MASTER SERVICES AGREEMENT

THIS MASTER SERVICES AGREEMENT ("Agreement") is made between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the "City") and **ROADWAY ASSET SERVICES**, a Texas limited liability company, registered to do business in Colorado, whose address is 6001 W. Parmer Lane, Suite 370-1102, Austin, Texas 78727 ("Contractor"), individually a "Party" and jointly "the Parties."

RECITALS

WHEREAS, the City is desirous of engaging a hosted third-party solution provider to aid the City, to collect mobile imaging data, evaluate, calculate and deliver a complete detailed, spatially-enabled inventory of assets in the public right of way, and the Contractor has agreed to provide the hosted solution, services and other deliverables under the terms and conditions as set out below; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and Contractor incorporate the recitals set forth above agree as follows:

1. <u>**DEFINITIONS**</u>. Whenever used herein, any schedules, exhibits, order forms, or addenda to this Agreement, the following terms shall have the meanings assigned below unless otherwise defined therein. Other capitalized terms used in this Agreement are defined in the context in which they are used.

1.1. "**Acceptance**" means the Deliverable demonstrates to the City's reasonable satisfaction that the Deliverable conforms to and operates in all material respects according to the Acceptance Criteria, and if required, has successfully completed Acceptance Testing in all material respects, and for Deliverables not requiring Acceptance Testing that the Deliverable reasonably conforms in all material respects to the Acceptance Criteria or the City's requirements.

1.2. "**Acceptance Certificate**" means a written instrument by which the City promptly notifies Contractor that a Deliverable has been Accepted or Accepted with exceptions, and Acceptance Criteria have been met or waived, in whole or in part.

1.3. "**Acceptance Criteria**" means functionality and performance requirements determined by the City and set forth on the Order Form for the applicable Product or Service, based upon the Specifications, which must be satisfied prior to the City's Acceptance of a

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Deliverable, or the System. The City and Contractor shall agree upon written Acceptance Criteria in the Order Form for the applicable Product or Service.

1.4. **"Acceptance Date"** means the date on which the City issues an Acceptance Certificate for the System or a Deliverable.

1.5. **"Acceptance Test"** means the evaluation and testing method, procedures, or both, that are set forth in the Order Form for the applicable Product or Service and are used to determine whether or not the System or a Deliverable requiring Acceptance Testing performs in accordance with the Acceptance Criteria.

1.6. **"City Data"** means all information, whether in oral or written (including electronic) form, created by or in any way originating with the City and all information that is the output of any computer processing, or other electronic manipulation, of any information that was created by or in any way originating with the City, in the course of using and configuring the Services provided under this Agreement, and includes all records relating to the City's use of Contractor Services. City Data also includes Confidential Information disclosed to Contractor.

1.7. "**Confidential Information**" means all records or data that is disclosed in written, graphic or machine recognizable form and is marked, designated, labeled or identified at the time of disclosure as being confidential or its equivalent, or, if the information is in verbal form, it is identified as confidential or proprietary at the time of disclosure and is confirmed in writing within thirty (30) Calendar Days of the disclosure and is not subject to disclosure under CORA. Confidential Information shall include, but is not limited to, PII, PHI, PCI, federal or state tax information ("Tax Information"), Criminal Justice Information (CJI), personnel records, financial, statistical, personnel, human resources data or Personally Identifiable Information and/or Personal Information as described in the C.R.S 24-73-101, *et seq*; attorney/client privileged communications; information which is exempt per federal laws (including but not limited to copyright or HIPPA), all of which is not subject to disclosure under CORA. Confidential Information does not include information which: (a) is public or becomes public through no breach of the confidentiality obligations herein; (b) is disclosed by the party that has received Confidential Information (the "Receiving Party") with the prior written approval of the other party; (c) was known by the Receiving Party at the time of disclosure; (d) was developed independently by the Receiving Party without use of the Confidential Information; (e) becomes known to the Receiving Party from a source other than the disclosing party through lawful means;

(f) is disclosed by the disclosing party to others without confidentiality obligations; or (g) is required by law to be disclosed.

1.8. **"CORA"** means the Colorado Open Records Act, §§ 24-72-200.1, *et seq.*, C.R.S.

1.9. **"Data Incident"** means any accidental or deliberate event that results in or constitutes an imminent threat of the unauthorized access, loss, disclosure, modification, disruption, or destruction of any communications or information resources of the City. Data Incidents include, without limitation (i) successful attempts to gain unauthorized access to a City system or the City information regardless of where such information is located; (ii) unwanted disruption or denial of service; (iii) the unauthorized use of a City system for the processing or storage of data; or (iv) changes to the City system hardware, firmware, or software characteristics without the City's knowledge, instruction, or consent. It shall also include any actual or reasonably suspected unauthorized access to or acquisition of computerized City Data that compromises the security, confidentiality, or integrity of City Data, or the ability of the City to access City Data.

1.10. **"Deliverable"** means the Products or Services or documents or tangible work products described in an Order Form to be provided to the City by Contractor or the outcome to be achieved or output to be provided, in the form of a tangible object or software that is produced as a result of Contractor's work that is intended to be delivered to the City by Contractor under this Agreement.

1.11. **"Documentation"** means, collectively: (a) all materials published or otherwise made available to the City by Contractor that relate to the functional, operational and/or performance capabilities of the Services; (b) all user, operator, system administration, technical, support and other manuals and all other materials published or otherwise made available by Contractor, including marketing materials that describe the functional, operational and/or performance capabilities of the Services; (c) any Requests for Information and/or Requests for Proposals (or documents of similar effect) issued by the City, and the responses thereto from Contractor, and any document which purports to update or revise any of the foregoing; and (d) the results of any Contractor "Use Cases Presentation," "Proof of Concept" or similar type presentations or tests provided by Contractor to the City or as required to be produced by Contractor subject to the terms of this Agreement.

1.12. **"Downtime"** means any period of time of any duration that the Services are not

made available by Contractor to the City for any reason, including scheduled maintenance or Enhancements.

1.13. **"Effective Date"** means the date on which this Agreement is fully approved and signed by the City as shown on the Signature Page for this Agreement. The Effective Date for Services may be set out in an Order Form or similar exhibit.

1.14. **"Enhancements"** means any improvements, modifications, upgrades, updates, fixes, revisions and/or expansions to the Services that Contractor may develop or acquire and incorporate into its standard version of the Services or which Contractor has elected to make generally available to its customers.

1.15. "**Equipmen**t" means any hardware, machinery, device, tool, computer, computer component, computer system, including add-ons, or peripherals of tangible form together with the necessary supplies for upkeep and maintenance, and other apparatus, to be provided to the City by Contractor under this Agreement.

1.16. "**Erro**r" means any defect, problem, condition, bug, or other partial or complete inability of a Product to operate in accordance with the applicable Specifications.

1.17. **"Intellectual Property Rights"** includes without limitation all right, title, and interest in and to all (a) Patent and all filed, pending, or potential applications for Patent, including any reissue, reexamination, division, continuation, or continuation in part applications throughout the world now or hereafter filed; (b) trade secret rights and equivalent rights arising under the common law, state law, and federal law; (c) copyrights, other literary property or authors rights, whether or not protected by copyright or as a mask work, under common law, state law, and federal law; and (d) proprietary indicia, trademarks, trade names, symbols, logos, and/or brand names under common law, state law, and federal law.

1.18. "**Order Form**" means a quote in the form attached hereto as an exhibit, setting forth certain Products and/or Services to be provided pursuant to this Agreement. Any reference to an "Order Form" in this Agreement includes Products and/or Services purchased by the City pursuant to Contractor's online ordering process. An Order Form can also be a statement of work or scope of work if attached to this Agreement.

1.19. **"PCI"** means payment card information including any data related to credit card holders' names, credit card numbers, or other credit card information as may be protected by state or federal law.

1.20.   **"PII"** means personally identifiable information including, without limitation, any information maintained by the City about an individual that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records. PII includes, but is not limited to, all information defined as personally identifiable information in §§ 24-72-501 and 24-73-101, C.R.S.

1.21.   **"PHI"** means any protected health information, including, without limitation any information whether oral or recorded in any form or medium: (i) that relates to the past, present, or future physical or mental condition of an individual; the provision of health care to an individual; or the past, present, or future payment for the provision of health care to an individual; and (ii) that identifies the individual or with respect to which there is a reasonable basis to believe the information can be used to identify the individual. PHI includes, but is not limited to, any information defined as Individually Identifiable Health Information by the federal Health Insurance Portability and Accountability Act. If this Agreement involves the transmission of PHI a separate Business Associates Agreement will become a part of this Agreement.

1.22.   "**Product(s)**" means software, Equipment, and supplies delivered, or to be delivered, pursuant to an Order Form.

1.23.   **"Protected Information"** includes, but is not limited to, personally-identifiable information, student records, protected health information, criminal justice information or individual financial information and other data defined under § 24-72-101 *et seq*., and personal information that is subject to local, state or federal statute, regulatory oversight or industry standard restricting the use and disclosure of such information. The loss of such Protected Information would constitute a direct damage to the City.

1.24.   **"RFP Response"** means any proposal submitted by Contractor to City in response to City's Request for Proposal ("RFP") titled **"DOTI Asset Inventory", RFP No. 11064A, dated April 20, 2021.**

1.25.   **"Services"** means Contractor's computing solutions, provided to the City pursuant to this Agreement, that provide the functionality and/or produce the results described in the Documentation, including without limitation all Enhancements thereto and all interfaces.

1.26.   "**Specifications**" means the most current cumulative statement of capabilities, functionality, and performance requirements for the Products or Services as set out in the Acceptance Criteria, Order Forms, Documentation, Contractor's representations, Contractor's

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proposal, and the City's Request for Proposals.

1.27. **"Subcontractor"** means any third party engaged by Contractor to aid in performance of the work or the Service. Contractor shall provide to the City upon request a list of Subcontractors providing material services to the Service.

1.28. **"System"** means the operational combination of all Products and Services to be provided by Contractor to the City under this Agreement.

1.29. **"Third Party"** means persons, corporations and entities other than Contractor, the City or any of their employees, contractors or agents.

1.30. **"Third-Party Host"** means the entity where the physical location of the server(s) of the Contractor's software resides.

2. RIGHTS AND LICENSE IN AND TO DATA.

2.1. The Parties agree that as between them, all rights in and to City Data shall remain the exclusive property of the City, and Contractor has a limited, nonexclusive license to access and use City Data as provided in this Agreement solely for the purpose of performing its obligations hereunder.

2.2. All City Data created and/or processed by the Service is and shall remain the property of the City and shall in no way become attached to the Service, nor shall Contractor have any rights in or to the City Data without the express written permission of the City and may not include Protected Information.

2.3. This Agreement does not give a party any rights, implied or otherwise, to the other's data, content, or intellectual property, except as expressly stated in the Agreement.

2.4. The City retains the right to use the Service to access and retrieve data stored on Contractor's Service infrastructure at any time during the term of this Agreement at its sole discretion.

3. DATA PRIVACY.

3.1. Contractor will use City Data only for the purpose of fulfilling its duties under this Agreement and for the City's sole benefit and will not share City Data with or disclose it to any Third Party without the prior written consent of the City or as otherwise required by law. By way of illustration and not of limitation, Contractor will not use City Data for Contractor's own benefit and, in particular, will not engage in "data mining" of City Data or communications, whether

through automated or human means, except as specifically and expressly required by law or authorized in writing by the City.

3.2.   Contractor will provide access to City Data only to those Contractor employees, contractors and Subcontractors ("Contractor Staff") who need to access City Data to fulfill Contractor's obligations under this Agreement. Contractor will ensure that, prior to being granted access to City Data, Contractor Staff who perform work under this Agreement have all undergone and passed criminal background screenings; have successfully completed annual instruction of a nature sufficient to enable them to effectively comply with all data protection provisions of this Agreement; and possess all qualifications appropriate to the nature of the employees' duties and the sensitivity of City Data they will be handling.

3.3.   If Contractor receives Protected Information of a Colorado resident under this Agreement, Contractor shall implement and maintain reasonable written security procedures and practices that are appropriate to the nature of the personal identifying information and the nature and size of Contractor's business and its operations. Unless Contractor agrees to provide its own security protections for the information it discloses to a third-party service provider, Contractor shall require all its third-party service providers to implement and maintain reasonable written security procedures and practices that are appropriate to the nature of the personal identifying information disclosed and reasonably designed to help protect the personal identifying information subject to this Agreement from unauthorized access, use, modification, disclosure, or destruction. Contractor and its third-party service providers that maintain electronic or paper documents that contain Protected Information under this Agreement shall develop a written policy for the destruction of such records by shredding, erasing, or otherwise modifying the Protected Information to make it unreadable or indecipherable when the records are no longer needed.

3.4.   Contractor may provide City Data to its agents, employees, assigns, and Subcontractors as necessary to perform the work under this Agreement, but shall restrict access to Confidential Information to those agents, employees, assigns, and Subcontractors who require access to perform their obligations under this Agreement. Contractor shall ensure all such agents, employees, assigns, and Subcontractors sign, or have signed, agreements containing nondisclosure provisions at least as protective as those in this Agreement, and that the nondisclosure provisions are in force at all times the agent, employee, assign, or Subcontractor has access to any

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Confidential Information. Contractor shall provide copies of those signed nondisclosure provisions to the City upon execution of the nondisclosure provisions if requested by the City.

4.   DATA SECURITY AND INTEGRITY.

4.1.   All facilities, whether Contractor hosted or Third-Party Hosted, used to store and process City Data will implement and maintain administrative, physical, technical, and procedural safeguards and best practices at a level sufficient to provide the requested Service availability and to secure City Data from unauthorized access, destruction, use, modification, or disclosure appropriate for City Data. Such measures, when applicable due to the presence of Protected Information, include, but are not limited to, all applicable laws, rules, policies, publications, and guidelines including, without limitation: (i) the most recently promulgated IRS Publication 1075 for all Tax Information, (ii) the most recently updated PCI Data Security Standard from the PCI Security Standards Council for all PCI, (iii) the most recently issued version of the U.S. Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Security Policy for all CJI, (iv) the Colorado Consumer Protection Act, (v) the Children's Online Privacy Protection Act (COPPA), (vi) the Family Education Rights and Privacy Act (FERPA), (vii) §24-72-101 et seq., (viii) the Telecommunications Industry Association (TIA) Telecommunications Infrastructure Standard for Data Centers (TIA-942); (ix) the federal Health Insurance Portability and Accountability Act for all PHI and the HIPAA Business Associate Addendum attached to this Agreement, if applicable. Contractor shall submit to the Manager, within fifteen (15) days of the Manager's written request, copies of Contractor's policies and procedures to maintain the confidentiality of protected health information to which Contractor has access, and if applicable, Contractor shall comply with all HIPAA requirements contained herein or attached as an exhibit.

4.2.   Contractor warrants that all City Data will be encrypted in transmission (including via web interface) and in storage by a mutually agreed upon National Institute of Standards and Technology (NIST) approved strong encryption method and standard.

4.3.   Contractor shall use industry-standard and up-to-date security tools, technologies and procedures including, but not limited to anti-virus and anti-malware protections and intrusion detection and reporting in providing Services under this Agreement. Contractor shall ensure that any underlying or integrated software employed by the Service is updated on a regular basis and does not pose a threat to the security of the Service.

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4.4.   Contractor shall, and shall cause its Subcontractors, to do all of the following:

4.4.1. Provide physical and logical protection for all hardware, software, applications, and data that meets or exceeds industry standards and the requirements of this Agreement.

4.4.2. Maintain network, system, and application security, which includes, but is not limited to, network firewalls, intrusion detection (host and network), annual security testing, and improvements or enhancements consistent with evolving industry standards.

4.4.3. Comply with State and federal rules and regulations related to overall security, privacy, confidentiality, integrity, availability, and auditing.

4.4.4. Provide that security is not compromised by unauthorized access to workspaces, computers, networks, software, databases, or other physical or electronic environments.

4.4.5. Promptly report all Data Incidents, including Data Incidents that do not result in unauthorized disclosure or loss of data integrity.

4.4.6. Comply with all rules, policies, procedures, and standards issued by the City's Technology Services Security Section.

4.4.7. Subject to Contractor's reasonable access security requirements and upon reasonable prior notice, Contractor shall provide the City with scheduled access for the purpose of inspecting and monitoring access and use of City Data, maintaining City systems, and evaluating physical and logical security control effectiveness.

4.4.8. Contractor shall perform current background checks in a form reasonably acceptable to the City on all of its respective employees and agents performing services or having access to City Data provided under this Agreement, including any Subcontractors or the employees of Subcontractors. A background check performed within 30 days prior to the date such employee or agent begins performance or obtains access to City Data shall be deemed to be current.

4.4.9. Contractor will provide notice to the security and compliance representative for the City indicating that background checks have been performed. Such notice will inform the City of any action taken in response to such background checks, including any decisions not to take action in response to negative information revealed by a background check.

4.4.10. If Contractor will have access to Tax Information under the Agreement, Contractor shall comply with the background check requirements defined in IRS Publication 1075 and § 24-50-1002, C.R.S.

4.5. If applicable, Contractor shall use, hold, and maintain Confidential and Protected Information in compliance with all applicable laws and regulations only in facilities located within the United States, and shall maintain a secure environment that ensures confidentiality of all Confidential and Protected Information.

4.6. Prior to the Effective Date of this Agreement, Contractor, will at its expense conduct or have conducted the following, and thereafter, Contractor will at its expense conduct or have conducted the following at least once per year, and immediately after any actual or reasonably suspected Data Incident:

4.6.1. A SSAE 16/SOC 2 or other mutually agreed upon audit of Contractor's security policies, procedures and controls;

4.6.2. A quarterly external and internal vulnerability scan of Contractor's systems and facilities, to include public facing websites, that are used in any way to deliver Services under this Agreement. The report must include the vulnerability, age and remediation plan for all issues identified as critical or high;

4.6.3. A formal penetration test, performed by a process and qualified personnel of Contractor's systems and facilities that are used in any way to deliver Services under this Agreement.

4.7. Contractor will provide the City the reports or other documentation resulting from the above audits, certifications, scans and tests within seven (7) business days of Contractor's receipt of such results.

4.8. Based on the results and recommendations of the above audits, certifications, scans and tests, Contractor will, within thirty (30) calendar days of receipt of such results, promptly modify its security measures to meet its obligations under this Agreement and provide the City with written evidence of remediation.

4.9. The City may require, at its expense, that Contractor perform additional audits and tests, the results of which will be provided to the City within seven (7) business days of Contractor's receipt of such results.

4.10.   Contractor shall protect data against deterioration or degradation of data quality and authenticity, including, but not limited to annual Third Party data integrity audits. Contractor will provide the City the results of the above audits.

5.   **RESPONSE TO LEGAL ORDERS, DEMANDS OR REQUESTS FOR DATA.**

5.1. Except as otherwise expressly prohibited by law, Contractor will:

5.1.1.   If required by a court of competent jurisdiction or an administrative body to disclose City Data, Contractor will notify the City in writing immediately upon receiving notice of such requirement and prior to any such disclosure;

5.1.2.   Consult with the City regarding its response;

5.1.3.   Cooperate with the City's reasonable requests in connection with efforts by City to intervene and quash or modify the legal order, demand or request; and

5.1.4.   Upon request, provide the City with a copy of its response.

5.2.   If the City receives a subpoena, warrant, or other legal order, demand or request seeking data maintained by Contractor, the City will promptly provide a copy to Contractor. Contractor will supply the City with copies of data required for the City to respond within forty-eight (48) hours after receipt of copy from the City and will cooperate with the City's reasonable requests in connection with its response.

6.   **DATA INCIDENT RESPONSE.**

6.1.   Contractor shall maintain documented policies and procedures for Data Incident and breach reporting, notification, and mitigation. If Contractor becomes aware of any Data Incident, it shall notify the City immediately and cooperate with the City regarding recovery, remediation, and the necessity to involve law enforcement, as determined by the City. If there is a Data Incident impacting residents of Colorado, or any other jurisdiction, Contractor shall cooperate with the City to satisfy notification requirements as currently defined in either federal, state, or local law. Unless Contractor can establish that neither Contractor nor any of its agents, employees, assigns or Subcontractors are the cause or source of the Data Incident, Contractor shall be responsible for the cost of notifying each person who may have been impacted by the Data Incident as required by law. After a Data Incident, Contractor shall take steps to reduce the risk of incurring a similar type of Data Incident in the future as directed by the City, which may include, but is not limited to, developing and implementing a remediation plan that is approved by the City at no additional cost to the City.

6.2.   Contractor shall report, either orally or in writing, to the City any Data Incident involving City Data, or circumstances that could have resulted in unauthorized access to or disclosure or use of City Data, not authorized by this Agreement or in writing by the City, including any reasonable belief that an unauthorized individual has accessed City Data. Contractor shall make the report to the City immediately upon discovery of the unauthorized disclosure, but in no event more than forty-eight (48) hours after Contractor reasonably believes there has been such unauthorized use or disclosure. Oral reports by Contractor regarding Data Incidents will be reduced to writing and supplied to the City as soon as reasonably practicable, but in no event more than forty-eight (48) hours after oral report.

6.3.   Immediately upon becoming aware of any such Data Incident, Contractor shall fully investigate the circumstances, extent and causes of the Data Incident, and report the results to the City and continue to keep the City informed daily of the progress of its investigation until the issue has been effectively resolved.

6.4.   Contractor's report discussed herein shall identify: (i) the nature of the unauthorized use or disclosure, (ii) the data used or disclosed, (iii) who made the unauthorized use or received the unauthorized disclosure (if known), (iv) what Contractor has done or shall do to mitigate any deleterious effect of the unauthorized use or disclosure, and (v) what corrective action Contractor has taken or shall take to prevent future similar unauthorized use or disclosure.

6.5.   Within five (5) calendar days of the date Contractor becomes aware of any such Data Incident, Contractor shall have completed implementation of corrective actions to remedy the Data Incident, restore the City's access to the Services as directed by the City, and prevent further similar unauthorized use or disclosure.

6.6.   Contractor, at its expense, shall cooperate fully with the City's investigation of and response to any such Data Incident.

6.7.   Except as otherwise required by law, Contractor will not disclose or otherwise provide notice of the incident directly to any person, regulatory agencies, or other entities, without prior written permission from the City.

6.8.   Notwithstanding any other provision of this Agreement, and in addition to any other remedies available to the City under law or equity, Contractor will promptly reimburse the City in full for all costs incurred by the City in any investigation, remediation or litigation resulting from any such Data Incident, including but not limited to providing notification to Third Parties whose

data were compromised and to regulatory bodies, law-enforcement agencies or other entities as required by law or contract; establishing and monitoring call center(s), and credit monitoring and/or identity restoration services to assist each person impacted by a Data Incident in such a fashion that, in the City's sole discretion, could lead to identity theft; and the payment of legal fees and expenses, audit costs, fines and penalties, and other fees imposed by regulatory agencies, courts of law, or contracting partners as a result of the Data Incident.

7.   **DATA RETENTION AND DISPOSAL**

7.1.   Using appropriate and reliable storage media, Contractor will regularly backup data and retain such backup copies consistent with the City's data retention policies.

7.2.   At the City's election, Contractor will either securely destroy or transmit to the City repository any backup copies of City Data. Contractor will supply the City a certificate indicating the records disposed of, the date disposed of, and the method of disposition used.

7.3.   Contractor will immediately preserve the state of the data at the time of the request and place a "hold" on data destruction or disposal under its usual records retention policies of records that include data, in response to an oral or written request from the City indicating that those records may be relevant to litigation that the City reasonably anticipates. Oral requests by the City for a hold on record destruction will be reduced to writing and supplied to Contractor for its records as soon as reasonably practicable under the circumstances. The City will promptly coordinate with Contractor regarding the preservation and disposition of these records. Contractor shall continue to preserve the records until further notice by the City.

8.   **DATA TRANSFER UPON TERMINATION OR EXPIRATION.**

8.1.   Upon expiration or earlier termination of this Agreement or any Services provided in this Agreement, Contractor shall accomplish a complete transition of the Services from Contractor to the City or any replacement provider designated solely by the City without any interruption of or adverse impact on the Services or any other services provided by third parties in this Agreement. Contractor shall cooperate fully with the City or such replacement provider and promptly take all steps required to assist in effecting a complete transition of the Services designated by the City. All services related to such transition shall be performed at no additional cost beyond what would be paid for the Services in this Agreement. Contractor shall extend the Agreement monthly if additional time is required beyond the termination of the Agreement, if necessary, to effectuate the transition and the City shall pay a proration of the subscription fee.

8.2.   Upon the expiration or termination of this Agreement, Contractor shall return City Data provided to Contractor in a common and readily usable format if requested by the City or destroy City Data and certify to the City that it has done so, as directed by the City. If Contractor is prevented by law or regulation from returning or destroying Confidential Information, Contractor warrants it will guarantee the confidentiality of, and cease to use, such Confidential Information. To the extent that Contractor is requested to perform any services beyond the return of the City's Data in connection with termination assistance, the same shall be performed pursuant to a written statement of work under this Agreement and paid for by the City, applying Contractor's then-current rates for daily/hourly work, as the case may be.

9.   N/A.

10.   <u>COMPLIANCE WITH APPLICABLE LAWS AND CITY POLICIES</u>.

10.1   Contractor will comply with all applicable laws in performing the Services under this Agreement. Any Contractor personnel visiting the City's facilities will comply with all applicable City policies regarding access to, use of, and conduct within such facilities. The City will provide copies of such policies to Contractor upon request.

10.2   **<u>ADA Website Compliance:</u>**

a.   <u>Compliance and Testing</u>. All Contractor managed or operated public-facing digital experiences (e.g., websites and webpages) must be compliant with Section 508 of the Rehabilitation Act of 1973 and the WCAG 2.0 Level AA guidelines (collectively, "Guidelines"). Prior to launching to the public, Contractor shall test all public-facing digital experiences, both manually and in an automated fashion, as applicable, to confirm and maintain compliance with the Guidelines, and then subsequently, no more than once per each term year thereafter. Such manual and automated testing may only be performed by a third party vendor approved by the Department of Justice. The City has a list of approved third party vendors. The City does not warrant the work of any third party vendor. All testing under this section shall be performed by third party vendors at the Contractor's expense.

b.   <u>Validation, Review and Remediation</u>. Contractor will notify City when its digital experience is ready for City review and validation. City will then validate, prior to launch and each term year thereafter, to confirm that the digital experience is compliant with the Guidelines. Manual testing of the Contractor's digital experience will be verified by City with approved vendors and individuals of varying disabilities which shall include individuals who are

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blind, deaf or hard of hearing, and who have mobility or dexterity limitations. Upon completion of all testing, a review will be performed by the City's web accessibility coordinator to confirm completion of all accessibility requirements. In the event that any deficiencies are discovered in the Contractor's digital experience, City will promptly notify Contractor, and Contractor will remediate prior to launch. A digital experience will not launch until all deficiencies are remediated. All digital experiences must include a statement on the site that the experience is accessible, will maintain accessibility, and will provide a mechanism for users to submit feedback about accessibility issues.

      c.   In the event that the digital experience fails compliance at any time, Contractor shall bring the digital experience into compliance within ninety (90) days, which may be extended by mutual written agreement of the Parties. Failure to bring the digital experience into compliance for any reason within such time, except as may be mutually extended by the written agreement of the parties, shall be a breach of this Agreement.

10.3   **Criminal Justice Information Services**. As applicable, private contractors who perform criminal justice functions shall meet the same training and certification criteria required by governmental agencies performing a similar function, and shall be subject to the same extent of audit review as are local user agencies. All private contractors who perform criminal justice functions shall acknowledge, via signing of the CJIS Security Addendum Certification page, and abide by all aspects of the CJIS Security Addendum. The CJIS Security Addendum is presented in Appendix H. Modifications to the CJIS Security Addendum shall be enacted only by the FBI.

11.   **WARRANTIES, REPRESENTATIONS AND COVENANTS**. Contractor represents and warrants that:

11.1.   The Service will conform to applicable specifications, and operate and produce results substantially in accordance with the Documentation and the Exhibits attached hereto, and will be free from deficiencies and defects in materials, workmanship, design and/or performance during the Term of this Agreement;

11.2.   All technology related services will be performed by qualified personnel in a professional and workmanlike manner, consistent with industry standards;

11.3.   Contractor has the requisite ownership, rights and licenses to perform its obligations under this Agreement fully as contemplated hereby and to grant to the City all rights

with respect to the software and Services free and clear from all liens, adverse claims, encumbrances and interests of any Third Party;

11.4.   There are no pending or threatened lawsuits, claims, disputes or actions: (i) alleging that any software or service infringes, violates or misappropriates any Third-Party rights; or (ii) adversely affecting any software, service or supplier's ability to perform its obligations hereunder;

11.5.   The Service will not violate, infringe, or misappropriate any patent, copyright, trademark, trade secret, or other intellectual property or proprietary right of any Third Party;

11.6.   The software and Services will contain no malicious or disabling code that is intended to damage, destroy or destructively alter software, hardware, systems or data. Contractor's obligations for breach of the Services warranty shall be limited to using its best efforts, at its own expense, to correct or replace that portion of the Services which fails to conform to such warranty, and, if Contractor is unable to correct any breach in the Services Warranty by the date which is sixty (60) calendar days after the City provides notice of such breach, the City may, in its sole discretion, either extend the time for Contractor to cure the breach or terminate this Agreement and receive a full refund of all amounts paid to Contractor under this Agreement.

11.7.   Disabling Code Warranty. Contractor represents, warrants and agrees that the Services do not contain and the City will not receive from Contractor any virus, worm, trap door, back door, timer, clock, counter or other limiting routine, instruction or design, or other malicious, illicit or similar unrequested code, including surveillance software or routines which may, or is designed to, permit access by any person, or on its own, to erase, or otherwise harm or modify any City system or Data (a "Disabling Code"). In the event a Disabling Code is identified, Contractor shall take all steps necessary, at no additional cost to the City, to: (a) restore and/or reconstruct all City Data lost by the City as a result of Disabling Code; (b) furnish to City a corrected version of the Services without the presence of Disabling Codes; and, (c) as needed, re-implement the Services at no additional cost to the City. This warranty shall remain in full force and effect as long as this Agreement remains in effect.

11.8.   Third-Party Warranties and Indemnities. Contractor will assign to the City all Third-Party warranties and indemnities that Contractor receives in connection with any products provided to the City. To the extent that Contractor is not permitted to assign any warranties or indemnities through to the City, Contractor agrees to specifically identify and enforce those

warranties and indemnities on behalf of the City to the extent Contractor is permitted to do so under the terms of the applicable Third Party agreements.

11.9.   Contractor warrants it has complied and shall comply with all applicable federal, state, and local laws and regulations of its domicile and wherever performance occurs during the term of this Agreement.

11.10. Delivery of Products shall not be construed to represent Acceptance nor shall Delivery of Products relieve Contractor from its responsibility under any representation or warranty. If the City makes a payment for a Product prior to Acceptance, the payment does not grant a waiver of any representation or warranty by Contractor.

12.   **CONFIDENTIALITY.**

12.1.   Contractor shall keep confidential, and cause all Subcontractors to keep confidential, all City Data, unless the City Data is publicly available. Contractor shall not, without prior written approval of the City, use, publish, copy, disclose to any third party, or permit the use by any third party of any City Data, except as otherwise stated in this Agreement, permitted by law, or approved in writing by the City. Contractor shall provide for the security of all Confidential Information in accordance with all applicable laws, rules, policies, publications, and guidelines.

12.2.   The Receiving Party agrees to exercise the same degree of care and protection with respect to the Confidential Information that it exercises with respect to its own similar Confidential Information and not to directly or indirectly provide, disclose, copy, distribute, republish or otherwise allow any Third Party to have access to any Confidential Information without prior written permission from the disclosing party. However, (a) either party may disclose Confidential Information to its employees and authorized agents who have a need to know; (b) either party may disclose Confidential Information if so required to perform any obligations under this Agreement; and (c) either party may disclose Confidential Information if so required by law (including court order or subpoena). Nothing in this Agreement shall in any way limit the ability of City to comply with any laws or legal process concerning disclosures by public entities. Contractor acknowledges that any responses, materials, correspondence, documents or other information provided to the City are subject to applicable state and federal law, including the Colorado Open Records Act, and that the release of Confidential Information in compliance with those acts or any other law will not constitute a breach or threatened breach of this Agreement.

12.3.   The Receiving Party will inform its employees and officers of the obligations under this Agreement, and all requirements and obligations of the Receiving Party under this Agreement shall survive the expiration or earlier termination of this Agreement. The Receiving Party shall not disclose City Data or Confidential Information to Subcontractors unless such Subcontractors are bound by non-disclosure and confidentiality provisions at least as strict as those contained in this Agreement.

13.   COLORADO OPEN RECORDS ACT. The Parties understand that all the material provided or produced under this Agreement, including items marked Proprietary or Confidential, may be subject to the Colorado Open Records Act., § 24-72-201, *et seq*., C.R.S. In the event of a request to the City for disclosure of such information, the City shall advise Contractor of such request in order to give Contractor the opportunity to object to the disclosure of any of its documents which it marked as proprietary or confidential material. In the event of the filing of a lawsuit to compel such disclosure, the City will tender all such material to the court for judicial determination of the issue of disclosure and Contractor agrees to intervene in such lawsuit to protect and assert its claims of privilege against disclosure of such material or waive the same. Contractor further agrees to defend, indemnify and save and hold harmless the City, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of Contractor's intervention to protect and assert its claim of privilege against disclosure under this Article including but not limited to, prompt reimbursement to the City of all reasonable attorney fees, costs and damages that the City may incur directly or may be ordered to pay by such court.

14.   SOFTWARE AS A SERVICE, SUPPORT AND SERVICES TO BE PERFORMED.

14.1.   Contractor, under the general direction of, and in coordination with, the City's Chief Information Officer or other designated supervisory personnel (the "Manager") agrees to provide the Services listed on **Exhibit A** and perform the technology related services described on attached **Exhibit A** (the "Statement of Work" or "SOW"). The Services, when fully accepted, shall conform to the "Functionality Matrix" set out as **Exhibit D**, from the RFP Response. The Parties acknowledge that Contractor and the City may work to further define the SOW, in which case that work product ("Follow-Up SOW") will become a part of this Agreement by incorporation. If the Follow-Up SOW materially alters the attached SOW, the Parties agree to amend this Agreement in writing.

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14.2.   As the Manager directs, Contractor shall diligently undertake, perform, and complete all of the technology related services and produce all the deliverables set forth on **Exhibit A** to the City's satisfaction.

14.3.   Contractor is ready, willing, and able to provide the technology related services and the Services required by this Agreement.

14.4.   Contractor shall faithfully perform the technology related services in accordance with the standards of care, skill, training, diligence, and judgment provided by highly competent individuals performing services of a similar nature to those described in the Agreement and in accordance with the terms of the Agreement.

14.5.   User ID Credentials. Internal corporate or customer (tenant) user account credentials shall be restricted as per the following, ensuring appropriate identity, entitlement, and access management and in accordance with established policies and procedures:

14.5.1. Identity trust verification and service-to-service application (API) and information processing interoperability (e.g., SSO and Federation);

14.5.2. Account credential lifecycle management from instantiation through revocation;

14.5.3. Account credential and/or identity store minimization or re-use when feasible; and

14.5.4. Adherence to industry acceptable and/or regulatory compliant authentication, authorization, and accounting (AAA) rules (e.g., strong/multi-factor, expire able, non-shared authentication secrets).

14.6.   Vendor Supported Releases. Contractor shall maintain the currency all third-party software used in the development and execution or use of the Service including, but not limited to: all code libraries, frameworks, components, and other products (e.g., Java JRE, code signing certificates, .NET, jQuery plugins, etc.), whether commercial, free, open-source, or closed-source; with third-party vendor approved and supported releases.

14.7.   Identity Management. The City's Identity and Access Management (IdM) system is an integrated infrastructure solution that enables many of the City's services and online resources to operate more efficiently, effectively, economically and securely. All new and proposed applications must utilize the authentication and authorization functions and components of the IdM. Strong authentication is required for privileged accounts or accounts with access to

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sensitive information. This technical requirement applies to all solutions, regardless to where the application is hosted.

15. GRANT OF LICENSE; RESTRICTIONS.

15.1. Contractor hereby grants to the City a right and license to display, perform, and use the Services and use all intellectual property rights necessary to use the Services as authorized.

15.2. Title to and ownership of the Service will remain with Contractor. The City will not reverse engineer or reverse compile any part of the Service. The City will not remove, obscure or deface any proprietary notice or legend contained in the Service or Documentation without Contractor's prior written consent.

16. DELIVERY AND ACCEPTANCE.

16.1. Right to Perform Acceptance Testing. Prior to accepting Deliverables, the City shall have the right to perform Acceptance Testing to evaluate the Deliverable(s) to ensure they meet Acceptance Criteria, if any, set forth on the applicable Order Form or Statement of Work. Contractor shall cooperate with the City in the development of Acceptance Criteria that shall be codified in the applicable Order Form or Statement of Work that will set forth the location, date, and other specifications of the Acceptance Testing, if any. Acceptance Testing may occur in one or more phases, depending on the integration of contingent products, scalability, performance tuning or other measurable features or milestones.

16.2. After an Acceptance Test and if at any time the Service does not conform, the City will notify Contractor in writing within sixty (60) days and will specify in reasonable detail the identified failures and possible reasons for failure. Contractor will, at its expense, repair or replace the nonconforming product within fifteen (15) days after receipt of the City's notice of deficiency.

16.3. If the City issues an Acceptance Certificate for an "Acceptance with Exception(s)" the City will list the exception(s) and the date for Contractor's correction of the Error(s). If Error(s) are corrected by the listed date(s) the City agrees to commence further Acceptance Testing of the Deliverable or affected portion(s). If the Deliverable passes the Acceptance Tests, the City will issue an Acceptance Certificate.

16.4. If a Deliverable fails a second or subsequent Acceptance Test (or in the event of a single Acceptance Test, the Acceptance Test) in no event shall there be an increase to the original price agreed to by the Parties for the Deliverable.

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16.5.   The foregoing procedure will be repeated until the City accepts or finally rejects the Deliverable, in whole or part, in its sole discretion. In the event that the Service does not perform to the City's satisfaction, the City reserves the right to repudiate acceptance. If the City finally rejects the Service, or repudiates acceptance of it, Contractor will refund to the City all fees paid, if any, by the City with respect to the Service.

16.6.   If the City is not satisfied with Contractor's performance of the technology related services described in the Statement of Work, the City will so notify Contractor within thirty (30) days after Contractor's performance thereof. Contractor will, at its own expense, re-perform the service within fifteen (15) days after receipt of City's notice of deficiency.   The foregoing procedure will be repeated until City accepts or finally rejects the technology related service in its sole discretion. If City finally rejects any technology related service, Contractor will refund to City all fees paid by City with respect to such technology related service.

16.7.   Contractor warrants that during the term of this Agreement that the Service and any associated components will not materially diminish during the subscription Term.

17.   **TERM**. The term of the Agreement will commence on date of **mutual execution** and will expire **eighteen (18) months thereafter** (the "Term"). Subject to the Executive Director's prior written authorization, the Consultant shall complete any work in progress as of the expiration date and the Term of the Agreement will extend until the work is completed or earlier terminated by the Executive Director.

18.   **COMPENSATION AND PAYMENT.**

18.1.   **Fee**: The fee for the Services and technology related services is described in the attached **Exhibit B** (the "Fee"). The Fee shall be paid pursuant to the City's Prompt Payment Ordinance and in accordance with any payment milestones in **Exhibit B**.

18.2.   **Reimbursement Expenses**: The fees specified above include all expenses, and no other expenses shall be separately reimbursed or incurred hereunder for the provision of the Service(s).

18.3.   **Invoicing**: Contractor must submit an invoice which shall include the City contract number, clear identification of the deliverable that has been completed, and other information reasonably requested by the City.   Payment on all uncontested amounts shall be made in accordance with the City's Prompt Payment Ordinance.

18.4.   **Maximum Agreement Liability**:

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18.4.1. Notwithstanding any other provision of the Agreement, the City's maximum payment obligation will not exceed **SEVEN HUNDRED TWENTY-FOUR THOUSAND TWO HUNDRED SIXTY-FIVE DOLLARS AND NO CENTS ($724,265.00)** (the "Maximum Agreement Amount"). The City is not obligated to execute an Agreement or any amendments for any further services, including any services performed by Contractor beyond that specifically described in the attached Exhibits. Any services performed beyond those in the attached Exhibits are performed at Contractor's risk and without authorization under the Agreement.

18.4.2. The City's payment obligation, whether direct or contingent, extends only to funds appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement. The City does not by the Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years. The Agreement does not and is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.

19.   STATUS OF CONTRACTOR. Contractor is an independent contractor retained to perform professional or technical services for limited periods of time. Neither Contractor nor any of its employees are employees or officers of the City under Chapter 18 of the Denver Revised Municipal Code, or for any purpose whatsoever.

20.   TERMINATION.

20.1.   The City has the right to terminate the Agreement, or a product under the Agreement, with cause upon written notice effective immediately, and without cause upon twenty (20) days prior written notice to Contractor. However, nothing gives Contractor the right to perform services under the Agreement beyond the time when its services become unsatisfactory to the Manager.

20.2.   Notwithstanding the preceding paragraph, the City may terminate the Agreement if Contractor or any of its officers or employees are convicted, plead nolo contendere, enter into a formal agreement in which they admit guilt, enter a plea of guilty or otherwise admit culpability to criminal offenses of bribery, kick backs, collusive bidding, bid-rigging, antitrust, fraud, undue influence, theft, racketeering, extortion or any offense of a similar nature in connection with Contractor's business. Termination for the reasons stated in this paragraph is effective upon receipt of notice.

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20.3.   Upon termination of the Agreement, with or without cause, Contractor shall have no claim against the City by reason of, or arising out of, incidental or relating to termination, except for compensation for work duly requested and satisfactorily performed as described in the Agreement and shall refund to the City any prepaid cost or expenses.

21.   **EXAMINATION OF RECORDS AND AUDITS**. Any authorized agent of the City, including the City Auditor or his or her representative, has the right to access, and the right to examine, copy and retain copies, at City's election in paper or electronic form, any pertinent books, documents, papers and records related to Contractor's performance pursuant to this Agreement, provision of any goods or services to the City, and any other transactions related to this Agreement. Contractor shall cooperate with City representatives and City representatives shall be granted access to the foregoing documents and information during reasonable business hours and until the latter of three (3) years after the final payment under the Agreement or expiration of the applicable statute of limitations. When conducting an audit of this Agreement, the City Auditor shall be subject to government auditing standards issued by the United States Government Accountability Office by the Comptroller General of the United States, including with respect to disclosure of information acquired during the course of an audit. No examination of records and audits pursuant to this paragraph shall require Contractor to make disclosures in violation of state or federal privacy laws. Contractor shall at all times comply with D.R.M.C. 20-276.

22.   **WHEN RIGHTS AND REMEDIES NOT WAIVED**. In no event shall any action by either Party hereunder constitute or be construed to be a waiver by the other Party of any breach of covenant or default which may then exist on the part of the Party alleged to be in breach, and the non-breaching Party's action or inaction when any such breach or default shall exist shall not impair or prejudice any right or remedy available to that Party with respect to such breach or default; and no assent, expressed or implied, to any breach of any one or more covenants, provisions or conditions of the Agreement shall be deemed or taken to be a waiver of any other breach.

23.   **INSURANCE.**

23.1.   **General Conditions**: Contractor agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Contractor shall keep the required insurance coverage in force at all times during the term of the Agreement, including any extension thereof, and during any warranty

period. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-VIII" or better. Each policy shall require notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Contractor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. Contractor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Contractor. The Contractor shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

23.2.   **Proof of Insurance**: Contractor may not commence services or work relating to this Agreement prior to placement of coverages required under this Agreement. Contractor certifies that the certificate of insurance attached as **Exhibit C**, preferably an ACORD form, complies with all insurance requirements of this Agreement. The City requests that the City's contract number be referenced on the certificate of insurance. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Contractor's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.

23.3.   **Additional Insureds**: For Commercial General Liability, Auto Liability, and Excess Liability/Umbrella (if required), Contractor and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

23.4.   **Waiver of Subrogation**: For all coverages required under this Agreement, Contractor's insurer shall waive subrogation rights against the City.

23.5. **Subcontractors and Subconsultants**: Contractor shall confirm and document that all subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) procure and maintain coverage as approved by the Contractor and appropriate to their respective primary business risks considering the nature and scope of services provided.

23.6. **Workers' Compensation and Employer's Liability Insurance**: Contractor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of $100,000 per occurrence for each bodily injury claim, $100,000 per occurrence for each bodily injury caused by disease claim, and $500,000 aggregate for all bodily injuries caused by disease claims.

23.7. **Commercial General Liability**: Contractor shall maintain a Commercial General Liability insurance policy with minimum limits of $1,000,000 for each bodily injury and property damage occurrence, $2,000,000 products and completed operations aggregate (if applicable), and $2,000,000 policy aggregate.

23.8. **Automobile Liability**: Contractor shall maintain Automobile Liability with minimum limits of $1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.

23.9. Technology Errors & Omissions including Cyber Liability: Contractor shall maintain Technology Errors and Omissions insurance including cyber liability, network security, privacy liability and product failure coverage with minimum limits of $1,000,000 per occurrence and $1,000,000 policy aggregate. The policy shall be kept in force, or a Tail policy placed, for three (3) years.

24. **DEFENSE AND INDEMNIFICATION.**

24.1. Contractor hereby agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or relating to the work performed under this Agreement ("Claims"), unless such Claims have been specifically determined by the trier of fact to be the sole negligence or willful misconduct of the City. This indemnity shall be interpreted in the broadest possible manner to indemnify City for any acts or omissions of Contractor or its subcontractors either passive or active, irrespective of

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fault, including City's concurrent negligence whether active or passive, except for the sole negligence or willful misconduct of City.

24.2.   Contractor's duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether Claimant has filed suit on the Claim. Contractor's duty to defend and indemnify City shall arise even if City is the only party sued by claimant and/or claimant alleges that City's negligence or willful misconduct was the sole cause of claimant's damages.

24.3.   Contractor will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City shall be in addition to any other legal remedies available to City and shall not be considered City's exclusive remedy.

24.4.   Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of Contractor under the terms of this indemnification obligation. Contractor shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.

24.5.   This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

24.6.   Contractor shall indemnify, save, and hold harmless the Indemnified Parties, against any and all costs, expenses, claims, damages, liabilities, and other amounts (including attorneys' fees and costs) incurred by the Indemnified Parties in relation to any claim that any Deliverable, Service, software, or work product provided by Contractor under this Agreement (collectively, "IP Deliverables"), or the use thereof, infringes a patent, copyright, trademark, trade secret, or any other intellectual property right.

25.   COLORADO GOVERNMENTAL IMMUNITY ACT. The Parties hereto understand and agree that the City is relying upon, and has not waived, the monetary limitations and all other rights, immunities and protection provided by the Colorado Governmental Act, § 24-10-101, *et seq.*, C.R.S. (2003).

26.   TAXES, CHARGES AND PENALTIES. The City shall not be liable for the payment of taxes, late charges or penalties of any nature other than the compensation stated herein, except for

any additional amounts which the City may be required to pay under D.R.M.C. § 20-107 to § 20-115.

27. **ASSIGNMENT; SUBCONTRACTING**. Contractor shall not voluntarily or involuntarily assign any of its rights or obligations, or subcontract performance obligations, under this Agreement without obtaining the Manager's prior written consent. Any assignment or subcontracting without such consent will be ineffective and void and shall be cause for termination of this Agreement by the City. The Manager has sole and absolute discretion whether to consent to any assignment or subcontracting, or to terminate the Agreement because of unauthorized assignment or subcontracting. In the event of any subcontracting or unauthorized assignment: (i) Contractor shall remain responsible to the City; and (ii) no contractual relationship shall be created between the City and any sub-consultant, Subcontractor or assign.

28. **NO THIRD-PARTY BENEFICIARY**. Enforcement of the terms of the Agreement and all rights of action relating to enforcement are strictly reserved to the Parties. Nothing contained in the Agreement gives or allows any claim or right of action to any third person or entity. Any person or entity other than the City or Contractor receiving services or benefits pursuant to the Agreement is an incidental beneficiary only.

29. **NO AUTHORITY TO BIND CITY TO CONTRACTS**. Contractor lacks any authority to bind the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City's Charter and the Denver Revised Municipal Code.

30. **AGREEMENT AS COMPLETE INTEGRATION-AMENDMENTS**. Except for the functional requirements provided in response to a request for proposal and/or any subsequent enhancement of the SOW or other implementation documentation that may be developed after execution of this Agreement, the Agreement is the complete integration of all understandings between the Parties as to the subject matter of the Agreement. No prior, contemporaneous or subsequent addition, deletion, or other modification has any force or effect, unless embodied in the Agreement in writing. No oral representation by any officer or employee of the City at variance with the terms of the Agreement or any written amendment to the Agreement will have any force or effect or bind the City.

31. **SEVERABILITY**. Except for the provisions of the Agreement requiring appropriation of funds and limiting the total amount payable by the City, if a court of competent jurisdiction finds

any provision of the Agreement or any portion of it to be invalid, illegal, or unenforceable, the validity of the remaining portions or provisions will not be affected, if the intent of the Parties can be fulfilled.

32. **CONFLICT OF INTEREST.**

32.1.   No employee of the City shall have any personal or beneficial interest in the services or property described in the Agreement. Contractor shall not hire, or contract for services with, any employee or officer of the City that would be in violation of the City's Code of Ethics, D.R.M.C. § 2-51, *et seq*. or the Charter §§ 1.2.8, 1.2.9, and 1.2.12.

32.2.   Contractor shall not engage in any transaction, activity or conduct that would result in a conflict of interest under the Agreement. Contractor represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of Contractor by placing Contractor's own interests, or the interests of any party with whom Contractor has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, will determine the existence of a conflict of interest and may terminate the Agreement in the event it determines a conflict exists, after it has given Contractor written notice describing the conflict.

33.   **NOTICES**. All notices required by the terms of the Agreement must be hand delivered, sent by overnight courier service, mailed by certified mail, return receipt requested, or mailed via United States mail, postage prepaid, if to Contractor at the address first above written, and if to the City at:

> Executive Director, Department of Transportation and Infrastructure, or Designee
> 201 West Colfax Avenue, Dept. 608
> Denver, Colorado 80202
>
> With a copy of any such notice to:
>
> Denver City Attorney's Office
> 1437 Bannock St., Room 353
> Denver, Colorado 80202

Notices hand delivered or sent by overnight courier are effective upon delivery. Notices sent by certified mail are effective upon receipt. Notices sent by mail are effective upon deposit with the U.S. Postal Service. The Parties may designate substitute addresses where or persons to whom

notices are to be mailed or delivered. However, these substitutions will not become effective until actual receipt of written notification.

34.   DISPUTES. All disputes between the City and Contractor arising out of or regarding the Agreement will be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. § 56-106(b)-(f). For the purposes of that administrative procedure, the City official rendering a final determination shall be the Manager as defined in this Agreement.

35.   GOVERNING LAW; VENUE. The Agreement will be construed and enforced in accordance with applicable federal law, the laws of the State of Colorado, and the Charter, Revised Municipal Code, ordinances, regulations and Executive Orders of the City and County of Denver, which are expressly incorporated into the Agreement. Unless otherwise specified, any reference to statutes, laws, regulations, charter or code provisions, ordinances, executive orders, or related memoranda, includes amendments or supplements to same. Venue for any legal action relating to the Agreement will be in the District Court of the State of Colorado, Second Judicial District. Contractor shall perform or cause to be performed all services in full compliance with all applicable laws, rules, regulations and codes of the United States, the State of Colorado; and with the Charter, ordinances, rules, regulations and Executive Orders of the City and County of Denver.

36.   NO DISCRIMINATION IN EMPLOYMENT.   In connection with the performance of work under the Agreement, the Contractor may not refuse to hire, discharge, promote, demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, ethnicity, citizenship, immigration status, gender, age, sexual orientation, gender identity, gender expression, marital status, source of income, military status, protective hairstyle, or disability. The Contractor shall insert the foregoing provision in all subcontracts.

37.   USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS. Contractor shall cooperate and comply with the provisions of Executive Order 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in the City barring Contractor from City facilities or participating in City operations.

38.   LEGAL AUTHORITY. Contractor represents and warrants that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into the Agreement. Each person signing and executing the Agreement on behalf

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of Contractor represents and warrants that he has been fully authorized by Contractor to execute the Agreement on behalf of Contractor and to validly and legally bind Contractor to all the terms, performances and provisions of the Agreement. The City shall have the right, in its sole discretion, to either temporarily suspend or permanently terminate the Agreement if there is a dispute as to the legal authority of either Contractor or the person signing the Agreement to enter into the Agreement.

39.   NO CONSTRUCTION AGAINST DRAFTING PARTY. The Parties and their respective counsel have had the opportunity to review the Agreement, and the Agreement will not be construed against any party merely because any provisions of the Agreement were prepared by a particular party.

40.   ORDER OF PRECEDENCE. In the event of any conflicts between the language of the Agreement and the exhibits, the language of the Agreement controls.

41.   SURVIVAL OF CERTAIN PROVISIONS. The terms of the Agreement and any exhibits and attachments that by reasonable implication contemplate continued performance, rights, or compliance beyond expiration or termination of the Agreement survive the Agreement and will continue to be enforceable. Without limiting the generality of this provision, Contractor's obligations to provide insurance and to indemnify the City will survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period.

42.   INUREMENT. The rights and obligations of the Parties herein set forth shall inure to the benefit of and be binding upon the Parties hereto and their respective successors and assigns permitted under this Agreement.

43.   TIME IS OF THE ESSENCE. The Parties agree that in the performance of the terms, conditions, and requirements of this Agreement, time is of the essence.

44.   FORCE MAJEURE. Neither party shall be responsible for failure to fulfill its obligations hereunder or liable for damages resulting from delay in performance as a result of war, fire, strike, riot or insurrection, natural disaster, unreasonable delay of carriers, governmental order or regulation, complete or partial shutdown of plant, unreasonable unavailability of equipment or software from suppliers, default of a Subcontractor or vendor (if such default arises out of causes beyond their reasonable control), the actions or omissions of the other party or its officers, directors, employees, agents, Contractors or elected officials and/or other substantially similar

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occurrences beyond the party's reasonable control ("Excusable Delay") herein. In the event of any such Excusable Delay, time for performance shall be extended for a period of time as may be reasonably necessary to compensate for such delay.

45. **PARAGRAPH HEADINGS**. The captions and headings set forth herein are for convenience of reference only and shall not be construed to define or limit the terms and provisions hereof.

46. **CITY EXECUTION OF AGREEMENT**. This Agreement is expressly subject to and shall not be or become effective or binding on the City until it has been fully executed by all signatories of the City and County of Denver.

47. **COUNTERPARTS OF THIS AGREEMENT**. This Agreement may be executed in counterparts, each of which shall be deemed to be an original of this Agreement.

48. **ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS**. Contractor consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

49. **ADVERTISING AND PUBLIC DISCLOSURE**. Contractor shall not include any reference to the Agreement or to services performed pursuant to the Agreement in any of Contractor's advertising or public relations materials without first obtaining the written approval of the Manager. Any oral presentation or written materials related to services performed under the Agreement will be limited to services that have been accepted by the City. Contractor shall notify the Manager in advance of the date and time of any presentation. Nothing in this provision precludes the transmittal of any information to City officials.

50. **COMPLIANCE FOR IN-SCOPE SERVICES**. Contractor covenants and agrees to comply with all information security and privacy obligations imposed by any federal, state, or local statute or regulation, or by any industry standards or guidelines, as applicable based on the

Roadway Asset Services
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classification of the data relevant to Contractor's performance under the Agreement. Such obligations may arise from:

Health Information Portability and Accountability Act (HIPAA)

IRS Publication 1075

Payment Card Industry Data Security Standard (PCI-DSS)

FBI Criminal Justice Information Service Security Addendum.

CMS Minimum Acceptable Risk Standards for Exchanges and further covenants and agrees to maintain compliance with the same when appropriate for the data and Services provided under the Agreement. Contractor further agrees to exercise reasonable due diligence to ensure that all of its service providers, agents, business partners, contractors, Subcontractors and any person or entity that may have access to City Data under this Agreement maintain compliance with and comply in full with the terms and conditions set out in this Section. Notwithstanding Force Majeure, the respective processing, handling, and security standards and guidelines referenced by this section may be revised or changed from time to time or City Data may be utilized within the Services that change the compliance requirements. If compliance requirements change, Contractor and the City shall collaborate in good faith and use all reasonable efforts to become or remain compliant as necessary under this section. If compliance is required or statutory and no reasonable efforts are available, the City at its discretion may terminate the agreement for cause.

51. **ON-LINE AGREEMENT DISCLAIMER**. Notwithstanding anything to the contrary herein, the City shall not be subject to any provision included in any terms, conditions, or agreements appearing on Contractor's or a Subcontractor's website or any provision incorporated into any click-through or online agreements related to the work unless that provision is specifically referenced in this Agreement.

52. **PROHIBITED TERMS**. Any term included in this Agreement that requires the City to indemnify or hold Contractor harmless; requires the City to agree to binding arbitration; limits Contractor's liability for damages resulting from death, bodily injury, or damage to tangible property; or that conflicts with this provision in any way shall be void ab initio. Nothing in this Agreement shall be construed as a waiver of any provision of § 24-106-109 C.R.S.

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ATTACHED EXHIBITS

EXHIBIT A – Statement of Work.

EXHIBIT B – Pricing.

EXHIBIT C - Certificate of Insurance.

EXHIBIT D - Functionality Matrix.

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Roadway Asset Services
DOTI-202160839-00

Contract Control Number: DOTI-202160839-00
Contractor Name: Roadway Asset Services

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at
Denver, Colorado as of:

SEAL   **CITY AND COUNTY OF DENVER:**

ATTEST: By:
                                            _____

_____

APPROVED AS TO FORM: **REGISTERED AND COUNTERSIGNED:**

Attorney for the City and County of Denver
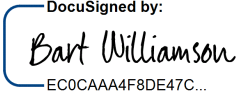
By: By:
_____   _____

                                            By:
                                            _____

Contract Control Number: DOTI-202160839-00
Contractor Name: Roadway Asset Services

DocuSigned by:

Bart Williamson

By: _____
      EC0CAAA4F8DE47C...

         Bart Williamson
Name: _____
     (please print)

        Chief Executive Officer
Title: _____
     (please print)

ATTEST: [if required]

By: _____

Name: _____
     (please print)

Title: _____
     (please print)

Statement of Work

General Scope of Work

Goals and Objectives

The City and County of Denver (CCD) Department of Transportation and Infrastructure (DOTI) is contracting with Roadway Asset Systems (RAS) as a qualified mobile asset data collection consultant to collect mobile imaging data, evaluate, calculate and deliver a complete detailed, spatially-enabled inventory of assets in the public right of way, including but not limited to the following features:

Street Pavement, Pedestrian Curb Ramps, Cross Pans, City Roadway Signs, Message Signs, Striping, Specialty Pavement Markings, Bike Lanes, Bike Infrastructure, Protective Barriers, Signalized Intersections, Signals, Signal Cabinets, Supports and Poles, Preemption, Traffic Detection, Traffic Cameras, Trees in the Public Right of Way, above ground City owned Fiber facilities, Street Lights, School Flashers, storm drains, outdoor furniture.

The City and County of Denver network is 1,971 centerline miles (5,756 lane-miles).

The goal of this project is to provide accurate inventory and assessment of the infrastructure assets within the public right-of-way.

The data collection effort will require a significant amount of fieldwork, requiring asset identification, location geo-referencing, condition assessments, and collection of photogrammetric and/or lidar data.

The project shall be comprised of the following tasks:

- Mobile data collection of street level imagery for all public City roadways
- Post-processing of raw data
- Data extraction of individual assets including geolocation, corresponding attributes, and high-resolution imagery
- Collection of severity and extent of multiple surface defects of street pavements as per ASTM D6433 PCI calculation.
- Sign inventory in accord with the Manual of Uniform Traffic Control Devices (MUTCD) and City specific sign designations.
- Delivery of all asset data products in ESRI geodatabase format (including metadata) AND any appropriate data format required by existing asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.
- Collection of inventory and basic condition assessment of sidewalk infrastructure
- Delivery of Imagery data (both raw and processed catalog).

See Attachment A – Data Collection Asset Details for detailed list of assets inventory and required schema. Delivery of all asset data products in ESRI geodatabase format (including metadata) AND any appropriate data format required by existing asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Term

The term of this contract will be from execution through 18 months after execution of the contract, with the opportunity for additional years based on availability of funds and satisfactory completion of contract deliverables.

Required Items

Task 1.0 - Project Management

Vendor Explanation and Assumptions: RAS standard practice is to budget project management per line item and not break it out.

Task 1.1 - Project Kick-Off Meeting

The Vendor's Project Manager will schedule and conduct a project kick-off meeting. At which time the City will provide collection files to the vendor. Additionally, City will provide prioritization of asset inventory items (listed in section 3.2). Project schedule will be mutually finalized at the kick-off meeting.

Task 1.2 - Bi-weekly conference call

The Vendor's Project Manager will schedule and conduct a project meeting every two weeks with the City Project Manager and any other pertinent City Staff. These meetings can be held virtually or via conference call.

Task 1.3 - Summary Report and Project Documentation

Along with Task 1.0, the Vendor will provide a draft summary report detailing its findings and conclusions. The report will include a list and description of any issues encountered such as discrepancies between the data collect file and the actual network, differences in location referencing as well as notes detailing any difficulties encountered during the data collection campaign.

After review by Denver, the Vendor will make all necessary changes and submit the final report in native, electronic format (word, etc.) and Adobe Acrobat (pdf).

Payment: $1.00 Lump Sum to be invoiced with final pay application.

Task 2.0 Pavement Condition Inventory

By utilizing properly calibrated road surface testing equipment, the vendor shall collect pavement condition data as specified in Appendix A. The equipment must be capable of:

- Recording accurate location reference as per the format applicable to each road classification. The current classification is provided in Appendix A.

- Automatically and continuously measuring pavement cracking, texture, rutting on Arterial collector and local roads.

- Automatically and continuously collecting roughness data to International Roughness Index standards on Arterial and Collector roads.

- Providing a pavement condition rating (index) based on user-defined severity/extent pavement distresses on all roads.

On Arterial and Collector roads, condition data will be collected in one lane in each direction, (preferably the outside lane). On local roads, data will be collected in a single direction.

Denver's road network is comprised of the following classifications and approximate lengths:

Arterial: 325 centerline miles (1024 lane miles) for a total of 650 linear miles to be collected;

Collector: 292 centerline miles (900 lane miles) for a total of 584 linear miles to be collected;

Local: 1355 centerline miles (3832 lane miles) for a total of 1355 linear miles to be collected;

Total: 2589 linear miles to be collected.

*All measurements are estimates, exact mileage to be confirmed at the Kick-Off Meeting

Pavement data collection will be completed utilizing standard RAC vehicle which will collect both pavement and asset data on the same vehicle. Thus, the total mileage for data collection will be the estimated 3086 test miles identified for the asset inventory.

All survey work shall be performed in conditions that ensure accurate crack detection by the vendor's equipment.

The vendor is expected to have completed this task within one hundred and twenty calendar days (120 days) of the project award notice, weather permitting.

The Vendor will be responsible for providing a quality control (QC) procedure to ensure that the pavement condition data is accurate and reproducible. The selected Vendor will provide a technical memorandum documenting the methodology for performing the assessment and presenting the data collection protocols to be used for the assessment. At its discretion, Denver may request that the selected Vendor perform pre-project trials (aka "pilot program") on selected sites to demonstrate the accuracy of its equipment and process. These sites will be selected by Denver and will not exceed a total of five miles for all road classifications. After review by Denver and written approval of the methodology, the Vendor will be authorized to proceed with the assessment.

Project Considerations

Pavement condition data is to be collected using automated equipment that will cause minimal disruption to vehicle and pedestrian traffic. At the City's request, the Vendor may have its data collection activities restricted on certain routes during peak traffic hours or special events.

The vendor agrees to secure, at or before the time of contract award, adequate insurance covering all operations, goods or services provided pursuant to this project.

Task 2.1 - Road Pavement Collection
Description: This task will entail the completion of the data collection for the road pavement condition assessment.

Measurement: Pavement data collection for City owned segments estimated 1971 center-line miles and 5756 lane miles; One pass on local roadways and two passes on arterial and collector roadways; a total of approximately 2589 linear miles to be collected.

*All measurements are estimates, exact mileage to be confirmed at the Kick-Off Meeting

Vendor Explanation and Assumptions: Includes collection of the mileage utilizing standard RAC vehicle which will collect both pavement and asset data on the same vehicle. Thus the total mileage for data collection will be the estimated 3086 test miles identified for the asset inventory.

Payment: $276,197.00 to be invoiced upon completion of data collection effort.

Task 2.2 - Data Analysis and PCI Calculation

Description: This task will entail the analysis, calculation and delivery of a complete detailed condition assessment of the pavement segments per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Pavement data collection for City owned segments estimated 1971 center-line miles and 5756 lane miles; One pass on local roadways and two passes on arterial and collector roadways; a total of approximately 2589 linear miles to be collected. The City's intention is to refine the collection files and will provide final and provide final versions during project kick-off. These revisions will most likely result in minor changes to the mileage totals.

Vendor Explanation and Assumptions: Utilizing ICC Connect AI tool to evaluate pavement in accordance with ASTM D6433

Payment: $27,760.00 upon delivery of data, not to exceed a cumulative total of 85% of the contract total (reference "invoicing" section)

Task 3 - Citywide Oriented Imagery

By utilizing properly calibrated (minimum 10 megapixels) imagery equipment, the vendor shall collect 3D, 360 degree imagery. The equipment must be capable of:

- Recording accurate, mapping grade location reference.

On Arterial and Collector roads, imagery data will be collected in one lane in each direction. On local roads, data will be collected in a single direction.

The street network for estimating the 3D imagery and asset collection includes all streets within Denver, minus the interstates, DIA streets and some freeways. Uncollectable streets will be removed during finalization, but do not represent a significant mileage.

3D Imagery and Asset Collection
Total Center-Line Miles: 2,374 miles
Total Arterial and Collector Center-Line Miles: 712 miles

Total Local Center-Line Miles: 1,662 miles
Calculated Collection Miles: 3,086 miles

All survey work shall be performed in conditions to maximize asset visibility by the vendor's equipment to reduce obscured areas.

The vendor is expected to have completed this task within one hundred and twenty calendar days (120 days) of the project award notice, weather permitting.

The Vendor will be responsible for providing a quality control (QC) procedure to ensure that the imagery data is accurate and reproducible. The Vendor will provide a technical memorandum documenting the methodology for imagery data collection and presenting the data collection protocols. At its discretion, Denver may request that the selected Vendor perform pre-project trials on selected sites to demonstrate the accuracy of its equipment and process. These sites will be selected by Denver and will not exceed a total of five miles for all road classifications. After review by Denver and written approval of the methodology, the Vendor will be authorized to proceed with the assessment.

Project Considerations

Imagery is to be collected using vehicle mounted equipment that will cause minimal disruption to vehicle and pedestrian traffic. At the City's request, the Vendor may have its data collection activities restricted on certain routes during peak traffic hours or special events.

The vendor agrees to secure, at or before the time of contract award, adequate insurance covering all operations, goods or services provided pursuant to this project.

City will provide prioritization /scheduling of asset inventory items (listed under Task 3.2) at the time of the Project Kick-Off.

Task 3.1 - Street Level 360° Imagery

Description:
This task will entail the completion of the collection of 360 degree imagery.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles. The City's intention is to refine the collection files and will provide final and provide final versions during project kick-off. These revisions will most likely result in minor changes to the mileage totals.

*All measurements are estimates, exact mileage to be confirmed at the Kick-Off Meeting

Vendor Explanation and Assumptions: Deliverable of 360 imagery from Ladybug camera from standard RAC vehicle.

Payment: $3,086.00 to be invoiced upon completion of imagery collection effort.

Task 3.2 - Required Asset Inventory
Items under section 3.2 are required asset inventory to be extrapolated from captured 360 imagery.

Task 3.2.a - Protective Barrier (guardrail, bollard, jersey barrier, etc.)

Description: This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate protective barrier data per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: Utilizing imagery from 360 Ladybug on standard RAC vehicle

Payment: $30,862.00 upon delivery of data, not to exceed a cumulative total of 85% of the contract total (reference "invoicing" section)

Task 3.2.b - Pavement Markings (linear, specialized, etc.)

Description: This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate pavement marking data per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: Utilizing imagery from 360 Ladybug on standard RAC vehicle

Payment: $66,472.00 upon delivery of data, not to exceed a cumulative total of 85% of the contract total (reference "invoicing" section)

Task 3.2.c - Signal Support Structure (mast arm, slip fit, etc.)

Description: This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate signal support structure data per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: Utilizing imagery from 360 Ladybug on standard RAC vehicle

Payment: $23,740.00 upon delivery of data, not to exceed a cumulative total of 85% of the contract total (reference "invoicing" section)

Task 3.2.d - MUTCD Sign

Description: This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate MUTCD Sign data per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: RAS expects and to extract MUTCD signs, Specialty signs, and sign supports simultaneously utilizing imagery from 360 Ladybug on standard RAC vehicle and has priced with this understanding.

Payment: $103,381.00 upon delivery of data, not to exceed a cumulative total of 85% of the contract total (reference "invoicing" section)

Task 3.2.e - Specialty Sign

Description: This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate Specialty Sign data per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: RAS expects and to extract MUTCD signs, Specialty signs, and sign supports simultaneously utilizing imagery from 360 Ladybug on standard RAC vehicle and has priced with this understanding.

Payment: $24,688.00 upon delivery of data, not to exceed a cumulative total of 85% of the contract total (reference "invoicing" section)

Task 3.2.f - Sign Support

Description: This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate Sign Support data per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: RAS expects and to extract MUTCD signs, Specialty signs, and sign supports simultaneously utilizing imagery from 360 Ladybug on standard RAC vehicle and has priced with this understanding.

Payment: $18,516.00 upon delivery of data, not to exceed a cummulitive total of 85% of the contract total (reference "invoicing" section)

Task 3.2.g - Sidewalk Inventory

Description: Originally included as an optional item, This task will entail utilizing imagery from 360 Ladybug on standard RAC vehicle to extrapolate sidewalk inventory data and basic (good, fair, poor) visual condition rating per the schema identified in Appendix A. Data must be submitted in the format specified in Appendix A. Delivery shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City.

Measurement: Asset/Imagery for all roads within the City limits (excluding interstates) estimated 2374 center-line miles; One pass on local roadways and two passes on arterial and collector roadways is an estimated 3086 collection miles.

Vendor Explanation and Assumptions: Utilizing imagery from 360 Ladybug on standard RAC vehicle

Payment: $149,562.00

Optional Items

Description: At the City's discretion, any of the optional data collection, imagery or asset inventory items may be included in this contract by issuance of a change order. Data schema for optional asset inventory items is specified in Appendix A. Pricing for optional items is contained in Appendix C. Delivery of data shall include data products in ESRI geodatabase format (including metadata) AND appropriate data format required by asset management systems (Cartegraph, dTIMS, Lucity, Infor, AssetWorks) and any other data products as requested by the City. If/when such a change order takes place, additional scope of work documentation shall provide details regarding the contracted items.

Invoicing

The vendor shall limit the amounts invoiced not to exceed 85% of the project total until the final invoice. The final 15% of the total project lump sum shall be processed for payment once all required data has been delivered, considered complete and approve by the City.

Global Required Attributes   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Feature Type
ID	Primary key		All
POINTX	Longitude decimal degrees	Double	Point
POINTY	Latitude decimal degrees	Double	Point
POINTX START	Longitude decimal degrees	Double	Line
POINTY START	Latitude decimal degrees	Double	Line
POINTX END	Longitude decimal degrees	Double	Line
POINTY END	Latitude decimal degrees	Double	Line
TIMESTAMP	Date/time timestamp	Date	All
CATEGORY	Asset category	String	All
SUBCATEGORY	Asset subcategory	String	All
ASSET_TYPE	Signal head, marking, sign, etc.	String	All

Street Pavement

Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Omit from LS	Required (Y/N)	Prioritization
ID	Primary key			Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date		Yes	1 - Must Have
CATEGORY	Asset category	String		Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String		Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String		Yes	1 - Must Have
Road	Road Name from the Master Collection FIle	Short Text		Yes	1 - Must Have
From	Start of the Raw Data Section	Double		Yes	1 - Must Have
To	End of the Raw Data Section	Double		Yes	1 - Must Have
ElementID	Element ID from the Master Collection File (Master ID)	Integer		Yes	1 - Must Have
GRADE	Longitudinal slope (%)	Double		Yes	1 - Must Have
IRIL	IRI Left Wheel Path in/mile	Double	X	Yes	1 - Must Have
IRIR	IRI Right Wheel Path in/mile	Double	X	Yes	1 - Must Have
LRUT	Left Rut Depth in inches	Double	X	Yes	1 - Must Have
RRUT	Right Rut Depth in inches	Double	X	Yes	1 - Must Have
XFALL	Cross Slope (%)	Double	X	Yes	1 - Must Have
LONG_WP_L	Length of Longitudinal Wheel Path Cracking - Low Severity in Feet	Double	X	Yes	1 - Must Have
LONG_WP_M	Length of Longitudinal Wheel Path Cracking - Moderate Severity in Feet	Double	X	Yes	1 - Must Have
LONG_WP_H	Length of Longitudinal Wheel Path Cracking - High Severity in Feet	Double	X	Yes	1 - Must Have
LONG_L	Length of non Wheel Path Longitudinal Cracking - Low Severity in Feet	Double		Yes	1 - Must Have
LONG_M	Length of non Wheel Path Longitudinal Cracking - Moderate Severity in Feet	Double		Yes	1 - Must Have
LONG_H	Length of non Wheel Path Longitudinal Cracking - High Severity in Feet	Double		Yes	1 - Must Have
POTHOLE_L	Number of Potholes - Low Severity	Integer		Yes	1 - Must Have
POTHOLE_M	Number of Potholes - Moderate Severity	Integer		Yes	1 - Must Have
POTHOLE_H	Number of Potholes - High Severity	Integer		Yes	1 - Must Have
PATCH_CNT	Count of Patches within a section	Integer		Yes	1 - Must Have
PATCH_L	Area of Patching - Low Severity in Square Feet	Double		Yes	1 - Must Have
PATCH_M	Area of Patching - Moderate Severity in Square Feet	Double		Yes	1 - Must Have
PATCH_H	Area of Patching - High Severity in Square Feet	Double		Yes	1 - Must Have
TRANS_L	Length of Transverse Cracking - Low Severity in Feet	Double		Yes	1 - Must Have
TRANS_M	Length of Transverse Cracking - Moderate Severity in Feet	Double		Yes	1 - Must Have
TRANS_H	Length of Transverse Cracking - High Severity in Feet	Double		Yes	1 - Must Have
TRANSCNT_L	Count of Low Severity Transverse Cracks	Integer		Yes	1 - Must Have
TRANSCNT_M	Count of Moderate Severity Transverse Cracks	Integer		Yes	1 - Must Have
TRANSCNT_H	Count of High Severity Transverse Cracks	Integer		Yes	1 - Must Have
FATIGUE_L	Area of Fatigue Cracking - Low Severity in square feet	Double		Yes	1 - Must Have
FATIGUE_M	Area of Fatigue Cracking - Moderate Severity in square feet	Double		Yes	1 - Must Have
FATIGUE_H	Area of Fatigue Cracking - High Severity in square feet	Double		Yes	1 - Must Have
FAULT	Faulting in inches	Double		Yes	1 - Must Have
LONGITUDE	Longitude	Double		Yes	1 - Must Have
LATITUDE	Lattitude	Double		Yes	1 - Must Have
SEALANT	Sealant Condition if sealed (Good, Fair, Poor)	Short Text		Yes	1 - Must Have
TEST_DIR	Test Direction (Primary direction or Opposite Direction to what is in Master Collection File)	Short Text		Yes	1 - Must Have
TEST_LANE	Lane that was tested (curb lane is 1)	Integer	X	Yes	1 - Must Have
TEST_CONST	Section under constructed (Y or N)	Yes/No		Yes	1 - Must Have
TEST_SPEED	TEST_SPEED	Integer		Yes	1 - Must Have
TEST_DATE	Date of the Test	Date With Time		Yes	1 - Must Have
TRAV_DESIG	Travel Designation (1 Way / 2 Way)	Short Text		Yes	1 - Must Have
NUM_LANES	Number of Lanes	Integer		Yes	1 - Must Have
PAVE_TYPE	Pavement Type	Short Text		Yes	1 - Must Have
XXINGS	At Grade Level Railroad Crossing	Integer		Yes	1 - Must Have
BUS_PADS	Bus Pad Event	Integer		Yes	1 - Must Have
CROSS_PANS	Cross Pan Event	Integer		Yes	1 - Must Have
STRUCTURES	Structure Event	Integer		Yes	1 - Must Have
OVERSTRC	Overhead Structure Event	Integer		Yes	1 - Must Have

Protective Barrier   Attachment A--Data Collection Asset Details

Attribute	category	Description	Required (Y/N)	Prioritization
BARRIER TYPE	bollard, jersey barrier, etc.	String	Yes	1 - Must Have
ID	Primary key		Yes	1 - Must Have
POINTX	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY	Latitude decimal degrees	Double	Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
BIKE_LANE_ID	Foreign key to bike lane parent		No	2 - Should Have
BOLLARD_COUNT	count of bollards	Int	No	2 - Should Have
BOLLARD_TYPE	impact recovery, pexco, etc	String	No	2 - Should Have
GUARDRAIL_TYPE	w beam, etc.	String	No	2 - Should Have
HEIGHT.AMT	Height	Int	No	2 - Should Have
HEIGHT.UNIT	mm / inches / etc	String	No	2 - Should Have
LENGTH.AMT	marking length	Int	No	2 - Should Have
LENGTH.UNIT	length units	String	No	2 - Should Have
MATERIAL	wood, steel, plastic, concrete, etc.	String	No	2 - Should Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
NOTES	notes	String	No	3 - Could Have
SPEED ZONE.AMT	max speed	Int	No	3 - Could Have
SPEED ZONE.UNIT	speed units (MPH)	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have
STREET	street	String	No	3 - Could Have
STREET TYPE	arterial, collector, etc.	String	No	3 - Could Have
TOTAL REFLECTORS	reflectors on this marking	Int	No	3 - Could Have
WIDTH.AMT	line or marking width	Int	No	3 - Could Have
WIDTH.UNIT	width units - inches, etc.	String	No	3 - Could Have

Pavement Markings--Linear Marking   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
ID	Primary key		Yes	1 - Must Have
POINTX START	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY START	Latitude decimal degrees	Double	Yes	1 - Must Have
POINTZ START	Location - Elevation	Double	Yes	1 - Must Have
POINTX END	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY END	Latitude decimal degrees	Double	Yes	1 - Must Have
POINTZ END	Location - Elevation	Double	Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
CLASSIFICATION	regulatory, school, object marker, etc.	String	Yes	1 - Must Have
COLOR	white, yellow	String	Yes	1 - Must Have
LINE SKIPS	single or double	String	Yes	1 - Must Have
LINE TYPE	solid, broken, dotted, etc	String	Yes	1 - Must Have
TYPE	center line, lane line, bulb-out, etc.	String	Yes	1 - Must Have
VARIABLE TEXT	text painted	String	Yes	1 - Must Have
HEIGHT.AMT	thickness	Int	No	2 - Should Have
HEIGHT.UNIT	mm / inches / etc	String	No	2 - Should Have
LENGTH.AMT	marking length	Int	No	2 - Should Have
LENGTH.UNIT	length units	String	No	2 - Should Have
MATERIAL	paint type, thermoplastic, etc.	String	No	2 - Should Have
NOTES	notes	String	No	3 - Could Have
PAINTED AREA.AMT	area covered	Int	No	2 - Should Have
PAINTED AREA.UNIT	area units	String	No	2 - Should Have
PAVEMENT CLASSIFICATION	asphalt, concrete, gravel, etc	String	No	2 - Should Have
SPEED ZONE.AMT	max speed	Int	No	3 - Could Have
SPEED ZONE.UNIT	speed units (MPH)	String	No	3 - Could Have
TOTAL REFLECTORS	reflectors on this marking	Int	No	3 - Could Have
WIDTH.AMT	line or marking width	Int	No	3 - Could Have
WIDTH.UNIT	width units - inches, etc.	String	No	3 - Could Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have
STREET	street	String	No	3 - Could Have
STREET TYPE	arterial, collector, etc.	String	No	3 - Could Have

Pavement Markings--Specialty Marking   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
CLASSIFICATION	regulatory, school, object marker, etc.	String	Yes	1 - Must Have
COLOR	white, yellow	String	Yes	1 - Must Have
ID	Primary key		Yes	1 - Must Have
POINTX	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY	Latitude decimal degrees	Double	Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
TYPE	center line, lane line, bulb-out, etc.	String	Yes	1 - Must Have
VARIABLE TEXT	text painted	String	Yes	1 - Must Have
HEIGHT.AMT	thickness	Int	No	2 - Should Have
HEIGHT.UNIT	mm / inches / etc	String	No	2 - Should Have
LENGTH.AMT	marking length	Int	No	2 - Should Have
LENGTH.UNIT	length units	String	No	2 - Should Have
MATERIAL	paint type, thermoplastic, etc.	String	No	2 - Should Have
PAINTED AREA.AMT	area covered	Int	No	2 - Should Have
PAINTED AREA.UNIT	area units	String	No	2 - Should Have
PAVEMENT CLASSIFICATION	asphalt, concrete, gravel, etc	String	No	2 - Should Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
NOTES	notes	String	No	3 - Could Have
SPEED ZONE.AMT	max speed	Int	No	3 - Could Have
SPEED ZONE.UNIT	speed units (MPH)	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have
STREET	street	String	No	3 - Could Have
STREET TYPE	arterial, collector, etc.	String	No	3 - Could Have
TOTAL REFLECTORS	reflectors on this marking	Int	No	3 - Could Have
WIDTH.AMT	line or marking width	Int	No	3 - Could Have
WIDTH.UNIT	width units - inches, etc.	String	No	3 - Could Have

Specialized Intersections--Support Structure   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
ID	Primary key		Yes	1 - Must Have
INTERSECTING STREET	intersecting street	String	Yes	1 - Must Have
INTERSECTION	major street/minor street	String	Yes	1 - Must Have
LAYOUT	4-way, mid-block, clover leaf, etc	String	Yes	1 - Must Have
MAJOR STREET	major street	String	Yes	1 - Must Have
MINOR STREET	minor street	String	Yes	1 - Must Have
POINTX	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY	Latitude decimal degrees	Double	Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
METER ADDRESS	signal meter box address	String	No	2 - Should Have
OPERATION TYPE	coordinated, actuated, etc	String	No	2 - Should Have
SIGNAL_COUNT	thickness	Int	No	2 - Should Have
TEAMS ID	Teams system ID	Int	No	2 - Should Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
NOTES	notes	String	No	3 - Could Have
SPEED ZONE.AMT	max speed	Int	No	3 - Could Have
SPEED ZONE.UNIT	speed units (MPH)	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have

Signs--MUTCD Sign   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
AVATAR	Sign image	Attachment	Yes	1 - Must Have
FLASHING BEACON	yes or no	String	Yes	1 - Must Have
ID	Primary key		Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
IMAGE_DATE	Photo timestamp	Date	Yes	1 - Must Have
MUTCD CODE	code identifier for sign	String	Yes	1 - Must Have
OFFSET.AMT	GPS location offset	Double	Yes	1 - Must Have
OFFSET.UNIT	GPS location offset	Double	Yes	1 - Must Have
POINTX	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY	Latitude decimal degrees	Double	Yes	1 - Must Have
POSITION	side, center, median, etc	String	Yes	1 - Must Have
SIGN DIRECTION	N,S,E,W, etc	String	Yes	1 - Must Have
SIGN TYPE	regulatory, etc.	String	Yes	1 - Must Have
SPEED ZONE.AMT	number	Int	Yes	1 - Must Have
SPEED ZONE.UNIT	mph	String	Yes	1 - Must Have
SUPPORT	post, mast arm, etc.	String	Yes	1 - Must Have
SUPPORT_ID	Foreign Key to sign support		Yes	1 - Must Have
SIGN_ID	Sign ID associated with CCD sign inventory	Int	No	2 - Should Have
ADDRESS NUMBER	street address of sign	String	No	3 - Could Have
BACKING MATERIAL	material coating on the sign	String	No	3 - Could Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
DESCRIPTION	about the sign	String	No	3 - Could Have
HEIGHT.AMT	sign dimension	Int	No	3 - Could Have
HEIGHT.UNIT	sign dimension	String	No	3 - Could Have
JURISDICTION	law enforcement jurisdiction	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
MOUNTING HEIGHT.AMT	install details	Int	No	3 - Could Have
MOUNTING HEIGHT.UNIT	install details	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
NOTES	Sign notes	String	No	3 - Could Have
SHEETING MATERIAL	metal, plastic, etc.	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have
STREET	street	String	No	3 - Could Have
STREET TYPE	arterial, collector, etc.	String	No	3 - Could Have
WIDTH.AMT	sign dimension	String	No	3 - Could Have
WIDTH.UNIT	sign dimension	String	No	3 - Could Have
REFLECTORIZATION	Reflectorization	Int	No	4 - Won't Have

Signs--Specialty Sign   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
AVATAR	Sign image	Attachment	Yes	1 - Must Have
FLASHING BEACON	yes or no	String	Yes	1 - Must Have
ID	Primary key		Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
IMAGE_DATE	Photo timestamp	Date	Yes	1 - Must Have
OFFSET.AMT	GPS location offset	Double	Yes	1 - Must Have
OFFSET.UNIT	GPS location offset	Double	Yes	1 - Must Have
POINTX	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY	Latitude decimal degrees	Double	Yes	1 - Must Have
POSITION	side, center, median, etc	String	Yes	1 - Must Have
SIGN DIRECTION	N,S,E,W, etc	String	Yes	1 - Must Have
SIGN TYPE	regulatory, etc.	String	Yes	1 - Must Have
SPEED ZONE.AMT	number	Int	Yes	1 - Must Have
SPEED ZONE.UNIT	mph	String	Yes	1 - Must Have
SUPPORT	post, mast arm, etc.	String	Yes	1 - Must Have
SUPPORT_ID	Foreign Key to sign support		Yes	1 - Must Have
SIGN_ID	Sign ID associated with CCD sign inventory	Int	No	2 - Should Have
SIGN_TEXT	Text displayed on the sign	String	No	2 - Should Have
ADDRESS NUMBER	street address of sign	String	No	3 - Could Have
BACKING MATERIAL	material coating on the sign	String	No	3 - Could Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
DESCRIPTION	about the sign	String	No	3 - Could Have
HEIGHT.AMT	sign dimension	Int	No	3 - Could Have
HEIGHT.UNIT	sign dimension	String	No	3 - Could Have
JURISDICTION	law enforcement jurisdiction	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
MOUNTING HEIGHT.AMT	install details	Int	No	3 - Could Have
MOUNTING HEIGHT.UNIT	install details	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
NOTES	Sign notes	String	No	3 - Could Have
SHEETING MATERIAL	metal, plastic, etc.	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have
STREET	street	String	No	3 - Could Have
STREET TYPE	arterial, collector, etc.	String	No	3 - Could Have
WIDTH.AMT	sign dimension	String	No	3 - Could Have
WIDTH.UNIT	sign dimension	String	No	3 - Could Have
REFLECTORIZATION	Reflectorization, retro reflectivity	Int	No	4 - Won't Have

Signs--Sign Support   Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
ID	Primary key		Yes	1 - Must Have
POINTX	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY	Latitude decimal degrees	Double	Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
SUPPORT_TYPE	squate, y-bracket, etc.	String	Yes	1 - Must Have
CONDITION	Good, fair, poor	String	No	2 - Should Have
HEIGHT.AMT	thickness	Int	No	2 - Should Have
HEIGHT.UNIT	mm / inches / etc	String	No	2 - Should Have

Pedestrian--Sidewalk

Attachment A--Data Collection Asset Details

Attribute	Description	Data Type	Required (Y/N)	Prioritization
ID	Primary key		Yes	1 - Must Have
POINTX START	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY START	Latitude decimal degrees	Double	Yes	1 - Must Have
POINTX END	Longitude decimal degrees	Double	Yes	1 - Must Have
POINTY END	Latitude decimal degrees	Double	Yes	1 - Must Have
TIMESTAMP	Date/time timestamp	Date	Yes	1 - Must Have
CATEGORY	Asset category	String	Yes	1 - Must Have
SUBCATEGORY	Asset subcategory	String	Yes	1 - Must Have
ASSET_TYPE	Signal head, marking, sign, etc.	String	Yes	1 - Must Have
TYPE	Concrete, flagstone, etc.	String	Yes	1 - Must Have
CONDITION	Good, Fair, Poor Visual Rating	String	Yes	1 - Must Have
LENGTH.AMT	length	Int	No	2 - Should Have
LENGTH.UNIT	length units	String	No	2 - Should Have
WIDTH.AMT	line or marking width	Int	No	3 - Could Have
WIDTH.UNIT	width units - inches, etc.	String	No	3 - Could Have
CITY	city	String	No	3 - Could Have
COUNCIL DISTRICT	city council	Int	No	3 - Could Have
COUNTY	county	String	No	3 - Could Have
LOCATION DESCRIPTION	notes about the location	String	No	3 - Could Have
NEIGHBORHOOD	Denver neighborhood name	String	No	3 - Could Have
STATE	colorado, etc.	String	No	3 - Could Have
STREET	street	String	No	3 - Could Have
STREET TYPE	arterial, collector, etc.	String	No	3 - Could Have

Exhibit B:

PRICING SHEET

Vendor Name: **Roadway Asset Services, LLC.**

Component	Cost - Year 1	Vendor Explanation and Assumptions
Project Management Pricing		
Please include costs for project management add rows as needed	$ 1.00	RAS standard practice is to budget project management per line item and not break it out
Please include costs for project management add rows as needed		
Please include costs for project management add rows as needed		
Please include costs for project management add rows as needed		
Subtotal	**$ 1.00**	
Required Asset Inventories Pricing		
Protective Barrier (guardrail, bollard, jersey barrier, etc.)	$ 30,862.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Pavement Markings (linear, specialized, etc.)	$ 66,472.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Signal Support Structure (mast arm, slip fit, etc.)	$ 23,740.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
MUTCD Sign	$ 103,381.00	RAS expects and to extract MUTCD signs, Specialty signs, and sign supports simultaneously utilizing imagery from 360 Ladybug on standard RAC vehicle and has priced with this understanding.
Specialty Sign	$ 24,688.00	RAS expects and to extract MUTCD signs, Specialty signs, and sign supports simultaneously utilizing imagery from 360 Ladybug on standard RAC vehicle and has priced with this understanding.
Sign Support	$ 18,516.00	RAS expects and to extract MUTCD signs, Specialty signs, and sign supports simultaneously utilizing imagery from 360 Ladybug on standard RAC vehicle and has priced with this understanding.
Sidewalk Inventory	$ 149,562.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Subtotal	**$ 417,221.00**	
Pavement Condition Inventory Pricing		
Road pavement collection	$ 276,197.00	Includes collection of the mileage breakdown listed in Addendum 2 utilizing standard RAC vehicle
Data analysis and PCI calculation	$ 27,760.00	Utilizing ICC Connect AI tool to evaluate pavement in accordance with ASTM D6433
Subtotal	**$ 303,957.00**	

10/21/2021

Exhibit B Pricing Sheet Final
Vendor Pricing Matrix

Citywide Oriented Imagery Pricing			
Street Level 360° Imagery	$	3,086.00	Deliverable of 360 imagery from Ladybug camera from standard RAC vehicle
Subtotal	**$**	**3,086.00**	
Grand Total	$	724,265.00	

Optional Pricing			
Processed LIDAR	$	369,785.00	
Bike Lane Inventory	$	37,984.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Curb Ramp/ADA Ramp Inventory	$	123,448.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Retaining Wall Inventory	$	37,984.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Signal Head Inventory	$	66,472.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Curb and Gutter Inventory	**$**	**137,692.00**	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Cross Pan Inventory	$	47,480.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Parking Meter Inventory	$	28,488.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Parking Meter Support Inventory	$	28,488.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Range Point Box/Survey Marker Inventory	$	61,724.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Fencing Inventory	$	74,781.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Guardrail Inventory	$	84,751.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Major Bridge Inventory	$	23,740.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Major Underpass Wall Inventory	$	23,740.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Minor Bridge Inventory	$	28,488.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Camera Inventory	$	74,781.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Detector Inventory	$	69,795.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Cabinet Inventory	$	69,795.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Bench Inventory	$	79,766.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Bike Rack Inventory	$	69,795.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Street Light Support Inventory	$	89,737.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Street Light Inventory	$	89,737.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Pedestrian Street Light Inventory	$	89,737.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Alley Inventory	$	47,480.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Bus Pad Inventory	$	47,480.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Bus Shelter Inventory	$	47,480.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle

Exhibit B Pricing Sheet Final
Vendor Pricing Matrix

Manhole Inventory	$	84,989.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Inlet Inventory	$	84,989.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Manhole Inventory	Duplicate		Duplicate item, priced above at $84,989
Tree Inventory	$	329,511.00	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Sidewalk Obstructions Inventory	**$**	**142,440.00**	Utilizing imagery from 360 Ladybug on standard RAC vehicle
Detailed Sidewalk Condition Index (SCI)	**$**	**365.00**	**Unit Rate per Sidewalk Linear Mile**
Total	**$**	**2,592,557.00**	

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/20/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	Cameron Brown	
Risk Strategies 12801 North Central Expy. Suite 1710 Dallas, TX 75243	PHONE (A/C, No, Ext): (214) 323-4602	FAX (A/C, No): (214) 503-8899	
	E-MAIL ADDRESS: certificatedallas@risk-strategies.com		

	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED Roadway Asset Services, LLC 6001 W Parmer Lane, Ste 370-1102 Austin TX 78727	INSURER A : Travelers Indemnity Company	25658
	INSURER B : Travelers Casualty Ins Co of America	19046
	INSURER C : XL Specialty Insurance Company	37885
	INSURER D : Travelers Property Casualty Co of Amer	25674
	INSURER E : Travelers Indemnity Co of Connecticut	25682
	INSURER F :	

COVERAGES

CERTIFICATE NUMBER: 62963176 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**COMMERCIAL GENERAL LIABILITY** ✓ CLAIMS-MADE ☐ OCCUR ✓	✓	✓	6807R281538	12/18/2020	12/18/2021	EACH OCCURRENCE	$1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$1,000,000
							MED EXP (Any one person)	$5,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY ☐ PRO-JECT ✓ LOC ☐ OTHER:						GENERAL AGGREGATE	$2,000,000
							PRODUCTS - COMP/OP AGG	$2,000,000
								$
B	**AUTOMOBILE LIABILITY** ANY AUTO ✓ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY ☐	✓	✓	BA7R282916	12/18/2020	12/18/2021	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
D	**UMBRELLA LIAB** ✓ OCCUR ✓ **EXCESS LIAB** ☐ CLAIMS-MADE ☐ DED ☐ RETENTION $	✓	✓	CUP7R283347	12/18/2020	12/18/2021	EACH OCCURRENCE	$5,000,000
							AGGREGATE	$5,000,000
								$
E	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ Y/N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	✓	UB7R28250A	12/18/2020	12/18/2021	PER STATUTE ✓ OTH-ER ☐	
							E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
C	Professional Liability		✓	DPS9966118	9/10/2020	9/10/2023	Per Claim/Annual Aggregate	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The claims made professional liability coverage is the total aggregate limit for all claims presented within the annual policy period and is subject to a deductible. Thirty (30) day notice of cancellation in favor of certificate holder on all policies.

RE: RFP 11064A DOTI Asset Inventory

CERTIFICATE HOLDER	CANCELLATION
City and County of Denver Purchasing Division 201 W. Colfax Ave. Department 304, 11th Floor Denver CO 80202	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Cameron Brown

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

Exhibit D

Requirements Traceability Matrix
RFP 11064 DOTI Asset Inventory
Vendor Information Page

Vendor Name:	Roadway Asset Services, LLC.
Vendor Contact:	Bart Williamson
Contact phone:	210-837-5249
Contact email:	bwilliamson@roadwayassetservices.com

Exhibit D

ID	Requirement Type	Requirement Name	Requirement Description	Notes	Requirement Compliance	Requirement Compliance Description	Product/Module	Vendor Response Comments
1	**Functional**		**Functional Requirements**					
1.1	Functional	Roadway network	The vendor must utilize the City's predetermined roadway network segments. The City will provide the Vendor a SHP file of the network segments.	The City will also provide directional information.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.2	Functional	Image capture and storage	The vendor must be able to capture and store high-resolution images.	The Vendor should provide the resolution size of the images they will provide. Vendor should provide equipment specifications they will use as well.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.3	Functional	Data formats	The vendor must produce data in appropriate format and make available for consumption to the 4 major asset management systems currently utilized at the City and County of Denver. Vendor must contact Asset Management consultants to verify the data will be consumable.	Note: the 4 current systems are: •BITMS: Management of pavements, alleys, pedestrian curb ramps and curb and gutter infrastructure. •Cartegraph: Management of transportation / traffic related assets •Lucity: Management of wastewater related assets •Infor: Management of bridges and street lights Tree license	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.4	Functional	Location accuracy	The equipment must be capable of recording accurate location reference as applicable to each asset classification.	< 1 ft accuracy Vendor must address specific accuracy achievable	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.5	Functional	Metadata	The vendor must be able to capture metadata related to the following: - Description (type, shape, color, etc) - Location - Relative quality - Texture - Material - Time/Date Stamp	For reference of metadata required, please see Appendix: DOTI Data Collection Asset Details Excel file. Vendor must address any specific data fields that they are unable to capture.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.6	Functional	Measurement accuracy	The equipment must automatically and continuously measure the severity and extent of pavement cracking, texture, rutting, patching and potholes on all public roads. The equipment must also collect roughness data to International Roughness Index standards on Arterial and Collector roads.	Vendor should provide equipment specifications they will use.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.7	Functional	Segmentation	Data shall be compiled and presented in segmentation matching individual block segments defined by the City centerline data and centerline master ID. This data will be provided by CCD in the SHP file.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.8	Functional	Data collection	On Arterial and Collector roads, condition data will be collected in one lane in each direction, (preferably the outside lane). On Local roads, data will be collected in a single direction.	Travel direction / heading shall be included in meta data	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is standard practice for our projects
1.9	Functional	Data Quality	All survey work shall be performed in conditions that ensure accurate feature recognition, accurate crack detection by the vendor's equipment, and clear visible images.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is standard practice for our projects
1.10	Functional	Data Hosting	Vendor will provide information that will be owned by CCD.	Vendor should describe their methods for storing/hosting information.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is standard practice for our projects
1.11	Functional	Data Verification	Vendor/solution must allow the City and our Asset Management systems to validate and verify the data that was collected before awarding the contract.	2nd step - CCD will provide the vendor with documentation for a sample run. The Vendor must identify any limitations that exist or any inabilities they would have in completing the requested sample run and providing the requested data	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding	<Please use this space to note what product/module of the solution is required to address the requirement.>	This is standard practice for our projects
1.12	Functional	Asset Inventory Requirements	Vendor should describe their ability to capture the required and optional asset types referenced in the "Asset Inventory Requirements" Tab	Please indicate in column G in the "Asset Inventory Requirements" Tab if you are capable of meeting the requirement for each asset type.	Out-of-the-Box			
2	**Preferred**		**Functional, Preferred**					
2.1	Preferred	Collection Methods	Vendor will describe in detail their recommended methods and technologies for completing this data collection effort.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
3	**Reporting**		**Business Intelligence and Reporting**					
3.1	Reporting	Data Reporting	The system must provide reporting/metrics for items like data collection completion percentage, how many miles completed, etc.	Progress report. Projected time to completion, problems or obstacles, etc.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
4	**Non-Functional**		**Interoperability**					
4.1	Non-Functional	SQL Database Integration	The data must integrate with a SQL database for all data storage.	Database integration must be compatible with Denver systems current state and "future"). AWS, SQL, etc. Vendor must describe file format deliverable they intend to deliver.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
4.2	Non-Functional	Data transfer / integration	Vendor must describe transfer/integration process including but not limited to - api, csv export, direct database access		Out-of-the-Box			
4.3	Non-Functional	GIS Integration	The data must be able to integrate with city hosted ArcGIS databases.	For reference of metadata required, please see Appendix X: DOTI Data Collection Details. Vendor must address any specific data fields that they are unable to capture. All data shall include lat, long, (z - as applicable) and colo state plane?	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
5	**Non-Functional**		**Maintainability**					
5.1	Non-Functional	Data Modification	CCD admin users must have access to the data and the ability to modify data provided as needed.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
6	**Non-Functional**		**Compliance**					
6.1	Non-Functional	System and Organization Controls (SOC) 1 - Audit Controls Report	System and Organization Controls (SOC) Reports are independent third-party examination reports that demonstrate how an organization achieves key compliance controls and objectives. The purpose of these reports is to help you and your auditors understand the controls established to support operations and compliance. Demonstration of Compliance: The vendor will provide certification by a third-party auditor.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
6.2	Non-Functional	System and Organization Controls (SOC) 2 - Security, Availability & Confidentiality Report	System and Organization Controls (SOC) Reports are independent third-party examination reports that demonstrate how an organization achieves key compliance controls and objectives. Demonstration of Compliance: The vendor will provide certification by a third-party auditor.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
7	**Transition**		**Data Retention**					
7.1	Transition	Data Retention	Old imagery data must be archived. The old image data must not be discarded when the new image data is collected. Vendor must describe their processes for archiving data.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
8	**Transition**		**Support**					
8.1	Transition	Support	The Vendor will describe their experience providing a fully managed solution, and detail what support is included in the out of the box solution as well as duration. Please also list any support areas that are included by the Vendor at an additional cost or not included that the City would be expected to provide.	Vendor should provide any additional details on Professional Services offerings. Vendor should also describe their process for resolving issues with data tranfers.	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
9	**Transition**		**Training**					
9.1	Transition	Training	The Vendor will provide details around what is included in their training package. This must include system administrative user training, train the trainer sessions, end user training materials and ongoing training for upgrades, changes, etc.		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
10	**Transition**		**Documentation**					
10.1	Transition	Documentation	The Contractor must develop and provide to CCD all system documentation at the time the system is presented for final acceptance. The Contractor must provide complete, well-written, and accurate technical, system, and user documentation. For any custom developed applications, the Contractor also must provide complete Source Code for such. The documentation must be easy to follow, with each element, screen, and report fully documented. This documentation must be customized to reflect the windows, screens, element names, modified and configured functionality, and other distinguishing characteristics, and site-specific configuration applicable to CCD. All documentation must be available in both paper and electronic form (in a format acceptable to CCD). As part of this effort, the Contractor must explain and pursue appropriate options for providing parts or all of the documentation online. The documentation must be updated throughout the course of the Project		Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	<Please use this space to note what product/module of the solution is required to address the requirement.>	<Please use this space to expand on your response and/or reference supporting documentation (e.g. file attachments, online information, etc.) on how your solution meets the requirement.> <Note: If your solution only partially meets the requirement, please indicate clearly and specifically the elements of the requirement it does not meet.>
	Transition	Data Documentation	The vendor must provide complete arcGIS metadata for GIS layers and supporting data dictionary.					

Exhibit D

Asset Category	Asset Subcategory	Child Asset	Feature Type	Prioritization	Requirement Compliance	Requirement Compliance Description	Notes	Vendor Response Comments
Transportation and Mobility Infrastructure	Barriers	Protective Barrier	Point/Line	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Pavement Markings	Linear Marking	Polyline	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Pavement Markings	Specialty Marking	Point	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signalized Intersections	Support Structure	Point	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signs	MUTCD Sign	Point	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signs	Sign Support	Point	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signs	Specialty Sign	Point	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Streets	Road Pavement	Polyline	1 - Must Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This asset is required for this project. Please indicate if you can capture this asset and include the pricing for this in your response to this RFP.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Bike	Bike Lane	Polyline	2 - Should Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Pedestrian	Curb Ramp/ADA Ramp	Point	2 - Should Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Retaining Walls	Retaining Wall	Polyline	2 - Should Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signalized Intersections	Signal Head	Point	2 - Should Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Streets	Curb and Gutter	Polyline	2 - Should Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Parking	Parking Meter	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Parking	Parking Meter Support	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
ROW Survey Infrastructure	Survey Monuments	Range Point Box/Survey Marker	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Barriers	Fencing	Polyline	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Barriers	Guardrail	Polyline	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Bridge Structures	Major Bridge	Polygon	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Bridge Structures	Major Underpass Wall	Polyline	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Bridge Structures	Minor Bridge	Polygon	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	ITS - Traffic Control Devices	Camera	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	ITS - Traffic Control Devices	Detector	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signalized Intersections	Cabinet	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.

Exhibit D

Category	Subcategory	Asset	Geometry	Priority	Requirement Type	Requirement	Notes	Standard Practice
Transportation and Mobility Infrastructure	Street Furniture	Bench	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Street Furniture	Bike Rack	Point/Line	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Street Lights	Street Light Support	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Street Lights	Street Light	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Street Furniture	Pedestrian Street Light	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Streets	Alley	Polyline	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Transit Amenities	Bus Pad	Point/Polygon	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Transit Amenities	Bus Shelter	Point/Polygon	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Sanitary Sewer components	Manhole	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Storm Sewer components	Inlet	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Storm Sewer components	Manhole	Point	3 - Could Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is an optional asset for this project. Please indicate if you can capture this asset and provide the cost that would be associated to adding this asset to the project.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Pedestrian	Sidewalk	Polyline	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signalized Intersections	Controller	Point	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Transportation and Mobility Infrastructure	Signalized Intersections	Monitor	Point	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Sanitary Sewer components	Easement	Polygon	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Storm Sewer components	Easement	Polygon	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Storm Sewer components	Green Infrastructure Facility	Polygon	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Storm Sewer components	Retention/Detention Basin	Polygon	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.
Wastewater Infrastructure	Storm Sewer components	Water Quality Facility	Polygon	4 - Wont Have	Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.	This is not required for this project and should not be included in the provided pricing estimates.	These are standard attributes and practices for ROW assets we collect and extract for information on a regular basis.

Exhibit D

Prioritization Type	Prioritization Description
Must Have	Requirements labeled as "Must Have" are critical to the current delivery timebox in order for it to be a success. If even one "Must Have" requirement is not included, the project delivery should be considered a failure (note: requirements can be downgraded from "Must Have", by agreement with all relevant stakeholders; for example, when new requirements are deemed more important).
Should Have	Requirements labeled as "Should Have" are important but not necessary for delivery in the current delivery timebox. While "Should Have" requirements can be as important as "Must Have", they are often not as time-critical or there may be another way to satisfy the requirement, so that it can be held back until a future delivery timebox.
Could Have	Requirements labeled as "Could Have" are desirable but not necessary, and could improve user experience or customer satisfaction for little development cost. These will typically be included if time and resources permit.
Won't Have	Requirements labeled as "Won't Have" have been agreed by stakeholders as the least-critical, lowest-payback items, or not appropriate at that time. As a result, "Won't Have" requirements are not planned into the schedule for the next delivery timebox. "Won't Have" requirements are either dropped or reconsidered for inclusion in a later timebox. (Note: occasionally the term Would like to have is used; however, that usage is incorrect, as this last priority is clearly stating something is outside the scope of delivery).

Exhibit D

RequirementCompliance	Description
Cannot Meet	The product cannot meet the requirement "Out-of-the-Box", "With Configuration", "With Custom Programming" or with a "Future Release".
Future Release	The current version of the solution cannot meet the requirement "Out of the Box" or "With Configuration" but will be able to with a scheduled, future release of the product.
Out-of-the-Box	The solution meets the requirement as is, "out-of-the-box" functionality with no configuration or custom programming/coding.
With Configuration	The solution can meet the requirement by arranging the functional parameters that are already inherent in the product – and not by changing the product's source code – so that it functions in a way that meets the City's specific business needs.
With Custom Programming	The solution can meet the requirement only by modifying the product's source code (changing or adding new code) to enable it to do what it was not originally able to do.