City of Columbus

Solicitation Number: RFQ009989

Request for Proposals for
Smart Columbus – Multimodal Trip Planning Application

Smart Columbus
Capital Improvements Project No: 530163-100015

Version Dated: September 7, 2018

Response Due Date and Time:
Thursday, September 13, 2018
1:00 P.M., Eastern Time

Submit Electronic Proposal Package to:
https://columbus.bonfire.com/projects
PROPOSAL SIGNATURE FORM

This page, signed by an officer of the offering firm or a designated agent empowered to bind that entity in a contract with Smart Columbus, should accompany each proposal submitted for consideration.

I, the undersigned, having carefully examined the Request for Proposals (RFP), propose to furnish services in accordance therewith as set forth in the attached proposal.

I hereby certify that, to the best of my knowledge, this submission is complete and all statements made therein are true and accurate.

I also affirm I am duly authorized to sign and submit this response on behalf of the Offeror named below.

I further acknowledge that by signing this form I am representing that, in the event this proposal is accepted, the Offeror is willing and able to execute a contract in the form shown in the RFP, with the understanding that the scope and compensation provisions will be negotiated and included in the final contract.

By my signature below, I attest that I have read, understand and agree to the terms, conditions and requirements set forth in the RFP, including, but not limited to: Smart Columbus’ standard contract terms and conditions and any special terms and conditions incorporated in the solicitation documents.

Failure to sign and return this form may result in the rejection of the accompanying proposal.

OFFEROR INFORMATION:

OFFEROR (Company Name):

ADDRESS:

CITY, STATE, ZIP:

PHONE: _________________________   EMAIL: _________________________

AUTHORIZATION TO PROPOSE:

Signature (Manually signed in ink)  Date

Printed Name  Title
CERTIFICATIONS AND REPRESENTATIONS

(GRANT FUNDS)

1. BYRD ANTI-LOBBYING AMENDMENT COMPLIANCE AND CERTIFICATION

For all orders above the limit prescribed in 2 CFR 215, Appendix A, Section 7 (currently $100,000), the Offeror must complete and sign the following:

The following certification and disclosure regarding payments to influence certain federal transactions are made per the provisions contained in OMB Circular A-110 and 31 U.S.C. 1352, the “Byrd Anti-Lobbying Amendment.”

The Offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that:

No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

If any funds other Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer of employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the Offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person making an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

SIGNATURE: __________________________________________________

COMPANY NAME:______________________________________________

DATE: ________________________________________________________
TERMS AND CONDITIONS FOR CONSULTANTS

INFORMATION FOR CONSULTANTS

SUBMISSION OF PROPOSAL

Proposals must be submitted according to this proposal form.

ACCEPTANCE AND REJECTION

This proposal submitted by the consultant to the City of Columbus will be accepted or rejected within a period of 180 days from proposal due date. The City reserves the right to waive technicalities, and to request new proposals (rebid) on the required material. Each invitation for Bids, Request for Statements of Qualifications, and Request for Proposals issued by the City shall state that the Bid or Request may be cancelled and that any bid or proposal may be rejected in whole or in part when it is for good cause and in the best interests of the City.

WITHDRAWAL OF PROPOSALS

Consultants may withdraw their proposals at any time prior to the time specified in the advertisement as the closing time for the receipt of proposals. However, no consultant shall withdraw or cancel his/her proposal for a period of 180 calendar days after said advertised closing time for the receipt of proposals.

APPLICABLE LAWS

The Revised Code of the State of Ohio, the Charter of the City of Columbus, and all City ordinances insofar as they apply to the laws of competitive bidding, contracts, and purchases, are made a part hereof.

CONTRACT

The consultant to whom an award is made will be required to execute a written contract with the City of Columbus, Ohio within seven days after receiving such contract for execution.

LIABILITY, INSURANCE, LICENSES AND PERMITS

Where consultants are required to enter or go onto City of Columbus property to deliver materials or perform work or services as a result of bid award, the Consultant will assume full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance when required. The Consultant shall be liable for any damages or loss to the City occasioned by negligence of the Consultant (or his agent) or any person the Consultant has designated in the completion of his contract as a result of his bid. Particular attention is directed to the statutory requirements of the State of Ohio relative to the licensing of corporation organized under the Laws of any other State.

TAXES

Federal and/or State Taxes are not to be included in prices quoted. The successful consultant will be furnished an exemption certificate if needed.

CHANGES AND ADDENDA TO PROPOSAL DOCUMENTS

Questions as to the interpretation of the Request for Proposal shall be submitted in writing to the Office of Support Services at capitalprojects@columbus.gov. In order to receive consideration, questions must be received by the question cut-off date as indicated in the advertisement. Any interpretations of questions so raised, which in the opinion of the City or its representative require interpretations, will be issued by addenda posted on the City's Consultant Services web site. The City or its representative will not be bound by any oral interpretations which are not reduced to writing and included in the addenda.

CAMPAIGN CONTRIBUTIONS

Consultant hereby certifies the following: that it is familiar with Ohio Revised Code ("O.R.C.") Section 3517.13; that it is in compliance with Divisions (I) and (J) of that Section; that it is eligible for this contract under the law and will remain in compliance with O.R.C. Section 3517.13 for the duration of this contract and for one year thereafter.

IN THE EVENT OF A CONTRACT

An agreement which may result from this proposal shall not be modified or altered by any subsequent course of performance between parties or by additional terms contained in any subsequent documents unless said additional or differing terms are incorporated by contract modification authorized to be entered into by ordinance.

REMEDIES

All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Consultant arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio. Terms and conditions, submitted with this proposal, which are contrary to City Code or Charter shall be disregarded for the purpose of any subsequent contract. The successful Consultant shall be notified as to which terms and conditions, if any, have been deleted.

CONTRACT COMPLIANCE

The City of Columbus encourages the participation of City certified minority and female business enterprises.
All consultants shall identify all subconsultant(s) who will perform any type of contracting on City proposal(s). All consultants shall include in their proposal response the anticipated scope of work and percentage of work that will be performed by all Sub-Consultant(s), along with their contract compliance number(s).

All consultants, including subconsultants, who are party to a contract as defined in Columbus City Code 3901.01, must hold valid contract compliance certification numbers.

This information is gathered and monitored by the Office of Diversity and Inclusion. Please contact ODI for assistance with identifying potential minority consultants. Go to Vendor Services to verify that vendors have an active contract compliance number.

http://vendorseervices.columbus.gov/

Office of Diversity and Inclusion
1393 E. Broad Street, 2nd Floor
Columbus, Ohio 43205
(614) 645-4764

M/FBE Certification/
Contract Compliance
Tia Roseboro 614-645-2203

*While the participation and or partnering of City certified minority and female owned businesses is encouraged the level of minority and female participation will not be a condition of the bid award.

ADDITIONAL CONTRACT TERMS AND REQUIRED DOCUMENTS IN THE EVENT OF A CONTRACT

This section sets forth contract terms and the required contract documents that the successful Offeror must execute following the award of the contract by the contracting authority.

SAVE HARMLESS

The Consultant shall protect, indemnify and save the City harmless from and against any damage, cost, or liability, including reasonable attorneys’ fees resulting from claim, by third parties for any or all injuries to persons or damage to property arising from the intentional, willful, or negligent acts or omissions of the Consultant, its officers, employees, agents, or Subconsultants in providing goods or services under the terms and conditions of this contract.

SAVE HARMLESS DISCLOSURE OF PROPRIETARY INFORMATION

The Consultant agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys’ fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

PUBLIC RECORDS REQUESTS

The City of Columbus, as a political subdivision of the State of Ohio, is subject to Ohio Revised Code Chapter 149, known as the Ohio Public Records Law. Consequently, the Offeror understands that ALL documents submitted in response to this RFP are considered public records and WILL be released when a public records request is made by news media, competitors, or other interested parties, in accordance with the law. If you contend that certain CLEARLY MARKED portions of your response constitute an exception to Ohio’s public records law, you MUST submit your legal basis in support of that assertion with your response.

If a public records request is made for any portion of the documents that you have submitted and you have NOT clearly marked such documents as information constituting an exception to Ohio’s public records law, your information will be released immediately.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio’s public records law, AND you have submitted the legal basis supporting such claim, the City will release a redacted version of your information to the requestor and notify you that a request was made and that a redacted version of your response was released. Should the requestor indicate that the redacted version is not sufficient for their purposes, you then will be IMMEDIATELY responsible for obtaining an order from a Court of competent jurisdiction in Franklin County, Ohio enjoining release of your clearly marked information constituting an exception to Ohio’s public records law.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio’s public records law, but you have NOT submitted the legal basis supporting such claim, the City WILL RELEASE your information to the requestor and notify you that a request was made and that your response was released.

DO NOT mark your entire response/submittal as information constituting an exception to Ohio’s public records law. If your entire response/submittal is so marked, the City of Columbus will not consider your offer.

CONSULTANT’S PROPRIETARY INFORMATION

The Consultant acknowledges that the City is subject to chapter R.C.149.43, the State of Ohio Public Records Law. The City agrees to keep any information confidential except as otherwise required to be disclosed by law including but not limited to the contract.
INDEPENDENT CONSULTANT STATUS

The Consultant shall perform its duties as an independent consultant and not as an employee. Neither the consultant nor any agent or employee of the consultant shall be or shall be deemed to be an agent or employee of the City of Columbus. The Consultant shall pay when due all required employment taxes and income tax on any monies paid pursuant to the contract. The Consultant shall acknowledge that the Consultant and its employees are not entitled to unemployment insurance benefits unless the Consultant or a third party provides such coverage and that the City does not apply for or otherwise provide such coverage. The Consultant shall have no authorization, express or implied, to bind the City to any agreements, liability, or understanding except as expressly set forth in the contract. The Consultant shall provide and keep in force worker’s compensation (and show proof of such insurance) and unemployment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the Consultant, its employees and agents.

PROTECTION OF CITY’S CONFIDENTIAL INFORMATION

The Consultant shall acknowledge that some of the material and information which may come into its possession or knowledge in connection with the contract or its performance, may consist of confidential information, the disclosure of which to, or use by, third parties could be damaging. Therefore, access to information concerning individual recipients of the City’s services to individual clients, among other items, shall not be granted except as authorized by law or agency rule. The Consultant shall agree to hold all such information in strictest confidence, not to make use thereof for other than the performance of the contract, to release it only to authorized employees or subconsultants requiring such information, and not to release or disclose it to any other party. The Consultant shall agree to release such information or material only to subconsultants who have signed a written agreement expressly prohibiting disclosure. The Consultant shall further agree to either destroy or return all such information at the end of the term of the contract.

This section does not impose any obligation on the Consultant if the information is: (1) publicly known at the time of disclosure; (2) already known to the receiving party at the time it is furnished to the consultant; (3) furnished by the City to others without restrictions on its use or disclosure; or (4) independently developed by the receiving party without use of the proprietary information.

CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as stated in 2 CFR 200 Appendix II:

(G) Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

(H) Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201).


$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387).
REQUEST FOR PROPOSAL

1. Project Information:
   1.1. Project Name:

   Smart Columbus – Multimodal Trip Planning Application
   Capital Improvement Project No: 530163-100015

   1.2. Project Overview:

   The Central Ohio Transit Agency (COTA) and the City of Columbus (City) are interested in purchasing a phased deployment of a new application environment for the execution of multimodal transportation known as the Multimodal Trip Planning Application (MMTPA) for end to end (door to door) multimodal trip execution. The MMTPA will make multimodal options easily accessible to all by providing a robust set of transit and alternative transportation options including routes, schedules, booking, and reserving possibilities. The application will allow travelers to request and view multiple trip itineraries and make reservations for shared-use transportation options such as transit, bikesharing, transportation network companies (TNCs) and carsharing. Using the MMTPA, users will be able to compare travel options across modes, plan and pay for their travel based upon current traffic conditions and availability of services.

   Through this Request COTA and the City hereby solicits proposals from only those MMTPA solutions vendors that meet the requirements outlined in this RFP. This solution is critical to the Smart Columbus program portfolio and envisioned to be interoperable and be tightly integrated to the Common Payment System (CPS), Central Ohio Transit Authority (COTA) payment backend and the Smart Columbus Operating System (Operating System). Due to the tight integration needed for a fully functioning multimodal ecosystem between the MMTPA and the CPS, they will often be referenced together. Included is an overview of the proposed MMTPA/CPS system including its relationship with data sources, Mobility Providers, and related Smart Columbus projects. A definition of the system including representative operational scenarios is provided in the, “Concept of Operations for the Multimodal Trip Planning Application/Common Payment System (MMTPA/CPS) for the Smart Columbus Demonstration Program”. This document is available at the Smart Columbus’ SharePoint site and will be posted by 5:00 PM Eastern Time on August 10, 2018. Refer to the following link:

   https://smartcolumbusprogram.sharepoint.com/_layouts/15/guestaccess.aspx?docid=0d0105f1ca154d8888617b59c3f7077d&authkey=AS0OMCgrQoCnpjwEGz8LY_Y0

   COTA and the City are in need of a multimodal transit solution in order to provide high quality, accessible services to its customers. Both are looking to provide an integrated transit experience (planning, execution and payment) for the Greater Columbus region, which may span a minimum of 7 counties. This solution must provide customers with an easy-to-use, open and integrated platform, connecting along all mobility modes identified in the region. Mobility modes include, but are not limited to fixed route transit, demand response (including Americans with Disabilities (ADA) complementary paratransit) transit, human services transportation, ridesharing services, vanpool/carpool, taxis/limos, transportation network companies (TNC), carshare, bikeshare (B-Cycle), parking meters and garages.
2. **Background, Objectives and Scope**

The USDOT’s Smart City Challenge, launched in December 2015, was designed to encourage mid-sized cities to develop ideas for an integrated smart transportation system that would use data, applications, and technology to help people and goods move more quickly, cheaply, and efficiently. As part of Columbus’ overall response to the Smart City Challenge, Mayor Ginther and other City leaders focused part of their efforts on how an integrated smart transportation system would encourage the use of multimodal trips. Increasingly, citizens in urban areas view mobility as a service, and expect seamless connections as they move from mode to mode. Motivation for the MMTPA/CPS project is focused around this discussion, as well as gaps that are present in the current system, such as the lack of access to coordinated multimodal options for Columbus, ability to compare prices across modes, and integration with a CPS. The MMTPA/CPS will provide this functionality and improve upon the existing functionality that is available to users of the current system.

There are three main goals for the MMTPA/CPS with respect to positive societal outcomes, which tie back to the original intent of the Smart City Challenge:

- Enhanced Mobility
- Enhanced Access to Opportunities and Service
- Increased Customer Satisfaction

These goals were developed through collaboration with USDOT and address the unique needs of the Columbus region. A description of each of the goals is provided below.

### 2.1. Goal #1: Enhanced Mobility

Enhanced mobility within the context of the Smart Columbus program means providing citizens with improved access to transportation services, which in turn leads to an improvement in quality of life and access to economic and educational opportunities. Within the context of the MMTPA/CPS, enhanced mobility means providing travelers with convenient access to different modes of transportation through a single mobile interface, ability to create personalized trip itineraries based on user-defined travel preferences, and ability to pay for all portions of a multimodal trip from a single convenient CPS account.

### 2.2. Goal #2: Enhanced Access to Opportunities and Service

Providing opportunities for improved access to transportation is of central importance to COTA, Smart Columbus and the MMPTA/CPS project. This goal aims to increase access for underserved communities to a wide variety of services through transportation solutions focused on increasing access to places of employment, education, healthcare, and other services, as well as increasing the use of transportation networks by bringing available services and users together. Opportunity is created with the implementation of services that connect people with jobs and human services, improving quality of life. The MMTPA/CPS will create opportunity by addressing barriers to multimodal transportation that travelers face when using systems that are not designed to be comprehensive. Door to door trip planning and payment will allow multimodal trips to reach areas of employment in a cost-effective manner that were not possible with just transit service alone.
2.3. Goal #3: Increased Customer Satisfaction

COTA and Smart Columbus will only be successful if they provide services that are useful, easy to use and embraced by the community. COTA and Smart Columbus will improve the user experience for citizens planning for, paying for and using transportation services through the integrated exchange of data and use of advanced technologies to help travelers reach their destinations. By implementing advanced technologies, such as providing a CPS or Smart Mobility Hubs, the products or services supplied by COTA and the City will meet or surpass a traveler’s expectation. Furthermore, implementing a system that will entice the user through loyalty and incentives programs will improve user satisfaction, adoption and retention. The user needs to be empowered to choose a trip based upon their recurring and immediate needs.

3. Objectives

3.1. The objectives of the MMTPA/CPS are to facilitate access to transportation options and to make multimodal trip planning and payment more convenient. This RFP is for the MMTPA component of the system. The objectives listed in Table 1: Objectives of the Proposed System address objectives that the MMTPA will need to solve. The overarching hypothesis behind these objectives is that by making multimodal trip planning and payment more integrated, unified and easier, the MMTPA/CPS will promote and provide travel options to residents and visitors to Columbus to reduce single occupancy vehicle trips and gain access to jobs and services.
### Table 1: Objectives of the Proposed System

<table>
<thead>
<tr>
<th>Objective</th>
<th>Desired Outcome</th>
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<tbody>
<tr>
<td>Facilitate improved access to multimodal trip planning</td>
<td>The MMTPA/CPS will encourage travelers to take multimodal trips in central Ohio by providing a comprehensive, personalized trip planning and payment solution that engages and entices the individual to continue using the system.</td>
</tr>
<tr>
<td>information</td>
<td></td>
</tr>
<tr>
<td>Increase usage of the shared-ride transportation services</td>
<td>The MMTPA/CPS will result in increased ridership of shared-ride transportation services by affording travelers access to comprehensive information about all the transportation service options at their disposal for trips and providing convenient First Mile/Last Mile (FMLM) options that include a single payment option and the ability to promote multiple passengers per vehicle. The system will allow users to define and adjust a profile based upon tracked experiences and profile of preferences for their travel. The users will be able to rate each experience and have those tracked for their benefit. Furthermore, the system will entice the user through the ability to manage a loyalty and incentives program.</td>
</tr>
<tr>
<td>being provided</td>
<td></td>
</tr>
<tr>
<td>Improve ease of multimodal planning</td>
<td>The MMTPA/CPS will provide a personalized, user-friendly experience that allows and encourages users to schedule multimodal trips in central Ohio. The system will allow users to define and adjust their profile of preferences based upon their tracked experiences of travel.</td>
</tr>
<tr>
<td>Provide travelers with more convenient access to mobility</td>
<td>The MMTPA/CPS will provide travelers with more convenient access to mobility services that were previously not integrated into a single convenient planning and execution system. It will also extend access to those who are unbanked or underbanked individuals; those that considered multiple modes to be inconvenient due to lack of purchase venues or having to manage multiple accounts to pay for different transportation services.</td>
</tr>
<tr>
<td>transportation service options</td>
<td></td>
</tr>
<tr>
<td>Increase access to jobs and services</td>
<td>The MMTPA/CPS will provide better access to jobs and services by providing door to door options at any time of day and by enabling travelers to use mobility services that were previously unavailable to them due to payment restrictions. When combined with the Operating System, the MMTPA will have the ability to identify through deep learning areas of need; (FMLM, transit deserts, etc.) thus enabling the implementation of improved transportation services.</td>
</tr>
<tr>
<td>Increase customer satisfaction</td>
<td>The MMTPA/CPS will increase customer satisfaction by providing one account to book and pay for multiple transportation services. It will also give the user the ability to rate each transit experience by segment allowing the system to record track and improve overall service.</td>
</tr>
</tbody>
</table>

*Source: City of Columbus*
4. **Project Schedule:**

Proposal Inquiry Period Ends: August 31, 2018  
RFP Due: September 13, 2018  
Interviews/Short List: TBD  
Consultant Selected: September 2018  
City Council Legislation: October 2018  
Notice to Proceed: November 2018

5. **RFP Pre-Proposal Meeting:**  
August 17, 2018 from 1:00 PM – 3:00 PM  
Location: Smart Columbus Experience Center,  
170 S. Civic Center Dr., Columbus, OH 43215  
Webex information:  

[Join Webex meeting](#)  
Meeting number (access code): 732 951 799  
Meeting password: WkJvcdcU  
Join by phone  
1-650-479-3207 Call-in toll number (US/Canada)
6. Proposal Submittal Instructions:

6.1. Proposals shall be submitted as a PDF document online via Bonfire until 1:00 PM Eastern Time on September 13, 2018. Proposals received after this date and time shall be rejected by the City.

6.2. Submit Electronic Proposal Package to:
https://columbus.bonfirehub.com/projects/

6.3. Electronic Submittals:

6.3.1. Proposals shall be submitted as a PDF document. The maximum file size is 100 MB. Please do not embed any documents within the uploaded file as such documents will not be accessible or evaluated. Proposals must be uploaded, submitted, and finalized prior to the Closing Time of 1:00 PM Eastern Time on September 13, 2018. The City strongly encourages Offerors to allow sufficient time and at least one (1) day before the Closing Time to begin the upload process and to finalize their submissions.

6.3.1.1. Important Notes Regarding Submissions: Proposals will only be visible and accessible to the Department or evaluators after the Closing Time.

6.3.1.2. Uploading large documents may take significant time, depending on the size of the file(s) and Offerors’ Internet connection speed.

6.3.1.3. Offerors will receive an email confirmation with a unique confirmation number once they finalize their submissions. The date/time stamp on the email confirmation constitutes the official date/time of receipt. Offerors are solely responsible for ensuring their proposals have been successfully uploaded and received by Bonfire before the Closing Time specified in the RFP. Responses cannot be uploaded to Bonfire after the Closing Time specified in the RFP, and any in process uploads cannot be finalized once the Closing Time has been reached.

6.3.1.4. The City cannot see any uploads into Bonfire prior to the Closing Time specified in the RFP. The City is unable to tell you if your upload was successful until after the Closing Time specified in the RFP.

6.3.1.5. Minimum system requirements: Internet Explorer 11, Microsoft Edge, Google Chrome, or Mozilla Firefox. Javascript and browser cookies must be enabled.

6.3.2 Bonfire Technical Help

The City of Columbus is using a Bonfire portal for accepting and evaluating proposals digitally. Offerors must contact Bonfire for technical help related to submissions at:

- https://columbus.bonfirehub.com/portal/support
- or Support@GoBonfire.com
6.4. Questions

Direct questions via e-mail only to:

Contract Manager, capitalprojects@columbus.gov

Note: this is a different email address than the email address used to submit requests for proposals.

No contact is to be made with the City other than with the Contract Manager through e-mail with respect to this proposal or its status. The deadline for questions is August 31, 2018. Answers to questions received will be posted on the City’s Vendor Services web site.

6.5. Evaluation

Proposals will be evaluated based on the enclosed selection criteria and in accordance with Columbus City Code, Section 329.28. Please be advised that proposals submitted to the City are subject to applicable Federal, State, and local public information disclosure regulations. Requests to view a proposal will be arranged upon receipt by the City of a written request for such; therefore, any proposal may be subject to viewing by the public. If any information contained in the documents submitted is deemed proprietary in nature, the Offeror is required to mark the information as such and to defend the City concerning any litigation arising from the Offeror’s request for confidentiality.

6.6. Proposal Format (only the following format will be accepted):

6.6.1. Proposals may not exceed thirty (30) letter-size (8.5" x 11") pages and shall include the information specified in 6.7, 6.8, and Appendix A.

6.6.2. Complete the required Proposal Signature Form. That document shall be signed by a person authorized to obligate the Offeror’s firm and included as the front page of the Offeror’s proposal. This does not count towards the 30-page limit described in section 6.6.1.

6.6.3. Page numbers must be centered at the bottom of each page.

6.6.4. Font must be 12 pt., Times New Roman or Arial.

6.6.5. Cover letters are not required. If submitted, a cover letter will count against the 30-page limit of the proposal.

6.7. Proposal Content

6.7.1. The Consultant shall limit the proposal to no more than 30 total pages of information (e.g. text, graphics, etc.). A ‘page’ is one side of a sheet of paper with text, graphics, etc. If only one side of a sheet of paper has text, graphics, etc., then that is one page. If both sides of a sheet of paper have text, that is two pages. The proposal shall include the Proposal Signature Form, which is
not counted in the 30-page limit. Proposals exceeding the 30-page limit will be rejected.

6.7.2. Proposals must address each of the following subjects in the order specified below, using the headings provided. These elements correspond to the evaluation criteria noted in Section 6.8. Note that page breaks are not required between sections; however, section tab dividers will not be counted against the page total unless they contain text other than that necessary to identify the section. Failure to provide the information requested may result in the proposal being rejected.

Section A. Past Performance

Address topics discussed in Section 6.8.1.

Section B. Project Manager

Address project manager’s experience and expertise as discussed in Section 6.8.2.

Section C. Solution, Project Understanding, Project Approach and Support

Address topics and technical capabilities discussed in Sections 6.8.3, 6.8.4, 6.8.5, 6.8.6, 6.8.7 and Appendix A.

Section D. Pricing

Provide complete cost for development. Provide base and billable hourly rates for each role proposed. Include licensing costs, details of payments-as-a-service and new releases options as discussed in Section 6.8.8.

6.8. Evaluation Criteria:

Each proposal will be evaluated using the same criteria and associated point value as identified below. The maximum value that can be assigned to a proposal response is 130 points. The proposal responses will be reviewed by a committee comprised of COTA, and the City of Columbus, and the Smart Columbus Program Management Office. Resultant scores will be based on the proposal and speaking with references.

6.8.1. Past Performance (Section Maximum Value 25 Points):

Offeror will identify a maximum of three specific projects in their portfolio that best encapsulates the breadth of their capabilities, their ability to deliver the solution on time and their ability to collaborate with the Operating System development team. These featured projects will include a point of contact that can be called by COTA and the City of Columbus as a reference. As the Offeror responds to the RFP it should be made clear as to how many implementations have been delivered for each desired functional requirement and if they were stand alone or integrated solutions.
6.8.1.1. Offerors should describe the history of their MMTPA related offerings, including initial release date, current version number and development history (that is, if they were developed as a marketable package or as a solution for a particular organization).

6.8.2. Project Manager (Section Value 15 Point):

Present the education, training, experience, overall qualifications, and availability for the project manager. The ideal candidate will be someone who has years of experience working in a project management and leading complex software and emergent architecture development initiatives using Agile methodologies. Furthermore, candidates should have strong communication skills and experience working on end-user engagements to identify and refine use cases. Candidates should have experience managing similar projects and be available upon selection to work full-time for approximately 12 months.

6.8.3. Solution, Understanding of Project & Approach (Section Maximum Value 30 Points):

6.8.3.1. The MMTPA and related offerings are vital to the overall transportation experience in the Greater Columbus region. The score will be based on completeness of the responses and alignment with COTA and the City's expectations. Increased value is placed on modern innovative concepts that will lead to an advanced solution capable of remaining viable for an extended time period (i.e. blockchain tokenized environment). These concepts should be well conceived and clearly defined.

6.8.3.2. When submitting the details of your solution, please respond to the questions and describe your approach to meeting the project requirements in Appendix A.

6.8.3.3. This project will follow an Agile Scrum of Scrums model as the proposed solution is developed and integrated into the Operating System. Offeror should demonstrate an understanding of the MMTPA functions and requirements, the Operating System and the project management and development skills required to integrate to those environments. It is understood that, dependent upon the baseline capabilities of the product/offering, the development of this application will be done in parallel with the development to the Operating System and deep coordination between the two projects needs to occur. The Offeror shall participate in, at a minimum, weekly Scrum of Scrums with the Operating System development team.

6.8.3.4. The Offeror’s response must contain a narrative tailored to this project describing the leadership approach to delivering this initiative. The Offeror’s leadership will interact with COTA and the
Smart Columbus project managers. The Offeror will need to speak to how they will ensure COTA and the City's satisfaction and manage the account accordingly.

6.8.3.5. Describe your MMTPA-related capabilities and experience in integrating with an account-based common payment system for multimodal trips that may also include non-transit components (e.g. parking, taxis, bikeshare, TNCs, etc.).

6.8.3.6. Describe your capabilities and experience in providing web-based portals for management of traveler accounts and products for the general public and institutions and for management of special program such as discounts, benefits and loyalty rewards to include individual (user) account management thru web and mobile User Interface development.

6.8.3.7. Describe your MMTPA capabilities and experience in the proposed solution for interfacing to systems that provide flexible pricing/tariff management.

6.8.3.8. Describe what agreements, relationships, capabilities, and experience you currently have with mobility providers and third-party operators in a large geographic area for integrating services within an MMTPA. Describe your approach to gaining agreements with mobility providers for this project.

6.8.3.9. Describe the flexibility in your solution to interface to third party (non-transit) payment systems. Specific examples should be asked for TNCs, parking, taxis, bikeshare, etc.

6.8.3.10. Describe your general experience and approach to implementing user incentive programs.

6.8.3.11. Describe your general experience and approach to implementing user loyalty programs.

6.8.3.12. Describe your general experience and approach to implementing gamified/personalized user loyalty programs.

6.8.3.13. Describe your general experience and approach to implementing user feedback systems.

6.8.3.14. For perpetual licensing, Offerors shall indicate whether all source code for the MMTPA will be made available to COTA and the City, if not, identify the software escrow service used, give contact information and describe company policy regarding software escrow updates.
6.8.3.15. Offerors shall provide detailed information as to the future direction (e.g. a product roadmap) of product development for their solution.

6.8.3.16. Offerors shall indicate what third-party software packages are required for their solution to function correctly (agents or clients for backup, or software distribution and security, for example), and should clearly indicate whether such third-party packages are part of their solution and to be purchased by the City, or whether COTA and the City are responsible for purchasing and maintaining licenses for the third-party components separately.

6.8.3.17. As part of the product planning lifecycle, the Offeror should indicate how user-group or crowd-sourced input is factored into its product development lifecycle (Open source software).

6.8.3.18. Describe what risks the Offeror would foresee in this project, and how will the Offeror help COTA and the City minimize those risks?

6.8.4. Product Support and Service Warranty (Section Maximum Value 10 Points):

6.8.4.1. In the response, the Offeror shall describe its proposed solution for developing an effective product support and service warranty and maintenance plan that utilizes the Offeror’s staff or Offeror provided subcontractors, resellers or third-party resources, COTA and City information technology staff and end-users in an integrated service delivery model, paying special attention to and describing the following components of its proposed Product Support and Service Warranty Solution:

6.8.4.1.1. The Offeror shall describe its approach to integrating with the City’s Operating System in the Offeror’s technical support plan. The plan shall include an incident management process which includes these components: incident identification, problem definition, troubleshooting, escalation and incident resolution.

6.8.4.1.2. The Offeror shall describe its proprietary or commercially-acquired platform for service desk/helpdesk incident submittal, management and reporting, and its willingness to integrate with the existing COTA service desk platform. The Offeror shall also describe its on-going incident reporting process to COTA’s personnel including providing sample formats, review processes and tasks, and reporting frequency.

6.8.4.1.3. The Offeror shall describe its helpdesk availability during normal and extended business hours, and whether the COTA staff and end-user community will have access to dedicated Offeror support resources when the Offeror’s
helpdesk is closed, and software or data-related incidents occur.

6.8.4.1.4. The Offeror shall describe how COTA will obtain direct access to the Offeror’s standard Tier-II or Tier-III resources when needed.

6.8.4.1.5. The Offeror shall describe its targeted response times used in Service Level Agreements and include a description of actual response times. The Offeror shall describe its metrics for tracking response times and problem-resolution completion rates.

6.8.4.1.6. The Offeror shall describe decision criteria used to escalate incidents from support tier to tier.

6.8.5. Product Upgrades and New Version Releases (Section Maximum Value 15 Points):

6.8.5.1. Offerors should describe:
   6.8.5.1.1. The process of new version releases and the application of service packs to the MMTPA.
   6.8.5.1.2. The quality assurance/testing processes to determine whether an upgrade or custom modification is suitable for release.
   6.8.5.1.3. The process by which opportunities for system enhancements are identified, screened, programmed, field-tested and released to customers.
   6.8.5.1.4. Whether the upgrade methodology includes a tracking system to report the status of the upgrade, and to record problems and bugs.
   6.8.5.1.5. The frequency of major, minor, and patch release upgrades, and for cloud-hosted environments, the policies under which these are applied.

6.8.5.2. The Offeror's proposal shall include for the duration of the agreement with COTA and the City, including any successive contractual renewal, an annual forward-looking product road-map briefing disclosing the company's current and planned product direction. COTA and the City are willing to sign a mutual agreeable non-disclosure agreement at the request of the Offeror if such an agreement is a prior condition of the annual road-map briefing.

6.8.6. Training and End-User Development (Section Maximum Value 10 Points):
6.8.6.1. Offeror should describe its educational approach for training of COTA and City staff responsible for managing the Offeror’s proposed solution and for using the Offeror’s solution as an end-user.

6.8.6.2. Offeror should describe its course offerings, including a course description, course length (time), format (on-line, instructor-led, etc.) and cost per training participant.

6.8.6.3. Offeror should describe its approach to establishing, operating and supporting customer-led user-groups of its products.

6.8.7. **Organizational Support for Offeror’s Solution (Section Maximum Value 10 Points):**

6.8.7.1. In order to support the Offeror’s proposed solution, Offeror should provide an overview of the resources COTA and the City should consider as part of the implementation plan. The organizational support plan should include the following components:

6.8.7.1.1. A draft table of organization of staff needed to support the Offeror’s proposed solution.

6.8.7.1.2. A job description for each position within the draft table of organization that identifies the roles and responsibilities in supporting the Offeror’s proposed solution.

6.8.8. **Price (Section Maximum Value 15 Points):**

6.8.8.1. COTA and the City will negotiate scope and price with the Offeror prior to contract execution. The City, with input from COTA, will have the ability to modify the Offeror’s contract if changes in scope are agreed upon by all parties. The Offeror will provide the fully burdened hourly rates for each role. This is a requirement for the key roles and all the roles detailed in Exhibit B. Also include:

6.8.8.1.1. Total cost of ownership of solution including ongoing year to year support and maintenance costs.

6.8.8.1.1.1. Breakout the cost for development of the Minimum Viable Product

6.8.8.1.1.2. Breakout the cost for CPS integration.

6.8.8.1.1.3. Breakout the cost for OS integration.

6.8.8.1.2. Training cost and cost per training participant.

6.8.8.1.3. Any one time and ongoing licensing costs.

6.8.8.1.4. Details of payments as-a-service approach, if applicable.
6.8.8.1.5. The pricing options for new releases, if appropriate.

7. Selection Process:

7.1. The Selection Committee shall evaluate the Offerors strictly upon the submitted proposals and interviews of the Offerors’ references. The Selection Committee will be composed of voting members including representatives from COTA, the City, and the Columbus Partnership. The committee will evaluate all Offerors and proposals received and rank the Offerors based upon the evaluation criteria specified in the RFP. The committee may then select two (2) or more of the highest qualified Offerors with which to hold additional discussions. The discussions may include, but are not limited to, presentations by the Offerors to the committee to elaborate upon their qualifications, proposals, and/or other pertinent information. Based upon the content of the proposals received including any revisions thereto, and upon any additional discussions with the Offerors the committee shall rank the remaining Offerors based upon the evaluation criteria specified in the RFP.

7.2. The Selection Committee will make a recommendation to the COTA Chief Executive Officer and the City’s Chief Innovation Officer for final determination. Once the selection process is completed, the selected Offeror will be contacted by the Office of Support Services to participate in a meeting to enter into contract negotiations. If negotiations fail, negotiations with the Offeror shall be terminated, and COTA and the City may enter into contract negotiations with another. The Smart Columbus Enterprise Program Management Office (Office of the Chief Innovation Officer) will submit a legislative request to Columbus City Council, pursuant to the execution of the contract with the selected Consultant.
Appendix A: Requirements

Note: The system is described below to provide the context for this MMTPA only bid. As the MMTPA and CPS are integrated the two projects are mentioned simultaneously throughout Appendix A. Refer to the “Concept of Operations for the Multimodal Trip Planning Application/Common Payment System (MMTPA/CPS) for the Smart Columbus Demonstration Program” for information regarding the current system, its concept, modes of operation, user classes, description of desired changes, and the system’s interactions. This document is available at the Smart Columbus’ SharePoint site and will be posted by 5:00 PM Eastern Time on August 10, 2018. Refer to the following link:

https://smartcolumbusprogram.sharepoint.com/_layouts/15/guestaccess.aspx?docid=0d0105f1ca15d8888617b59c3f7077d&authkey=AS0OMCgrQoCnpwEGz8LY_Y0

1. Description of Proposed System

The MMPTA/CPS system is a complete multimodal trip planning and payment solution that provides a single source for multimodal trip planning and payment for all Travelers in the Columbus region. The application software that makes up the MMTPA Trip Optimization functions shall at the end of the project reside as a microservice in the OS. The initial implementation of the system will be provided by the vendor utilizing its own integrated optimization algorithm. Working with the Smart Columbus OS team, the vendor shall develop a custom trip optimization engine by leveraging the machine learning system in the OS. A subsequent test and validation phase comparing the integrated application performance with the microservice run within the OS will run in parallel for a period of time. Once validated, the MMTPA shall run using the microservice.

Travelers can download and install the MMTPA for free from public app stores and begin using it immediately to plan trips. For the Minimum Viable Product the trip planning portion of the MMTPA shall be provided.

The main function of MMTPA will be to provide an optimized trip plan across multiple modes of transportation to provide door to door service for the users. The trips will be optimized to provide ridesharing as much as possible on the journey. Business rules will be defined with COTA and the City to maximize the shared ride objective without unduly effecting the traveler’s trip travel time. User preferences will be considered in the optimization, but the goals of ridesharing and provision of services to meet Title VI and ADA requirements will be incorporated in the optimization logic. The mobility providers will be seen as an extension of the COTA transit system and not meant to compete with the transit routes. However, mobility providers may be used without transit if a reasonable transit service is not available for the trip plan locations and travel times. Therefore, the system will have the ability to consider all route options and modes and present them to the traveler as per their preference.

CPS will be developed as a separate secure development process and integrated with MMTPA in Release 4. MMTPA will interface with the CPS at the following points:

1) CPS App pages will be contained in the MMTPA container for a seamless look and feel.
2) MMTPA will query CPS for available funds in a user account to complete the trip requested. If funds are available then request to debit user account and credit mobility provider account will be made as each leg of the trip is initiated. All operations within the user and mobility provider account will be performed with CPS.
3) MMTPA will launch CPS pages during the COTA portion of the trip to allow fare payment with CPS processes at the bus fare box. Any necessary means of payment for 3rd party Mobility Providers will also be launched as CPS content within the MMTPA App.

COTA/CPS payment processing will be contained in the MMTPA App shell, but be processed with an external process from the MMTPA. To pay for trips, Travelers can create a COTA/CPS account or sign in as a guest. COTA/CPS will create a ledger of account information for the individual registered users and a group account for guests.

The vendor will provide the ability for Mobility Providers to integrate with the Operating System through APIs. Mobility Providers will be paid for services immediately or at a negotiated frequency for all rides paid for using the MMTPA/CPS. Payment for services will be deducted immediately from Traveler's accounts and credited toward the appropriate Mobility Provider's account. Travelers will also have the option of funding their CPS accounts on a fixed schedule or when the existing balances fall below a set threshold.

The Operating System is central to tying together many transportation services, by providing open architecture components that can be consumed by Mobility Providers to exchange information needed to optimize and schedule trips. The Operating System is envisioned to be well integrated with transit and paratransit services. COTA, as the region's public transportation provider, is the natural organizational entity to bring all regional transportation services together.

The CPS serves as a back-office payment processor to facilitate payment between Travelers and Mobility Providers other than COTA. For trips on COTA vehicles, the CPS will provide a screen with a QR code or an Near Field Communication (NFC) signal to be recognized by the fare box on the bus. This page will be launched within the MMTPA App, but its content will be generated from the external CPS processor, therefore, all PCI data will be held within the CPS. When processed at the fare box, the COTA payment processor will debit the user's shared account generated by CPS. The CPS is also responsible for alerting Travelers of authorization status (i.e., payment accepted or payment declined status). The MMTPA App will initiate a request to CPS for available funds and allow CPS pages to be launched to manage the user accounts. The MMTPA will integrate the CPS App pages into the MMTPA App format so that it has the same look and feel from the user perspective. Processing of the CPS content shall not be saved in the MMTPA App or data storage.

2. **Project Deliverables**

Along with the high-level roadmap with breakdown of stage epics, the selected Offeror shall provide the following project deliverables for review and approval by COTA and the City prior to commencement of each project stage as specified:

2.1 **During the build/development phases:**

2.1.1 Product Roadmap

2.1.2 Mock-up of site map with pages to be included in MMTPA and data exchanged between pages

2.1.3 Definition of Ready for each stage

2.1.4 Definition of Done for each stage
2.2 As part of the continuous delivery and integration software development workflow:

2.2.1 A/B (Concurrent System Testing, Old to New) Release Plan
2.2.2 Operational Integration Plan

2.3 Prior to operational testing period:

2.3.1 Test Plan
2.3.2 Training Plan

2.4 Prior to deployment

2.4.1 Test Report
2.4.2 Marketing Plan
2.4.3 Communications Plan

2.5 After deployment

2.5.1 Operations and Maintenance (O&M) Plan

3. Product Delivery

3.1 The combined MMTPA/CPS will be delivered via an Agile methodology, with the vendor and City staff (from the Operating System) working collaboratively to develop and deploy functionality. MMTPA development will begin first, with the City tentatively planning for three releases for the initial MMTPA product. Following these three releases, the City has planned testing and a soft launch of the MMTPA application. CPS development will overlap slightly with MMTPA: the kickoff and first release of CPS functionality will take place concurrently with the third release of the MMTPA. The City has also tentatively planned for three releases of the CPS. The third release of CPS and subsequent testing will focus on the combined MMTPA/CPS. The CPS launch will include the combined MMTPA/CPS solution.

Table 2: Product Roadmap and Sections 4 through 9 detail the requirements for each defined release of MMTPA. It is the intent of these specifications to describe COTA and City needs to potential Offerors to assist in the development of their proposals. They are not meant to prevent Offerors from proposing alternate solutions. In all instances, the Offeror is to clearly indicate how the proposed solution meets COTA and City needs for a commercially viable solution. The Offeror shall include an appropriate explanation of the system offered in detail, and with full supporting data to ensure that COTA and City can properly evaluate the proposal.
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<td>Vendor provided trip optimization</td>
<td>Machine Learning for route optimization derived from history taken from release 1, then A/B testing</td>
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<td>CPS Account UI Frontend</td>
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<td>Multiple Languages</td>
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4. Release 1 (MVP) Requirements

4.1 Functional

4.1.1 MMTPA mobile application and web portal [MMTPA/CPS-UN002-v01; MMTPA/CPS-UN012-v02; MMTPA/CPS-UN014-v02; MMTPA/CPS-UN019-v02; MMTPA/CPS-UN028-v02]

4.1.1.1 The MMTPA shall operate on iOS and Android devices.
4.1.1.2 The MMTPA shall be available for download through application repositories (App Stores).
4.1.1.3 The MMTPA shall support offline use.
4.1.1.4 The MMTPA shall have a rides near me feature.
4.1.1.5 The MMTPA shall provide the capability to manage account settings.

4.1.2 Compare Trip Itineraries [MMTPA/CPS-UN003-v02]

4.1.2.1 The MMTPA shall provide the ability to compare trip itineraries by mode, travel time (i.e., quickest), and cost (i.e., lowest).
4.1.2.2 For services where cost information is subject to change, the MMTPA shall update prices in near real-time.
4.1.2.3 The MMTPA shall present trip itineraries to Travelers in accordance with individual user preferences stored in the MMTPA.

4.1.3 User Preferences [MMTPA/CPS-UN004-v02]

4.1.3.1 The MMTPA shall support user preferences across all mobility provider categories. At a minimum, preferences shall include:
4.1.3.1.1 Preferred mode/service
4.1.3.1.2 Maximum total cost
4.1.3.1.3 Maximum number of trip segments
4.1.3.1.4 Preferred results presentation format (order by “cheapest” or quickest route)
4.1.3.1.5 Car preference (for car-sharing services)
4.1.3.1.6 Maximum price per mode
4.1.3.1.7 Maximum trip duration
4.1.3.1.8 Preferred maximum walking distance
4.1.3.1.9 Accessible vehicle
4.1.3.1.10 Environmental impact or “greenest” trip
4.1.3.1.11 Bike friendly facilities
4.1.3.1.12 The MMTPA shall provide a simple password reset function for Travelers and Administrators.

4.1.4 Educational Material [MMTPA/CPS-UN007-v02]

4.1.4.1 The MMTPA shall provide Travelers with access to limited instructions for use of the application.
4.1.4.2 The MMTPA shall provide access to educational material outside of the application pertaining to each mode of service to understand how the service works. Access to instructions and educational material does not constitute training, either web-based or in-person.
4.1.5 Trip Changes [MMTPA/CPS-UN010-v02]

4.1.5.1 The MMTPA shall allow changes to an existing trip. This includes changes or cancelations prior to the start of the trip or changes made during a trip (if applicable). Cancelations or changes will be subject to the policies of individual Mobility Providers.

4.1.5.2 The MMTPA system needs to notify Mobility Providers if a reserved trip is canceled or modified by a Traveler, in order for them to process the request and make the necessary changes as allowed.

4.1.5.3 The MMTPA must notify a Traveler if a cancellation or unavailability of a resource has changed their planned trip (example: dock-less bikes/scooters taken before arrival).

4.1.6 Trip Optimization [MMTPA/CPS-UN015-v02]

4.1.6.1 The MMTPA shall be able to be informed by a machine learning trained function for the purposes of continuous optimization.

4.1.6.2 The MMTPA shall be configured such that the trip optimization meets the business rules established in the design phases.

4.2 Interface/Integration

4.2.1 Operating System (Central System) [MMTPA/CPS-UN015-v02, MMTPA/CPS-UN001-v02;MMTPA/CPS-UN033-v02]

4.2.1.1 The Offeror shall configure the MMTPA such that core logic (trip optimization) is capable of being run as a microservice within the Operating System shared services environment when it is available.

4.2.1.2 The MMTPA shall interface to the Operating System through a fully defined REST API.

4.2.1.3 The MMTPA shall send trip planning information to the Operating System for archival and analysis.

4.2.1.4 The MMTPA shall send actual trip performance data to the Operating System for comparison with initial trip plans.

4.2.2 Real-Time Travel Information [MMTPA/CPS-UN001-v02]

4.2.2.1 The MMTPA shall be configured to interface with Mobility Providers through a fully defined REST API or jointly developed interface.

4.2.2.2 The MMTPA shall be configured such that it will provide an interface with Mobility Providers’ systems in real-time that will allow for the proper passing of provider data, booking requests, and acknowledgement of processes to be completed.

4.2.2.3 Deep integration or a generic API to 3rd party TNCs shall be performed by Offeror.

4.2.2.4 The MMTPA shall be configured such that it will provide standard General Transit Feed Specification (GTFS) and GTFS-real-time interfaces for fixed-route systems.
4.2.3 User Interface [MMTPA/CPS-UN012-v02]

4.2.3.1 The MMTPA shall provide a Graphical User Interface (GUI) that displays maps, text and other graphical information to allow effective use of the application.

4.2.4 On-Demand Mobility Providers [MMTPA/CPS-UN001-v02; MMTPA/CPS-UN008-v02; MMTPA/CPS-UN015-v02; MMTPA/CPS-UN033-v02; MMTPA/CPS-UN039-v02]

4.2.4.1 The MMTPA shall be configured such that it will provide interface to On-Demand Mobility Providers in the following way:

4.2.4.1.1 Taxis and TNCs will provide an API or jointly developed interface that allows for trip optimization in the Operating System. It will at a minimum contain the following:

- Trip origin and destination
- Number of travelers
- Specify ridesharing trip
- Arrival window
- CPS business account number
- Driver & Vehicle information
- Real-time arrival information
- Estimated costs

4.2.5 Shared Vehicle Providers [MMTPA/CPS-UN001-v02; MMTPA/CPS-UN015-v02; MMTPA/CPS-UN033-v02; MMTPA/CPS-UN039-v02]

4.2.5.1 The MMTPA shall be configured such that it will provide APIs consistent with the General Bikeshare Feed Specification (GBFS) and extend the API such that it may provide for carshare services integration. It will at a minimum contain the following:

- Space ID and/or location of car/bike at station
- Description of vehicle/bike (color, make, model, color, plate ID, etc.)
- Code to access vehicle/bike and activation method (NFC, QR, smart card, keypad entry, etc.)
- Rates charged will be processed periodically (monthly, weekly) in the business account
- Columbus will certify the users with agreed upon process (Credit card hold or registered user at customer service location with government ID for unbanked users)

4.2.6 Ridesharing Providers [MMTPA/CPS-UN001-v02; MMTPA/CPS-UN015-v02; MMTPA/CPS-UN033-v02; MMTPA/CPS-UN039-v02]

4.2.6.1 The MMTPA shall be configured such that it will provide APIs for ridesharing solution providers.
4.2.6.2 The MMTPA shall be configured such that it will be capable of determining the scheduling and order in which the driver needs to pick up all members of the team.

4.2.6.3 The MMTPA shall be configured such that it will be capable of determining the total number of passengers cannot exceed the capacity of the driver’s vehicle.

4.2.6.4 The MMTPA shall be configured such that it will be capable of reporting and calculating the route based upon the origin at the driver’s specified location and terminating at the driver’s specified location.

4.2.6.5 The MMTPA shall be configured such that it will be capable of streaming the rideshare event data to the Operating System.

5. Release 2 (Provider Buildout) Requirements

5.1 Trip Data [MMTPA/CPS-UN001-v02; MMTPA/CPS-UN015-v02; MMTPA/CPS-UN031-v02; MMTPA/CPS-UN033-v02]
   5.1.1 The MMTPA shall be configured such that the trip information data is transacted to security standards (encryption in transit and at rest).
   5.1.2 The MMTPA should provide trip data to the Operating System through a REST API. Planned trip and actual trip information will be stored in the operating system for future machine learning and performance monitoring.
   5.1.3 The MMTPA shall identify all route requests that go unfulfilled.

5.2 Support Environment [MMTPA/CPS-UN031-v02; MMTPA/CPS-UN035-v02]
   5.2.1 The MMTPA shall be integrated to the Identity and Access Management (IDAM) such that it can administer user access through the PMO.

5.3 Security and Privacy [MMTPA/CPS-UN029-v02; MMTPA/CPS-UN031-v02]
   5.3.1 The MMTPA shall be developed in accordance with best practices in data security and privacy. Data security refers to the tools, policies, practices, and procedures used to protect data from being accessed, manipulated or destroyed or being leveraged by those with a malicious intent or who are unauthorized to do so. Data privacy is the reasonable expectation that data of a sensitive nature will be kept confidential, sanitized and/or encrypted, and respectfully and responsibly maintained by all users, managers, and collectors of the data while adhering to applicable laws and regulations, policies, and procedures.
   5.3.2 The MMTPA shall use Multi-Factor Authentication for the registration of Travelers into the system.

5.4 Personally Identifiable Information (PII) [MMTPA/CPS-UN029-v02; MMTPA/CPS-UN031-v02]
5.4.1 The MMTPA shall not expose PII and Protected Health Information (PHI) to the Operating System. Data shall be randomized in accordance with the Health Insurance Portability and Accountability Act (HIPPA).

5.4.2 The MMTPA shall provide "Opt-in/Opt-Out" capabilities for both registered and unregistered users. Selection of "Opt-in" allows Travelers to provide anonymized transportation related trip data to the OS.

5.5 Operating System Security [MMTPA/CPS-UN029-v02; MMTPA/CPS-UN031-v02]

5.5.1 The Offeror shall incorporate the OWASP’s Top 10 Proactive Controls into their build and test processes.

5.5.2 The Offeror shall integrate the MMTPA security environment with the OS IDAM. Solution provider should define their approach to integrating security management (LDAP, Kerberos, etc.).

5.6 Modes of Operation for the Proposed System [MMTPA/CPS-UN014-v02]

5.6.1 The MMTPA shall support the following modes of operation:

5.6.1.1 Operational (regular)
5.6.1.2 Degraded Conditions
5.6.1.3 Failure Conditions
5.6.1.4 Diminished Communications
5.6.1.5 Deficient Data Quality
5.6.1.6 System Health Monitoring
5.6.1.7 Maintenance
5.6.1.8 Offline

5.7 Bookings and Reservations [MMTPA/CPS-UN005-v02]

5.7.1 The MMTPA shall provide the ability to book/reserve trips in accordance with the policies of individual Mobility Providers and to receive confirmation that trips have been processed and accepted.

6. Release 3 (Operational Stabilization) Requirements

6.1 Notifications and Alerts [MMTPA/CPS-UN008-v02]

6.1.1 The MMTPA shall notify Travelers of service disruptions, or if a reserved trip is delayed or canceled.

6.1.2 The MMTPA shall provide personalized traffic information including early warning in case of an increasing travel time and possible alternative routes and/or modes.
6.1.3 The MMTPA shall notify Travelers when reaching an important step during travel.
6.1.4 The MMTPA shall inform Travelers when a reserved service is no longer available or is altered.
6.1.5 The MMTPA shall notify user when system is in offline mode.
6.1.6 Notifications and alerts shall include push notifications, email, and text message.
6.1.7 Loyalty points status, incentive offers and notifications shall be made available to the MMTPA personal user account within the mobile application.

6.2 Incentives and Rewards [MMTPA/CPS-UN011-v02]
6.2.1 The MMTPA should be capable of interfacing to an Incentives and Rewards system for the purpose of informing user options based upon the individual user history and for the city to learn Traveler’s intent per trip taken. This is an important feature for the city to be able to determine FM/LM needs of the users. Special consideration will be given to applications that encourage the continuous monitoring of Traveler movement.
6.2.2 The MMTPA shall provide status of rewards, incentives and 3rd party through loyalty points.

6.3 Loyalty Programs [MMTPA/CPS-UN011-v02]
6.3.1 The MMTPA shall make 3rd party company loyalty points/status available for the traveler through a link to the external loyalty program data.
6.3.2 The MMTPA trip optimization should give special consideration to those solutions that integrate loyalty status within the trip selection process.

6.4 User Feedback [MMTPS/CPS-UN013-v02]
6.4.1 The MMTPA shall support user feedback per each segment, and overall trip experience.
6.4.2 The MMTPA shall make the rating information available to the Operating System and 3rd party users through the Operating System.
6.4.3 User feedback shall be interfaced with the incentives program.

6.5 Paratransit Vehicle Request [MMTPA/CPS-UN018-v02]
6.5.1 The MMTPA shall be configured such that it will request paratransit services.
6.5.1.1 Paratransit Mobility Providers will provide an API that allows for trip optimization in the Operating System. It will at a minimum contain the following:
   - Trip origin and destination
   - Number of travelers
   - Specify ridesharing trip
   - Arrival window
   - CPS business account number
   - Vehicle information
   - Real-time arrival information
   - Estimated costs
6.6 COTA Farebox [MMTPA/CPS-UN006-v02; MMTPA/CPS-UN019-v02]

6.6.1 The MMTPA shall be configured such that it will broadcast a mobile e-ticket through the mobile device NFC.

6.6.2 The MMTPA shall be configured such that it will have access to the CPS display of an optical QR code (mobile e-ticket) or NFC signal on the MMTPA which can be activated at COTA fareboxes.

6.7 Languages

6.7.1 The MMTPA shall provide the ability to select English or Spanish (at a minimum) as a preferred language at any point before or during any transaction, and present all dynamic text and audible words (if applicable.

6.7.2 Training and educational material shall also support the Traveler’s preferred language.

6.8 Operations & Maintenance [MMTPA/CPS-UN034-v02; MMTPA/CPS-UN035-v02]

6.8.1 The MMTPA shall be configured to be maintained and operated external to the City.

6.8.2 The MMTPA shall be architected to allow for incorporation of additional Mobility Providers in the future with minimal impact to the environment itself.

6.9 Certification and Accreditation [MMTPA/CPS-UN034-v02]

6.9.1 A certification and accreditation provider shall assess the quality, security, and "openness" of the System.

6.9.1.1 Quality is defined as the state of being free from defects, deficiencies and significant variations, and is achieved through demonstration of the ability to satisfy user needs.

6.9.1.2 Security is defined as the state of being protected against the unauthorized use or loss of information, especially electronic data, and the measures taken to achieve this.

6.9.1.3 Openness refers to the adherence to open standards and design to ensure the System or aspects of the System are beneficial to other cities as part of the Smart Cities initiative.

6.10 CPS Integration [MMTPA/CPS-UN006-v02]

6.10.1 The MMTPA shall query the CPS for available funds in the user account when requested to execute a trip by the user. If funds are available then the CPS request to debit the funds from the user account and credited to the service provider will be made during the appropriate time during the trip. If funds are not available then MMTPA will launch CPS pages that will allow the user to manage the account.

6.11 Smart Mobility Hubs [HUBS-UN003-v01; HUBS-UN004-v01; HUBS-UN006-v01]

6.11.1 The MMTPA shall be capable of interfacing with an Interactive Voice Response (IVR) system. Predefined and prepaid trip plans will be saved to be executed from the IVR system.

7. Release 4 (Go Live) Requirements
7.1 CPS Integration [MMTPA/CPS-UN006-v02]

7.1.1 The MMTPA shall use a platform that allows for CPS functions to be integrated into the system. This should work with iOS, Android, and web-based platforms.

7.1.2 The Selected Offeror shall work with the selected CPS vendor to integrate the systems including coordination, integration, and testing.

7.1.2.1 The MMTPA shall provide an interface to make payments, manage account information, and register payment methods.

7.1.2.2 The MMTPA shall be configured such that it will display a mobile e-ticket through the mobile device NFC.

7.1.2.3 The MMTPA shall support use of electronic wallets (Apple Pay, Android Pay, Google Pay) and the capability to support contactless Europay, MasterCard, Visa (EMV) cards.

7.1.2.4 The MMTPA shall manage electronic tickets.

7.1.2.5 The MMTPA shall be capable of displaying barcodes.

7.1.2.6 The MMTPA shall be configured such that the trip and payment information data is transacted to security standards (encryption in transit and at rest) and provided to the Operating System through a REST API.

7.1.2.7 The web portal shall provide the capability of managing payment products, and contact info, as well as the ability to view and export CPS transactions.

7.1.2.8 The MMTPA shall include tipping functionality. The Offeror shall assume approximately five (5) mobility providers will require tipping functionality.

7.1.2.9 The MMTPA shall be configured such that Travelers may either create an account or continue as a guest by creating a guest account.

7.1.2.10 The MMTPA shall be configured such that the Traveler will be prompted if they want to save their CPS login information with the MMTPA.

7.2 Smart Mobility Hubs [HUBS-UN003-v01; HUBS-UN004-v01; HUBS-UN006-v01]

7.2.1 The MMTPA shall be configured such that it can be accessed through free-standing kiosks.

8. Testing Requirements for Releases

8.1 The Offeror shall identify what specific testing requirements the project will require in the form of a test plan that specifically identifies resources needed, schedule and test workflows.

8.2 The Selected Offeror will be responsible for conducting their product security, immunity and load testing prior to delivery. Representatives of the purchasing team will have the option to witness the test results and the summary reports will be made
available to the acceptance team. This testing should be performed for the production code as delivered. Documentation of the test results and any corrective actions should also be provided with each code release.

8.3 Upon delivery of the software user acceptance testing (UAT) will be performed with subjects selected by COTA and the City. The length of test, number of users and reporting KPIs will be selected by the city. The Selected Offeror will be responsible for preparation of a Test Plan and corresponding test procedures, with review and approval by the purchasing team prior to the conduct of the testing. At a minimum, the Test Plan and testing activities shall include:

8.3.1 Code testing approach, tools and reports.
8.3.2 Penetration Test Procedure.
8.3.3 Load Testing Procedure.
8.3.4 UAT Procedure.
8.3.5 Go-live plan.

9. Schedule

9.1 The Offeror shall deliver to the following schedule:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYI: CPS SysReq Draft to US DOT</td>
<td>10/22/18</td>
</tr>
<tr>
<td>FYI: CPS Final SysReq to US DOT</td>
<td>1/4/19</td>
</tr>
<tr>
<td>MMTPA NTP</td>
<td>November 2018</td>
</tr>
<tr>
<td>MMTPA Agile Kickoff</td>
<td>November 2018</td>
</tr>
<tr>
<td>MMTPA Release 1</td>
<td>1/17/19</td>
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<tr>
<td>MMTPA Release 2</td>
<td>4/1/19</td>
</tr>
<tr>
<td>MMTPA Release 3</td>
<td>5/28/19</td>
</tr>
<tr>
<td>MMTPA Go Live</td>
<td>7/22/19</td>
</tr>
<tr>
<td>MMTPA and CPS Go Live</td>
<td>1/7/20</td>
</tr>
<tr>
<td>O&amp;M Final Plan</td>
<td>1/25/21</td>
</tr>
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Appendix B:

Department of Finance and Management

Joel S. Taylor, Director

To: Elected Officials, Agency Directors, and Fiscal Personnel

From: Joel S. Taylor, Director
Department of Finance and Management

Date: May 18, 2007

Re: Utilizing Environmentally Preferable Requirements in RFP/RFSQ Contracts

This policy regarding how City Agencies should utilize the environmental preference in professional service contracts is issued pursuant to the authority granted to me by Columbus City Code 329.03,

As part of Mayor Coleman’s Get Green Columbus initiative, City Council added section 329.31 to the Columbus City Code. This section provides, in part, that City agencies will develop specifications to encourage environmentally preferable bidders and offerors. In addition, it states that when evaluating bids or offers for materials, supplies, equipment, construction and services, preference will be given to an environmentally preferable bidder or offeror.

The purpose of this memo is to address how this section should be implemented when a Department is seeking professional services through a request for proposals (RFP) or a request for statement of qualifications (RFSQ).

When issuing a RFP or RFSQ, these guidelines should be followed.

1. The RFP or RFSQ should include an environmental preference unless it is clear that there is not an environmentally preferable way to carry out the purpose of the contract. If a department determines that there is not an environmentally preferable way to carry out the purpose of the contract, that decision should be shared with the Mayor’s Environmental Steward.
2. When drafting an RFP or RFSQ that includes an environmental preference, the RFP or RFSQ should include the following statement (or words to this effect): The City of Columbus is seeking an Environmentally Preferable Offeror, who will assist the City by providing services that will have a lesser or reduced effect on human health and the environment.

3. Each department may determine for itself how to award points for an environmentally preferable bidder. Two areas that should be evaluated for inclusion are points for the team’s credentials/experience and/or points for the project proposal. These are discussed further below.

a. Team Credentials: A department may choose to award points for the specific environmental experience and/or training of the offeror. For example, points may be awarded for LEED certification. In doing so, the department should focus on the team that will be providing the actual services, and avoid awarding points for firm members that will not be directly involved in the project.

b. Project Proposal: A department may choose to award points for environmentally progressive elements in the offeror’s project proposal. For example, points may be awarded for a proposal that suggests using recycled or renewable raw materials.

4. It is imperative that once a department determines how to award environmentally preferable points in evaluating an RFP or RFSQ that the department is explicit and clear about how those points will be awarded. Specific examples or guidelines should be provided.

5. Each department should track how many service contracts it has awarded to an environmentally preferable offeror. This information should be reported on an annual basis to the Department of Finance and Management and to the Mayor’s Environmental Steward.