

MASTER SERVICES AGREEMENT #2025-018 Artificial Intelligence (AI) Solutions for Public Sector Entities

THIS MASTER SERVICES AGREEMENT ("<u>Agreement</u>"), effective the last date of signed approval ("<u>Effective Date</u>"), is entered into by and between the North Central Texas Council of Governments ("<u>NCTCOG</u>"), a Texas political subdivision and non-profit corporation, with offices located at 616 Six Flags Drive, Arlington, TX 76011, and

GridMatrix, Inc. ("<u>Contractor</u>") 801 Barton Springs Rd., Suite 07-117 Austin, TX 78704

ARTICLE I RETENTION OF THE CONTRACTOR

1.1 This Agreement defines the terms and conditions upon which the Contractor agrees to provide Artificial Intelligence (AI) Solutions for Public Sector Entities (hereinafter, "Services") to governmental entities participating in the TXShare program (hereinafter "Participating Entities"). The Contractor is being retained to provide services described below to Participating Entities based on the Contractor's demonstrated competence and requisite qualifications to perform the scope of the services described herein and in the Request for Proposals #2025-018 (hereinafter, "RFP"). The Contractor demonstrated they have the resources, experience, and qualifications to perform the described services, which is of interest to Participating Entities and was procured via the RFP. NCTCOG agrees to and hereby does retain the Contractor, as an independent contractor, and the Contractor agrees to provide services to Participating Entities, in accordance with the terms and conditions provided in this Agreement and consistent with Contractor's response to the RFP.

ARTICLE II SCOPE OF SERVICES

- 2.1 The Contractor will provide Services described in a written Purchase Order issued by NCTCOG or a SHARE Participating Entity. Any such Purchase Order is hereby incorporated by reference and made a part of this Agreement and shall be subject to the terms and conditions in this Agreement. In the event of a conflict between any term or provision in this Agreement and any term or provision in a Purchase Order, the term or provision in this Agreement shall control unless the conflicting term or provision in this Agreement is referenced, and expressly stated not to apply, in such Purchase Order.
- 2.2 All Services rendered under this Agreement will be performed by the Contractor: i) with due care; ii) in accordance with generally prevailing industry standards; iii) in accordance with Participating Entities' standard operating procedures and applicable policies, as may be amended from time to time; and iv) in compliance with all applicable laws, government regulatory requirements, and any other written instructions, specifications, guidelines, or requirements provided by NCTCOG and/or Participating Entities.
- 2.3 Any agreed-upon changes to a Purchase Order shall be set forth in a subsequent Purchase Order amendment. Contractor will not implement any changes or any new Services until a Purchase Order has been duly executed by Participating Entity. For the avoidance of doubt, the Contractor acknowledges that Participating Entity is under no obligation to execute a Purchase Order. Participating

Entity shall not be liable for any amounts not included in a Purchase Order in the absence of a fully executed amendment of Purchase Order.

2.4 Percentage discounts for items in Appendix A represent the minimum discounts provided for each item withing the category offered by the Contractor. Contractor and Participating Entity may mutually agree to a greater percentage discount for any item covered under this agreement.

2.5 NCTCOG Obligations

2.5.1 NCTCOG shall make available a contract page on its TXShare.org website which will include contact information for the Contractor(s).

2.6 Participating Entity Obligations.

- 2.6.1 In order to utilize the Services, Participating Entities must have executed a Master Interlocal Agreement for TXShare with NCTCOG. This agreement with the Participating Entity will define the legal relationship between NCTCOG and the Participating Entity.
- 2.6.2 In order to utilize the Services, Participating Entities must execute a Purchase Order with the Contractor. This agreement with the Participating Entity will define the Services and costs that the Participating Entity desires to have implemented by the Contractor.

2.7 Contractor Obligations.

- 2.7.1 Contractor must be able to deliver, perform, install, and implement services with the requirements and intent of RFP #2025-018.
- 2.7.2 If applicable, Contractor shall provide all necessary material, labor and management required to perform this work. The scope of services shall include, but not be limited to, items listed in Appendix A.
- 2.7.3 Contractor agrees to market and promote the use of the SHARE awarded contract whenever possible among its current and solicited customer base. Contractor shall agree to follow reporting requirements in report sales made under this Master Services Agreement in accordance with Section 4.2.

ARTICLE III TERM

- 3.1 This Agreement will commence on the Effective Date and remain in effect for an initial term ending on May 31, 2027 (the "Term"), unless earlier terminated as provided herein. This Agreement will automatically be renewed, unless NCTCOG explicitly desires otherwise, for up to three (3) additional one (1) year terms through May 31, 2030.
- 3.2 Termination. NCTCOG and/or Participating Entities may terminate this Agreement and/or any Purchase Order to which it is a signatory at any time, with or without cause, upon thirty (30) days' prior written notice to Contractor. Upon its receipt of notice of termination of this Agreement or Purchase Order, Contractor shall follow any instructions of NCTCOG respecting work stoppage. Contractor shall cooperate with NCTCOG and/or Participating Entities to provide for an orderly conclusion of the Services. Contractor shall use its best efforts to minimize the amount of any non-cancelable obligations and shall assign any contracts related thereto to NCTCOG or Participating Entity at its request. If NCTCOG or Participating Entity elects to continue any activities underlying a terminated Purchase Order after termination, Contractor shall cooperate with NCTCOG or Participating Entity to provide for an orderly transfer of Contractor's responsibilities with respect to such Purchase Order to NCTCOG or Participating Entity. Upon the effective date of any such termination, the Contractor shall submit a final invoice for payment in accordance with Article IV, and NCTCOG or Participating Entity shall pay such amounts as are due to Contractor through the effective date of termination. NCTCOG or Participating Entity shall only be liable for payment of services rendered before the effective date of termination. If Agreement is terminated, certain reporting requirements identified in this Agreement shall survive termination of this Agreement.

- 3.2.1 <u>Termination for Convenience</u>: Either party may terminate the agreement for its convenience in whole or in part at any time without cause, upon 30 days written notice. Upon termination for convenience, the contractor will be entitled to payment for goods or services satisfactorily performed or delivered.
- 3.2.2 <u>Termination for Cause</u>: Either party may immediately terminate this Agreement if the other party breaches its obligations specified within this Agreement, and, where capable of remedy, such breach has not been materially cured within thirty (30) days of the breaching party's receipt of written notice describing the breach in reasonable detail.
- 3.2.3 <u>Termination for Breach</u>: Upon any material breach of this Agreement by either party, the non-breaching party may terminate this Agreement upon twenty (20) days written notice to the breaching party. The notice shall become effective at the end of the twenty (20) day period unless the breaching party cures such breach within such period.

ARTICLE IV COMPENSATION

- 4.1 **Invoices.** Contractor shall submit an invoice to the ordering Participating Entity upon receipt of an executed Purchase Order and after completion of the work, with Net 30 payment terms. Costs incurred prior to execution of this Agreement are not eligible for reimbursement. There shall be no obligation whatsoever to pay for performance of this Agreement from the monies of the NCTCOG or Participating Entities, other than from the monies designated for this Agreement and/or executed Purchase Order. Contractor expressly agrees that NCTCOG shall not be liable, financial or otherwise, for Services provided to Participating Entities.
- 4.2 **Reporting.** NCTCOG intends to make this Agreement available to other governmental entities through its TXShare cooperative purchasing program. NCTCOG has contracted Civic Marketplace as a digital marketplace for selected TXShare awarded contracts and to serve as NCTCOG's collector of reports and remunerative fees referenced in Section 5.2 of the Master Services Agreement. Unless otherwise directed in writing by NCTCOG, Contractor shall submit to Civic Marketplace on a calendar quarterly basis a report that identifies any new client Participating Entities, the date(s) and order number(s), and the total contracted value of service(s) that each Participating Entity has purchased and paid in full under this Master Service Agreement. Reporting and invoices should be submitted to:

Civic Marketplace, Inc. 6502 Glen Abbey Abilene, TX 79606

Email: support@civicmarketplace.com

ARTICLE V SERVICE FEE

5.1 Explanation. NCTCOG will make this Master Service Agreement available to other governmental entities, Participating Entities, and non-profit agencies in Texas and the rest of the United States through its SHARE cooperative purchasing program. The Contractor is able to market the Services under this Agreement to any Participating Entity with emphasis that competitive solicitation is not required when the Participating Entity purchases off of a cooperative purchasing program such as SHARE. However, each Participating Entity will make the decision that it feels is in compliance with its own purchasing requirements. The Contractor realizes substantial efficiencies through their ability to offer pricing through the SHARE Cooperative and that will increase the sales opportunities as well as reduce the need to repeatedly respond to Participating Entities' Requests for Proposals. From these efficiencies, Contractor will pay an administrative fee to SHARE calculated as a percentage of sales processed through the SHARE Master Services Agreement. This administrative fee is not an added cost to SHARE participants. This administrative fee covers the costs of solicitation of the contract, marketing and facilitation, as well as offsets expenses incurred by SHARE.

- 5.2 **Administrative Fee.** NCTCOG will utilize an administrative fee, in the form of a percent of cost that will apply to all contracts between awarded contractor and NCTCOG or participants resulting from this solicitation. The administrative fee will be remitted by the contractor to Civic Marketplace on a quarterly basis, along with required quarterly reporting. The remuneration fee for this program will be 2.5% on sales.
- 5.3 **Setup and Implementation.** NCTCOG will provide instruction and guidance as needed to the Contractor to assist in maximizing mutual benefits from marketing these Services through the SHARE purchasing program.

ARTICLE VI RELATIONSHIP BETWEEN THE PARTIES

6.1 Contractual Relationship. It is understood and agreed that the relationship described in this Agreement between the Parties is contractual in nature and is not to be construed to create a partnership or joint venture or agency relationship between the parties. Neither party shall have the right to act on behalf of the other except as expressly set forth in this Agreement. Contractor will be solely responsible for and will pay all taxes related to the receipt of payments hereunder and shall give reasonable proof and supporting documents, if reasonably requested, to verify the payment of such taxes. No Contractor personnel shall obtain the status of or otherwise be considered an employee of NCTCOG or Participating Entity by virtue of their activities under this Agreement.

ARTICLE VII REPRESENTATION AND WARRANTIES

- 7.1 **Representations and Warranties**. Contractor represents and warrants that:
 - 7.1.1 As of the Effective Date of this Agreement, it is not a party to any oral or written contract or understanding with any third party that is inconsistent with this Agreement and/or would affect the Contractor's performance under this Agreement; or that will in any way limit or conflict with its ability to fulfill the terms of this Agreement. The Contractor further represents that it will not enter into any such agreement during the Term of this Agreement;
 - 7.1.2 NCTCOG is prohibited from making any award or permitting any award at any tier to any party which is debarred or suspended or otherwise excluded from, or ineligible for, participation in federal assistance programs under Executive Order 12549, Debarment and Suspension. Contractor and its subcontractors shall include a statement of compliance with Federal and State Debarment and suspension regulations in all Third-party contracts.
 - 7.1.3 Contractor shall notify NCTCOG if Contractor or any of the Contractor's sub-contractors becomes debarred or suspended during the performance of this Agreement. Debarment or suspension of the Contractor or any of Contractor's sub-contractors may result in immediate termination of this Agreement.
 - 7.1.4 Contractor and its employees and sub-contractors have all necessary qualifications, licenses, permits, and/or registrations to perform the Services in accordance with the terms and conditions of this Agreement, and at all times during the Term, all such qualifications, licenses, permits, and/or registrations shall be current and in good standing.
 - 7.1.5 Contractor shall, and shall cause its representatives to, comply with all municipal, state, and federal laws, rules, and regulations applicable to the performance of the Contractor's obligations under this Agreement.

ARTICLE VIII CONFIDENTIAL INFORMATION AND OWNERSHIP

8.1 **Confidential Information.** Contractor acknowledges that any information it or its employees, agents, or subcontractors obtain regarding the operation of NCTCOG or Participating Entities, its products, services, policies, customer, personnel, and other aspect of its operation ("Confidential Information") is proprietary and confidential, and shall not be revealed, sold, exchanged, traded, or disclosed to any person, company, or other entity during the period of the Contractor's retention hereunder or at any time thereafter without the express written permission of NCTCOG or Participating Entity.

Notwithstanding anything in this Agreement to the contrary, Contractor shall have no obligation of confidentiality with respect to information that (i) is or becomes part of the public domain through no act or omission of Contractor; (ii) was in Contractor's lawful possession prior to the disclosure and had not been obtained by Contractor either directly or indirectly from the NCTCOG or Participating Entity; (iii) is lawfully disclosed to Contractor by a third party without restriction on disclosure; (iv) is independently developed by Contractor without use of or reference to the NCTCOG's Participating Entity's Confidential Information; or (v) is required to be disclosed by law or judicial, arbitral or governmental order or process, provided Contractor gives the NCTCOG or Participating Entity prompt written notice of such requirement to permit the NCTCOG or Participating Entity to seek a protective order or other appropriate relief. Contractor acknowledges that NCTCOG and Participating Entities must strictly comply with applicable public information laws, in responding to any request for public information. This obligation supersedes any conflicting provisions of this Agreement.

8.2 **Ownership.** No title or ownership rights to any applicable software are transferred to the NCTCOG by this agreement. The Contractor and its suppliers retain all right, title and interest, including all copyright and intellectual property rights, in and to, the software (as an independent work and as an underlying work serving as a basis for any improvements, modifications, derivative works, and applications NCTCOG may develop), and all copies thereof. All final documents, data, reports, information, or materials are and shall at all times be and remain, upon payment of Contractor's invoices therefore, the property of NCTCOG or Participating Entity and shall not be subject to any restriction or limitation on their future use by, or on behalf of, NCTCOG or Participating Entity, except otherwise provided herein. Subject to the foregoing exception, if at any time demand be made by NCTCOG or Participating Entity for any documentation related to this Agreement and/or applicable Purchase Orders for the NCTCOG and/or any Participating Entity, whether after termination of this Agreement of otherwise, the same shall be turned over to NCTCOG without delay, and in no event later than thirty (30) days after such demand is made. Contractor shall have the right to retain copies of documentation, and other items for its archives. If for any reason the foregoing Agreement regarding the ownership of documentation is determined to be unenforceable, either in whole or in part, the Contractor hereby assigns and agrees to assign to NCTCOG all rights, title, and interest that the Contractor may have or at any time acquire in said documentation and other materials, provided that the Contractor has been paid the aforesaid.

ARTICLE IX GENERAL PROVISIONS

9.1 **Notices.** All notices from one Party to another Party regarding this Agreement shall be in writing and delivered to the addresses shown below:

If to NCTCOG: North Central Texas Council of Governments

P.O. Box 5888

Arlington, TX 76005-5888 Attn: Purchasing Agent Phone Number: 817-704-5674

elittrell@nctcog.org

If to Contractor: GridMatrix, Inc.

801 Barton Springs Rd., Suite 07-117

Austin, TX 78704
Attn: Nicholas D'Andre
Phone: 650-272-9249
Email: nick@gridmatrix.com

The above contact information may be modified without requiring an amendment to the Agreement.

- 9.2 **Tax.** NCTCOG and several participating entities are exempt from Texas limited sales, federal excise and use tax, and does not pay tax on purchase, rental, or lease of tangible personal property for the organization's use. A tax exemption certificate will be issued upon request.
- 9.3 Indemnification. Contractor shall defend, indemnify, and hold harmless NCTCOG and Participating Entities, NCTCOG's affiliates, and any of their respective directors, officers, employees, agents, subcontractors, successors, and assigns from any and all suits, actions, claims, demands, judgments, liabilities, losses, damages, costs, and expenses (including reasonable attorneys' fees and court costs) (collectively, "Losses") arising out of or relating to: (i) Services performed and carried out pursuant to this Agreement; (ii) breach of any obligation, warranty, or representation in this Agreement, (iii) the negligence or willful misconduct of Contractor and/or its employees or subcontractors; or (iv) any infringement, misappropriation, or violation by Contractor and/or its employees or subcontractors of any right of a third party; provided, however, that Contractor shall have no obligation to defend, indemnify, or hold harmless to the extent any Losses are the result of NCTCOG's or Participating Entities' gross negligence or willful misconduct.
- 9.4 **Limitation of Liability.** In no event shall either party be liable for special, consequential, incidental, indirect or punitive loss, damages or expenses arising out of or relating to this Agreement, whether arising from a breach of contract or warranty, or arising in tort, strict liability, by statute or otherwise, even if it has been advised of their possible existence or if such loss, damages or expenses were reasonably foreseeable.

Notwithstanding any provision hereof to the contrary, neither party's liability shall be limited by this Article with respect to claims arising from breach of any confidentiality obligation, arising from such party's infringement of the other party's intellectual property rights, covered by any express indemnity obligation of such party hereunder, arising from or with respect to injuries to persons or damages to tangible property, or arising out of the gross negligence or willful misconduct of the party or its employees.

- 9.5 Insurance. At all times during the term of this Agreement, Contractor shall procure, pay for, and maintain, with approved insurance carriers, the minimum insurance requirements set forth below, unless otherwise agreed in a Purchase Order between Contractor and Participating Entities. Further, Contractor shall require all contractors and sub-contractors performing work for which the same liabilities may apply under this Agreement to do likewise. All subcontractors performing work for which the same liabilities may apply under this contract shall be required to do likewise. Contractor may cause the insurance to be effected in whole or in part by the contractors or sub-contractors under their contracts. NCTCOG reserves the right to waive or modify insurance requirements at its sole discretion.
 - 9.5.1 Workers' Compensation: Statutory limits and employer's liability of \$100,000 for each accident or disease.
 - 9.5.2 Commercial General Liability:
 - 9.5.2.1 Required Limits:

\$1,000,000 per occurrence;

\$3,000,000 Annual Aggregate

9.5.2.2 Commercial General Liability policy shall include:

9.5.2.2.1 Coverage A: Bodily injury and property damage;

- 9.5.2.2.2 Coverage B: Personal and Advertising Injury liability;
 9.5.2.2.3 Coverage C: Medical Payments;
 9.5.2.2.4 Products: Completed Operations;
- 9.5.2.2.5 Fire Legal Liability;
- 9.5.2.3 Policy coverage must be on an "occurrence" basis using CGL forms as approved by the Texas State Board of Insurance.
- 9.5.3 Business Auto Liability: Coverage shall be provided for all owned hired, and non-owned vehicles. Required Limit: \$1,000,000 combined single limit each accident.
- 9.5.4 Professional Errors and Omissions liability:
 - 9.5.4.1 Required Limits:

\$1,000,000 Each Claim

\$1,000,000 Annual Aggregate

- 9.6 **Conflict of Interest.** During the term of this Agreement, and all extensions hereto and for a period of one (1) year thereafter, neither party, shall, without the prior written consent of the other, directly or indirectly, whether for its own account or with any other persons or entity whatsoever, employ, solicit to employ or endeavor to entice away any person who is employed by the other party.
- 9.7 **Force Majeure.** It is expressly understood and agreed by both parties to this Agreement that, if the performance of any provision of this Agreement is delayed by force majeure, defined as reason of war, civil commotion, act of God, governmental restriction, regulation or interference, fire, explosion, hurricane, flood, failure of transportation, court injunction, or any circumstances which are reasonably beyond the control of the party obligated or permitted under the terms of this Agreement to do or perform the same, regardless of whether any such circumstance is similar to any of those enumerated herein, the party so obligated or permitted shall be excused from doing or performing the same during such period of delay, so that the period of time applicable to such requirement shall be extended for a period of time equal to the period of time such party was delayed. Each party must inform the other in writing within a reasonable time of the existence of such force majeure.
- 9.8 **Ability to Perform.** Contractor agrees promptly to inform NCTCOG of any event or change in circumstances which may reasonably be expected to negatively affect the Contractor's ability to perform its obligations under this Agreement in the manner contemplated by the parties.
- 9.9 **Availability of Funding.** This Agreement and all claims, suits, or obligations arising under or related to this Agreement are subject to and limited by the receipt and availability of funds which are received from the Participating Entities by NCTCOG dedicated for the purposes of this Agreement.
- 9.10 **Governing Law.** This Agreement will be governed by and construed in accordance with the laws of the State of Texas, United States of America. The mandatory and exclusive venue for the adjudication or resolution of any dispute arising out of this Agreement shall be in Tarrant County, Texas.
- 9.11 **Waiver.** Failure by either party to insist on strict adherence to any one or more of the terms or conditions of this Agreement, or on one or more occasions, will not be construed as a waiver, nor deprive that party of the right to require strict compliance with the same thereafter.
- 9.12 **Entire Agreement.** This Agreement and any attachments/addendums, as provided herein, constitutes the entire agreement of the parties and supersedes all other agreements, discussions, representations or understandings between the parties with respect to the subject matter hereof. No amendments hereto, or waivers or releases of obligations hereunder, shall be effective unless agreed to in writing by the parties hereto.

- 9.13 **Assignment.** This Agreement may not be assigned by either Party without the prior written consent of the other Party.
- 9.14 **Severability.** In the event any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision(s) hereof, and this Agreement shall be revised so as to cure such invalid, illegal, or unenforceable provision(s) to carry out as near as possible the original intents of the Parties.
- 9.15 **Amendments.** This Agreement may be amended only by a written amendment executed by both Parties, except that any alterations, additions, or deletions to the terms of this Agreement, which are required by changes in Federal and State law or regulations or required by the funding source, are automatically incorporated into this Agreement without written amendment hereto and shall become effective on the date designated by such law or regulation.
- 9.16 **Dispute Resolution.** The parties to this Agreement agree to the extent possible and not in contravention of any applicable State or Federal law or procedure established for dispute resolution, to attempt to resolve any dispute between them regarding this Agreement informally through voluntary mediation, arbitration or any other local dispute mediation process, including but not limited to dispute resolution policies of NCTCOG, before resorting to litigation.
- 9.17 **Publicity.** Contractor shall not issue any press release or make any statement to the media with respect to this Agreement or the services provided hereunder without the prior written consent of NCTCOG.
- 9.18 **Survival.** Rights and obligations under this Agreement which by their nature should survive will remain in effect after termination or expiration hereof.

ARTICLE X ADDITIONAL REQUIREMENTS

- 10.1 **Equal Employment Opportunity**. Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity, or national origin. Contractor shall take affirmative actions to ensure that applicants are employed, and that employees are treated, during their employment, without regard to their race, religion, color, sex, sexual orientation, gender identity, or national origin. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 10.2 **Davis-Bacon Act.** Contractor agrees to comply with all applicable provisions of 40 USC § 3141 3148.
- 10.3 **Contract Work Hours and Selection Standards.** Contractor agrees to comply with all applicable provisions of 40 USC § 3701 3708 to the extent this Agreement indicates any employment of mechanics or laborers.
- 10.4 **Rights to Invention Made Under Contract or Agreement.** Contractor agrees to comply with all applicable provisions of 37 CFR Part 401.
- Clean Air Act, Federal Water Pollution Control Act, and Energy Policy Conservation Act. Contractor agrees to comply with all applicable provisions of the Clean Air Act under 42 USC § 7401 7671, the Energy Federal Water Pollution Control Act 33 USC § 1251 1387, and the Energy Policy Conservation Act under 42 USC § 6201.
- 10.6 **Debarment/Suspension.** Contractor is prohibited from making any award or permitting any award at any tier to any party which is debarred or suspended or otherwise excluded from or ineligible for

participation in federal assistance programs under Executive Order 12549, Debarment and Suspension. Contractor and its subcontractors shall comply with the Certification Requirements for Recipients of Grants and Cooperative Agreements Regarding Debarments and Suspensions.

- 10.7 **Restrictions on Lobbying.** CONTRACTOR agrees to comply with all applicable provisions of 2 CFR §200.450. CONTRACTOR shall include a statement of compliance with the Lobbying Certification and Disclosure of Lobbying Activities in procurement solicitations exceeding \$100,000. Lobbying Certification and Disclosure of Lobbying Activities shall be completed by subcontractors and included in subcontractor contracts, as applicable. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. See Appendix C.
- 10.8 **Procurement of Recovered Materials**. Contractor agrees to comply with all applicable provisions of 2 CFR §200.322.
- 10.9 **Drug-Free Workplace.** Contractor shall provide a drug free work place in compliance with the Drug Free Work Place Act of 1988.
- 10.10 **Texas Corporate Franchise Tax Certification.** Pursuant to Article 2.45, Texas Business Corporation Act, state agencies may not contract with for profit corporations that are delinquent in making state franchise tax payments.

10.11 Civil Rights Compliance

<u>Compliance with Regulations</u>: Contractor will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made part of this agreement.

Nondiscrimination: Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. Contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 45 CFR Part 21.

Solicitations for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by Contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier will be notified by Contractor of obligations under this contract and the Acts and Regulations relative to Nondiscrimination on the grounds of race, color, sex, or national origin.

<u>Information and Reports:</u> Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the State or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations or directives. Where any information required of Contractor is in the exclusive possession of another who fails or refuses to furnish this information, Contractor will so certify to NCTCOG, the Texas Department of Transportation ("the State") or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

<u>Sanctions for Noncompliance:</u> In the event of Contractor's noncompliance with the Nondiscrimination provisions of this Agreement, NCTCOG will impose such sanctions as it or the State or the FHWA may determine to be appropriate, including, but not limited to: withholding of payments to the Contractor under this Agreement until the Contractor compiles and/or cancelling, terminating or suspension of this Agreement, in whole or in part.

<u>Incorporation of Provisions:</u> Contractor will include the provisions of the paragraphs listed above, in this section 10.11, in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. Contractor will take such action with respect to any subcontract or procurement as NCTCOG, the State, or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier because of such direction, Contractor may request the State to enter into such litigation to protect the interests of the State. In addition, Contractor may request the United States to enter into such litigation to protect the interests of the United States.

10.12 Disadvantaged Business Enterprise Program Requirements

Contractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any U.S. Department of Transportation (DOT)-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. Contractor shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure non-discrimination in award and administration of DOT-assisted contracts. Each sub-award or sub-contract must include the following assurance: The Contractor, sub-recipient, or sub-contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this agreement, which may result in the termination of this agreement or such other remedy as the recipient deems appropriate.

10.13 Pertinent Non-Discrimination Authorities

During the performance of this Agreement, Contractor, for itself, its assignees, and successors in interest agree to comply with the following nondiscrimination statutes and authorities; including but not limited to:

- a. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- b. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects).
- c. Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), as amended, (prohibits discrimination on the basis of sex).
- d. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.) as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27.
- e. The Age Discrimination Act of 1975, as amended, (49 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age).
- f. Airport and Airway Improvement Act of 1982, (49 U.S.C. Chapter 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex).
- g. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, subrecipients and contractors, whether such programs or activities are Federally funded or not).
- h. Titles II and III of the Americans with Disabilities Act, which prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38.

- i. The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex).
- j. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations.
- k. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, the parties must take reasonable steps to ensure that LEP persons have meaningful access to the programs (70 Fed. Reg. at 74087 to 74100).
- 1. Title IX of the Education Amendments of 1972, as amended, which prohibits the parties from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq.).
- 10.14 Ineligibility to Receive State Grants or Loans, or Receive Payment on State Contracts In accordance with Section 231.006 of the Texas Family Code, a child support obligor who is more than thirty (30) days delinquent in paying child support and a business entity in which the obligor is a sole proprietor, partner, shareholder, or owner with an ownership interest of at least twenty-five (25) percent is not eligible to:
 - a. Receive payments from state funds under a contract to provide property, materials or services; or
 - b. Receive a state-funded grant or loan.

By signing this Agreement, the Contractor certifies compliance with this provision.

10.15 House Bill 89 Certification

If contractor is required to make a certification pursuant to Section 2270.002 of the Texas Government Code, contractor certifies that contractor does not boycott Israel and will not boycott Israel during the term of the contract resulting from this solicitation. If contractor does not make that certification, contractor state in the space below why the certification is not required.

10.16 Certification Regarding Disclosure of Conflict of Interest.

The undersigned certifies that, to the best of his or her knowledge or belief, that:

"No employee of the contractor, no member of the contractor's governing board or body, and no person who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of this contract shall participate in any decision relating to this contract which affects his/her personal pecuniary interest.

Executives and employees of contractor shall be particularly aware of the varying degrees of influence that can be exerted by personal friends and associates and, in administering the contract, shall exercise due diligence to avoid situations which give rise to an assertion that favorable treatment is being granted to friends and associates. When it is in the public interest for the contractor to conduct business with a friend or associate of an executive or employee of the contractor, an elected official in the area or a member of the North Central Texas Council of Governments, a permanent record of the transaction shall be retained.

Any executive or employee of the contractor, an elected official in the area or a member of the NCTCOG, shall not solicit or accept money or any other consideration from a third person, for the performance of an act reimbursed in whole or part by contractor or Department. Supplies, tools, materials, equipment or services purchased with contract funds shall be used solely for purposes allowed under this contract. No member of the NCTCOG shall cast a vote on the provision of services by that member (or any organization which that member represents) or vote on any matter

which would provide a direct or indirect financial benefit to the member or any business or organization which the member directly represents."

No officer, employee or paid consultant of the contractor is a member of the NCTCOG.

No officer, manager or paid consultant of the contractor is married to a member of the NCTCOG.

No member of NCTCOG directly owns, controls or has interest in the contractor.

The contractor has disclosed any interest, fact, or circumstance that does or may present a potential conflict of interest.

No member of the NCTCOG receives compensation from the contractor for lobbying activities as defined in Chapter 305 of the Texas Government Code.

Should the contractor fail to abide by the foregoing covenants and affirmations regarding conflict of interest, the contractor shall not be entitled to the recovery of any costs or expenses incurred in relation to the contract and shall immediately refund to the North Central Texas Council of Governments any fees or expenses that may have been paid under this contract and shall further be liable for any other costs incurred or damages sustained by the NCTCOG as it relates to this contract.

10.17 Certification of Fair Business Practices

That the submitter affirms that the submitter has not been found guilty of unfair business practices in a judicial or state agency administrative proceeding during the preceding year. The submitter further affirms that no officer of the submitter has served as an officer of any company found guilty of unfair business practices in a judicial or state agency administrative during the preceding year.

10.18 Certification of Good Standing Texas Corporate Franchise Tax Certification

Pursuant to Article 2.45, Texas Business Corporation Act, state agencies may not contract with for profit corporations that are delinquent in making state franchise tax payments. The undersigned authorized representative of the corporation making the offer herein certified that the following indicated Proposal is true and correct and that the undersigned understands that making a false Proposal is a material breach of contract and is grounds for contract cancellation.

Pursuant to Public Law 115-232, Section 889, and 2 Code of Federal Regulations (CFR) Part 200, including §200.216 and §200.471, NCTCOG is prohibited from using federal funds to procure, contract with entities who use, or extend contracts with entities who use certain telecommunications and video surveillance equipment or services provided by certain Chinese controlled entities. The Contractor agrees that it is not providing NCTCOG with or using telecommunications and video surveillance equipment and services as prohibited by 2 CFR §200.216 and §200.471. Contractor shall certify its compliance through execution of the "Prohibited Telecommunications and Video Surveillance Services or Equipment Certification," which is included as Appendix D of this Contract. The Contractor shall pass these requirements down to any of its subcontractors funded under this Agreement. The Contractor shall notify NCTCOG if the Contractor cannot comply with the prohibition during the performance of this Contract.

10.20 Discrimination Against Firearms Entities or Firearms Trade Associations

Pursuant to Texas Local Government Code Chapter 2274, Subtitle F, Title 10, prohibiting contracts with companies who discriminate against firearm and ammunition industries. NCTCOG is prohibited from contracting with entities, or extend contracts with entities who have practice, guidance, or directive that discriminates against a firearm entity or firearm trade association. Contractor shall certify its compliance through execution of the "Discrimination Against Firearms Entities or Firearms Trade Associations Certification," which is included as Appendix D of this Contract. The Contractor shall pass these requirements down to any of its subcontractors funded under this Agreement. The Contractor shall notify NCTCOG if the Contractor cannot comply with the prohibition during the performance of this Contract.

10.21 **Boycotting of Certain Energy Companies**

Pursuant to Texas Local Government Code Chapter 2274, Subtitle F, Title 10, prohibiting contracts with companies who boycott certain energy companies. NCTCOG is prohibited from contracting with entities or extend contracts with entities that boycott energy companies. Contractor shall certify its compliance through execution of the "Boycotting of Certain Energy Companies Certification," which is included as Appendix D of this Contract. The Contractor shall pass these requirements down to any of its subcontractors funded under this Agreement. The Contractor shall notify NCTCOG if the Contractor cannot comply with the prohibition during the performance of this Contract.

10.22 **Domestic Preference for Procurements**

As appropriate and to the extent consistent with law, the CONTRACTOR should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). Consistent with §200.322, the following items shall be defined as: "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

10.23 **Trafficking in Persons**

Contractor agrees to comply with all applicable provisions of 2 CFR §175.15. NCTCOG, the Contractor, and its subcontractors are prohibited from (i) engaging in severe forms of trafficking in persons during the period of time that the award is in effect; (ii) procure a commercial sex act during the period of time that the award is in effect; (iii) use forced labor in the performance of the award or subawards under the award. The Federal award agency may unilaterally terminate the award, without penalty, if the Contractor (i) is determined to have violated an applicable prohibition; (ii) has an employee who is determined by the agency officially authorized to terminate the award to have violated an applicable prohibition of this award term. NCTCOG must notify the Federal award agency immediately if any information received from the Contractor indicates a violation of the applicable prohibitions.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

GridMatrix, Inc.		North Central Texas Council of Governmen							
MAN	5/1/25	Signed by: Mike Eastland	5/7/2025						
Signature	Date	Signature Michael Eastland Executive Director	Date						
Nicholas D'Andre									
Printed Name		_							
CEO		_							
Title		_							

APPENDIX A Statement of Work

The Contractor agrees to provide AI Solutions in accordance with the scope of work outlined in Request for Proposal (RFP) No. 2025-018, and as further detailed in the Contractor's technical response, which is incorporated herein and made a part of this Statement of Work.

- 1. The Contractor shall be responsible for the design, development, deployment, and ongoing support of customized Artificial Intelligence (AI) solutions. These solutions must:
 - a. Address and solve specified operational and strategic challenges.
 - b. Integrate seamlessly with existing agency systems and databases.
 - c. Be intuitive, user-friendly, and accessible to a broad range of stakeholders.
 - d. Include end-user training, system documentation, and ongoing support for staff.
 - e. Provide ongoing maintenance, upgrades, and compliance assurance with applicable data security and privacy standards.
 - f. Ensure data security and privacy compliance in alignment with state and federal regulations.

2. Technical Requirements

The Contractor shall ensure that all AI solutions meet the following technical specifications:

- a. Scalability: Must support growth in both data volume and user interaction without degradation of performance.
- b. System Integration: Solutions must integrate with existing platforms.
- c. Security frameworks: MDM, IAM, SIEM, and related infrastructure
- d. Real-Time Analytics: Must provide real-time data analysis and reporting.
- e. Data Security & Privacy Compliance: Adherence to standards such as GDPR, HIPAA, and CCPA are required.
- f. Natural Language Processing (NLP): Advanced NLP capabilities must be embedded to support diverse and accurate user interactions.
- g. Accuracy & Validation: Contractor must demonstrate and maintain a high level of system accuracy and describe methods for validation and quality assurance.
- h. Algorithm Transparency: Solutions must include clear documentation of AI algorithms, approaches to mitigating bias, validation processes, and explainability.
- i. Continuous Improvement: Solutions must include features for ongoing learning, with mechanisms to incorporate feedback and improve performance over time.
- j. Interoperability: AI systems must comply with open standards and be capable of integrating with current and future digital infrastructure.
- k. Quality Control: Contractor shall maintain rigorous quality control protocols to ensure consistent and reliable system performance.

3. Data Governance

The Contractor must implement the following data governance practices:

- a. Data Integrity and Accuracy: Ensure reliable data quality through lifecycle validation checks and automated error correction.
- b. Data Privacy Compliance: Adhere to all relevant privacy laws. Implement data anonymization and pseudonymization as needed and obtain/document user consent for data collection and use.
- c. Access Controls: Implement role-based access controls and multi-factor authentication (MFA) for all sensitive data access.
- d. Data Retention and Disposal: Define and adhere to policies for secure data retention and disposal.
- e. Data Auditing and Monitoring: Regular auditing must be conducted, and access/modification logs must be maintained and made available upon request.

4. Cybersecurity Requirements

The Contractor shall maintain strong cybersecurity practices throughout the contract period:

- a. Threat Detection & Response: Deploy AI-based threat detection tools. Define incident response plans and test them regularly.
- b. Encryption: Utilize end-to-end encryption (AES-256, RSA-2048, etc.) for both data in transit and at rest.

- c. Vulnerability Management: Perform regular security assessments and penetration testing. Patch vulnerabilities promptly.
- d. Security Governance Framework: Establish and follow a documented governance model with defined policies, controls, and responsibilities.
- e. Risk Management: Identify risks, establish mitigation strategies, maintain a disaster recovery plan, and conduct root-cause analysis following incidents.
- f. Training & Awareness: Provide regular cybersecurity training to all relevant agency staff. Training must address both technical procedures and general awareness.

Technical Proposal

Should GridMatrix's solution be sought for a deployment, the company will use the following methodology to ensure quality control, including for projects which have quick turnarounds. The company's Management Approach (MA) and Task Approach (TA) to executing this project's scope of work consists of the following steps:

	NCTCOG S	Sam	ple [Peplo	oym	ent	Time	line									
	Month		Month 1				Mor	ıth 2		Months 3 - End					End Month		
Weel		W1	W2	W3	W4	W1	W2	W3	W4	W1 W2	W2	W 3	W4	W	11	W2	
TA-1	Edge Sensor Connection & Setup																
MA-1	Need Definition																
TA-2	Data Pipeline Activation + TMC integration																
TA-4	Quality Assurance (Validation/Calibration)																
TA-3	Dashboard + API Deployment																
TA-5	User Account Provisioning																
MA-4	Progress Reporting & KPI Measurement																
MA-3	Training & Support																
TA-6	System Operation																
TA-7	Data Sharing																
TA-8	Project Conclusion																
MA-2	Deployment Task Tracking																

MA-1) Need definition (Approximate time ~4 weeks): Externally facing meetings with users (in-person or via video conference), calls, and written material exchange as needed to align scope. Additionally, GridMatrix will collect data from users on project requirements and system specifications. During this time, GridMatrix's project management team will also establish project milestones and define quantitative KPIs to measure project impact and success.

MA-2) Deployment Task Tracking (Ongoing basis): Internally facing meetings where GridMatrix's project management team will track tasks TA-1 - TA-8 to ensure timely delivery and overall project schedule integrity. GridMatrix uses Jira for technical project management purposes, allowing all team members to continuously view progress and issue reporting. During this time, GridMatrix's project management team will provide weekly updates to users on deployment progress.

MA-3) Training & Support (Ongoing basis): Once GridMatrix's dashboard has been deployed and user accounts provisioned, GridMatrix will provide users with credentials and hold a kick-off meeting to orient them to the platform. GridMatrix provides users with "train the trainer" onboarding. During this session, in addition to covering operations, troubleshooting, configuration, administration, calibration, and maintenance procedures, GridMatrix will work with each of the users to explain how to train other users on the system. Under the train the trainer system, GridMatrix expects to help certain customer users learn the ins and outs of the software to an extent that they will be able to be front-line experts. After the initial session, the project management team will provide bi-weekly check-ins for any additional questions, in-person meetings when necessary, and will otherwise be available for video, call, or email to provide additional support whenever necessary to maximize platform impact.

MA-4) Progress Reporting & KPI Measurement (Ongoing basis): GridMatrix's project management team will report on milestone progress to the user's project manager. Additionally, GridMatrix's project management team will report on the project's KPIs to measure impact and success. These KPIs may include the number of

underperforming intersections identified, the number of successful changes made at underperforming intersections, and the number of stakeholders engaged and utilizing the data.

GridMatrix Task Approach (TA) to Executing this Task Order: Deploying GridMatrix's dashboard and enabling it consists of the following sequential steps:

- **TA-1) Sensor connection and setup** (Approximate time ~4 weeks): This step involves installing edge hardware and integrating any desired pre-existing sensors to GridMatrix's platform. This requires getting the internet connection online for each sensor and locating the IP address and location of each sensor (e.g. intersection cross streets). GridMatrix will work to define the intersections' virtual loops and boundaries and incorporate data feeds.
- **TA-2)** Data pipeline activation + TMC Integration (Approximate time ~2 weeks): With IP addresses and locations for each intersection, GridMatrix's engineering team will create a data pipeline in that ingests live, raw data from each intersection, processes it, and then outputs signal performance metrics as well as congestion, emissions, and safety information for the purposes of analytics, reporting, and traffic control.
- **TA-3) Quality assurance** (QA) (Approximate time ~2 weeks, followed by an ongoing basis): GridMatrix's engineering team will perform QA checks on users' dashboards, ensuring that both content and functionality are to the highest standards. For functionality, this includes filtering and latency checks. For content, this includes accuracy certifications achieved by processing raw data samples (such as controller data and video clips) manually and validating automatically processed results from (TA-2).
- **TA-4) Dashboard & API deployment** (Approximate time ~2 weeks): GridMatrix's engineering team will create a web-based dashboard for users and connect to the data pipeline from (TA-2), populating it with live and historical data. GridMatrix will deploy its API for integration with Blue-Band Integrator-AI™ for traffic control
- **TA-5) User account provisioning & handoff** (Approximate time ~1 day): GridMatrix's engineering team will create user accounts for relevant stakeholders with an email alias as a username and customer password, delivering these credentials to enable dashboard access.

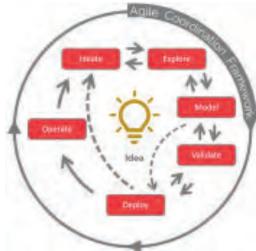
Total time required to start receiving results from the first sensor is approximately 4 weeks, with full data pipeline activation across all sensors by month 4 at the latest. This time may be shorter or longer depending on the size of on-call installation support and/or time restrictions, and will generally scale with the scope and complexity of the customer's specific needs. Additionally, GridMatrix's engineering team will support these ongoing system operations:

- **TA-6) System Operation** (Ongoing basis): GridMatrix's engineering team will monitor the user's dashboard on a daily basis to ensure the system is exceeding requirements in all respects. GridMatrix's engineering team maintains internal dashboards that report on camera outages, data pipeline interruptions, and other abnormalities that allow them to proactively address issues before they result in user-facing service interruptions.
- **TA-7) Data Sharing** (Ongoing basis): Data is accessible to users through multiple means. Users may access visual and graphical analyses via GridMatrix's dashboard. Custom graphs may be created and downloaded via filtering and then downloaded as image or .pdf files. Raw data underlying the graphs may also be exported via .csv or .xlsx to a Microsoft Excel file. Additionally, GridMatrix's dashboard provides for custom report building, whereby users can create their own reports based on filters or parameters they specify. These reports can be run on a one-time basis or delivered via email for any period of time (e.g. hourly, weekly, monthly, etc.). Furthermore, GridMatrix's system includes an API whereby users can query and export raw data to incorporate into other software platforms, analyses, simulations, and processes on a programmatic basis. GridMatrix's engineering team is also available to assist users to report generation and maintenance.

On-Call Consultative Services: If a user requires additional services such as advanced data analysis, or interpretation, custom reporting/writing/graph creation, collaboration with other vendors, etc. as part of its task order, GridMatrix will provide these services on an hourly basis to support the project. GridMatrix is available to provide these services via email, slack, phone call, in-person, or via video conference, and will use Jira for task tracking and project scheduling. GridMatrix has also assisted cities with grant preparation and provided information for Peachtree Corners' successful FY2023 Safe Streets For All grant application.

GridMatrix employs a "directly responsible individual" (DRI) system to ensure timely project completion. For this project, the DRI for the project as a whole will be the project manager, CEO Nicholas D'Andre. D'Andre will handle coordination of this contract with other concurrent work, remain in contact with the customer and host regular meetings, maintain sufficient staffing to perform the work, and maintain the administration of the contract, including updating the customer about the project status and the budget. Each task is assigned its own DRI responsible for deadline delivery and a red-yellow-green high/medium/low technical risk assignment per task to create a task priority matrix. Red risk assessments are deemed "project blockers," yellow are "project inhibitors," and green are either "neutral" or "accelerants" to project delivery.

These risk assessments are reviewed in a scrum Agile project management setting by the project manager and the DRIs with red and yellow risk items. The scrum agile framework breaks work into goals to be completed within "sprints" of work with defined timelines of no more than one month, typically two weeks. During this summit, technical risk mitigation strategies for resolution are identified, additional tasks created, project schedules amended (if at all), and then executed by the DRIs and their supporting team. All changes are reflected in a Gantt chart which is live updated and shared with our customers. If technical risks arise that will



impact the schedule of product delivery >1 week, the DRI is responsible for communicating with the project manager. The manager then elevates the issue to the client point of contact for immediate communication of the issue with resolution plans and timelines for approval. Budget tracking is undertaken in parallel with project management.

At the conclusion of the requirements gathering phase, the GridMatrix technical team uses sprints to develop and track project work. Items are pulled down from the backlog, and weekly planning and retrospective meetings take place to track overall progress. Weekly to bi-weekly meetings with customers are included in this process to ensure that deliverables are aligned with the overall roadmap for development. Using an Agile methodology allows for a combination of design, planning, and development during an iterative

process toward delivery. This process also facilitates customer feedback during the requirements gathering, planning, design, development, verification, deployment and maintenance phases to ensure that deliverables align with the needs of the customer.

Our QA process then checks our developments in test environments. This includes unit, integration and regression testing, as well as quality checks on the front end for data integrity and accuracy. Upon passing QA, the project enters a deployment phase. In this phase, the systems are brought up in production environments or new features are released into production. The systems are monitored for reliability and maintained for customer use. GridMatrix maintains a communication channel to field any customer issues for quick resolutions.

The GridMatrix team maintains a weekly standing planning meeting towards tracking overall project progress and delivery. This meeting includes commercial, product, and technical teams to ensure the weekly goals are tracking towards milestones and delivery, as well as identifying any blocking issues. For the technical team,

work items in the form of user stories are added to a backlog to define the scope of work for the upcoming sprint cycle. Previous work and the current backlog may be reviewed to add or reprioritize work as needed.

KPIs for measuring project progress & success could include:

Goal	KPI
Integrate existing cameras or other datasets into GridMatrix platform	-# of cameras/datasets successful integrated -achieve 99% system uptime (while cameras are also working)
Integrate with ATMS	-# of controllers integrated with SCOOT -# of calls changed by multimodal detection logic
Detect multiple road user classes at customer intersections	-% accuracy for pedestrian detection -% accuracy for cyclist detection -% accuracy overall system in a variety of conditions (day, night, weather events)
Generate V2X messages	-# of V2X messages generated
GridMatrix provides real time and historical metrics on congestion, safety, and signal performance	-# of intersections providing data feeds -dashboard + bulk data provided via dashboard and API -# of recurring reports created by the customer users
Identify hazardous roadside areas over time	-# of hazardous intersections/deployment areas quantified -quantifying hazard level in terms of # and severity of near miss incidents -# of near misses avoided post installation compared with # detected pre-installation
Customer personnel uses the data	-# of monthly active platform users
Provide data on asset uptime and reliability	-% uptime for assets -# of intersections below 80% uptime identified
Real-time safety notifications & reporting	-provide real-time alerts for in-progress safety issues

Compliance and Standards

GridMatrix meets the highest standards for data security and privacy. GridMatrix is SOC2 Type II Certified and TX-RAMP compliant. SOC2 Type II certification is confirmation from an independent 3rd party auditor that GridMatrix not only met or exceeded the highest standards for data security and privacy, we did so over a sustained period of time. We have also received TxRAMP certification and are whitelisted by Texas' Department of Information Resources, the official technology agency of the state of Texas. GridMatrix also is currently in an agreement with the North Central Texas Council of Governments, under contract #2024-132 We are a privacy-first platform that captures no personally identifiable information or biometric data (PII data). Images and video may be captured at the customer's option.

Project-Related Experience and Qualifications

Organization's Capabilities and Experience

GridMatrix's software solution is explained in detail below:

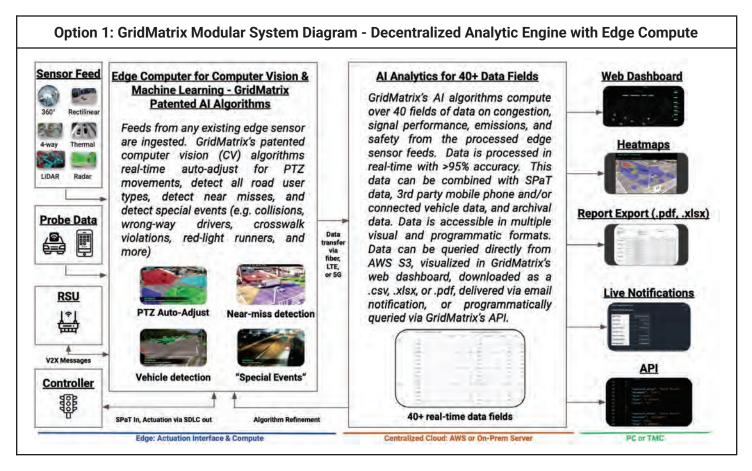
GridMatrix Solution Overview & Modular System Diagrams

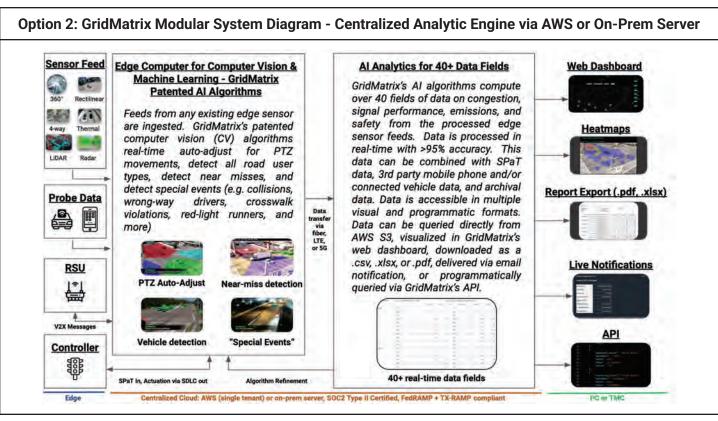
GridMatrix's mission is to help cities understand their streets through data. GridMatrix's award-winning software solution utilizes data from any existing or new roadway sensors and available cloud-based data sources to efficiently resolve traffic, emissions, and safety challenges. Our technology uses patented AI and machine learning techniques to identify potential issues at intersections and roadways and isolate their root causes. Roadway operators can leverage our insights to make data-driven upgrades to the deployment areas, or directly actuate traffic signals, saving lives and improving traffic flow. The Intelligent Transportation Society of America recognized GridMatrix's software as a leading new innovative solution for sustainable and resilient infrastructure, and our technology and past deployments have been profiled numerous times in ITS International and Traffic Technology today.

For the purposes of this RFP, GridMatrix will offer a modular, end-to-end intersection data collection and monitoring system that can be easily adapted to a customer's needs on a per-location basis, including:

- [Multimodal Traffic Detection] Leveraging existing roadway and infrastructure detection sensors such as cameras, LiDAR, radar, and inductive loops
- [Multimodal Traffic Data Collection, Analytics, Reporting] Either an edge (decentralized, edge computer using NVIDIA GPUs) or cloud-based (centralized, AWS single-tenant cloud or on-premise server with Nvidia GPUs) Al analytic engine architecture
- [Road Safety Analytics & Reporting with API] A web dashboard and API user interface for data analytics and reporting with multiple data output formats

GridMatrix's data collection and monitoring system is built for modularity and customization based on user preferences and needs. Where the customer has existing cameras or other sensors for detection, GridMatrix's system can work with their raw feeds and process them into data regardless of sensor manufacturer. The data collection and processing of the raw sensor outputs can be performed in a centralized, single-tenant cloud environment or in an on-prem server. The output mechanisms for this process include a web dashboard, heatmaps, live notifications, and an API (delivered in JSON or geoJSON format). Data may also be delivered in a variety of static, common file formats (e.g. .png, .pdf, .xlsx, .csv, etc.). Options for both a decentralized, edge based (Option #1) and centralized cloud/on-prem-based (Option #2) versions of GridMatrix's analytic engine are presented on the following page. These system configuration options can be mixed and matched by discrete location across a deployment. GridMatrix's software is built to scale and has been tested with over 1000 sensor feeds simultaneously., supporting the RFP's initial deployment scope, subsequent potential expansion, up to city-wide deployment. GridMatrix meets the highest standards for data security and privacy. GridMatrix is SOC2 Type II Certified and TX-RAMP compliant. SOC2 Type II certification is confirmation from an independent 3rd party auditor that GridMatrix not only met or exceeded the highest standards for data security and privacy, we did so over a sustained period of time. We have also received TxRAMP certification and are whitelisted by Texas' Department of Information Resources, the official technology agency of the state of Texas. GridMatrix is a privacy-first platform that captures no personally identifiable information or biometric data (PII data). Images and video may be captured at the customer's option.





Multimodal Traffic Data Collection, Analytics, and Reporting

The GridMatrix platform is designed to be user friendly and intuitive. The platform has been streamlined to quickly deliver clear and actionable insights. This focus on creating impact from data has been incorporated into every layer of GridMatrix's platform, as well as the set of features developed to support active users.

GridMatrix multimodal data collection begins at the edge and includes ALL road users. Raw feeds from any existing or newly installed sensor are collected and processed. The amount of processing required is determined by the sensor's type. "Heavy" sensors such as cameras and LiDAR require a layer of computer vision (CV) algorithm to detect and classify ALL road users (e.g. pedestrians, cyclists, multiple FHWA vehicle classes, fleet vehicles, light rail, etc.) calculate their current and predicted trajectories, segment regions of interest, and determine each road user's geospatial location. This process is conducted on a frame-by-frame basis in real-time, and the result is a live stream relational data set. "Light" sensors such as radar, inductive loops, and probe data are already structured relationally and do not require the same level of intermediate processing as "heavy" sensors. Once all raw sensor data is structured relationally, it can be merged together for further processing into actionable KPIs on roadway congestion, signal performance, emissions, and safety.

GridMatrix's platform is compatible with any existing edge sensor. These include multiple types of camera with different resolutions, frame rates, and fields of view, LiDAR, thermal cameras, and radar.



After raw sensor data has been relationally structured, it can be algorithmically converted into actionable KPIs on congestion, signal performance, emissions, safety, and more. GridMatrix's software platform can process raw sensor feeds into more than 40+ fields of multimodal data in each of these four core areas on ALL road users. Our data collection process is continuous for as long as users elect to operate GridMatrix at an intersection. Users receive real-time data and historical data for the entirety of a GridMatrix deployment.

GridMatrix Data Fields

Timing: Real Time and Historical (as long as the solution has been deployed in a city)

Periods: Live data (by minute and second), Historical data (by yearly, quarterly, monthly, weekly, daily, hourly,

minute, second) report increments

Data Filters: GridMatrix's software can filter all data with the distinctions below:

Intersection Views	Time	Object Class	Approach	Turning Movement	Signal Phase	Near Miss Pair
City grid (compare multiple intersections simultaneous ly)	Live data (last 15 minutes)	Vehicular (bus, car, motorcycle, truck)	Approach (e.g. northbound, southbound, eastbound, westbound)	Turning Movement (left, right, through)	Arrival on red	30+ discrete pairings between ALL road user classes
Single intersection (deep dive time series)	Historical data (user defined period)	Pedestrian (bicycle, person)			Arrival on Green	

Data Fields: GridMatrix's software delivers quantitative time series data for the following fields:

Congestion	Object volume	Count of objects
	Flow	Objects/min
	Idle time	Total and per object (seconds)
	Travel time	Total and per object (seconds)
	Queue length	Length in # of vehicles and feet
Signal Performance	Arrival on Green/Red	% objects arriving per phase
	Total Green/Red Time	Total phase time (seconds)
	Effective Green Time	Effective phase time (seconds)
	Average Green Time	Average phase time (seconds)
	Platoon ratio	Phase performance measure
Emissions	CO2 emissions	Emissions from CO2 (MT)
	Gas Consumption	Gas consumer (gallons)
Safety	Speed	Object speed (MPH)
	Near Misses	Near miss incident logging by PET, TTC and speed
	Special Events	Collisions, crosswalk violations, red-light running, and more

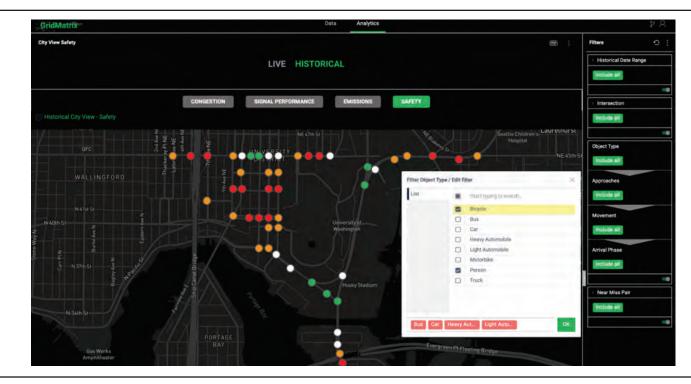
Setting Specific Metrics:

GridMatrix's platform can also provide data that is setting specific, such as data and KPIs relating to the apron of an airport, dock/bertside of a port, or other common critical infrastructure settings that are non-roadway.

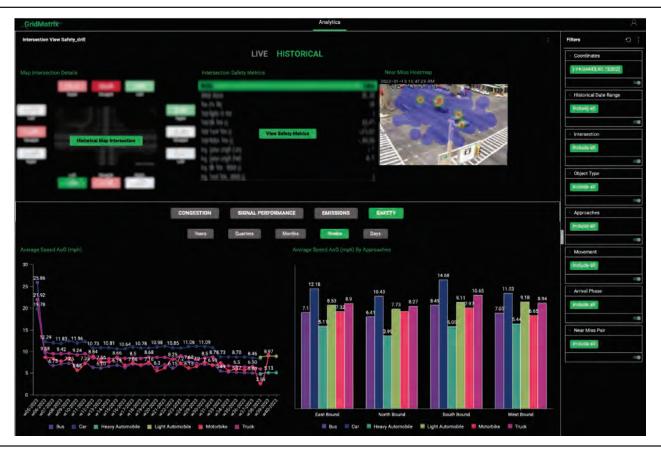
Once data has been algorithmically processed into KPIs on ALL road users, it is made available via web dashboard, heatmaps, static reports in all common file formats, push notifications, and API. Our data collection process is continuous for as long as users elect to operate GridMatrix at an intersection. Users will receive real-time and historical data for the entire period of GridMatrix's operation.

GridMatrix Dashboard & Heat Maps - "City View" & "Intersection View": GridMatrix's dashboard consists of two primary views, "City View" and "Intersection View". City View presents data geospatially and provides comparative analytics on an intersection-by-intersection basis, in both live and historical formats, for all classes of road user. Operators can quickly determine which locations are "hotspots" for any given data field, such as near-misses between specific pairings of road users. In the graphic below, near-miss pairings by road-user are selected for multiple intersection locations across a GridMatrix deployment area. Intersection View provides the same data as City View, however it is presented as a time series instead of geospatially.

"City View" - Geospatial data representation for intersection-to-intersection comparison in the GridMatrix Web Dashboard. The GridMatrix Insights Web Dashboard's "City View", displaying historical near-miss safety performance metrics for all vehicular road users, cyclists and pedestrians in a customer's operating, with filtering by object class. City View allows users to quickly compare intersections against each other on all GridMatrix data fields.

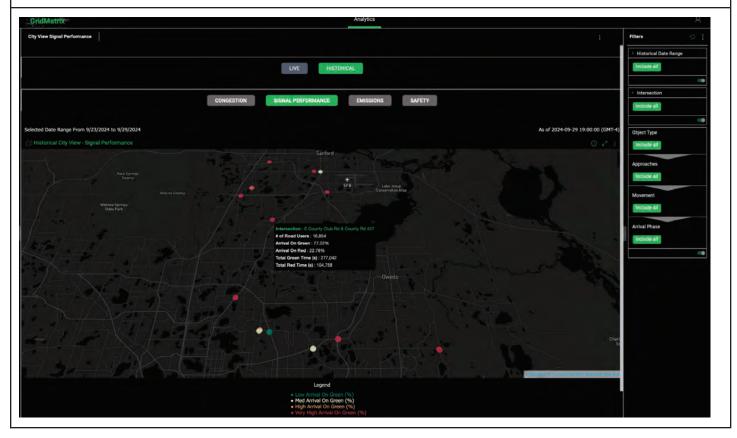


"Intersection View" - Time-series safety data representation for intersection deep-dive in the GridMatrix Insights Web Dashboard's "Intersection View", displaying historical safety performance metrics and near-miss heat maps using existing PTZ cameras. As opposed to the "grid" view above, intersection view is meant to provide a detailed, time-series analysis of a single location. As with "grid" view, users may select live or historical data, KPI family (congestion, signal performance, emissions, and safety), as well as specify periodicity (months, weeks) and filter by multiple object classes as well as other parameters. The top row of intersection view includes special visualizations and reports to better understand a given location's traffic patterns. In the top left, an intersection map shows metrics by approach. The middle is a static report of all KPIs for a selected family (e.g. safety), while the right is a heat map of near misses. Intersection view includes heatmaps localizing data at a given deployment location. For instance, in the graphic below, a near miss conflict analysis is presented. The warmer the color, the more near-miss events occurring in a specific location.



Congestion, Signal Performance, and ATSPM Metrics

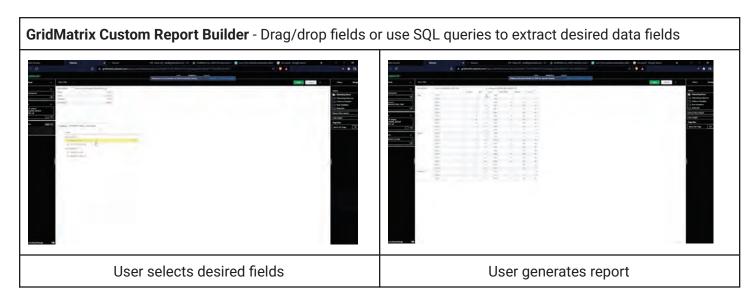
Signal Performance - City View: Signalized intersections are heat mapped by % arrival on green. This mapping can be scaled to other ATSPM metrics.



Signal Performance - Intersection View: ATSPM metrics are visualized in a time series and available for export.



Static Reports - Built for Interaction, Quickly Refine Queries & Export Data: The GridMatrix platform is built to be interactive. There are multiple ways to filter data, and it can be easily exported into all common file formats, including .png, .jpeg, .pdf, .xlsx, or .csv format. GridMatrix also provides the ability for users to create custom reports using SQL queries covering all of the 40+ data fields monitored by the platform



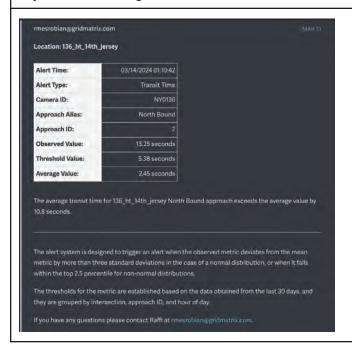
GridMatrix																	
Report Number: 0006 County: San Mateo City: Division:		Report Type: Safety / Near Duration: 30 Days Report Date: 11/2/23 Intersections Monitored: 5						Pro	oject	ID: 00	01						
Safety Incident R	teport By Intersection, Ty	ype, Severity and Vehicle Direction		Sept	ember	2023	. 4		Au	gust 2	023	-		Histor	rical Av	/erage	
27.17.07.00	are Commercial		N	E	w	s	Total	N		T. 1	S To	tal	N			4	Tota
Middlefield & Pacific	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	0	.0	4	1	5	_	.0	2	0	2	0.1	0.2		8.0	2
		Near Misses (0.5 < PET < 1.2)	6	8	28	16	58	4	9	33	28	74	5	8.5	30.5	22	6
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	0	1	0	1	0	0	1	0	1	0	0	1	0	
		Near Misses (0.5 < PET < 1.2)	1	0	3	1	5	2	1	5	4	12	1.5	0.5	4	2.5	8.
Middlefield & Dumbarton	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	6	0	1	0	7	5	0	1	0	6	5.5	0	1	0	6.
		Near Misses (0.5 < PET < 1.2)	5	9	2	0	16	4	9	2	0	15	4.5	9	2	0	15
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	15	12	5	32	37	20	7	6	33	0	17.5	9.5	5.5	32
		Near Misses (0.5 < PET < 1.2)	2	17	11	1	31	2	21	10	1	34	2	19		1	32
Middlefield & 2nd	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	4	0	4	19	27	5	0		28	35	4.5	0	3 2	- 7	3
		Near Misses (0.5 < PET < 1.2)	0	1	12	2	15	14	1	14	2	17	D	1	13	2	1
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	0	2	1	3	0	0	3	1	4	0	0	2.5	1	3.
		Near Misses (0.5 < PET < 1.2)	5	12	33	6	56	_	17	47	7	77	-	14.5		6.5	66.
Middlefield & 4th	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	1	1	3	2	7	100	1	4	2	8	1	1	3.5	2	7.
		Near Misses (0.5 < PET < 1.2)	4	9	18	1	32		12	23	1	40		10.5	2.20	1	3
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	2	0	5	0	7	1.090	0	7	0	8	1.5	0	6	0	7.
141 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Makada Ba Makad	Near Misses (0.5 < PET < 1.2)	-11	8	0	6	25	-	8	0	6	28	12.5	8	0	6	26.
Middlefield & 5th	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	4	4	5	3	16	100	5	4	4	17	4	4.5	4.5		16.
	Vahiela Ca Badastina	Near Misses (0.5 < PET < 1.2)	22	13	19	29	83	100	16	3.0	40	106			20.5 3	4.5	94.
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	0	0	-	1	0	0	0	3	1	0	0	0	1	
All between Name	Cables de Cable	Near Misses (0.5 < PET < 1.2)	2	2	4	1	9	-	3	2	74	8	_	2.5	3	1 0.00	8.
All Intersections	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	15	5	17	25	62	10000	6		34				13.1 2	1000	63.
		Near Misses (0.5 < PET < 1.2)	37	40	79	48	204	40	20	94	71	252	38.5		86.5 5		45.
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	2	15	20	7											

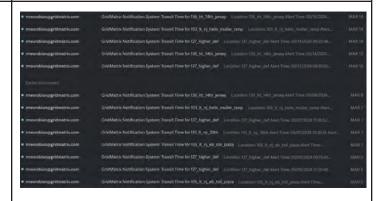
Notifications & Alerts via Dashboard, API, Email, SMS, & Text

GridMatrix features real-time alerting for all of its metrics based on user-set thresholds as well as specific alerts for unsafe interactions via multiple channels. These interactions include stopped vehicles, collisions and near misses, loss of visibility events, crosswalk violations, hard stops, and occupancy exceeded alerts. These alerts can be delivered via email, text, dashboard, or via our API. Detector outputs can also be sent to the traffic signal controller. We are continuously developing our software and will shortly be launching new features, and have the capacity to develop new features based on customer needs, and provide all software updates free of charge to ensure our customers continuously operate the latest and most advanced edition of GridMatrix's platform. GridMatrix does not record video data by default but can enable it at a customer's request.

Notifications - Live notifications can be created for any data field using user-defined thresholds

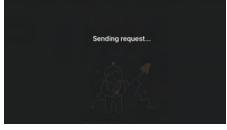
Notification Delivery - Notifications can be delivered via email, text, dashboard, or via our API.

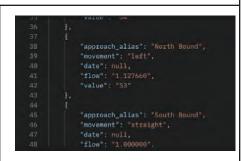




API - GridMatrix will provide bulk data access and query via its API (Please see the <u>API Documentation</u> section for more information). GridMatrix's platform includes an API that allows for users to directly query data from any data field, receive notifications, or integrate data into the TMC or other central repositories.







API: User inputs query request

API: Request transmission

API: Query output returned

Road Safety Analytics & Reporting

Definitions: "Near Miss": incidents involving two or more road users with presently conflicting paths of travel that require one or more of the road users to make an adjustment to speed or heading or both to avoid a collision within a short period of time. "Post-Encroachment Time" (PET): PET is the difference between the time a leading object enters a point in their current path of travel that conflicts with a following object, and the time a following object in a conflicting path of travel arrives at the same point. "Time-To-Collision" (TTC): TTC measures the time until a collision would occur if existing speed conditions persisted. It is calculated by estimating the time it would take for two vehicles (or a vehicle and a pedestrian or bicycle) to collide if they continued on their current trajectory, and is primarily used as a surrogate safety metric when a leading object and following object do not have a path of travel that conflicts (compared with PET where paths of travel conflict). GridMatrix continuously derives future position vectors for all moving objects and computes TTC for

intersecting vectors. **PET & TTC** are examples of "Surrogate Safety Metrics". Surrogate safety metrics are used to quantify the severity of a near miss. "Special Events" are incidents with elevated risk of roadway collision, fatality, property damage, or significantly disruptive impacts to traffic flow such as significantly congestion measured by idling and queue length increases, reduced signalized intersection performance efficiency measured by reduced arrival on green, and increased vehicular emissions.

GridMatrix collects data on the following safety related KPIs for all road users. All data fields below are available live (current by minute, second), historically with user-configurable periodicities (yearly, quarterly, monthly, daily, hourly, minute, second) since deployment inception, by road user type (e.g. cyclist, pedestrian, vehicle), by approach (e.g. northbound), by turning movement (e.g. left), by arrival phase (e.g. green), and for near misses by road user pair (e.g. truck-cyclist):

- Speed
- Count of near misses
- Near misses severity as quantified by PET/TTC
- Special events, including:
 - Disabled vehicles
 - Collisions
 - Crosswalk violations
 - o Curb violations (e.g. double parking)
 - Work zone violations
 - Red light running
 - Wrong-way driving

GridMatrix's platform makes safety data visualization, reporting, and export, from all the fields above available in multiple formats, including:

- "City View", where safety data is localized geospatially across a deployment area (see p.8)
- "Intersection View", where safety data is displayed as a time series (see p.9)
- "Custom Report Builder", where users can query data fields of their choosing and export the result as a .png, .jpeg, .pdf, .xlsx, or .csv file (see pp.12)
- Push notifications, where users can receive emails, texts, and other notifications for specific safety data fields of interest (see p.13)
- API, where users can bulk query safety data fields
- Raw Image and Video (.jpeg, .mp4, .flv): recordings of near-misses and other "special events" such as collisions, crosswalk violations, etc. can be captured and stored at the sole option of the customer

GridMatrix's patented machine vision algorithms underpin the generation of all safety data fields. The US Patent Office has granted GridMatrix the patent for near miss detection (see US11,955,001)

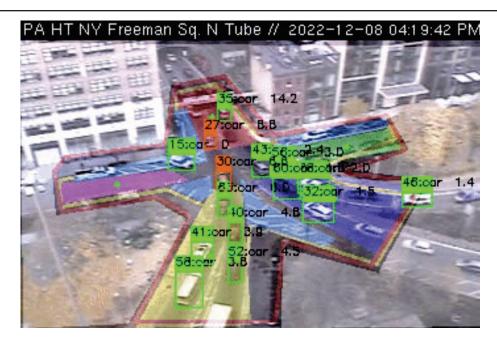
GridMatrix Near Miss Detection with PET: Real time near miss example quantified with PET using existing intersection cameras with 240P, 12FPS cameras. Left image: a pedestrian (leading object) walks outside a crosswalk across a highway entrance. Middle image: a white vehicle (following object) turning right narrowly avoids hitting the crossing pedestrian, intersecting the pedestrian's path of travel with a conflicting path of travel. Right: the point of conflict between the pedestrian and vehicle is highlighted and recorded by GridMatrix's system for further review.







GridMatrix Near Miss Detection with TTC: Real time near miss example quantified with TTC using existing intersection cameras with 240P, 12FPS cameras. Highlighted vehicles in orange are in the same path of travel. The leading object (#27) has stopped as it encountered congestion at a tunnel entrance. The following object (#30) must quickly decelerate to avoid a collision.

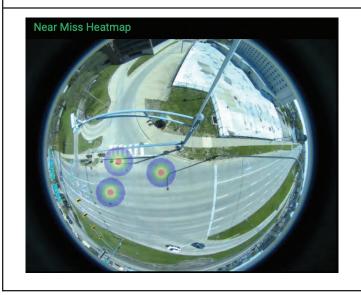


Conflict Analysis - Tools for Finding Patterns in Near Miss Events: GridMatrix's software monitors all surrogate safety metrics and flags positive events in real time, displaying them in a variety of visual formats and with filtering capabilities. These visualization tools are presented below:

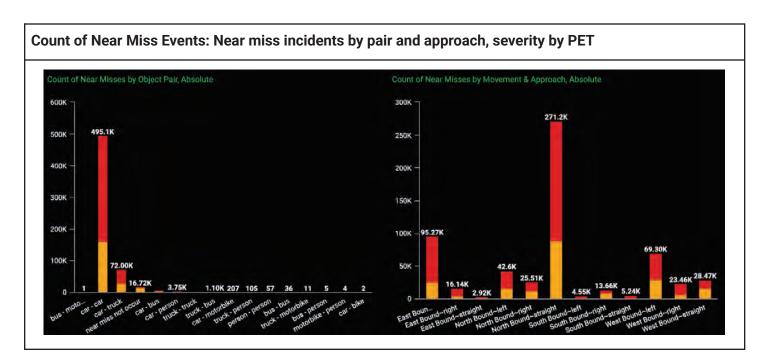
Near Miss Filtering: As near misses occur in a given location, an intersection risk-profile is developed over time. Near-misses can be filtered by object-pairing. Below, near misses for buses & pedestrians are highlighted. The number of events are bucketed by the speed of the fastest moving object (e.g. 0-20mph, 20-40mph) and by PET value. The size of the points reflects the quantity of near misses in a given bucket.



Near miss incidents generated with existing 360 degree cameras (left) and localized geospatially (right)



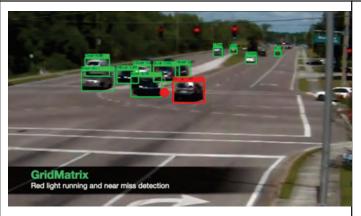




Near Miss Per Capita: Near miss incident frequencies are listed by absolute quantity in the top table. In the bottom table, these counts of near misses are adjusted by the count of road user types, to achieve a "normalized", per capita measure of near miss frequency by road user type. This normalization compensates for the fact that passenger vehicles (for example) may be the majority of road users in a given location but near misses occur at the higher frequency between pedestrians and heavy automobiles (example below) given their respective populations. In this example, despite light automobiles (passenger vehicles) accounting for the most near misses in absolute terms (1102), they account for 23.7% of all near misses total.

Pair	NM Count, Absolute													
	bicycle	bike	bus	car	heavy automobile	light automobile	motorbike	person	truck					
bicycle														
bike						124								
bus														
car			3	390		203			7					
heavy automob						432		227						
light automob						702								
motorbike						75								
person	l.					75								
truck														
Pair	NM Count, Normalized													
	bicycle	bike	bus	car	heavy automobile	light automobile	motorbike	person	truck					
bicycle bike						1								
bus						1.9%								
car			0.74%	24.68%		3.1%			0.88%					
heavy			0.24%	24.00 %					0.667					
automob						6.7%		50%						
light						10.8%								
automob						10.0%								
motorbike						1.15%								
person														
truck														

Special Events - Examples of special event detection with GridMatrix's platform





"Special Event" - Pedestrian Crosswalk Violation Examples

Night Time Examples



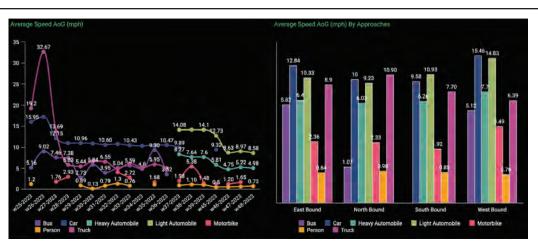
Pedestrian is detected in the upper shoulder

Day Time Examples



Pedestrian is detected in the upper shoulder

Average Free Flow (Arrival on Green, AoG) Speeds: Speeds presented by object class as well as by approach



Patent Pending - Pan-Tilt-Zoom (PTZ) Auto-Adjust & Support for PTZ Cameras

Pan-Tilt-Zoom (PTZ) Camera Compatibility & Operator Augmentation: GridMatrix has developed the ability for its platform to automatically detect "large" and "small" PTZ camera shifts and to adapt accordingly. "Large shifts" occur when an operator moves the camera and the intersection or other region of primary interest is no longer visible. "Small" shifts occur from environmental disturbances such as vibration due to traffic, wind, etc. that slowly shift the camera and can increase system error if detection zones are fixed. This allows GridMatrix's system to continue to collect data from existing cameras without interfering with existing operations. Facility operators routinely use their PTZ cameras to visually investigate special situations and incidents on a daily basis to ensure smooth facility operations. An example of such a PTZ camera event investigation along with automatic shift detection is presented below:

Figure 1: GridMatrix's platform collecting data by approach from a Port Authority PTZ camera. Each color is a different approach.

Figure 2: The camera's operator has begun shifting the camera's field of view to zoom in on a disabled vehicle further up the entrance to US I-9

Figure 3: The camera's operator continues the shift, and GridMatrix's software identifies the camera is in a new position and stops collecting data







Figure 4: The camera's operator zooms in on the disabled (gray sedan) vehicle that is blocking a lane on the entrance to US I-9

Figure 5: The camera's operator completes their investigation of the stalled vehicle and begins shifting the camera back into its original position

Figure 6: GridMatrix's software identifies the camera is in its original position and resumes collecting data on congestion and other metrics







GridMatrix's engineering team collected a validation data set consisting of 104 image pairs reflecting "large shifts" - shifts where the PTZ camera's primary intersection was no longer visible, and 97 image pairs of "small shifts" - shifts where the intersection was still visible. These image pairings included a diversity of lighting conditions and weather. Our third-party auditor confirmed GridMatrix's algorithm detected "large shifts" with 97% accuracy, and small shifts with 92% accuracy. Overall accuracy was 95%.

Data Accuracy & Validation

GridMatrix's multimodal detection data generated from its analytics engine is independently validated at 95% accuracy in a variety of lighting and weather conditions. GridMatrix partners with National Data and Surveying (NDS) to manually review random samples and compares NDS' results to GridMatrix's algorithmically provided results. Further, GridMatrix's QA checklist involves 50+ review items to ensure fidelity and data integrity. Final customer delivery involves sign-off from at least two members of GridMatrix's engineering team.

Team Qualifications

Key Technical & Engineering Staff

The principal in charge of GridMatrix's technical work will be Eric Valasek. Eric Valasek is GridMatrix's Vice President of Engineering and oversees all perception, machine learning, and cloud processing matters. Under Valasek's leadership, GridMatrix has added Pan-Tilt-Zoom capabilities, real-time safety alerting features, and

GridMatrix

Proposed Value-Add

GridMatrix's software platform can be utilized simultaneously through different departments and provide comprehensive data analytics via any existing sensor. With our multi-use case platform, GridMatrix collects and analyzes over 40 different key performance indicators without the need for new sensors. We deliver best in class analytics regardless of sensor quality.

In unison with our analytics, we offer unique scalability. GridMatrix was made with the Port Authority of New York and New Jersey's needs in mind. Developing our software for the Port Authority's needs made our platform capable of deploying and functioning with over 1000 sensors simultaneously with no drop in quality regardless of class of vehicle or sensor.

We now offer a notification system designed to be a continuous special event monitor. These special events could be anywhere from collisions to trespassing. Particular events can be added or subtracted from the notification system at the behest of the customer's want.

Pricing for TXShare Cooperative Purchase Program Participants Service Category 1 – Artificial Intelligence (AI) Solutions for Public Sector Entities: **Pricing**



	Category 1 - Al Solutions			1
Description	Add additional description if necessary:	Unit Price	% Discount	Notes/Comments
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 1x Camera/LiDAR	\$500 per sensor/month	-49.62%	\$251.88 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 2x Camera/LiDAR	\$500 per sensor/month	-39.55%	\$302.25 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 4x Camera/LiDAR	\$500 per sensor/month	-19.40%	\$403.00 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 1x Radar Based	\$500 per sensor/month	-78.41%	\$125.94 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 2x Radar Based	\$500 per sensor/month	-69.75%	\$151.23 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 4x Radar Based	\$500 per sensor/month	-59.70%	\$201.50 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 4x Loop Based	\$500 per sensor/month	-91.94%	\$40.30 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 6x Loop Based	\$500 per sensor/month	-87.91%	\$60.45 for NCTCOG Customers
Software Licensing and Subscription Costs: Provide the cost breakdown for software licenses, subscriptions, or any other software-related fees.	GridMatrix Software Platform- camera/LiDAR based: 1x Other Sensor	\$500 per sensor/month	-49.62%	\$251.88 for NCTCOG Customers
 Implementation and Customization Costs: Outline the costs related to the implementation of the Al solution, including setup, integration with existing systems, customization, and deployment. 	Blended engineering/data sciences/ software product development	\$280 per hour	-37.50%	\$175.00 for NCTCOG Customers
Implementation and Customization Costs: Outline the costs related to the implementation of the Al solution, including setup, integration with existing systems, customization, and deployment.	Blended project management/ administrative services	\$200 per hour	-37.50%	\$125.00 for NCTCOG Customers
Training and Support Costs: Include costs for training government staff, technical support, and customer service, both during and after implementation.	Biweekly Virtual Training	\$280 per hour	-100%	\$0.00 for NCTCOG Customers
Training and Support Costs: Include costs for training government staff, technical support, and customer service, both during and after implementation.	In-Person Training	\$280 per hour	-100%	\$0.00 for NCTCOG Customers
Ongoing Maintenance and Updates: Provide costs for ongoing software maintenance, updates, and any regular services required to keep the AI system running smoothly.	Support for Software: 1x intersection	\$20 per sensor/month	-50%	\$10.00 for NCTCOG Customers
Optional Add-Ons or Features: List any additional features or services available that are not included in the core proposal but can be added at an additional cost.	Servers with GPUs for On-Premise Deployment	\$20,000 per Server	-30%	\$14,000.00 for NCTCOG Customers
 Total Cost of Ownership (TCO): Summarize the Total Cost of Ownership (TCO), which includes all costs over a defined period (e.g., 3 years or 5 years). This should reflect software, implementation, support, maintenance, and optional add-ons. 	Total Price for a 3 year deployment without server purchasing	\$109,743.48	N/A all discounts included	\$123,743.48
7. Additional Costs (if applicable): List any additional costs not covered in the above sections that are relevant to the proposal, such as travel costs, setup fees, or other miscellaneous charges.	N/A	N/A	N/A	N/A

APPENDIX A.2 Service Area Designation Forms

Exhibit 3

	Texas Service Area Designation or Identification			
Proposing Firm Name:	GridMatrix, Inc.			
Notes:	Indicate in the appropriate box whet	ther you are proposing to service th	e entire state of Texas	
	Will service the entire state of Texas	Will not service the entire	he entire state of Texas	
	•			
	If you are not proposing to service th that you are proposing to provide go are certifying that you are willing an	ods and/or services to. By designati	ng a region or regions, you ds and services.	
Item	Region	Metropolitan Statistical Areas	Designated Service Area	
1.	North Central Texas	16 counties in the Dallas-Fort Worth Metropolitan area		
2.	High Plains	Amarillo Lubbock		
3.	Northwest	Abilene Wichita Falls		
4.	Upper East	Longview Texarkana, TX-AR Metro Area Tyler		
5.	Southeast	Beaumont-Port Arthur		
6.	Gulf Coast	Houston-The Woodlands- Sugar Land		
7.	Central Texas	College Station-Bryan Killeen-Temple Waco		
8.	Capital Texas	Austin-Round Rock		
9.	Alamo	San Antonio-New Braunfels Victoria		
10.	South Texas	Brownsville-Harlingen Corpus Christi Laredo McAllen-Edinburg-Mission		
11.	West Texas	Midland Odessa San Angelo		
12.	Upper Rio Grande	El Paso		

(Exhibit 3 continued on next page)

GridMatrix

	Nationwide Service Area Designation or Identification Form		
Proposing Firm Name:	GridMatrix, Inc.		
Notes:	Indicate in the appropriate box whether you are proposing to provide service to all Fifty (50) States.		
	Will service all fifty (50) states Will not service fifty (50) states		
i .			

APPENDIX B

NCTCOG FEDERAL AND STATE OF TEXAS REQUIRED PROCUREMENT PROVISIONS The following provisions are mandated by Federal and/or State of Texas law. Failure to certify to the following will result in disqualification of consideration for contract. Entities or agencies that are not able to comply with the following will be ineligible for consideration of contract award.

REQUIRED 2 CFR 200 CLAUSES

Uniform Administrative Requirements, Cost Principles & Audit Requirements for Federal Awards (Contractor)

- 1. Equal Employment Opportunity. CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity, or national origin. CONTRACTOR shall take affirmative actions to ensure that applicants are employed, and that employees are treated, during their employment, without regard to their race, religion, color, sex, sexual orientation, gender identity, or national origin. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- **2. Davis-Bacon Act**. CONTRACTOR agrees to comply with all applicable provisions of 40 USC § 3141 3148.
- 3. Contract Work Hours and Safety Standards. CONTRACTOR agrees to comply with all applicable provisions of 40 USC § 3701 3708 to the extent this agreement indicates any employment of mechanics or laborers.
- **4. Rights to Invention Made Under Contract or Agreement**. CONTRACTOR agrees to comply with all applicable provisions of 37 CFR Part 401.
- 5. Clean Air Act, Federal Water Pollution Control Act, and Energy Policy Conservation Act. CONTRACTOR agrees to comply with all applicable provisions of the Clean Air Act under 42 USC § 7401 7671, the Energy Federal Water Pollution Control Act 33 USC § 1251 1387, and the Energy Policy Conservation Act under 42 USC § 6201.
- **6. Debarment/Suspension.** CONTRACTOR is prohibited from making any award or permitting any award at any tier to any party which is debarred or suspended or otherwise excluded from or ineligible for participation in federal assistance programs under Executive Order 12549, Debarment and Suspension. CONTRACTOR and its subcontractors shall comply with the special provision "Certification Requirements for Recipients of Grants and Cooperative Agreements Regarding Debarments and Suspensions".
- 7. **Restrictions on Lobbying**. CONTRACTOR of these funds is prohibited from using monies for lobbying purposes; CONTRACTOR shall comply with the special provision "Restrictions on Lobbying". CONTRACTOR shall include a statement of compliance with the Lobbying Certification and Disclosure of Lobbying Activities in applicable procurement solicitations. Lobbying Certification and Disclosure of Lobbying Activities shall be completed by subcontractors and included in subcontractor contracts, as applicable.
- **8. Procurement of Recovered Materials**. CONTRACTOR agrees to comply with all applicable provisions of 2 CFR §200.322.
- **9. Anti-Israeli Boycott**. By accepting this work order, CONTRACTOR hereby certifies the following:
 - 1. CONTRACTOR's Company does not boycott Israel; and
 - 2. CONTRACTOR's Company will not boycott Israel during the term of the contract.

The following definitions apply to this statute:

- (1) "Boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli- controlled territory, but does not include an action made for ordinary business purposes; and
- (2) "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, including wholly owned subsidiary, majority-owned subsidiary, parent company, or affiliate of those entities or business associations that exists to make a profit.

10. Domestic Preference for Procurements

As appropriate and to the extent consistent with law, the CONTRACTOR should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). Consistent with §200.322, the following items shall be defined as: "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

11. Trafficking in Persons

Contractor agrees to comply with all applicable provisions of 2 CFR §175.15. NCTCOG, the Contractor, and its subcontractors are prohibited from (i) engaging in severe forms of trafficking in persons during the period of time that the award is in effect; (ii) procure a commercial sex act during the period of time that the award is in effect; (iii) used force labor in the performance of the award or subawards under the award. The Federal award agency may unilaterally terminate the award, without penalty, if the Contractor (i) is determined to have violated an applicable prohibition; (ii) has an employee who is determined by the agency officially authorized to terminate the award to have violated an applicable prohibition of this award term. NCTCOG must notify the Federal award agency immediately if any information received from the Contractor indicates a violation of the applicable prohibitions.

Check one of the following:

Χ	The Contractor or Subrecipient hereby certifies that it does comply with the requirements	s of 2
	CFR 200 as stipulated above and required by the NCTCOG.	

1	<i>1</i>
-OR-	
☐ The Contractor or Subrecipient hereby certical 2 CFR 200 as stipulated above and required	fies that it <i>cannot</i> comply with the requirements of by the NCTCOG.
Signature of Authorized Person	•
Nicholas D'Andre	_
Name of Authorized Person	
GridMatrix, Inc.	_
Name of Company	
5/1/25	<u>.</u>
Date	

APPENDIX C RESTRICTIONS ON LOBBYING

Section 319 of Public Law 101-121 prohibits recipients of federal contracts, grants, and loans exceeding \$100,000 at any tier under a federal contract from using appropriated funds for lobbying the Executive or Legislative Branches of the federal government in connection with a specific contract, grant, or loan. Section 319 also requires each person who requests or receives a federal contract or grant in excess of \$100,000 to disclose lobbying.

No appropriated funds may be expended by the recipient of a federal contract, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any federal executive department or agency as well as any independent regulatory commission or government corporation, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered federal actions: the awarding of any federal contract, the making of any federal grant, the making of any federal loan the entering into of any cooperative agreement and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

As a recipient of a federal grant exceeding \$100,000, NCTCOG requires its subcontractors of that grant to file a certification, set forth in Appendix B.1, that neither the agency nor its employees have made, or will make, any payment prohibited by the preceding paragraph.

Subcontractors are also required to file with NCTCOG a disclosure form, set forth in Appendix B.2, if the subcontractor or its employees have made or have agreed to make any payment using nonappropriated funds (to <u>include</u> profits from any federal action), which would be prohibited if paid for with appropriated funds.

LOBBYING CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS

The undersigned certifies to the best of his or her knowledge and belief, that:

- (1) No federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension continuation, renewal amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, US Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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Title		
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5/1/25		
Date		

Date

APPENDIX D

PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR **EQUIPMENT CERTIFICATION**

This Contract is subject to the Public Law 115-232, Section 889, and 2 Code of Federal Regulations (CFR) Part 200, including §200.216 and §200.471, for prohibition on certain telecommunications and video surveillance or equipment.

Public Law 115-232, Section 889, identifies that restricted telecommunications and video surveillance equipment or services (e.g. phones, internet, video surveillance, cloud servers) include the following:

- Telecommunications equipment that is produced by Huawei Technologies Company A) or ZTE Corporation (or any subsidiary or affiliates of such entities).
- Video surveillance and telecommunications equipment produced by Hytera B) Communications Corporations, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliates of such entities).
- Telecommunications or video surveillance services used by such entities or using such C) equipment.
- Telecommunications or video surveillance equipment or services produced or D) provided by an entity that the Secretary of Defense, Director of the National Intelligence, or the Director of the Federal Bureau of Investigation reasonably believes to be an entity owned or controlled by the government of a covered foreign country.

The entity identified below, through its authorized representative, hereby certifies that no funds under this Contract will be obligated or expended to procure or obtain telecommunication or video surveillance services or equipment or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as a critical technology as part of any system prohibited by 2 CFR §200.216 and §200.471, or applicable provisions in Public Law 115-232 Section 889.

Check one of the following:

☑ The Contractor or Subrecipient hereby certifies that it *does* comply with the requirements of 2 CFR 200 as stipulated above and required by the NCTCOG.

-OR	-
☐ The Contractor or Subrecipient hereby certing 2 CFR 200 as stipulated above and required	fies that it <i>cannot</i> comply with the requirements of by the NCTCOG.
Signature of Authorized Person	-
• · · ·	
Nicholas D'Andre	<u>-</u>
Name of Authorized Person	
GridMatrix, Inc.	_
Name of Company	
5/1/25	_

Date

DISCRIMINATION AGAINST FIREARMS ENTITIES OR FIREARMS TRADE ASSOCIATIONS

This contract is subject to the Texas Local Government Code chapter 2274, Subtitle F, Title 10, prohibiting contracts with companies who discriminate against firearm and ammunition industries.

TLGC chapter 2274, Subtitle F, Title 10, identifies that "discrimination against a firearm entity or firearm trade association" includes the following:

- A) means, with respect to the entity or association, to:
 - I. refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; and
 - II. refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or
 - III. terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association.
- B) An exception to this provision excludes the following:
 - I. contracts with a sole-source provider; or
 - II. the government entity does not receive bids from companies who can provide written verification.

The entity identified below, through its authorized representative, hereby certifies that they have no practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and that they will not discriminate during the term of the contract against a firearm entity or firearm trade association as prohibited by Chapter 2274, Subtitle F, Title 10 of the Texas Local Government Code.

Check one of the following:

☑ The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 2274, Subtitle F, Title 10.

-OR-

☐ The Contractor or Subrecipient hereby certification Chapter 2274, Subtitle F, Title 10.	fies that it cannot comply with the requirements of
MA	
Signature of Authorized Person	-
Nicholas D'Andre	
Name of Authorized Person	
GridMatrix, Inc.	_
Name of Company	
5/1/25	

BOYCOTTING OF CERTAIN ENERGY COMPANIES

This contract is subject to the Texas Local Government Code chapter 809, Subtitle A, Title 8, prohibiting contracts with companies who boycott certain energy companies.

TLGC chapter Code chapter 809, Subtitle A, Title 8, identifies that "boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company:

- I. engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; and
- II. does business with a company described by paragraph (I).

The entity identified below, through its authorized representative, hereby certifies that they do not boycott energy companies, and that they will not boycott energy companies during the term of the contract as prohibited by Chapter 809, Subtitle A, Title 8 of the Texas Local Government Code.

	Check one of the following:
X	The Contractor or Subrecipient hereby certifies that it <i>does</i> comply with the requirements of Chapter 809, Subtitle A, Title 8.
	-OR-
	The Contractor or Subrecipient hereby certifies that it <i>cannot</i> comply with the requirements of Chapter 809, Subtitle A, Title 8.
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Sig	gnature of Authorized Person
Nicl	holas D'Andre
Na	me of Authorized Person
Grid	IMatrix, Inc.
Na	me of Company
5/1/	ý25
Da	te

APPENDIX E DEBARMENT CERTIFICATION

Nicholas D'Andre	being duly
(Name of certifying official)	
sworn or under penalty of perjury under the laws of the United S	tates, certifies that neither
GridMatrix, Inc.	, nor its principals
(Name of lower tier participant)	, nor its principuls
are presently:	
are presently.	
 debarred, suspended, proposed for debarment, 	
 declared ineligible, 	
	1 f- 11 1
• or voluntarily excluded from participation in this transaction	by any federal department
or agency	
XX71	
Where the above identified lower tier participant is unable to c	
statements in this certification, such prospective participant shall	Il indicate below to whom
the exception applies, the initiating agency, and dates of action.	
Exceptions will not necessarily result in denial of award b	
determining contractor responsibility. Providing false informat	ion may result in criminal
prosecution or administrative sanctions.	•
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EXCEPTIONS:	
EXCEPTIONS:	
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What_	
Signature of Certifying Official	
Signature of Certifying Official	
Title	
5/1/25	
Date of Certification	
Form 1734	
Rev.10-91	
TPFS	