to be communicated to the City's databases and CMS systems (Modules 1 and 2). Devices must send the following data in real-time to the CMS database: violation data, overtiming information, geo-location data for each entry, routes for analysis, regulation compliance and turnover studies.

4. **Meter, Signs, Signal and Field Service Reporting:** HHDs must support officers ability to enter a variety of information into other BTD field service and asset management applications, including those related to meter, sign and signal inventories. The handhelds must allow officers to signal the need for asset repairs to City Staff (BTD, Meter, Sign, Signal teams) with geospatial data and picture details. This could be accomplished through pushing data to the City's existing 311 system or future Customer Relationship Management (CRM) system via Creatio.

5. **Performance and Management Features:** The vendor's proposed enforcement solution must produce real-time data and reports regarding an officer's activity, such as the total number of tickets and types of violation written, time taken for lunch and breaks, etc. Data collection and reporting must allow for route and deployment analysis for optimization.

1.2.3.1.a) Hardware for Handheld Ticket Issuance, Booting and Towing

The Proponent must be responsible for providing a minimum of 260 handheld devices for parking enforcement, 41 tablets for Tow and Hold staff (301 devices total), 260 mobile printers, 6 license printers and all associated hardware required to run said assets including chargers, etc. as well as software and other equipment and services to support parking enforcement activities by the Boston Transportation Department. The Proponent must provide devices and the means for their real-time communication with CMS systems to support live enforcement actions. This may be done via wireless system, cellular telecommunications, satellite, and so forth, so long as it's done effectively, accurately, and in real-time.

The enforcement technology provided must be ruggedized, fully tested, debugged, proven in major urban city production environments, and determined to be completely reliable for entering standard information and generating a parking ticket. The technology must require only an extremely minimal degree of technical

dexterity to operate. The City requires a two-piece design for 1) the issuing device and 2) printing devices, in addition to 3) tablets for operational management and boot and tow operations, including vehicle condition reporting. The City currently utilizes FZ-N1 Series devices, manufactured by Panasonic, and on a cellular data plan.

Hardware proposed must be subject to the City's performance standards. The Proponent must be responsible for installation and maintenance of any vehicle-mounting devices necessary to secure units in mobile patrol vehicles as well as any vehicular modifications necessary to accommodate the efficient and effective operation of such devices and application.

The City requires enforcement HHDs including, but not limited to, the following devices and features:

1. **Ticket Issuance Handheld Device:** The City requires 260 handheld devices to issue parking tickets. These devices must have the ability to record information on violations and communicate that data to the CMS Module 1: Violation Management Application (VMA). The HHDs must provide dynamic and conditional data logic and functionality to increase efficiency and accuracy of data entry, including auto-filling (e.g. utilizing log-in information to auto-fill fields such as date, time, user ID/officer number, routes, initials, etc.), and the prompt of dependent fields based on initial data entered in a primary data field, such as violation type (e.g. meter violations require meter numbers). HHDs must support manual data entry to supplement the selection of some fields with comments or additional descriptive detail, such as the 'location' field (public or private). When a plate number is not available, ability to enter alphanumeric field for (VIN #) information is required, as well as the ability to record that a ticket was issued but not served.

    a) **Operating System:** City prefers standard operating systems, such as IOS or Android.
    b) **Processor & Memory:** The handheld device should be able to support the necessary storage and computing power to run applicable city applications such as the CMS and all associated modules, GPS programming, etc. Devices must be upgradable to scale for any additional programming needs.
    c) **Ticket Issuance Software:** The software must conform with the City's system specifications for the location, and provide autofill functionality to automatically populate ticket data fields with meter data. The software must be capable of creating file formats that readily facilitate and

accommodate data import/export between CMS and City systems (see more information below).

d) **Violation Imaging:** Houses a camera with the ability to take and record digital pictures for capturing, transmitting and storing images for retrieval and documentation of tickets, plates, vehicles, signs and other required elements. All images must be date/time stamped. The camera should be 13MP or higher with LED flash for night shots.

e) **Time-tracking violations**: Means of tracking vehicles in timed zones and/or spaces and advising officers of vehicles in violation. The application must keep track of the original time and location of the vehicle being 'timed' and record it on the ticket.

f) **Durable**: The handheld device must be able to withstand damage while being operated in New England weather, in terms of humidity, temperature, rain, snow, etc. The device must be waterproof, dustproof, and capable of withstanding repeated drops to concrete from a height of 3 feet. The device must be lightweight (including batteries) to avoid user fatigue and must be possible for the average person to hold the system unit easily in one hand for extended periods of time.

g) **Interface:** Proposed machines will be evaluated for interface quality. The interface must encourage efficient navigation within the application, including while wearing winter gloves in cold weather, without inadvertently hitting any other key. The interface must offer tactile and/or audible feedback, and support ergonomic/left-handed users. Must contain a full alphanumeric display with at least 40 display keys including separate alphabetic and numeric characters, plus appropriate function and character symbol display keys, such that license plate characters (i.e., asterisk, plus sign, etc.) can be easily entered with minimal multiple or simultaneous keystrokes required.

h) **Display:** The display screen must be clear and easily readable, with adjustable font sizes. It must be shock-resistant, glare-resistant liquid crystal, and support at least 160 x 160 pixels with a backlit display. The display must be non-fatiguing to minimize eye discomfort to the operator.

i) **Mobile Printers**: The handheld device must connect via bluetooth to the mobile printers provided by the Proponent.

2. **Ruggedized Tablets for Tow Truck Drivers:** The City requires 41 ruggedized, waterproof tablets and docking stations, with a screen larger than ten inches, to be used by tow truck operators for the purpose of photographing vehicles in the field before towing, for damage control documentation and relationship to the vehicle being parked with regard to the posted violation. The tablets must also be able to support operational management functions for senior enforcement staff. The City currently uses L10 Zebra Ruggedized

Tablets with an Android 10 operating system. The Proponent must provide new tablets that meet the City's needs.

a) **Vehicle Condition Report (VCR) Software:** The Proponent must provide and/or develop software for an electronic form that mirrors (and improves upon, as directed by the City) the current Vehicle Condition Report (VCR) to facilitate VCR issuance relative to towing policies. It must document and timestamps all towing events to accurately record the towing procedure. City personnel must have the ability to make corrections or edits to data input on the form if an error is made (e.g. incorrect state, make, color) and re-print with the correct information with the existing photographs in the file retained. Time-stamped data must be wirelessly transmitted in real-time to update the VMA violations database (Module 1) for further processing. Images must be stored and cataloged to the appropriate record(s) in the VMA system. The tablet-generated information related to tow activities must be integrated into CMS systems, such as inventory control systems and other subsystems, as the City deems necessary.
b) **VCR Form:** The VCR electronic form must be associated with the record and include the tow information and timestamps entered by the tow driver and captured by the system. This form must be printed with a barcode and the corresponding images and information, as well as transmitted to the VMA (Module 1) for accurate processing of the towed vehicles and completion of records. The City must have the ability to print this form at various offices, including the BTD Impound Lot and City offices.
c) **Scanning Functionality**: Tablets must include OCR-scanning and/or thermal barcode-scanning functionality to be able to scan the HHD-printed tickets and VCR tags. These functions should be able to be done in all outside New England weather environments. These tags are currently printed on paper that is weather resistant for up to 90 days.

3. **Printers**: The City requires two types of printers to support handheld and tablet devices. For the VCR tablet, the City requires 6 high-end, black and white license printers with license readers. For the handheld ticket issuance device, the City requires 260 mobile printers. The mobile printing device must have an ability to print and re-print parking tickets. The mobile printer must be fully compatible with the enforcement handheld device and software via bluetooth (preferably would be able to connect with the tablets as well). With battery and a full ticket roll, it should weigh less than 3 pounds. The printing devices must withstand damage while being operated in New England weather. In the rain, it must print legible forms and tickets that will

not smear when wet. It must print official-looking forms and tickets, and have functionality to print enlarged, emphasized, and condensed characters, sideways and upside down fonts, and programmable graphics. Prior to printing, the HHDs must trigger user confirmation and provide an ability to edit the data. Both preprinted and free-form printing should be accommodated.

a) **OCR and Thermal Barcodes Printing**: The ticket number must print on the ticket in a scannable format for processing through Ticket numbers must print in an OCR-A readable and landscape format. The printer must be able to print OCR-scannable ticket numbers and machine-scannable thermal barcodes for efficient payment processing across CMS modules, including the in-person cashier stations (Module 1), high-speed mailed payment check-reading devices (Module 4) and self-service payment kiosks (Module 3).
b) **Ticket Design:** The ticket design and print layout must allow for the minimum print speed (printing speed minimum: 8-inch form printed in 5 seconds or less). It must be able to print on preprinted, coated/waterproof paper and print all required data lines, including special characters, such as those on license plates.

4. **Batteries and Charging Equipment:** The Proponent must be responsible for supplying a rechargeable battery pack per device (563 battery packs) to support the 260 handheld devices and tablets and 260 ticket printers, plus 10% spare batteries to allow for battery change-outs and replacements. The Proponent must replace all batteries after 1 year of use, unless the Proponent specifies different minimum battery life standards. The City requires that handheld batteries allow for the use of a device for at least 12 hours. An external, charging cradle, used to charge the batteries while they are in the unit must be provided. Each individual rechargeable battery pack must be able to provide power for a minimum of 10 hours of continuous usage in a parking enforcement environment without changing or recharging batteries. The system must have a power saver feature that, when the system is operating on batteries, automatically goes into “sleep” mode after a period of idle time, which can be specified. The Proponent must provide a battery analyzer/tester for use with all batteries required for operation of any HHD provided.
5. **Additional Equipment:** Devices must have an ergonomically correct carriage, provide operability by left or right-handed personnel and include a carrying strap or other device to minimize fatigue.
6. **Data Plan** (as required)**:** The Proponent must provide the connection means required to support the 235 handheld devices and 36 tablets to communicate

in real-time to the City and CMS systems. If the Proponent proposes shared data, it must allow for unlimited total data usage for all devices provided to the City.

1.2.3.1.b) Real-Time Ticket Issuance System

The Proponent must provide an online, real-time ticket issuance software that will maintain the accuracy, security and integrity of all information and data to the highest degree attainable.

In addition, the below functionality is required for the ticket issuance system and HHDs:

- **User-friendly and intuitive design:** Simple prompts to enable officers to enter ticket information. Use of alpha-numeric search for look-up and selection. The display keys must have sufficient automatically adjustable lighting to facilitate use after dark and whenever low light conditions exist. The screen must be clearly readable in direct sunlight and after exposure to direct sunlight.
- **Data Access and Transfer:** Transmits data captured by HHDs via cellular frequency. Provides real-time access and/or an ability to download data from City systems and databases, such as scofflaw information to automatically link/identify a vehicle as a boot-eligible scofflaw. Ability to download parking permit information and associated vehicle registrations and link vehicles on the street to permit numbers. Ability to search databases containing newly canceled/expired or issued parking permits.
- **Triggered notifications and actions:** Ability to automatically search databases containing plate numbers, then instantly alert the officer to habitual offenders, stolen vehicles, or exempt vehicles, displaying the associated message to alert the officer to take immediate action (e.g., electronically notifying the Impound Lot Base Station for towing via the CMS system). The message may also be audible, alerting the officer to the vehicle's scofflaw status.
- **Data security and authorized users:** Be able to restrict full data edit and delete capabilities only to authorized individuals. Ability to track all changes and adjustments made to a record to a specific individual, date and time. ID-dependent ability to change the status of a citation and cite reasons for change, including an auditable void function and reason for void.
- **User profile and permissions:** Allows for creation of individual user profiles with specific access rights and security privileges, as defined by the system administrator. At a minimum, there must be three levels of password protected user logins - 1 for officers, 1 for supervisors, and 1 for administrators with the ability to configure devices. Access levels should include various levels of authorization to the following functions: 1) to specify

read only access, 2) to insert records, 3) to edit records, 4) to delete any record, 5) to delete only your records, and 6) no edit and/or delete capabilities. The system must also provide a full audit trail of every executed modification or transaction for each user.

- **User Log-In:** HHDs must facilitate user log-in actions, for when officers start their day or shift. At a minimum, this log-in will enable the user to take pictures, allow for a conditions check form of the city vehicle, and allow the officer to enter in the assigned car #for the day. HHD must generate the issuing officer's signature or like authentication as determined by the City, and badge number on each ticket. User data should be represented on a daily summary for each officer and logged into a back end portal providing functionality for supervisors to access. Should have an automatic logout after a certain amount of time, in the event the device is lost or a user fails to logout at the end of their shift.
- **User Activity Reporting:** The Proponent's system must provide an end-of-shift summary of each officer's activity, both printable on such officer's handheld device and accessible via the enforcement technology's supervisory tools. End-of-shift report must include, at a minimum, the date and time worked and total tickets issued.
- **Time and date stamp:** Include a real-time standard clock to provide date and time stamps for all operational functions, including vehicle registration number observations, over-timing of vehicles at meters and for time-based observations. The application must automatically synchronize the date and time between base station(s) and hand-held devices on a daily basis.
- **Time accuracy:** The system must maintain accurate time and date settings for the City of Boston, and must automatically adjust and reflect daylight savings/ standard time changes on all HHDs without any manual intervention
- **Device Management:** Ability to have GPS (Global Positioning System) capability for the purpose of tracking HHDs. The City requires a backend solution that can provide table updates, reporting and tracking, and user management for each VCR tablet. Must have the ability to track and report on the timing of meetings between handhelds; for example, synchronizing each handheld via 'airdrop' when a supervisor meets up with officers on their route to be recorded on end-of-shift daily summaries.
- **Payment processing barcodes and numbers:** Support HHDs capability to print thermal barcode and OCR-scannable ticket numbers for tickets and receipts issued to the public through the enforcement technology.
- **Duplicate function:** A 'group mode' or 'duplicate' function must be provided to some data fields to support efficient ticket issuance in situations requiring automated repetition of data (e.g., multiple violations in the same location).

- **Void function:** HHDs must provide authorized users the ability to void and record a reason for voiding parking tickets issued in error. The software must be capable of accurately tracking and reporting on voided handheld-issued violations. (If the Proponent proposes a per-ticket price, billing records submitted to the City must reflect voided tickets, which must be excluded from billing.)
- **Additional functionality:** Ability to scan barcodes or RFID tags for Resident Permits, Inspection Stickers, etc. Ability to record that a violator has driven off and that, as a result, the ticket was not left on the vehicle.

Required HHD Data Fields

The handheld and tablet devices must have the ability to record the following information, at a minimum:

- Unique ticket number (mod formulation to be determined by City)
- Issue date (automatic entry)
- Issue time(s) (automatic entry)
- License plate
- State/Province
- Registration number
- VIN number
- Plate Color
- Plate Type
- Vehicle Make
- Vehicle Color
- Vehicle Type
- Location
- Parking meter number
- Route
- Division (automatic entry)
- Zone (15 min, 30 min, 1 hr, etc.)
- Issuing Officer Name
- Issuing Officer Badge Number
- Violation Identification Code, Phrase(s), and additional description
- Fine Amount
- Officer Notes (both private and public)

1.2.3.1.c) Productivity Functionality and Dashboards

The City of Boston requires an integrated real-time productivity and functionality dashboard that works in conjunction with the handheld software, to help supervisors and managers supervise enforcement activities and deploy resources appropriately. The system must allow BTD Enforcement Supervisors to monitor and

track enforcement issuance activity and data including ticket issuance activity by shift, daily or other combined metric.

The product should include a dashboard interface that analyzes activities, such as time worked, areas patrolled, interactions with customers, violation issuance, and other data and analytics, such as GPS data locations (for employee safety), heat maps and other graphical displays.

Real-time ticket issuance activity must be transmitted efficiently and effectively to a supervisory application to be accessed using tablet devices provided by the CMS Proponent 3 vendor to provide supervisor personnel with real-time ticket issuance activity. The supervisory application must provide authorized users with the capability to view ticket data in various modes and to review and analyze ticket data for accuracy and completeness. The supervisory application must include the capability to record and log supervisor activity for subsequent reporting purposes (e.g., how many tickets supervisors 'check' during each shift). The Proponent's supervisory functionality must include the capability to produce activity reports in the field for analysis. Such reports must complement activity and analysis reports outlined elsewhere in this document.

System quality control features must be available on the tablets, such as verification of handheld ticket issuance application system edits and data tables. Tablets will need to connect wirelessly back to the main office at 200 Frontage Road. See printer specifications in Section 1.2.3.1.a. above.

Data Transfer and Communication Capabilities

The Proponent must be responsible for ensuring that their provided interface runs on the City's network, including between the base stations, the Proponent's offsite location, as applicable, and the handheld devices. The ticket issuance system directly hosts communication with multiple HHDs, allowing for simultaneous and automated data transfer. The system will provide the City the capability of wirelessly updating the hand-held devices to upload, download and charge any time. The Proponent is required to provide automated updating of data across all handheld devices (at least daily, but preferably in real-time), such as list of boot-eligible vehicles and other vehicle lists, as specified by the City, such as cataloging of parking permits and stolen vehicles. System performance of the handheld devices in terms of ticket issuance, response time, printing, data transmission of parking ticket data, etc. must not be adversely affected by access to/download and storage of data files. The software must incorporate auto-recovery techniques in cases of communications failure.

Enforcement Technology Development and Enhancements

The Proponent may be required to develop additional applications or enhancements to the enforcement technology system. These may include, but are not limited to: new integrations, parking meter inventory data, enforcement route surveys and turnover studies, field investigations, and data collection on missing signage. Additionally these HHD will need to report missing signage, broken meters, potholes and other cases they come upon while patrolling. This may be accomplished through integration with the City's existing 311 system or future Customer Relationship Management (CRM) system via Creatio.

1.2.3.1.d) Hardware Provision, Maintenance, and Support

The CMS Module 3 Proponent must be responsible for provision, implementation and ongoing maintenance and support of all required Enforcement Technology, including HHDs devices and printers, and associated hardware and equipment, such as base stations, batteries or charging equipment, and accessories (carrying bags, stylus replacement straps, etc.).

All equipment should be positioned at designated City sites as per City specifications, ensuring accessibility and operational efficiency. Supporting HHD equipment (docking stations, cables, etc) must all fit within the space provided by the City of Boston. At the contract's end, all hardware will become the property of the City, and the Proponent may be responsible for equipment disposal or relocation as directed. Equipment must adhere to City connectivity guidelines and be fully functional within specified operational requirements.

- **Handheld Devices and Mobile Printers**: The Proponent is responsible for ensuring operational functionality for handheld ticket-issuing devices and mobile printers, including repair and replacement as necessary. Devices must support comprehensive data capture, ticketing accuracy, and real-time data transfer capabilities. The devices should accommodate ergonomic design, visibility in diverse lighting, and weather conditions relevant to Boston operations.
- **Additional Equipment:** The Proponent must be responsible for supplying sufficient transmission cradles, chargers, docking stations or the like, to support the HHDs. The chargers and cradles must be connected to the minimum number of base stations and unit charging with minimal processing time and must include the capacity to upload and download data to the HHD each time they are docked via wireless technology.
- **Provision and Maintenance:** The Proponent is required to provide and maintain all handheld devices, mobile printers, and supporting equipment in line with the City's operational requirements, ensuring they remain consistently operational without service disruptions. This includes regular software updates and compliance with any City-specified standards.

Software upgrades must be scheduled at an operationally and efficient time and approved by the City. The Proponent must provide a schedule for preventative maintenance by manufacturer or certified technician (minimum twice yearly).

- **Repairs and Replacement:** The Proponent must provide repairs and full replacements for all hand-held devices, printers, and supporting equipment that is damaged, lost or otherwise rendered inoperative, for any reason. The Proponent must replace devices, determined to be beyond repair by either the hardware supplier or the City. Any replacements for damaged or faulty equipment must be new and fully configured and operational upon delivery, with a warranty covering the duration of the contract. Turnaround time of 48 hours for replacement equipment; if repair is longer, new and fully configured HHD's ready for service upon receipt.
- **Critical Repair/Replacement Thresholds:** To maintain operational capacity at all times, the City requires that the Proponent provide a dedicated staff member onsite that can perform all repairs and maintenance related to the hardware provided. The dedicated staff member will need to report in person to 200 Frontage Road every day during the standard work week. In addition if an immediate onsite response is needed on the nights and weekends the vendor would have staff be onsite (within 1 hour from notice) to either 1) resolve issues or 2) provide replacements:
    - Ticket issuance handhelds and mobile printers: when 3% or more of the equipment are rendered inoperable (current inventory impacted: 7 handhelds impacted and 7 printers).
    - Tablets and printers: when 10% or more of tablets, or 50% of printers are rendered inoperable (current inventory impacted: 4 tablets and 3 printers).
- **Training:** The Proponent must provide training for parking enforcement personnel relative use of the HHD including image capture. The Proponent must provide an appropriate amount of onsite training for employees at the time of implementation and offer follow-up training 10-12 weeks after software installation. The Proponent must also provide on-site ongoing refresher training at intervals determined by the City and provide skill/user specific-training for new-hire Parking Enforcement Supervisors, existing officers, supervisors, and City administrators.
- **Ongoing User Support:** The Proponent must provide access to a staffed Help Desk Call Center to report a problem 24-hours-a-day, 7 days a week, 365 weeks-a-year. Two hours is the maximum response time expected for support calls placed between 7:00 pm- 6:00 am EST.

The CMS enforcement technology must be supported by a fully installed and user-friendly base station at BTD's facility at 200 Frontage Road. At the base station,

the Proponent's system must accommodate the automatic and/or manual download of handwritten tickets and procedures. This system must provide officer status information (recording at a minimum officers not in the field). It must also generate an inventory tracking log to track the status of enforcement devices, capturing at a minimum,devices that are: in use, sent for repair, lost, stolen, and the corresponding date of each event and return to service or replacement date.

The Proponent's application must provide for easy backup and restoration of data based on user-defined parameters, and produce on a daily basis, a transmission report to substantiate successful transmission of handheld data to the Proponent's core Violation Management Solution.

1.2.3.1.e) Integration with Violation and Permit Management Applications

The Proponent will provide hand-held software modifications that allow for the real-time integration of enforcement data between the hand-helds and the City's Violation Management Application, pay-by-phone meter vendor (ParkMobile) and pay-by-plate parking meter vendor (MacKay Meters).

The VMA must support real-time integration with inventory and transaction data from enforcement technology (CMS Module 3), the City's new MacKay Meters Sentinel Meter Management System (for pay-by-plate multi-space pay stations), single-space meters, and the City's meter payment application, ParkBoston. ParkBoston is currently supported by a single mobile parking meter payment application/Proponent, ParkMobile, but may expand in the future. Additionally, the system must support the legacy meter systems, IPS and Flowbird, until the City's meter assets have fully transitioned to the current MacKay vendor.

This integration is essential for enforcement officers in the field to be able to confirm payment status for vehicles parked in metered zones and spaces (e.g., paid, not paid, overtimed). To be clear, the Proponent will be expected to provide a system that can:

- Integrate with all of the City's existing, as well as any future installations of, multi-space pay stations and single-space parking meters.
- Integrate with the City's existing and future installations of pay-by-cell parking applications.
- Handle as many as 25 million mobile transactions per year.
- Communicate with all parking meter systems.

1.2.3.2. License-Plate Reader (LPR) Technology

CMS Proponent 3 must provide 10 License-Plate Reader (LPR) systems with all required hardware and communication devices, to fully meet the City's LPR technology needs for parking enforcement purposes, including scofflaw

identification, parking enforcement, and impound lot inventory management. The City currently uses LPR technology in 6 vehicles, 1 at the Tow Lot main gate, and would like to have up to 3 spares on hand for replacement if needed. The Proponent must be responsible for the installation and maintenance of all system hardware, communication devices, and where applicable, any vehicular modifications necessary to accommodate the efficient and effective performance of the CMS LPR technology and system. The City must specify installation locations and any additional use cases for LPR technology based on public safety and/or parking management initiatives and needs.

The Proponent's LPR system must efficiently and accurately match scanned vehicle license plates (moving at the speed of no less than 5 mph) to City lists and data, including the Boot Eligible Database (BED). The Proponent's LPR technology and system must be capable of providing effective real-time searches to review and flag eligible 'hits'. The LPR system must collect real-time data and facilitate live enforcement action. This may be done via wireless system, cellular, satellite, and so forth, so long as it's done effectively, accurately, and in real-time. Data captured through the LPR technology must be communicated in real-time to the Proponent's and/or City's back-end system and database, to record and complete the transaction. For example, without operator intervention, the system must be able to automatically send email files of a stolen vehicle's location with pictures of the plate to any email address programmed into the system.

Additional requirements for the Proponent's LPR technology include:

- **Real-time updates to integrated CMS:** The LPR system must interoperable with the CMS system and be capable of communicating real-time updates of booting and towing activities to the CMS VMA (Module 1), including, but not limited to, data within workflows, boot and tow inventories, violation records and vehicle status (i.e., location of vehicle booted, vehicle color and make, boot number). The system must accommodate real-time data transfer.
- **User-friendly screen and notifications:** The maximum number of user-friendly and operationally convenient features and functions, including: immediate audible and visual alerts via prominent display screen to notify enforcement staff of registrations scanned that are flagged by the BED or other City lists; touch-screen display of scanned license plates, etc.
- **Efficient processing time:** The system's response time must be fast enough to allow for the continuous entry/scanning of vehicle registrations; and under no circumstances must response time exceed four (4) seconds for data retrieval (i.e., query against "hit" file).
- **Security and authorization:** The system must contain sufficient security features such if a vehicle registration entered is contained in the seizure

eligible file or other City list, the LPR system cannot be bypassed (i.e., not booted or towed) without supervisory authorization

- **Data storage:** The system must retain the maximum amount of activity data in log files for each unit/device. The LPRS Back Office System must have the ability to store and catalog photos for, at least, up to 60 days and be capable of recalling those plates on demand (searchable by: plate, street, location, time, date). This data must be downloaded to a local PC and the City's database and made available via the maximum amount of supervisory reporting functions
- **Live remote access:** The system must provide for remote access to management features from designated PC workstations for authorized supervisors. The system must be capable of remote live view and remote search on all LPR systems in the field.
- **GPS data:** The system must capture GPS data and be able to send email with a location of a vehicle as well as a photo of the vehicle to any and all types of email address (i.e., .com, .net, .org, .gov, etc.), as specified by the City.
- **Boot Eligible and other files:** The system must be able to access updated City files and databases for boot-eligible registrations, as well as other lists like Amber Alerts and Missing Persons, to match against its live data capture. The file of boot-eligible vehicle registrations must be cleaned on a daily basis of the registrations of successful booting activities. The system must be able to access updates within the Boot Eligible Database ideally in real-time, but at least on a daily basis,in accordance with boot eligibility criteria discussed previously in this section of the RFP;

The Proponent must provide initial onsite training for City staff on both the vehicle equipment and back office software, and also provide virtual training as needed or requested by the City.

Impound Lot Inventory System

To support BTD Impound Lot inventory control, one of the LPR systems with four (4) cameras is to be located at the impound gate of the Impound Lot and be capable of scanning the license plates of vehicles entering and exiting the lot for the purpose of impound lot inventory control. To track booting and towing activities, the LPR system must automatically match and time-stamp the tow record with information on the vehicle arrival and departure via real-time communications with the CMS VMA system and records. The VMA system must match payment transactions (from any payment origin point or cashiering location) to the license plate captured by the LPR cameras as leaving the lot to update and confirm the vehicle's status in the system. This system must produce a unique bar code inventory control transaction label. This label must produce a clear and recognizable transaction number and show the vehicle's license plate. The system

must record to the VMA the time the vehicle entered the lot and the time the vehicle exited the lot. This system must have the ability to read preprinted bar codes and provide other information as needed to the VMA.

1.2.3.3. Self-Service Kiosks

To increase the accessibility and convenience of violation payment services, City of Boston accepts payment via self-service kiosks; the City currently has 3 kiosk stations located at BTD's facility at 200 Frontage Road, independently operating 24 hours-a-day, 7-days-a-week. The current kiosks are custom-made units from ADCOMP.

The City requires a Proponent to supply high-quality and reliable self-service payment kiosks to support the City's Curbside Management Solution (CMS). Equipment must adhere to City connectivity guidelines and be fully functional within specified operational requirements. The self-service kiosks supported by the Module 3 Proponent must be able to fully integrate with the City of Boston's payment processing system.

In addition, the Kiosks' system must support real-time communication with the VMA violations database to update violation files of successful payment, and allow the VMA to process subsequent actions (i.e., vehicle release from BTD Impound Lot). The Kiosks' system must generate and communicate sufficient data to produce receipts, releases and electronic data for processing the release of vehicles.

The Proponent is required to provide the City with 4 completely developed kiosk stations that:

- Provide bill payment functions
- Utilize the barcode on the parking ticket, notice, or other document when available for the purpose of retrieving the records for payment
- Accept split payments of cash, credit card, prepaid credit card, debit card payment options (and preferably, tap-to-pay), and credit the recipient's records in real-time and update violation status appropriately
- Disburse change to the customer for any overpayment of the transaction and/or return the customer's cash payment if the transaction is canceled by the customer
- Generate 2 bar-coded receipts (customizable by City's request), pulling data on the vehicle's impound lot location (e.g., row and space number) for the release of motor vehicles
- Scans and stores documentation and licenses, and can print a color copy on demand

- Provides authentication and security functions to satisfy the City's security requirements to match data scanned from a driver's license (all 50 states) to data on the provided credit card
- Provide users with multiple language options, a minimum of 5 languages, as determined by the City at the time of contract award
- Are designed for outdoor use, with internal heating and cooling systems to keep the machines running at an optimal temperature. (Currently, they are encased in a closed shed, protected from most environmental elements)
- Include security surveillance technology, with a minimum of 4 cameras in each unit that will record and hold up to 5 days, 120 hours of playback video that is accessible to the City by a secure portal or webpage
- All stations should be equipped and accessible 24 X 7 by remote software by the City and the vendor.

The Kiosk stations must be capable of providing an option, in the event of a kiosk failing mid-transaction, to allow the customer to complete the transaction at the other Kiosk(s) and be credited with any funds collected from the other kiosk that failed. (Understanding that a jammed bill may not make the transition to the transaction on the other kiosk).

Additional Requirements

The Proponent will be responsible for:

- All hardware and software support, installation, integration, development and maintenance support. In cases of kiosk issues or failures, the City requires at all times at least one functioning kiosk at all times. Thus depending on the scope of the impact, the Proponent must respond:
    - 2 of 2 Impound Lot Kiosks down: Requires immediate response on site (within 1 hour of notification), with ability to resolve hardware, software, or replace with functioning kiosk
    - 1 of 2 Impound Lot Kiosks down: Impacted at Impound Lot 12-24 hour response time for diagnosis and resolution.
    - Kiosk inside BTD Base down: 12-24 hour response time for diagnosis and resolution.
- Managing the integration and interface applications to the CMS systems and subsystems and ensuring all applications function on the City's communication networks
- Financial transactions and relationships with banks, the City, credit card companies and other involved parties, including clearinghouses that provide real-time authorizations
- Operational, audit, reporting and reconciliation functions related to this module
- Maintaining Payment Card Industry (PCI) compliance

- Conforming to the City's data security standards and to those of Visa, MasterCard, Discover and American Express
- Satisfying cardholder Information Security Program (CISP) protocol for Visa and Standard Data Protection (SDP) for MasterCard, Discover and American Express.
- Confirming all transactions and transfer of funds to City-designated bank accounts for the next day's reconciliation process. It should be noted that the banking process currently includes a service fee that is payable to the credit card processing company.
- Providing customer support 24 X 7 X 365 to the customer and the City, and must include a toll free number posted on each Kiosk to access support from a live technical support person.
- Maintaining at least one main point of contact at the company which supports the Kiosks, in order to resolve any problems, disputes, or requests for information.

Kiosk Enhancements and Development

The Proponent must be responsible for the installation and maintenance of all Kiosk system hardware, software, communications and integrations, and where applicable, any Kiosk modifications necessary to accommodate the efficient and effective performance of the Kiosk systems. The hardware and software, including operating system and programming language, must be such that these systems "components" must be refreshed as significant improvements become available and, further, the implementation of such improvements must not adversely affect any other system components, features or functionality. All hardware and software upgrades must be relayed to the City in writing prior to installation, with an explanation of why the change is necessary. Before any changes are put into production, the Proponent must receive approval from the City.

The Proponent must make an effort to provide any enhancements to the kiosk, requested by the City. If the Proponent is unable to provide enhancements or meet the City's request, the Proponent must provide a written explanation as to why they cannot. (An enhancement's effect on other clients will be reviewed, but may not be accepted as a valid reason for refusal). Enhancements must be fully tested by the Proponent and must be fully functional in a production environment when delivered.

Emergency upgrades may be deployed to repair a bug or security problem without prior notice to the City, provided the City is informed of the upgrade the next business day, with an explanation of why the upgrade was needed. The Proponent must have the capability to back out of any upgrades to the system, and return the

system to working order within 2 hours of any failed launch upgrade. No upgrades will be implemented on weekends and holidays unless approved by the City.

The Proponent must provide a backdoor system for the purpose of adjustments, available to authorized personnel. Any adjustment errors, corrections or credits to any transaction must be corrected within the same business day, either by the City or the Proponent.

Instructions for Proposers:

Prospective Proponents are directed to review all sections and appendices of this RFP.

Prospective Proponent's responses to this RFP must identify in detail:

1. How it will comply with the requirements stated in this section.
2. How it will support modular implementation, including technical staffing details: on-site installation (site preparation,integrations, training, and start-up) and an ongoing basis throughout the life of the contract
3. Hardware specifications for self-service payment kiosks, handheld devices, printers, tablets and other associated equipment in their proposal, including warranty and maintenance terms. Specifications should include maximum battery charge times and battery life (if applicable), transaction processing speed, and data storage capabilities. Be sure to detail all hardware unit costs in Page 1: Hardware Price Breakdown of the CMS RFP Price Proposal.
4. Provide documentation to substantiate any field test claims relative to hardware proposed.
5. How it will achieve the necessary communications and integrations with other City and CMS systems and services

Prospective Proponents are required to submit the hand-held device(s), printers, and tablets for hardware evaluation purposes. Proposers may propose up to 3 different devices and must submit one unit for each hardware platform proposed. The device(s) must be accompanied by a carrying strap or case to facilitate actual field-testing operability. The Proponent must note if the device is designed for right or left hand use, if applicable. The hardware must be accompanied by paper such that sample tickets can be produced. The Proponent must note if the proposed devices require a specific type of paper roll or sizing and what the exact specifications are. The Proponent may provide a list of additional hardware that is capable of supporting the Proponent's handheld ticket issuance software, if applicable.

The Proponent must provide the City with an implementation plan to ensure a smooth implementation of the enforcement technology, as proposed.

Enforcement Technology and Kiosk support personnel must have current industry certifications and appropriate experience to fully support all networking, hardware and software platforms utilized. Support personnel must be responsible for coordinating system modifications with City staff (as well as any paper and/or envelope suppliers utilized and supplied by the City) and CMS technical personnel, troubleshooting problems including hardware and application problems, and training City staff.

The Proponent must provide and maintain handheld devices and LPR technology for parking enforcement in line with the City's operational requirements. In addition, the Proponent will be responsible for the servicing and maintenance of all payment kiosks, ensuring consistent operability. The Proponent must provide prompt troubleshooting and repair support when required. All equipment should be positioned at designated City sites as per City specifications, ensuring accessibility and operational efficiency.

Any replacements for faulty equipment must be fully functional and configured upon delivery, with a warranty covering the duration of the contract.

1.2.4. MODULE 4: COLLECTIONS, MAILED PAYMENT PROCESSING, AND DATA ENTRY SERVICES

The Module 4 Proponent will be responsible for supporting CMS noticing, collection services, payment processing, and data entry, including:

- Notice Management/Primary Collections): Handling the receipt, routing, and re-routing for all parking violation and permit-related notices and correspondence.
- Mailed Payment Processing: Processing, accounting, and depositing mailed payments.
- Data Entry: Receipt/pick-up and data entry of handwritten parking tickets.
- Secondary Collections: Collecting eligible unpaid parking tickets.
- Scanning and Documentation Upload: Scanning parking ticket-related correspondence, notices, mailed payments, and handwritten tickets.

The Proponent must be responsible for providing accurate, automated documentation, daily reporting, and processing of mailed notices and payments, including secure mail-house and mailed payment services to ensure timely customer service. The Proponent’s work must be fully and seamlessly integrated

with the City of Boston's payment processing system and CMS systems and workflows.

On behalf of the City, the Module 4 Proponent must in accordance with Massachusetts General Laws Chapter 93A, and any and all other laws pertaining to collection activities, collect parking ticket fines and penalties from the responsible vehicle owners and operators. All collection activities must be performed in compliance with all other provisions of this RFP and with applicable provisions of the Federal Fair Debt Collection Practices Act and Massachusetts General Law.

Proponent Staffing and Facility

The Proponent must ensure appropriate staffing, with oversight approved by the City. The Proponent must ensure consistency, quality control, reconciliation of delivered and entered data, and implementation of necessary edits and controls. City mail must be stored at a secure facility at the Proponent's risk and be available for delivery to Boston City Hall within 24 hours of processing. Access to processing devices and sensitive materials must be restricted and secured. The Proponent must provide an organizational chart to demonstrate sufficient staffing levels. Staff must navigate complex procedures, address ambiguous or incomplete payment instructions, and investigate discrepancies using City and CMS systems. They will handle cases involving multiple tickets or registrations and frequently returned correspondence, with a focus on maintaining a legible audit trail.

1.2.4.1. Primary Collections/ Notice Management

Via CMS Module 4, the City issues notices to customers, including parking violators and parking permit holders, to provide information and collect payments due to the City. The Proponent will handle the mail-house services, ensuring prompt and accurate delivery of all notices to violators and permit holders, as specified by the City and as generated and scheduled by the CMS Violation Management Application (VMA) and Permit Management Application (PMA).

The Proponent must only use notice letters approved by the City's Parking Clerk and with data generated by CMS systems. The Proponent must be able to receive and/or access the notice letter files and schedules that will be generated by the CMS VMA and PMA on a daily basis to print and mail correspondence in a timely manner and regular schedule (at daily, weekly, or monthly frequencies as appropriate). Printing should occur within 24-hours of notice creation or revalidation, with strict adherence to sorting and batching standards for optimal postal savings. Notices created during weekends should be printed by noon on the following Monday.

In relation to primary collections and notice management, the Proponent is required to provide:

- **Mail House Services and Logistics:** The Proponent is responsible for the mail house functions, which include handling, sorting, and delivering notices to the U.S. Postal Service within 24 hours of printing. Notices must be sorted and organized to optimize mailing costs. If located outside Boston, the Proponent must ensure that logistics and quality standards are maintained, and that the postmark reflects "Boston" or remains blank as required by the City.
- **Inventory Control:** The Proponent is responsible for managing appropriate inventory levels for all printed materials, ensuring adequate stock levels, and coordinating replenishments as necessary.
- **Optical Character Recognition (OCR) Capability:** The Proponent's solution must be cost and time effective and must support OCR technology to streamline payment processing, reduce operator error, and improve processing times for payments. Ticket level notices must include OCR-readable data for ticket number, amount due, and City code.
- **Notice Records:** An online system with notice management functionality must be provided to offer comprehensive reporting and analysis of notice activity. The Proponent must maintain a virtual notice solution log, recording details such as notice type, address, mail dates, notice counts, and other relevant data for each notice type. This data must be accessible to the City for tracking, reconciliation and customer service inquiries, preferably through real-time or daily updates to the violation database (Module 1) and permit database (Module 2).
- **Returned Mail and Address Management:** The Proponent must establish procedures for handling returned mail. When notices are returned as undeliverable, the Proponent must update records to prevent additional notices from being sent until a valid address is obtained. Returned mail must be recorded in the VMA system daily, with access for City staff to review and update as needed. The Proponent is required to make attempts to re-route the mail via name and address checks with the MA RMV.
- **Postage Costs:** The City must arrange for prepaid postage to be used for the mailing of all notices and correspondence to violators.

1.2.4.2. Mailed Payment Processing

The City views the Mailed Payment Processing function in Boston's CMS system as a complex, non-standard mailed payment operation requiring accurate, timely processing and accounting of payments. Vendor performance will be closely monitored. Payments must be processed daily, with correct application, deposit, and VMA updates. All mailed payment and correspondence must be sorted, labeled,

and scanned, and as required, delivered to the City daily. The Proponent is expected to deliver 100% error-free mailed payment processing.

Payments must be applied to specific transactions, such as individual and multiple parking violations, except for 'incomplete payments'—those linked to violations not yet updated in the database. These incomplete payments must be stored with and matched to updated violation records when available.

The Proponent is responsible for efficiently processing mail, parking ticket correspondence, and payments, using real-time online processing, OCR-enabled automation, high-speed scanners, and secure cash handling procedures. Staff must comply with audit standards and ensure bonding for cash-handling personnel.

Depending upon numerous factors (such as ticket issuance, etc.), it is estimated that the Proponent must typically provide the capability to accurately and timely process between 250 to 500 ticket payments per day. The Proponent must have the capability to expand this 500 ticket payments per day capacity by increments of 100 payments per day, as needed by the City.

The Proponent must:

1. **Daily pick-up from rented USPS mailed payment:** Rent a post office box for mailed correspondence and payments, removing its contents daily via a bonded courier.
2. **Sort mail:** Separate and process mail based on its content (correspondence only, combined payments and correspondence, or payments only).
3. **Process payments and correspondence:** Process payments and correspondence, following specific payment processing procedures. Payment checks must be processed, endorsed, and deposited within 24 hours.
4. **Data and deliver any specified mail to OPC:** Date and deliver any specified types of correspondence within 24 hours to the Office of the Parking Clerk, using minimal fastening.
5. **Input payment information into the violation records:** Input payment information into the CMS violations database (Module 1) with appropriate controls, processing 80% of payments within 24 hours of receipt. Apply partial payments to violations and update payment statuses accordingly in the VMA violations database.
6. **Track payments details:** Record payment details, including violation numbers and payment method, and display this information in an online inquiry system.
7. **Post-dated checks:** Hold and process post-dated checks after 10 business days.

8. **Daily deposit of payments:** Endorse checks to the City's designated account for deposit.
9. **Document storage:** Store original documents securely for indefinite retention, providing an indexing system for easy retrieval.
10. **Regular report delivery:** Provide virtual activity and management reports to the City on a daily basis.

Note: At present, the processing of mailed payments is facilitated via the utilization of different post office box addresses for the receipt of: (a) parking ticket mailers, (b) return envelopes and, (c) returned mail. Also, return envelopes are color coded according to OCR-processability. It should be noted, however, that the public does not always utilize the return envelopes provided.

Payment Processing System

The Proponent's payment processing system must efficiently handle the high volume and unique complexity of parking violation payment transactions. The system must offer flexibility to accommodate various payment scenarios, including:

- Whole ticket payments
- Partial ticket payments
- Payments covering multiple whole tickets
- Payments covering multiple partial tickets
- Whole registration payments
- Payments covering multiple whole registrations

This adaptability is essential to ensure accurate and effective processing of the diverse payment types encountered in the City's mailed payment operations.

Research Items

The Proponent is responsible for handling research, exception, and non-standard items received through the mailed payment as follows:

1. **Payments without Violation Numbers**: If a payment includes only a vehicle registration number, the Proponent must conduct inquiries to apply the payment to any outstanding violations associated with that registration number. Payments will be applied to tickets less than 21 days old first, with any remaining balance applied according to City instructions.
2. **Excess Payments**: If a payment exceeds the amount due for the listed violations, the Proponent must inquire to determine if there are other outstanding violations for the same vehicle registration. If so, the excess payment will be applied to those violations per City instructions. If the excess cannot be applied, the Proponent will follow the City's overpayment instructions.

3. **Unsigned or Unappliable Payments**: If the Proponent receives an unsigned check or an unprocessable payment (e.g., no violation or registration identifiable), the Proponent must:
    - Address and send an envelope to the payment originator with the unsigned check, associated correspondence, and a City-provided form letter.
    - Provide the City with a weekly report of such unprocessable payments.
4. **Special Fees**: Payments for storage fees, seizure fees, abandoned vehicle charges, and fleet/rental vehicle surcharges should be forwarded to the City within 24 hours and not processed through the mailed payment.

The City will provide the Proponent with procedures and forms for processing other payments not specified in the instructions.

Comprehensive Audits and Controls

The Proponent is responsible for implementing comprehensive audit and control procedures to ensure:

1. All mail from the post office lock box is delivered to the processing location.
2. Mail is sorted and batched correctly.
3. The City receives all correspondence promptly.
4. Payment information is accurately entered.
5. All batched payments are processed as submitted.
6. Processed payments are correctly updated in the system.
7. Payments posted in the system reconcile with bank deposits.
8. Checks are redacted and scanned into the primary system.

Additionally, the Proponent must accurately account for any rejected items (e.g., during batch updates), including re-entering them. Effective security measures over cash, checks, and terminals must be maintained, ensuring timely deposit of cash payments and control over error corrections.

Bounced/Bad Checks

When customers' checks are returned by the bank unpaid, the Proponent will charge the City's mailed payment Deposit Account in the amount of the unpaid items. The Proponent must arrange for violations which correspond to unpaid checks to be reactivated as unpaid in the violations database (Module 1), revert the violations' status preceding the application of the unpaid check, and note the receipt of a bad check. At that point, the VMA must assess a bad check fee to the license plate record. Such notation must be displayed on the license plate and violation level within the VMA database. This notation must be removed six months after the payment of the bad check fee. The Proponent must then notify the customer of a bounced check of the revised amount due.

1.2.4.3. Data Entry Services

Boston Transportation Department (BTD) enforcement personnel currently issue the vast majority of parking tickets electronically, accounting for 90-96% of tickets annually. BTD may issue a handful of written paper-based tickets on rare occasions. In addition, roughly fifteen (15) agencies, plus six divisions of the Boston Police Department are currently authorized to issue parking violation tickets in the City of Boston and do so via hand-written paper-based tickets. Generally, a typical daily amount of paper-based tickets turned in may range from 250 to 500 tickets. On a typical weekly basis, the Proponent must accommodate a range of 1,000 to 3,000 tickets.

The Proponent must provide precise, error-free data entry, aiming for zero defects. The City will monitor data entry issues, and the Proponent must hold regular meetings with the City to review data quality and refine processes to maintain standards. Accurate data entry is essential to correctly identify registrants and support customer service, adjudication, and collections. Delays or errors—such as incorrect or missing billing information—can negatively impact operations, costs, and the City's reputation, so they must be prevented.

Ticket Retrieval and Receipt

The Proponent must have the capability to accurately and efficiently receive and/or retrieve and process fluctuating volumes of paper-based tickets on a daily basis and at the direction of the City. The City may designate pick-up or delivery locations in coordination with the Proponent to suit the City’s business needs. The retrieval must occur at least once a day on a schedule to be determined with the City.

The Proponent is responsible for providing comprehensive and strong quality control measures to ensure the accurate handling of tickets received from issuing agencies. The Proponent must ensure that all items are properly retrieved or received, documented, and processed via data entry and scanning in a timely fashion. The Proponent assumes liability for all items lost during transit and is responsible for identifying and reconciling any differences in counts of tickets and between ticket receipt and the data entry and scanning.

Data Entry Responsibilities

The vendor is responsible for data entry of all parking tickets and must complete data entry within 1 working day after receiving ticket copies. The data entered must be transmitted to the VMA violation database preferably in real-time, but at least on a daily basis. The Proponent is responsible for entering all data on the handwritten parking tickets, excluding the issuing officer's name. Please refer to the RFP’s

“Historical Reference Material” for the ticket layout and data fields. The Proponent must provide comprehensive quality control over data entry services and is responsible for submitting and utilizing detailed data entry specifications and procedures.

Original tickets are to be delivered to the City for potential cross-referencing with other records, like the Police Department's Stolen Vehicle File. The City will store the original tickets. Ticket information may be batched to support quality control and inventory management.

Edits and Controls

The Proponent must double-key critical fields to ensure the validity of entered data and identify ticket rejects. Critical ticket fields to be double-keyed must include, at a minimum, batch date, batch sequence, ticket number, date of issue, state, plate color, plate type, license plate number, meter number and violation code.

Automated ticket editing must include, but not be limited to:

- alpha and/or numeric restrictions/specifications for fields such as ticket number, year/date, state, time, meter numbers, etc.
- numeric parameters for year and date restrictions
- issue date cannot be 22 or greater days old
- issue date cannot be greater than date of data entry
- violation number must pass check digit validation
- violation number must be complete
- issue date, plate number, plate state, plate color, plate type (PA, AP, CP, OT) violation code and location cannot be missing
- the City of issue must be Boston
- if a Massachusetts registration, first character cannot be the number zero (0), if a Massachusetts registration, if first character is the letter ‘O’, second character cannot be the number zero (0)
- if a Massachusetts registration, the fourth character cannot be the letter ‘O’ (except vanity plates).

Reconciliation

The Proponent is responsible and must account for identifying and reconciling any differences in the number of tickets delivered to the data entry facility and the number of tickets entered. The Proponent is responsible for ensuring that only tickets issued by the City (and authorized agencies) and delivered to the Data Entry facility are actually entered.

Unprocessable Tickets

Tickets that are determined to be unprocessable due to missing or invalid data must be data entered to the Proponent's system, to the extent possible with the information contained on the ticket, as void/unprocessable citations. Such tickets must be batched, accounted for and categorized separately from processable tickets by void reason. The Proponent's online CMS must reflect zero dollars due for all such void/unprocessable tickets and void reason.

1.2.4.4. Secondary Collections

The Commissioner of Transportation or the Parking Clerk may assign unpaid parking tickets issued in prior calendar years to be assigned to the Module 4 Proponent for secondary collection efforts.

Effective July 1, 2025, subject to the discretion of the Parking Clerk, the secondary collections assignments must include, at a minimum, the following outstanding parking ticket accounts:

1. Aged 8 months from the date of issuance;
2. Issued to out-of-state (non-MA) registrants and aged 90 days from the mail date of a third out-of-state dunning notice;
3. Issued to leased, rental and taxi vehicles that have been included in and aged 90 days from the mail date of a second lease/ rental/taxi vehicle notice;
4. 'Non-renewal' status, and aged 25 months from the date that the non-renewal mark was updated to the database in the cases of registrations subject to renewal every two years; and,
5. 'Non-renewal' status, and aged 13 months from the date that the non-renewal mark was updated to the database in the cases of registrations subject to annual renewal
    a) Less any tickets paid as a result boot and tow activities
    b) Less any specific tickets 'marked' for non-renewal of driver's license or vehicle registration at the MA RMV, that are not in groups 4 or 5 above.

Proponents should be aware that their fee will **not** include any payments for non-renewal fees, or any other fees or other charges that are collected and directly or indirectly remitted to a non-City entity.

In the past, the City of Boston has divided secondary collections efforts into two categories based on the amount of time past issuance date, with different payment percentages claimed by the secondary collection's vendor. The Proponent may propose a similar approach, or may propose a flat rate against all secondary collection categories.

The City and/or the VMA system will notify the Proponent of applicable changes in the status of tickets assigned for collection, such as payments received, dismissals,

or reductions. The Proponent will suspend collection efforts on any tickets immediately upon receipt of notice from the Parking Clerk (written or telephonic). The City must not be liable for any fees on suspended tickets, except for fees that result from prior collection efforts on the suspended tickets. However, the City's liability must be only for a period of 90 days after the date of suspension. If the Proponent has commenced collection efforts on any tickets prior to the end of the term of this Agreement, the Proponent will only be entitled to fees on ticket payments made on or before the termination date.

Collection Activity Records And Management Reports

The Proponent must maintain separate records on each ticket assigned for collection. Each ticket file must contain records of the Proponent's collection efforts and any other pertinent information. The records must be available at all times for the City's inspection and audit, upon prior written notice to the Proponent.

The Proponent will produce for the City monthly management and activity reports. These reports will outline the specific tickets identified, violation notice data, collections received and other similar accounting data.

1.2.4.5. Documentation Scanning and Upload to CMS systems

The Proponent is required to efficiently and accurately scan and upload directly to CMS databases all processed documentation within 12 hours of receipt, including notices to be mailed, correspondence and payments received, and handwritten tickets. Each scan must be legible and meet accessibility requirements. The Module 4 Proponent is responsible to verify and ensure that items are scanned and associated properly to the correct records within the violations and permit database and that a record of control logs are available at the City's request.

1.2.4.6. Activity Reporting

The Proponent must generate and provide various activity reports to be utilized by the City and the Proponent. The Proponent should anticipate that the City may require minor and occasionally significant modifications to the reports described, and potentially additional transaction data updated to the violations database (Module 1).

The required reports include, but are not limited to:

1. **Monthly Secondary Collection Activity Report:** The Proponent must provide monthly management and activity reports for secondary collection activities.

These reports will outline the specific tickets identified, violation notice data, collections received and other similar accounting data.

2. **Weekly Bounced Check Report:** On a weekly basis, the Proponent must provide the City with a summary listing of all bounced checks, in a format approved by the City and including, at minimum, the following data:
   - Date the payment was initially applied to the violations database
   - Date the check was returned by the customer's bank unpaid
   - Date the City's mailed payment Deposit Account was updated, violation(s) returned to an unpaid status, and the resulting bad check fee assessed
   - Date the check was forwarded to the customer by the Proponent

3. **Daily Activity Report:** For the online mailed payment payment processing system, the Proponent must provide a real-time payment activity report. This detailed report must include at a minimum the following information for each individual payment transaction:
   - Registration state and number
   - Payment processing system utilized (e.g., batch, online)
   - Violation number(s) associated with the payment transaction
   - Type of transaction (violation fine, penalty fees - boot, tow, storage, bad check, etc.)
   - Payment method (cash, check, money order)
   - Amount paid
   - Time of the payment
   - Ticket status (notated if incomplete)

4. **Daily mailed payment Processing Report:** On a daily basis, the Proponent must provide a report of all items (payments and correspondence) received via the mailed payment. This report must be prepared and signed by a responsible member of the Proponent's mailed payment Payment Processing staff.. This report must include:
   - Data on payments received but not deposited within the prior two days (e.g., a report dated November 21st for payments processed on November 20th must specify any processing of payments recieved the day prior, which would be November 19th).
   - Total number of items received on the date of the report and any items from the previous day not processed (e.g., a report dated November 21th indicates total mail received via the mailed payment for that day and any backlog mail not processed from the previous day, November 20th).
   - Total dollar amount processed for the day previous to the reporting day (e.g., a report dated November 21st indicates total dollar amount processed on November 20th)

5. **Daily Payment Deposit Report:** On a daily basis, the Proponent must provide a report of all payment deposit data, summarizing data for all payments processed and deposited for the reporting day, week, month and fiscal year-to-date. This must include the total dollar amount of payments processed via the Proponent's mailed payment processing systems (if processes vary, the report should appropriately break the data down). This report must also include the dollar amount of any returned checks received by the Proponent for the reporting period. This report must be signed and dated by a responsible member of the Proponent's mailed payment Payment Processing staff.

6. **Daily VMA Violation Database Updates Summary:** On a daily basis, the Proponent must provide a comprehensive report detailing all transactions updated to the VMA Violation database (Module 1). The report must include the following information:
    - **Transaction Summary by Payment Type:** Number of transactions and total dollar amount for all payments processed, and broken out by payment type (including cash, check, money order, etc.)
    - **Mailed payment Transaction Summary:** Number of transactions and total dollar amount of payments processed via the mailed payment (with processing method identified, if applicable)
    - **Automatic Overpayment Reapplications:** Number of overpayment transactions and total dollar amount of automatic reapplications of overpayment

1.2.4.7. Provisions for Payment

The Proponent should clearly detail their pricing model in their response to this RFP. The Vendor may choose to bill for:

- **Monthly Fee:** Noticing, collections and mail operations, subject to City approval.
- **Current Tickets:** Billable after updates to the VMA violation database and deposited into City's bank account.
- **Secondary Collections:** Billable when backlog payments are added to the VMA violation database and deposited into City's bank account.

Secondary Collections Fees

The City requires that funds be available to pay the Proponent when goods are delivered and services rendered. The Proponent must propose the pricing structure and fee for secondary collections, not to exceed 34% of the total amount collected for eligible delinquent accounts (which exclude adjustments for

dismissals, returned checks, and payments as the result of City actions, like booting, towing, or registry/permit suspensions). The Proponent is responsible for collection costs (printing, postage, etc.) and must provide detailed billing reports for review by the City that identify the specific tickets assigned for secondary collection and the payment collected. Source documents must also be available for review by the Office of the Parking Clerk. The Proponent must submit monthly invoices in arrears with all required documentation, with a 14-day review period by the City. The City will approve or reject invoices, providing reasons for any rejections. Approval does not waive the right to challenge overbilling. Payment will be processed within 30 days after approval.

Bank Deposits

Payments must be deposited into the City's designated bank account within 48 hours of receipt. The Proponent must provide to the City all deposit slips and provide monthly reports detailing collections and fees. Appropriate adjustments must be made for dismissals and any invalid check(s) drawn against insufficient funds. Monthly bank statements must also be provided. In addition, within 90 days following the end of the term of this Agreement, the Proponent must allow the City, or its duly authorized representatives, to audit any books, documents, records, and papers which the City reasonably determines are directly pertinent to this work. Payment of the Contractor's final invoice will be contingent upon the aforementioned audit or examination.

Instructions to Proposers:

Prospective Proponents are directed to review all sections and appendices of this RFP.

Prospective Proponents that respond to above requirements are required to describe the design and functionality of their CMS in terms of the following:

- The requirements set forth in this section
- Data management strategies, integrations with the City's Information Technology Team (DoIT), and how data is stored to prevent loss of service
- How data items are related to each other
- The file structure/data structure utilized by the software system
- The organization, coherence, linkage and unity of the CMS's various constituent-facing elements
- The integration and interoperability with CMS and City systems, including third-party vendors
- Handling the large number and unique types of transactions
- Logic to prevent erroneous errors and to correct data entered and uploaded online.

- The capabilities and means of scheduling and producing transactions, events and activities on very flexible schedules (e.g., the production of the same notice type on an hourly basis at various quantity levels specified by the City), and flexibility and ease of modification and enhancement.

The City encourages vendors to propose a variety of approaches that meet these needs, emphasizing flexibility and innovative solutions that reinforce operational transparency and ease of use.

1.2.5. REQUIREMENTS FOR ALL CMS MODULES AND VENDORS

1.2.5.1. Continuity of Services

All CMS Proponents must be responsible for providing continuity of services (as defined in the section of this RFP entitled "Scope of Services") in relation to violation tickets issued prior to the effective date of the contract entered into pursuant to the RFP (i.e., pre-contract tickets).

Some examples of the required services, functions and system elements are:

- Processing payments and other dispositions
- Providing complete online access to ticket disposition information
- Providing all required services, such as notices and non-renewal processing

The provision for complete services for pre-contract tickets and permits is an inalienable responsibility of the Proponent. The City will not provide reimbursement for services delivered for continuity of curbside management needs.

1.2.5.2. Warranty and Ownership

CMS Proponent(s) must provide and maintain services, software and hardware in line with the City's operational requirements. CMS Proponent(s) must supply, through the manufacturer, a standard manufacturers warranty covering all Parts and Labor for all hardware and software proposed for the life of the contract. The Proponent must be responsible for shipping charges on all hardware and software covered by the warranty. Any replacements for faulty equipment must be fully functional and configured upon delivery, with a warranty covering the duration of the contract.

All hardware provided in association with the CMS contract will become the property of the City at the conclusion of the contract entered into pursuant to this RFP.

1.2.5.3. Comprehensive Financial Management For All Banking Activity

For applicable modules supporting CMS payment processing, all Proponent(s) must provide efficient, effective and comprehensive financial management of all banking activities. The Proponent must completely reconcile and account for amounts paid, amounts posted/applied to the CMS, and amounts deposited. Further, the Proponent must provide the City with:

- **a)** Complete reconciliation of all bank statements on a monthly basis, no later than the third week following the month that is to be reconciled;
- **b)** All pertinent back-up documentation of each transaction listed on all bank statements, either on a daily basis or as they are received from the bank (e.g., daily mailed payment deposit slip copies, all bounced check bank listings, any and all credit/debit items, all wire transfer activity, etc.);
- **c)** Copies, front and back, of all bounced checks.

1.2.5.4. Vendor Organization and Staffing

This section provides guidance on the expectations for Proponent(s) organization, services, and personnel. While specific information and requirements may be repeated or referenced in other sections, Proponent(s) are encouraged to provide a thorough response to this section and ensure it aligns with other areas of their proposal.

Single Point of Responsibility

If multiple companies submit a joint proposal, one must serve as the Primary Proponent and hold full responsibility for delivering all contract requirements. This primary organization will serve as the sole point of contact with the City and will assume full responsibility for any subcontractors' work. Subcontractors must be listed, including their roles, and the Primary Proponent should outline the contractual and pricing structure with each. Changes to subcontractors during the contract term will require prior City approval.

Comprehensive Service and Management Plan

The Proponent(s) must establish an organization and service plan that meets the comprehensive requirements of the RFP, including structured management and efficient oversight of all Proponent responsibilities, both within and outside Boston-based operations. The City prefers that the Proponent's regional office in Boston manage as many City-specific responsibilities as possible, with operations

close to City Hall. The organization should be structured for clear authority, operational efficiency, and effective quality control. A well-coordinated structure with clearly assigned responsibilities, both for internal and external stakeholders, is essential.

Depth and Continuity of Dedicated Key Personnel
The Proponent(s) must assign key personnel with expertise directly applicable to the City's CMS operations. These individuals should have significant experience in CMS environments similar to Boston's in scale and requirements, covering roles like project management, systems analysis, and network administration. Key personnel should be readily available for in-person collaboration, preferably within a close proximity to City Hall, with some available at a 60 minute response time when needed. Remote key personnel are acceptable, but City preference is for close-proximity staffing to support continuous CMS operations and seamless communication.

Adjustments to staffing levels, if required, will be evaluated in collaboration with the City. Any reductions in staffing that might affect performance must be pre-approved by the City. To manage turnover, absences, or increased workload, the Proponent(s) must demonstrate the ability to provide back-up personnel with qualifications similar to the assigned key personnel. This will ensure continuity in CMS operations and maintain performance standards.

On-Site Assistance
At all times, an on-site representative with a deep understanding of the CMS and experience in ticket processing should be available during system development, troubleshooting, or other periods of heightened need.

Regional Staff Support
The Proponent(s) will provide contact information for staff who can resolve technical issues, manage system failures, and assist with general inquiries. Support staff should maintain a regularly updated call list of key personnel and ensure availability for timely assistance.

Software and Integrations Support
The City requires 24 X 7 X 365 access to support for the diagnosis and resolution of any issues related to CMS software and integrations. Proponent(s) can utilize remote access functionality to resolve any software or integration issues virtually, so long as they are able to resolve the issue in a timely manner. If Proponent(s) do not have the capacity to address a critical software or integration issue virtually or if an identified issue arises that requires onsite resolution, the Proponent will support an on-site response within one hour.

Programmer Analysts and Technical Support
The Proponent(s) will provide a programmer/analyst responsible for new reporting, application development, and system modifications, separate from those handling day-to-day system maintenance. Weekly updates on programming tasks are expected. The Proponent(s) may also be required to assign a network administrator, working closely with City staff to support network administration, integration of applications, and other CMS-related activities. Additional analyst roles for specific technical support may also be required to ensure responsive service.

Consultant Services
The Proponent(s) should have access to consultant services to assist in areas like parking enforcement, traffic management, and technology updates. These services may involve meeting regularly with City managers to assess, develop, or implement training, operational analyses, and new technology solutions.

Additional Staff Requirements
The Proponent(s) will provide a diverse, qualified team to perform all essential CMS functions and services to a high standard, including general operational support, production functions, and other RFP requirements. Staffing plans and locations should be clearly detailed.

Experience and Quality of Subcontractors
The City places importance on the quality and reliability of subcontractors. The Proponent must ensure subcontractor work meets high standards for accuracy, timeliness, and completeness.

1.2.5.5. Consistent System Availability

All online systems must be available to the City 24 x 7 x 365. CMS Proponent(s) must maintain an aggregate online system uptime of not less than 98% of available utilization time, and an online system uptime of not less than 98% of available utilization time of any given working day. The schedule is subject to change due to Mayoral Events, Weather Emergencies, etc.

System Availability Tracking
CMS Proponent(s) must maintain a daily log(s) of system downtime and of all communications interruptions (i.e., server drops, operating system software interruptions, etc.). Proponent(s) must provide the City with weekly and monthly summaries of downtime summary and communications interruptions, in a format approved by the City.

Required Response In Event of System Downtime/Service Disruptions

The Proponent must respond within 30 minutes of a reported equipment or software failure by providing the on-site technical support at the City's premises as may be required. In instances of repeated system failures, the City may require that the Proponent provide on-site technical support on a full-time basis until the problem is permanently corrected. For equipment failure coverage, the Proponent must contract with its equipment vendors and suppliers to obtain service agreements requiring the vendor to respond within 2 hours of a reported equipment failure.

The Proponent must notify all City departments which utilize its online systems of occurrence of all downtime and must report to such departments the causes and expected duration of such downtime and the remedial measures being undertaken. The City must provide to the Proponent a list of the department and persons to be notified and the appropriate telephone numbers. The Proponent must have no greater than 7 hours of scheduled or planned downtime in a 7-day period. For larger periods of anticipated downtime, the Proponent must notify the City a minimum of 7 days before such downtime is to occur.

1.2.5.5. Contract and Performance Management

Key personnel must be accessible for regular meetings with City officials and/or City Contractors to discuss project progress, challenges, or updates. Weekly and monthly virtual and/or in-person reviews of ongoing CMS activities and any related projects will be necessary to ensure effective communication and continuous improvement. The Proponent(s) must be required to track, report on and review key performance metrics for the City.

Performance Expectations

All CMS Proponents must:

1. Support flexible resource commitment to handle client demands for changes.
2. Assign sufficient CMS personnel to ensure timely and effective system updates.
3. Recognize mutual benefits, as modifications may serve other clients or market needs.
4. Be responsive and collaborative with City agencies, vendors, systems and integrations

All CMS Modules must:

1. Be fully operational and highly efficient as of the contract’s effective date.
2. Allow for maintenance, modification, and enhancement throughout the contract period.

Compensation for changes and modifications should be included in the Proponent's price proposal. The City will not entertain reimbursable change orders for software or system updates unless specified.

Production Schedules

CMS Proponent(s) must create a monthly production schedule detailing activities (including enhancements and development), as relates to their CMS Module. This schedule should be submitted to the City in an agreed-upon format. Additionally, Proponents may be required to provide a follow-up report within two weeks after each month, highlighting any deviations from the planned schedule and explaining the reasons for these discrepancies.

Systems Enhancement and Test Environment

System enhancements must be fully tested by the Proponent in a payment processing environment identical in configuration to the City's payment processing environment. Enhancement must only be installed once tested and approved by the City.

The hardware and software, including operating system and programming language, must be such that these system "components" must be refreshed as significant improvements become available and, further, the implementation of such improvements must not adversely affect any other system components, features or functionality. Enhancements must be fully tested by the Proponent and must be fully functional in a production environment when delivered.

Systems Improvement and Development

All Modules and elements of the CMS must accommodate changes, modifications, and additions and maintain high-quality outputs with rapid turnaround times. All CMS Module(s) must efficiently and effectively support systems changes, improvements, expansions in key areas, including:

- Parking violation processing
- Payment processing
- Permit program development
- Enforcement technology
- Transportation and parking management activities
- Registrant data acquisition and RMV interface
- Public inquiry response and processing
- Meter modernization
- Adjudication
- Collections
- Data entry
- Integrations

- Audit trails and controls on all activities and transactions
- Management reporting and services specified in this RFP.

Proponents should note the importance of flexibility to successfully integrate and coordinate with other CMS and City systems and services. The dynamic nature of the City's CMS environment necessitates this flexibility due to:

1. **Policy Changes**: Public policymakers may introduce laws, statutes, and regulations that require updates or entirely new functionalities.
2. **Emerging Trends**: Events or trends may lead to new responsibilities or approaches.
3. **External System Changes:** RMV or other external entities may modify their systems, requiring alignment.

1.2.5.6. Efficient Data Access and Dynamic Reporting

The City is a data-driven organization. Proponent(s) must have strong reporting functions and have capabilities for integrating with City data systems. The Proponent must provide all management and operational reports required by the City. Proponent(s) will be highly versed in innovative techniques, processes, data analysis, and performance metrics.

Integration with City and CMS systems

The City must be able to programmatically (not manually) export the data at regular intervals, daily or more frequently, if possible. The City requires an export method which will allow for automated exports, without manual work. We will accept any type of Application Programming Interface (API) access or a Representational State Transfer (REST) that provides direct access to data. A browser login where a person has to log into the portal and manually click a button to export the data is not sufficient. If an API is not possible, we will accept a daily upload of the data onto our secure file transfer protocol (SFTP). The Proponent must accept full responsibility for delivering the raw transactional data via the SFTP.

The format of the exported data must be either comma-separated values (CSV) or JavaScript Object Notation (JSON) or other machine readable format. We expect the Proponent to assist in any data extract, transform and load (ETL) or extract load transfer(ELT) that may be necessary.

Data-related resources

The City must be provided with a data dictionary which describes the purpose of each column in each data table. The data dictionary must also describe all the possible values in each column if they are not obvious and how those values are defined in the system. For example, if there is a column for status with a few options for the type of status, then we need an explanation of what each status

means. A diagram version of the data dictionary outlining all the columns is also encouraged.

If there is more than one table with data, and the tables logically relate to each other, the City must be provided with a schema diagram of how each table connects to each other. It must outline primary and foreign keys used to connect the data. All data tables must logically connect to each other or you may provide an explanation of why a specific table does not connect to the rest of the data.

Online system's response time when accessing a new record from a blank menu-type screen (as measured by the time the 'enter', etc., button is depressed by the user) for all online systems must on average be three seconds per transaction, and not exceed five seconds. The response time when scrolling (from screen to screen) within a particular record, or when terminating an inquiry from a particular record so as to revert to a blank menu-type screen, should be nearly instantaneous.

Customizable and Ad hoc Reporting

CMS systems must provide electronic and hard copy management reports on various levels (individual, group, or other) as specified by the City, using captured data for analysis and activity tracking. A centralized ad hoc reporting server and database must be provided, ensuring that data from handheld and base station devices is accessible for ad hoc analysis by authorized networked users. The system must automatically update the database, which should be accessible from any connected PC.

An ad hoc query tool must enable users to perform custom queries on available data fields for any date range, with output options including printer, file, or screen display. Reporting capabilities must include various reports, such as officer-specific ticket summaries by location, time, and violation type, and chronological listings of citations by type, location, and date range.

CMS Performance Reporting

The Proponent must do the following:

- Implement and operate a system for recording, monitoring, and responding to all feedback from the City relative to the Proponent's performance and provided services
- Prepare a managerial summary, implementation plan, and project analysis to address the City's feedback on Proponent performance
- Develop procedures and reporting formats in a systematic and timely manner that meets the City's standards

The Proponent will provide virtual query accessible reports. For examples of historical reports, please see attached reports.

Dynamic Reporting

The Proponent(s) must provide analytics and customized queries to track and analyze ticket and revenue performance. Proponent reporting should cover the categories listed below:

- Issuance
- Noticing
- Financial Transactions
- Operations
- Enforcement Management
- Accounting
- Residential and other parking permits
- Management Control for the administration of the CMS
- Other reports that the City deems necessary for the successful operation of its CMS

The reports and reporting system required under this scope of services must be available for City staff without any software needing to be installed aside from a web browser. Several types of reporting systems are required:

a) Pre-programmed and standardized reports that provide specific information defined by the City and electronically exported or uploaded on a recurring basis

b) Ad hoc reporting that fits the City's immediate needs and involve customized queries

c) Business Intelligence reporting systems that allow for the City to create and run their own reports using common business terminology. This system should allow for the filtering and slicing of data with the ability to create charts and graphs, save the reports, and export when required

d) Dashboard reporting that visualizes a snapshot of trends and performances through the use of specific data. These dashboards will be customized with input from the City and have the ability to drill down into line-item data.

e) Geographical reporting that links real-time GPS data from handheld ticketing violations with the City's Geographical Information System (GIS). All location or address-based information in the CMS database is required to have geo-located latitude and longitude fields associated with each entry.

Analytical Support

In addition to existing reporting requirements, Proponent(s) may propose additional professional services or functionality that would bolster the City's abilities to achieve the following goals:

- Track and improve compliance with curbside regulations to support the City's Safety Surge initiative.
- Increase curb productivity through data analysis of use, violation trends, and enforcement strategies.
- Track, evaluate and learn from piloted and/or implemented curbside management programs, strategies and regulations
- Improve and simplify processes, increase efficiency and save resources, improve user experience, and optimize performance.

Proponents should detail costs for analytical support (beyond the required activity and CMS performance reporting as described and required by this RFP) and clearly define the service and pricing model in the technical and price proposal. The procurement of this service will be dependent on budget and project goals. If awarded, the Proponent must scope and specify any charges related to this complementary service in writing, and must be accepted by the City before initiation.

1.2.5.7. Network Capability

The scope of the Network Capability and Other Equipment, Service And Supply Requirements has reduced since the City's 2021 PVPMISS RFP, as the City's Department of Innovation and Technology (DoIT) has absorbed some technology services related to network, telecom, and hardware. Although DoIT will manage and oversee these services, the Proponent is still expected to work alongside with the City and DoIT to meet any of the other technical requirements denoted in this RFP. Any traffic that traverses the City of Boston's firewall should have additional security controls so that the City's network is protected from the Proponent(s)' services.

The Proponent(s) must:

1. Follow City connectivity guidelines – meaning it should be compatible with the City's existing network, software, or infrastructure requirements.
2. Be fully functional within specified operational requirements – meaning it must work as intended under the conditions or standards set by the City.

1.2.5.8. Secure and Disaster Proof

All CMS Module Proponents must implement a comprehensive security system to safeguard both physical assets and data. The Proponent(s) is required to collaborate with the City and the City's technology department to ensure compliance with physical and data security requirements.

Requirements of all CMS Proponents, where applicable, include:

1. **Physical Security:** The Proponent(s) must maintain robust physical security measures to protect equipment, files, the communication network, and other critical items. At a minimum, the physical security system must include:
   - Controlled entry to all facilities.
   - Facility alarms, locked files, guards, or other preventive measures to ensure physical items are not lost or removed without authorization.
   - Controlled access to processing areas.
   - Security features, such as surveillance cameras, at facilities.
   - Extensive audit and control procedures to monitor security effectiveness.
   - Fire protection systems and safeguards against smoke and water damage.

2. **Data Security:** To prevent misuse and unauthorized access to the system, the Proponent(s) must provide a comprehensive, user-focused data security system that restricts access to authorized users only. At a minimum, data security measures must include:
   - Multiple clearance levels (e.g., "read-only" vs. full access).
   - Capability to easily modify user profiles and to add/delete users
   - Authentication tools such as passwords, access logs, badges, or equivalent methods to prevent data breaches.
   - Unique user access credentials, which must be changed periodically and comply with City security standards.
   - Regular backups of all data records to ensure recovery in case of data loss.
   - Audit trails and reports, providing full accountability for all transactions.
   - Detailed transaction histories including date, time, and user identification.
   - Strict controls and reconciliation procedures for system updates.
   - Virus detection and control measures to mitigate threats.

3. **Single Sign-On (SSO) Solution:** CMS Module Proponent(s) providing software solutions to the City must provide a Single Sign-On (SSO) solution tailored for City users. This landing page must:
   - Enable users to authenticate their identity with a single credential.
   - Grant secure access to all interconnected platforms efficiently.
   - Integrate seamlessly with the City's existing systems to ensure user convenience and security.

4. **Password Management:** For systems that require independent access outside of the City's SSO mechanism, the following password standards must be implemented:
   - Passwords must be a minimum of 12 characters and include three (3) of the following four (4) categories: uppercase letters, lowercase letters, numbers, and special characters.

- User-set passwords must be valid for 90 calendar days unless protected by multi-factor authentication (MFA), in which case they are valid for 365 calendar days.
- The Proponent's application must prompt users at least 10 calendar days before password or access expiration.

5. **Compliance and Adaptability:** The Proponent(s) must adjust its operations to comply with the City's evolving security standards and reasonable measures, as dictated by the City. Proponent(s) must also recognize that the absence of a partial or complete security plan from the City does not relieve the Proponent of its security responsibilities.

By adhering to these requirements, the Proponent(s) will ensure the safety and integrity of physical and digital assets while aligning with the City's standards for security and operational efficiency.

Data and Systems Back-ups

The Proponent(s) must provide complete back-up capacity for all online systems including hardware, software, communication lines and other equipment. These back-ups should be done on a daily basis to ensure data and business continuity.

The Proponent must retain sufficient back-up files to reconstruct and continue processing activities for audit and emergency situations. Duplication of programs and files should exist in a separate offsite location to their data processing facility to ensure copies are available in the event the originals are destroyed. Test processing must be completed twice-a-year at the separate offsite location to ensure copies are available, employees are prepared to respond to audit and emergency situations, and weaknesses are tested in the contingency plan.

Recovery from Catastrophic Failure - Proponent Responsibilities

Recovery from catastrophic failure refers to corrective actions undertaken at the Proponents' computer site due to a natural disaster (e.g., fire or flood) or other significant event causing either:

- Extended service disruptions to the City, or
- Loss of critical data.

The Proponent(s) must be held financially accountable for any unplanned disruptions. Specifically, the Proponent(s) must reimburse the City for costs incurred as a result of Tier 1 Critical Incidents. Business continuity is critical to the City, and the Proponent(s) must take all precautions to ensure reliable systems, files, data, equipment, communications, and facilities.

Proponent responsibilities include, but are not limited to:

1. **Precautionary Measures**: The Proponent(s) must ensure all systems, files, and facilities are secure and reliable.
2. **City-Approved Recovery Plan**: The Proponent(s) must maintain a detailed recovery plan, approved by the City, to restore services quickly and in compliance with City performance standards. The recovery plan must address the following:
    - **a)** Procedures for back-up of all software, computer programs, payment and transaction data, files, and computerized processes.
    - **b)** Off-site duplication of all critical data, including software, payment records, and files.
    - **c)** Repair protocols for hardware, communications, and other equipment to minimize downtime.
    - **d)** Alternate processing arrangements in the event of severe facility damage.
    - **e)** Periodic and comprehensive testing of emergency procedures.

1.2.5.9. Critical Incident Response

The Proponent(s) must establish and maintain incident response and communication plans to address critical events effectively. These plans must include procedures for:

- Notification and escalation.
- Coordination with the City.
- Information sharing during incidents.

The City categorizes incidents into three tiers: Critical, Moderate, and Minor, with categorizations subject to the City's discretion.

Critical Incidents:

Critical incidents are defined as events that significantly threaten the City's operations, security, or reputation. Examples include:

- Proponent system outage.
- Malfunctioning kiosks.
- Critical equipment failure (e.g., tablets and handheld devices).
- Resident Permit Parking system downtime.
- Proponent network outage.
- Customer-facing applications, including ParkBoston (pay-by-cell), failing to communicate with the Proponent's system.

Critical Incident Response Expectations:

- The Proponent(s) must immediately schedule an Emergency Incident Meeting with the City upon awareness of a Critical incident. The City will provide the Proponent a list of staff and contact information for critical incident alerts and coordination.
- The City must receive updates every 30 minutes to 1 hour until resolution.
- The City will provide the Proponent(s) with a list of staff and contact information for written updates and reports
- If the incident prevents the City's ability to ticket, tow, boot, or process payments, the Proponent(s) will provide in its incident report comparable data from the specific outage type/impact and timeframe with activity data from the prior 3 weeks

Moderate Incidents:
Moderate incidents are defined as events that disrupt operations but do not pose an immediate threat to the City's ability to serve constituents. Examples include:

- Failure to provide required reports to the City.
- Malfunctioning data transfer connections between CMS Proponent(s) and/or with City systems.
- Cashiering system disruptions.
- Miscellaneous concerns related to ParkMobile (ParkBoston).

Moderate Incident Response Expectations:

- The Proponent(s) must schedule a Non-Emergency Check-In Meeting with the City upon awareness of a Moderate incident.
- The City expects updates every 1 to 2 hours until resolution.

Minor Incidents:
Minor incidents are defined as events with limited operational impact that can be resolved quickly. The City determines which events fall within this category.

Minor Incident Response Expectations:

- The City expects multiple daily email updates from the Proponent(s) until resolution.

In Summary:

- The Proponents' recovery and back-up plans must be tested regularly to ensure readiness for all incident tiers.
- The City retains discretion to reclassify incidents based on situational requirements.
- The Proponent(s) is financially liable for unplanned disruptions and must take every precaution to prevent them, ensuring continuous and reliable service.

1.2.5.10. Installation and Implementation Responsibilities

The selected CMS Proponent(s) will be responsible for all aspects of preparation/installation for all equipment and systems related to their CMS Module, including but not limited to, site preparation (e.g., docking stations, hardware set up, surge protecting, etc.), integrations development, data migrations, test system and prototypes. All work must be coordinated with relevant City of Boston departments and contracted vendors prior to installation.

1.2.5.10.a) Pre-Implementation Set-Up

Pre-Installation

A pre-installation visit is required to determine site preparation requirements for implementation and training. The purpose of this visit is to facilitate an accurate timetable for total implementation in terms of time, cost, and other variables. The Proponent must submit a design document and implementation timeline, describing hardware and software specifications prior to system implementation.

Site Preparation

The vendor will be responsible for site preparation at the BTD Impound Lot facility, including installation of all supporting tools and equipment needed, including at a minimum: networking communications, base stations, docking stations, report printers, electrical back-up power supply and surge protection, coolant units, etc. Base stations/docking stations must be fully functional when installed and require minimal training, for City staff to maintain and operate.

1.2.5.10.b) System Test Environment and Plan

All system modifications, enhancements, or other changes must be properly tested in a prototype/testing environment by the Proponent and must be approved by the City before implementation. This practice is crucial to maintain consistent and high quality service development while supporting changes or new developments that are necessary and productive, but inherently present unexpected results or problems.

The City requires a comprehensive and functional system test plan for any and all untested applications or applications that have not been operating and debugged in an actual Boston production environment. The objectives of systems testing are: (1) identify test conditions and prepare all automated and manual procedures for system test; and (2) to confirm that the Proponent and its systems performed all the functions that are required in the Scope of Service section of this RFP, their proposal or any other documentation submitted by the Proponent.

Proponent's Responsibilities
The Proponent must develop a System Test Plan and submit the plan to the City for approval. Testing activities must address all aspects of the Proponent's responsibilities and functions of the system, including terminal, communications, software, operating procedures, user procedures and other documentation. Procedures should be included in the plan to verify and certify the functions and quality of the CMS and to ensure that the system performs and integrates according to the specifications.
The Proponent must provide comprehensive, efficient and effective test files/test systems to test both batch and online systems, and must provide the City with actual test results before implementing any significant system changes. Testing must occur at various levels of system development.

The Selected Proponent(s) must be required to:
- Develop a test matrix to include transactions, conditions, and desired results
- Develop test data files
- Perform and document unit tests and submit to the City for approval
- Debug each program
- Conduct system test involving all functions and interfaces
- Document the final system test and submit to the City for approval

To support Selected Proponent(s) during the systems testing phase, the City must:
- Review and approve the test plan including the development of the test matrix and corresponding test files
- Review and approve if necessary each unit's test results
- Provide written approval of the test results for the total system

CMS System Testing Phase Milestones include:
1. City approval of the test plan
2. Accurate processing of complete test data package
3. City approval of the system test

1.2.5.10.c) Migration
If new Proponent(s) are selected to replace the Existing Proponent, the Selected Proponent(s) must develop the City's violation and permit processing databases with a master file from the Existing Proponent's system. This requires the Selected Proponent to work with the Existing Proponent to carry out all required data migration activities.

Migration Completion Standards
The migration is complete when the system meets the City's performance standards. The Selected Proponent(s) is/are responsible for all programming and

testing to ensure that the migration is accurate and complete. The City and the Existing Proponent will provide the data in its current form, along with storage format definitions and descriptions of the data elements in the database.

Data Migration Plan Proposal

Selected Proponent(s) must provide a comprehensive plan for the data migration process, outlining:

- **Roles and Responsibilities:** The tasks each party (Proponent, City, and Existing Proponent) will undertake.
- **Migration Method:** Steps the Selected Proponent will use to accomplish the migration.
- **Timetable:** A clear work schedule for the conversion that acknowledges potential roadblocks.
- **Accuracy Measures:** How the Proponent will assess the accuracy of the migrated data.

The City requires a detailed description of data capture and migration methods, as well as plans for the ongoing use of migrated data. Proponents should use the data requirements outlined in this RFP as representative of the data fields that will need to be captured, migrated, and used.

1.2.5.10.d) Post-Installation

Upon completion of installation, training and training documents will be provided to City staff. The Proponent must provide written revised documentation for all hardware and software updates and enhancements including changes to peripheral equipment and supplies (i.e., violation code and amount changes, changes to batteries, carrying straps, docking stations, keypads, etc.).

End-of-Contract Data Transition

When the contract term concludes, CMS Proponent(s) must support the transition of data to the new Proponent(s), if necessary. Additionally, Proponent(s) must provide the City with any data needed to develop an RFP and establish a new contract, including current and projected baselines, storage formats, and descriptions of data elements in the databases.

1.2.5.11. User-Friendly Customer Support and Training

CMS Proponent(s) must provide on-going technical support and problem-solving to City staff and systems, as needed throughout the life of this contract. Proponent(s) must be responsive and able to provide customer support via virtual modems, including phone, remote meetings, and email - and should have the ability to remote access, where applicable, to support problem diagnosis and resolution. In

addition, requests for on-site support must be accommodated, in line with the standards set out in this RFP and per individual CMS Module requirements.

The Proponent must provide three (3) tiers of support as outlined below. The vendor must adhere to the following response times and escalation procedures. The support required within these tiers may change based on the discretion of the City.

- Tier 1 Support is required for general inquiries and troubleshooting of basic issues. The Proponent's support team must respond within 24 hours of receiving the notice. Issues not resolved within 24 hours will be escalated to Tier 2 support.
- Tier 2 Support is required for advanced troubleshooting, configuration changes, and minor software updates. The Proponent's support team must respond within 4 hours of receipt. Issues not resolved within 4 hours will be escalated to Tier 3 support.
- Tier 3 Support is required for critical issues, complex troubleshooting, and major software updates. The Proponent's support team must respond within one (1) hour of receiving the notice. Issues not resolved within 1 hour will be escalated to the Proponent's senior technical support team. Tier 3 issues may trigger Critical Incident Response protocol outlined in Section 1.2.5.10.

In-person and ongoing training

CMS Proponent(s) must provide an appropriate amount of onsite and remote training for employees at the time of implementation, and follow-up training 10-12 weeks after hardware and software installation. The Proponent must also provide on-site ongoing refresher training at intervals determined by the City and provide skill/user specific-training for OPC and BTD new hires, existing staff and City administrators.

Upon the City's request, CMS Proponent(s) will provide training at no additional cost, covering all relevant systems, subsystems, and updates. Training should be practical, user-focused, and tailored to support effective use of each system component.

Training topics may include but are not limited to:

- **System Operations:** How to access and use online systems, update records, and perform daily tasks.
- **Mobile Device Use:** Instructions for handheld devices, including file transfers and reporting.
- **Cashiering Functions:** Training on payment posting, end-of-day reconciliation, and basic maintenance.

- **Document Management:** Guidance on producing and handling digital or hardcopy records.
- **Workflow Processes:** Instruction on using imaging, correspondence, and hearing workflow systems.

Proponent(s) must also be prepared to develop additional training sessions or seminars upon request, focusing on specific needs or updates as they arise.

Digital Content and Education Materials

By the time of delivery/contract execution, the Proponent must provide a technical reference manual, which describes in detail all of the hardware. The manual must include a general description of major components of the system. The technical manuals must be published by the original equipment manufacturer. Any third party components must also be documented to the same level of detail and included as appendices in the technical manual. The manual must be available in English.

The Proponent will provide an electronic operator/user manual to be shared amongst the City Staff which must include the following:

- User and reference materials for all hardware/software options.
- Documentation for power and environmental requirements.
- Reference manuals for diagnostics and power-on self-test.
- Complete installation instructions and configuration description.
- Complete preparation and packaging instructions for shipping and transport.

Systems Documentation and User Support

High-quality documentation is essential to the delivery of comprehensive systems and services as outlined in this RFP, covering all aspects of system functionality, development, and any modifications. The Proponent must supply clear and thorough documentation for all violation processing activities, with minimum requirements as follows:

- **User Manuals**: Detailed guides that walk users through the system, outlining each function step-by-step from the user's perspective. These should be accessible for all operational roles, covering tasks from data entry to enforcement.
- **Technical and Programmer Documentation**: Complete and well-organized technical documentation, including program narratives, functional specifications, processing criteria, flowcharts, listings, and file descriptions. This should be structured to aid technical teams in maintaining, updating, and troubleshooting the system effectively.
- **Operational Process Descriptions**: A clear explanation of how all processing functions are carried out, including descriptions of where and how each

function is implemented within the system, as well as the timing of each function to ensure smooth and coordinated operations.
- **Subsystem Interfaces**: Detailed explanations of the interrelationships and interfaces between subsystems, allowing an integrated understanding of how each part supports and interacts with the larger system.
- **Managerial Summaries**: Concise overviews providing managers with an understanding of the system's role and value within the City's operations, aiding in resource planning and operational oversight.
- **Modification Documentation**: Records of all system enhancements or modifications, to be furnished to the City within 30 days of implementation. This ensures that all system updates are fully documented and accessible to relevant personnel.

All documentation must be user-friendly, accessible, and suited to a wide range of technical and non-technical users to support comprehensive system understanding, continuity, and training for all involved stakeholders

1.3 CURBSIDE MANAGEMENT SOLUTION (CMS) MODULES

Through this RFP, the City is looking to procure four (4) service and technology modules to provide an integrated solution:

1. Violation Management Application
2. Permit Management Application
3. Enforcement Technology and Self-Service Kiosks
4. Collections, Mailed Payment Processing, and Data Entry Services

Vendors may submit proposals that address one, two, or more of these modules. Proponents must specify and delineate which module(s) the proposal contains, separate the descriptions applicable to each module, and include a separate price proposal for each module. Proposals must include descriptions of how the required integrations to other modules of the solution must be achieved. If the proposal includes more than one module, bundled pricing discounts should also be included.

2. RFP PROCESS

2.1 PROPOSAL TIMELINE

The table below shows the preliminary RFP schedule. Dates are subject to change. For the most updated information, please visit the Supplier Portal via boston.gov/procurement.

EVENT	DATE
RFP Released	Monday, February 3, 2025 at 12:00PM EST
Questions Due to the City *Email to StreetsContracts@Boston.gov*	Wednesday, February 19 at 12:00PM EST
Consolidated Q&A - Posted by City[3]	Friday, February 21 - 12:00PM
Deadline for Proposals *See Submission Instructions for details*	**Monday, March 3 - 5:00PM**
Vendor demonstrations *(if needed; see details in Section 2.3)*	March 5 - 17, 2025 (estimated)
Contractor(s) Selected	March 21, 2025 (estimated)
Contract Start Date	Tuesday, July 1, 2025

All times are in Eastern Standard Time

2.2 WHAT TO DO IF YOU HAVE QUESTIONS

Questions must be **emailed to StreetsContracts@boston.gov** with the **event number (#EV00015470)** in the subject line.[4,5] Only information included in this RFP or the Proposals submitted, as well as written answers provided to all prospective Proponents via addenda, are part of the contract terms and conditions, and scope

[3] The consolidated Q&A posting will include answers to all RFP questions posed to the City by email by the due date above. The City will update the Q&A if it chooses to answer any additional questions after that time.

[4] No other City employee, consultant, or contractor is empowered to speak for the City with respect to this RFP. Any oral or previous communication is considered unofficial and non-binding to the City.

[5] **After the proposal deadline, Vendors should not contact the RFP Coordinator or any other City official or employee about this RFP**, except to respond to a request by the RFP Coordinator. Vendors may continue to contact City officials and employees about issues **unrelated** to this RFP.

of work or proposals submitted. Any information ascertained outside this solicitation and question and answer process is non-binding.

2.3 CONTRACT TERM

The initial contract term is for two and a half (2.5) years, covering July 1, 2025 - January 1, 2028. After the initial contract term, this contract may be renewed for an additional six (6) months at the sole discretion of the City.

Please Note: Proposals that do not agree to comply with the City's Form CM-10 and CM11 Standard Contract Document & General Conditions and Supplemental IT Terms & Conditions (for IT projects only) will not be evaluated.

3. HOW WE CHOOSE

This section explains how we will evaluate candidates. It provides clear descriptions for what we consider a highly advantageous proposal.

We will evaluate your proposal based on two sets of criteria: **minimum evaluation criteria** and **comparative evaluation criteria.**

3.1 MINIMUM EVALUATION CRITERIA

First, we will review all proposals to see if they meet the minimum (or "quality") evaluation criteria listed below. These are "yes-or-no" standards that will apply to every proposal.

These criteria reflect the standards that the City considers **essential** for this contract, as well as statutory thresholds for responsive and responsible Proponents. Any vendor that does not meet these minimum criteria is "not responsive" and will be eliminated from further consideration.

The minimum evaluation criteria include:

1. Did the vendor submit the proposal by the **deadline, appropriately and truthfully**?
2. Did the vendor submit **separate technical and price proposals** (with no price information in the technical proposal)? *Note: Any technical proposal or interview/demonstration that includes price information will be disqualified from consideration. (See below for further information and instructions about separately submitting your technical and price proposals).*

3. Did the vendor submit and complete all the necessary **forms and documentation requested in this RFP**?

3.2 COMPARATIVE EVALUATION CRITERIA

Proposals that have met all minimum evaluation criteria will move to the next stage of evaluation. In this stage, we will evaluate proposals according to the comparative evaluation criteria described below. Please note the two different sections below for comparative evaluation criteria - 3.2.1 General Criteria Across All Modules, and 3.2.2 Module-Specific Criteria. All proposals will be scored against the general criteria (3.2.1), and then using the criteria specific to the module(s) included within that proposal.

3.2.1. General Criteria Across All Modules

These criteria apply to every module being proposed:

Criterion	Highly Advantageous	Advantageous	Not Advantageous
Inter-operability	Proven experience integrating with Massachusetts RMV, payment processing systems, and existing City systems. Comprehensive plan for seamless and real-time interoperability with all other modules.	Adequate experience integrating with external systems, with minor limitations in interoperability plan.	Limited or no experience with integration, unclear plans for interoperability, or significant technical gaps.
User-Friendliness	Provides intuitive, user-centered design tailored to various users (e.g., City staff, enforcement officers, residents).	Sufficiently user-friendly with minor improvements needed for broader usability.	Complex or non-intuitive design that may hinder effective adoption by users.

Implementation and Timeline	Detailed plan with clear milestones ensuring go-live readiness by July 1, 2025, and proactive risk mitigation strategies.	General implementation plan with a realistic timeline and moderate risk mitigation strategies.	Vague or incomplete implementation plan, unclear timelines, or inadequate risk mitigation strategies.
Vendor Experience	At least five years of experience in deploying similar systems, with strong references demonstrating exceptional performance.	At least three years of experience with satisfactory references demonstrating adequate performance.	Less than three years of relevant experience, or inconsistent documentation of past performance.
Customizable Reporting	Fully customizable reports with dynamic dashboards for real-time insights.	Basic reporting capabilities with limited customization.	Minimal or no reporting functionality.
Integration	Direct integration with Boston's data warehouse and other City systems.	Limited integration requiring manual steps.	No integration with other systems.

3.2.2. Module-Specific Criteria

Module 1. Violation Management Application

This module includes functionality for ticket processing and payments, ticket disputes/adjudication, fleet management, RMV data access, parking meter integration, boot and tow management, and the online customer portal.

Criterion	Highly Advantageous	Advantageous	Not Advantageous
Functionality Coverage	Fully supports all listed functionalities with seamless integration and proven performance in comparable environments.	Supports most functionalities with minor gaps or limitations in integration.	Limited support for key functionalities or significant gaps in integration.
User Interface	Highly intuitive design tailored for a diverse user base, including administrators, enforcement officers, and the public.	Adequate user interface with some usability improvements needed for broader adoption.	Complex or non-intuitive interface likely to hinder user adoption.
Integration with City Systems	Proven ability to integrate with RMV, ParkBoston, and other City systems in real-time.	Integration supported with some manual processes or delays.	No integration or reliance on manual processes for system interoperability.
Data Accuracy and Reliability	Near-zero error rate in data entry and processing, ensuring reliability for all functions.	Moderate error rate with clear mitigation strategies in place.	High error rate or insufficient mechanisms to ensure data accuracy.

Module 2. Permit Management Application

This module includes functionality for permit issuance and management, integrations with the Module 1: Violation Management Application and Module 4: Collections, Mailed Payment Processing, and Data Entry Services.

Criterion	Highly Advantageous	Advantageous	Not Advantageous
Functionality Coverage	Fully supports all listed functionalities with seamless integration and proven performance in comparable environments.	Supports most functionalities with minor gaps or limitations in integration.	Limited support for key functionalities or significant gaps in integration.
User Interface	Highly intuitive design tailored for a diverse user base, including administrators, enforcement officers, and the public.	Adequate user interface with some usability improvements needed for broader adoption.	Complex or non-intuitive interface likely to hinder user adoption.
Integration with City Systems	Proven ability to integrate with RMV, ParkBoston, and other City systems in real-time.	Integration supported with some manual processes or delays.	No integration or reliance on manual processes for system interoperability.
Data Accuracy and Reliability	Near-zero error rate in data entry and processing, ensuring reliability for all functions.	Moderate error rate with clear mitigation strategies in place.	High error rate or insufficient mechanisms to ensure data accuracy.

Module 3. Enforcement Technology

This module focuses on electronic ticket issuance, violation processing, and enforcement-related tools, including mobile and fixed LPR systems for enforcement and inventory purposes. Additionally, it includes functionality for self-service ticket payments.

Criterion	Highly Advantageous	Advantageous	Not Advantageous

Component 1: Handheld Enforcement Devices			
Ticket Issuance Technology	Proven high-accuracy, real-time ticketing system with seamless handheld device integration.	Functional real-time ticketing system with limited customizable features.	Outdated technology with significant functionality gaps.
Data Management and Reporting	Robust reporting capabilities and lifecycle tracking for all violations.	Basic reporting capabilities with some limitations in tracking.	Minimal reporting functionality or poor data management.
Integration with LPR Systems	Fully integrated with LPR for real-time enforcement actions.	Partial integration with delays or limited features.	No integration with LPR systems.
Component 2: License-Plate Reader (LPR) Technology			
Accuracy and Reliability	High-accuracy LPR system capable of real-time scanning and enforcement, even in challenging conditions.	Adequate accuracy with occasional errors or delays in real-time processing.	Low accuracy or unreliable performance in key scenarios.
Integration with Systems	Seamless integration with enforcement, ticketing, and boot/tow systems.	Partial integration with some functionality gaps.	No integration with other systems.
Hardware Durability	Durable hardware suitable for Boston's environmental conditions, with proven longevity.	Standard hardware with limited durability under heavy use.	Low-quality hardware prone to frequent issues or failures.
Component 3: Self-Service Kiosks			
Payment Flexibility	Supports multiple payment methods, including cash, card,	Supports most payment methods	Limited payment options or no

	and mobile, with real-time updates to CMS.	with real-time updates to CMS.	integration with CMS.
User Interface	Intuitive, multi-language support, and accessible design tailored for public use.	Basic interface with limited accessibility features or language options.	Complex or unintuitive design likely to discourage public use.
Hardware Reliability	Proven durability for outdoor use, including environmental protection and 24/7 functionality.	Standard hardware with occasional maintenance needs or limited durability.	Low-quality hardware prone to frequent breakdowns.

Module 4. Collections, Mailed Payment Processing, and Data Entry Services

This module addresses primary and secondary collection activities for overdue violations, as well as mail-based correspondence, payment processing and reconciliation, and manual and automated data entry for handwritten tickets.

Criterion	Highly Advantageous	Advantageous	Not Advantageous
Collection Strategies	Advanced tools for automated collections, including dunning notices and secondary collections.	Basic tools for collections with some manual intervention required.	Limited tools or reliance on manual processes for collections.
Integration	Fully integrated with CMS, ensuring real-time updates to violation records, statuses and payments.	Integration with some delays or limited functionality.	No integration with CMS.

Reporting and Analytics	Comprehensive reporting on collection activities, including success rates and delinquent accounts.	Basic reporting with limited detail or customization.	Minimal or no reporting functionality.
Processing Efficiency	Processes payments and enters data within 24 hours of receipt, with real-time CMS updates and error-free reconciliation.	Processes payments and enters data within 48 hours with some manual updates and reconciliation steps.	Slow processing times, significant delays in CMS updates or reconciliation issues.
Fraud Prevention	Robust fraud prevention measures, including OCR and data validation.	Basic fraud prevention with limited automation.	Weak or no fraud prevention measures.
Accuracy	Near-zero error rate with robust validation and quality control measures.	Moderate error rate with effective mitigation strategies in place.	High error rate with inadequate quality control measures.
Scalability	Handles high volumes efficiently with the ability to scale as needed.	Adequate handling of typical volumes but limited scalability.	Poor handling of high volumes or no scalability options.

3.3 DEMONSTRATIONS

The City of Boston reserves the right to conduct demonstrations with responsive and responsible Proponents if it determines this step will enhance the evaluation process. Should demonstrations take place, all qualified Proponents will be given an equal opportunity to participate, ensuring a fair and competitive process.The goal will be to better understand the vendor's proposed approach and/or provide an opportunity for the vendor to respond to Proposal Review Committee questions.

Criterion	Highly Advantageous	Advantageous	Not Advantageous

Demonstration	Proponent provided additional context to clearly demonstrate a unique approach from the competition, offering the City benefits and opportunities not available from other Proponents. Proponent provided a complete and accurate response to all questions asked by the Evaluation Committee.	Proponent provided additional context to demonstrate their approach may be unique from the competition and could offer benefits and opportunities not available from other vendors. Proponent provided responses to all questions asked by the Evaluation Committee.	Proponent provided additional context, but did not demonstrate that their approach is unique from the competition and does not offer opportunities and benefits not available from other Proponents. Proponent provided responses to most questions asked by the Evaluation Committee.

3.4 RULE FOR AWARD AND CONTRACT

The City will select the responsible and responsive Proponent (who has met all submission requirements and minimum evaluation criteria) who has submitted the most advantageous proposal, based on both the proposed price and the comparative evaluation criteria, specifically the Proponent or Proponents experience, staff capacity, references and plan for providing the services.

Please Note: An award letter or award notification is not a communication of final acceptance of a Vendor's proposal. No final award has been made until the following three steps have occurred:

1. Final **execution of a Contract by the Proponent and the City of Boston** (by its Awarding Authority/Official and the City Auditor);
2. The approval of the final Contract by the Mayor of Boston; and
3. Contractor receipt of a City-issued Purchase Order.

The forms in Appendix 1 of this RFP are incorporated into the Contract by reference.

*****The City reserves the right to cancel this RFP at any time until proposals are opened, and further reserves its right to reject all proposals after they are opened if the City determines doing so is in its best interest.**

4. YOUR TECHNICAL PROPOSAL

Your application will be submitted in two parts. The first part (this section) is the ***Technical (Non-Price) Proposal.*** *The Technical Proposal will be evaluated to determine whether it meets all of the submission and quality requirements specified in the RFP.*

Do NOT mention pricing in this section. **If you include pricing information in your technical proposal your proposal will be rejected in its entirety.**

Why can't you include price in the technical proposal? *The law requires that we look at the technical and pricing proposals separately. This allows us to first determine who would be the best at implementing the project, without considering price. Next, we consider price proposals. Once both technical and price proposals are evaluated, we choose the most advantageous proposal that provides the best value overall.*

Your technical proposal should consist of the following sections (each detailed in the following pages). Your **technical proposal** should be submitted as one document that addresses all components listed below.

An editable version of the template below is included in the "package" on this RFP's Supplier Portal page. You should complete the editable template and submit it as your technical proposal.

- **Cover Page (4.1)**
- **Response to Scope of Services (4.2)**
  - Detailed Implementation Plan (including an approximate timeline)
- **Ownership Details (Informational only) (4.3)**
- **Additional Information**
  - Diagram of IT architecture
  - Detailed and current resumes for all key personnel
- **References (4.4)**
- **Insurance Documentation (and financial documents if needed) (4.5)**
- **Standard Contract Forms**:
  - Form CM-06 – Certificate of Authority (for Corporations only)
  - Form CM-09 – Contractor Certification
  - Form CM-10 – Standard Contract Document & General Conditions
  - Form CM-11 – Supplemental IT Terms & Conditions (for IT projects)
  - Form CM-15A, CM-15B – CORI Compliance & Standard
  - Form CM-16 – Wage Theft Prevention (required at proposal

submission)
    - Form Wage-1 – Requirements of the Boston Jobs, Living Wage, and Prevailing Wage Ordinance
    - Form Wage-2 – The Boston Jobs, Living Wage, and Prevailing Wage Ordinance Vendor Agreement

Proposers are reminded that if a statement(s) of conditional compliance or exception is provided, a separate statement(s) of compliance covering all non-conditional or non-exception items is required.

As part of the written description and discussion of each numbered paragraph for a system element, feature, service, etc., within the Scope of Services, a Proponent must include information on its provision and operation of proven and established CMS' similar and analogous to the CMS required by the City of Boston with similar and comparable system elements, features, services, etc.

In presenting such information, a Proponent should reference and provide information for up to three (3) CMS installations. For each similar and comparable CMS system element, feature, service, etc., the Proponent should provide information that will confirm the similarity and comparability -- such as the identity of the location/client (e.g., name of the city); the number of parking tickets issued annually; the number and types of transactions typical for a year; the length of time the element, feature, service, etc., has been provided, and; an adequate explanation and clarification relative to the similarity and comparability to the City of Boston's needs and requirements. Proposers may state and present alternative experiences to actual CMS experience relative to services and systems which they believe offers equivalent experience by some other means, and the City at its sole discretion will review and consider whether the proposed alternative achieves equivalent experience and performance.

Detailed Instructions to Proposers to be Adhered to in the Composition and Provision of the Technical Written Proposal: **Response to Response Forms and Questionnaires**

In specific regards to the completion of response forms and questionnaires, the City requires information, narratives, organizational charts, etc., specific to that form or questionnaire, such as:

- information on direct experience in the successful design and implementation of similar and comparable CMS;
- information on direct experience in the successful provision and operation of similar and comparable CMS;

- past performance with regard to meeting cost, schedule, and technical proposal requirements with similar and comparable CMS;
- employee CMS experience, expertise and resumes of all local personnel involved in the contract, including local staff, developers, network engineers, telecommunications staff that will oversee the deliverables of the CMS.
- Plan of Service/Management Plan, etc.

4.1 COVER PAGE

Please include a cover page as the first page of your technical proposal.

COVER PAGE		
RFP Title and Number		
Primary Organization Name		
Contact Information	Name	
	Title	
	Address	
	Email	
	Phone	
A brief introduction highlighting why you would be a good partner for the City on this project (4-5 sentences).		

4.2 RESPONSE TO SCOPE OF SERVICES

This section is where you tell us how your solution meets or exceeds our needs by answering the questions/prompts below. Feel free to use anything (e.g. graphics, links to your work, etc.) that helps you make your case. Suggested response lengths are for guidance only. Feel free to answer with more or less detail as needed to best

answer the question, and feel free to use anything (e.g., graphics, links to your work, etc.) that helps you make your case.

Q1: Please explain why your organization is best-suited to manage this RFP (Suggested length: 1-2 paragraphs)

An ideal answer will include the following information, focusing on why these qualities of your organization make it best-suited to manage this RFP:

- What services your organization provides
- How long your organization has been providing these services
- Your organization's structure
- Your organization's strategy
- Any relevant awards your team has received

Response:

Q2: Who will work on this project and why are they best qualified to achieve the goals of this RFP? (1-3 paragraphs)

An ideal answer will include:

- ☐ A detailed description of the team that would work on the different components of this project.
- ☐ A list of key team members and key personnel.
- ☐ Justification for why they will be great partners on this project, such as resumes or bios.
- ☐ A detailed description of the team structure

Response:

Q3: If your team includes multiple organizations, please let us know (a) how long you have worked together and (b) which one organization will be designated as the prime Contractor (all others will be designated as subcontractors). *Skip if not applicable to your organization.*

Vendor Type	Name	How long you have worked together
Prime vendor		
Subcontractor		
Subcontractor		
Subcontractor		

Q4: Please give a detailed description of your capabilities, features utilized, experience gained, and effectiveness demonstrated with Motor Vehicle Agency interfaces within the last five (5) years for the subjects below.

- Registry of Motor Vehicle Information
- Non-Renewal Processing
- Linkage of Plates to Registrants
- Identification and Noticing of Registrants / Registrations

Response:

Q5: For each of the modules described below, please indicate whether it's included in your proposal, the service provided, integration capabilities, and clients to which this feature was provided with the dates of service provision. Please indicate whether any referenced clients (or combination of multiple simultaneous clients) required the processing of 500,000 tickets or more annually.

Module 1: Violation Management Application
Module 2: Permit Management Application
Module 3: Enforcement Technology and Self-Service Kiosks
Module 4: Collections, Mailed Payment Processing, and Data Entry Services

Response:

Q6: Please describe your technical environment, providing the following details and indicating for each the ability to meet time frames, anticipated volumes, and the scope of services:

1. CMS Data Center hardware, location and technical environment.
2. Hardware capability, expandability, surge capacity (in volumes and demand for computer processing time), and ability to handle multiple simultaneous projects.
3. Network capability and support (LAN/WAN), expandability and upgradability, surge capacity (in volumes and demand for computer processing time), and ability to handle multiple simultaneous projects.
4. All control, support and utility software with appropriate release levels required.
5. Ability to comply in light of other client demands and overall competition for computing time.

Note: In addition to narrative descriptions, proposers are required to include a diagram of the Proponent's IT architecture, and any additional pictorial illustrations, graphs, matrixes, charts or tables are encouraged. If multiple pages are submitted, please consecutively number all pages for this response.

Response:

Q7: Have you had a contract terminated for default during the past five (5) years, or have been involved in litigation regarding a contract?[6]

- ☐ Yes
- ☐ No

Q8: If you answered "Yes" to the previous question, what is your position on the matter(s)?

Response:

4.3 OWNERSHIP DETAILS (INFORMATIONAL ONLY)

Q1. Is your organization a small, local, minority-owned, women-owned, and/or veteran-owned business?[7] (Yes or No)

- ☐ Small
- ☐ Local
- ☐ Minority-Owned
- ☐ Women-Owned
- ☐ Veteran Owned

Q2: Is your organization certified as a small, local, minority-owned, women-owned, and/or veteran-owned business with the City of Boston? If you are unsure, you can check here

- ☐ Yes
- ☐ No

If you are not certified but would like to be, you can find directions for how to apply here

[6] **Please note:** If you have had a contract terminated for default during the past five (5) years, or have been involved in litigation regarding a contract, this fact must be disclosed along with your position on the matter(s). If you have experienced no such terminations for default in the past five (5) years and have not been involved in contract litigation, then you must indicate as such. The City reserves the right to request a copy of your firm's audited financial statements, including a detailed balance sheet and profit and loss statement for three years, or Dun & Bradstreet reports or similar financial reports, in order to evaluate the financial strength of your company.

[7] These details are used to help us improve our outreach to all potential partners, and are for informational purposes only; this RFP is open to any vendor who would like to respond.

Becoming a certified small, local, minority-owned, women-owned, and/or veteran-owned business with the City of Boston provides you with many opportunities:

- *Exclusive access to Sheltered Market Program contracts (listed toward the bottom of this page)*
- *Targeted outreach for released procurements*
- *Support building your business and navigating the procurement process*
- *Access to the new Inclusive Written Quote Contract procurements, which provide a simpler way for businesses to get into government contracting.*

Q3. Are any of your proposed subcontractors a small, local, minority-owned, women-owned, and/or veteran-owned business?[8]

- ☐ Yes
- ☐ No

4.4 REFERENCES

Please list your large-scale, full service Curbside Management Solution clients in which the requirements, systems and services for the clients are at least somewhat similar and comparable to the requirements, systems and services reflected in this RFP. This list should also be limited to those clients for which you provide and operate the primary computer system and maintain and update the database containing parking violations.

Provide the below relevant data on the clients for past years:

- Number of parking violations issued
- Number of payments processed
- Number and frequency of requests for registrant identification information
- Number and frequency of requests for marks and clears
- Number of notices mailed and frequency
- Number of vehicles booted, towed, etc.

REFERENCES

[8] Same as above.

REFERENCE EXAMPLE	***Organization***	*Smith Events*
	Project Manager (or equivalent)	*Jennifer Smith*
	Phone number	*845-111-2222*
	Email	*jsmith@smithevents.com*
	Project Description	*Planned and implemented a family-friendly concert on the steps of City Hall. Worked with diverse community organizations to select performers and vendors. Hosted 150 residents.*
	Project Start and End Dates	*March 2020 - May 2020*
REFERENCE 1	**Organization**	
	Project Manager (or equivalent)	
	Phone number	
	Email	
	Project Description	
	Project Start and End Dates	
REFERENCE 2	**Organization**	
	Project Manager (or equivalent)	
	Phone number	
	Email (if available)	
	Project Description	
	Project Start and End Dates	
REFERENCE 3	**Organization**	
	Project Manager (or equivalent)	

	Phone number	
	Email	
	Project Description	

4.5 INSURANCE DOCUMENTATION

Attach documentation of your insurance coverage. The City's recommended levels of insurance are listed in **Appendix 3**.
If you have a different level of coverage, you must explain below why that is sufficient to manage the risk of this project.

Response:

5. YOUR PRICE PROPOSAL

*The **Pricing Proposal** is where you will share your estimated project budget with us and where you will explain your costs/budget.*

IMPORTANT: The Price Proposal (and all pricing information) MUST be submitted separately from the remainder of the proposal. No price information may be included in the Technical Proposal or your Demonstration. **If you do not separate all pricing information from your Technical Proposal, your entire proposal will be rejected.**

VIEW PRICE PROPOSAL TEMPLATE HERE

The pricing proposal (which lists all costs associated with your proposed deliverable) is required in addition to the technical proposal. There are two steps:

1. **Please make a copy of the price proposal template** provided and complete.
2. **Please enter the total 30-month price for each CMS module in the price line if submitted electronically through the Supplier Portal**. More detailed

instructions are available in the following section, Section VI, *Submission Instructions*. Instructions can also be found on the Procurement Information Page.

Please note:

- Each module's **total 30-month price** will be used to compare price proposals.
- In the price proposal, the City asks that you provide detailed pricing for all deliverables in the scope of services with the understanding that the deliverables and quantities of goods and services the City notes in this RFP are estimates only and that the final scope of services may change during contract negotiations between the City and the selected vendor(s).
- The proposed price must include obtaining registrant data from the MA RMV database.
- The City will pay for and contract directly with the bank for the banking services.
- The City will only assume the cost of postage for noticing for primary collections, correspondence, permit notices and abandoned vehicles notices, and must maintain an account in the U.S. Postal facility for this purpose. However, costs related to printing of notices/envelopes/processing forms and related to postage for any secondary collection services are the responsibility of the Module 4: Collections, Mailed Payment Processing, and Data Entry Services.
- **No additional charges** will be allowed unless they are included in your Price Proposal. The scopes and fees of additional services submitted are required to be reconfirmed and approved by the City prior to the Vendor starting work.
- The vendor will bear the onus of any **errors** made in pricing the services (e.g., omitting a component of the services).

List all costs associated with your proposed deliverables, using the attached template. Notes:

- The base price of any proposed expense should be determined from the requirements given throughout the RFP with regard to the amount of data stored, the number of users, and so forth. Additional technical details and assumptions which are relevant to pricing should be specified in the technical and pricing proposal. Note that these quantities are estimates only, and the actual number may be more or less, so proposals should clarify how the costs would scale based on over- or under-utilization of the platform.
- Proposed solutions involving per-unit costs for things (i.e., potentially notices mailed and tickets issued) should give those unit costs and base the overall proposal price on the estimate of usage based within the Price

Proposal template, with an explanation of how those estimates were incorporated into the price proposal. (If per-unit costs are paid directly to the proposing vendor, a fixed-cost proposal based on estimated usage would be strongly preferable.)

- If there are multiple options for price structures under your proposal (Page 2: Module Price Proposal - COLUMN), please label each option clearly in the "Details" column.
- If the support portion of a proposal includes other support components beyond the essential ones described in the requirements, please clearly specify the type and quantity of these components in detail in your pricing proposal. If such support is applicable, it may be included as optional services.
- If the incremental costs of the proposal increase with respect to specific parameters (e.g., number of users), please give the additional incremental costs should we choose to scale up in the future. And likewise, please note whether the base price would be lower if we started at a scale below that used to determine the base price (e.g., if we only have half as many user accounts as outlined in the 'Volume-Based Assumptions' table) and by how much.
- If the scale/price relationship is not readily captured in terms of marginal usage increases, please identify 1 or more options for a higher-capacity version of the base platform and the additional costs associated.
- Note when appropriate whether a cost is a one-time fixed cost, an annual recurring cost, an hourly rate, or something else.
- Hourly rates should only be used only where a deliverable is not sufficiently defined to provide a fixed price at this time---for example, in the case of additional platform development after the initial implementation phase). Any such services will require an additional Statement of Work before the work commences, and that document may set a firm fixed price based on an estimated schedule at the hourly rate set herein.
- If the proposal addresses multiple categories, please provide separate pricing for each, so we can make an apples-to-apples comparison and choose which components to purchase. If there would be discounts for a bundled purchase, please explain what that discount would be.

5.1 PRICE PROPOSAL (REQUIRED)

Please make a copy of the template provided here, and complete it as relates to the CMS Modules included in your proposal.

***Volumes and hours are estimates only; the City may request more, less, or no additional services. Payment will be based on the unit prices provided here and the actual amount of services requested.**

5.2 SUPPLEMENTAL INFORMATION (OPTIONAL)

You have the option (but are not required) to attach additional information describing the basis for the pricing in the above template, or to state any assumptions you made while filling out the template.

6. SUBMISSION INSTRUCTIONS

This section shows you how to submit your application.

- To be considered for funding, each applicant must submit a **complete proposal prior to Monday, March 3, 2025 at 5:00 PM EST.**
    - See the checklist below (section 6.1) for the requirements for a complete application.
- Modifications are not permitted to any proposal once they are submitted.
- Complete proposals must be submitted through the City of Boston Supplier Portal (see section 5.2)
- Applicants often run into technical issues with the City of Boston Supplier Portal. We STRONGLY recommend submitting your proposal in advance of the deadline to allow for enough time to navigate any technical issues you may have.
- The contact you listed in your submitted proposal will receive periodic email updates to let you know:
    - If your application has been received
    - If your proposal has been awarded or denied the contract
    - If we need any follow up information

The City will NOT consider proposals that are submitted late or that do not follow these guidelines.

6.1 CHECKLIST FOR SUBMITTING PROPOSAL

This checklist is for your use only; you do not need to submit this checklist along with your proposal.

CHECKLIST ITEM	COMPLETE (✓)
IMPORTANT: Submit **separate** **technical** and **price proposals**. ***(Do NOT include any price information in your technical proposal, otherwise your proposal will be rejected.)***	
A. TECHNICAL PROPOSAL	
Included **a cover page** with all required information	
Responded to **questions and prompts in "Response to Scope of Services", including an implementation plan**	
Provided a **diagram of IT architecture**	
Provided detailed and current **resumes for all key personnel**	
Provided **3 references**	
Provided **audited financial statements for the last three (3) fiscal years**. *If your firm is a subsidiary of a larger organization, please provide for both the parent and the proposing entity.*	
Included required **documentation of insurance**	
B. PRICE PROPOSAL	
Provided **detailed budget and pricing**	
Provided **additional information about pricing proposal** (optional)	
C. REVIEW CONTRACT TERMS & CONDITIONS	
Read and reviewed contract terms, conditions, and additional forms ***If awarded the contract***, *you will be required to sign and submit forms listed in Appendix 2.*	
Complete and submit the CM-16 Wage Theft Prevention Certification	

6.2 SUBMITTING PROPOSAL VIA BOSTON'S SUPPLIER PORTAL

Vendors must submit proposals electronically through the Supplier Portal. You can access the Supplier Portal from boston.gov/procurement at the Supplier Portal link. We do not accept proposals submitted via email or other electronic communication.

To submit using the Supplier Portal, follow the steps on this website boston.gov/sites/default/files/embed/e/entering_a_bid_on-line_1.pdf. Below is a summary of those steps:

1. **REGISTER** (If you are not yet registered as a "bidder" on the Supplier Portal)
   - **a)** https://www.boston.gov/departments/procurement/how-use-supplier-portal provides step-by-step instructions to register.

2. **FIND EVENT:**
   - **a)** Log in to your account.
   - **b)** Click Main Menu > Manage Events and Place Bids > View Events and Place Bids.
   - **c)** Enter #EV00015470 into the search box and click "Search" button.
   - **d)** Click Curbside Management Solution
   - **e)** Click "View Event Package." Here you can download forms and documentation linked to this RFP. We recommend starting with "Main RFP Document File name."
   - **f)** Click the 'OK' button to return to the 'Event Details' page.

3. **ATTACH YOUR TECHNICAL AND PRICE PROPOSALS:**
   - **a)** Click on the 'Bid On Event' button.
   - **b)** Answer all questions and upload the required forms as directed, including the non-price technical proposal. ***Do NOT include any price information in your technical proposal, otherwise your proposal will be rejected.*** Click "Step 2: Enter Line Bid Responses". Here is where you input your price information separately. If there are multiple lines, you may need to enter separate amounts for each line item you are bidding on.
   - **c)** Click the icon on the far right of the screen labeled "View/Add Question Comments and Attachments." Here is where you will attach your Price Proposal (in the template provided above in Section 4.1)

4. **SUBMIT YOUR PROPOSAL:**
   - **a)** Once you have responded to all required fields, you may click "Validate Entries" to confirm if your application is ready to be submitted.

b) To submit your proposals, click “Submit Bid.”

Further instructions on registering and submitting a bid can also be found on the Procurement Information Page. **We recommend submitting your proposal at least 24 hours prior to the deadline.**[9]

NOTE: MODIFICATIONS MAY NOT BE MADE TO YOUR PROPOSAL ONCE SUBMITTED TO THE PORTAL. PLEASE ENSURE YOUR PROPOSAL IS COMPLETE AND ACCURATE PRIOR TO YOUR SUBMISSION.

[9] Please note that Supplier Portal file uploads are limited to a 59-character file name length.

7. APPENDICES

APPENDIX 1: RFP TERMS AND CONDITIONS

(1.1) CANCELLATION, REJECTION, AND WAIVER

The City is under no obligation to proceed with this RFP and may cancel the RFP at any time with or without the substitution of another. The City reserves the right to reject in whole or in part any or all Proposals, when the City determines that rejection serves the best interests of the City. The City may waive minor informalities in the Proposal or allow the Vendor to correct them.

The submitted Proposal, along with the RFP, will also be part of the Contract between the City and the Contractor. The Contract is subject to the availability and appropriation of funds.

(1.2) WITHDRAWAL OR MODIFICATION OF PROPOSAL

The City may allow a Vendor representative bearing proper authorization and identification to sign for, receive and withdraw the Vendor's unopened Proposal prior to the submission deadline. A Vendor that seeks to correct or modify its Proposal may do so by withdrawing the initial submission and then submitting a modified Proposal prior to the submission deadline.

(1.3) PROPOSAL VALIDITY PERIOD

By submitting a Proposal the Vendor agrees that its Proposal is valid for one hundred eighty (180) days following the submission deadline unless extended by mutual agreement.

(1.4) PROPOSAL COSTS

Any and all costs incurred by a Vendor in preparing a Proposal and throughout the RFP process are ineligible for reimbursement, or recovery from, the City and are solely the burden of the Vendor.

(1.5) TAXES

The City is a tax-exempt organization. However, should any part of the Contract be subject to taxes, the Vendor must include and be responsible for paying all taxes that are applicable.

Any taxes due will be assumed to be included in your price of services, otherwise the Vendor is responsible for any additional costs not included. The City is exempt from federal excise taxes (Federal Exemption No. A-108-328) and from

Massachusetts sales and use taxes (Certificate No. E-046-001-380). Exemption certificates will be provided, if requested, following the award.

(1.6) SUBCONTRACTORS

Subcontractors may partner with multiple vendors and participate in multiple proposals.

The City will contract with one or more Contractors who will be solely responsible for contractual performance and who must be the sole point of contact for the City with regard to Contract matters. In the event the Contractor utilizes one or more Subcontractors, the Contractor will assume all responsibility for performance of services by the Subcontractor(s).

The City must be named as a third-party beneficiary in all subcontracts. A list of all Subcontractors proposed to take part in the performance of the Contract must be provided to the City for approval prior to Contract execution.

(1.7) USE OF CITY NAME

The Contractor and any Subcontractor(s) agree not to use the City of Boston name or seal, or that of any other City Agency or Department in advertising, trade literature, or press releases without the prior written approval of the City.

(1.8) PUBLIC RECORDS

Proposals must be confidential until the time for acceptance specified in the RFP has expired. Thereafter, proposals will be public record and subject to disclosure upon request. Do not submit confidential information in your Proposal.

APPENDIX 2: CONTRACT TERMS AND CONDITIONS

Please be familiar with these terms and conditions at the time of proposal submission to ensure that you are able to meet them if awarded the contract.

All applicants are required to **review** the following documents at this stage; some terms are verified electronically via the Supplier Portal, and **only the CM-16 Wage Theft form must be submitted with your proposal, per the instructions in Section 5 of this RFP.**

By submitting a proposal, an applicant acknowledges that if they are selected as the winning respondent, they will be required to complete and provide each of the below forms to the City as part of the contract package. The vendor will be disqualified if it does not submit completed versions of the following forms during the contracting process.

1. Form CM-06 – Certificate of Authority (Only Required for Corporations)
2. Form CM-09 – Contractor Certification
3. Form CM-10 and CM11 – Standard Contract Document & General Conditions
4. Supplement to Form CM-11 - Supplemental IT Terms & Conditions (for IT+ projects only)
5. CM Forms 15A, 15B – CORI Compliance & Standard
6. Form CM-16 – Wage Theft: **Complete and submit with your proposal**
7. Form Wage-1 – Requirements Of The Boston Jobs, Living Wage, And Prevailing Wage Ordinance
8. Form Wage-2 – The Boston Jobs, Living Wage, And Prevailing Wage Ordinance Vendor Agreement

APPENDIX 3: INSURANCE REQUIREMENTS

As noted in Section III, *Your Technical Proposal*, the City requires the following levels of insurance.

The Contractor must purchase and maintain during the term of the Contract all insurance required by the Commonwealth of Massachusetts and as required in this section, and will assure that subcontractors carry similar and appropriate coverage. These requirements must not be construed to limit the liability of the Contractor or its insurer.

Insurance will be issued by insurance companies licensed to write insurance in their domicile state and the Commonwealth of Massachusetts, and will have a current Best's rating of A- VII or above. Insurance Certificates on Acord Form 25 evidencing all requirements listed below must be delivered to the Official by the selected vendor prior to the execution of any contract. Additionally, renewal certificates must be delivered within 30 days prior to the expiration of the preceding policy.

Insurance Requirements:

1. **Workers' Compensation** insurance as required from under General Laws c.152 (the Workers' Compensation Law) and including employer's liability limits of one million ($1,000,000) per accident and per employee, including disease.
2. **Commercial General Liability** with coverage no less than one million ($1,000,000) per occurrence and two million ($2,000,000) annual aggregate limit per location or project basis.
3. **Automobile Liability** (Any Auto/Hired/Non-owned) for one million ($1,000,000) combined single limit per accident.
4. **Umbrella Liability excess of Commercial General Liability, Employer's Liability and Auto Liability** for one million ($1,000,000) each occurrence. In lieu of umbrella liability, required limits may be achieved by purchasing higher limits on individual policies.
5. **Technology Errors & Omissions / Cyber Liability / Security & Privacy:** for one million ($1,000,000) per claim and one million ($1,000,000) in the aggregate with coverage continuing for one year after completion or termination of the Agreement. Policy must specifically include: a) computer or network systems attacks, b) denial or loss of service, c) introduction, implantation or spread of malicious software code, d) unauthorized Access and Use of computer systems, e) privacy liability, and f) breach response coverage equaling at least 50% of liability limit.

6. **Third Party Crime/Employee Dishonesty:** for $1 million per claim and $1 million in the aggregate. Coverage is required if the vendor will have access to personal or municipal financial information and/or records maintained by the City.

7. **Professional Services** for two million ($2,000,000) per claim and two million ($2,000,000) in the aggregate with coverage continuing for one year after work period.

General Conditions:

- City of Boston must be named as Additional Insured on all policies except, Workers' Compensation and Employer's Liability.

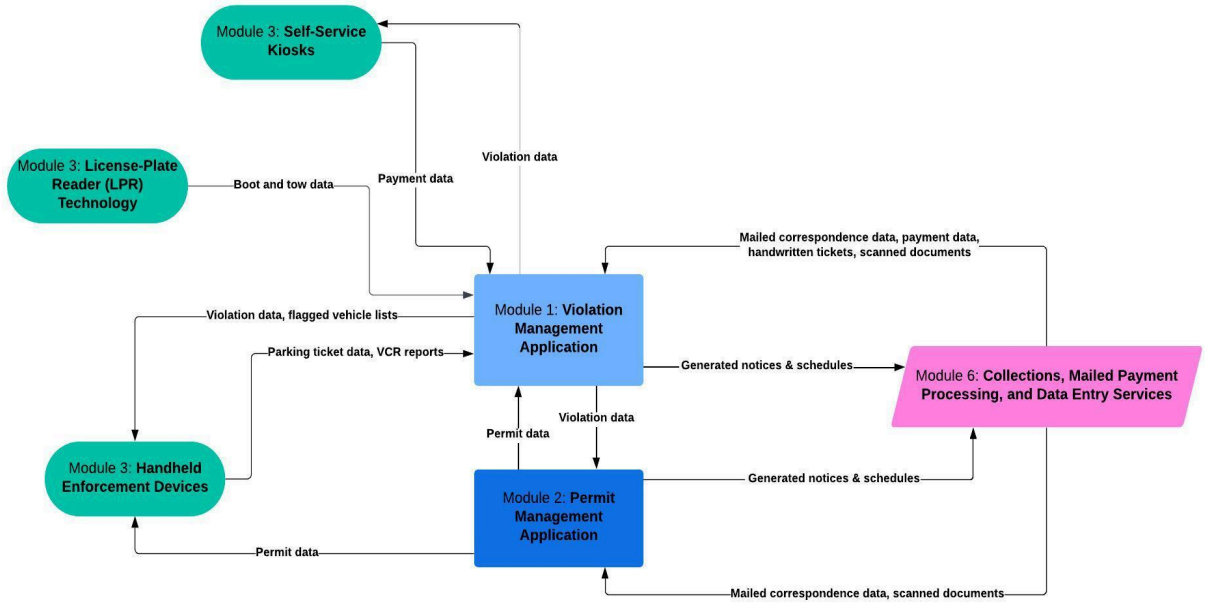
- Above insurance must be primary and noncontributory over any such insurance available to the City of Boston, its officials, employees and volunteers.

- Waiver of Subrogation will be included as respects all coverages listed above in favor of the City of Boston. The Workers' Compensation Policy must be specifically endorsed and noted as such in the required certificate.

- All policies will be endorsed to provide thirty days written notice to the certificate holder, the City of Boston, in the event of cancellation, non-renewal or material changes in coverage. Such endorsements must be attached to the Certificate.

APPENDIX 4: CURBSIDE MANAGEMENT SOLUTION MODULE DIAGRAM

High-level Overview of CMS Dataflows:



**For illustrative purposes only (not comprehensive)*