ADDENDUM No. 1

RFP No. 17-27

Data Visualization and Analysis/Business Intelligence Platform

Updated Due Date: October 13, 2017 at 2:00 P.M. (local time)

The following changes, additions, and/or deletions shall be made to the Request for Proposal for Data Visualization and Analysis/Business Intelligence Platform, RFP No. 17-27, on which proposals will be received on/or before the date and time listed above.

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. This Addendum includes xxxx (xxx) pages.

The Offeror is to acknowledge receipt of this Addendum No. 1, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.

The following forms provided within the RFP Document must be included in submitted proposal:

- Attachment C Declaration of Compliance Non-Discrimination Ordinance
- Attachment D Living Wage Declaration of Compliance

Change

• Attachment E - Vendor Conflict of Interest Disclosure Form

<u>Proposals that fail to provide these completed forms listed above upon proposal opening</u> will be rejected as non-responsive and will not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

Section/Page(s)

Changes to the RFP documents, which are outlined below, are referenced to a page or Section in which they appear conspicuously. Offerors are to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

All Mentions As provided in the RFP Document: Proposal Due Date: September 29, 2017 at 2:00 p.m. (Local Time)

> As updated herein: Proposal Due Date: October 13, 2017 at 2:00 p.m. (Local Time)

Comments: The Due Date and Time for responses to this RFP has been extended two weeks to October 13, 2017 at 2:00 p.m. (local time). Tentative interviews (if needed) are tentatively scheduled for the week of October 30 but the City will work with those firms selected for interviews.

II. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Offerors are directed to take note in their review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Whether companies from Outside USA can apply for this? (like,from India or Canada) Answer 1: Companies from outside the United States are welcome to bid provided they comply with the City's Non-Discrimination ordinance (Attachment C in the RFP), Conflict of Interest Disclosure (Attachment E in the RFP), and Living Wage ordinance (Attachment G in the RFP).

Question 2: Whether we need to come over there for meetings?

Answer 2: For RFP-related tasks, key personnel can attend interviews via phone or internet chat. For implementation-related tasks, the City expects that some onsite presence would be required during multiple phases of the project (requirements gathering; implementation; training; etc.).

Question 3: Can we perform the tasks (related to RFP) outside USA? (like, from India or Canada) **Answer 3: See answer to question 2.**

Question 4: Can we submit the proposals via email?

Answer 4: Proposals submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile will not be considered or accepted. See Page 4 and 5 of the RFP Document for more details on the submission on proposals.

Question 5: Which technology integrations (manufacturer specific) are required for your organization? For example, VMS-Video Management Systems (Milestone, ONSSI, Genetec, Avigilon, others?), LPR-License Plate Recognition, Shot Detection systems, AVL-Auto Vehicle Location system? Can we get a snapshot of what systems are currently in use within the organization?

Answer 5: The City is seeking a system-agnostic platform for this solution. In other words, we don't want to tie ourselves to an integration with a system that we might replace in the near future. Any solution under consideration should provide a generic set of connectors (ODBC, JDBC, CSV, JSON, TXT, API, Web Services, etc.) that will allow City IT Admin users to connect to any data source (internal or external) provided that data source complies with the requirements of the connector.

Question 6: How should we respond if the standard PSA provided as Appendix A is not appropriate to govern our commercially available, cloud-based, proprietary offering? For example, your PSA states that you own all deliverables. This does not match our proprietary software model. Reference section 1H, will we be disqualified for proposing an alternative agreement? Our company negotiates terms in good faith at the time of contract award.

Answer 6: In the case of cloud-based or COTS solutions, the deliverables referenced in the PSA refers to the inputs (the City's data) and outputs (reports, KPIs, dashboards, training materials, etc.) of the platform and not the platform itself. The City is aware it is purchasing a software license.

Question 7: Can you please confirm your specific data sources (both cloud applications and onpremises), and let us know which are the highest priority for integration? **Answer 7: See answer to question 5.** Question 8: With regards to Attachment B, Technology, General Design, ID 2, can you define localized data versus real-time source data and clarify your use case?

Answer 8: The desired solution should leverage a copy of the data (ex. in-memory storage; data warehouse; etc.) as opposed to connecting directly to production systems to minimize the latency or performance hit that can sometimes accompany complex queries/analysis.

Question 9: Do certain initiatives have priority? Which ones?

Answer 9: The City has several initiatives going on at the present time. We have yet to determine a priority for those initiatives.

Question 10: Please elaborate on the Role based authentication required?

Answer 10: We want to know if the proposed solution allows City IT Admins to create and assign access rights to security groups. For example, does the proposed solution allow us to create a "Work Order Dashboard" displaying various data about completed work orders and assign security rights to a "Public Works Users" user group or do we have to assign security rights for each individual who should have access to it?

Question 11: Please explain the "Data views" security access required?

Answer 11: By "data view" we mean a collection of data from potentially disparate data sources (ex. HR system, Recruiting system, Finance system) that represents a single "view" of an object or activity. We would like to be able to control which users (or groups) have access to a given Data View.

Question 12: "Product supports connections for data access/extraction from outside applications via the following methods", please explain outside applications in this question?

Answer 12: We want to know if the proposed solution offers the ability to have KPIs, dashboards, etc. consumed by other applications. For example, the City uses Sharepoint for content management – would we have the ability include any KPIs in a Sharepoint website?

Question 13: Details on the different transaction systems/data sources which shall be used for data visualization and analysis?

Answer 13: See answer to question 5.

Question 14: Please list the reports, analysis or KPIs that needs to be built? **Answer 14: See answers to questions 5 and 9.**

Question 15: Do you use or purchase any external data for analysis apart from your internal system?

Answer 15: Not at this time.

Question 16: We understand currently City anticipates the storing of up to 250 GB of data could you share expected annual data growth? **Answer 16: 500 MB/Year**

Question 17: Do you have a Master Data Management implemented? Answer 17: Not at this time but the City is working towards implementing it.

Question 18: Are you using any ETL or Data Integration tool? Answer 18: SQL Server Integration Services (SSIS) provided by Microsoft.

Question 19: Any concerns on the data quality of the source systems. If yes, please provide details.

Answer 19: Yes – the City will implement data identification, cleansing, and quality control as part of its data governance strategy.

Question 20: Do you have a common Data Repository/DW integrating data across various source systems?

Answer 20: Not at this time but would be open to it if required by the selected platform.

Question 21: Are you using any other BI tools to create reports/dashboards? Answer 21: Excel, SSRS, Power BI (Microsoft products); line of business applications; Crystal Reports.

Question 22: Any automation for generation of reports/dashboards? Answer 22: The City currently has several system-generated reports that are automatically sent nightly.

Question 23: If any of the data sources is Excel, is the excel data in a standard row-column format?

Answer 23: Yes

Question 24: What is the frequency of data updates you are looking at? **Answer 24: Varies by data source: daily; weekly; monthly; ad hoc.**

Question 25: RFP states that this platform is intended to adhere to the City's technology standards, could you please share technology standards? Answer 25: Support for the following: Microsoft Office 2007-2016 Microsoft Internet Explorer 11 Microsoft Outlook/MS Exchange 2010/Office 365 Microsoft SQL Server 2008 R2 -64 Bit or higher Microsoft SQL Server Integration Services Microsoft SQL Server Reporting Services Microsoft Windows Server 2008 - 64 Bit or higher Microsoft Active Directory 2008 integration Microsoft SharePoint Web Parts XML SOA IIS 7.0 or higher

Question 26: Please clarify any City technology standards related to the following areas; **Answer 26: See answer to guestion 25.**

Question 27: True/False – City technology standards allow the BI solution to be implemented/deployed via 'Cloud Computing Environments' including Google Cloud, MS Azure, AWS (Amazon Web Services) or other external Cloud Platforms.

Answer 27: True – provided any costs related to an external Cloud Platform are included and clearly outlined in the price proposal.

Question 28: True/False – Confidential data will be anonymized or encrypted on internal City systems prior to use within the new BI platform. **Answer 28: False**

Question 29: True/False – City technology standards include SSO (Single Sign On) for employees to access the new BI Platform. If so please indicate how SSO and user management is handled within City technology systems; i.e. AD (Active Directory) LDAP (Lightweight Directory Access Protocol), SAML (Security Assertion Markup Language).

Answer 29: AD (Active Directory)

Question 30: True/False – City technology standards allow for the opening of network/firewall ports for the purpose of JDBC connectivity across internal City systems and external facing 'Cloud Computing Environments'. If no please explain how access to remote databases is accomplished via network connectivity.

Answer 30: True

Question 31: Please describe if known and City technology standards related to development environments, UAT User Acceptance Testing environments, and how release management is conducted for the creation and deployment of new reports, and dashboards etc. related to the new BI platform. Will the new BI platform require a sandbox/development area?

Answer 31: The City has no formal process at this time for release management as it pertains to the new BI platform. The City would like to have a sandbox/development environment as well as a production environment.

Question 32: Are separate development, test and deployment environments required for deploying the new BI platform?

Answer 32: The City is interested in a test/development environment and a production environment provided the costs associated with the two environments are not prohibitive. If they are, the City will make due with a single, production environment.

Question 33: What City technology standards exist with ref to disaster recovery or system uptime? Answer 33: The City reports on system uptime quarterly to staff. Routine maintenance windows are allowed. Current windows for system maintenance/planned outages are Tuesday evenings 5:15p-11:59p and the third Saturday of each month from 8a-2p.

Question 34: "The City anticipates the storing of up to 250GB of data..." Concerning this data, will the new BI Platform be responsible for ETL (Extract Transform Load) jobs related to this data? Answer 34: The City currently uses an ETL tool (SSIS) and can continue to use this tool if the selected platform does not provide any ETL functionality.

Question 35: Please clarify support requirements necessary for Office 365; which specific functionality is expected to be supported by the BI platform, with regard to Office 365? **Answer 35: Successful interoperatbility with users hosted in Exchange Online.**

Question 36: Please clarify what external visualizations will be embedded; Please provide an example if possible. Will these external visualizations need to be fully functional or interactive? How will the BI platform interact with these external visualizations?

Answer 36: The City may wish to include an external infographic or other such visualization on a dashboard. These graphics do not necessarily need to be fully functional or interactive nor does the platform need to interact with them.

Question 37: Can the development / Part of development happen outside US (e.g India)? **Answer 37: See answer to question 1.**

Question 38: Does the City of Ann Arbor have any reservations with cloud based BI solutions? **Answer 38: No**

Question 39: How many departments are there in the City of Ann Arbor? Answer 39: There are 46 departments in the City. A complete list can be found here: https://www.a2gov.org/departments/Pages/default.aspx

Question 40: Can you provide more detail regarding the total amount of data in terms of GB that the City of Ann Arbor is seeking to consolidate and use for decision-making? Answer 40: See answer to question 5. Question 41: Details of the Databases and technology used? **Answer 41: See answer to question 5.**

Question 42: Can you define all of your "external data sources" if any? **Answer 42: See answer to question 5.**

Question 43: Can you provide some examples of the most important business questions that the City of Ann Arbor is trying to answer, or the KPIs you are trying to measure? **Answer 43: See answer to question 5 (9).**

Question 44: What is the expected refresh frequency of the reports (near real time, hourly, daily etc.)?

Answer 44: See answer to question 24.

Question 45: What is the ERP system that Ann Arbor currently has deployed for Financial and HR.

Answer 45: Financial System: LOGOS (Tyler Technologies); HR System: Ultipro (Ultimate Software)

Question 46: Does the City of Ann Arbor currently perform any type of geospatial analysis and/or does the City of Ann Arbor want to in the future?

Answer 46: Yes – the City has a robust GIS department.

Question 47: What type of users/personas will make use of the proposed solution? **Answer 47:**

IT Admins – (internal) these users are responsible for combining multiple datasets into a unified view; can modify column names for better usability; can create calculated fields; sets security at all levels of the platform.

Power Users – (internal) these users can create/share/collaborate on KPIs, reports, dashboards, etc. Will also perform "what if" analysis

Consumers – (internal) these users can consume or collaborate on any of the work produced by Power Users.

Public – (external) this persona represents all City constituents as well as anyone who visits the City's website.

Question 48: Is the City of Ann Arbor Open for a customized solution or strictly requires a COTS (product)?

Answer 48: The City requires a COTS product.

Question 49: Can the City of Ann Arbor specify the types of data involved? What transactional data would be consolidated to a data warehouse.

Answer 49: See answer to question 5.

Question 50: How much historical data is available in current systems? Answer 50: Varies by system – ranges anywhere from a year to several decades.

Question 51: How much historical data is available in archive (off current systems, but available for transfer and ingestion into BI platform)? How is this data stored (media) and how will it be transferred?

Answer 51: See answer to question 50. Data is stored in a combination of SQL Server databases, flat files, externally hosted applications (available via API).

Question 52: What is the expected contract length for this BI solution?

Answer 52: There is no pre-defined contract duration – terms are open for negotiation.

Question 53: With regard to the source systems: What size are the source systems? Number of tables? Approximate size of the database on disk? **Answer 53: See answer to question 5.**

Question 54: Does the City of Ann Arbor have Microsoft Office 365/ SharePoint licenses? **Answer 54: Yes**

Question 55: Does the City of Ann Arbor use Microsoft Project? **Answer 55: Yes**

Question 56: Are vendors required to provide an automobile policy if they don't own any company vehicles? Alternatively, if a rental car is utilized by a vendor's employee is the insurance provided by the rental car company sufficient?

Answer 56: The requirement covers both owned and hired vehicles. If the company does not own any vehicles and does not intend to hire any to provide services no motor vehicle insurance is necessary. If awarded the contract the vendor may be required to provide confirmation. Evidence of Rental car insurance would be acceptable for hired vehicles.

Question 57: With respect to unlimited license for public consumptions, we assume that these would be light dashboards with specific (4 to 6) KPIs which will be open over Internet without any user credentials. These light dashboards will not have advanced functionalities like Collaboration, Ad Hoc Reporting and Access via Mobile Devices. Are our assumptions correct?

Answer 57: Yes, however we would like public consumers to be able to filter or aggregate the data (daily to weekly, weekly to monthly, etc.) or download the source data into CSV or Excel.

Question 58: With respect to unlimited license for public consumptions, please specify the approximate anticipated traffic and expected annual growth rate.

Answer 58: We anticipate publishing key dashboards or KPIs to the City's website for public consumption. As such, anyone with access to the internet could potentially view them. These dashboards would not require any user credentials – simply display the data and allow users to leverage filters to cater the views how they see fit.

Question 59: Can we assume that CJIS compliance adherence will be expected by UAT phase of project implementations?

Answer 59: CJIS compliance is not expected (or required) by UAT phase of project. If adherence is not met by this time, the City will not use CJIS data in the platform.

Question 60: What is the data retention period? How many years of data will be required to be online?

Answer 60: There is no set data retention period required for this platform.

Question 61: Are backup and archival processes in scope? If yes, please specify the periods (e.g. number of years) for which the data have to be backed up and archived. Answer 61: No

Question 62: Section E (Selection Criteria) refers to interviewing of key personnel. Can the key personnel attend their interviews from outside the USA via phone or internet chat? Or do you require the key personnel to attend their interviews in person or from within the USA? **Answer 62: See answer to question 2.**

Question 63: What is the budget for COAA Data Visualization & Analysis/BI Platform effort? Answer 63: There is no published budget for this project. Vendors are encouraged to submit a cost proposal reflective of the cost of the proposed platform and the typical effort required to get that platform up and running.

Question 64: Can you confirm that this is a Time and Expense based response to the RFP? Answer 64: No – the City has no preference between Fixed Price and Time and Expense.

Question 65: Are resources from a global delivery model allowed where the Primary DBAs/developers would be US-based while only ancillary service support would come from offshore?

Answer 65: Yes provided all engaged personnel (including all ancillary offshore staff) are paid a wage at or above the City's Living Wage Ordinance (attachment D of the RFP).

Question 66: In the Security questionnaire, it is mentioned support for Microsoft Azure Active Directory. Is the preference for the DV/BI solution to be Microsoft based or any technology (like Oracle) is acceptable? Does COAA have a preference for the technology in the solution?

Answer 66: If the offered solution is an appliance, the City has no preference as to the technology being deployed. If the City will administer the solution, a solution based on Microsoft technologies (AD, SQL Server, IIS, etc.) is preferred over solutions built on Oracle, Tomcat, etc.

Question 67: Is providing hosting and/or a cloud solution or hardware to support this solution a requirement for the vendor?

Answer 67: No – the City can procure the necessary hardware for hosting. If the proposed solution requires that the City is responsible for procuring hardware, it should be explicitly stated in the RFP response.

Question 68: Is it possible to bid on just the implementation aspect of the solution while COAA or someone else would provide the hardware and software costs? We typically ask our customers to work directly with the hardware and software vendors to maximize the cost savings directly for the customer.

Answer 68: No – this RFP is specifically for (at a minimum) a data visualization/business intelligence solution – not systems integration. We expect that implementation will be performed by a combination of the winning vendor and City IT staff.

Question 69: Are there any state and federal reporting obligations you are looking to the project to help you fulfill either now or in the future? **Answer 69: Yes**

Question 70: What number and kind of participants can be made available by COAA for the requirements identification and design of this system? We can provide participants with varying degrees experience and backgrounds including but not limited to: DBAs, developers, architects, Business Analysts, Project Manager, etc.

Answer 70: The City will make the following staff available for requirements/design: Project Manager (1), DBA (1), Developers – who will function as the system administrators (2), infrastructure/networking specialists (1-2), data stewards (varies), line-of-business SMEs (varies).

Question 71: Does the project team have any training resources that will be allocated to this project?

Answer 71: The City has no preference on training approach (train the trainer vs. instructor led). Due to the fact that the City will not have identified all datasets that it will eventually use in the selected platform, train the trainer seems to make the most sense. If instructor led is the proposed training approach, the City does have a training facility on-site that can be used.

Question 72: Does the project team have a learning management system or any other platform that can be leveraged to distribute training materials?

Answer 72: The City uses Microsoft Sharepoint for collaboration.

Question 73: What type of confidential information would need to be housed within the central repository versus the information which would stay within the source systems?

Answer 73: Potentially Criminal Justice Information System (CJIS); potentially social security information if needed to link disparate datasets together. As more datasets are discovered, we may find more confidential information that needs to be stored.

Question 74: Will the data warehouse include personally identifiable information which needs to be secured?

Answer 74: PII such as employee name and address, gender, age may be included. SSN may be used if needed to link disparate datasets together. No driver's license number or financial information will be stored.

Question 75: Does COAA wish to encrypt data-at-rest with this solution? This prevents unauthorized access by anyone who defeats normal system access controls.

Answer 75: The City might leverage this functionality if available but it is not a direct requirement of the system.

Question 76: Does COAA wish to encrypt entire disk units within this solution's hardware? (Disk level encryption, column-level encryption, and column-level tokenization as above can occur simultaneously.) This prevents unauthorized access to all data in the event of the theft of disks and/or disk arrays.

Answer 76: The City might leverage this functionality if available but it is not a direct requirement of the system.

Question 77: Is there an existing Identity Management Solution which controls the access and authorization of users?

Answer 77: Microsoft Active Directory

Question 78: Will DW users have separate credentials or will we integrate with an existing security framework?

Answer 78: The City currently has no DW in place. If we create one in the future as a part of this endeavor, we would want pass through authentication to take place.

Question 79: We may be providing proprietary and/ or confidential data as part of the response to the RFI. How can we insure that this information remains confidential?

Answer 79: As stated in section G (Page 5) of the RFP, "Under the Freedom of Information Act (Public Act 442), the City is obligated to permit review of its files, if requested by others. All information in a consultant's proposal is subject to disclosure under this provision. This act also provides for a complete disclosure of contracts and attachments thereto." Any information considered proprietary or confidential must be marked as such when submitting the response. Information which may be considered proprietary under FOIA will be handled as provided under Act.

Question 80: Does a consistent, system-wide data dictionary exist?

Answer 80: No – the City is in the process of putting this together. It's not anticipated that a complete, enterprise-wide data dictionary will exist prior to implementation of the selected solution.

Question 81: Is there an existing Data Warehouse and can you share the data model? Answer 81: No – the City currently does not a have a Data Warehouse deployed but it may do so in the future. Question 82: Are there any ETL tools being used currently or will new ETL tools be acquired as a part of this project?

Answer 82: See answer to question 18.

Question 83: Will the vendor have an opportunity to evaluate and recommend ETL tool? Answer 83: If the ETL tool is part of the proposed BI/DV solution then yes; otherwise no.

Question 84: What is the grain? What level of detail needs to reside in the data warehouse? Answer 84: The City would like to be able to group data by a variety of levels (daily, weekly, monthly, yearly, fiscal quarter). From a geospatial perspective, the City would like to be able to report based on current City areas (ex. voting wards) and boundaries or custom areas created using a geofencing tool or based on coordinate values.

Question 85: Is COAA considering creating analytics on unstructured data or data that may not be loaded into a relational database? Answer 85: Yes

Question 86: Will COAA provide extract files from their legacy systems in a mutually agreed upon format where these files are accessible on the network or will the vendor have access to these systems in order to build the extracts?

Answer 86: See answer to question 5.

Question 87: What are the ETL duration requirements? Are there different requirements for different user groups/departments?

Answer 87: The City is still working on identifying the various datasets and initiatives. We have no specific requirements at this time.

Question 88: Are there any reports today at departmental level living on an "island" which need to be migrated and/or its functionality to be provided in the future DV/BI solution? **Answer 88: Yes**

Question 89: Does the system have a data governance plan and strategy in place? Answer 89: The City is in the process of crafting and implementing a data governance plan.

Question 90: Are the user groups in separate locations? **Answer 90: Yes**

Question 91: Is there a common set of reporting hierarchies (i.e. Departments.) for all user groups?

Answer 91: Yes – see answer to question 39.

Question 92: What are the data source systems from where majority of the data will be fed into DV/BI solution?

Answer 92: See answer to question 5.

Question 93: Is there an interest in change data capture as part of this initiative? **Answer 93: No**

Question 94: Can COAA define the Recovery Point Objective and Recovery Time Objective for the backup of this solution? The recovery time objective (RTO) is the duration of time within which data and processing must be restored after a disaster or disruption. The recovery point objective (RPO) is the maximum tolerable time period in which data can be lost from an IT service due to a major incident.

Answer 94: The City has no preference at this time but would like to see the various recovery options and associated costs clearly stated in the RFP response.

Question 95: Should we plan for ALL development/test/QA/production environments to be in the cloud/hosting or will there be a need for "development" servers to be on-site?

Answer 95: The City has no preference between a hosted or an on premise solution and will look to the expertise of the winning vendor to guide us in the direction that makes the most sense.

Question 96: Who will be responsible for providing hardware, OS-level, infrastructure support both during the development phase and post-production if such a need exists?

Answer 96: City of Ann Arbor Infrastructure team, unless the solution provided is hosted by the provider.

Question 97: What is the process at COAA for change management process? Is there a committee through which all changes must be approved or are the approvals at a departmental level?

Answer 97: Changes are documented via change control log with no approval process.

Question 98: Is there an existing record retention and/or record management process in place which the new proposed system needs to implement/integrate with? **Answer 98: No**

Question 99: What is the archival strategy for the documents/content stored in the new proposed solution?

Answer 99: The City doesn't have a formal archival strategy in place or in mind for content managed by the proposed solution and would be open for the selected vendor to propose a strategy based on experience and best practices.

Question 100: What is the expected growth rate? **Answer 100: See answer to question 16.**

Question 101: Would Ann Arbor prefer a limited duration, limited scope, train the trainer, prototype implementation approach or a full lifecycle implementation approach?

Answer 101: The City doesn't have a preference and would be open for the selected vendor to propose an implementation strategy based on experience and best practices.

Question 102: How many users?

Answer 102:

40 – 50 internal City users

Unlimited public viewers (as stated earlier, these unlimited public viewers do not need specific credentials nor do they need to interact with the platform short of displaying the data in a KPI or report and leveraging filters to cater the views how they see fit or downloading the source data).

Question 103: How many power users? Answer 103: 15-20

Question 104: How many it admins? **Answer 104: 2-5**

Question 105: Name and number of subject areas? Answer 105: See answers to questions 5 and 39.

Question 106: Name and number of reports? **Answer 106: See answer to question 5.**

Question 107: Name and number of dashboards? **Answer 107: See answer to question 5.**

Question 108: List of source systems and types **Answer 108: See answer to question 5.**

Question 109: In Section II – Scope of Services states high-level requirements for BI + implementation services for the City, Under Technology subsection, there is an indication to Inmemory database for storage. Is there specific reason for In-Memory storage against other storage mechanisms?

Answer 109: The City has no preference for or against In-Memory storage vs. other storage mechanisms.

Question 110: Does the City expects/inclined towards a solution based on Microsoft's Business Intelligence Software Stack?

Answer 110: The City has no preference for or against Microsoft's BI Stack.

Question 111: What are the expected number of reports/dashboards/visualizations? **Answer 111: See answer to question 5.**

Question 112: What are the different export formats of reports? And delivery method, email/file etc.,

Answer 112: Excel, PDF, Infographics. Delivery would be primarily via email (containing either a link to the report or the report itself).

Question 113: Does the city of Ann Arbor prefer a cloud based solution or on premise solution. **Answer 113: The City has no preference.**

Offerors are responsible for any conclusions that they may draw from the information contained in the Addendum.