Certificate of Offeror and Statement of Understanding

TXShare
Your Public Sector Solutions Center

REQUEST FOR PROPOSALS
For
Artificial Intelligence (AI) Consultancy Services
RFP # 2025-023

Sealed proposals will be accepted until 2:00 PM CT, **December 18, 2024,** and then publicly opened and read aloud thereafter.

GridMatrix, Inc.
Legal Name of Proposing Firm

Jack Moore | Policy Analyst
Contact Person for This Proposal | Title

(334)306-1496 | jack@gridmatrix.com
Contact Person Telephone Number | Contact Person E-Mail Address

801 Barton Springs Rd., Suite 07-117 | TX | 78704
Street Address of Principal Place of Business | City/State | Zip

801 Barton Springs Rd., Suite 07-117 | TX | 78704
Mailing Address of Principal Place of Business | City/State | Zip

Nicholas D'Andre | CEO
Point of Contact for Contract Negotiations | Title

(650)272-9249 | ndandre@gridmatrix.com
Point of Contact Telephone Number | Point of Contact Person E-Mail Address

Acknowledgment of Addenda (initial): #1 JM _____ #2 _____ #3 _____ #4 _____ #5 _____

NOTE: Any confidential/proprietary information must be clearly labeled as "confidential/proprietary". All proposals are subject to the Texas Public Information Act.

COVER SHEET

Statement of Understanding

GridMatrix provides a software-as-a-service solution that delivers data, analytics, and insights on roadway and other critical infrastructure operations, efficiency, and safety. Data specifically on traffic signal and signalized intersection performance are Included in this suite of information. GridMatrix is responding to this RFP and bidding on providing its software platform and related services under **Service Category #1: Artificial Intelligence (AI) Solutions for Public Sector Entities.**

GridMatrix believes our software could be applied to multiple operational challenges. Specifically, we see applications with Administration, Development Services, Event Center, Economic Development, and Public Works.

The GridMatrix team and software platform will provide services specified in scope of work.

References

Project #1 - NYC Bridges & Tunnels Get AI Traffic Analytics from GridMatrix
Sponsoring Agency: Port Authority of New York and New Jersey
Scope: GridMatrix deployed using existing cameras on the Lincoln Tunnel, Holland Tunnel, and George Washington Bridge to collect data multimodal data on traffic congestion, emissions, and safety including near-miss events
Project Manager Name // Title // Email // Phone // Address: Cheryl Smith // Manager, Technology Development // chersmith@panynj.gov // 973-578-2142 // 150 Greenwich Street, New York, NY 10006

Project #2 - GridMatrix Texas DIR (Contract #DIR-CPO-5299)
Sponsoring Agency: Texas Department of Information Resources
Scope: GridMatrix was selected by the Texas Department of Information Resources (the State Technology Agency of the State of Texas) to provide commercial off-the-shelf "COTS" software services for roadway traffic analytics, critical infrastructure optimization, and other transportation planning and analysis use cases using edge sensors including cameras, radar, lidar, and inductive loops as well as supporting services.
Project Manager Name // Title // Email // Phone // Address: Suzanne Carson // Contract Administrator // suzanne.carson@dir.texas.gov // 52-475-4948 // 300 W 15th St #1300, Austin, TX 78701

Project #3 - **US DOT Partnership to Develop Predictive Models for Emergency Responders**
Sponsoring Agency: US Department of Transportation
Scope: GridMatrix developed a real time safety index for transit vehicles using near-miss data, crash data, and NOAA meteorological data
Project Manager Name // Title // Email // Phone // Address: David Schneider // Acting Deputy Associate Administrator, Federal Transit Administration Office of Research, Demonstration, and Innovation // David.Schneider@dot.gov // 202-493-0175 // 1200 New Jersey Avenue SE, Washington DC, 20590

Project #4 - GridMatrix Deploys In Peoria, IL
Sponsoring Agency: Hanson Inc. on behalf of the city of Peoria
Scope: GridMatrix deployed its platform on existing Peoria 360 degree cameras to collect multimodal traffic data collection
Project Manager Name // Title // Email // Phone // Address: Kurt Bialobreski // Chief Innovation Officer // kbialobreski@hanson-inc.com // 309-713-1408 // 7625 N. University Street Suite 200, Peoria, IL 61614

Project #5 - San Mateo County Deploys GridMatrix for Vision Zero
Sponsoring Agency: San Mateo County
Scope: GridMatrix is deploying its software along a critical corridor to measure near-misses and other safety metrics to help San Mateo County reach its vision zero goals
Project Manager Name // Title // Email // Phone // Address: Alfred Torres // Information Services Department ISD Contracts & Procurement // aktorres@smcgov.org // 650-363-4548 // 455 County Center, ISD 3rd Floor, Redwood City, CA 94063

Additional Reference:

Project #6 - GridMatrix Deploys At California State University, Sacramento
Sponsoring Agency: California State University, Sacramento
Scope: GridMatrix is operating its platform on Sac State's campus to gather data on pedestrian and cyclists counts, near misses, and campus ingress/egress
Project Manager Name // Title // Email // Phone // Address: Jeff Dierking // Director, University Transportation & Parking Services // jeffrey.dierking@csus.edu // 916-278-2604 // 6000 J Street, Sacramento, CA 95819

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

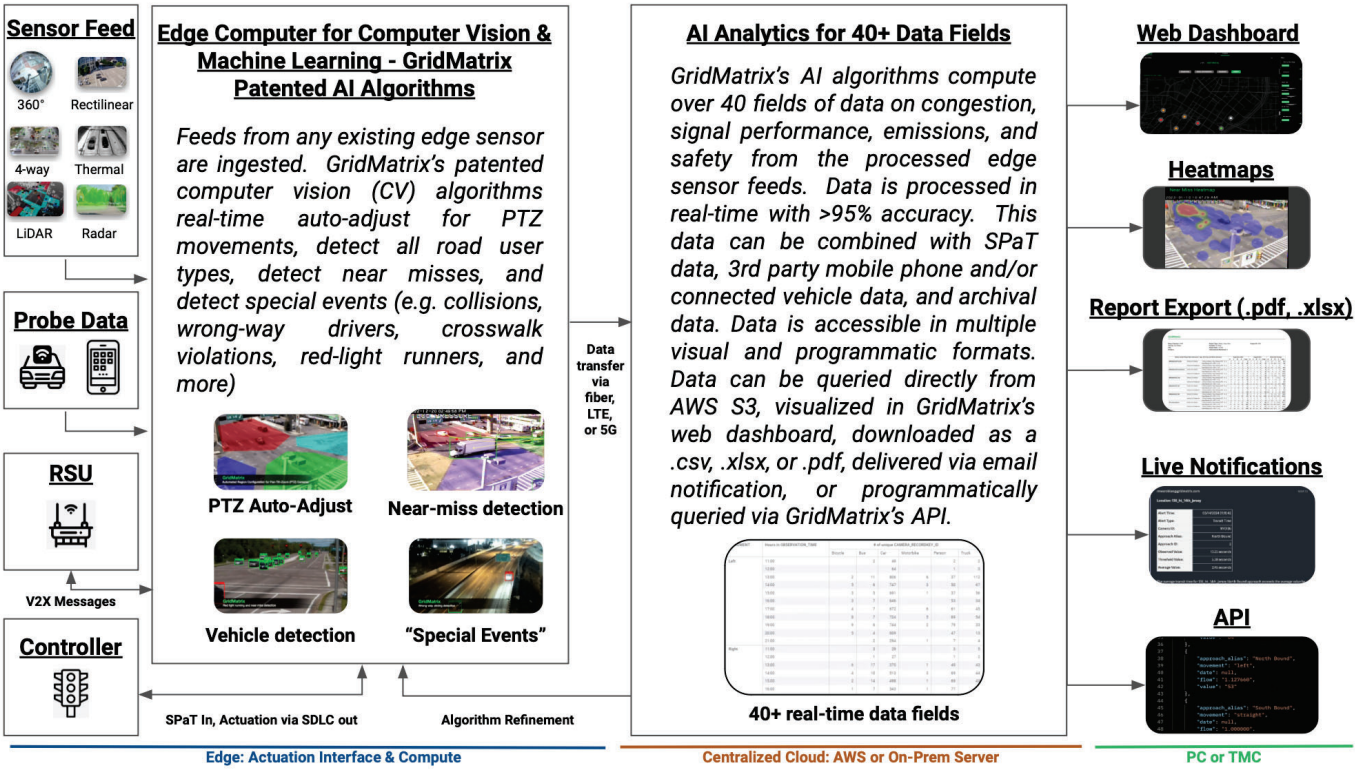
GridMatrix's mission is to help cities understand their streets through data. GridMatrix's award-winning software solution utilizes data from any existing or new roadway sensors and available cloud-based data sources to efficiently resolve traffic, emissions, and safety challenges. Our technology uses 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:

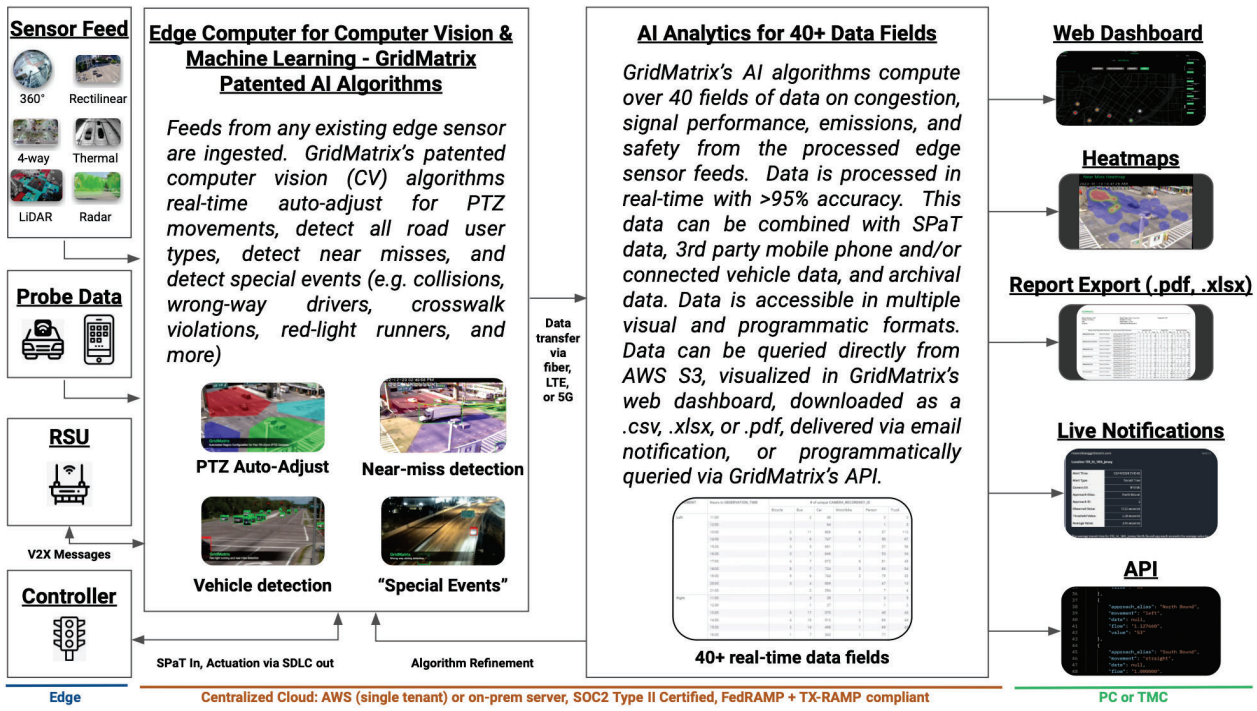
- **[Multimodal Traffic Detection]** - Leveraging existing roadway and infrastructure detection sensors such as cameras, LiDAR, radar, and inductive loops
- **[Multimodal Traffic Data Collection, Analytics, Reporting]** - Either an edge (decentralized, edge computer using NVIDIA GPUs) or cloud-based (centralized, AWS single-tenant cloud or on-premise server with Nvidia GPUs) AI 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.

Option 1: GridMatrix Modular System Diagram - Decentralized Analytic Engine with Edge Compute



Option 2: GridMatrix Modular System Diagram - Centralized Analytic Engine via AWS or On-Prem Server

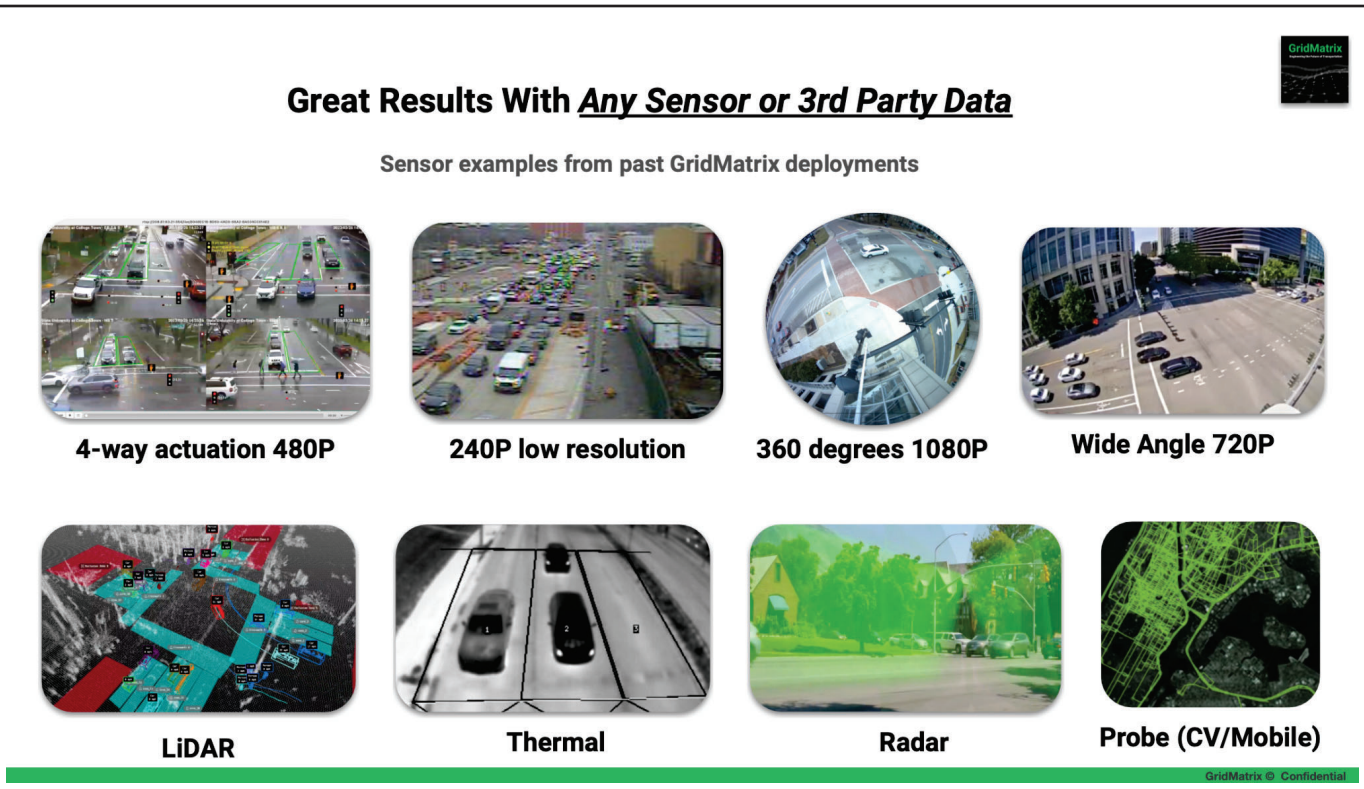


Multimodal Traffic Data Collection, Analytics, and Reporting

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 simultaneously)	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

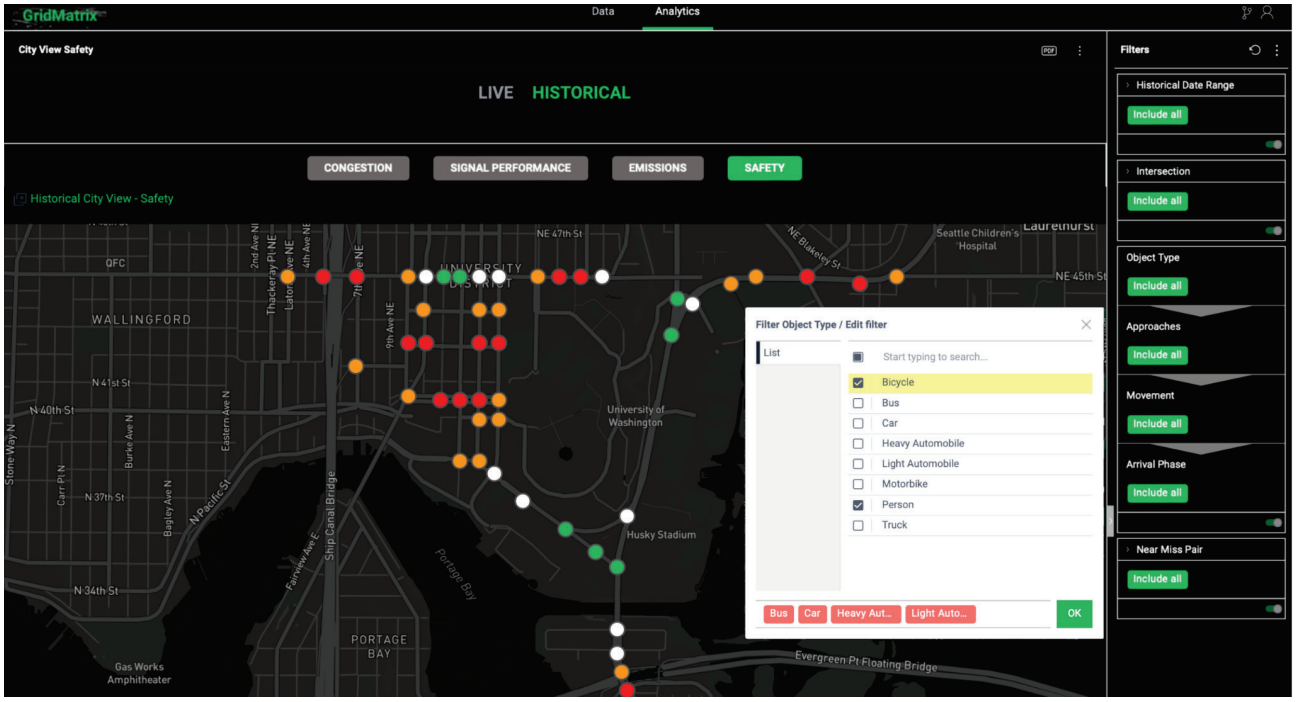
Setting Specific Metrics:

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.

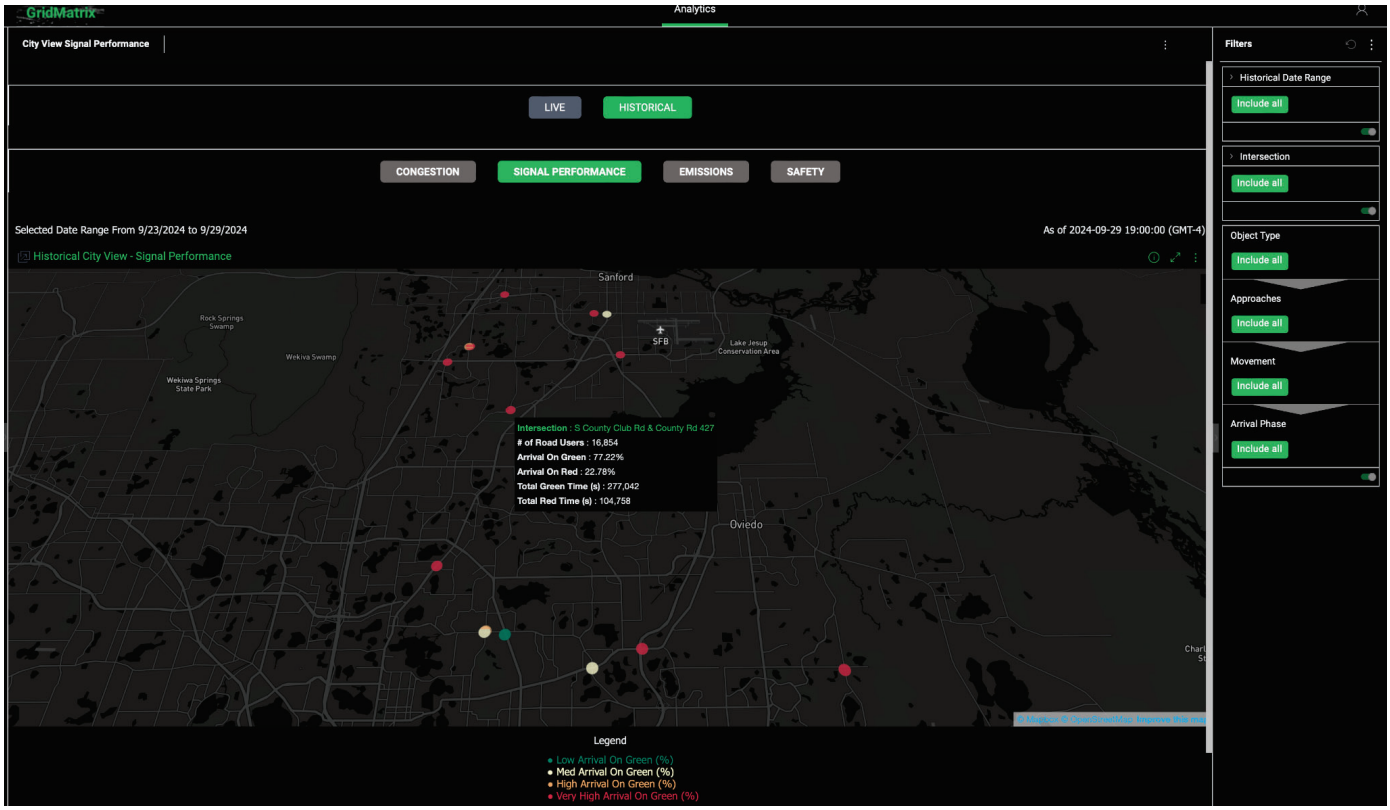
"City View" - Geospatial data representation for intersection-to-intersection comparison in the GridMatrix Web Dashboard. *The GridMatrix Insights Web Dashboard's "City View", displaying historical near-miss safety performance metrics for all vehicular road users, cyclists and pedestrians in a customer's 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. *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

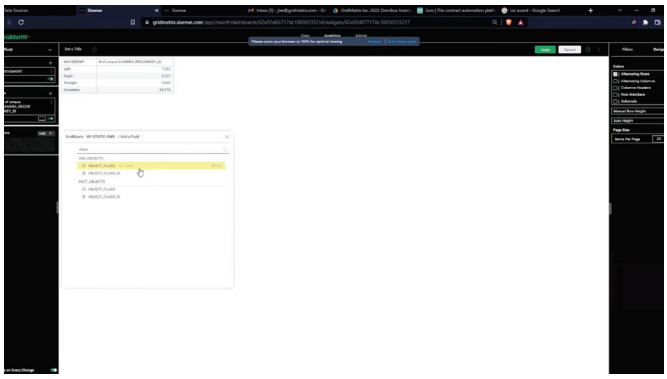
Signal Performance - City View: Signalized intersections are heat mapped by % arrival on green. This mapping can be scaled to other ATSPM metrics.



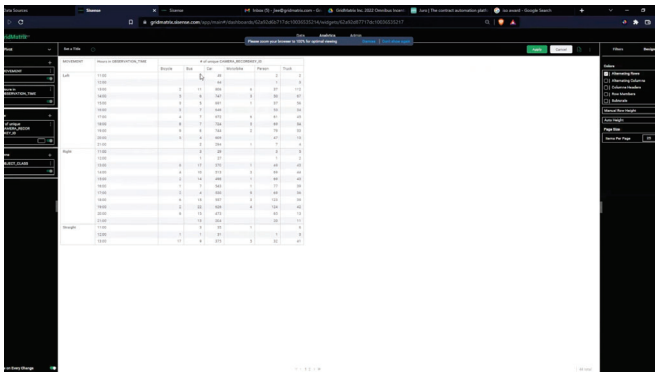
Signal Performance - Intersection View: ATSPM metrics are visualized in a time series and available for export.

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 Custom Report Builder - Drag/drop fields or use SQL queries to extract desired data fields



User selects desired fields



User generates report

Custom Reports - *Custom near-miss report example exported to .pdf*

GridMatrix

Report Number: 0006
County: San Mateo
City:
Division:

Report Type: Safety / Near Miss
Duration: 30 Days
Report Date: 11/2/23
Intersections Monitored: 5

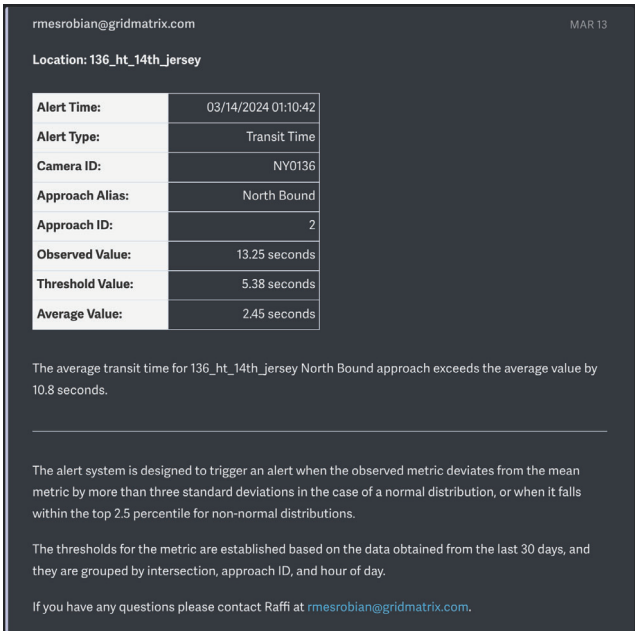
Project ID: 0001

Safety Incident Report By Intersection, Type, Severity and Vehicle Direction			September 2023					August 2023					Historical Average				
			N	E	W	S	Total	N	E	W	S	Total	N	E	W	S	Total
Middlefield & Pacific	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	0	0	4	1	**5**	0	0	2	0	**2**	0.1	0.2	1.1	0.8	**2.2**
		Near Misses (0.5 < PET < 1.2)	6	8	28	16	**58**	4	9	33	28	**74**	5	8.5	30.5	22	**66**
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	0	1	0	**1**	0	0	1	0	**1**	0	0	1	0	**1**
		Near Misses (0.5 < PET < 1.2)	1	0	3	1	**5**	2	1	5	4	**12**	1.5	0.5	4	2.5	**8.5**
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	**6.5**
		Near Misses (0.5 < PET < 1.2)	5	9	2	0	**16**	4	9	2	0	**15**	4.5	9	2	0	**15.5**
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	15	12	5	**32**	0	20	7	6	**33**	0	17.5	9.5	5.5	**32.5**
		Near Misses (0.5 < PET < 1.2)	2	17	11	1	**31**	2	21	10	1	**34**	2	19	10.5	1	**32.5**
Middlefield & 2nd	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	4	0	4	19	**27**	5	0	2	28	**35**	4.5	0	3	23.5	**31**
		Near Misses (0.5 < PET < 1.2)	0	1	12	2	**15**	0	1	14	2	**17**	0	1	13	2	**16**
	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	**3.5**
		Near Misses (0.5 < PET < 1.2)	5	12	33	6	**56**	6	17	47	7	**77**	5.5	14.5	40	6.5	**66.5**
Middlefield & 4th	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	1	1	3	2	**7**	1	1	4	2	**8**	1	1	3.5	2	**7.5**
		Near Misses (0.5 < PET < 1.2)	4	9	18	1	**32**	4	12	23	1	**40**	4	10.5	20.5	1	**36**
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	2	0	5	0	**7**	1	0	7	0	**8**	1.5	0	6	0	**7.5**
		Near Misses (0.5 < PET < 1.2)	11	8	0	6	**25**	14	8	0	6	**28**	12.5	8	0	6	**26.5**
Middlefield & 5th	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	4	4	5	3	**16**	4	5	4	4	**17**	4	4.5	4.5	3.5	**16.5**
		Near Misses (0.5 < PET < 1.2)	22	13	19	29	**83**	28	16	22	40	**106**	25	14.5	20.5	34.5	**94.5**
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	0	0	0	1	**1**	0	0	0	1	**1**	0	0	0	1	**1**
		Near Misses (0.5 < PET < 1.2)	2	2	4	1	**9**	2	3	2	1	**8**	2	2.5	3	1	**8.5**
All Intersections	Vehicle On Vehicle	Critical Incidents / Near Misses (PET <0.5)	15	5	17	25	**62**	15	6	13	34	**68**	15.1	5.7	13.1	29.8	**63.7**
		Near Misses (0.5 < PET < 1.2)	37	40	79	48	**204**	40	47	94	71	**252**	38.5	43.5	86.5	59.5	**228**
	Vehicle On Pedestrian	Critical Incidents / Near Misses (PET <0.5)	2	15	20	7	**44**	1	20	18	8	**47**	1.5	17.5	19	7.5	**45.5**
		Near Misses (0.5 < PET < 1.2)	21	39	51	15	**126**	26	50	64	19	**159**	23.5	44.5	57.5	17	**142.5**

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.



rmesrobian@gridmatrix.com MAR 13

Location: 136_ht_14th_jersey

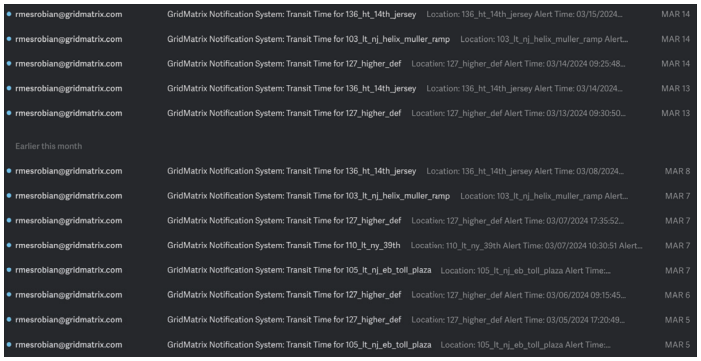
Alert Time:	03/14/2024 01:10:42
Alert Type:	Transit Time
Camera ID:	NY0136
Approach Alias:	North Bound
Approach ID:	2
Observed Value:	13.25 seconds
Threshold Value:	5.38 seconds
Average Value:	2.45 seconds

The average transit time for 136_ht_14th_jersey North Bound approach exceeds the average value by 10.8 seconds.

The alert system is designed to trigger an alert when the observed metric deviates from the mean metric by more than three standard deviations in the case of a normal distribution, or when it falls within the top 2.5 percentile for non-normal distributions.

The thresholds for the metric are established based on the data obtained from the last 30 days, and they are grouped by intersection, approach ID, and hour of day.

If you have any questions please contact Raffi at rmesrobian@gridmatrix.com.

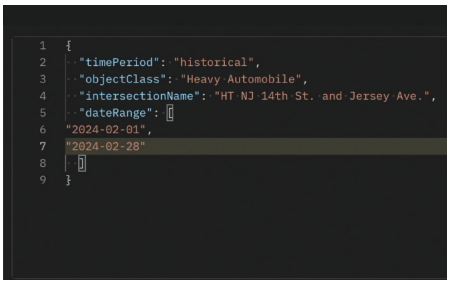


rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 136_ht_14th_jersey Location: 136_ht_14th_jersey Alert Time: 03/15/2024... MAR 14
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 103_lt_nj_helix_muller_ramp Location: 103_lt_nj_helix_muller_ramp Alert... MAR 14
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 127_higher_def Location: 127_higher_def Alert Time: 03/14/2024 09:25:48... MAR 14
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 136_ht_14th_jersey Location: 136_ht_14th_jersey Alert Time: 03/14/2024... MAR 13
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 127_higher_def Location: 127_higher_def Alert Time: 03/13/2024 09:30:50... MAR 13

Earlier this month

rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 136_ht_14th_jersey Location: 136_ht_14th_jersey Alert Time: 03/08/2024... MAR 8
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 103_lt_nj_helix_muller_ramp Location: 103_lt_nj_helix_muller_ramp Alert... MAR 7
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 127_higher_def Location: 127_higher_def Alert Time: 03/07/2024 17:35:52... MAR 7
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 110_lt_ny_39th Location: 110_lt_ny_39th Alert Time: 03/07/2024 10:30:51 Alert... MAR 7
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 105_lt_nj_eb_toll_plaza Location: 105_lt_nj_eb_toll_plaza Alert Time:... MAR 7
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 127_higher_def Location: 127_higher_def Alert Time: 03/06/2024 09:15:45... MAR 6
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 127_higher_def Location: 127_higher_def Alert Time: 03/05/2024 17:20:49... MAR 5
rmesrobian@gridmatrix.com GridMatrix Notification System: Transit Time for 105_lt_nj_eb_toll_plaza Location: 105_lt_nj_eb_toll_plaza Alert Time:... MAR 5

API - GridMatrix will provide bulk data access and query via its API (Please see the **API Documentation** 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.



```
{
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  "objectClass": "Heavy Automobile",
  "intersectionName": "HT NJ 14th St. and Jersey Ave.",
  "dateRange": [
"2024-02-01",
"2024-02-28"
  ]
}
```
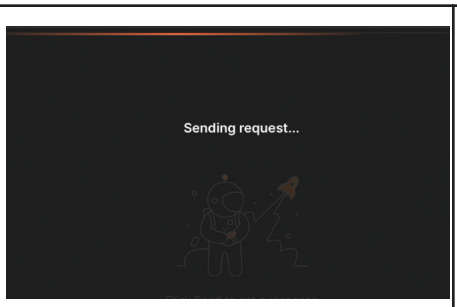

API: User inputs query request



API: Request transmission

```
    },
    {
        "approach_alias": "North Bound",
        "movement": "left",
        "date": null,
        "flow": "1.127660",
        "value": "53"
    },
    {
        "approach_alias": "South Bound",
        "movement": "straight",
        "date": null,
        "flow": "1.000000",
```

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
    - Curb violations (e.g. double parking)
    - Work zone violations
    - Red light running
    - Wrong-way driving

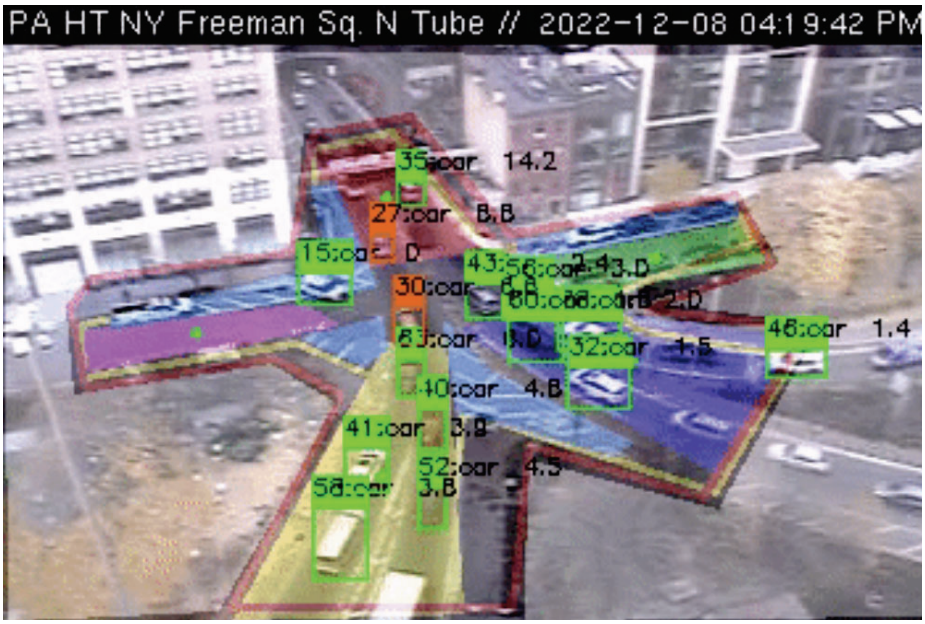
GridMatrix's platform makes safety data visualization, reporting, and export, from all the fields above available in multiple formats, including:

- "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.*

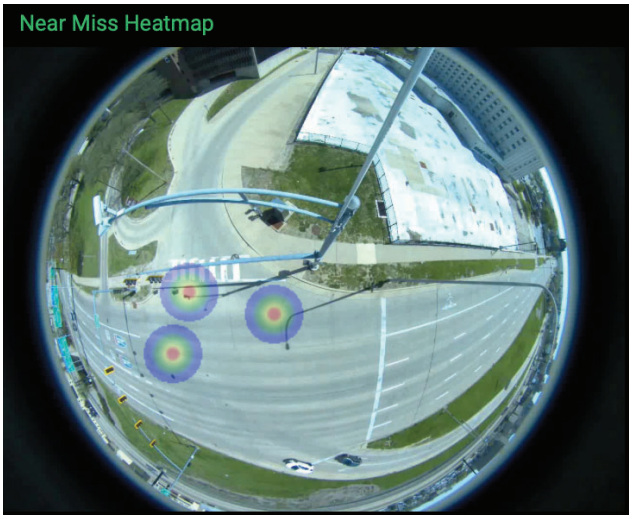
GridMatrix Near Miss Detection with TTC: *Real time near miss example quantified with TTC using existing intersection cameras with 240P, 12FPS cameras. Highlighted vehicles in orange are in the same path of travel. The leading object (#27) has stopped as it encountered congestion at a tunnel entrance.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



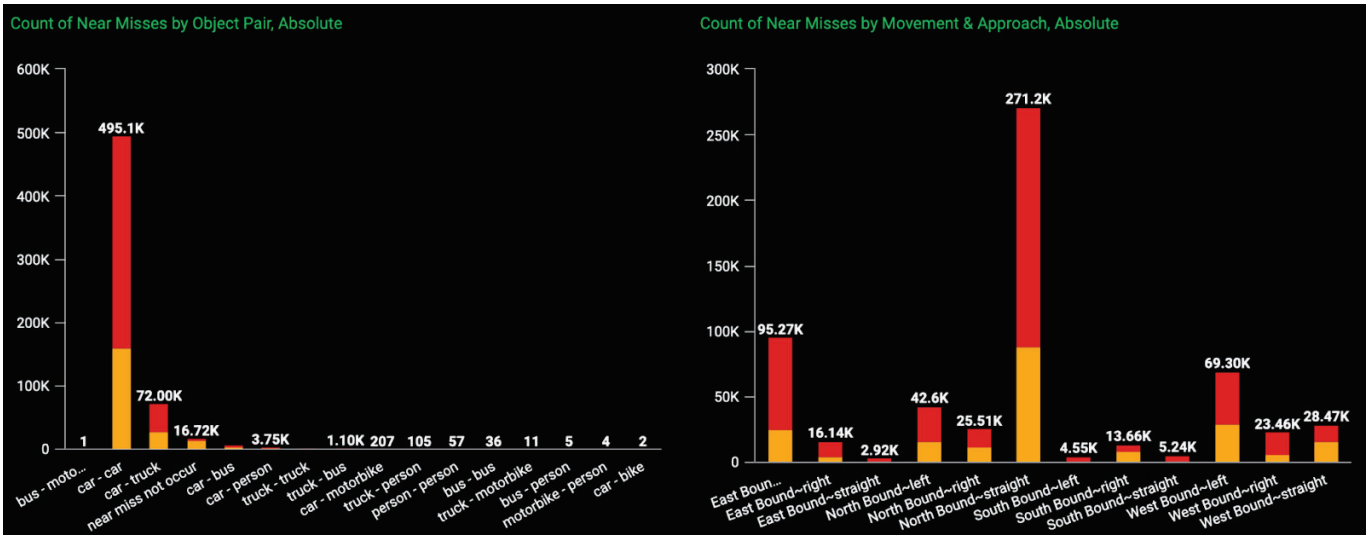
Conflict Analysis - Tools for Finding Patterns in Near Miss Events: GridMatrix's software monitors all surrogate safety metrics and flags positive events in real time, displaying them in a variety of visual formats and with filtering capabilities. These visualization tools are presented below:

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)



Count of Near Miss Events: Near miss incidents by pair and approach, severity by PET

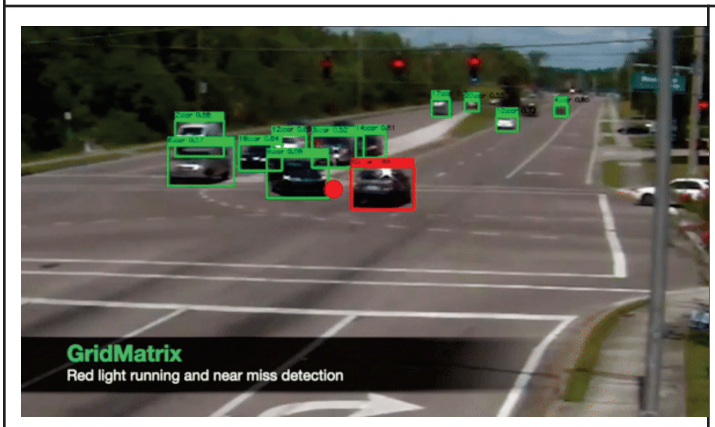


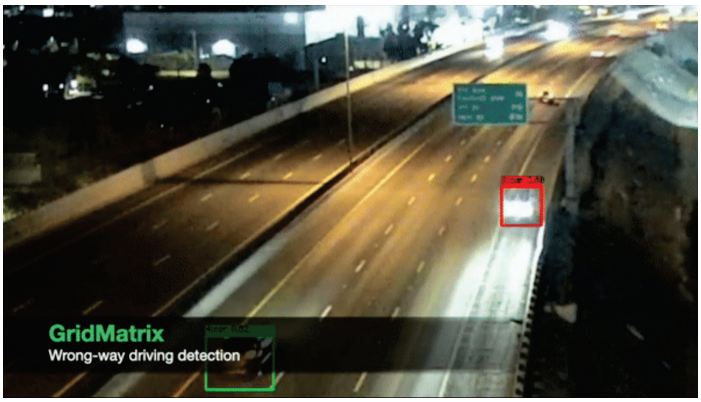
Near Miss Per Capita: Near miss incident frequencies are listed by absolute quantity in the top table. In the bottom table, these counts of near misses are adjusted by the count of road user types, to achieve a "normalized", per capita measure of near miss frequency by road user type. This normalization 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						124			
bike						203			
bus			3	390		432		227	7
car						702			
heavy automob...						75			
light automob...									
motorbike									
person									
truck									

Pair	NM Count, Normalized								
	bicycle	bike	bus	car	heavy automobile	light automobile	motorbike	person	truck
bicycle						1.9%			
bike						3.1%			
bus			0.74%	24.68%		6.7%		50%	0.88%
car						10.8%			
heavy automob...						1.15%			
light automob...									
motorbike									
person									
truck									

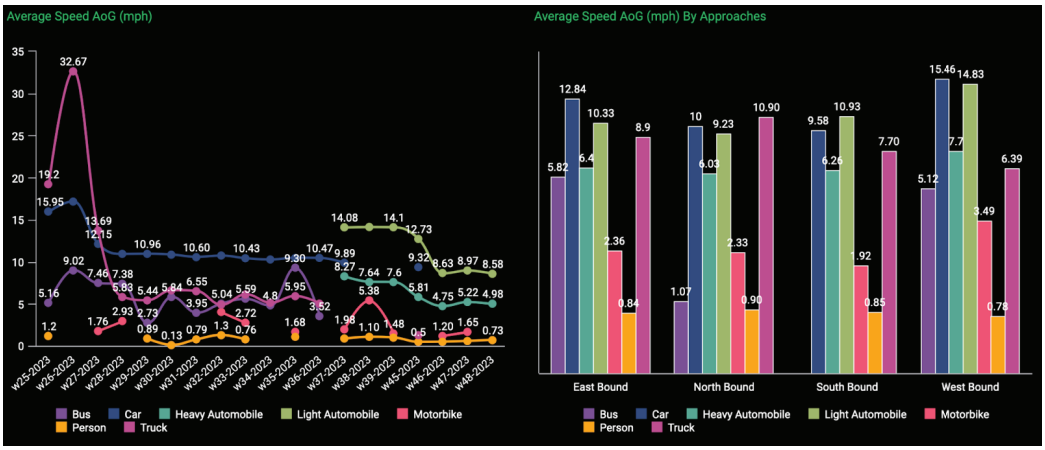
Special Events - Examples of special event detection with GridMatrix's platform





“Special Event” - Pedestrian Crosswalk Violation Examples	
Night Time Examples	**Day Time Examples**
	
Pedestrian is detected in the upper shoulder	***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*

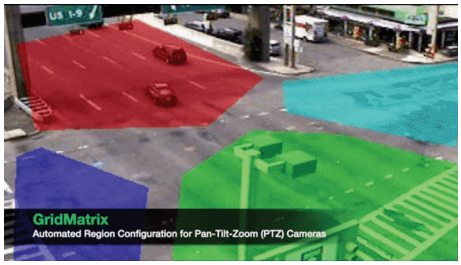
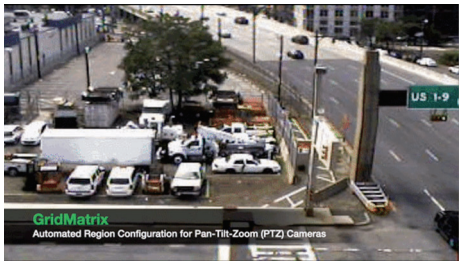
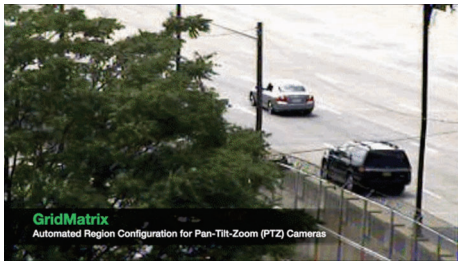
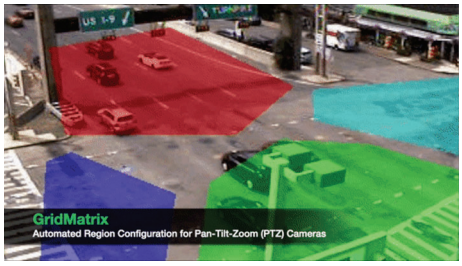

		

Figure 4: The camera's operator zooms in on the disabled (gray sedan) vehicle that is blocking a lane on the entrance to US I-9	*Figure 5: The camera's operator completes their investigation of the stalled vehicle and begins shifting the camera back into its original position*	*Figure 6: GridMatrix's 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

deployed successfully to the specifications of several new clients. Valasek will supervise the engineering team and all subcontractors as they design and implement projects. Valasek will also oversee systems integration and technical support.

Valasek brings experience managing sensor development from his time at Opal Camera, where he spearheaded engineering operations, improved feature output and technical performance, and created cross-functional development teams. He also has a firm understanding of transportation technology from Mercedes Benz R&D, where he worked on the company's remote parking program and cloud/app integration. Valasek's work included technical integration for the steering, braking, and drive systems along with path planning and object detection, all of which have parallels in the GridMatrix metrics and alert classes.

Max Mammadov is a Senior Cloud Engineer who maintains the operations of GridMatrix's software. Prior to GridMatrix, Max was a senior level engineer at three different companies, including Oracle Corporation, Oportun, and Juniper Networks.

Key Project Management Staff

The vendor project manager will be GridMatrix CEO Nicholas D'Andre. D'Andre spent three years with Apple as Senior Global Supply Manager and has experience at firms such as Google, Amazon, and McKinsey. He holds an MBA from Yale University and a Bachelor of Arts from Pomona College. D'Andre will work with our clients to coordinate the work undertaken under the contract with other concurrent projects; maintain communication with the county and key contract personnel; maintain the staffing required for the work; and track and maintain the project budget. D'Andre will also work with policy analyst Jack Moore to establish and maintain contract administration procedures, including supplemental agreements, subcontracting, and personnel change management. D'Andre will work with COO Mike Areen regarding the budget.

D'Andre has been the ultimate project manager for all GridMatrix deployments to date. He has created the company's project outlines and charters, including KPI setting and execution, scheduling, task management, and ultimate deliverable execution. D'Andre's management style emphasizes flexibility and risk management.

The most obvious example of this is the company's pivot to developing Pan-Tilt-Zoom (PTZ) capabilities during its deployment with the Port Authority of New York and New Jersey (PANYNJ). During this project, GridMatrix determined that the real-time feeds from PANYNJ cameras often were shifted by traffic engineers to look at objects on the roadway. GridMatrix developed a patent-pending algorithm to ensure that data was collected only when the intersection was within view and resumed immediately as the cameras reset. Throughout this process, GridMatrix communicated to PANYNJ about its progress and went above and beyond ensuring the challenge did not impede delivery of on-time results.

D'Andre holds and leads frequent company-client meetings to coordinate efforts for ongoing projects. Typically, GridMatrix meets with clients on a bi-weekly basis. D'Andre will host meetings for customer personnel and provide agenda items in advance. These efforts will be supplemented by quarterly check-ins and on-site availability. D'Andre is readily available by email and phone. Should any changes to key personnel occur, D'Andre will inform customers of the change. GridMatrix maintains a KPI checklist for its clients to ensure all work is completed on time in a manner that serves the needs of the client.

Key Administrative Support Staff

Providing administrative support to Valasek and D'Andre throughout implementation and operation will be Mike Areen, our COO. Areen will be responsible for ensuring customer success by liaising with the technical team to support customer needs, managing implementation, and continuously monitoring the project's budget to ensure it remains on track. Areen will supervise operations and training. Areen previously was Head of Strategic Finance for Sila Nanotechnologies, where he managed budgets of over $200 million annually.

Jack Moore is a Policy Analyst at GridMatrix. Jack manages GridMatrix's municipal, state, and federal proposals, external written communications, and network partner relations. Prior to GridMatrix, he served as a research associate to former Chief of Staff to the President of the United States Mick Mulvaney and Contributor to the Daily Caller.

Past Relevant Projects

GridMatrix has deployed its award-winning software platform for transit analytics with 15 customers in 10 states, and worked across multiple levels of government including city, county, state, and federal entities, as well as universities. A full list of GridMatrix deployments is below:

GridMatrix has worked across levels of federal, state, and local government

Project Experience Summary by Level

US Federal Government: GridMatrix was selected to participate in The Opportunity Project (TOP), a collaborative initiative between the US Census Bureau and US DOT. The program's mission is to provide support to innovative startups that can help solve the nation's most pressing challenges. From Q4 2022 to Q1 2023, GridMatrix was part of the program's winter cohort and collaborated with a team of US DOT data scientists on how to make transit more resilient to climate change. GridMatrix prototyped a solution that combined data from existing roadway sensors, real-time fleet asset data from NYC MTA buses, and NOAA weather data to create a real-time picture of bus route transit risk. GridMatrix's engineering team presented this solution at TOP's annual demo day.

State DOTs: GridMatrix has received RFP awards from 3 state DOTs, including the states of Arizona, Georgia, and Texas. Arizona has contracted with GridMatrix to provide on-call support for its research and development initiatives. Georgia has contracted with GridMatrix as part of its statewide Intelligent Transportation Solution (ITS) Marketplace, and is currently evaluating GridMatrix for implementation on existing state-operated

roadway cameras for data collection and incident detection. The State of Texas Department of Information Resources has whitelisted GridMatrix, enabling multiple state, county, and city entities both in and out of Texas to directly procure GridMatrix's software. We have also received a contract from the Purchasing Cooperative of America, which allows us to sell directly to multiple states and thousands of local government entities across the country.

Counties & Cities: GridMatrix has launched its solution in Bellevue, WA, Morrisville, NC, Peoria, IL, Pleasanton, CA, Peachtree Corners, GA and Maricopa County, AZ and has upcoming projects in Denver, CO, Maricopa County, AZ, and San Mateo, CA. These governments are utilizing GridMatrix for:

- Congestion Management - to gather accurate data on vehicle and pedestrian counts, as well as cyclist traffic data
- Signal Performance - to optimize signal light timing
- Emissions - to gather data on emissions, particularly on heavy vehicles and freight traffic in residential neighborhoods
- Safety - to gather data on near misses and support both Vision Zero & Safe Streets for All grant planning

It is also notable that in these deployments, GridMatrix has successfully integrated with data from multiple different cameras, LiDAR, radar, and inductive loops.

Airports: Los Angeles World Airports, the organization responsible for managing Los Angeles International Airport (LAX) and Van Nuys (VNY) airport has invited GridMatrix to demonstrate its technology at LAX. The airport is specifically interested in using GridMatrix with LiDAR at the roadside of LAX to:

- Count people and vehicle at curbside locations and on roadways, and baggage at curbside locations
- Accurately measure distances between vehicles, and between vehicles and curbs
- Monitor "near misses" between vehicles and people
- Determine vehicle speeds and identify vehicles through their characteristics

Universities: GridMatrix has launched its solution at California State University at Sacramento. The campus has a student population of 30,000 people and the university is interested in monitoring campus ingress and egress using GridMatrix's platform as well as monitoring pedestrian and cyclist safety via "near miss" monitoring on-campus. GridMatrix is launching a similar deployment at CU Denver's urban campus in Denver, CO.

Background and Years in Business

- **Size**: GridMatrix currently employs 5 full-time employees, all of whom are located in the United States and work from its offices in Austin, TX and/or San Francisco, CA
- **Offices**: GridMatrix maintains two offices, with one location in Austin, Texas and its second in San Francisco, CA
- **Years in Business**: GridMatrix was incorporated in January 2021 and has been in continuous operation since (4+ years in business)

Our Mission Statement:

- GridMatrix's mission is to evolve existing transportation infrastructure for the demands of the next 50 years. A component of this evolution will include new physical infrastructure, but it will also require the genesis of a new digital layer of infrastructure as well. We see a generational opportunity to build this digital infrastructure and accelerate the shift to new forms of mobility. We have already begun this work, building a cloud based software platform that ingests data from any existing edge sensor within a city and delivers insights that eliminate traffic congestion, accidents, and emissions in real time.

GridMatrix's software can already reveal all eastbound freight traffic in a city, predict the total gallons of gasoline consumed across its road grid, and let emergency responders know that an accident has taken place on 110th Ave & 4th Street in under 200 milliseconds. Our funnel is expanding to include cloud based data sources, fusing information from connected vehicles, mobile phones, and satellite images with live edge data to create a true digital twin of urban street traffic. Ultimately, we will evolve into a predictive, bidirectional channel whereby users and infrastructure are connected and can communicate with each other. While our product and company grew out of thinking about how to build a smarter intersection (and remake cities in the process), we already have inbound requests for real time spatial intelligence beyond solely urban settings. From the port that wants to understand cargo movement and truck queues, to construction sites tracking material flow, to airports measuring the relationship between ground traffic and passenger volume - we are building an original digital layer of infrastructure that will have a foundational role in each of these settings and ultimately contribute to a safer, greener, and more efficient world.

Significant Requirements Not Met

GridMatrix meets all of the specified requirements for RFP#2025-018.

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 Sample Deployment Timeline																
	Month	Month 1				Month 2				Months 3 - End				End Month		
	Week	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1		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:

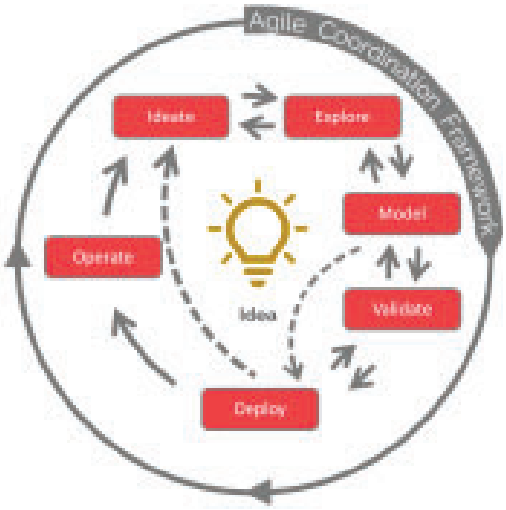
TA-6) System Operation (Ongoing basis): GridMatrix's engineering team will monitor the user's dashboard on a daily basis to ensure the system is exceeding requirements in all respects. GridMatrix's engineering team maintains internal dashboards that report on camera outages, data pipeline interruptions, 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.

Pricing

Category 1 - AI Solutions				
Description	Add additional description if necessary:	Unit Price	% Discount	Notes/Comments
1. 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
1. 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
1. 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
1. 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
1. 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
1. 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
1. 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
1. 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
1. 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
2. Implementation and Customization Costs: Outline the costs related to the implementation of the AI 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
2. Implementation and Customization Costs: Outline the costs related to the implementation of the AI 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
3. 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
3. 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
4. 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
5. 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
6. 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

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.

Attachments

ATTACHMENT I: INSTRUCTIONS FOR PROPOSALS COMPLIANCE AND SUBMITTAL

Compliance with the Solicitation

Submissions must be in strict compliance with this solicitation. Failure to comply with all provisions of the solicitation may result in disqualification.

Compliance with the NCTCOG Standard Terms and Conditions

By signing its submission, Offeror acknowledges that it has read, understands and agrees to comply with the NCTCOG standard terms and conditions.

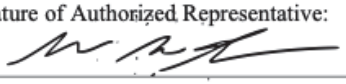
Acknowledgment of Insurance Requirements

By signing its submission, Offeror acknowledges that it has read and understands the insurance requirements for the submission. Offeror also understands that the evidence of required insurance must be submitted within ten (10) working days following notification of its offer being accepted; otherwise, NCTCOG may rescind its acceptance of the Offeror's proposals. The insurance requirements are outlined in Section 2.2 - General Terms and Conditions.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:



Date: Jan. 7th, 2025

ATTACHMENT II: CERTIFICATIONS OF OFFEROR

I hereby certify that the information contained in this proposal and any attachments is true and correct and may be viewed as an accurate representation of proposed services to be provided by this organization. I certify that no employee, board member, or agent of the North Central Texas Council of Governments has assisted in the preparation of this proposal. I acknowledge that I have read and understand the requirements and provisions of the solicitation and that the organization will comply with the regulations and other applicable local, state, and federal regulations and directives in the implementation of this contract.

I also certify that I have read and understood all sections of this solicitation and will comply with all the terms and conditions as stated; and furthermore that I, Nicholas D'Andre (typed or printed name) certify that I am the CEO (title) of the corporation, partnership, or sole proprietorship, or other eligible entity named as offeror and respondent herein and that I am legally authorized to sign this offer and to submit it to the North Central Texas Council of Governments, on behalf of said offeror by authority of its governing body.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:

Date: Jan. 7th, 2025

ATTACHMENT III: CERTIFICATION
REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

This certification is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 93, Government-wide Debarment and Suspension, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668, 682), Department of Health and Human Services (45 CFR Part 76).

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

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;

2. Have not within a three-year period preceding this contract been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction, violation of federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false Proposals, or receiving stolen property;

3. Are not presently indicated for or otherwise criminally or civilly charged by a government entity with commission of any of the offense enumerated in Paragraph (2) of this certification; and,

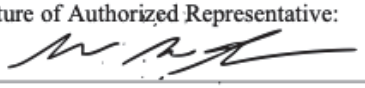
4. Have not within a three-year period preceding this contract had one or more public transactions terminated for cause or default.

Where the prospective recipient of federal assistance funds is unable to certify to any of the qualifications in this certification, such prospective recipient shall attach an explanation to this certification form.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:



Date: Jan. 7th, 2025

ATTACHMENT IV: 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 include 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 or belief, that:

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

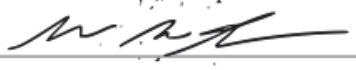
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, and or cooperative contract, the undersigned shall complete and submit Standard Form – LLL, "Disclosure Form to Report Lobbying", in accordance with the instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers and that all sub-recipients shall certify accordingly.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:



Date: Jan. 7th, 2025

ATTACHMENT V: DRUG-FREE WORKPLACE CERTIFICATION

The GridMatrix, Inc. (company name) will provide a Drug Free Work Place in compliance with the Drug Free Work Place Act of 1988. The unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited on the premises of the GridMatrix, Inc. (company name) or any of its facilities. Any employee who violates this prohibition will be subject to disciplinary action up to and including termination. All employees, as a condition of employment, will comply with this policy.

CERTIFICATION REGARDING DRUG-FREE WORKPLACE

This certification is required by the Federal Regulations Implementing Sections 5151-5160 of the Drug-Free Workplace Act, 41 U.S.C. 701, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668 and 682), Department of Health and Human Services (45 CFR Part 76).

The undersigned subcontractor certifies it will provide a drug-free workplace by:

Publishing a policy Proposal notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the consequences of any such action by an employee;

Establishing an ongoing drug-free awareness program to inform employees of the dangers of drug abuse in the workplace, the subcontractor's policy of maintaining a drug-free workplace, the availability of counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed on employees for drug violations in the workplace;

Providing each employee with a copy of the subcontractor's policy Proposal;

Notifying the employees in the subcontractor's policy Proposal that as a condition of employment under this subcontract, employees shall abide by the terms of the policy Proposal and notifying the subcontractor in writing within five days after any conviction for a violation by the employee of a criminal drug abuse statue in the workplace;

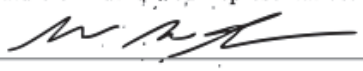
Notifying the Board within ten (10) days of the subcontractor's receipt of a notice of a conviction of any employee; and,

Taking appropriate personnel action against an employee convicted of violating a criminal drug statue or requires such employee to participate in a drug abuse assistance or rehabilitation program.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:



Date: Jan. 7th, 2025

ATTACHMENT VI: DISCLOSURE OF CONFLICT OF INTEREST
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.

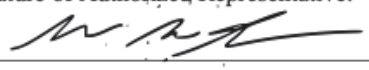
No member of the NCTCOG receives compensation from the contractor for lobbying activities as defined in Chapter 305 of the Texas Government Code.

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.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:



Date: Jan. 7th, 2025

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 22, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY
Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

N/A

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

N/A

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

N/A

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

N/A ☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

N/A ☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

N/A

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

N/A

Signature of vendor doing business with the governmental entity

Jan. 7th, 2025

Date

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 1/1/2021

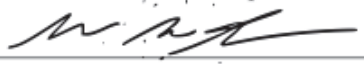
ATTACHMENT VII: CERTIFICATION OF FAIR BUSINESS PRACTICES

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.

Name of Organization/Contractor(s):

GridMatrix, Inc.

Signature of Authorized Representative:



Date: Jan. 7th, 2025

ATTACHMENT VIII: 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 following certification that the corporation entering into this offer is current in its franchise taxes must be signed by the individual authorized on Form 2031, Corporate Board of Directors Resolution, to sign the contract for the corporation.

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.

Indicate the certification that applies to your corporation:

☑ The Corporation is a for-profit corporation and certifies that it is not delinquent in its franchise tax payments to the State of Texas.

☐ The Corporation is a non-profit corporation or is otherwise not subject to payment of franchise taxes to the State of Texas.

Type of Business (if not corporation):

☐ Sole Proprietor

☐ Partnership

☐ Other

Pursuant to Article 2.45, Texas Business Corporation Act, the North Central Texas Council of Governments reserves the right to request information regarding state franchise tax payments.

Nicholas D'Andre

(Printed/Typed Name and Title of Authorized Representative)

Signature

Date: Jan. 7th, 2025

ATTACHMENT IX: HISTORICALLY UNDERUTILIZED BUSINESSES, MINORITY OR WOMEN-OWNED OR DISADVANTAGED BUSINESS ENTERPRISES

Historically Underutilized Businesses (HUBs), minority or women-owned or disadvantaged businesses enterprises (M/W/DBE) are encouraged to participate in the solicitation process.

NCTCOG recognizes the certifications of most agencies. HUB vendors must submit a copy of their certification for consideration during the evaluation of their proposal. Please attach the copy to this form. This applies only to the Offeror and not a subcontractor.

Texas vendors who are not currently certified are encouraged to contact either the Texas United Certification Program, State of Texas HUB Program, or the North Central Texas Regional Certification Agency, among others. Contact:

State of Texas HUB Program
Texas Comptroller of Public Accounts
Lyndon B. Johnson State Office Building
111 East 17th Street
Austin, Texas 78774
(512) 463-6958
http://www.window.state.tx.us/procurement/prog/hub/

North Central Texas Regional Certification Agency
624 Six Flags Drive, Suite 100
Arlington, TX 76011
(817) 640-0606
http://www.nctrca.org/certification.html

Texas United Certification Program
USDOT website at
https://www.transportation.gov/DBE

You must include a copy of your certification document as part of this solicitation to receive points in the evaluation.

Vendor to Sign Below to Attest to Validity of Certification:

GridMatrix, Inc.
Vendor Name


Authorized Signature

Nicholas D'Andre
Typed Name

Jan. 7th, 2025
Date

☑ **Not applicable.**

ATTACHMENT X: 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.

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:

A) Telecommunications equipment that is produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliates of such entities).
B) Video surveillance and telecommunications equipment produced by Hytera Communications Corporations, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliates of such entities).
C) Telecommunications or video surveillance services used by such entities or using such equipment.
D) Telecommunications or video surveillance equipment or services produced or 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.

☑ **The Contractor or Subrecipient hereby certifies that it does comply with the requirements of 2 CFR §200.216 and §200.471, or applicable regulations in Public Law 115-232 Section 889.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: Nicholas D'Andre

NAME OF COMPANY: GridMatrix, Inc.

DATE: Jan. 7th, 2025

-OR-

☐ **The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of 2 CFR §200.216 and §200.471, or applicable regulations in Public Law 115-232 Section 889.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: _____

NAME OF COMPANY: _____

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.

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

SIGNATURE OF AUTHORIZED PERSON: 

NAME OF AUTHORIZED PERSON: Nicholas D'Andre

NAME OF COMPANY: GridMatrix, Inc.

DATE: Jan. 7th, 2025

-OR-

☐ **The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of Chapter 2274, Subtitle F, Title 10.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: _____

NAME OF COMPANY: _____

DATE: _____

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.

☑ The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON: 

NAME OF AUTHORIZED PERSON: Nicholas D'Andre

NAME OF COMPANY: GridMatrix, Inc.

DATE: Jan. 7th, 2025

-OR-

☐ The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: _____

NAME OF COMPANY: _____

DATE: _____

Exhibit 1

Place a checkmark next to each category you are offering in your proposal:

☑ **Service Category #1: Artificial Intelligence (AI) Solutions for Public Sector Entities**

☐ **Service Category #2: Other Ancillary Goods or Services (List Below)**

_____

_____

_____

The Respondent shall furnish a comprehensive cost pricing model for this RFP, pursuant to the guidance provided in Section 5.13. Please delineate pricing based on **Service Category 1**, **Service Category 2**, or a combined pricing model for both categories. Label your pricing proposal as "Exhibit 1 – Pricing," and use as many pages as necessary to provide detailed information.

Important Note: This RFP is not tied to any specific project at this time. The purpose is to secure pricing for potential future use of AI solutions by public sector entities. Respondents are encouraged to provide pricing models that are as descriptive and flexible as possible to accommodate the varied needs of potential users.

In addition to the requested pricing, Respondents are encouraged to include a retainage rate based on the hourly rate of each staff member for any future projects that may arise but are not currently anticipated by this RFP.

Refer to Exhibit 1 –Pricing Proposal Worksheet Attachment.

Exhibit 2

Exhibit 2 is not applicable to this RFP

Exhibit 3

	Texas Service Area Designation or Identification		
Proposing Firm Name:	GridMatrix, Inc.		
Notes:	**Indicate in the appropriate box whether you are proposing to service the entire state of Texas**		
	Will service the entire state of Texas	Will not service the entire state of Texas	
	☑	☐	
	If you are not proposing to service the entire state of Texas, designate on the form below the regions that you are proposing to provide goods and/or services to. By designating a region or regions, you are certifying that you are willing and able to provide the proposed goods 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)

	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 ☐