Exhibit B RAS Submission

Lexington-Fayette Urban County Government
Proposal for Pavement Assessment and Management Plan
RFP 47-2024

Prepared by:

Roadway Asset Services, LLC.
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Roadway Asset Services

September 26, 2024

Lexington-Fayette Urban County Government
200 E Main St
Lexington, KY 40507

Dear Sondra Stone and the Selection Committee,

Roadway Asset Services, LLC (RAS) is pleased to submit this proposal for Lexington-Fayette Urban County Government's Pavement Assessment and Management Plan (RFP #47-2024). The RAS management team is composed of industry experts who bring over a combined 150 years of experience and have managed **100,000 miles of pavement condition and asset inventory data** in the last 5 years. Specifically, our team will provide the following:

- **Unrivaled Municipal Experience** – Our engineering firm is comprised of industry experts assisting municipalities in the field of pavement and asset management. Throughout their careers, the RAS leadership team has **managed pavement data and ROW asset collection for 10 of the 20 largest U.S. Cities**. Throughout their careers, the RAS leadership team has managed the following pavement and asset condition assignments: Columbus, OH; Cincinnati, OH; Indianapolis, IN; Michiana Area COG, IN; Memphis, TN; Montgomery County, TN; Kingsport, TN; Charlotte, NC; Durham, NC; Virginia Beach, VA; Kansas City, MO; Chicago MAP, IL; and Peoria, IL.
- **Automated Data Collection Technology** – The RAS team owns and operates a fleet of **four advanced automated data collection vehicles** for use in the development of PCI, IRI, and OCI results. Our team uses the latest technology **(LCMS-2 and Ladybug 360 cameras) to collect ASTM D6433 distresses** along with other right-of-way asset attributes. RAS' state-of-the-art Roadway Asset Collection (RAC) vehicles are equipped with a class 1 inertial profiler that was independently certified by Texas A&M Transportation Institute (TTI). RAS' RoadTRIP™ software was specifically designed to analyze the high-resolution and laser illuminated LCMS imagery for post processing of the detailed pavement distress data per the ASTM D6433. The RoadTRIP™ application also contains a PCI calculator that is used for QA/QC measures before importing into the selected pavement management software.
- **Data Verification via an Advanced Filed Pilot –** The importance of the field pilot cannot be understated as it has become a routine milestone for the RAS Team on all pavement condition projects. The pilot allows RAS to collect, process, and review condition data with LFUCG Staff to ensure accuracy with the ASTM D6433 protocols and confirm the LFUCG's interpretation of distresses is in alignment with the PCI/OCI score.
- **Software Evaluation and Brightly Experience** – While many consultants will propose software that they are comfortable implementing, RAS differentiates itself by committing to assisting our clients in the selection of software that truly meets their needs instead of the needs of the selected consultant. Based on the initial requirements in the RFP, RAS is recommending **Brightly's Predictor Suite** with Cartegraph as an alternative. The Brightly suite of software is currently being implemented in other departments in the LFUCG and will save resources and effort during implementation. As a partner of Brightly, RAS has the experience to implement and provide the LFUCG with a robust pavement management system that has **web hosting, interactive maps, and financial optimization capabilities for multi-year planning purposes**.

- **Access to Field Imagery-** RAS views imagery from the condition assessment as pertinent to LFUCG's quality assurance measures and final acceptance of the data. As such, RAS will deliver all 5 panoramic ladybug image views and the downward LCMS roadway images collected at no additional cost. The imagery will be delivered via a hard drive, in .jpeg format, and geo-referenced to within 1 meter.

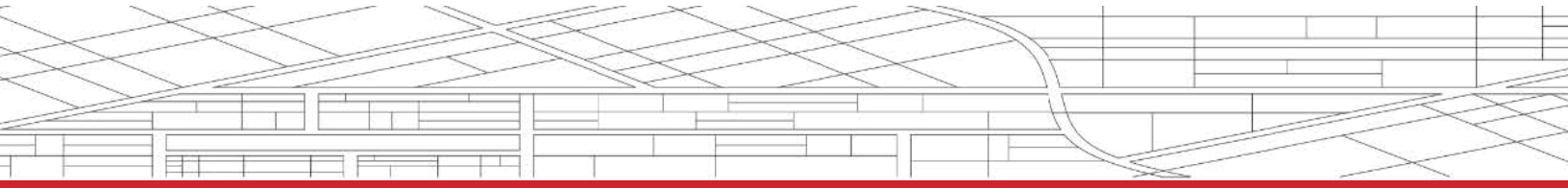
- **Local DBE Participation**– As a local subconsultant to the team, Abbie Jones Consulting (AJC) is a Kentucky certified DBE and Woman Owned Small Business. AJC is a civil engineering firm that conducts site design, transportation engineering, storm system design, and permitting. For this project, AJC will conduct independent QA/QC of the pavement condition data. AJC won the LFUCG's previous automated PCI survey.

- **User-Friendly Deliverables-** The RAS team regularly performs pavement analysis utilizing 3rd party asset management software and has unrivaled experience with pavement inspections utilizing the ASTM D6433 methodology. In addition to our expertise with implementing software, RAS will deliver PowerBI portals with integrated mapping and condition results. The PowerBI deliverables come in two stages: the data QC portal as well as the final deliverable. The QC portal contains every section's distress data with an interactive map, complete with the PCI scores, and links to the forward-facing imagery. The final portal will hold the summarized section PCI scores, weighted PCI averages, enhanced interactive PCI map, and statistics of the network pavement conditions.

We look forward to building a long-term relationship with Lexington-Fayette Urban County Government. RAS has reviewed this RFP in its entirety and acknowledges receipt of Addendum 1. RAS' main point of contact and authorized negotiator for contract terms and binding decisions is Bart Williamson, FCLS. He can be contacted at (210) 837-5249 and bwilliamson@roadwayassetservices.com.

Sincerely,

Bart Williamson
Chief Executive Officer
Roadway Asset Services, LLC



Company Background & Qualifications

1. Company Background and Qualifications

1.a Specialized Experience and Technical Competence of the Firm

Roadway Asset Services, LLC (RAS) is an Engineering Firm (License #: F-22104) headquartered in Austin, TX with regional offices in Tennessee, Illinois, and Georgia. As a pavement and asset management consulting firm, RAS specializes in automated pavement inspections, field pilot validations, AI processing supplemented with manual pavement engineer QC, ROW imagery capture, pavement analysis optimization, asset extraction, pavement management imports, and consulting services to transportation agencies across the U.S. RAS offers comprehensive experience and subject matter expertise in the fields of engineering, surveying, asset management, transportation planning, and GIS.

RAS was founded on the core principles of collaborating with our clients, cultivating those relationships, and embracing innovation in technology resources. RAS Team Members strive to provide accurate data-driven results that allow our clients to make the best possible management decisions while enjoying the passion we all share in improving infrastructure.

RAS is a Silver ESRI Business partner with a leadership team composed of seasoned pavement management professionals who bring over a combined **150 years of experience in pavement condition survey management.** Throughout their careers, the RAS leadership team has been involved in pavement condition and ROW asset surveys for agencies of similar size across the country including:

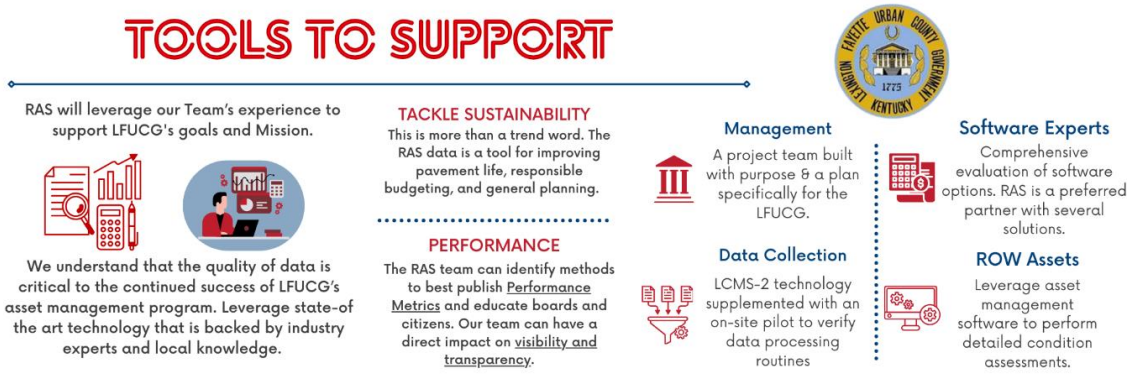
- Cincinnati, OH
- Boone County, KY
- Chicago MAP, IL
- Kansas City, MO
- Virginia Beach, VA
- Columbus, OH
- Fort Campbell, KY
- Peoria, IL
- Charlotte, NC
- Durham, NC
- Indianapolis, IN
- Worcester County, MD
- Memphis, TN
- Clarksville, TN
- Montgomery County, TN

1.a.i Specialized Services and the RAS Team Advantage

The RAS team is comprised of established industry veterans who have dedicated their careers to the field of pavement and asset management. RAS team members have performed over 200 pavement and asset management projects in the last 5 years in accordance with ASTM D6433 and AASHTO R 57. RAS offers the Lexington-Fayette Urban County Government (LFUCG) the most experienced data collection team to provide assurance that the collection and processing of data will be delivered on schedule. We have an outstanding record of completing projects of similar size and scale, on time and within budget. The RAS team advantage to the LFUCG is as follows:

- **Automated Data Collection Technology and 100% Linear Assessment –** The second-generation Laser Crack Measurement System (LCMS-2) used for automated pavement data acquisition and 360° camera for ROW Assets (Ladybug panoramic imagery) represent the most sophisticated hardware available in the marketplace. The RAS RoadTRIP™ software was specifically designed to analyze the high-resolution and laser illuminated LCMS imagery for post processing of the detailed pavement distress data per the ASTM D6433.

- **Data Verification via an Advanced Field Pilot –** The importance of the field pilot cannot be understated as it has become a routine milestone for the RAS Team on all pavement condition projects. The pilot allows RAS to collect, process, and review condition data with LFUCG staff to ensure accuracy with the ASTM D6433 protocols and confirm the LFUCG's interpretation of distresses is in alignment with the PCI/OCI score.



- **User-Friendly Deliverables –** The RAS team regularly performs pavement analysis utilizing 3rd party asset management software and has unrivaled experience with pavement inspections utilizing the ASTM D6433 methodology. In addition to our expertise with implementing software, RAS will deliver PowerBI portals with integrated mapping and condition results. The PowerBI deliverables come in two stages: the data QC portal as well as the proposed BOSS™ management system. The QC portal contains every section's distress data with an interactive map, complete with the PCI scores, and links to the forward-facing imagery. The final BOSS™ portal will hold the summarized section PCI scores, weighted PCI averages, interactive map, and all of the results from the multi-year analysis.
- **Access to Field Imagery –** RAS views imagery from the condition assessment as pertinent to LFUCG's quality assurance measures and final acceptance of the data. As such, RAS will deliver all 5 panoramic ladybug image views, and the downward LCMS roadway images collected at no additional cost. The imagery will be delivered via a hard drive, in .jpeg format, and geo-referenced to within 1 meter.

1.a.ii BOSS™: Proposed Pavement Management System

As we understand, LFUCG is interested in the development of a pavement management system with a high level of service. Based on the defined scope of work, we recommend the use of the **BOSS™** pavement management program for the development of budget scenarios, maintenance and rehabilitation plans, custom deterioration curves, and financial optimization using "cost of deferral" analysis. **BOSS™** is an ESRI compatible, cloud-based application with powerful pavement management algorithms behind it. **BOSS™** users experience a fully "turnkey" analysis service model that begins with RAS configuring the analysis intelligence and running the forecasted budget models for export to a user-friendly interface such as **Microsoft PowerBI.** City staff do not have to worry about purchasing software licenses or dedicating precious staff time to running an application as RAS takes care of all analysis modeling that ends with a powerful visualization engine within the PowerBI environment.

BOSS™
Budget Optimization Street Selector

BOSS™ is a fully functioning pavement management program that integrates the segment level GIS centerline's, develops real world and actionable projects, runs budgetary models, forecasts to establish trends, financially optimizes the multi-year plan using sound "cost of deferral" constraints, and produces a final 5 or 10-year maintenance and rehabilitation plan for review.

RAS is a Full-Service Software Implementor

As a software agnostic consultant, RAS retains diverse flexibility with software solutions due to the varying needs of each client. Should LFUCG desire future implementation of enterprise software, RAS will perform a software needs assessment to determine which solution will provide the greatest cost and management benefit to LFUCG. RAS' experience with third party software includes Brightly's Capital Predictor™, Cartegraph™, Decision Optimization Technology (DOT)™, Cityworks™, Streetlogix™, CentralSquare™, PAVER™, StreetSaver™, and VUEWorks™. There is no "one size fits all" software solution so it is imperative that software selection becomes a deliberate evaluation guided by professional pavement management consultants such as RAS, who understand the abilities and constraints of each application.

1.a.iii Future Enterprise Asset Management Software Recommendations

As a partner of Brightly, we understand that the LFUCG is currently implementing Brightly in other departments. BOSS™ will provide LFUCG with all functionalities requested; but, if staff are interested in enterprise software with expansion capabilities for work order management or other public works assets, we can serve as LFUCG's subject matter experts.

Recommendation: RAS understands that LFUCG currently utilizes Brightly software modules in other departments. Because of this, RAS can recommend implementing the Capital Predictor module for pavement management. This approach would streamline the IT compliance tasks inherently tied to the implementation of software for municipal agencies. Predictor meets and exceeds the RFP specifications with additional financial analysis and modeling capabilities for pavement and asset management. RAS has formatted data for import or conducted analysis work in Brightly Predictor for: Spalding County, GA; Pueblo, CO; Topeka, KS; Kerrville, TX; Fruita, CO; amongst others.

Recommendation: RAS can also recommend the Cartegraph OMS solution as an alternative as the specifications in the RFP closely relate to the functions of that software. As comprehensive public works asset management software, Cartegraph helps streamline maintenance, monitor cost, and extend the life of assets. The software contains two-way integration with ESRI which allows for enhanced management and analysis. RAS is the preferred data collection partner of Cartegraph, and we have over 20 active Cartegraph clients. Also, the City of Louisville has recently implemented OMS and the Transportation module.

1.b Background and Qualifications of Key Personnel

The RAS team will use previously established roles to ensure a seamless transition of project ownership. The RAS Executive Team retains over 150 years of combined experience and has successfully managed over 100,000 miles in the last five years. The project roles and individual assignments have been defined below along with qualifications.

- **Project Manager, Scot Gordon, PE, IAM** has over 32 years of experience in pavement engineering and transportation planning. He will review distress interpretations and provide expertise in pavement management optimization. Before network-wide data processing is initiated, Scot will perform an in-person 10-mile field study of pilot roads to educate LFUCG staff on PCI rating procedures, make necessary corrections to processing routines, and review QC/QA measures with

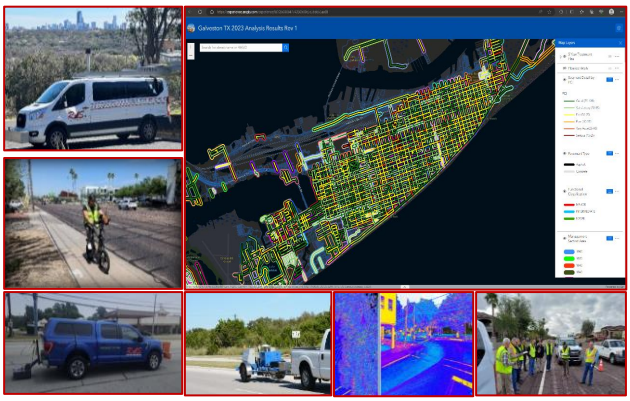
LFUCG staff. Scot will lead the discussion revolving around configuring the pavement analysis intelligence, deterioration curves, and incorporating LFUCG priorities into the software. Scot will be responsible for the delivery of the five-year pavement management plan.

- **Project Principal, Bart Williamson, FCLS** has over 32 years of experience in project management and coordination. Mr. Williamson has worked in the pavement management industry for over 18 years and is well known for providing municipalities with high-quality deliverables on time. Mr. Williamson is responsible for mobilizing/allocating the appropriate resources for project success.
- **Assistant Project Manager, Zac Thomason, MBA** has over 18 years of experience in pavement management, ASTM D6433 automated data collection, financial optimization, PMS/AMS analysis parameter configuration, and production data loads. Mr. Thomason was integral in the development of the BOSS™ application and regularly configures software such as Cartegraph Scenario Builder and Brightly's Capital Predictor. Zac will provide critical input and ask the right questions to ensure the LFUCG selects pavement management software that suits staff needs. Zac will also be directly involved with the pavement analysis, operating intelligence configuration, and development of budget scenarios.
- **Director of Deliverables, Jeff Booth, MBA** has over 25 years of experience leading projects of all sizes in the Government Sector. Mr. Booth previously served 10 years as Cartegraph's Senior Vice President of Services and for 7 years as the Sr. IT Manager for Bexar County, Texas. Due to his intimate knowledge of software solutions, Mr. Booth will co-host software evaluation meetings and will be responsible for overseeing formatting data into the selected system.
- **Director of Client Services, Dan White, MBA** has 13 years of experience in the pavement and asset management industry and has led over 150 pavement and asset management implementations. Mr. White will be involved in the development of the scope of work to fit LFUCG's goals and get the most out of the investment in RAS. Dan will serve as a vital resource through his experience implementing BOSS™, Cartegraph, Brightly, Lucity, PAVER, StreetSaver, PavePRO, and GIS apps for similar sized unified governments across the eastern US.
- **QA/QC Manager, Mark Kramer, PE** has 25 years of experience in engineering and information technology projects. He is an expert in custom database integrations, application design & programming, data science, software implementations, data management and analysis, and IT driven projects. Mr. Kramer will coordinate with the RAS pavement evaluation team to ensure data collected from automated equipment and processing routines correlates with visual ratings.
- **Data Collection Manager, Rafael Rivera** has over 14 years of experience in pavement and ROW data collection efforts. He is responsible for updating schedules based on the collection, overseeing the daily operation crew, and initiating the evaluation process for pavement and optional ROW assets.
- **Project Engineer, Sandra Marrero, EI,** has over 8 years of experience evaluating pavement conditions, processing pavement ratings, preparing reports, and performing maintenance budget scenarios. Ms. Marrero will lead the pavement analysis team in the review of data.
- **Independent QA/QC Manager, Abbie Jones, PE, PLS** has over 20 years of experience in Civil Engineering and land surveying. As a former City Manager of Engineering and GIS staff, Ms. Jones has worked to share data collection in both raw and processed formats with City/Staff departments. Ms. Jones was involved in the LFUCG's automated pavement condition assessment project.

1.c Qualifications of Sub-bidder

RAS will be performing over 90% of the project internally. We have provided qualifications of our local DBE sub-consultant, ***Abbie Jones Consulting (AJC)***, in section 1.f.

1.d Capacity of the Firm to Perform Work



As a full-service pavement and asset management consulting firm, RAS has both the equipment and trained staff to manage this project in an efficient and timely manner. The RAS team maintains a fleet of **four automated Roadway Asset Collection (RAC) vehicles** to provide a true **100% linear assessment** of the roads driven. RAS utilizes a ROW capture system to provide an **immersive 360° panoramic view** versus stationary independent camera views. Furthermore, RAC vehicles have received independent inertial profiler certification for accuracy and repeatability from Texas A&M Transportation Institute (TTI). While RAS is confident our fleet is sufficient to complete the project in a timely manner, it's worth noting we have the ability to lease additional identical equipment if more than 4 vehicles are needed.

RAS fleet of equipment and expertise includes:

- Fleet of four automated Roadway Asset Collection (RAC) vehicles
  - Additional overflow capacity via Strategic Business Partners with the same equipment
- Fleet of six detailed sidewalk condition e-bikes (PROWAGon)
- Custom ROW asset extraction activities
- Friction Testing (SFT), Ground Penetrating Radar (GPR) and Falling Weight Devices (FWD & HWD)
- Software implementation & configuration

1.d.i Ability to Integrate Project into Workload

RAS has an established customer base and is a growing consulting firm that is structured to accept additional clients. Our field services team conservatively projects data collection timelines for committed and planned projects to ensure capacity and client expectations are in alignment. In addition, our pavement engineering and GIS services teams also project work timelines for each individual project, including the level of service requirements for each client. RAS understands the value of the investment in our team from each client. As such, RAS projections will include LFUCG's project on future planning to ensure we can meet goals, while also maintaining schedules for committed work.

1.d.ii Capacity of Key Personnel

The RAS Team is comprised of industry experts and professionals who have a tremendous amount of experience. The Team Members listed in the chart below represent the individuals who will be personally involved in this project at various stages throughout the assignment. Each member currently has availability in their schedule and can be available to lead the implementation of a Best-in-Class asset management program. The benefit of RAS on this assignment is that the team is dedicated to asset and pavement management on a daily basis. This is their core focus as transportation professionals, and they stand ready to assist the LFUCG. Below is a table of key individuals and their roles and availability:

Team Member	Firm	Project Role	Years of Experience	Degree	Data Collection	Condition Assessment	Optional ROW Asset	Pavement Management	Project Availability
Scot Gordon, PE, IAM	RAS	Project Manager; Senior Pavement	32	BS, ME	✓	✓	✓	✓	70%
Zac Thomason, MBA	RAS	Assistant Project Manager	18	BS, MBA	✓	✓	✓	✓	65%
Bart Williamson, FCLS	RAS	Project Principal	32	BS	✓			✓	50%
Dan White, MBA	RAS	Client Services	13	BS, MBA		✓		✓	45%
Jeff Booth, MBA	RAS	Director of Delivery	25	BS, MBA		✓	✓	✓	40%
Mark Kramer, PE, MBA	RAS	QA/QC Manager	25	BS, MBA	✓	✓	✓	✓	50%
Rafael Rivera	RAS	Data Collection Manager	14	BS	✓		✓	✓	35%
Sandra Marrero, EI	RAS	Project Engineer	9	BS	✓	✓	✓	✓	60%
Abbie Jones, PE, PLS	AJC	Independent QA/QC Manager	21	BA		✓		✓	15%
Jay Abbey	AJC	Independent QA/QC Assistant	28	BS	✓	✓		✓	10%

1.e Past Record and Performance

1.e.i Ability to Meet Schedules

One way RAS optimizes its field data capture is by collecting pavement condition data 7 days a week, which allows our team to remain ahead of schedule when events such as storms or other weather-related events do occur. RAS anticipates utilizing one or more RAC vehicles and can mobilize supplemental crews and additional automated data collection vehicles to LFUCG to speed up the collection process if needed. RAS will also collect heavy traffic areas during low commute times or early on Sunday mornings.

The RAS management team has an outstanding record of completing projects of similar size and scale on time and within budget. Here is evidence to validate we can manage complex projects and schedules:

- **Columbus, Ohio:** In 2023, RAS mobilized three RAC vehicles to complete field surveys (2,650 survey miles) in 3 months to wrap up collection prior to the winter season.
- **Pima County, Arizona:** In 2023, RAS mobilized two RAC vehicles with a third on standby to the collection site for automated data collection, PCI processing, and image deliverables on 3,800 lane miles all within a 3-month period.
- **Pickens County, South Carolina:** In 2024, RAS mobilized a RAC vehicle within days of NTP to collect PCI data for over 900 miles. The pavement distress data processing and final delivery of PCI data was completed in 3 months from NTP.
- **Cincinnati, Ohio:** In 2024, RAS mobilized two RAD vehicles to survey over 1,400 miles of roadways in 1 month to allow for an accelerated PCI delivery of 85 days from the NTP.

1.e.ii Controlling and Managing Costs

The foundation of RAS' consultancy reputation is built on transparency and trust. As a principle, we diligently scope our projects per the specifications of the client and review the deliverable expectations at the beginning of each project to ensure all members of the team are on the same page. There are no hidden agendas or tactics to win the work as seen when others tack on additional costs because the client did not specify the deliverable. We ask the right questions up front to make sure all necessary services are included, and do not add bloat to the scope if it is not required. Municipal agencies have limited funds, and we intend to be good stewards of the taxpayers' dollars by maximizing those limited resources. In addition, all RAS projects are dedicated to the field of asset management with detailed scope of work documents and not-to-exceed project budgets. Our agenda is to provide superior service and quality PCI data to maintain a long-term partnership with each client.

1.e.iii Performance of Similar Projects

RAS has received approximately 150 pavement management contracts from municipalities of varying sizes within the last four years. A sample list of RAS' active and completed projects is presented on the corresponding table. Detailed project summaries with references begin **on page 28** of this proposal.

Project	Test Miles	Client Name	Pavement Condition Survey								
			International Roughness Index (IRI)	Pavement Evaluation	Pavement Condition Index	GIS Segmentation	ROW Asset Inventory	Pilot Program and Field QA/QC	Deterioration Curves and Modeling	PMS/AMS Integration	System Training
Pavement Condition and ROW Asset Survey	4,548	Albuquerque, NM	X	X	X	X	X	X	X	X	X
Pavement Management Services	3,750	Austin, TX	X	X	X	X	X	X	X		
Pavement Condition and ROW Asset Survey	3,340	Charlotte, NC	X	X	X	X		X	X		X
Pavement Data Assessment	3,086	Denver, CO	X	X	X	X	X	X	X	X	X
Pavement Condition Survey	3,048	Memphis, TN	X	X	X	X		X	X	X	X
Pavement Management Services	2,800	Columbus, OH	X	X	X	X		X	X	X	X
Infrastructure Asset Management Program	2,327	Virginia Beach, VA	X	X	X	X	X	X	X	X	X
Pavement Condition Survey	2,248	Pima County, AZ	X	X	X	X		X	X		
Pavement Management Consulting Services	2,159	Birmingham, AL	X	X	X	X	X	X	X	X	X
Road Study	1,905	Anderson County, SC	X	X	X	X	X	X	X	X	X
Pavement Condition Assessment	1,500	Sarasota County, FL	X	X	X	X		X	X	X	X
Pavement Condition Survey	1,468	Collier County, FL	X	X	X	X		X	X	X	X
Pavement Condition Index Rating	1,420	Forsyth County, GA	X	X	X	X		X	X	X	X
Pavement Condition Survey and ROW Asset Inventory	1,227	Winston-Salem, NC	X	X	X	X	X	X			
Pavement Management Services	1,116	Cincinnati, OH	X	X	X	X		X	X	X	X
Pavement Condition Survey and ROW Asset Inventory	1,023	Durham, NC	X	X	X	X	X	X	X	X	X
Pavement Condition Index Project	989	Okaloosa County, FL	X	X	X	X		X	X	X	
Pavement Management and Street Assessment	950	Tallahassee, FL	X	X	X	X		X	X	X	X
Pavement and Roadway Asset Data Collection	923	Clarksville, TN	X	X	X	X	X	X	X	X	X
Pavement Condition and Asset Inventory Services	902	Pickens County, SC	X	X	X	X	X				
Pavement Condition Survey	750	Montgomery County, TN	X	X	X	X		X	X	X	X

1.f Local Employment & DBE Participation

Abbie Jones Consulting (AJC) provides land survey services such as boundary, topographic, tree, aviation, aerial control, limited subsurface utility engineering (SUE), small scans, shallow hydrographic, geodetic control, mapping, as-builts, ALTA/ACSM, and construction staking/layout. Our civil engineering services include site design, transportation engineering, sanitary & storm system design, owner rep. and permitting.

Key Information:

DUNS #: 968423769
CAGE Code: 6f8s9

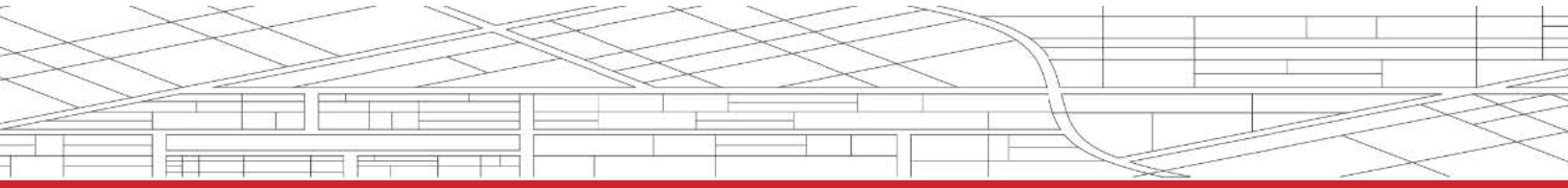
NAICS Codes:
541330 Civil Engineering
541340 Drafting
541360 Geophysical Surveying & Mapping
541370 Surveying & Mapping, GIS Mapping
541370 Construction Layout

Certifications

Woman Owned Small Business & Woman Owned (WBENC)
Disadvantaged Business (DBE) in KY, TN, WV, OH, TX, VA, Marta, City of Atlanta, Nashville Metro

- Abbie Jones Consulting (AJC) has been focused on municipal, aviation, utilities, and industrial clients for over a decade, growing carefully to their current 18 employees. Our firm was built to be 100% remote from the beginning and has very efficient methods.
- A 100% Woman Owned & Managed Small Business
- **Participation won previous automated PCI surveys for LFUCG**
- Our 18 employees include 4 PLS, 1 LSIT, 2 PE, 1 EIT, 1 part 107 pilot, many AutoCAD certifications
- Firm employees around 50% women
- We have been a part of the Traffic Data Collection support for KYTC Statewide Traffic Planning (sub to 3 primes) since 2012
- KY SBA Small Remote Business of the Year, 2022
- NAWIC Diamond Award Winner Bluegrass Region, 2017

Role in the LFUCG Project: Provide independent QC/QA of the pavement condition data. AJC staff have experience performing automated pavement condition surveys and will provide additional staffing capacity for the RAS team. This experience will enhance the RAS Quality Management Program (see page 13) and provide added value to the project. Their capabilities also include ad-hoc GIS support services and data collection support.



Pavement Management System Software & Data Collection

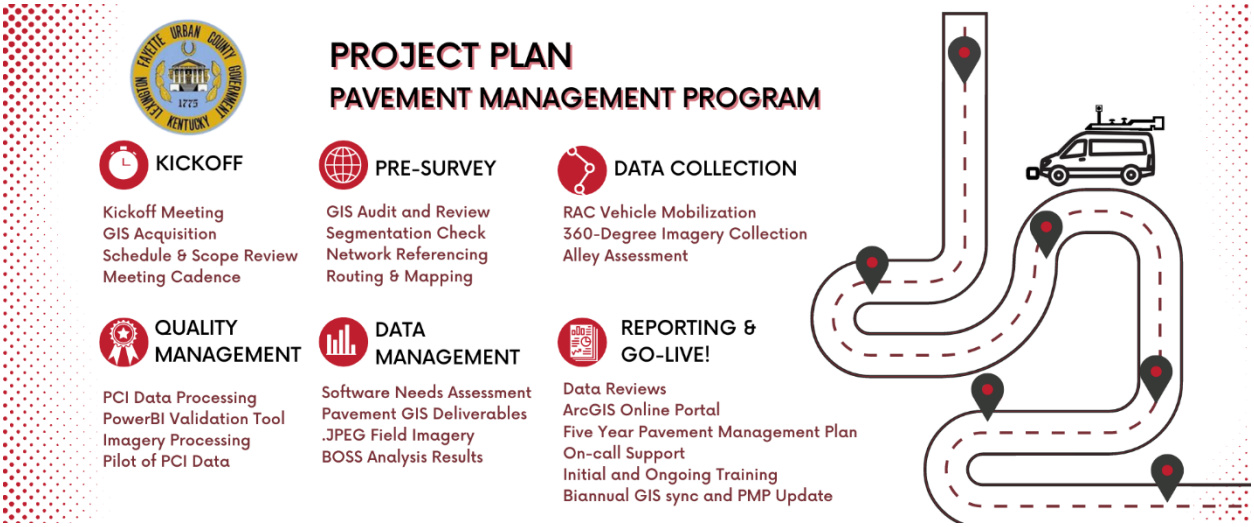
2. Pavement Management System Software and Data Collection Plan

2.a Project Plan

RAS understands that the Lexington-Fayette Urban County Government (LFUCG) is seeking a qualified vendor to conduct an **ASTM D6433 based pavement condition assessment** on approximately 1,100 centerline miles of roadways and alleys. RAS will utilize a fully automated data collection vehicle equipped with a second-generation Laser Crack Measurement System (LCMS-2) for pavement data acquisition, a Ladybug 360° camera for Right-of-Way (ROW) asset capture, and a certified laser profiler which includes line lasers for capturing full lane rutting and roughness data in conformance with the AASHTO R 57.

RAS will conduct a software needs assessment with LFUCG staff that considers staff technical skills, priorities, effort, and cost. The proposed BOSS™ application is hosted by RAS and will be used to produce a five-year pavement management plan that calculates the PCI/OCI, prioritizes roadway repairs and recommends resurfacing priorities based on PCI, distress type, and roadway classification.

At the end of the project, the LFUCG will receive a Pavement Condition Index (PCI) or Overall Condition Index (OCI) of all roadways with data compatible with ESRI ArcGIS. RAS will also deliver the panoramic Ladybug imagery and the downward LCMS-2 imagery in .jpeg format via a hard drive. In addition, the imagery will be supplied through the RAS PowerBI QC portal that contains every section's distress data, complete with the PCI scores, and links to the forward-facing imagery. A five-year pavement management plan and final report will be supplied consisting of analysis results published in the hosted BOSS™ portal.

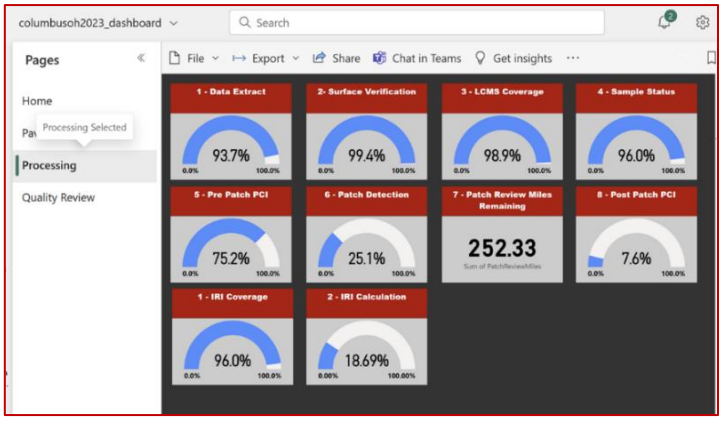


Task 1: Kickoff Meeting & Project Management

At the outset of the project, RAS will work in conjunction with LFUCG Staff to develop the initial scope of work and identify what tasks are critical to the pavement management program. RAS will review the existing GIS centerline files and pavement database for use in this project. After an initial review, RAS will conduct the Kickoff Meeting to discuss the GIS files, requirements/considerations, deliverable formats, and additional data needed by RAS for preparation and project administration. During the kickoff meeting, RAS will finalize the scope by presenting a project schedule and fees, identify tasks and milestones, review the methodology utilized, provide a detailed quality assurance/quality control (QA/QC) plan, suggest a

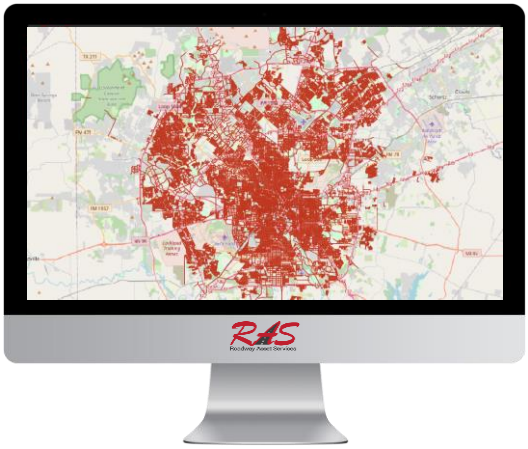
schedule for biweekly progress meetings, and discuss goals for the project. In addition, team members will also determine a pilot area of approximately 10 miles for collection and review by LFUCG Staff.

Project Milestones/Biweekly Progress Meetings



RAS understands that communication between the RAS team and LFUCG Staff is central to having a successfully managed contract. To ensure project requirements are met, RAS will host biweekly meetings to review the percentage of the network collected and rated (see image of our hosted project status dashboard). In addition, RAS will work with LFUCG staff to determine any foreseen challenges based on findings from preliminary data and ways to resolve issues before network-wide collection/processing. RAS' routine meetings help keep stakeholders engaged and ensure LFUCG participation throughout the entirety of the project, so final deliverables meet expectations.

Task 2: Pre-Survey Route Planning and GIS Audit

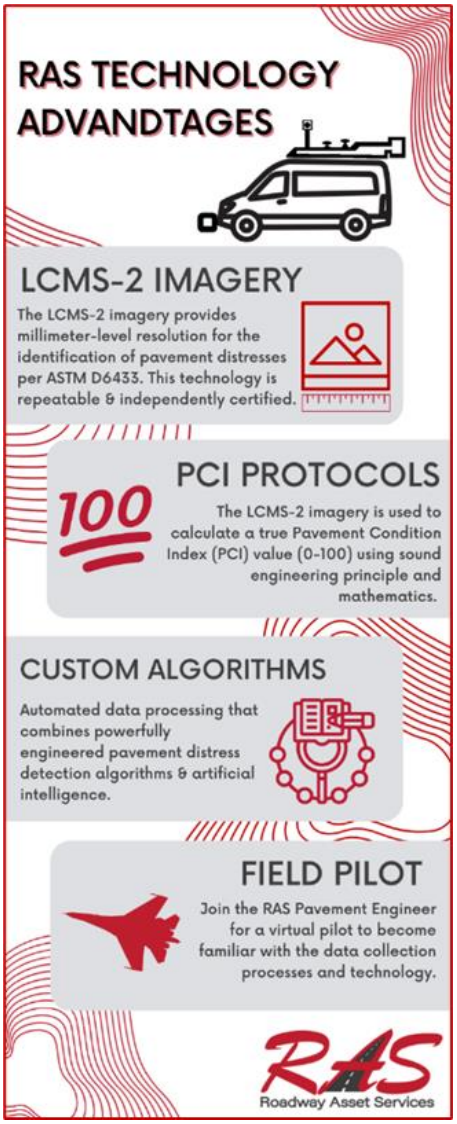


RAS will review the existing GIS centerline and perform an audit of the data to ensure that all roads requiring data collection are surveyed. This will include a review of functional classes and coverage checks. RAS will use the existing centerline data and create a pavement database on the centerline layer. Each road segment record in the centerline layer will have a corresponding record in the pavement database. In addition, RAS will work with the LFUCG to maintain the unique identifier of each road segment in the road network so that the pavement database can maintain a link to the GIS data. The result will be a clean GIS centerline ready for consumption of additional layers and attribution related to the pavement condition surveys and asset inventories. At the completion of the GIS audit, RAS will deliver a .pdf and ArcGIS file geodatabase collection map (see example image of a 5,000+ centerline mile network).

Task 3: Pavement Surface Imaging & Roadway Data Collection

RAS will collect data on approximately 1,395 miles of roadways, accounting for two-directional testing on approximately 298 miles of Arterial and Collector classified roadways. The pavement data will be collected and processed per road segment for the entire roadway network using the continuous and detailed 20-foot linear samples acquired by the Laser Crack Measurement System (LCMS-2) equipped fleet of RAC vehicles. RAS will adopt the existing GIS centerlines and the detailed 20-foot level data collected by the RAC vehicle will be rolled up to the segment level for reporting purposes *RAS will review roadway segments to ensure they reference existing segmentation and are compatible with Esri GIS*.

Data YOU can Trust: The RAS team will conduct pavement survey work on dry pavement and in lighting conditions that ensure accurate crack detection. We will collect imagery during daylight hours only, with no rain, fog, or snow visibility obstructions. Any road segment(s) that exhibits low image quality due to lighting will be recollected at a later time. The industry is currently migrating toward automated intelligence (AI) rating for 100% linear assessment of the roads, in accordance with guidelines within the **ASTM D6433, ASTM E1656, and ASTM E3303**. This methodology removes the subjectivity of rating small sample areas of the road segment where the sample may not represent the condition of the entire roadway segment. The LFUCG can expect **repeatable results, larger samples, and additional transparency of results.**



To complete the automated pavement condition survey on 1,100 centerline miles (1,395 survey miles) of roadways, the RAS team will utilize RAC vehicles from the fleet of four (4), equipped with:

- The LCMS-2 camera is a downward-facing laser array providing images used to evaluate data that conforms with ASTM D6433 protocols, which uses **two 1-millimeter-pixel** (2-mm) resolution line scan cameras to **provide a customized digital condition rating system to collect user defined severity/extent-based pavement distresses and rutting.**
- The pavement distress type, density, severity, and extent are collected with the LCMS-2 and are used to calculate a Pavement Condition Index (PCI) score, between 0-100, that represents the condition of 100% of the driven lanes.
- Point Gray Ladybug 5+ 32MP **360-degree High-Definition camera** (**utilized for accurate ROW asset capture, extraction, and pavement QA/QC**) is far superior to multiple independently mounted HD cameras. These images will be supplied at no additional cost as the RAS team feels they are critical for review and acceptance.
- **Linear distance measuring to within +/-0.5%**.
- A class 1 inertial profiler for simultaneously capturing dual-wheel path (left and right) International Roughness Index (IRI) measurements to the hundredth inch, in accordance with AASHTO R48. The profiler has gone through **ASTM E-950** certification and **was independently certified by Texas A&M Transportation Institute (TTI) in 2024.** The inertial profiler meets the requirements and will be operated in accordance with **AASHTO Standards M 328, R 57-10, R 56-10, and R43M/R43-7**.
- Applanix POS/LV with DGPS (**Provides accurate internal GPS navigation for geo-locating pavement and right of way asset information**).

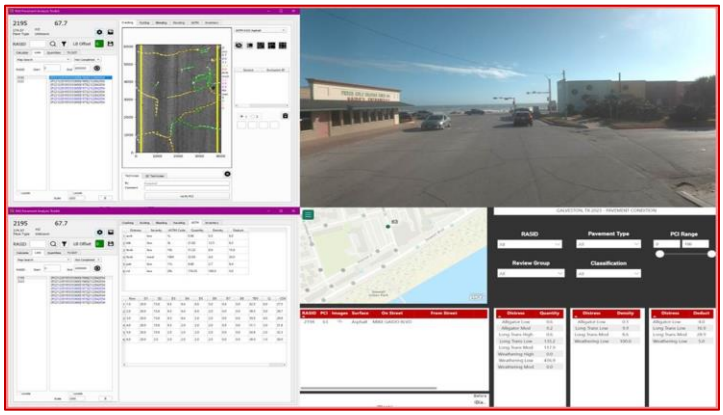
All subsystems for the RAC vans are integrated using tight synchronization between all data streams on the vehicle in real-time, referenced to both time and distance. All sensor locations are coordinated to the vehicle's reference point, together with the GPS and IMU hardware, using 3D translations and rotations. This allows the final world coordinates of all sensor data streams to be calculated and integrated. The methods for automated data collection and pavement condition rating are repeatable and defensible

Conducting Alley Assessments

In conjunction with the LFUCG street pavement condition assessment, RAS will also conduct a pavement condition survey of the LFUCG's alleys. If the alley is accessible, free of obstructions, and paved, then RAS will complete the survey utilizing one or more of its RAC vehicles equipped with advanced LCMS-2 laser technology. RAS proposes a rating in accordance with the ASTM D6433 such that the assessment is alignment with the protocols utilized during the street network.

If the LFUCG has an additional requirement to survey unpaved alleys, RAS proposed to use the PASER manual and methodology. This method utilized a visual examination of crown, drainage, layer, surface deformations, and surface defects. RAS has successfully completed many alley, trail, and bridge assessments where width clearance is minimal.

Task 4a: Surface Condition Analysis via RoadTRIP™ Software

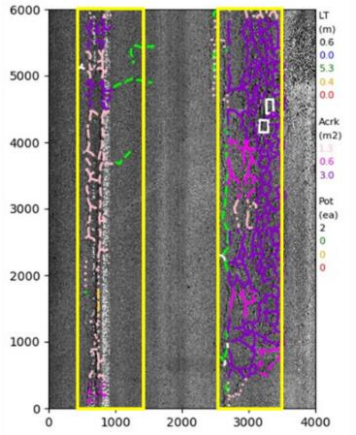


After data is collected in the field and uploaded to the office environment, it is imported using the RAS AI enhanced pavement rating tool **RoadTRIP™ (Technical Rating Intelligence Program)**. At this stage, the major data processing tasks also occur, such as generation of right-of-way and pavement image streams; calculation of profile, roughness, rutting, detection of cracks, lane-markings, man-made objects, and other distresses. The automated crack analysis detects cracks that are overlaid on the pavement images and offset to assist with the verification of the detected cracks. The severity levels are identified based upon the defined limits (**ASTM D6433**) and verified for resolution through visual quality control checks of image files. The **RoadTRIP™** application was designed around the ASTM D6433 data collection protocols and contains a **PCI calculator** that uses distress deduct curves and Q-correction. The PCI is used for QA/QC measures before import into the selected pavement management software.

RAS will calculate an ASTM D6433 PCI score using the detailed extent and severity distress data captured in the field for every segment, street functional classifications, and the overall network. In addition, IRI values will be provided for all roads in accordance with the AASHTO R 57. At the completion of the project, the roadway and right of way images (provided at no cost) and condition database for the network will be formatted for upload into the selected pavement management software and the GIS environment.

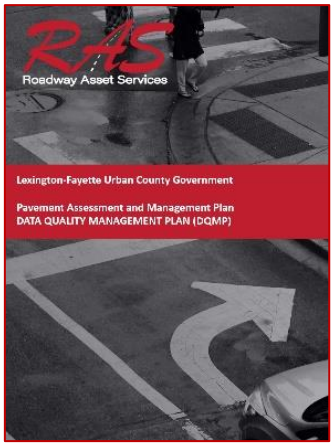
The LFUCG will receive the condition and analysis results in several formats such as Excel spreadsheets, .jpeg imagery, and geodatabases prior to the final production load.

Rut Depth Calculator



Rutting is measured by the LCMS sensors 1 meter on center for each wheel path. The sensor data provides the maximum depth and width of the detected rut. The processing algorithm includes a rut depth filter which is configured to 1/4". Rutting is not measured until the rut depth exceeds the rut depth filter. The rut depth filter parameter can be adjusted per project specifications. Rut severity is determined in accordance with the ASTM D6433 standard. Rutting depth < 1/2" is not rated. Rutting between 1/2" and 1" is rated as low severity. Rutting depth between 1" and 2" is rated as moderate severity. Rutting depth > 2" is rated as high severity.

Task 4b: Quality Assurance Procedures/Plan



RAS developed a detailed 30-page **Data Quality Management Plan (DQMP)** to provide our clients with a systemized method for assuring data is representative of the conditions present. Included in the DQMP is a description of condition survey procedures, data collection vehicle calibration, range of accuracy, data checks, safety procedures, roadway segment review/verification, and integration into PMS. We can supply the LFUCG with our published 30-page DQMP at the request of staff members. The document's length and technical nature didn't make it suitable for inclusion within this proposal submission.

Quality Assurance Step #1: Network Database Review

While a simple routine in every project, the cornerstone to project initiation is conducting a complete diagnostic of the roadway network, including a full and thorough assessment of the GIS centerline and inventory database. This will include a review of the data requirements (i.e., what information is needed/desired) and subsequent data gap analysis (what is missing). RAS will include the following in this initial review: base inventory information, historical condition information, construction and maintenance history, and review of maintenance and rehabilitation treatments.

Quality Assurance Step #2: Field Pilot Validation

The field pilot allows RAS to collect, process, and review condition data with LFUCG Staff to ensure accuracy with the data collection and interpretation protocols. **The review of the RAS condition data will be hosted by Senior Pavement Engineer, Scot Gordon, PE, IAM and Independent QA/QC Manager, Abbie Jones, PE, PLS in the field, where they will review site conditions with LFUCG Staff**. Scot uses a field tablet that contains the segment PCI scores along with the deduct points assigned to each distress such that everyone understands the PCI impacts of distresses that are present. The importance of this step is to make necessary corrections to the processing routines that result from local standard construction practices/soil conditions and to ensure accuracy with the approach.

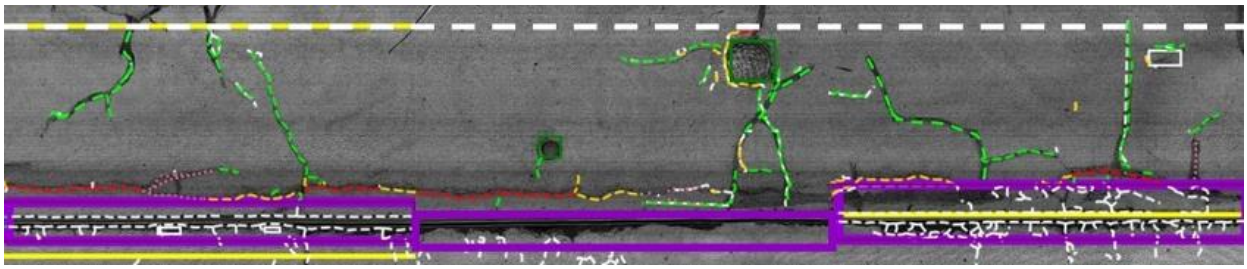
Scot Gordon, PE has performed a field pilot with agency staff on hundreds of pavement condition surveys including Chicago MAP, IL; Columbus, OH; Memphis, TN; Indianapolis, IN; Denver, CO; Charlotte, NC; Virginia Beach, VA; and many others.

Quality Assurance Step #3: Subsystem Monitoring in The Field

During the survey, the RAS collection software monitors the GPS subsystems and alerts the operator if the GPS feed drops out or if GPS quality is compromised. The IMU will provide acceleration-based corrections during this time to ensure that GPS accuracy is maintained as much as possible. Daily Progress Reports are produced by uploading sensor, GPS, and event data and matching against the road network definition.

Quality Assurance Step #4: Automated Crack Analysis & Engineer Review

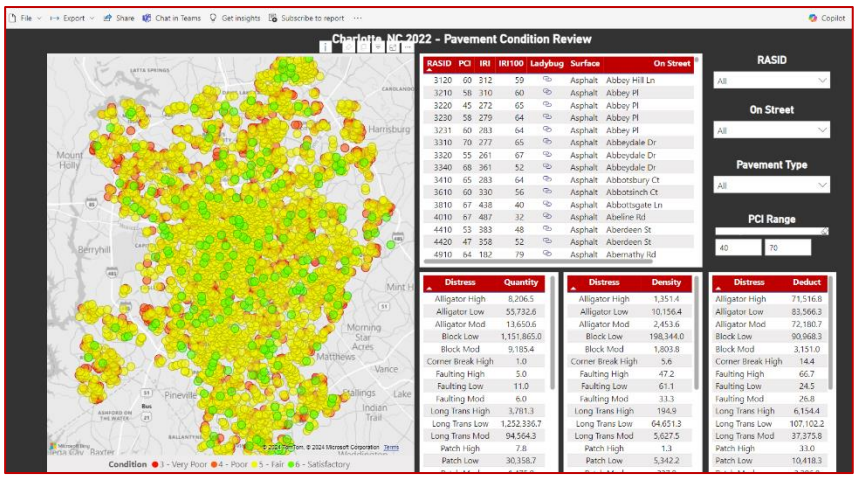
An experienced pavement inspector will perform QC on the RoadTRIP™ output to confirm the distresses and severity of the pavement condition data collected by the automated technology. This manual quality review is performed, in accordance with the principles of the ASTM D6433 standard, using the LCMS pavement images gathered during collection with the distresses superimposed and color-coded (see below). **Each detailed 20-foot LCMS sample is geocoded for real world distress location identification. In addition, the 20-foot level distress data is processed at the 2,500 sq.ft. sample size per ASTM D6433 protocols. This results in a localized failure heatmap deliverable of all samples with distress densities that are geotagged and available in the mapping interface.**



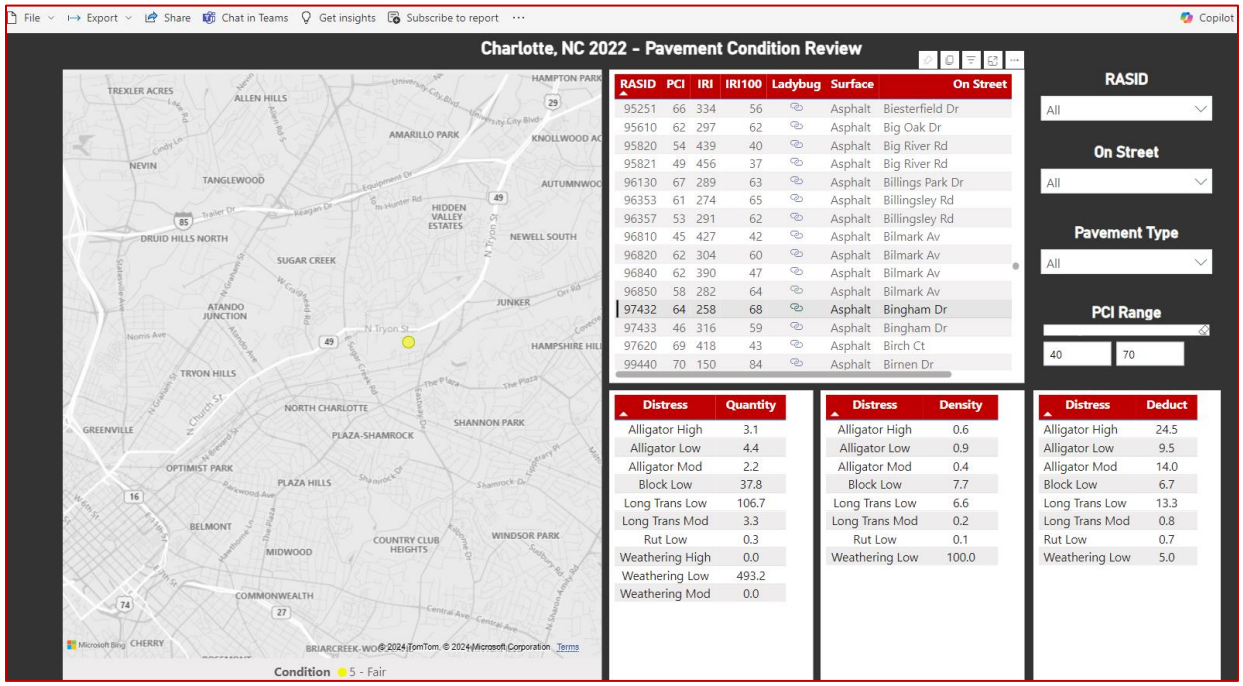
Quality Assurance Step #5: RAS Data Validation Portal

Each RAS client is presented with the raw and processed pavement condition data via Excel, Access, GIS, and Google Earth files. In addition, we provide our clients with a **Data Validation Portal (hosted in PowerBI)** that can be accessed via connected devices in the field.

The **RAS Data Validation Portal** resides within PowerBI. LFUCG staff will have easy access to a map that displays the **pavement condition data** on a segment-by-segment basis. The user can filter by unique ID, PCI range, pavement type, or functional classification depending on what they would like to visualize. The filters are also fully customizable, as clients have included districts and other factors to make the filter process more streamlined.



Example: Upon clicking on the desired segment for inspection, the distress deducts are then displayed in the lower right-hand side of the screen, indicating that this particular segment with a PCI of 68 is largely impacted by high and moderate severity alligator cracking in addition to low severity longitudinal / transverse cracking.



The user can then click on an image link to verify the displayed distress deducts by virtually driving down the segment, spaced every 20-feet. After clicking the image link for that pavement segment, the high-resolution Ladybug images are then populated such that the user can virtually drive the segment in question to visually verify the average PCI or even the detailed distress deducts. The purpose of this application is to assist the LFUCG in their review of the RAS inspection data and create a highly visualized space in which to do so.

Task 5a: 5-Year Pavement Management Plan and Funding Scenarios

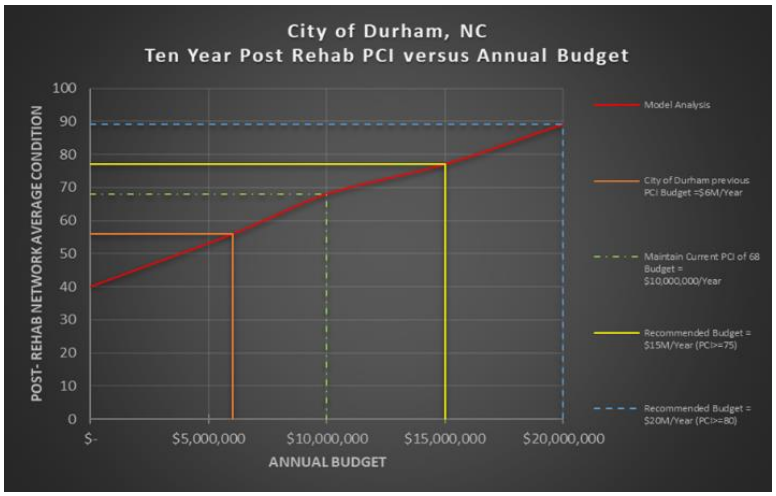
The RAS Team is devoted to the most critical aspect of the project, which is collaborating with LFUCG on how to take the objective condition data and utilize it to make meaningful decisions involving the LFUCG's infrastructure.

RAS follows the "AASHTO Transportation Asset Management Guide – A Focus on Implementation" which provides a framework for organizations to utilize and update the management of their assets to improve decision-making, monitor performance, and support integrated decisions in programming projects. The observed distresses and calculated PCI values will be used within BOSS™ to rank projects using distress types indicating load, non-load, and environmental related causes of each distress.

Running budgetary models within **BOSS™** or any pavement management system requires a deep understanding of the database structure behind the application. The RAS approach to budgetary modeling will involve up to 8 pavement management scenarios using different philosophies, budget levels, and distributions. While **RAS will define the scenarios to be run with LFUCG staff, at a minimum the following questions should be answered with the scenarios:**

- What will the estimated network PCI be over the next 5 years if current funding levels are maintained (**e.g. $14,000,000/year**)?
- How much funding will be required to **maintain a PCI of at least 60** over the next 5 years?
- How much funding is required annually to maintain my existing pavement conditions?
- What will the estimated PCI be in each District?
- What budget is required to control the growth in backlog?
- What are the recommended pavement strategies?

RAS will also consult with LFUCG staff to develop models utilizing different types of rehabilitation strategies (worst first, best first, most economic, need year, etc.). RAS understands that getting buy-in from Elected Officials means developing a long-range rehabilitation plan that considers local priorities. The RAS team will ensure that already approved rehabilitation work is programmed into the budgetary models for selection during the run. In addition, RAS will consult with LFUCG staff to identity the total cost (mill, overlay, traffic control, striping, etc.) of each rehabilitation method.



RAS' Practical Experience: Innovations with Analysis Scenarios

To further enhance upon optimization, Project Manager and Senior Pavement Engineer, Scot Gordon looks forward to visiting with LFUCG staff on other **innovative considerations** to pavement management such as including PCI of curb and gutter in selecting roads for maintenance; whether or not to deduct for potholes if the LFUCG has a pothole repair crew; how to get all council districts above a specific PCI threshold; and focused analysis on top traveled corridors where you are improving the level of service on the roads receiving the greatest traffic while also analyzing the impacts to the remainder of the network.

For the City of Durham, North Carolina we used the most recent census data and the City's Federal Information Processing Series (FIPS) codes to review social-economic factors such as median household income and racial diversity to further factor optimization to ensure equal spread of street maintenance across the City.

For example, Scot performed additional analysis scenarios for the City of San Antonio to identify variable funding needs to achieve and maintain the set goals for each Council District (minimum PCI of 70), based on pavement condition performance. To accomplish this, Mr. Gordon worked with the City to determine the proper mix between preservation and reconstruction within each of the 10 Council Districts to achieve the minimum baseline number of a PCI of 70 per district.

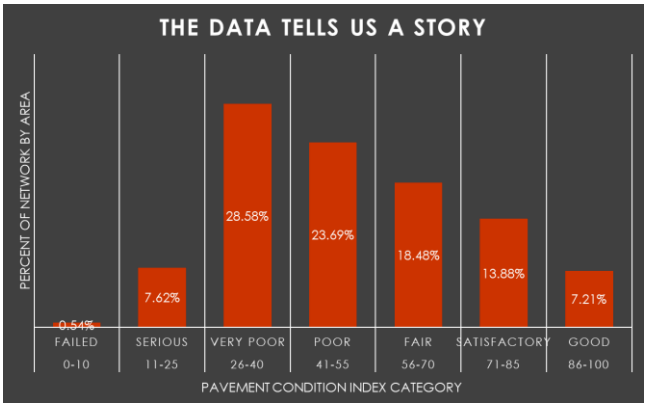
Task 5b: Initial and Ongoing Training Program/Plan

RAS believes that the LFUCG is making a long-term investment in our Team. As such, we pride ourselves in providing full-service consulting to ensure all LFUCG staff members understand the data and information derived from the results of our services. During the scoping process, the RAS team will determine what the expectations are for continuing support throughout the duration of the agreement. LFUCG staff will benefit from a comprehensive training program that covers the fundamentals of pavement management during the field pilot; to the interpretation of the multi-year analysis results.

Project Manager Scot Gordon and Assistant Project Manager Zac Thomason will be available to personally provide data interpretation, process requests for data support, troubleshoot, and present updates to the stakeholders. Both team members have been in management roles for large scale MPO projects with varied software programs run by the clients.

RAS Experience with Similar Service Models: To provide additional context, RAS is also currently providing a similar level of service, utilizing the **BOSS™** application for the following clients with large roadway networks**: City of Albuquerque, NM – Pima County, AZ – City of Amarillo, TX – Coconino County, AZ**

Task 6: Final Summary Report and Five-Year Pavement Management Plan



RAS will provide the LFUCG a final report including study objectives, methodology, inventory of all roads, current pavement conditions for each street function classification, and network PCI, IRI and OCI. In addition, the LFUCG will receive statistical charts, graphs, and area maps illustrating all PCI/OCI results, pavement type, the overall road quality, and findings from the pavement evaluation.

Data collected from the assessments will be used to model pavement deterioration, prioritize repairs based on weighted scoring, determine costs of treatments/deferment, and recommend repairs for a comprehensive 5-year Pavement Management Plan.

The report/plan will be provided for review by LFUCG staff and modified based on comments to produce a final report which will be delivered in Microsoft Word (.doc and .docx) and Adobe (.pdf) format. All collected pavement data will be in a format for use with Esri ArcInfo GIS software and the RAS hosted **BOSS™** application.

Client Presentations

An on-site workshop will be held with the LFUCG as an educational seminar to promote the effectiveness of pavement management and pavement preservations. Topics that RAS typically presents in these types of settings include:

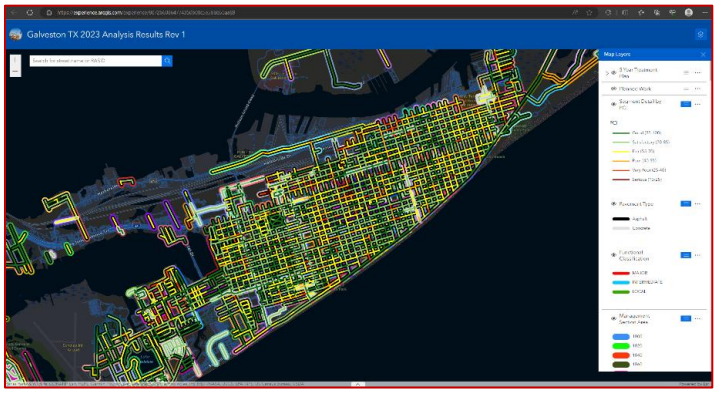
- Pavement data collection technology and benefits of our approach
- Best practices & transparency – maintain and enhance current reports
- Emerging technologies in pavement maintenance and preservation
- Understanding the concepts of financial optimization and criticality in pavement management
- Funding, grants, & strategy: turn the data into defensible information!

The RAS team will provide a public presentation to the Paving Work Group and a Public Presentation to LFUCG Council which includes showcasing data, charts, and all final summary report data.

Final Deliverables

The RAS project deliverables represent a series of industry standard data formats, in addition to powerful visualization tools that assist the LFUCG in reviewing datasets and getting the most out of the RAS condition data. Deliverables include:

- PCI/OCI survey data
- LFUCG street segment attributes with PCI in an Excel file format
- A hard drive containing all 5-views of right-of-way imagery and the downward LCMS imagery along with their associated lat/long information (geo-referenced to within 1 meter).
- ArcGIS Online web map portal or story board for publishing of all maps.
- Microsoft PowerBI Dashboard for collection progress and network condition reporting.
- Web-hosted QC Tool (with imagery) embedded within the Microsoft PowerBI Dashboard.
- A geodatabase containing all processed pavement condition results
- **BOSS™** produced analysis results
- Pavement Final Report and Five-Year Pavement Management Plan
- Client presentation(s)
- Pavement Management Software Training

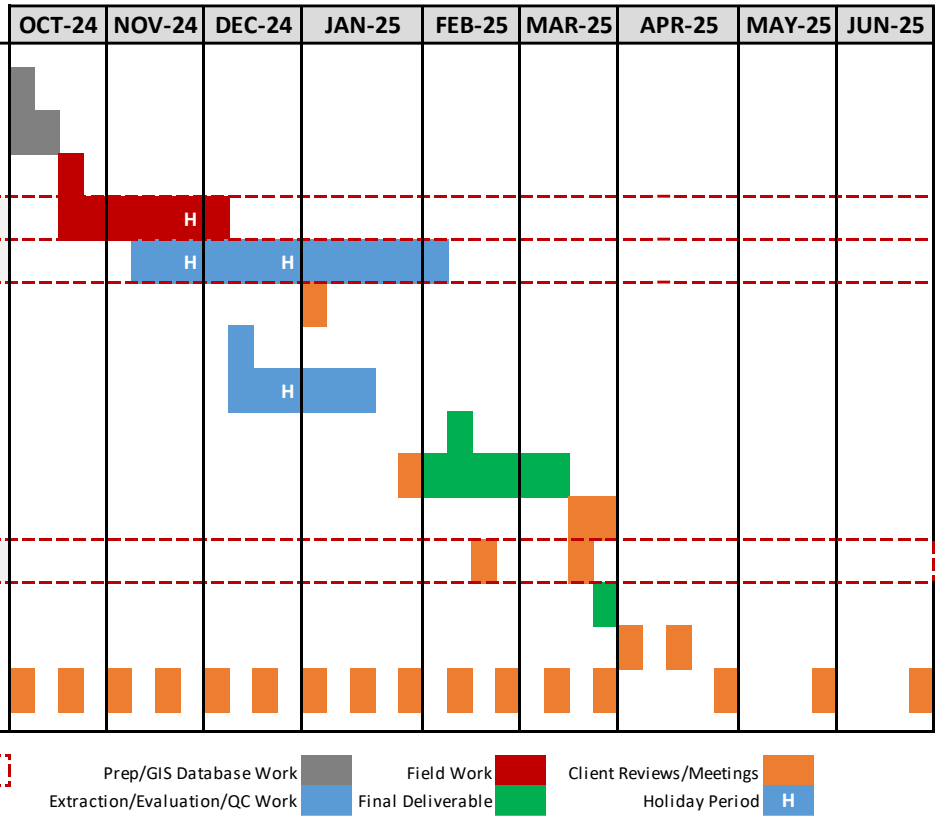


RAS' ArcGIS Online (AGOL) portal will be accessible via the PowerBI interface and will contain all maps developed by RAS including: GPS trace for collection progress monitoring, segment level PCI maps that are color coded using the ASTM D6433 colors or agency preferred color orientation, and it will also contain a localized failure heat map that indicates where localized failures potentially requiring structural patching or "dig outs" may exist. While the data is collected continuously, it is processed/aggregated at 3 very distinct levels as follows: 20-feet (LCMS distress detection), 2,500 sq. ft. for distress density & initial PCI calculations, and finally at the segment level for reporting. The RAS GIS deliverables remain the most innovative in the industry and are inclusive of the tools available in the ESRI ecosystem. These tools can take the form of simple file geodatabases, web map creation, dashboard and story map creation, and even custom web map app building.

Project Schedule: Initial Services FY25

One way RAS optimizes its field data capture is by collecting pavement condition data 7 days a week, which allows our team to remain ahead of schedule when events such as storms or other weather-related events do occur. RAS anticipates utilizing one RAC vehicle but can mobilize supplemental crews and additional automated data collection vehicles to the LFUCG to speed up the collection process. RAS will prepare and monitor the locations of large-scale events and festivals to avoid high congestion periods and closed roads. RAS will also collect heavy traffic areas during low commute times or early on Sunday mornings. **The RAS management team has an outstanding record of completing projects of similar size and scale on time and within budget.**

Task	Description / Milestone	Days
1	Project Initiation, Kick-Off, & Centerline Identification	7
2	Field Mapping Development, Segmentation Review, & Routing Setup	14
3a	Roadway Asset Collection (RAC) Vehicle Mobilization/Calibration	2
3b	RAC Pavement Distress & Imagery Collection	46
4a	Pavement Evaluation, ASTM D6433 Data Processing, & QC	90
4b	On-site Pilot Data Review with LFUCG Staff	2
4c	Independent ASTM D6433 Field Review and Ground-Truthing	3
4d	HD Digital Image Processing & Delivery	40
5a	Delivery of OCI Data and Import to BOSS™	2
5b	5-Year Pavement Management Plan & Financial Analysis	50
5c	BOSS™ System Configuration, Training & Go-Live	14
6a	LFUCG Review of Draft Report & Final PCI Data	14
6b	Delivery of Final Report	7
6c	Presentations: Paving Work Group & LFUCG Council	2
PM	Scheduled Project Status Meetings	16



RAS acknowledges that LFUCG will allow the vendor to request up to an additional 30 weather days to accommodate “Poor Collection Days” due to environmental conditions. Additional days will be awarded on a 1-1 basis based on vendor requested days. Vendors will need to submit request for weather days on the 1st and 15th of the month during collection period for any days in the preceding two-week period.

Extended Schedule Projections for Additional Fiscal Years (FY)

Task	Work Activity	Task Duration
FY26-Jul	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY26-Jan	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY27-Jul	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY27-Jan	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY28-Jul	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY28-Jan	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY29-Jul	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY29-Jan	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY30-Jul	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY30-Jan	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY31-Jul	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks
FY31-Jan	BOSS™: GIS Synchronization & Bi-annual Pavement Management Update	1-2 Weeks

2.b Pavement Management System

Based on the specifications defined in the scope of work, and the desire of LFUCG staff to have a continuing service, RAS recommends implementing the **BOSS™** application to provide the greatest cost-benefit and maintain future flexibility. **BOSS™** can consume any readily available spatial data from the LFUCG, including public and private infrastructure, parcels, wards, districts, and other designations.

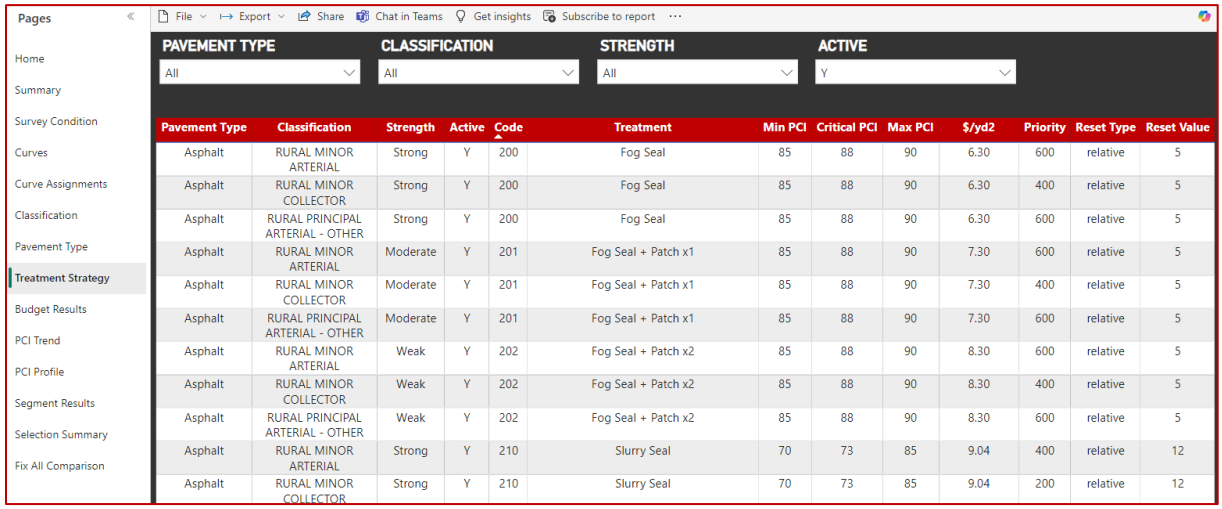
BOSS™ users experience a fully "turnkey" analysis service model that begins with RAS configuring the analysis intelligence and running the forecasted budget models for export to a user-friendly interface such as **Microsoft PowerBI.** City staff does not have to worry about purchasing software licenses or dedicating precious staff time to running an application as RAS takes care of all analysis modeling that ends with a powerful visualization engine within the PowerBI environment. **BOSS™** also retains a data export routine that formats the inventory and condition data into a format readily importable into most 3rd party pavement management systems, should LFUCG implement enterprise software in the future.

2.b.i System Capabilities: BOSS™

This section details the **BOSS™** application's functionality and the configuration process so your team can get the most out of the RAS data. While running the models themselves might seem straight-forward, each software has unique procedures and limitations that require considerable effort from the RAS team to ensure that the software functions properly for each client. The RAS approach to configuring the **BOSS™** capabilities involves the following sequences and client engagements:

- **Maintenance & Rehabilitation Setup** – RAS will assist the LFUCG with both inventory and condition assessment to enhance the level of service for its business units. To do so, RAS will assist with

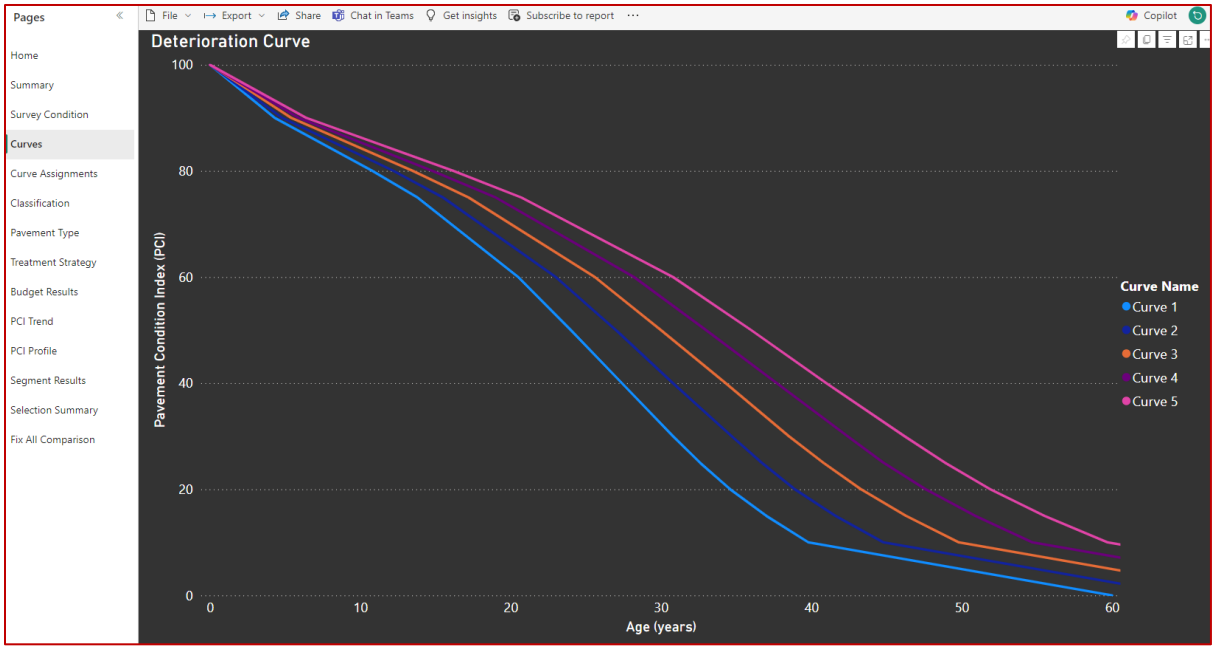
determining the right treatment (prescription) at the right time during the pavement analysis. The RAS team has vast experience in capital planning (decision trees) of these inventoried assets as they are strategically programmed for replacement, refurbishment, or general maintenance. As completed with many agencies across the US, RAS will work with LFUCG staff to review the existing pavement rehabilitation practices to ensure the software configuration aligns with real world practices. These analysis parameters will include at a minimum: Min/Max PCI, Breakpoint PCI, decision trees for treatments, costs, and reset PCI values. RAS can also discuss other treatments that the LFUCG may or may not be using and the benefits of these techniques.



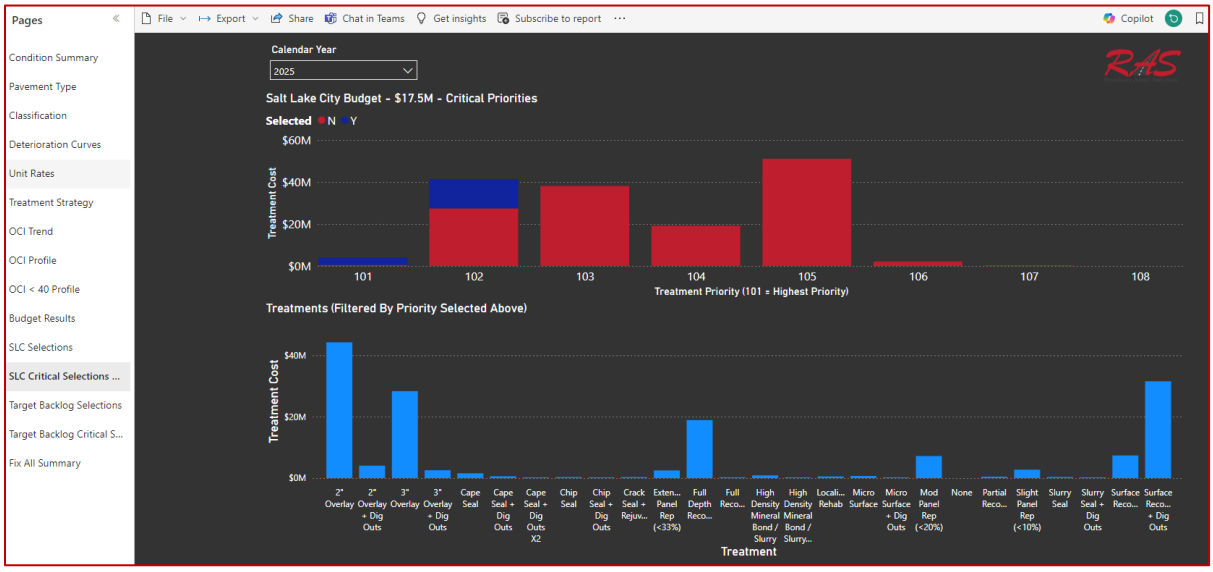
Pavement Type	Classification	Strength	Active	Code	Treatment	Min PCI	Critical PCI	Max PCI	$/yd2	Priority	Reset Type	Reset Value
Asphalt	RURAL MINOR ARTERIAL	Strong	Y	200	Fog Seal	85	88	90	6.30	600	relative	5
Asphalt	RURAL MINOR COLLECTOR	Strong	Y	200	Fog Seal	85	88	90	6.30	400	relative	5
Asphalt	RURAL PRINCIPAL ARTERIAL - OTHER	Strong	Y	200	Fog Seal	85	88	90	6.30	600	relative	5
Asphalt	RURAL MINOR ARTERIAL	Moderate	Y	201	Fog Seal + Patch x1	85	88	90	7.30	600	relative	5
Asphalt	RURAL MINOR COLLECTOR	Moderate	Y	201	Fog Seal + Patch x1	85	88	90	7.30	400	relative	5
Asphalt	RURAL PRINCIPAL ARTERIAL - OTHER	Moderate	Y	201	Fog Seal + Patch x1	85	88	90	7.30	600	relative	5
Asphalt	RURAL MINOR ARTERIAL	Weak	Y	202	Fog Seal + Patch x2	85	88	90	8.30	600	relative	5
Asphalt	RURAL MINOR COLLECTOR	Weak	Y	202	Fog Seal + Patch x2	85	88	90	8.30	400	relative	5
Asphalt	RURAL PRINCIPAL ARTERIAL - OTHER	Weak	Y	202	Fog Seal + Patch x2	85	88	90	8.30	600	relative	5
Asphalt	RURAL MINOR ARTERIAL	Strong	Y	210	Slurry Seal	70	73	85	9.04	400	relative	12
Asphalt	RURAL MINOR COLLECTOR	Strong	Y	210	Slurry Seal	70	73	85	9.04	200	relative	12

RAS would include the LFUCG's treatment types as well as unit costs to be incorporated into the pavement modeling. The results of the scenarios would include investment benefit information indicating the cost per square foot of benefit for each maintenance strategy based on maintenance rehabilitation costs. This can be reported in a number of ways, but most commonly as the cost per square foot to increase the PCI by increments of 1 point. For instance, **BOSS™ "Treatment Strategy" (as seen above),** delivers a method to prioritize the selection of treatments with minimal user effort. By providing a prioritized list of roads due for treatment in a given year, together with treatment costs and breakdown of annual funding, it ensures that LFUCG staff understand both the treatment activity required and its financial implications.

- **Deterioration Curves** – forecasting pavement conditions requires a detailed set of pavement deterioration curves for each roadway traffic classification and pavement material type, as designated by the selected software. Scot Gordon will develop the deterioration curves utilized in the analysis with LFUCG staff to ensure they reflect realistic degradation rates. The number of curves is unlimited as we can set up models based on functional class, pavement type, and structural conditions. If alterations to the curves are necessary during biannual updates, Scot will lead the update with the team prior to the completion of that cycle of service.

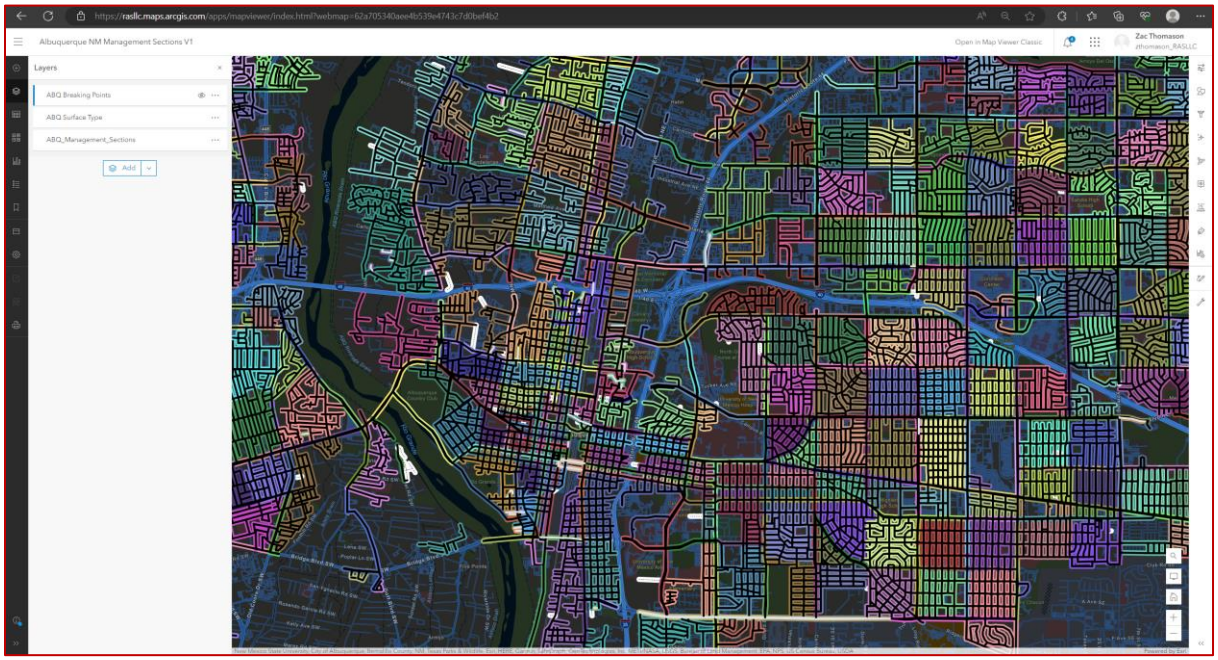


- **Financial Optimization** – **RAS enhances the pavement analysis by calculating a true financial optimization metric based upon each project's "cost of deferral"**. This is the process of identifying critical versus non-critical roadways. By calculating the cost of deferral, project selection can be sequenced by financial criticality to ensure the LFUCG is getting the biggest bang for their buck in selections. This optimization metric is but one *Priority Weight Factor* that is used to prioritize the final M&R plan. Other Priority Weight Factors include functional classification, pavement type, and even custom priorities such as historical and commercial districts or local priorities important to our clients such as demographics.



- **Project "Super-Segment" Development** – when configuring **BOSS™**, an important consideration includes the development logical projects, also known as a Super-Segments. During this configuration process, RAS will work with LFUCG staff to review the initial model results from each run, select the desired multi-year plan, and begin an automated sequence of "stitching" segments together to form

these logical projects. The development of management sections makes stitching projects together easy by setting the parameters of project development and allowing the software to intuitively build projects for RAS and LFUCG staff review. This powerful tool takes the guesswork out of project development as it utilizes the RAS condition data as a starting point for project development.



2.b.ii Access and Integration of Data

At RAS we believe the pavement condition data and imagery is the property of LFUCG. The City will receive a copy of the imagery on a hard drive from RAS and/or the imagery could also be hosted in the optional RAS videologger. The pavement condition results that are published from **BOSS™** are available in a web hosted Microsoft PowerBI portal. If the City does not retain a license of Microsoft PowerBI, RAS will create a user account on behalf of the City. Only staff that are authorized for access will be provided with the credentials to the data (there are no user/license restrictions). In addition, since the data is tied to the LFUCG centerline, the integration process is seamless. In addition to the PowerBI portal, RAS will also supply the data in virtually any other format such as Excel, File Geodatabase, Google KMZ, etc.

2.b.iii Ease of Use and Access

One of the greatest benefits of the **BOSS™** application is the simplicity of the user-interface and accessing the data. All that is required of the user is an ability to access the browser-based portal and click on various tabs to review the data securely.

Browser-based: BOSS™ is accessible on modern browsers, including the latest versions of Microsoft Edge, Google Chrome, Safari, and Mozilla Firefox.

Accessibility for Users: The **BOSS™** subscription model allows for unlimited access with no restrictions on concurrent use.

Data Exporting: In addition to the Excel and GIS deliverables, LFUCG staff can easily export data from **BOSS™**. As a PowerBI portal, the data within the application can be exported to Word, Excel, Powerpoint and even PDF's.

Map Integration: **BOSS™** will include an interactive mapping widget for browsing the condition data and analysis results produced by the application. All segment-level data can be filtered by various means (PCI range, districts, or planned work year) to offer the greatest flexibility to the user. In addition, RAS hosts all available maps in an ArcGIS Online web portal that the City will be given access to.

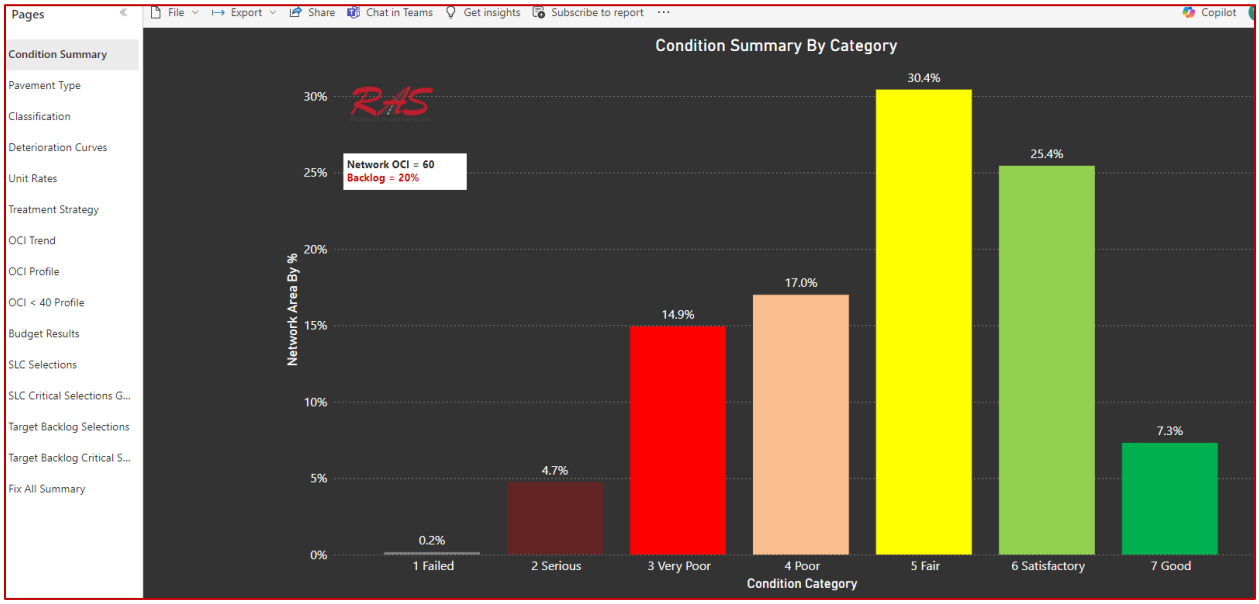
Content Editing: For LFUCG, **BOSS™** is supplied as a full turnkey service model. This means that RAS staff will take on the burden of making edits to the database (if required) and software intelligence on an as-needed basis based on the subscription tier. Agencies across the Country are leveraging the BOSS subscription service model such that RAS serves as a full-service extension of the LFUCG team. While the RAS handles the database updates or budgetary model updates, such updates can be completed on a monthly, quarterly, biannually, or an annual basis depending on LFUCG staff needs.

2.b.iv Sample Output

In addition to the sample outputs included throughout this proposal, please review some screen captures of the various outputs from the **BOSS™** application.

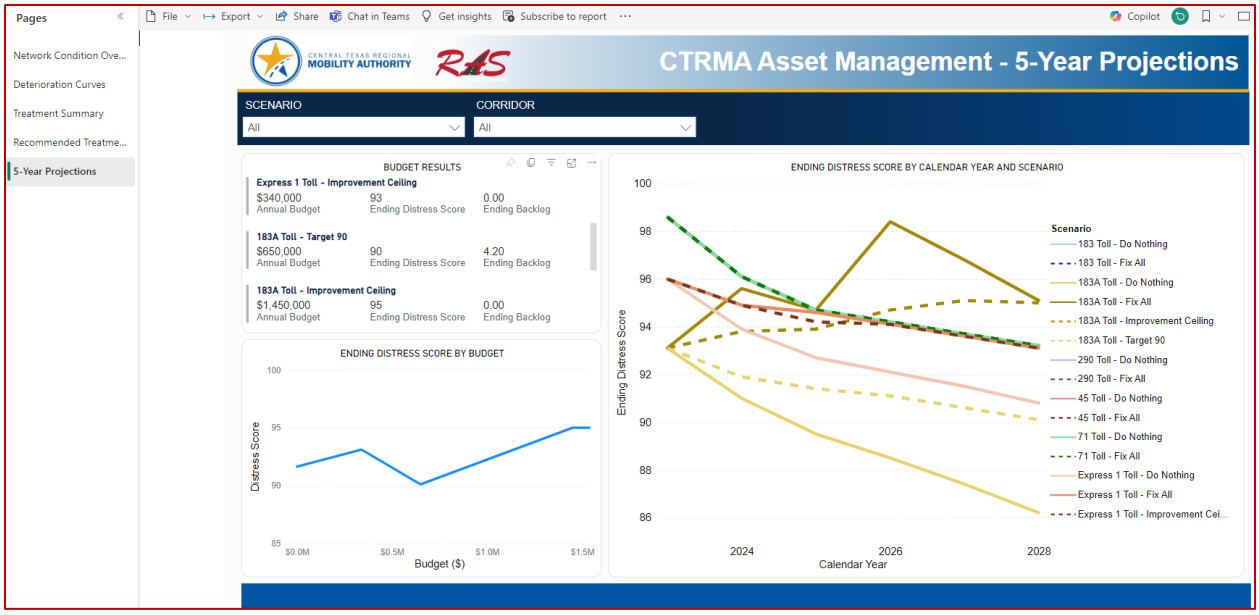
PCI/OCI Condition Summary by Category

In the screenshot on the following page, the user will find a PCI distribution graph that is available in the Microsoft PowerBI portal. The visualizations are interactive in nature and allow the user to click, highlight, and view summary dialog box information when configured as such. The tabs on the left-hand side of the screen grant the user access to all of the BOSS analysis parameter setups, budget models results, streets list, fix all summaries, and many others.



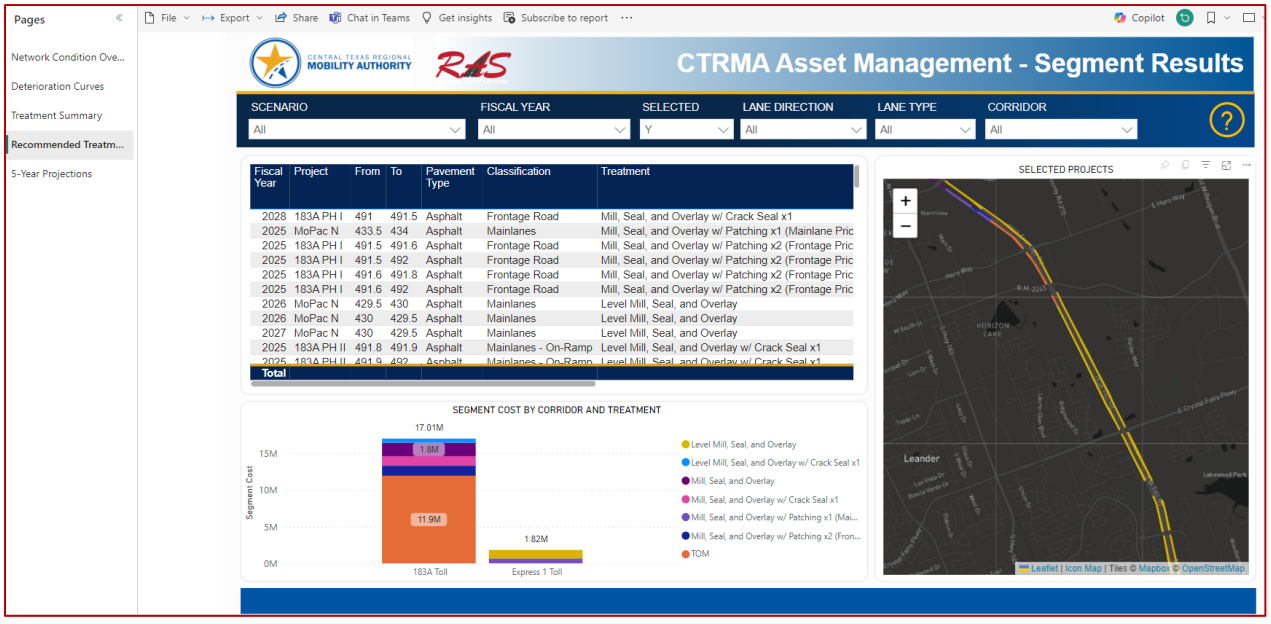
Output of Various Budget Scenarios

The image below illustrates several different budget models that were run in the BOSS program over a 5-year analysis horizon. The visualized widgets have been setup to showcase the budget model results combined graphically and even textural budget analysis results at the top that display ending PCI and ending backlog at the end of each scenario model.



Recommended Treatment Strategies by Segment

In addition to the budget models described previously, the user has the ability to filter any scenario that is available in BOSS to see the streets list by year of selection and treatment strategy. The imbedded map also allows the user to visually see the maintenance and rehabilitation candidates over the 5-year analysis horizon.

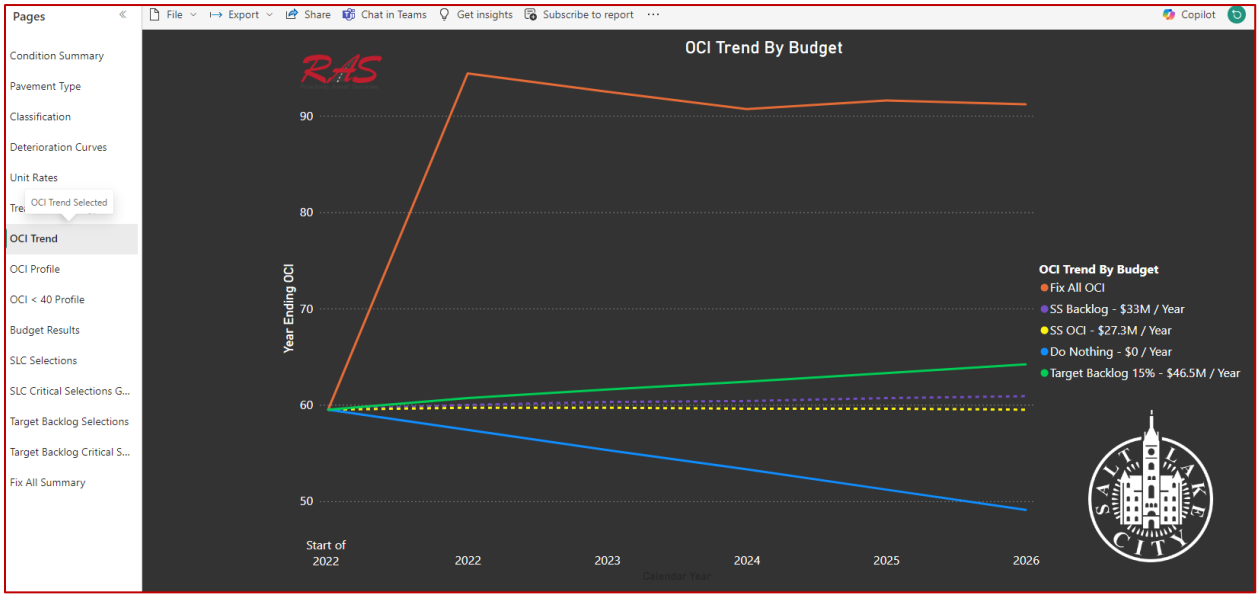


5-Year PCI/OCI Budget Profiles

Visualizing the budget model results is one of the most powerful and impactful elements of the BOSS PowerBI portal. In the image below the red line represents the trend line of all 12 scenarios that were run in the system. With the annual budget on the X-Axis and the 5-Year PCI on the Y-Axis, the user can determine the PCI outcome of any funding level displayed in the budget range on the X-Axis by simply drawing a vertical line to determine where it intersects with PCI on the red trend line.

5-Year PCI/OCI Trends

A far more classic example of a budget scenario graph is the multi-budget line graph with the analysis years on the X-Axis and the 5-year PCI on the Y-Axis. While you can't answer "what if" questions on this graph like you could on the previous graph, it still remains a powerful indicator of existing budget performance and Steady State PCI funding requirements.



2.b.v Training Approach

RAS can provide data interpretation and software training to ensure the LFUCG is getting the most out of their investment. This training serves as one of many knowledge transfers during the course of this project. While the training agenda will be developed and approved by staff towards the end of the project, topics such as the following can be expected:

1. Software overview
2. Distress identification & Inspections

3. Understanding the pavement condition indices and how the system uses them (PCI, IRI, OCI)
4. Network database management such as adding new streets and modifying Super-Segments
5. How to update the system with work completed and check to ensure the LFUCG is getting the PCI impact that was programmed
6. How to generate reports and export the data from the system
7. How to maintain the database and what to look for within the system

On-going Services (Biannual Updates)

The RAS Team provides further added value to LFUCG via our experience running pavement management "service models" for similar sized clients across the US. The ongoing analysis support subscription for LFUCG begins in Year 2 (FY26 starting July 1, 2025)) and represents a full turnkey analysis update conducted by RAS analysis support staff who conduct themselves as an extension of the LFUCG team. The only requirements of our clients are that they supply RAS with any completed work conducted in the first year, provide a planned work list for forced projects, and participate in a unit rate review to make any required adjustments. After that, RAS does the remaining work and refreshes all models, graphs, PowerBI visualizations, final reports, and presentation materials. **Based on the provided scope of work, RAS has included the Silver Subscription Level.** LFUCG can expect the following level of support throughout the duration of the initial 2-year term, as well as into future optional years.

BOSS™ Pavement Management Subscription Support Services	Bronze - Up to 40 Hours	Silver - Up to 80 Hours	Gold - Up to 120 Hours	Platinum - Up to 160 Hours	Titanium - Up to 200 Hours
Age Condition Data Review	●	●	●	●	●
Completed Work Update	●	●	●	●	●
Planned Work Update	●	●	●	●	●
Update Unit Rates	●	●	●	●	●
Refresh Budgets	●	●	●	●	●
Update Analysis Maps	●	●	●	●	●
GIS Syncronization	●	●	●	●	●
Modify Deterioration Curves		●	●	●	●
Modify Treatment Strategies		●	●	●	●
Update Written Report and Power Bi		●	●	●	●
Modify Super Segments			●	●	●
On-Call Pavement Module Support			●	●	●
Council Presentation Assistance			●	●	●
On-Call Professional Services Support				●	●
Adding Street Segment GIS Inventory				●	●
GIS Assistance with Linework					●
Review Life Cycle Cost for Pavement Design					●
Review Pavement Design Standards					●

Note: Should LFUCG be interested in other service levels, RAS can provide the annual fees for that level.

2.c References

City of Durham, NC- Pavement Condition Survey

RAS performed the 2021 pavement condition survey for the City of Durham's 1,540 lane mile network. The project consisted of a Pavement Condition Index (PCI) Survey and ROW asset inventory covering traffic signs, curb and gutter, and crosswalk slopes. Data collection for the pavement condition survey was completed with Roadway Asset Collection (RAC) vehicles, in accordance with the ASTM D6433.

36,416 traffic signs were inventoried and assessed with the following attributes for each sign: X,Y location, street name, Asset ID, Facility ID, photo image link, MUTCD code, physical condition rating, and support type. RAS also assessed curb and gutters for 1,075 lane miles and provided the following attributes: Asset ID, Facility ID, photo image link, physical condition rating, painted color, and material type. The RAS GIS technicians inventoried 1,229 crosswalks.

RAS provided GIS based deliverables and formatted the data for import into PAVER. The database provided the City with vital information including street name, segment length, surface type, roadway classification, age of the surface, date of observation, PCI score, cracking/distress description, and pavement width.

As the Project Manager, Mr. Gordon met with City Staff to refine budget requirements and develop a 10-year maintenance plan. RAS also conducted additional analysis work within Streetlogix to review social-economic factors such as median household income and racial diversity to further factor optimization to ensure an equal spread of street maintenance.

After the successful completion of the 2021 contract, RAS was contracted to perform pavement and asset management services in 2024.

Contact

Clint Blackburn
Project Manager
City of Durham
101 City Hall Plaza
Durham, NC 27701
C: (704)301-7193
O: (919)560-4326
clint.blackburn@durhamnc.gov

Scope

Time Period: 2021-2022
2024- In Progress

Project Budget: $374,712
$393,735 (2024 budget)

Responsibilities:

- Pavement Evaluation
- IRI Measurement
- Review Soil Conditions
- Deterioration Curves
- PCI Calculation
- GIS Segmentation
- ROW Assets

RAS Role: RAS served as the Prime Consultant

PUBLIC WORKS
CITY OF DURHAM

Date May 5, 2022

To Whom It May Concern:

The City of Durham selected RAS in 2021 to perform a Pavement Condition Assessment of our street network. The criteria was to follow the PCI rating scale of 0 – 100 rating and to perform a pilot area study to run an evaluation before applying to the entire network. We selected the same pilot area that was used in the 2018 PCI Study and RAS used Withers Ravenel to run a third party evaluation to verify the results. RAS performed two different methods for the pilot study to enable the City to select the method that best suited our needs. The first method was using the traditional selected samples that were used during the 2018 Study and the second method was evaluating 100% of the street using an AI, that RAS has developed, to perform the PCI rating. After the evaluation it was determined by both the City and Withers Ravenel that the 100% method was the better system. We also found some areas where the AI could be refined and we believe that it provided a better result in the end.

Scot Gordon was our point of contact throughout the study. He has not only provided us with excellent support, but has helped us to refine our decision making process for our Pavement Asset Management Program. Scot Gordon and Bart Williamson were also our main support during our 2018 PCI Study. They have always been available to address our needs and concerns during and after both projects.

I would recommend the RAS team to anyone looking to evaluate their pavement and ROW networks and enhance the quality and confidence in their infrastructure asset databases.

Sincerely,

Clint Blackburn, PE
Contract Management Supervisor
City of Durham, Public Works

Contact

Doug Rizor, Retired Systems Programmer
City of Albuquerque
1Civic Plaza NW #7057
Albuquerque, NM 87102
(505)321-8145
rizor.d.abq@gmail.com

Scope

Time Period: 2021-2022

Project Budget: $2,841,146

Responsibilities:

- Pavement Evaluation
- IRI Measurement
- Deterioration Curves
- PCI Calculation
- GIS Segmentation
- ROW Assets
- PMS Implementation
- System Training
- RAS Videologger
- **BOSS Analysis**

RAS Role: RAS served as the Prime Consultant

City of Albuquerque, NM- Pavement Condition Survey and ROW Asset Inventory

RAS completed a pavement condition survey for the City's 4,548 lane mile network of roadways and alleys. The RAC vehicle drove all roads in both directions to provide the most expansive collection for the City. Additionally, RAS completed an extensive ROW inventory and condition assessment of the following assets for the City: **113,673 traffic signs, 28,631 pavement markings, 2,495 miles of pavement striping, 2,614 miles of sidewalks, 40,198 ramps, 438 miles of bike lanes, 3,337 miles of curb and gutter, 64 miles of guardrail, 1.45 square miles of streetscapes, 1,651 traffic calming devices, 34,531 control boxes, 2,177 backflows, 18,554 storm inlets, 13,731 sidewalk hazards, 88,325 manholes, 554 bike lane hazards, and .73 square miles of medians**. All GIS based deliverables were imported into VUEWorks.

The RAC vehicle is equipped with a Laser Crack Measurement System (LCMS-2) for automated pavement data acquisition, Ladybug 360 camera for capturing ROW imagery, and a laser profiler for capturing roughness and ride data.

For the traffic sign inventory, RAS extracted the following attributes: Asset ID, X,Y location, MUTCD code, sign text, photo image link, physical condition rating (good, fair, poor), location, post total, sign facing direction, travel direction, obstructions, legend color, back color, and support structure type.

A unique service RAS completed for the City is polygon mapping of all areas of City maintained roads. Polygon mapping divides intersections as a separate area of consideration based on the increased flow of traffic. This allows the City to order precise amounts of materials when developing specific projects.

Contact

David Jones,
Program Manager

City of Salt Lake City

2001 S State St N3-600
Salt Lake City, UT 84190

(801)535-6425

David.jones@slcgov.com

Scope

Time Period: 2021-2022

Project Budget: $202,975

Responsibilities:

- Pavement Evaluation
- IRI Measurement
- Deterioration Curves
- PCI Calculation
- GIS Segmentation
- Cartegraph Import
- RAS Videologger

RAS Role: RAS served as the Prime Consultant

City of Salt Lake City, UT- Pavement Condition Survey

RAS performed the 2021 pavement condition survey for Salt Lake City's 730 test mile network. RAS completed the ASTM D6433 based survey using its fleet of RAC vehicles. RAS provided GIS based deliverables and formatted the data for import into Cartegraph. RAS performed a pilot study, provided a final report, and assisted City staff in presenting data to City Council regarding various funding amounts and strategies for improving the City's PCI and its level of service.

RAS produced a Videologger for the City to take a virtual drive down a roadway for a snapshot of pavement and ROW conditions. The Videologger provides the client with access to ROW and pavement imagery in an organized manner to quickly make informed decisions on conditions within various areas of the City's network without having to leave the office.

The evaluation project also included a technical report presenting the predominate distresses and statistical analysis of the condition results and repair recommendations. The report provided results based upon surface type and division of functional classification for all roadways.

RAS performed five-year pavement maintenance and preservation program scenarios for the City's consideration using BOSS software. The analysis ran 10 profile models for increasing budgets to define how the City's budget will impact network OCI and network backlog. The scenarios included very small budgets, well below current funding and very large scenarios, well above current funding levels. The results from all scenarios were used to establish a funding level trend.

June 1, 2022

Letter of Recommendation for Roadway Asset Services (RAS)

To Whom It May Concern,

In 2021, RAS was chosen from a list of highly competitive Pavement Asset Surveyors and Management Professionals to provide services to Salt Lake City Engineering. During the past nine months, we have worked with RAS to update our current pavement condition survey for the City's 575 centerline miles of roadway. We had prior experience with the executive management team of RAS preparing a previous pavement condition survey and trusted them to help us with this update. Bart Williamson and Scot Gordon have been instrumental providing meaningful data to refresh SLC's overall pavement condition ratings and deterioration modeling for the City.

The City's pavement assets were collected throughout the years using various older collection techniques and methodologies adhering to the standard ASTM D6433. Scot Gordon helped us understand the transition from our older survey sections to the latest LCMS technology and rating program. These cutting-edge techniques allow for 100 percent analysis of the evaluated lanes. Scot took the time to visit during our pilot evaluation stage and walked the streets with our staff. He carefully explained how the rating and deduct values vary with the specific distress types. Scot's unique understanding of distress conditions and the relationships to the various soil types, along with the weather conditions, in the Salt Lake City area has been invaluable. He explained these relationships and the underlying causes including potential damage from each distress type.

In addition, Scot worked with our staff to identify rating scores based upon the pavement type, the asset condition, and the recommended maintenance improvements. He also helped us refine our deterioration curves to better model our future pavement performance. This understanding of our unique pavement environment along with his guidance has provided our staff with valuable tools to improve our roadway network and management system.

Based on my involvement and working relationship with the staff at RAS, I would highly recommend RAS for any City or County pavement condition assessment or ROW asset management project. RAS has proven to be flexible, knowledgeable, and honest with our team. They have provided valuable tools which enhance Salt Lake City's pavement management system and improved the accuracy of our infrastructure data. We look forward to working with RAS on future projects and thank them again for the commitment to the Salt Lake City asset management endeavors. Please feel free to contact me if you have further questions.

Sincerely,

David Jones *David Jones*
Public Way Coordination Program Manager - Engineering Division

DEPARTMENT *of* PUBLIC SERVICES

SALT LAKE CITY CORPORATION

City of Columbus, OH- Resurfacing Pavement Management Services

RAS conducted an in-depth pavement condition assessment on 2,800 test miles of roadways. RAC vehicles equipped with a LCMS-2 for pavement data acquisition, Ladybug 360 camera for ROW assets and pavement QA/QC, and Class 1 Inertial Profiler for roughness and ride data were utilized.

Following data collection, RAS processed the 2,800 test miles of roadways in accordance with the ASTM D6433 for the development of Pavement Condition Index (PCI) survey results. In addition, RAS evaluated 100 test miles of brick pavement in accordance with the Ohio DOT rating manual for Pavement Condition Rating (PCR) values. The distress data for each road segment was utilized to identify load related distresses and categorize them based on density to determine a relative structural index number.

Project Manager and Senior Pavement Engineer, Scot Gordon, PE, IAM met with City Staff to verify distress deducts and RAS processing routines on approximately 100 test miles of roadways. The purpose of this pilot stufy was to ensure distress rating met City expectations.

RAS delivered a web-based and GIS centric viewer to allow the City to take a virtual drive along the roadway without leaving the office. In addition, RAS delivered a final report with current conditions, future rehabilitation options, budget analysis to maintain current PCI rating, budget requirements for desired/improved PCI rating, deferred maintenance backlog, and a 5-year maintenance plan organization by geographical areas.

Contact

Josh LeVan, PE
Pavement Manager

Columbus, OH

910 Dublin Rd
Columbus, OH 43215

(614)645-6535

jrlevan@columbus.gov

Scope

Time Period: 2023-2024

Project Budget: $828,376

Responsibilities:

- Pavement Evaluation
- PCI Calculation
- IRI Measurement
- Brick Pavement Rating
- ROW Asset Inventory
- AMS Integration
- Image Viewer

RAS Role: RAS served as the Prime Consultant

Anderson County, SC- Road Condition Survey

RAS performed a pavement condition survey for the Powdersville designated area of Anderson County, SC. Roadway Asset Collection (RAC) vehicles were utilized to capture pavement distress data in accordance with ASTM D6433 methodology. The RAC vehicle is equipped with a certified inertial profiler for Roughness and Ride measurements, a second-generation Laser Crack Measurement System (LCMS-2) for pavement imagery, and a Point Gray Ladybug 5+ 30 MP 360 camera for asset capture. In addition to evaluating pavement conditions, RAS conducted a traffic sign inventory on 1,841 traffic signs.

With input from the County, RAS identified the following attributes for extraction on traffic signs: Asset ID, X, Y location, MUTCD code, sign text, photo image link, physical condition rating (good, fair, poor), location, sign direction, legend color, back color, and support structure type.

RAS formatted assets for import into the County's Cartegraph asset management system. In addition, Scot Gordon, PE, IAM, conducted a 5-year maintenance plan utilizing RAS' Budget Optimization Street Selector (BOSS) software. The scope included running 10 profile budget runs to establish the budget model trend and showcasing 5 budget scenarios. The scenarios were financially optimized and prioritized to meet County needs.

After the successful completion of the Powdersville contract, RAS obtained a contract to perform a pavement condition assessment on 1,785 test miles of roadways. RAS imported pavement data into Cartegraph and assisted the County with the configuration of budget scenarios within the Cartegraph Scenario Builder.

Contact

Jonathan Fox, M.S.
Roads Project Manager

Anderson County, SC

1428 Pearman Dairy Rd
Anderson, SC 29625

O: (864)964-6711
C: (864)642-8011

jwfox@andersoncountysc.org

Scope

Time Period: 2021-2022
2023-2024

Project Budget: $74,800
$337,740

Responsibilities:

- Pavement Evaluation
- IRI Measurement
- PCI Calculation
- GIS Segmentation
- Cartegraph Import
- ROW Assets
- Budget Scenarios

RAS Role: RAS is serving as a Prime Consultant

ANDERSON COUNTY
SOUTH CAROLINA

July 17, 2023

ANDERSON COUNTY ROADS AND BRIDGES
1428 Pearman Dairy Road
Anderson, South Carolina 29625

Reference letter for Roadway Asset Services (RAS)

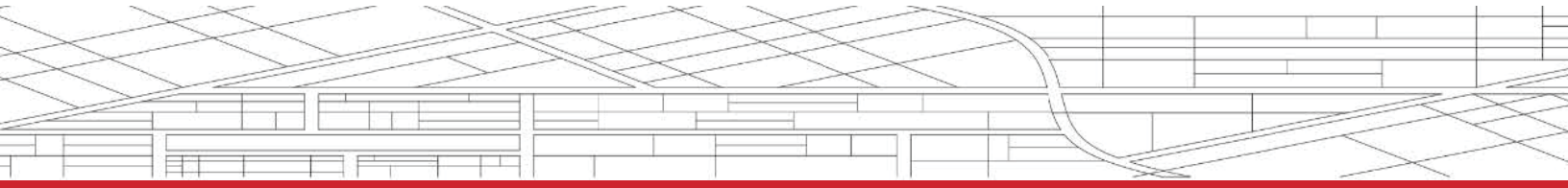
A year ago, Anderson County embarked on the implementation of an objective and turn-key pavement management program to assist in a comprehensive roadway rehabilitation planning effort for the Powdersville area as a pilot project. As a part of that process, the County selected Roadway Asset Services (RAS) to provide consulting services for the acquisition of pavement condition data and importing of the data into the Cartegraph asset management software. Based on the outcome that project had we have now contracted RAS to provide us with a full county wide pavement analysis.

The RAS team mobilized their laser-based Roadway Asset Collection vehicles to conduct a field survey of the pavement conditions on all County maintained roadways in general accordance with the ASTM Standard D6433-11 "Standard Practice for Roads and Parking Lots Pavement Condition Index (PCI) Surveys." Their data collection vehicle surveyed and collected images on over 120 test miles of paved roadways as a part of the pilot project and is now surveying the remaining 1400+ miles of our network.

They were an integral partner in the County's endeavor to implement a robust pavement management program and they continue to provide the utmost professional service. I would recommend the RAS team to anyone looking to capture pavement condition data and implement a turn-key solution. Their involvement certainly assisted our County in improving the accuracy of our infrastructure modeling and overall asset management planning. We look forward to working with RAS on future projects and thank them again for the commitment to the Anderson County asset management endeavors.

Respectfully,

Jonathan Fox
Project Manager
Anderson County Roads and Bridges



Cost of Services

3. Cost of Services

Schedule A

PAVEMENT CONDITION SURVEY, ANALYSIS, AND PAVEMENT MANAGEMENT SYSTEM (SaaS)

Item	Unit Price Total
Line 1 - Initial Setup and terms of service – Pavement Imagery, Analysis, PMS, & all other items as noted	**$ 217,388.00**
Line 2 – Annual Services – FY27 Annual Pavement Management System & Services	**$ 18,500.00**

Appendix A: Staff Resumes

G. SCOT GORDON, PE, IAM

PROJECT MANAGER, SENIOR PAVEMENT ENGINEER

Mr. Gordon serves as President and Lead Pavement Engineer at Roadway Asset Services. Mr. Gordon has 32 years of experience in transportation engineering, geotechnical engineering, and construction materials testing including pavement design and optimization for transportation networks. As a professional engineer, he has managed numerous projects such as design/build highway projects, airfield pavement, and other government projects. He is an expert in the design, evaluation, monitoring, and research of pavement as well as pavement rehabilitation and soil stabilization. Scot has completed numerous projects related to pavement management system implementation, pavement condition surveys, sign management surveys, sidewalk condition surveys, and road assessments utilizing LiDAR.

KEY PROJECTS

City of Columbus, OH – Pavement Condition Assessment
Mr. Gordon served as the Project Manager for the City's Pavement Condition Assessment on 2,800 test miles of roadways. RAS conducted the pavement assessment in accordance with the ASTM D6433 for PCI values. In addition, RAS evaluated 100 test miles of brick pavement in accordance with ODOT's Pavement Condition Rating (PCR) manual. Mr. Gordon conducted a 100-mile field pilot to review PCI deduct points and distress interpretations with City staff.

Ohio Department of Transportation– Pavement Condition Survey
Mr. Gordon served as a Pavement Engineer for an on-call consulting contract. Scot used the DOTs PCR system to perform statistical analysis of rated conditions in relation to surface maintenance treatment types, materials, suppliers, and performance. Knowledge of this system has also been used in performing condition rating for the City of Columbus.

City of Memphis, TN – Pavement Condition Assessment
Mr. Gordon served as the Project Manager for the City's data collection of 2,500 centerline miles of roads. Mr. Gordon met with City staff to assist in migrating from a PASER rating system to the industry standard ASTM D6433. RAS developed a PCI for import to Streetlogix.

Chicago MAP, IL - Pavement Data Collection
Mr. Gordon served as the Project Manager for the Agency's 5,250 test miles of roadways. Mr. Gordon conducted a field pilot study with CMAP and verified the accuracy of PCI scores.

City of Indianapolis, IN - Pavement Condition Assessment
Mr. Gordon served as the Project Manager for the City's pavement condition assessment on 2,220 centerline miles of roadways. The survey included a set of pre-defined parameters to develop both a segment and network level index. Mr. Gordon worked with the City to evaluate the budget needs of the arterial network to submit to Indiana DOT for additional maintenance funding using PAVER software.

FIRM
Roadway Asset Services

EXPERIENCE
32 years

EDUCATION
M.E., Civil Engineering, Texas A&M University, 1990
B.S., Civil Engineering, Texas A&M University, 1989

REGISTRATIONS
-OH Professional Engineer, Certificate Number: 90158
-TX Professional Engineer, Certificate Number:88099
-CO Professional Engineer, Certificate Number:30239
-MD Professional Engineer, Certificate Number:33493
-FL Professional Engineer, Certificate Number:83979
-NC Professional Engineer, Certificate Number:46459
-NM Professional Engineer, Certificate Number:26330
-GA Professional Engineer, Certificate Number:45916
-Institute of Asset Management Certified

Professional Affiliations
-American Council of Engineering Companies
-Tarrant County Board of Directors, 2015-present
-American Society of Highway Engineers, DFW Section Treasurer, 2015-2017
-American Council of Engineering Companies, Colorado
Board of Directors, 2000-2001
-Charles County Chamber of Commerce, Board of Directors, 2009-2010

City of Charlotte, NC – Pavement Condition Assessment
Mr. Gordon was the Project Manager for the City's pavement condition assessment on 3,340 test miles of roadways. The project included pavement data collection, GIS documentation, and a GIS asset update. Mr. Gordon was responsible for reviewing PCI scores and distress interpretations with City Staff.

City of Kansas City, MO- Pavement Evaluation & ROW Survey
Mr. Gordon is serving as the Project Manager for the City's pavement condition assessment on 3,599 test miles of roadways. Following collection and analysis, RAS will provide the City with a Cartegraph import sheet for ingestion into the City's current database.

Montgomery County, TN– Pavement Condition Survey
Mr. Gordon was the Data Project Manager for the Montgomery County Highway Department's pavement condition survey of the County's 750 centerline miles of roadway. Additionally, the pavement condition index data was integrated and imported into Streetlogix.

City of Clarksville, TN - Pavement Condition Survey
Mr. Gordon served as the Project Manager for the City's pavement condition assessment on 773 test miles of roadways. In addition to pavements, RAS conducted a ROW asset inventory and condition assessment on pedestrian curb ramps. Following collection, RAS formatted the pavement inventory, attributes, and inspection data in a ready-to-import PAVER .E70 file. The pavement inventory, supersegments, PCI data, and analysis parameters were loaded into BOSS™.

City of Cincinnati, OH- Pavement Management Services
Mr. Gordon is the Project Manager for the City's pavement condition assessment on 1,409 test miles of paved roadways. In addition, RAS is evaluating brick roads in accordance with ODOT's rating manual. Following collection and analysis, RAS is importing data into PAVER. The City will receive a PowerBI Data Portal for review and management of the RAS data.

City of Winston-Salem, NC– Pavement Condition Survey
Mr. Gordon is serving as RAS' Senior Pavement Engineer for the City's pavement condition assessment on 1,227 test miles of paved roadways. Automated RAC vehicles will collect 2D and 3D pavement imagery for use in PCI calculations following the ASTM D6433 methodology. In addition to pavements, RAS is conducting a ROW asset inventory on curb and gutters, pavement striping, and pavement markings.

City of Wilson, NC- Pavement Condition Survey
Mr. Gordon is serving as RAS Project Manager for the City's pavement condition assessment on 476 test miles of paved roadways. Automated RAC vehicles are being mobilized to the City for pavement data used for an ASTM D6433 compliant assessment. RAS is performing a virtual validation of data before conducting pavement analysis within BOSS software.

Worcester County, MD- Pavement Condition Survey
Mr. Gordon served as the Senior Pavement Engineer for the County's automated data collection project of 535 test miles of paved roads. Automated data collection vehicles were mobilized to obtain PCI, IRI, and ROW asset imagery. The County received a pavement report with multi-year budget scenarios.

BART WILLIAMSON, FCLS
PROJECT PRINCIPAL

FIRM
Roadway Asset Services

EXPERIENCE
32 years

EDUCATION
B.S., Business Marketing
Honors and Distinction
Indiana University, 1989

Mr. Williamson brings over 32 years of management experience in a wide variety of projects and programs that include public works, insurance and transportation on a national level. He has developed an in-depth understanding of business processes and politics that are germane to governments. Mr. Williamson has assisted with asset management needs assessments, management of pavement condition surveys, and ROW collection projects.

KEY PROJECTS

City of Columbus, OH – Pavement Condition Assessment
Mr. Williamson served as the Project Principal for the City's Pavement Condition Assessment on 2,800 test miles of roadways. RAS conducted the pavement assessment in accordance with the ASTM D6433 for Pavement Condition Index values. In addition, RAS evaluated 100 test miles of brick pavement in accordance with ODOT's Pavement Condition Rating (PCR) manual. Mr. Williamson coordinated work between the RAS team and its DBE subconsultants.

City of Peoria, IL - Pavement Condition Survey
Mr. Williamson was the Project Principal for the City of Peoria's pavement condition assessment on 544 test miles of roadways. RAC vehicles were utilized to provide a 100% survey of all lanes driven. The RAS Team was responsible for providing final PCI and distress data in a format compatible with the City's pavement management system, DOT.

City of Indianapolis, IN - Pavement Condition Assessment
Mr. Williamson was the Client Services Manager for the City's pavement condition assessment on 2,200 centerline miles of roadways. The survey included a set of pre-defined parameters to develop both a segment and network level index that correlated to existing pavement surface conditions. Mr. Williamson also managed additional work with the City to evaluate the budget needs of the thoroughfare network of 1,100 centerline miles to submit to IDOT.

Indianapolis MPO, IN - Pavement Condition Survey
Mr. Williamson was the Client Services Manager for the professional pavement services of 1,162 miles within the Indianapolis MPO planning area. The primary goal of the project was to collect data that provided comparative pavement condition measures of roadways being considered for rehabilitation or reconstruction. Mr. Williamson was responsible for mobilizing automated data collection vehicles and providing updates to the MPO on project status.

Michiana Area Council of Governments, IN – Asset Assessment
Mr. Williamson was the Client Services Manager for MACOG's 7,995 miles of four County service areas participating in the MACOG traffic sign assessment study. Deliverables included a sign geodatabase with corresponding GPS referenced images linked to VUEWorks. The agency had over 80,000 signs that were inventories as a part of this project. Mr. Williamson was responsible for ensuring deliverables were compatible with the agency's existing PMS.

City of Cincinnati, OH- Pavement Management Services
Mr. Williamson is the Project Principal for the City's pavement condition assessment on 1,116 test miles of paved roadways. In addition, RAS is evaluating brick roads in accordance with ODOT's rating manual. Following collection and analysis, RAS is importing data into PAVER.

City of Rochelle, IL- Pavement Condition Survey & ROW Asset Inventory
Mr. Williamson served as the Project Principal for the City's pavement condition assessment on 78 test miles of paved roads. Automated data collection vehicles were used to provide pavement distress imagery for use in the calculation of PCI values. Alongside pavement collection and analysis, RAS conducted a curb and gutter inventory, sidewalk inventory, ADA curb ramp inventory, and traffic sign inventory. RAS delivered data in a format compatible with VUEWorks.

City of Virginia Beach, VA– Pavement Condition Assessment
Mr. Williamson served as the Project Principal for the City's pavement condition assessment on 2,327 test miles of roadways. The scope of services included pavement condition rating and assessment, pavement management repair recommendations, Cartegraph import and training, and collection of assets within the ROW including curb ramps and sidewalks.

Charleston County, SC- Pavement Condition Survey
Mr. Williamson served as the Client Services Manager for the pavement condition survey on 1,792 centerline miles. Automated data collection vehicles were used to collect pavement data and ROW asset inventory. The pavement database was loaded into the County's Cartegraph and an OCI was calculated for each segment.

City of Greenville, SC– Pavement Condition Survey
Mr. Williamson served as the Project Principal for the City's automated data collection of 350 test miles of roadways, 5 miles of the Swamp Rabbit Trail, and 258 miles of South Carolina DOT owned roadways. The City's project also consisted of a ROW asset inventory of sidewalks, bike lanes, speed limits, and pavement markings. Using BOSS™ software, RAS produced a 7-year preservation plan with maintenance recommendations. Mr. Williamson was responsible for maintaining communication between the RAS team and City Staff.

City of Clarksville, TN - Pavement Condition Survey
Mr. Williamson served as the Project Principal for the City's pavement condition assessment on 773 test miles of roadways. In addition to pavements, RAS conducted a ROW asset inventory and condition assessment on pedestrian curb ramps. Following collection, RAS formatted the pavement inventory, attributes, and inspection data in a ready-to-import PAVER .E70 file. The pavement inventory, supersegments, PCI data, and analysis parameters were loaded into BOSS™.

Village of Arlington Heights, IL- Fulle Road Network Survey
Mr. Williamson served as the Project Principal for the Village's pavement condition assessment on 275 test miles of roadways. Automated RAC vehicles were utilized to complete an ASTM D6433 based survey. RAS delivered a pavement report with one round of budget scenarios.

Anderson County, SC– Road Condition Survey
Mr. Williamson served as the Project Principal for Anderson County's Pavement Condition Survey on 120 test miles. In addition to pavement data collection and analysis, RAS conducted a traffic sign inventory on 212 lane miles. RAS also developed budget scenarios for a 5-year pavement maintenance plan within BOSS™. After the successful completion of the 120 test miles, RAS received a contract to collect pavement condition data on 1,785 test miles of roadways. RAS formatted data for import into Cartegraph.

City of Winston-Salem, NC– Pavement Condition Survey
Mr. Williamson is serving as RAS' Project Principal for the City's pavement condition assessment on 1,227 test miles of roadways. In addition to pavement, RAS is conducting a ROW asset inventory on curb and gutters, pavement striping, & pavement markings.

ZAC THOMASON, MBA

ASSISTANT PROJECT MANAGER, SENIOR VICE PRESIDENT

Mr. Thomason brings over 18 years of dedicated pavement and asset management experience where his focus has been on the use of semi-automated and automated technologies for pavement distress surveys, enterprise software implementation, pavement preservation, budget modeling & forecasting, and multi-year rehabilitation plan development. In addition to pavements, Mr. Thomason has vast experience with Right of Way asset inventory development that ranges from roadside features such as signs & supports, sidewalks, pedestrian curb ramps, striping & markings, curb & gutter, guardrail, bike racks, and nearly any asset that can be seen in the right of way. He has also managed complex sidewalk and pedestrian curb ramp inventory assignments that have included off road vehicle data collection, advanced LiDAR surveys to acquire geometric measurements (ramp, landing, & flare), long-range project prioritization sequencing, and project planning.

FIRM
Roadway Asset Services

EXPERIENCE
18 years

EDUCATION
M.B.A., Business Administration, University of Phoenix, 2007
B.S., Global Business, Arizona State University, 2005

PROJECT LEADERSHIP ROLES

Boone County & Kenton County, KY- Pavement Condition Survey
Mr. Thomason served as a Client Services Manager for a joint pavement management program update for the counties of Kenton and Boone. The project consisted of 550 miles of pavement condition surveys covering the entire roadway network. The PCI results were analyzed utilizing the Lucity pavement management software, including data import, and 5-year optimized pavement rehabilitation plans were delivered.

City of Atlanta, GA– Pavement Condition Survey
Mr. Thomason served as the Assistant Project Manager for multiple networkwide pavement data collection and analysis updates for the City of Atlanta. Semi-automated data collection equipment was utilized to survey over 1,700 survey miles of City maintained arterial, collector, and residential roadways. All data was collected in conformance with the ASTM D6433 protocols and the extent/severity data was summarized as a 0-10 index for import into the Lucity pavement management software. A full functional classification review was completed prior to the analysis and budgetary models were run to identify the steady state PCI and backlog requirements. The condition data and analysis results were used by the City to prioritize the expenditure of planned bond funds over a 10-year horizon.

City of Kingsport, TN– Pavement Condition Survey
Mr. Thomason served as the Assistant Project Manager for the City's Pavement Condition Survey which included network database development, automated field surveys, budget analysis and maintenance optimization for the City's approximately 400 centerline mile pavement network. This project also included training of the City's engineering and field staff, the development of repair and rehabilitation scenarios, and the creation of budgeting decision trees to assist in optimization. Additionally, the data was imported into Cartegraph.

Pickens County, SC– Pavement Management Data Collection
Mr. Thomason served as the Assistant Project Manager for the County's automated pavement condition survey on 902 test miles. Automated data collection vehicles were utilized to collect pavement distress imagery utilized for an ASTM D6433 compliant pavement rating. The team also conducted a ROW asset inventory on guardrails and traffic signs. Mr. Thomason was responsible for ensuring the County's strict timeline was met with high-quality deliverables.

City of Columbus, OH– Pavement Condition Assessment
Mr. Thomason was the Assistant Project Manager for the City's pavement condition assessment on 2,800 test miles of roadways. RAS conducted the paved network assessment in accordance with the ASTM D6433 for Pavement Condition Index values and 100 test miles of brick pavement in accordance with ODOT's Pavement Condition Rating (PCR) manual.

City of Birmingham, AL- Pavement Condition Assessment
Mr. Thomason served as the Assistant Project Manager for the City's pavement condition assessment on 2,159 test miles of roadways. RAC vehicles were utilized to collect pavement distress imagery for an ASTM D6433 compliant pavement rating. RAS worked with the City to implement Streetlogix software.

City of Virginia Beach, VA– Pavement Condition Assessment
Mr. Thomason served as the Assistant Project Manager for the City's pavement condition assessment on 2,327 test miles of roadways. The scope included pavement condition rating and assessment, pavement management repair recommendations, Cartegraph import and training, and collection of assets within the ROW including curb ramps and sidewalks.

City of Springfield, MO- Pavement Condition Survey
Mr. Thomason served as the Project Manager for the City's Pavement Condition Survey on over 1,000 test miles of paved streets. Semi-automated data collection technology was utilized to perform a condition assessment of paved roads, in accordance with ASTM D6433 pavement distress rating protocols. In addition, the data was also converted to a PASER score to maintain continuity with legacy data. Mr. Thomason managed the configuration of the pavement analysis and development of the budgetary model forecasting. Also included in the scope of services was a detailed sidewalk inspection of the City's 700 linear miles of sidewalk to report distresses such as vertical displacements, shattered slabs, cracking, and cross slope. The sidewalk data was then utilized to develop a long range 20-year budget that prioritized sidewalk and pedestrian curb ramp rehabilitation on a square mile basis.

City of Lincoln, NE- Pavement Condition Data Collection
Mr. Thomason is serving as the Assistant Project Manager for the City's pavement condition assessment on 1,547 test miles via a linear survey of each StreetSaver section. RAC vehicles are being mobilized to the City for a modified ASTM D6433 compliant pavement rating and assessment. Following collection and rating, pavement condition data will be in a format compatible with StreetSaver using an approved Data Schema developed for StreetSaver import/export utility. RAS will publish the pavement condition layer and imagery to a Videologger.

City of Topeka, KS- Pavement Condition Survey 2022
Mr. Thomason served as the Assistant Project Manager for the City's Pavement Condition Survey on 1,408 lane miles of paved streets. RAC vehicles were utilized to provide 2D and 3D imagery of paved roads for an ASTM D6433 pavement distress rating. In addition to pavement analysis, RAS conducted a ROW asset inventory and assessment on curb and gutter, traffic signs, sidewalks, curb ramps, guard rails, medians, and retaining walls.

Wyandotte County, KS- Pavement Condition Survey
Mr. Thomason served as the Assistant Project Manager for the County's Pavement Condition Survey on 1,902 test miles of paved streets. Semi-automated data collection technology was utilized to perform a condition assessment of paved roads, in accordance with ASTM D6433 pavement distress rating protocols. In addition, Mr. Thomason managed the configuration of the County's Lucity software and development of the budgetary model forecasting.

1022 Fontaine Rd
Lexington, KY 40502

Tel: (859) 559.3443
eMail: abbie@abbie-jones.com

Abbie Jones, PE, PLS

Ms. Abbie Jones is the President of Abbie Jones Consulting. Abbie has over 20 years of experience in civil engineering and land surveying. Her background in both the private and civil service perspectives is helpful on any government project. As a former City Manager of Engineering and GIS staff, Ms. Jones has worked to share our data collection in both raw and processed formats with city/state departments.

Traffic Data Collection

1. **Traffic Data Collection support as sub for Statewide Traffic Planning Contract (began 2012).** Work to date includes video turning movement counts, tube counts, and radar counts. (2012-present)
2. **KIPDA Louisville Traffic Counts** Traffic counts for 33 downtown intersections for pedestrians and 100 turning movement counts at intersections and interstate on and off ramps (2021-2023)
3. **LFUCG Cardinal Run North Traffic Counts Lexington, KY** In support of AJC designed civil plans and traffic implications for a new 137-acre park we performed traffic turning movement counts to design for maximum traffic flow.
4. **Pre and Post Louisville Bridges, KY.** Pre and Post construction regional count of interstates and exit ramps affected by lane closures and long-term detours.
5. **NCTCOG Regional Traffic Study in greater Dallas, TX.** Traffic Data Collection support for interstate movements using video automated traffic count studies for more than 50 locations of multi-lane interstate. (2017)
6. **OKI Regional Traffic Study in greater Cincinnati, OH.** Traffic Data Collection support for driveway movements using video automated traffic count studies for more than 30 locations. (2016-2017)
7. **Amazon Traffic Studies (KY, TN, OH).** Traffic Data Collection supporting intersection and driveway movements using video automated traffic count studies for 3 sites. (2016-2017)
8. **Beaumont Corridor Traffic Study in Lexington, KY.** Traffic Data Collection support for intersection turning movement counts using video for more than 18 locations. (2016-2017)
9. **UKY Rose Street Closure Traffic Study in Lexington, KY.** Traffic Data Collection support for pedestrian pathway and intersection studies video for more than 12 locations. (2017)
10. **KY627 at KY1958 and the High School in Winchester, Kentucky**. This project included video turning movement counts and manual queue counts at two locations. (2012)
11. **Mountain Parkway Expansion Traffic Study, eastern Kentucky.** This project included 28 tube counts and sixteen 12hr video turning movement counts. (2012-2013)

Education

- Tennessee Technological University, Bachelor of Civil Engineering, 2000
- Southern Polytechnic State University, additional survey coursework 2004-2005
- Cincinnati State University, additional survey coursework 2020-2021
- Riverdale High School, 2 years of AutoCAD coursework (1994-1996)

Registrations or Certifications

- Professional Engineer (PE) in KY, GA, TN, WV, VA, MS, OH, SC, AL, TX, NCEES Record
- Professional Land Surveyor (PLS) in KY, GA, TN, WV, VA, MS NCEES Record

Affiliations (past/present)

- National Society of Professional Surveyors
- National Society of Professional Engineers-KY Bluegrass Past President
- Georgia Engineering Foundation-Past President

Publications & Awards

- 2022 SBA Small Business of the Year (Kentucky) Homebased Business
- NAWIC Bluegrass Diamond Award, 20
- Bluegrass Nominee for Kentucky Young Engineer of the Year 2011.
- Georgia Young Engineer of the Year 2005
- Co-author to survey chapters of KYTC Highway Design Guidance Manual
- KY ASCE 2011 Infrastructure Report Card
- Multiple Articles, Where We Live (Hurst) 2008-2009
- Editorial Board, Georgia Engineer , 2005-2007)
- Civil Engineering Body of Knowledge for the 21st century, January 2004, America Society of Civil Engineers, (co-author)
- ACEC Atlanta Future Leaders graduate, 2004

Contact Information

- E: abbie@abbie-jones.com
- C: 859.559.3443

DAN WHITE, MBA

CLIENT SERVICES MANAGER

Mr. White has been at the helm of over 165 pavement management and right-of-way asset inventory projects ranging from small cities, large government municipalities, DOT's and MPO's. With a career focused in project management and client relationship development, he understands the nuances of muncipal client project administration for consulting services. Mr. White has spent the last 12 years dedicated to the field of professional engineering services, specializing in asset management, and pavement data collection technologies.

FIRM
Roadway Asset Services

EXPERIENCE
12 years

EDUCATION
MBA, Project Management
University of Wisconsin-Whitewater, 2020

KEY PROJECTS

Boone County & Kenton County, KY- Pavement Condition Survey
Mr. White served as the Project Manager for a joint pavement management program update for the counties of Kenton and Boone. The project consisted of 550 miles of pavement condition surveys covering the entire roadway network. The PCI results were analyzed utilizing the Lucity pavement management software, including data import, and 5-year optimized pavement rehabilitation plans were delivered. Mr. White also delivered a presentation to Boone County's Board of Commissioners.

City of Chesapeake, VA- Pavement Condition Survey
Mr. White served as the Client Services Manager and Project Coordinator for the City's 5-year pavement condition survey cycle. The City's network included approximately 1,250 centerline miles. Data was collected on pavement surface distresses and deflection (structural strength) testing.

CMAP, IL – Multiple Pavement and Asset Management Surveys
Mr. White served as the Project Coordinator for multiple cycles of pavement condition surveys for 6 (six) CMAP agencies. The project included the coordination and scoping for each individual agency concurrently, including pavement data collection and reporting. The project included surface condition surveys, the development of a multi-year pavement analysis and individual client reports. Over two separate fiscal year cycles, Dan coordinated with prime firm staff, client staff, and CMAP oversight staff to deliver quality pavement management programs to assist the MPO initiatives.

City of Charlotte, NC– Pavement Management Services
Mr. White served as the Client Services Manager for the City of Charlotte's pavement condition assessment on 3,340 test miles of roadways. The project included pavement data collection, GIS documentation, and a GIS asset update. Following collection, the City received a geodatabase file for import into the City's PAVER database.

City of Cincinnati, OH- Pavement Management Services
Mr. White is the Client Services Manager for the City's pavement condition assessment on 1,116 test miles of paved roadways. In addition, RAS is evaluating brick roads in accordance with ODOT's rating manual. Following collection and analysis, RAS is importing data into PAVER. The City will receive a PowerBI Data Portal for review and management of the RAS data. Mr. White is responsible for final scope negotiations and cohosting biweekly progress meetings.

Jeff Booth, MBA

DIRECTOR OF DELIVERABLES

Mr. Booth has 25 years of experience leading projects of all sizes in the Government Sector. With a career that consists of serving as the Professional Services and Delivery Director at Cartegraph Systems, serving as the Senior Information Technology Project Manager in the Bexar County Public Works department, and acting as the Project Manager/Delivery Director, Mr. Booth has a professional and customer-centric approach to every project.

FIRM
Roadway Asset Services

EXPERIENCE
25 years

EDUCATION
B.S., Management/Computer Information Systems, Park University, 2001

M.B.A, Business Administration, Management and Operations, Webster University, 2003

KEY PROJECTS

City of Durham, NC- 2024 Pavement Condition Survey
Mr. Booth is serving as the Director of Delivery for the City's 757 miles of paved streets. RAS is adopting the City's existing Facility and GIS ID's to ensure consistency between the 2022 and 2024 survey. In addition to the base pavement scope, RAS is conducting a ROW asset inventory on curb and gutters and crosswalk slopes.

City of Memphis, TN – Pavement Condition Assessment
Mr. Booth served as the Director of Deliverables for the City's data collection of 2,500 centerline miles of roads. RAS assisted the City in migrating from a PASER rating system to the industry standard ASTM D6433. RAS developed a PCI for import to Streetlogix.

Anderson County, SC- Pavement Condition Survey
Mr. Booth served as the Director of Delivery for Anderson County's pavement condition assessment on 1,785 test miles of roadways. Automated RAC vehicles were used to collect pavement distress imagery for evaluation according to the ASTM D6433 definitions. Following data collection, RAS formatted data for import into Cartegraph and worked with County staff to configure budget scenarios within Cartegraph Scenario Builder.

City of Winston-Salem, NC– Pavement Condition Survey
Mr. Booth is serving as the Director of Delivery for the City's pavement condition assessment on 1,227 test miles of paved roadways. In addition to pavements, RAS is conducting a ROW asset inventory on curb and gutters, pavement striping, and pavement markings.

City of Sioux Falls, SD- Pavement Survey and Analysis
Mr. Booth served as the Director of Deliverables for the City's pavement condition assessment on 1,259 test miles of paved roads. RAS is developed a pavement report with mutli-year budget scenarios within BOSS™ software.

City of Peoria, IL - Pavement Condition Survey
Mr. Booth was the Director of Deliverables for the City of Peoria's pavement condition assessment on 544 test miles of roadways. RAC vehicles were utilized to provide a 100% survey of all lanes driven. The RAS Team was responsible for providing final PCI and distress data in a format compatible with the City's pavement management system, DOT.

Spalding County, GA– Road Assessment Services
Mr. Booth is serving as the Director of Deliverables for the County's pavement condition assessment on 470 centerline miles of paved roadways. RAS will work with the County to implement Brightly's firm implementation of Confirm software.

Mark Kramer, PE, MBA

QA/QC MANAGER

Mr. Kramer serves as the Chief Data Officer at Roadway Asset Services. Mr. Kramer has 26 years of experience in engineering and information technology projects including pavement condition, sign inventory, and sidewalk condition surveys. He is an expert in commercial off the shelf software, data management, data analysis, and delivery of technology projects. The following is a brief list of projects he has managed.

FIRM
Roadway Asset Services

EXPERIENCE
26 years

EDUCATION
MBA-IT Western International,2003
B.S., Civil Engineering, Arizona State University, 1998

REGISTRATIONS
-AZ Professional Engineer, Certificate Number: 40225

Professional Certifications
Microsoft SQL Server
Microsoft Power BI

PAVEMENT AND ASSET PROJECT EXPERIENCE

City of Kansas City, MO- Pavement Evaluation & ROW Survey
Mr. Kramer is serving as the QA/QC Manager for the City's pavement condition assessment on 3,599 test miles of roadways. Following collection and analysis, RAS will provide the City with a Cartegraph import sheet for ingestion into the City's current database.

City of Virginia Beach, VA– Pavement Condition Assessment
Mr. Kramer served as the QA/QC Manager for the City's pavement condition assessment on 2,327 test miles of roadways. The scope included pavement condition rating and assessment, pavement management repair recommendations, Cartegraph import and training, and collection of assets within the ROW including curb ramps and sidewalks.

City of Charlotte, NC– Pavement Management Services
Mr. Kramer served as the QA/QC Manager for the City of Charlotte's pavement condition assessment on 3,340 test miles of roadways. The project included pavement data collection, GIS documentation, and a GIS asset update. Following collection, the City received a geodatabase file for import into the City's PAVER database.

City of Kingsport, TN– Pavement Condition Survey
Mr. Kramer served as the QA/QC Manager for the City's Pavement Condition Survey which included network database development, automated field surveys, budget analysis, and maintenance optimization for the City's approximately 400 centerline mile pavement network. This project also included training of the City's engineering and field staff, the development of repair and rehabilitation scenarios, and the creation of budgeting decision trees to assist in optimization. Additionally, the data was imported into Cartegraph.

City and County of Denver, CO– Pavement Condition Survey
Mr. Kramer was the QA/QC Manager for the agency's automated data collection project on 5,756 miles of roadways. The project assessed various assets including protective barriers, pavement markings, signal support structures, MUTCD specialty signs, sign supports, sidewalks, and sidewalk obstructions. Mr. Kramer was responsible for pavement condition data review and data checks for the accurate calculation of PCI ratings.

City of Columbus, OH- Pavement Condition Assessment
Mr. Kramer served as the QA/QC Manager for the City's pavement condition assessment on 2,800 test miles of roadways. RAS conducted the pavement survey following the ASTM D6433.

RAFAEL RIVERA
DATA COLLECTION MANAGER

Mr. Rivera has over 14 years of experience in automated data collection of pavement and ROW asset inventories. Mr. Rivera has been involved with collection and management of over 100,000 miles of roadways. Mr. Rivera's positions have included automated data collection vehicle operator, pavement analyst, LiDAR analyst, and GIS analyst.

FIRM
Roadway Asset Services

EXPERIENCE
14 years

EDUCATION
B.S., Mechanical Engineering, University of Central Florida, 2011
B.S., Aerospace Engineering, University of Central Florida, 2016

KEY PROJECTS

City of Columbus, OH – Roadway Asset Management
Mr. Rivera was the Data Collection Manager for the City's pavement condition assessment on 2,800 test miles of roadways. RAS is conducting the pavement assessment in accordance with the ASTM D6433 for PCI values. In addition, RAS conducted an assessment on 100 test miles of brick pavement in accordance with ODOT's Pavement Condition Rating (PCR) manual. Mr. Rivera was responsible for the data collected by the RAC vehicles and route tracking for field operating crews.

City of Indianapolis, IN- Pavement Condition Survey
Mr. Rivera served as the Data Collection Manager for the City's pavement condition assessment on 2,200 centerline miles of roadways. The survey included a set of pre-defined parameters to develop both a segment and network level index that correlated to existing pavement surface conditions. The team worked with the City to evaluate the budget needs of the arterial network to submit to Indiana DOT.

City of Charlotte, NC – Pavement Condition Assessment
Mr. Rivera was the Data Collection Manager for the City's pavement condition assessment on 3,340 test miles of roadways. The project included pavement data collection, GIS documentation, and a GIS asset update. Mr. Rivera was responsible for providing route tracking to field operation crews and ensuring 100% of the network was collected.

City of Durham, NC- 2022 & 2024 Pavement Condition Survey
Mr. Rivera served as the Data Collection Manager for the City's automated data collection project on 700 miles of paved roads. Roadway Asset Collection (RAC) vehicles were utilized to collect pavement distress information for the calculation of PCI values. Following collection, RAS formatted the data for import into PAVER. RAS developed a final report and pavement management repair recommendations. Following the successful completion of the 2022 project, RAS obtained a contract to perform a pavement condition update in 2024.

City of Memphis, TN – Pavement Condition Assessment
Mr. Rivera served as the Data Collection Manager for the City's data collection of 2,500 centerline miles of roads. RAS worked with the City in migrating from a PASER rating system to the industry standard ASTM D6433. RAS developed a PCI for import to Streetlogix.

Montgomery County, TN– Pavement Condition Survey
Mr. Rivera was the Data Collection Manager for the Montgomery County Highway Department's pavement condition survey of the County's 750 centerline miles of roadway. Additionally, the pavement condition index data was integrated and imported into Streetlogix.

SANDRA MARRERO, E.I.

PROJECT ENGINEER

Ms. Marrero is a Project Engineer for Roadway Asset Services. She works on the firm's roadway asset collection projects with a pavement analysis component. Sandra has over eight years of experience evaluating pavement conditions, processing pavement ratings, preparing reports, performing maintenance budget scenarios, and reporting the results of project finding in meetings and discussing with the Client. Her software experience includes Cartegraph, dTIMS, PAVER, VUEWorks, DOT, Brightly, ArcGIS, AutoCAD, Civil 3D, and the Microsoft Office suite.

FIRM
Roadway Asset Services

EXPERIENCE
9 years

LOCATION
Orlando, FL

EDUCATION
B.S., Civil Engineering,
University of Puerto Rico, 2013

REGISTRATIONS
-FL Engineer Intern,
Certificate
Number:1100023293

KEY PROJECTS

City and County of Denver, CO – Pavement Condition Assessment
Ms. Marrero served as the Project Engineer for the automated data collection project of the City's 5,756 miles of roadways. The project analyzed various City assets including protective barriers, pavement markings, MUTCD specialty signs, sign support, sidewalks, and sidewalk obstructions. Following collection, PCI and IRI data are being implemented into the City's GIS. The data was then formatted for import into the City's production dTIMS environment for further analysis. ROW asset data is formatted for ingestion into Cartegraph.

City of Peoria, IL - Pavement Condition Survey
Ms. Marrero was a Project Engineer for the City of Peoria's pavement condition assessment on 544 test miles of roadways. RAC vehicles were utilized to provide a 100% survey of all lanes driven. The RAS Team was responsible for providing final PCI and distress data in a format compatible with the City's pavement management system, DOT.

City of Birmingham, AL- Pavement Condition Assessment
Ms. Marrero is serving as a Project Engineer for the City's pavement condition assessment on 2,159 test miles of roadways. RAC vehicles are being utilized to collect pavement distress imagery for an ASTM D6433 compliant pavement rating. RAS is working with the City to implement Streetlogix software.

Spalding County, GA– Road Assessment Services
Ms. Marrero is serving as the Project Engineer for the County's pavement condition assessment on 470 centerline miles of paved roadways. Automated RAC vans are being mobilized to collect pavement distress data for the development of a PCI. RAS will work with the County to implement Brightly's firm implementation of Confirm software.

Forsyth County, GA- Pavement Condition Assessment
Ms. Marrero is serving as the Project Engineer for Forsyth County's pavement condition assessment on 1,420 test miles of paved roadways. Automated data collection vehicles are being utilized to collect pavement distress imagery for pavement rating following the ASTM D6433 methodology. Following collection, RAS is conducting pavement analysis and optimizing the County's budget within its BOSS™ software.

1022 Fontaine Rd
Lexington, KY 40502

Tel: (859) 559.3443
eMail: abbie@abbie-jones.com

Jay Abbey

Introduction

Jay Abbey has a total of 28 years' experience in Field Surveys and Traffic Engineering. Jay has worked on various detailed location surveys on several Interstate Highway widening projects as well as State Highway design projects. Jay has operate DSV(Digital Survey Van) for roadway surface analysis including automated pavement distress, rutting, cross slope, IRI, faulting, curve and grade, GPS Data, and Roadway Images. As well as route planning to complete various projects to client specifications. Also performed weekly calibration on DSV to maintain equipment accuracy

Recent Experience

- 2012-present Traffic Data Collection support for Statewide Traffic Planning (sub to 3 primes), Statewide, KY
- 2019- Full DSV collection of select roadways DuPage County Illinois.
- 2019- Full DSV collection of 570 miles of New York State Thruway System.
- 2019- Full DSV collection of over 1000 lane miles of the NTTA Roadway System in The Dallas-Ft. Worth Metroplex Area.
- 2019- Full DSV collection and Line Analysis of all roadway surfaces for Washington D.C. Metropolitan area including high security areas.
- 2019- Full DSV collection of over half of the roadway surfaces for Lee County, FL
- 2018-2019- Office analysis of roadway condition obtained from field data of the DSV
- 2019- Full DSV collection of select roadways DuPage County Illinois.
- 2019- Full DSV collection of 570 miles of New York State Thruway System.
- 2019- Full DSV collection of over 1000 lane miles of the NTTA Roadway System in The Dallas-Ft. Worth Metroplex Area.
- 2019- Full DSV collection and Line Analysis of all roadway surfaces for Washington D.C. Metropolitan area including high security areas.
- 2019- Full DSV collection of over half of the roadway surfaces for Lee County, FL

Previous Personal Employment:

2018-2019	Applied Research Associates
2015-2018	Contractor, CAD Drafting
2001-2010	GRW, Survey Party Chief, Aerial Surveys
1996-2001	MCS, Survey Party Chief.
1995-1996	EA Partners, Survey Party Chief.
1992-1995	Mitchell Engineers, Instrument Operator
1991-1992	Endicott and Associates

Education

- Henry Clay High School Lexington, KY

Registrations or Certifications

- First Aid/CPR
- NSPS Digital Leveling Course
- KYTC Enhanced Curved Signage

Contact Information

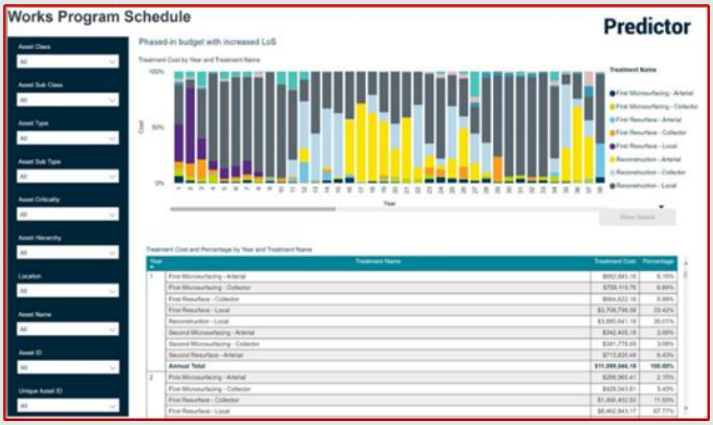
- E: jay.abbey@abbie-jones.com
- C: 859.338.7268

Appendix B: Enterprise Software Alternatives

Appendix B: Enterprise Software Alternatives in Summary

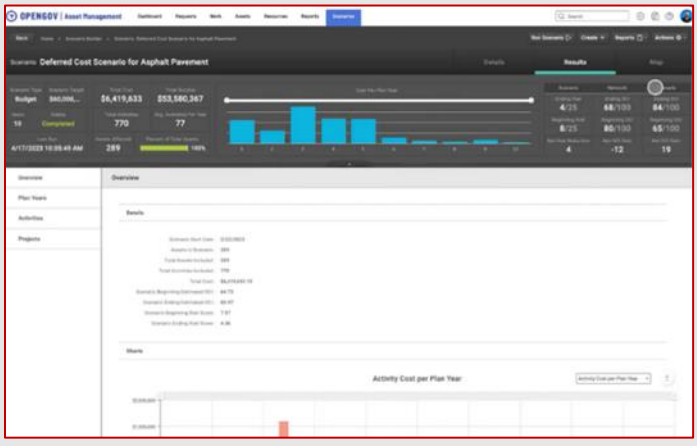
This appendix included a summary of software specifications for recommended enterprise software. This has been provided as a supplement should the LFUCG staff prefer to implement enterprise software with RAS serving as the preferred data collection and pavement management service provider.

To provide the LFUCG with a preliminary evaluation of software, it was determined that the best approach would be providing content for two initial software recommendations that have different scalability options. **Brightly's Capital Predictor™ Enterprise** can forecast changes to future conditions and service levels of every asset (pavements, signs, manholes, etc.) in the portfolio given decreased, fixed, or increased funding. **OpenGov's Cartegraph OMS™** is a full enterprise asset management system that also includes the work order management functions. Each of these software options provides the necessary tools to satisfy the requirements of the LFUCG. As discussed earlier in our response, the RAS team will provide a comprehensive software needs assessment, but it is imperative that the LFUCG is able to evaluate the RAS team's approach to configuring the selected software. Each recommended software is a robust web-based pavement management system that is designed with a user-friendly interface.



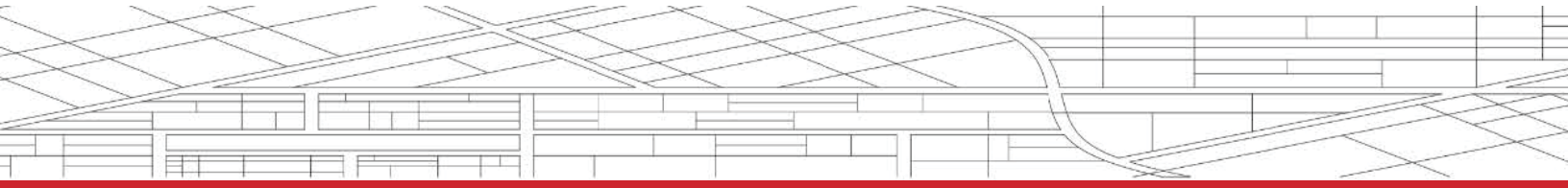
Initial Investment & FY27 Total: $82,892.98

Brightly's Capital Predictor helps forecast changes to future conditions and service levels of every asset (pavements, signs, manholes, etc.) in the portfolio given decreased, fixed, or increased funding. This informs decision making about capital investment which maximizes the health of your asset stock, based on proven asset management science and accurate scenario modeling (up to 100 years) of treatment types, intervention points, funding levels required and more. **Other Brightly modules are currently in use in other LFUCG departments.**



Initial Investment & FY27 Total: $65,000 to $100,000

OpenGov's Cartegraph helps maximize the life of assets by creating data-driven budgets for the future. Cartegraph's encompassing Overall Condition Index (OCI) tracks pavement condition based on surface distress which indicates structural integrity and surface operational condition. The OCI provides feedback on pavement performance or validation, or improvement of current pavement design and maintenance procedures. The software includes all transportation assets. **The City of Louisville has recently implemented OMS.**

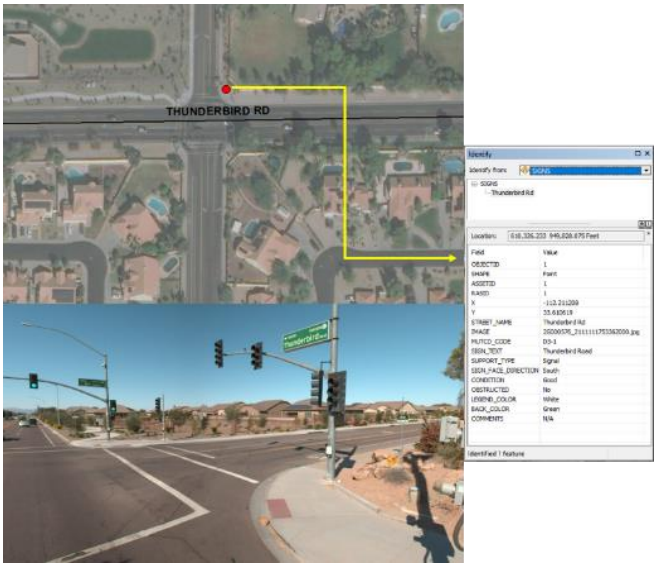


Appendix C: Optional Services

Appendix C: Optional Services

The following optional items are included to enhance the scope. If additional items are included in the scope, the project schedule presented **on page 19** would not be affected as the task will be completed concurrently with GIS staff, separately from the base pavement management scope.

ROW Asset Inventory and Condition Assessment



As an optional service, the high-definition panoramic Ladybug camera can be used to inventory and capture any asset that can be identified from the imagery such as signs, pedestrian curb ramps, curb/gutter, traffic signals, streetlights, fire hydrants, bus stop shelters, medians, pavement markings, pavement striping, street trees, and many others. **The images will be collected as a 360° right-of-way panorama, including forward, rearward, and downward pavement viewing images**. Each image will be electronically tagged with location information for plotting within a spatial environment. All assets selected by the LFUCG will be extracted for a condition report and include detailed attributes.

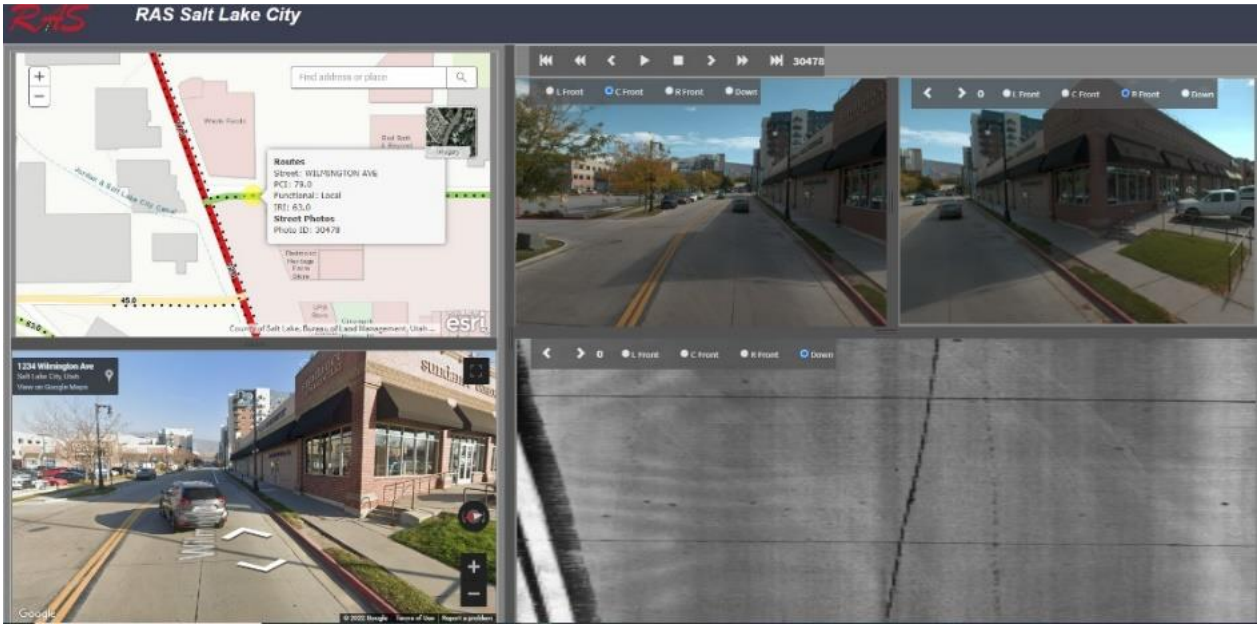
Sample Data Dictionary

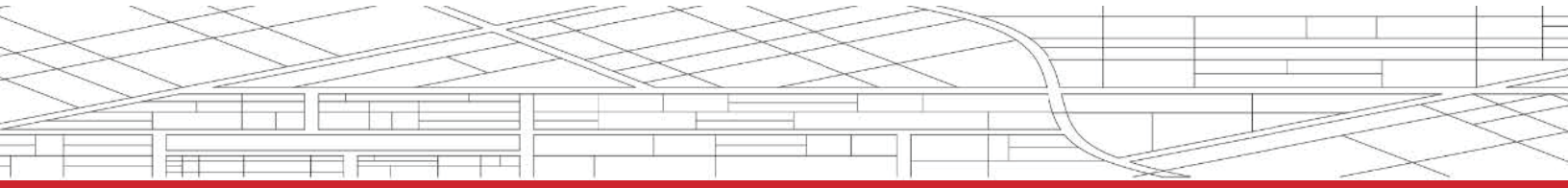
The following section includes a sample data dictionary for the right-of-way asset extraction services provided by RAS. A minimum of three (3) attributes per asset is our base assumption/minimum but additional attributes/fields can be inventoried. Each asset is linked to the adjacent pavement section ID and GIS-hyperlinked imagery.

Selected Asset	Code	Geometry	Field 1 Attribute	Field 1 Data	Field 2 Attribute	Field 2 Data	Field 3 Attribute	Field 3 Data
Signs	SIGN	Point	SIGN_ID or Client Schema	Unique identifier for each sign e.g. 100000 or Client Schema	SIGN_Condition	An identification of the condition of the sign. Populated as 1-Good 2-Fair 3-Poor	SIGN_MUTCD	Numerical MUTCD Code for the Sign
Pavement Markings	PM	Point	PM_ID or Client Schema	Unique identifier for each pavement marking e.g. 300000 or Client Schema	PM_Condition	An identification of the condition of the pavement marking. Populated as 1-Good 2-Fair 3-Poor	PM_Type	The type of marking taken from a picklist of custom MUTCD codes (bike symbol, railroad crossing, double arrow LT, etc.)
Pavement Striping	PS	Linear	PS_ID or Client Schema	Unique identifier for each painted/inlaid striping e.g. 400000 or Client Schema	PS_Condition	An identification of the condition of the striping. Populated as 1-Good 2-Fair 3-Poor	PS_Type	The type of striping taken from a picklist of custom codes (solid, dashed, double, etc.)
Light Fixtures	LF	Point	LF_ID or Client Schema	Unique identifier for each light fixture e.g. 500000 or Client Schema	LF_Condition	An identification of the condition of the light structure. Populated as 1-Good 2-Fair 3-Poor	LF_Support Type	The construction style of the support e.g. wood mast, round metal, ornamental, etc.
Pedestrian Curb Ramps	RAMP	Point	RAMP_ID or Client Schema	Unique identifier for each curb ramp e.g. 700000 or Client Schema	RAMP_Condition	An identification of the condition of the curb ramps. Populated as 1-Good 2-Fair 3-Poor	RAMP_VIF	Identifies the presence of truncated domes or other visual impairment facilities

Hosted Videologger

RAS can provide the LFUCG with the RAS Videologger which is a web hosted full-service image viewer that allows our clients to select a section of roadway from the GIS-based map to visually display the inventory elements and the results of their survey. The RAS Videologger allows an agency to load pavement and ROW imagery for a specific location within the network and sequentially travel down the roadway. The Videologger **houses the Ladybug Panoramic ROW imagery, LCMS downward pavement imagery**, PCI scores, and right-of-way asset inventories. The benefit of having the LCMS imagery on the same platform as the Ladybug imagery is the ability to use the forward-facing camera to see what a typical driver would see from a windshield while comparing it against the downward LCMS laser array that focuses only on the pavement surface itself. The Videologger is hosted by RAS with unlimited access.





Required Forms

MAYOR LINDA GORTON

LEXINGTON

TODD SLATIN
DIRECTOR
PROCUREMENT

ADDENDUM #1

RFP Number: #47-2024

Date: September 16, 2024

Subject: Pavement Assessment and Management Plan

Address inquiries to:
Sondra Stone
(859) 258-3320
sstone@lexingtonky.gov

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced RFP:

1. **Question:** Form of Proposal and Evaluation Criteria, 3. Cost of Services states that Line 2 is for FY26, however Schedule A – Pavement Condition Survey, Analysis and Pavement Management System states that Line 2 is for FY27. Can you please clarify what year you would like the Line 2 annual services to begin.

   Answer: Please see the correction below for the dates of service for Line #2. Line #1 is the lump sum cost for Deliverables 1-5 and any/all Software as Service (SaaS) or subscription & storage fees thru 6/30/26 (initial term). Line #2 is the lump sum for any/all services for FY27 7/1/26 through 6/30/27. Line #2 will also be the basis for additional terms of service fees.

2. Replace D. 3. b with the following

Line 2 - FY27 Annual Pavement Management System & Services
i. Lump sum fee for 7/1/2026 to 6/30/2027
ii. (5) additional optional 1-year terms will be based on this bid line only with a maximum of 5% YOY increase.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME: Roadway Asset Services, LLC

ADDRESS: 6001 W Parmer Lane, Ste 370-1102, Austin, TX 78727

SIGNATURE OF BIDDER: _____

AMERICAN RESCUE PLAN ACT

AMENDMENT 1 — CERTIFICATION OF COMPLIANCE FOR EXPENDITURES USING FEDERAL FUNDS, INCLUDING THE AMERICAN RESCUE PLAN ACT

The Lexington-Fayette Urban County Government ("LFUCG") may use Federal funding to pay for the goods and/or services that are the subject matter of this bid. That Federal funding may include funds received by LFUCG under the American Rescue Plan Act of 2021. Expenditures using Federal funds require evidence of the contractor's compliance with Federal law. Therefore, by the signature below of an authorized company representative, you certify that the information below is understood, agreed, and correct. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

The bidder (hereafter "bidder," or "contractor") agrees and understands that in addition to all conditions stated within the attached bid documents, the following conditions will also apply to any Agreement entered between bidder and LFUCG, if LFUCG uses Federal funds, including but not limited to funding received by LFUCG under the American Rescue Plan Act ("ARPA"), toward payment of goods and/or services referenced in this bid. The bidder also agrees and understands that if there is a conflict between the terms included elsewhere in this Request for Proposal and the terms of this Amendment 1, then the terms of Amendment 1 shall control. The bidder further certifies that it can and will comply with these conditions, if this bid is accepted and an Agreement is executed:

1. Any Agreement executed as a result of acceptance of this bid may be governed in accordance with 2 CFR Part 200 and all other applicable Federal law and regulations and guidance issued by the U.S. Department of the Treasury.

2. Pursuant to 24 CFR ∫ 85.43, any Agreement executed as a result of acceptance of this bid can be terminated if the contractor fails to comply with any term of the award. This Agreement may be terminated for convenience in accordance with 24 CFR ∫ 85.44 upon written notice by LFUCG. Either party may terminate this Agreement with thirty (30) days written notice to the other party, in which case the Agreement shall terminate on the thirtieth day. In the event of termination, the contractor shall be entitled to that portion of total compensation due under this Agreement as the services rendered bears to the services required. However, if LFUCG suspects a breach of the terms of the Agreement and/or that the contractor is violating the terms of any applicable law governing the use of Federal funds, LFUCG may suspend the contractor's ability to receive payment by giving thirty (30) days' advance written notice. Further, either party may terminate this Agreement for cause shown with thirty (30) days written notice, which shall explain the party's cause for the termination. If the parties do not reach a settlement before the end of the 30 days, then the Agreement shall terminate on the thirtieth day. In the event of a breach, LFUCG reserves the right to pursue any and all applicable legal, equitable, and/or administrative remedies against the contractor.

3. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

(1) Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and

applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event a contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

4. If fulfillment of the contract requires the contractor to employ mechanic’s or laborers, the contractor further agrees that it can and will comply with the following:

(1) *Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.*

(2) *Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.*

(3) *Withholding for unpaid wages and liquidated damages. LFUCG shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.*

(4) *Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.*

5. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

6. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.

7. The contractor shall include these requirements in numerical paragraphs 5 and 6 in each subcontract exceeding $100,000 financed in whole or in part with Federal funding.

8. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.

9. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.

10. The contractor shall include these requirements in numerical paragraphs 8 and 9 in each subcontract exceeding $100,000 financed in whole or in part with Federal funds.

11. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.

12. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency regional office.

13. The contractor shall include these requirements in numerical paragraphs 11 and 12 in each subcontract exceeding $100,000 financed in whole or in part with American Rescue Plan Act funds.

14. The contractor shall include this language in any subcontract it executes to fulfill the terms of this bid: "the sub-grantee, contractor, subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this contract (or agreement). Title VI also includes protection to persons with 'Limited English Proficiency' in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this contract or agreement."

15. Contractors who apply or bid for an award of $100,000 or more shall file the required certification that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier, up to the recipient. The required certification is included here:

a. The undersigned certifies, to the best of his or her knowledge and belief, that:
    (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
    (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
    (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
b. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

16. The contractor acknowledges and certifies that it has not been debarred or suspended and further acknowledges and agrees that it must comply with regulations regarding debarred or suspended entities in accordance with 24 CFR § 570.489(l). Funds may not be provided to excluded or disqualified persons.

17. The contractor agrees and certifies that to the greatest extent practicable, it will prefer the purchase, acquisition, and use of all applicable goods, products or materials produced in the United States, in

conformity with 2 CFR 200.322 and/or section 70914 of Public Law No. 117-58, §§ 70901-52, also known as the Infrastructure Investment and Jobs Act, whichever is applicable.

18. The contractor agrees and certifies that all activities performed pursuant to any Agreement entered as a result of the contractor's bid, and all goods and services procured under that Agreement, shall comply with 2 C.F.R. § 200.216 (Prohibition on certain telecommunications and video surveillance services and equipment) and 2 C.F.R. 200 § 200..323 (Procurement of recovered materials), to the extent either section is applicable.

19. If this bid involves construction work for a project totaling $10 million or more, then the contractor further agrees that all laborers and mechanics, etc., employed in the construction of the public facility project assisted with funds provided under this Agreement, whether employed by contractor, or contractor's contractors, or subcontractors, shall be paid wages complying with the Davis-Bacon Act (40 U.S.C. 3141-3144). Contractor agrees that all of contractor's contractors and subcontractors will pay laborers and mechanics the prevailing wage as determined by the Secretary of Labor and that said laborers and mechanics will be paid not less than once a week. The contractor agrees to comply with the Copeland Anti- Kick Back Act (18 U.S.C. § 874) and its implementing regulations of the U.S. Department of Labor at 29 CFR part 3 and part 5. The contractor further agrees to comply with the applicable provisions of the Contract Work Hours and Safety Standards Act (40 U.S.C. Section 327-333), and the applicable provisions of the Fair Labor Standards Act of 1938, as amended (29 U.S.C. et seq.). Contractor further agrees that it will report all suspected or reported violations of any of the laws identified in this paragraph to LFUCG.

Signature

9/25/2024

Date

AFFIDAVIT

Comes the Affiant, Bart Williamson, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Bart Williamson and he/she is the individual submitting the proposal or is the authorized representative of Roadway Asset Services, LLC, the entity submitting the proposal (hereinafter referred to as "Proposer").

2. Proposer will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.

3. Proposer will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.

4. Proposer has authorized the Division of Procurement to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.

5. Proposer has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Proposer will not violate any provision of the campaign finance laws of the Commonwealth.

6. Proposer has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

Continued on next page

7. Proposer acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

Bart Williamson

STATE OF TEXAS

COUNTY OF TRAVIS

The foregoing instrument was subscribed, sworn to and acknowledged before me by BART WILLIAMSON on this the 6 day of SEPTEMBER, 2024.

My Commission expires: 04/14/2025

Jim Shearen
NOTARY PUBLIC, STATE AT LARGE

EQUAL OPPORTUNITY AGREEMENT

Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.

- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.

- Section 503 of the Rehabilitation Act of 1973 states:

  The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.

- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

  The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

****

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.

_____ Roadway Asset Services, LLC

Signature *Name of Business*

WORKFORCE ANALYSIS FORM

Name of Organization: Roadway Asset Services, LLC

Categories	**Total**	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino		Asian (Not Hispanic or Latino		American Indian or Alaskan Native (not Hispanic or Latino		Two or more races (Not Hispanic or Latino		**Total**	
		M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
Administrators																	
Professionals	10	4	3		3											4	6
Superintendents																	
Supervisors	9	7	1	1												8	1
Foremen																	
Technicians	7	2		2		3										7	
Protective																	
Para-																	
Office/Clerical	3	1	2													1	2
Skilled Craft																	
Service/Maintena																	
Total:	29															20	9

Prepared by: Bart Williamson, Chief Executive Officer **Date:** 09 / 25 / 2024

(Name and Title)

Revised 2015-Dec-15

DIRECTOR, DIVISION OF PROCUREMENT
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
200 EAST MAIN STREET
LEXINGTON, KENTUCKY 40507

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) Contract participation. Disadvantaged Business Enterprises (DBE) consists of Minority-Owned Business Enterprises (MBE) and Woman-Owned Business Enterprises (WBE).

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this Contract be subcontracted to Disadvantaged Business Enterprises, which is made up of MBEs and WBEs. The Lexington Fayette Urban County Government also has set a goal that not less than three percent (3%) of the total value of this Contract be subcontracted to Veteran-owned Small Businesses. The goal for the utilization of Disadvantaged Business Enterprises as well Veteran –owned Small Businesses as subcontractors is a recommended goal. Contractor(s) who fail to meet such goal will be expected to provide written explanations to the Director of the Division of Purchasing of efforts they have made to accomplish the recommended goal, and the extent to which they are successful in accomplishing the recommended goal will be a consideration in the procurement process. Depending on the funding source, other DBE goals may apply.

For assistance in locating Disadvantaged Business Enterprises Subcontractors contact:

Sherita Miller, MPA, Division of Procurement
Lexington-Fayette Urban County Government
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

Firm Submitting Proposal: Roadway Asset Services, LLC

Complete Address: 6001 W Parmer Lane, Ste 370-1102, Austin, TX 78727
Street City Zip

Contact Name: Bart Williamson Title: Chief Executive Officer

Telephone Number: (210)837-5249 Fax Number: (512)727-3378

Email address: bwilliamson@roadwayassetservices.com

LFUCG MWDBE PARTICIPATION FORM
Bid/RFP/Quote Reference # RFP 47-2024

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Procurement for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Abbie Jones Consulting, PSC 1022 Fontaine Road Lexington, KY 40502 abbie@abbie-jones.com (859)559-3443	WBE	Independent QA/QC of PCI Data	$11,000	5.06%
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Roadway Asset Services, LLC
Company

Bart Wilson
Company Representative

09/25/2024
Date

Chief Executive Officer
Title

MWDBE QUOTE SUMMARY FORM
Bid/RFP/Quote Reference # RFP 47-2024

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.

Company Name	**Contact Person**
Abbie Jones Consulting, PSC	Abbie Jones
Address/Phone/Email 1022 Fontaine Road Lexington, KY 40502 (859)559-3443 abbie@abbie-jones.com	**Bid Package / Bid Date** Pavement Assessment and Management Plan Due: September 26, 2024

MWDBE Company Addres	**Contact Person**	**Contact Information (work phone, Email, cell)**	**Date Contacted**	**Services to be performed**	**Method of Communication (email, phone meeting, ad, event etc)**	**Total dollars $$ Do Not Leave Blank (Attach Documentation)**	**MBE * AA HA AS NA Female**	**Veteran**
1022 Fontaine Road Lexington, KY 40502	Abbie Jones	(859)559-3443 abbie@abbie-jones.com	9/24/2024	QA/QC	email	$11,000	Female	

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Roadway Asset Services, LLC
Company

Bart Wilson
Company Representative

09/25/2024
Date

Chief Executive Officer
Title

LFUCG STATEMENT OF GOOD FAITH EFFORTS
Bid/RFP/Quote # 47-2024

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation.

_____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.

_____ Included documentation of advertising in the above publications with the bidders good faith efforts package

_____ Attended LFUCG Procurement Economic Inclusion Outreach event

_____ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities

_____ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses

_BW_ Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).

_____ Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

_BW_ Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

_BW_ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

_BW_ Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.

_____ Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items

into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce

_____ Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.

_____ Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

_____ Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

_____ Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

_____Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

BW Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE **and Veteran participation.**

NOTE: **Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.**

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Roadway Asset Services, LLC	Bart Wilson
Company	**Company Representative**
9/25/2024	Chief Executive Officer
Date	**Title**

Roadway Asset Services

September 26, 2024

Sherita Miller, MPA
Minority Business Enterprise Liaison
Division of Procurement
Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507

Reference: RFP #47-2024 Pavement Assessment and Management Plan

Dear Evaluation Committee,

Roadway Asset Services is pleased to submit our proposal for the Lexington-Fayette Urban County Government's (LFUCG) consideration for the Pavement Assessment and Management Plan. RAS initially committed to over 10% participation by MWDBE firms, but one of our subcontractor's dropped from the project on September 24th due to inability to provide services at the requested fee range. To demonstrate our Good Faith Efforts, please see this document which includes our processes to ensure we satisfied all obligations to support local MWDBE certified firms and unsuccessful pursuit of VBE firms.

We look forward to developing a successful relationship with our selected local subcontractor, Abbie Jones Consulting (which RAS also included in recent Kentucky pursuits) and LFUCG staff on this project, as well as future strategic collaborations. Our team is prepared to deliver a scope of work that is tailored to the needs and goals of the stakeholders and decision makers of LFUCG. Please do not hesitate to reach out with any questions or comments regarding RAS' commitment to Good Faith in subcontracting with MWDBEs.

Sincerely,

Bart Williamson, FCLS
Chief Executive Officer

Attachment

Good Faith Effort: Supplemental Documentation

Initial Research for Compatible Firms:

Roadway Asset Services, LLC (RAS) decided to pursue this opportunity on August 20th, 2024. Upon review of the LFUCG scope of work, and determining the necessary resources required for this project, it was determined that inclusion of a MWDBE certified sub-consultant would not be required. While RAS can complete all project tasks internally, we decided to identify and reach out to qualified MWDBE and VBE firms to continue our effort to support disadvantaged firms on our projects.

RAS routinely sub-contracts similar work to local MWDBE firms across the US that share the core values of RAS and provide the same level of quality and care to our clients. RAS has met or exceeded DBE requirements for Memphis, TN; Durham, NC; Birmingham, AL; Columbus, OH; Cincinnati, OH; and many other similarly sized municipalities in the previous 3 years.

For this project, RAS identified four (4) MFHBE firms that would potentially be able to supplement the RAS processes and integrate into our workflow.

Confirmed Participation:

Abbie Jones Consulting

(859) 699-3440
1022 Fontaine Rd
Lexington, KY 40502

Abbie Jones consulting
SBA 2022 Kentucky Division Home-Based Business of the Year U.S. Small Business Administration

Contact: Abbie Jones, PE, PLS, President
HQ: 1022 Fontaine Rd, Lexington, KY 40502
www.abbie-jones.com
Main Number: 859.699.3440
Certifications: WBE and WOSB, DBE, and more

Services Provided @ 5.06% of RAS' base bid:
Abbie Jones has agreed to perform independent QC/QA of the RAS data. They are familiar with automated pavement condition assessment projects performed with LFUCG, and RAS has included their firm on other pursuits in Kentucky.

Potential increase in participation: If LFUCG expands the SOW to include right-of-way asset extraction services, or requires additional FOG type field surveys, the potential to meet and/or exceed the 10% participation goal is attainable.

Unsuccessful Collaboration Efforts:

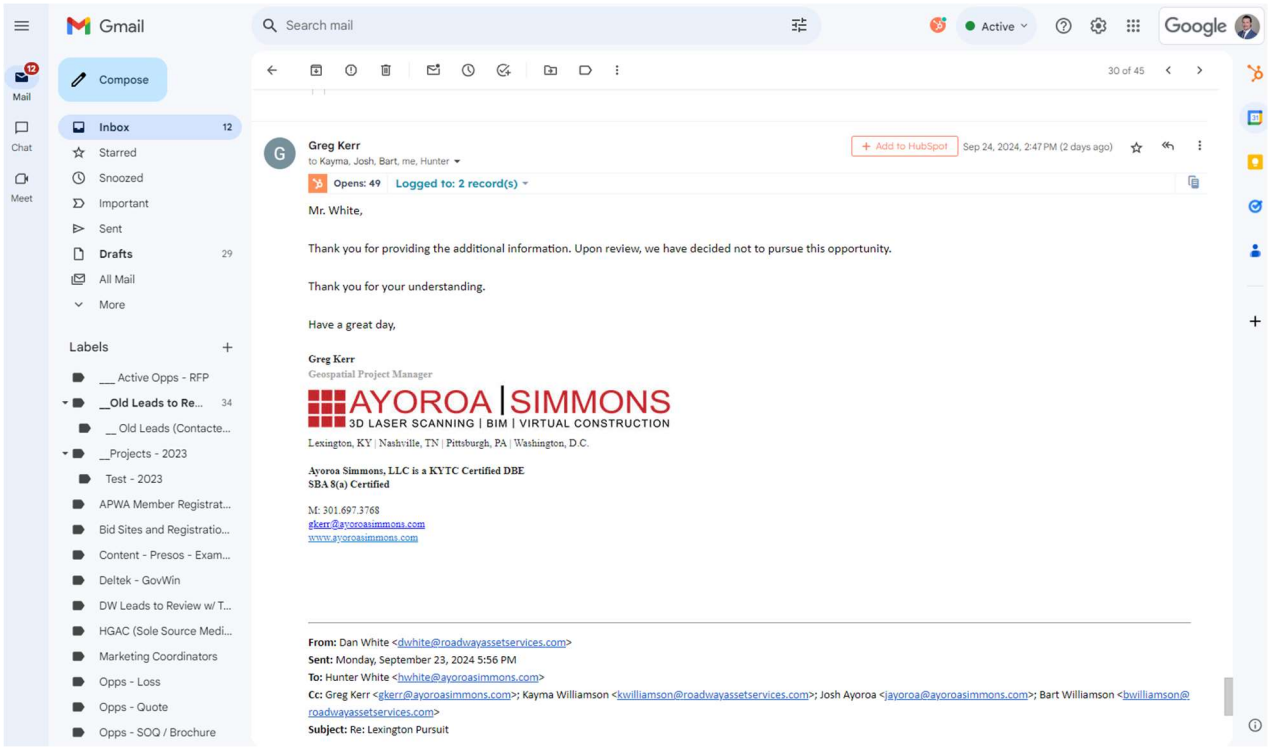
Ayoroa Simmons (MWDBE)

(301) 697-3768
620 Euclid Avenue, Suite #300
Lexington, KY 40502

RAS had initially accounted for 5% participation from Ayoroa. Unfortunately, they dropped off the project on the 24th of September.

Contact with Firm:

- Had a conference call with company staff on August 22nd. Initial plans were to include Ayoroa on the RAS team.
- First email sent via website portal on 8/23/2024 at 7:14 am
- Chain of communication attached following this page.
- Screen capture below of Ayoroa pulling out of the project on September 24th.



Gmail **Dan White <dwhite@roadwayassetservices.com>**

Lexington Pursuit

Dan White <dwhite@roadwayassetservices.com> Mon, Sep 23, 2024 at 4:56 PM
To: Hunter White <hwhite@ayoroasimmons.com>
Cc: Greg Kerr <gkerr@ayoroasimmons.com>, Kayma Williamson <kwilliamson@roadwayassetservices.com>, Josh Ayoroa <jayoroa@ayoroasimmons.com>, Bart Williamson <bwilliamson@roadwayassetservices.com>

Hi Hunter,

Sorry I missed you - I can give you a call in the morning if needed but here are some answers:

Big picture: we have allocated $11,000 for your team's participation on this project. This will keep us within striking distance of the competitively priced competitors.

1. We could handle this a few ways, but we could provide you a portal with the processed PCI data to perform visual checks of the ROW images & LCMS downward images. We could also have you participate in an on-site field visit.
2. We typically utilize aerials provided by the client for this task if up to date (or compare to other quality publicly available options like Google Earth).
3. That is perfect - we just want to provide some of your folks relatable options and capacities

Thanks and happy FALL!

Dan White
Roadway Asset Services, LLC.
PH: 570-394-2959

Roadway Asset Services

On Mon, Sep 23, 2024 at 7:02 AM Hunter White <hwhite@ayoroasimmons.com> wrote:

> Good morning Dan,
>
> Hope you had a great weekend. Left a message with you last week trying to clear up some details on our end.
>
> 1. Could you provide some details on how we would access your PCI data?
> 2. Does your team use google earth aerials or another third-party public imagery for these measurements?
> 3. Is an hourly rate acceptable for on call LiDAR services?
>
> Thanks again Dan talk to you soon!
>
> **Hunter White**
>
> **Survey Technician**
>
> AYOROA | SIMMONS
> 3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION

Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.

Ayoroa Simmons, LLC is a KYTC Certified DBE

SBA 8(a) Certified

C: 412-897-5182

Hwhite@ayoroasimmons.com

www.ayoroasimmons.com

From: Dan White <dwhite@roadwayassetservices.com>
Sent: Wednesday, September 18, 2024 3:29 PM
To: Greg Kerr <gkerr@ayoroasimmons.com>
Cc: Hunter White <hwhite@ayoroasimmons.com>; Kayma Williamson <kwilliamson@roadwayassetservices.com>; Sara Martinez <smartinez@roadwayassetservices.com>; Josh Ayoroa <jayoroa@ayoroasimmons.com>
Subject: Re: Lexington Pursuit

Good afternoon Greg,

Thanks for following up. For Lexington, we would like to have your team provide pricing for the following services, depending on capability/capacity, so we can compare against our internal processes.

1. Independent QC/QA of the RAS PCI data (+- 100 segments)

2. Pavement Width Measurements from aerials (1,098 centerline miles)

3. Ad-hoc services related to lidar capabilities

Once we get this back - we will let you know how we finalize roles for the proposal based on costs.

Thanks!

Dan White
Roadway Asset Services, LLC.
PH: 570-394-2959

Roadway Asset Services

On Wed, Sep 18, 2024 at 2:03 PM Greg Kerr <gkerr@ayoroasimmons.com> wrote:

> Mr. White,
>
> Good afternoon. I hope things are progressing with you and your team. Could you provide me with feedback on what task(s) we need to develop a scope/proposal for?

Greg Kerr

Geospatial Project Manager

AYOROA | SIMMONS
3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION

Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.

Ayoroa Simmons, LLC is a KYTC Certified DBE

SBA 8(a) Certified

M: 301.697.3768

gkerr@ayoroasimmons.com

www.ayoroasimmons.com

From: Hunter White <hwhite@ayoroasimmons.com>
Sent: Tuesday, September 10, 2024 4:30 PM
To: Dan White <dwhite@roadwayassetservices.com>
Cc: Kayma Williamson <kwilliamson@roadwayassetservices.com>; Sara Martinez <smartinez@roadwayassetservices.com>; Josh Ayoroa <jayoroa@ayoroasimmons.com>; Greg Kerr <gkerr@ayoroasimmons.com>
Subject: RE: Lexington Pursuit

Hey Dan,

Just following up to see where your team is in the cost estimate phase! I know the date was pushed back to the 28th but wanted to circle back and keep in touch.

Thank you,

Hunter White

Survey Technician

AYOROA | SIMMONS
3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION

Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.

Ayoroa Simmons, LLC is a KYTC Certified DBE

SBA 8(a) Certified

C: 412-897-5182

Hwhite@ayoroasimmons.com

www.ayoroasimmons.com

SBA
8(a) CERTIFIED

From: Hunter White
Sent: Thursday, August 29, 2024 1:40 PM
To: 'Dan White' <dwhite@roadwayassetservices.com>
Cc: Kayma Williamson <kwilliamson@roadwayassetservices.com>; Sara Martinez <smartinez@roadwayassetservices.com>
Subject: RE: Lexington Pursuit

Perfect, thanks for getting back Dan!

Talk to you next week,

Hunter White

Survey Technician

AYOROA | SIMMONS
3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION

Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.

Ayoroa Simmons, LLC is a KYTC Certified DBE

SBA 8(a) Certified

C: 412-897-5182

Hwhite@ayoroasimmons.com

www.ayoroasimmons.com

From: Dan White <dwhite@roadwayassetservices.com>
Sent: Thursday, August 29, 2024 12:09 PM
To: Hunter White <hwhite@ayoroasimmons.com>
Cc: Kayma Williamson <kwilliamson@roadwayassetservices.com>; Sara Martinez <smartinez@roadwayassetservices.com>
Subject: Re: Lexington Pursuit

Hi Hunter,

Yes! Thanks for sending this over, it will work great. We will begin working on the initial cost estimates and we will circle back with you on the scope of work for your team so we can get the participation forms filled out next week!

Thanks,

Dan White
Roadway Asset Services, LLC.
PH: 570-394-2959

Roadway Asset Services

On Thu, Aug 29, 2024 at 7:43 AM Hunter White <hwhite@ayoroasimmons.com> wrote:

> Good morning, just checking in to make sure you received this information.
>
> Thanks!
>
> **Hunter White**
>
> **Survey Technician**
>
> AYOROA | SIMMONS
> 3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION
>
> Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.
>
> **Ayoroa Simmons, LLC is a KYTC Certified DBE**
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> **SBA 8(a) Certified**
>
> C: 412-897-5182
>
> Hwhite@ayoroasimmons.com
>
> www.ayoroasimmons.com
>
> SBA 8(a) CERTIFIED
>
> ---
>
> **From:** Hunter White
> **Sent:** Monday, August 26, 2024 2:47 PM
> **To:** Kayma Williamson <kwilliamson@roadwayassetservices.com>
> **Cc:** Sara Martinez <smartinez@roadwayassetservices.com>; Dan White <dwhite@roadwayassetservices.com>
> **Subject:** RE: Lexington Pursuit
>
> Kayma,
>
> Thanks for the information provided. Please find resumes, a project sheet, and some company information attached.
>
> Think it would be a good idea to meet again with Dan and possibly Bart or Yuri to discuss exactly what our scope and estimates would look like to better fill out that DBE quote and participation form. As they do ask for a % and dollar figure that we have yet to hammer out.

Thanks, and let me know a time that works to discuss further. I am free most of tomorrow morning!

Hunter White

Survey Technician

AYOROA | SIMMONS
3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION

Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.

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SBA 8(a) Certified

C: 412-897-5182

Hwhite@ayoroasimmons.com

www.ayoroasimmons.com

SBA
8(a) CERTIFIED

From: Kayma Williamson <kwilliamson@roadwayassetservices.com>
Sent: Friday, August 23, 2024 4:00 PM
To: Hunter White <hwhite@ayoroasimmons.com>
Cc: Sara Martinez <smartinez@roadwayassetservices.com>; Dan White <dwhite@roadwayassetservices.com>
Subject: Re: Lexington Pursuit

Hi Hunter,

Thanks for being part of the team. The City doesn't have a specific format so whatever you typically use should be fine. I've attached an RAS resume if you would like to copy that template. We will also need information on the degree of local employment and past record on contracts with the LFUCG.

I've included a couple forms that ensure we are meeting the DBE goal

Let me know if you have any questions!

Kayma Williamson

Marketing Coordinator

Roadway Asset Services, LLC.

6001 W Parmer Lane

Suite 370-1102

Austin, TX 78727

On Fri, Aug 23, 2024 at 9:16 AM Dan White <dwhite@roadwayassetservices.com> wrote:

> Hey Hunter,
>
> Great to meet you and Josh as well! Glad to have you folks on the team.
>
> I have copied Kayma and Sara on this email to assist with requests for content and they will be in touch soon.
>
> Thanks!
>
> **Dan White, MBA**
> Director of Business Development
> **Roadway Asset Services, LLC.**
> Madison, Wisconsin
> PH: 570-394-2959
>
> 
>
>
> On Fri, Aug 23, 2024 at 8:14 AM Hunter White <hwhite@ayoroasimmons.com> wrote:
>
> > Dan,

Was great to meet and talk with you guys yesterday. Just wanted to follow up and see what all is needed on our end, talked a little with Josh and everything seems like a go here.

Dug up some prelim resumes and job examples but if you can let me know formatting details and anything else to provide would make my afternoon a lot smoother.

Thanks!

Hunter White

Survey Technician

AYOROA | SIMMONS
3D LASER SCANNING | BIM | VIRTUAL CONSTRUCTION

Lexington, KY | Nashville, TN | Pittsburgh, PA | Washington, D.C.

Ayoroa Simmons, LLC is a KYTC Certified DBE

SBA 8(a) Certified

C: 412-897-5182

Hwhite@ayoroasimmons.com

www.ayoroasimmons.com

Gmail

Kayma Williamson <kwilliamson@roadwayassetservices.com>

Veteran Owned Businesses

Sherita Miller <smiller@lexingtonky.gov>
To: Kayma Williamson <kwilliamson@roadwayassetservices.com>

Mon, Aug 26, 2024 at 3:02 PM

Hi Kayma,

Attached is a copy of LFUCG's certified list of minority, women, and veteran owned businesses. This is an overall list of businesses with various specialties.

Thanks!

Sherita Miller, MPA, CPSD

Minority Business Enterprise Liaison

Division of Procurement

859.258.3323 office
lexingtonky.gov

LEXINGTON

From: Kayma Williamson <kwilliamson@roadwayassetservices.com>
Sent: Monday, August 26, 2024 3:42 PM
To: Sherita Miller <smiller@lexingtonky.gov>
Subject: Veteran Owned Businesses

Hi Sherita,

I'm reaching out to see if Lexington-Fayette Urban County Government has a list of Veteran Owned Small Businesses. I'm struggling to find firms that meet our desired NAICS codes.

Thanks for the help!

Kayma Williamson

Marketing Coordinator

Roadway Asset Services, LLC.

6001 W Parmer Lane

Suite 370-1102

Austin, TX 78727

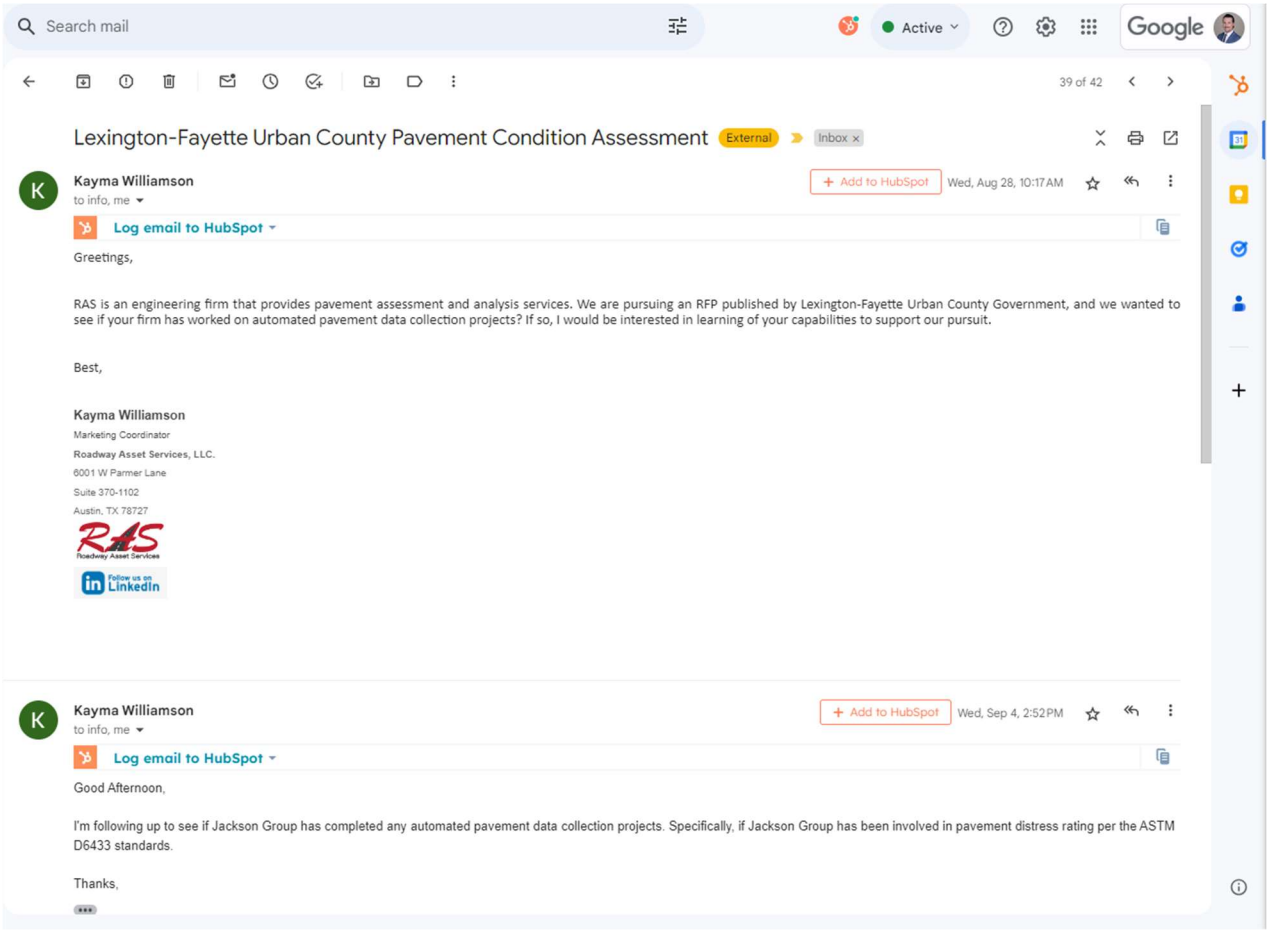
LFUCG Certified List_July 2024_.xlsx
114K

Jackson Group (VBE)

(859) 623-0499
3945 Simpson Lane
Richmond, KY 40475
info@jacksongroupco.com

Contact with Firm:

- Initial phone call on August 28th with no answer
- Multiple emails sent on August 28th and September 4th
- Unable to make contact as RAS was interested in including a firm to meet/exceed 3% Veteran Business participation.



The Traffic Group (VBE)

(410) 931-6600
Baltimore, MD
SBA Certified Service-Disabled Veteran-Owned Small Business (SDVOSB)
rhaberkam@trafficgroup.com

Contact with Firm:

- Initial email on August 28th
- Response from firm on August 30th with continued dialog to ascertain ability to work within SOW
- On September 3rd, the firm let RAS know that they were not able to provide the services that were available for the LFUCG project.

Correspondence is attached on the following page.

Gmail

Dan White <dwhite@roadwayassetservices.com>

Lexington-Fayette Urban County Pavement Condition Assessment

Renata Haberkam <rhaberkam@trafficgroup.com> Tue, Sep 3, 2024 at 1:45 PM
To: Kayma Williamson <kwilliamson@roadwayassetservices.com>
Cc: Dan White <dwhite@roadwayassetservices.com>

Thank you for the clarification, Kayma. No, that is not a service our firm provides.

Renata Haberkam

Director of Business Development &

Federal Contracting Liaison

Baltimore, Maryland

P: 410-931-6600

M: 410-935-2653

rhaberkam@trafficgroup.com

www.trafficgroup.com

Certifications

SBA Certified Service-Disabled Veteran-Owned Small Business (SDVOSB)

NY Certified Service-Disabled Veteran-Owned Business (SDVOB)

MBE Certified: Charles County, Howard County, and Prince George's County, MD

MFD Certified: Montgomery County, MD

MDOT SBE Certified

Virginia SWaM

From: Kayma Williamson <kwilliamson@roadwayassetservices.com>
Sent: Tuesday, September 3, 2024 2:03 PM

To: Renata Haberkam <rhaberkam@trafficgroup.com>
Cc: Dan White <dwhite@roadwayassetservices.com>
Subject: Re: Lexington-Fayette Urban County Pavement Condition Assessment

Hi Renata,

Sorry for the delay, by pavement data we mean pavement distress collection per the ASTM D6433. The data is used to calculate a Pavement Condition Index (PCI) score. Is this something the firm has done before?

Thanks,

Kayma Williamson

Marketing Coordinator

Roadway Asset Services, LLC.

6001 W Parmer Lane

Suite 370-1102

Austin, TX 78727

On Fri, Aug 30, 2024 at 10:21 AM Renata Haberkam <rhaberkam@trafficgroup.com> wrote:

> Hello Kayma,
>
> By automated pavement data collection do you mean permanent count stations?
>
> **Renata Haberkam**
>
> Director of Business Development &
>
> Federal Contracting Liaison

Baltimore, Maryland

P: 410-931-6600

M: 410-935-2653

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MFD Certified: Montgomery County, MD

MDOT SBE Certified

Virginia SWaM

From: Kayma Williamson <kwilliamson@roadwayassetservices.com>
Sent: Wednesday, August 28, 2024 11:20 AM
To: Renata Haberkam <rhaberkam@trafficgroup.com>
Cc: Dan White <dwhite@roadwayassetservices.com>
Subject: Lexington-Fayette Urban County Pavement Condition Assessment

Greetings,

RAS is an engineering firm that provides pavement assessment and analysis services. We are pursuing an RFP published by Lexington-Fayette Urban County Government, and we wanted to see if your firm has worked on automated pavement data collection projects? If so, I would be interested in learning of your capabilities to support our pursuit.

Best,

Kayma Williamson

Marketing Coordinator

GENERAL PROVISIONS

1. Each Respondent shall comply with all Federal, State & Local regulations concerning this type of service or good.

   The Respondent agrees to comply with all statutes, rules, and regulations governing safe and healthful working conditions, including the Occupational Health and Safety Act of 1970, *29 U.S.C. 650 et. seq.*, as amended, and KRS Chapter 338. The Respondent also agrees to notify the LFUCG in writing immediately upon detection of any unsafe and/or unhealthful working conditions at the job site. The Respondent agrees to indemnify, defend and hold the LFUCG harmless from all penalties, fines or other expenses arising out of the alleged violation of said laws.

2. Failure to submit ALL forms and information required in this RFP may be grounds for disqualification.

3. Addenda: All addenda and IonWave Q&A, if any, shall be considered in making the proposal, and such addenda shall be made a part of this RFP. Before submitting a proposal, it is incumbent upon each proposer to be informed as to whether any addenda have been issued, and the failure to cover in the bid any such addenda may result in disqualification of that proposal.

4. Proposal Reservations: LFUCG reserves the right to reject any or all proposals, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.

5. Liability: LFUCG is not responsible for any cost incurred by a Respondent in the preparation of proposals.

6. Changes/Alterations: Respondent may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the proposal, and received by LFUCG prior to the scheduled closing time for receipt of proposals, will be accepted. The proposal, when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked “modifications of proposal”.

7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from a Respondent.

8. Bribery Clause: By his/her signature on the bid, Respondent certifies that no employee of his/hers, any affiliate or Subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.

9. Additional Information: While not necessary, the Respondent may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the Respondent's response. Additional documentation shall not serve as a substitute for other documentation which is required by this RFP to be submitted with the proposal,

10. Ambiguity, Conflict or other Errors in RFP: If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.

11. Agreement to Bid Terms: In submitting this proposal, the Respondent agrees that it has carefully examined the specifications and all provisions relating to the work to be done attached hereto and made part of this proposal. By acceptance of a Contract under this RFP, proposer states that it understands the meaning, intent and requirements of the RFP and agrees to the same. The successful Respondent shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to Respondent shall be authorized for services or expenses reasonably covered under these provisions that the proposer omits from its Proposal.

12. Cancellation: If the services to be performed hereunder by the Respondent are not performed in an acceptable manner to the LFUCG, the LFUCG may cancel this contract for cause by providing written notice to the proposer, giving at least thirty (30) days notice of the proposed cancellation and the reasons for same. During that time period, the proposer may seek to bring the performance of services hereunder to a level that is acceptable to the LFUCG, and the LFUCG may rescind the cancellation if such action is in its best interest.

A. Termination for Cause

(1) LFUCG may terminate a contract because of the contractor's failure to perform its contractual duties

(2) If a contractor is determined to be in default, LFUCG shall notify the contractor of the determination in writing, and may include a specified date by which the contractor shall cure the identified deficiencies. LFUCG may proceed with termination if the contractor fails to cure the deficiencies within the specified time.

(3) A default in performance by a contractor for which a contract may be terminated shall include, but shall not necessarily be limited to:
   (a) Failure to perform the contract according to its terms, conditions and specifications;
   (b) Failure to make delivery within the time specified or according

to a delivery schedule fixed by the contract;

(c) Late payment or nonpayment of bills for labor, materials, supplies, or equipment furnished in connection with a contract for construction services as evidenced by mechanics' liens filed pursuant to the provisions of KRS Chapter 376, or letters of indebtedness received from creditors by the purchasing agency;

(d) Failure to diligently advance the work under a contract for construction services;

(e) The filing of a bankruptcy petition by or against the contractor; or

(f) Actions that endanger the health, safely or welfare of the LFUCG or its citizens.

B. At Will Termination

Notwithstanding the above provisions, the LFUCG may terminate this contract at will in accordance with the law upon providing thirty (30) days written notice of that intent**,** Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

13. Assignment of Contract: The contractor shall not assign or subcontract any portion of the Contract without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.

14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this Contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.

15. Authority to do Business: The Respondent must be a duly organized and authorized to do business under the laws of Kentucky. Respondent must be in good standing and have full legal capacity to provide the services specified under this Contract. The Respondent must have all necessary right and lawful authority to enter into this Contract for the full term hereof and that proper corporate or other action has been duly taken authorizing the Respondent to enter into this Contract. The Respondent will provide LFUCG with a copy of a corporate resolution authorizing this action and a letter from an attorney confirming that the proposer is authorized to do business in the State of Kentucky if requested. All proposals must

be signed by a duly authorized officer, agent or employee of the Respondent.

16. Governing Law: This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this Contract, the Parties agree that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division. All parties expressly consent to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to this Contract or any rights or obligations arising thereunder. Service of process may be accomplished by following the procedures prescribed by law.

17. Ability to Meet Obligations: Respondent affirmatively states that there are no actions, suits or proceedings of any kind pending against Respondent or, to the knowledge of the Respondent, threatened against the Respondent before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of Respondent to perform its obligations under this Contract, or which question the legality, validity or enforceability hereof or thereof.

18. Contractor understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Contractor is an independent contractor at all times during the performance of the services specified.

19. If any term or provision of this Contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.

20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.

Signature

09/25/2024

Date

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/03/2024

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

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

PRODUCER

Landmark Risk Management
107 S 1470 East #302
Saint George, UT 84790

CONTACT NAME: Vickie Bohrer
PHONE (A/C, No, Ext): (435)656-4586 FAX (A/C, No): (435)673-3621
E-MAIL ADDRESS: vickie@lmx180.com

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A :	Travelers Casualty Insurance Co of America	19038
INSURER B :	Travelers Casualty Insurance Co of America	19046
INSURER C :	Travelers Property Casualty Company of America	19038
INSURER D :	Underwriters at Lloyds of London	15792
INSURER E :	State National Insurance Company Inc.	10665
INSURER F :		

INSURED

Roadway Asset Services, LLC
6001 W Parmer Lane, Suite 370-1102
Austin, TX 78727

COVERAGES **CERTIFICATE NUMBER: 00008927-1297389** **REVISION NUMBER: 173**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC OTHER:			680-1W860284	12/18/2023	12/18/2024	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY			BA-1-W-860407	12/18/2023	12/18/2024	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	X UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED [X] RETENTION $ 10,000			CUP1W860616	12/18/2023	12/18/2024	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		UB1W86055A	12/18/2023	12/18/2024	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
D	Professional/Polluti			ANE5366238.23	09/10/2023	09/10/2024	Per/Aggregate	2,000,000/2,000,000
E	Cyber Liability			HCXCYB-P-5057394	01/26/2024	01/26/2025	Per/Aggregate	2,000,000/2,000,000

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

General Liability is primary and non contributory to any insurance or self-insurance retained by LFUCG including premises and operations.

30 day written notice of cancellation is afforded to LFUCG in the event any of the policies are cancelled or non-renewed.

CERTIFICATE HOLDER

Lexington-Fayette Urban County Government
200 E Main Street
Lexington, KY 40507

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

(VLB)