# City of Cambridge
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**TO:** **All Bidders**

**FROM:** **City of Cambridge**

**DATE:** **July 25, 2024**

**RE:** **File 11654 – Parking Management Information System FY25-28**

**This addendum is comprised of:**

**Submitted Questions and Answers**

**SUBMITTED QUESTIONS AND ANSWERS:**

Q1: I would like to get more project requirements specific details on this RFQ so I can assess it and submit my RFP accordingly.

**A1: Please see pages 13 - 64 of the RFP document for detailed project specifications.**

Q2: Does the city require seventeen receipt printers to print receipts for parking tickets and RPP Permits, or do they intend to work with the current equipment?

**A2: Yes, the city requires seventeen receipt printers to print receipts for parking tickets and RPP Permits. The vendors shall provide and support the equipment during the contract term.**

Q3: Please clarify the quantities of paper tickets that are needed over the three-year term period of the contract.

**A3: 25,000 paper tickets are needed over the 3-year term of the contract.**

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Q4: Is the city looking to have additional permit types as part of the digital Guest permit application? Will these new permit types be needed on the Permit portal system?

**A4: The digital visitor parking permit is a new permit type, different than the existing 1 per household visitor permit that we currently issue. The contractor will work with the City to determine how to implement this new solution after the contract is awarded.**

Q5: Is the city looking for a system where multiple permits can be purchased in a single transaction, like a shopping cart type of system for all permit types that are defined in section "Digital Guest Permits": If not, can the city expand their criteria?

**A5: Yes; the contractor will work with the City to determine how to implement this new solution after the contract is awarded.**

Q6: RPP "Means-Testing" \ Pricing of Permits - Does the City require the vendor to add the images to the record for "Proof of Income" for future record retention?

**A6: Yes; similar to how we retain the Proof of Residency documentation in the online application.**

Q7: Customer Portal is going to accept "Seasonal Alerting". Can the city provide a definition of seasonal alerting that pertains to the customer portal and how it would be used? Please advise if this is ad hoc and the alert turnaround time for each of the alerts.

**A7: The City plans to use the seasonal alert as a tool to notify residents of important information. For example, "The Resident Parking Permit renewal season is underway. It is time to renew your 2025 RPP". Additionally, If the City is experiencing a system outage, the City would utilize this alert to update residents. Yes, it would be ad hoc with the expectation to post within 24-hour notice.**

Q8: Could you also specify if any particular middleware or data brokers, such as IBM Integration Bus or MuleSoft, have been standardized within the city's IT ecosystem to support these integrations?

**A8: The vendor is responsible for integrating its system with the RMV and other MVAs, not the City's IT ecosystem. Please refer to,**
- **Key components of the system, page 13 – 14;**
- **Interface with Moter Vehicle Agencies (MVAs), page 24;**
- **and Request for Massachusetts Vehicle Owner Information. Page 25.**

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Q9: What are the specific expectations for interfacing with third-party vendors, particularly regarding mobile payment and digital permit systems?

**A9: The Database System requirements have outlined all requirements and expectations. Please refer to pages 40 – 41.**

Q10: What specific scalability features is the city looking for in the PMIS to handle future increases in parking management demands? For instance, are there expectations for horizontal scaling to manage additional load or vertical scaling to enhance current capabilities? Could you also clarify if technologies such as cloud elasticity or distributed databases are preferred for dynamically adjusting resources in response to traffic fluctuations during peak hours or special events?

**A10: The scope has outlined all features for this contract term. The proposer responses should include the technologies proposed to be used to meet the requirements of the RFP, which could include examples and scenarios for both cloud elasticity and distributed databases.**

Q11: How flexible does the API architecture need to be to seamlessly integrate with future third-party services or emerging data sources that have not been specified yet? Such as, does the city anticipate the need for adopting newer standards like GraphQL for more efficient data fetching or continuing with REST for broader compatibility?

**A11: The vendor shall provide any API architecture that optimally fulfills all platform requirements outlined in this scope. Please refer to the System Components section, pages 22 - 23.**

Q12: Could you also clarify if there is a requirement for the API to support versioning or custom endpoint creation to ensure adaptability with evolving external systems?

**A12: The vendor is responsible for fulfilling all API requirements with all external systems or platforms. Please refer to the System Components section, pages 22 - 23.**

Q13: What specific federal and state compliance standards must the PMIS adhere to regarding data security and privacy protection? For instance, are there particular requirements under the Health Insurance Portability and Accountability Act (HIPAA) for protecting personal information? Could you detail any mandated encryption protocols or security frameworks, such as AES or NIST, that the city expects the system to implement to safeguard sensitive data effectively?

**A13: Please refer to the General Terms and Conditions section on page 5, which outlines the legal requirements. The vendor is responsible for providing the highest level and best industry practices for all data, outlined on pages 18-19, 28, and 76.**

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Q14: How modular does the city require the PMIS to be for accommodating future expansions and integration with other municipal services? For instance, does the city anticipate the need for plug-and-play components that can be easily added or replaced without disrupting existing functionality?

**A14: The scope has outlined all features for this contract term. Potential vendors could include services that are not specifically listed in this RFP. Please refer to Additional Products and Services, page 20.**

Q15: Could you also specify if there is a preference for service-oriented architecture (SOA) or microservices architecture to facilitate such modular expansions?

**A15: The vendor shall propose the best practices for all PMIS services. Please refer to Additional Products and Services, page 20.**

Q16: What specific practices does the city expect for data archiving within the PMIS, particularly regarding the accessibility and retrieval of historical ticket data from an existing archive of over 10 million records? For instance, does the city require on-demand retrieval capabilities for data analytics and reporting purposes, or are there periodic audit requirements that necessitate efficient retrieval processes?

**A16: Please refer to the File Archive section, page 42.**

Q17: What are the city's specific requirements for real-time data processing within the PMIS to manage high-volume transactions effectively? For instance, does the city anticipate the need for in-memory processing to handle peak loads, or streaming data processing capabilities to enable instantaneous data analysis and decision-making? Could you also detail the expected throughput rates and latency thresholds that the system should adhere to during regular operations and peak periods, to ensure continuous operational efficiency and user satisfaction?

**A17: Please refer to the Vendor Responsibilities section, page 37.**

Q18: How critical is the real-time transmission of enforcement data from handheld devices to the central PMIS, especially in dynamic enforcement scenarios such as immediate updates on parking violations or changes in parking status? Does the city require a continuous data feed to ensure enforcement officers and traffic management systems are always synchronized, or are there specific intervals acceptable for data syncing?

**A18: Yes, it is critical. Please refer to Vendor Responsibilities, pages 37 – 38.**

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Q19: What are the resilience features required for the system to maintain data integrity and continuity in the event of network disruptions?

**A19: Please refer to the Vendor Responsibilities, pages 37 – 38.**

Q20: What specific durability standards, battery life expectations, and environmental tolerance levels does the city require for handheld electronic ticket writing devices used within the PMIS? Are there minimum requirements for device operation under extreme weather conditions, such as resistance to water and dust? Could the city specify the expected battery life under continuous use during regular enforcement hours and any preferences for rapid charging capabilities or power-saving features to ensure uninterrupted operation throughout shifts?

**A20: Please refer to the Handheld Electronic Ticket Writing Devices section, pages 36 - 37.**

Q21: How does the city plan to integrate existing and future third-party payment providers within the PMIS framework to streamline parking fee transactions? For instance, does the city require integration to support real-time payment processing and immediate updates to enforcement databases? Could you clarify if there are preferred protocols or standards, such as Open Payment Platform or Unified Payments Interface, that should be adhered to ensure compatibility and security across different payment systems? Furthermore, how does the city envision handling vendor changes or additions to the payment system without disrupting ongoing operations?

**A21: Please refer to Credit/Debit Card Processing Requirements for Interactive Voice Response, Pay-by-Web, and Mobile Payment Applications section, page 18.**

Q22: What specific business intelligence tools and functionalities does the city require within the PMIS to enhance parking enforcement strategies and maximize revenue generation? Does the city need advanced analytics capabilities to predict parking behavior patterns and optimize fee structures? Could the city specify the types of reporting dashboards or visual analytics, such as heat maps or real-time data streams, that would aid in decision-making processes? How should these tools interface with existing data management systems to pull and analyze historical data effectively?

**A22: Yes, the requirements and expectations of Business Intelligence Tools are outlined in the Business Intelligence Application section, pages 44 - 52.**

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Q23: How does the city envision the PMIS automatically calculating and assessing penalties and fees, particularly in terms of rules for escalation based on non-payment or other specified criteria? For instance, does the city require a tiered penalty system that increases fines over time or after multiple infractions? How should the system handle exceptions or adjustments to penalties, and what auditing processes must be in place to ensure compliance and fairness?

**A23: The related penalty and fee information can be found at the following link: https://www.cambridgema.gov/iwantto/payaparkingticket.**

Q24: What degree of customization flexibility is required in the PMIS to adapt seamlessly to future changes in parking policies or technological advancements? Does the city envision needing to modify workflow processes or rule sets within the system without vendor intervention? Could the city provide details on whether there is a preference for a modular architecture that allows plug-in components or extensions to be added as new technologies or policy requirements emerge?

**A24: The Vendor shall have in place a structured change management process to ensure that these changes are properly managed, it shall have a clear scope and schedule, and shall be successfully implemented (including necessary quality assurance and quality control activities). The Vendor shall have primary responsibility for developing this process in consultation with TP+T staff. Please refer to the Change Management section, pages 51 - 52.**

Q25: What functionalities does the city require for the management of various types of parking permits and their renewals within the PMIS, specifically addressing both digital and paper formats? For instance, does the city need capabilities for residents to apply, renew, and manage permits online, including uploading necessary documentation and receiving real-time approval statuses? How should the system handle traditional paper permit processes to ensure they integrate smoothly with digital advancements, maintaining a cohesive management approach across both formats?

**A25: Please refer to the Parking Management Application, pages 21 - 33; and Appendix C, Criteria for Online Resident Parking Permit Renewal System, page 64.**

Q26: What specific features and mechanisms does the city require in the PMIS for tracking and reporting compliance with local and state parking regulations and standards? For instance, does the city need the system to automatically generate compliance reports that detail adherence to parking rules, permit distribution, and enforcement actions? How should these compliance tracking functionalities alert city officials to potential non-compliance issues or trends that may require attention or corrective measures?

**A26: Please refer to Appendix A, List of Reports, pages 53 - 62.**

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Q27: Does the city have a preference for deploying the PMIS as a cloud-based solution or an on-premises installation, particularly with considerations around data sovereignty and security? For instance, are there specific regulations or compliance issues that might dictate one deployment model over the other? Could the city elaborate on any anticipated benefits or concerns regarding scalability, maintenance, and ongoing cost implications associated with each model?

**A27: Please refer to the Parking Management Application section, pages 21 - 34.**

Q28: What specific data conversion capabilities are necessary for the PMIS, particularly when transitioning from the existing system? For instance, does the city require the PMIS to support conversion of historical data including ticket records, permit details, and payment histories? Are there particular data integrity checks or validation processes the city expects to be implemented during the conversion to ensure accuracy and completeness of the transferred data? Could the city also detail any requirements for archiving old data that may not be directly converted but still needs to be accessible?

**A28: Yes, the selected vendor is required to inherit and convert all data from the existing vendor. Please refer to the Conversion section, page 43.**

Q29: How does the city envision the PMIS handling public inquiries and feedback related to parking tickets and disputes? Are there expectations for the system to integrate feedback mechanisms that allow citizens to rate their interaction or provide suggestions for service improvements? Could the city also specify if it expects the PMIS to provide automated responses or escalation paths for inquiries that are not resolved in the initial interaction?

**A29: The vendor is responsible for the PMIS services. The vendor shall work with the City to develop some scripted responses for the information portal. The City manages public inquiries and feedback. Please refer to Requirements for Websites and Other Written Communications, page 19; Online Customer Information Portal, pages 34 - 35.**

Q30: What preferred process does the city have for proposing and implementing enhancements and customizations to the PMIS post-deployment? For instance, does the city anticipate a need for a staged deployment strategy that allows for iterative enhancements based on user feedback and system performance evaluations? Could the city specify any governance structures or approval workflows that must be followed to ensure that all system modifications align with broader city IT policies and objectives? How should ongoing customization efforts integrate with existing support and maintenance frameworks to ensure seamless system operation and user experience?

**A30: Please refer to the Response to the Scope of Services, page 75.**

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Q31: What strategies does the city have in place to ensure that the PMIS remains adaptable and responsive to future technological advances and changes in parking management practices? For example, does the city require the system to be built on a flexible architecture that can easily integrate new technologies such as IoT devices or AI-driven analytics? Are there specific policies or frameworks that the city anticipates implementing to regularly assess and update the PMIS based on emerging trends and technologies in smart city developments?

**A31: The Vendor shall have in place a structured change management process to ensure that these changes are properly managed, it shall have a clear scope and schedule, and shall be successfully implemented (including necessary quality assurance and quality control activities). The Vendor shall have primary responsibility for developing this process in consultation with TP+T staff. Please refer to the Change Management section, pages 51 - 52, and the Other Required Submissions section, pages 75 - 76.**

Q32: How does the city plan to integrate the PMIS's diverse permit types—such as residential, business, and visitor permits—with existing urban planning tools to ensure cohesive management across different zones? For instance, is there a need for the PMIS to sync with geographic information systems (GIS) to dynamically adjust permit zones based on urban development plans or traffic patterns? Could the city provide details on how it envisages handling permit data interoperability and real-time updates to support effective urban management and planning decisions?

**A32: Please refer to the Management Information System section, page2 44 - 45.**

Q33: What level of automation does the city expect in the adjudication process for the PMIS, particularly in terms of integrating dispute resolutions and ticket management systems? Does the city require the system to automatically update ticket statuses and communicate decisions to citizens via digital platforms such as email or SMS notifications? Are there specific functionalities needed for automating evidence submission, such as uploading photos or documents directly through a mobile or web interface? How should the system ensure transparency and maintain records of all interactions and decisions for auditing purposes?

**A33: Please refer to the Dispute and Adjudication of Parking Tickets section, pages 32 - 34; and Appendix A.6 Adjudication Related Reports, page 58.**

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Q34: Can the city provide specific details on the volume and format of data to be migrated from the existing system to the new PMIS, to ensure a seamless transition? For instance, what are the types of data (e.g., ticket records, permit information, payment histories) and the total data volume that needs to be transferred? How does the city envision the validation and testing phases of the migration process to confirm data accuracy and system functionality post-migration?

**A34: The selected vendor is required to inherit and convert all data from the existing vendor. Please refer to the Conversion section, page 43.**

Q35: What additional security features does the city require for the PMIS's payment systems to effectively handle high transaction volumes and protect sensitive payment information? For instance, does the city expect the incorporation of advanced fraud detection techniques such as behavioral analytics or machine learning algorithms? Could the city specify if there are requirements for end-to-end encryption of transaction data or the implementation of secure tokenization methods to safeguard cardholder information? How should these security measures integrate with existing municipal cybersecurity frameworks to ensure a unified security posture?

**A35: Please refer to the Payment Methods and Processing Requirements section, page 18.**

Q36: Could the city provide details on its current network and hardware capabilities to ascertain whether upgrades are necessary to meet these processing speed requirements?

**A36: Please refer to the Enforcement Capability section, pages 36 - 37.**

Q37: How does the city plan to utilize historical parking and enforcement data collected through the PMIS to support future urban mobility planning and policymaking? For instance, is there an expectation for the PMIS to feature advanced data analytics capabilities, such as trend analysis and predictive modeling, to forecast parking demand and optimize traffic management? Could the city specify how it intends to integrate these insights with other urban planning tools or initiatives to create a comprehensive mobility strategy?

**A37: Please refer to the reports listed under Appendix A, pages 53 – 73.**

**Addendum No. 2**