

ROADWAY LIFECYCLE MANAGEMENT

Rebuilt for 21st Century Leaders



OUR METHOD:



CONTINUOUS ROAD DATA COLLECTION

Equip your fleet with RMT's RoadRunner system to produce accurate network evaluations based on ASTM D6433 and build detailed asset inventories—scalable for networks of any size.



COLLECT



CUSTOMIZABLE PAVING PLANS

Our easy-to-use pavement management system delivers dynamic deterioration curves, maintenance plans, and budget scenarios specific to your needs.



ANALYZE



INSIGHTS YOU CAN USE, SHARE, AND DEFEND

We empower agencies to deploy maintenance priorities, support funding decisions, and coordinate effectively across departments.



REPEAT



PLATFORM

RoadRunner Smart Fleets

- Transform your vehicles in to smart systems
- Passively collect objective data without disrupting your team's daily operations

Dynamic Deterioration Modeling

- Builds accurate predictive models from real-time data, not just assumptions
- Automatically updates deterioration curves as new data is collected, enabling smarter, data-driven decisions

Secure, Cloud-Based PMS

- Access your data from anywhere with confidence
- User-friendly interface built for practical use and seamless adoption

Planning-as-a-Service

- Budget scenarios, ROI modeling, and multi-year planning built for your agency with dynamic data
- Dedicated account team for day-to-day support



RMT SOLUTIONS:

- ▶ PAVEMENT LIFECYCLE MANAGEMENT
- ▶ ASSET LIFECYCLE MANAGEMENT
- ▶ WORK ORDER MANAGEMENT
- ▶ FLEET MANAGEMENT



ROADWAY MANAGEMENT TECHNOLOGIES, LLC

PO Box 678325 | Orlando, FL 32867 | (904) 631-8010 | roadmantech.com

February 10, 2026

ATTN: City of Jonesboro, Georgia
1859 City Center Way
Jonesboro, GA 30236
(770) 478-3800

Dear City of Jonesboro, GA:

Roadway Management Technologies, LLC ("RMT") is the exclusive provider of the **RoadRunner Passive Road Surveying Solution ("RoadRunner")**, a proprietary hardware and software system developed, manufactured, and distributed solely by RMT. RoadRunner is protected through RMT's intellectual property portfolio, including proprietary technologies and **patent-pending sensor innovations**. As such, RMT is the **sole source provider** of this unique solution and its associated data services.

RMT's RoadRunner platform provides a capability not available through any other commercial vendor: the ability to **passively collect real-time road surface quality data at scale** using agency-owned fleet vehicles. This enables repeatable, continuous roadway condition monitoring without dedicated survey vehicles, specialized crews, lane closures, or disruptive field operations.

A key differentiator of RoadRunner is its integrated proprietary sensor suite, which includes **patent-pending radar technology**, gyroscopic sensors, accelerometers, and high-resolution roadway imagery capture. These sensors work together as a single engineered system to measure roadway surface performance and generate objective road condition data under real-world operating conditions. This combined hardware approach and passive deployment method is exclusive to RMT and cannot be replicated through traditional pavement inspection services or standard off-the-shelf sensor technologies.

In addition, RoadRunner is designed as a continuously improving platform that utilizes machine learning and crowdsourced roadway performance data across participating agencies. This approach enables RoadRunner to refine accuracy over time and support more informed pavement decision-making using objective, real-world roadway behavior, rather than infrequent snapshot surveys or controlled testing environments.

Due to the proprietary nature of RoadRunner's integrated sensor technology, passive real-time data collection method, and crowdsourced machine-learning framework, **no other vendor offers a comparable solution** with equivalent functionality. Procurement of RoadRunner through competitive means would not produce an equivalent product or service, as RoadRunner's capabilities and supporting technologies are exclusive to RMT.

For these reasons, RMT is uniquely positioned to fulfill Jonesboro's requirements, and procurement through any means other than direct engagement with RMT would be impractical and infeasible.

Should you require additional technical documentation or specifications to support this justification, please do not hesitate to contact us.

Sincerely,
Jamie Weathers, COO
904.631.8010



DATE DELIVERED
02/10/2026

EXPIRATION DATE
05/10/2026

QUOTE #: 021026L1

FROM:

Roadway Management Technologies
PO Box 678325
Orlando, FL 32867
941-957-8541
aaron@roadmantech.com

TO:

City of Jonesboro, Georgia
1859 City Center Way
Jonesboro, GA 30236
770-478-3800
mheard@jonesboroga.gov

Required System Component:

Qty	Description	Unit Price	Annual Total
1	Pavement Lifecycle Management, Annual	\$20,000.00	\$20,000.00

Total \$20,000.00

This is a quotation on the services named, subject to the conditions in Roadway Management Technologies' contract agreement.



Jonesboro- GA

Jonesboro-GA PCI 26'

Budgetary Estimate



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com

2/20/2026

Jonesboro, GA
Marcus Heard, Director of Public Works
Email: mheard@jonesboroga.gov
Phone: (470) 372-8609

Re: Jonesboro-GA PCI 26'

Dear Marcus,

IMS Infrastructure Management Services (IMS) is pleased to present this budgetary estimate for a roadway pavement condition survey for Jonesboro. As an industry leader with five decades of pavement and asset management experience, we enable data-driven decision-making, ensuring that your agency's maintenance and rehabilitation funding results in the highest return on investment.

Our project approach is based on four principles:

- **Starting with the end in mind.** We are committed to understanding your agency's goals and objectives for this project. We work with our clients to meet all project goals and provide high-quality deliverables on time and within budget.
- **Confident, informed decision-making.** Accurate data provides the foundation for pavement management analyses, which identify the most appropriate maintenance or rehabilitation activity for each roadway pavement.
- **Maximizing return on investment.** When you choose IMS, you gain a dedicated partner. Backed by decades of experience, our support results in better outcomes and translates to enhanced funding justification and more strategic allocation of existing funding.
- **Providing smart, end-to-end solutions.** We provide professional services powered by end-to-end software, enabling your agency to review and visualize data confidently and easily.

We look forward to delivering this project successfully. Please do not hesitate to contact me with any additional questions at +15026140153 or by email at cfrazier@icc-ims.com.

Best Regards,
IMS Infrastructure Management Services



Cole Frazier,
Mid-Market Account Executive



Table of Contents

Project Overview.....	4
Deliverables	5
Budgetary Estimate	6
Optional Value Added Service Fees/Rates	7
Company Profile	8
Industry-Leading Technologies	9
Easy Street Analysis (ESA) Overview	10
Optional Value-Added ESA Enhancements	15
Appendix A – Typical Project Roadmap	17
Appendix B – Additional Value-Added Services.....	19
Appendix C – Enhanced ASTM D6433 Data Dictionary	22



Project Overview

The primary objective of this project is to collect 28 test miles of roadway condition data. To ensure adequate coverage across the roadway network, we survey major roads (typically defined as greater than 3 lanes or by functional class) in both directions and all remaining roads in one direction. Our project roadmap, shown in the figure below, has evolved over the years and reflects our team's collective experience of successfully delivering thousands of similar projects. (See Appendix A for more details on each step in our project roadmap.)

The pavement condition survey will be performed with an IrisPRO Pave™ data collection system. The IrisPRO Pave™ collects georeferenced, high-resolution 3D imagery of the pavement surface, spherical right-of-way imagery, and longitudinal and transverse profile measurements.

Collected data are processed to quantify the type, severity, and quantity of pavement surface distresses, including cracking and rutting. Pavement roughness values are reported following the International Roughness Index (IRI) method. Processed data are delivered in both an Excel spreadsheet and a geodatabase. Roadway imagery is published to our Inform™ online data visualization platform for easy review and reference by agency staff.

Our data analysis approach provides 100% coverage of **all collected lanes**, 100% rating of all pavement in those lanes (no sampling), and no reliance on field operators/crew to perform manual rating or supplemented with "windshield surveys." This approach meets stringent industry standards (ASTM and AASHTO) and state DOT reporting requirements. We are the only vendor bringing our fifty-year legacy of state DOT pavement condition survey experience, quality, accuracy, and repeatability to municipal agencies.



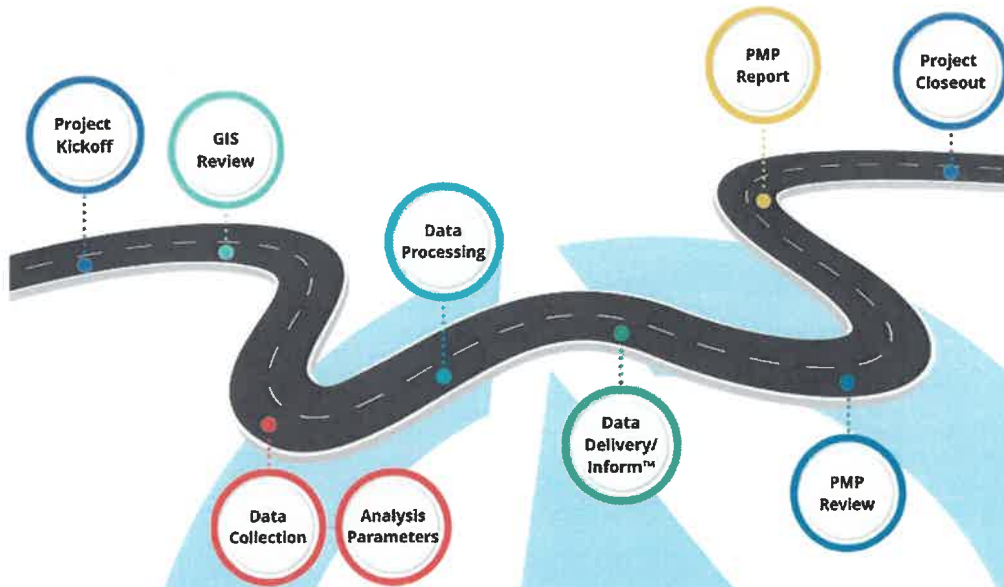
10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com



Deliverables

01

Roadway Pavement Condition Data

Reported in an Excel spreadsheet and a geodatabase.

02

Easy Street Analysis (ESA) of Roadway Pavements

- Easy Street Analysis (ESA) pavement management spreadsheet
- Customizable prioritization and deferred cost analysis (refer to **ESA Overview** for specified customizations and optional value add enhancements)
- ESA training session (one hour) via Teams

03

Five (5) Year, Network-Level Pavement Management Plan via ESA

Treatment recommendations based on client-provided (or client-verified) treatment types, treatment costs (\$ per square yard), budget, already-planned treatments, and any additional network-level prioritization rules.

04

Inform™ Online Data Viewer

Enables convenient, browser-based viewing of collected data and imagery. *(Note: One Year of hosting for unlimited agency users is included from the time of implementation **for new/first-time instances only.**)*



05

Additional Value-Added Services

If applicable, based on our discussions with you, this budgetary estimate includes information and pricing on additional value-added services, described in more detail below.

Optional Value-Added Service Activities - Cost Estimates				
Name	Qty.	Units	Price	Total Price
FastFWD Structural Testing - Recommended 2-Pass Test for Major Roads				
a. Mobilization/Calibration (FFWD)	1	Lump Sum	\$9,750.00	\$ 9,750.00
b. Field Data Collection - Fast Falling Weight Deflectometer (FFWD)	120	Test Miles	\$ 150.00	\$ 18,000.00
c. Traffic Control for Deflection Testing (if applicable/necessary - roads over 40MPH)	TBD	Hours	\$ 200.00	TBD
d. Data Processing: Standard FFWD (Including QC/QA)	120	Lump Sum	\$ 26.67	\$ 3,200.00
e. Structural Testing (FWD) Incorporated into ESA Deliverable to Determine Structural Index	120	Test Miles	\$ 46.25	\$ 5,550.00
f. Optional - Calculate S _{Neff} , S _{Nreq} , Subgrade Resilient Modulus (Mr) - Scoping Required	TBD	TBD	TBD	TBD
g. Optional - Color Coded GIS Map - Based on Structural Index (SI) (PDF)	1	Lump Sum	\$ 1,500.00	\$ 1,500.00
Right of Way (ROW) Asset Extraction - Using Standard Data Dictionary Attributes				
Crosswalks	28	Test Miles	\$ 13.60	\$ 380.80
Curb & Gutter	28	Test Miles	\$ 17.60	\$ 492.80
Curb Markings	28	Test Miles	\$ 17.00	\$ 476.00
Drainage Ditches	28	Test Miles	\$ 17.60	\$ 492.80
Drainage Structures (Inlets)	28	Test Miles	\$ 27.20	\$ 761.60
Driveway Aprons	28	Test Miles	\$ 34.00	\$ 952.00
Fence	28	Test Miles	\$ 17.60	\$ 492.80
Fire Hydrants	28	Test Miles	\$ 17.00	\$ 476.00
Guardrail/Guiderail	28	Test Miles	\$ 17.60	\$ 492.80
Landscaping	28	Test Miles	\$ 44.00	\$ 1,232.00
Manhole Covers	28	Test Miles	\$ 23.80	\$ 666.40
Pavement Striping - Linear	28	Test Miles	\$ 26.40	\$ 739.20
Pavement Markings - Point	28	Test Miles	\$ 17.00	\$ 476.00
Retaining Walls	28	Test Miles	\$ 17.60	\$ 492.80
Pedestrian Curb Ramps	28	Test Miles	\$ 20.80	\$ 582.40
Sidewalks	28	Test Miles	\$ 17.60	\$ 492.80
Signs	28	Test Miles	\$ 57.80	\$ 1,618.40
Sign & Supports - Combined - Discounted Rate	28	Test Miles	\$ 75.00	\$ 2,100.00
Sound/Noise Barriers	28	Test Miles	\$ 17.60	\$ 492.80
Street Furniture	28	Test Miles	\$ 27.20	\$ 761.60
Street Lights	28	Test Miles	\$ 40.80	\$ 1,142.40
Traffic Signals and Flashers	28	Test Miles	\$ 23.80	\$ 666.40
Trees	28	Test Miles	\$ 51.00	\$ 1,428.00
Utility Poles	28	Test Miles	\$ 40.80	\$ 1,142.40
Valves	28	Test Miles	\$ 34.00	\$ 952.00
Pavement Management as a Service (PMaaS) - Standard - Annual subscription, ongoing PMP updates	1	Lump Sum	\$ 10,500.00	\$ 10,500.00
Pavement Management as a Service (PMaaS) - Expert - Annual subscription, ongoing PMP updates	1	Lump Sum	\$ 16,000.00	\$ 16,000.00
Pavement Story Map for External Viewers, Standard, With Hosting for 1 year				
a. Years 2 - 4 Annual Updates of Rehabs; + hosting fees of \$1.20 per mile (if applicable)	3	Lump Sum	\$ 7,500.00	\$ 7,500.00
Pavement Condition Dashboard for Client Internal Viewing, Standard, With Hosting for 1 year	1	Lump Sum	\$ 5,500.00	\$ 5,500.00
a. Years 2 - 4 Annual Updates of Rehabs; + hosting fees of \$1.20 per mile (if applicable)	3	Lump Sum	\$ 2,000.00	\$ 6,000.00
City Council/County Commission Presentation - Virtual				
a. Add for an Onsite Presentation	1	Lump Sum	\$ 2,500.00	\$ 2,500.00
Non-Standard Written Report (Min. 8-Hours; beyond at Hourly Rate)	8	Hours	\$ 189.00	\$ 1,512.00
Additional or Specialty Maps for Reporting (In Addition to Maps in Standard Report)	1	Lump Sum	\$ 750.00	\$ 750.00
Additional Printed/Hard Copies of the Standard Final Report	1	Lump Sum	\$ 500.00	\$ 500.00
Sidewalk Condition Survey via Sidewalk-Surface Tester (SST) Data Collection			(Available Upon Request)	
Pedestrian Curb Ramp Non-Compliance Survey & Analysis via Mobile Lidar Data Collection			(Available Upon Request)	
Easy Street Analysis (ESA) - Pavement Management Plan/Analysis	1	Lump Sum	\$ 7,500.00	\$ 7,500.00
a. "ESA - Easy Street Analysis" Pavement Management Spreadsheet Software			Included in Base Activities (ESA)	
b. Customizable Prioritization & Cost-Benefit Analysis				
c. Unlimited Access - Training Library				
d. Online ESA Spreadsheet Training via Teams				





Budgetary Estimate

Jonesboro-GA PCI 26'

(Note: final fee/scope depends on confirmation of test miles to be surveyed, analysis and reporting requirements)

Budgetary Estimate					
Name	Qty.	Units	Price	Disc.	Total Price
Project Setup and Kickoff	1	Lump Sum	\$3,300.00		\$3,300.00
Project Management	1	Lump Sum	\$2,300.00		\$2,300.00
GIS Review and Survey Extents Verification	1	Centerline Miles	\$2,000.00		\$2,000.00
Mobilization/Calibration	1	Lump Sum	\$975.00		\$975.00
Field Data Collection - IrisPRO Pave	1	Test Miles	\$7,475.00		\$7,475.00
Data Processing: Enhanced ASTM D6433 (Including QC/QA) - According to Standard Data Dictionary	1	Test Miles	\$2,275.00		\$2,275.00
Condition Data Delivery (Standard Geodatabase/Tabular Format Only)	1	Lump Sum	\$1,300.00		\$1,300.00
Easy Street Analysis (ESA) Pavement Management Plan/Analysis - Draft	1	Lump Sum	\$7,500.00		\$7,500.00
Draft Pavement Management Report	1	Lump Sum	\$2,400.00		\$2,400.00
Final Pavement Management Report and Analysis Results	1	Lump Sum	\$500.00		\$500.00
Inform - <400 lane miles	1	Per Year	\$2,480.00	100%	\$0.00
			Total Price:		\$30,025.00



10630 75th Street
Largo, FL 33777



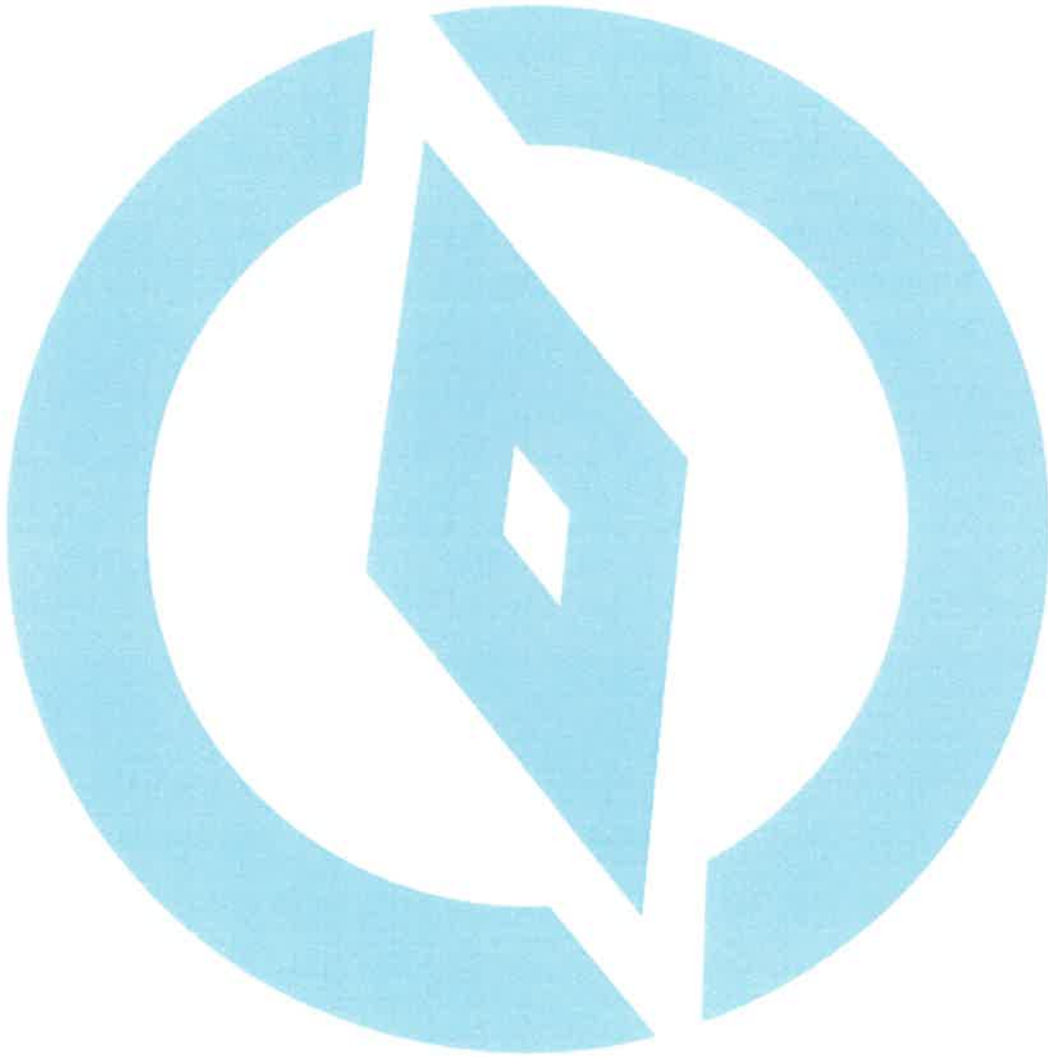
+1 727-547-0696



www.icc-ims.com



Optional Value Added Service Fees/Rates



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com



Company Profile

IMS Infrastructure Management Services – now powered by International Cybernetics Company (ICC) – has revolutionized roadway infrastructure management since 1975. With the 2022 merger of IMS and ICC, the IMS team of infrastructure consultants is now backed by ICC’s industry-leading data acquisition technologies. We take pride in having one of the industry’s largest fleets of advanced pavement, sidewalk, and right-of-way asset data collection systems.



Over the past five years, we have made a \$5 million investment in enhancing our Unify™ software suite, solidifying our position as an industry leader in providing fully integrated, end-to-end data collection, processing, and visualization tools. Our advanced systems – combined with our rigorous approach to quality control – empower us to generate unparalleled data quality while setting the industry benchmark for the fastest turnaround time. The actions that we have taken over the past five years illustrate our continued commitment to improving data quality while simultaneously reducing data collection costs for our clients.

We offer the following pavement management services:

- Automated and semi-automated pavement condition assessments.
- Non-destructive pavement testing and analysis.
- Pavement management system implementation and training.
- Pavement management plan development and presentation.

In addition to pavement management services, IMS offers complementary services such as:

- Right-of-way asset inventory development using 360-degree imagery and mobile Lidar.
- Sidewalk and Americans with Disabilities (ADA)/PROWAG non-compliance surveys.
- Data visualization services using dashboards, StoryMaps, and web applications built on GIS.

Welcome to the new era of infrastructure management, where consulting services are powered by advanced technologies. **Together, IMS – now powered by ICC – are paving the way forward!**



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com

Industry-Leading Technologies

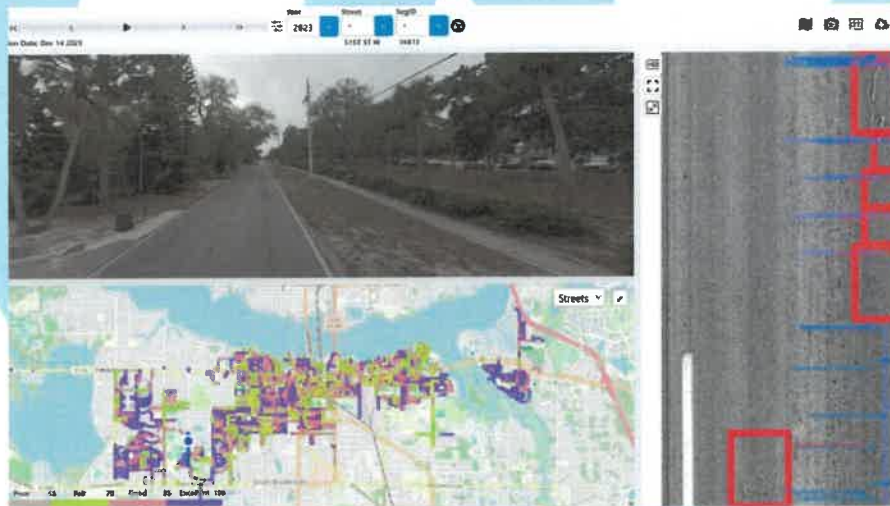
IrisPRO[™] Pave[™]

The pavement condition survey will be performed using an IrisPRO Pave[™] data collection system. The IrisPRO Pave[™] is equipped with industry-leading data acquisition technologies, including an inertial profiler, a second-generation Laser Crack Measurement System (LCMS-2), a FLIR Ladybug5+ 30MP 360-degree camera, and an iXBlue A7 or OXTS INS with DGPS.



Inform[™] Online Data Viewer

The Inform[™] data viewer is an easy-to-use, browser-based, cloud-hosted tool for reviewing pavement condition data and associated imagery. Inform[™] presents the data in a map-based environment, enabling agencies to review all collected pavement data, including cracking, rutting, and roughness. The Inform[™] viewer is fast, intuitive, and reduces the need for field visits. Inform[™] provides color coded roads by condition values like PCI, PSCI, Roughness (IRI), Rutting Index and more. This allows for insights at a glance and effective reporting to decision makers.



"Inform has not only met but also surpassed our expectations. It is quick, exceptionally responsive, requires no IT involvement, and is incredibly user-friendly for individuals of all levels."

– Robert Bush, Program Manager, Arizona DOT



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com



Easy Street Analysis (ESA) Overview

Pavement Management Plan and Included Deliverables

ESA integrates the core analysis capabilities of the most powerful pavement management systems within a familiar Microsoft® Excel environment. It is a pavement management tool designed to provide agencies with easy access to pavement condition data and analysis results. It is often used to enhance the use of traditional licensed-based software.

ESA was engineered as a simple solution that eliminates the need for users to become pavement management software experts before they can leverage their survey results. ESA is an interactive spreadsheet that contains deterioration curves, functional classes, pavement types, pavement strength rating, city-specific rehabilitation methods and costs, associated rehab resets, budget information, and other city-specific parameters. Our interactive ESA spreadsheet is fully customizable to the needs of our clients and programmed to develop multi-year M&R plans built around practical prioritization techniques and financial optimization, typically as cost of deferral analyses. Results can be visualized using both ESRI GIS software and Excel-based mapping tools. IMS has deployed ESA successfully on hundreds of government agencies across North America.

ESA offers the following key scenarios for analysis:

- Annual funding required to maintain current pavement conditions.
- Annual funding required to maintain the current network backlog.
- Funding projections needed to achieve and sustain a target PCI over the next five years.
- Funding projections needed to achieve and sustain a target backlog over the next five years.
- Minimum funding level required to avoid falling below control PCI limit.
- Minimum funding level required to avoid falling below control backlog limit.
- Future network performance predictions, including the network average PCI and segment level PCI, if current funding levels remain unchanged over five years.
- Strategic rehabilitation recommendations for pavement treatments based on the current budget.

For the pavement analysis results to be practically useful to the agency, IMS endeavors to work closely with every client agency to select appropriate parameters. The IMS pavement engineer will work with the client to select and define the analysis parameters. These include:

- Analysis period (standard is 5 years)
- Road maintenance budget (one value in \$/YR; can vary over the years)
- Rehab types and unit rates (in \$/SY)
- Completed work (rehab type and rehab date for any work done after survey but before analysis start date), provided in a GIS-compatible format (shapefile, geodatabase, or list of GISIDs)
- Planned work (rehab type and rehab date for any work to be done after analysis start date; e.g., CIP, future work etc.), provided in a GIS-compatible format (shapefile, geodatabase, or list of GISIDs)



10630 75th Street
Largo, FL 33777



+1 727-547-0696



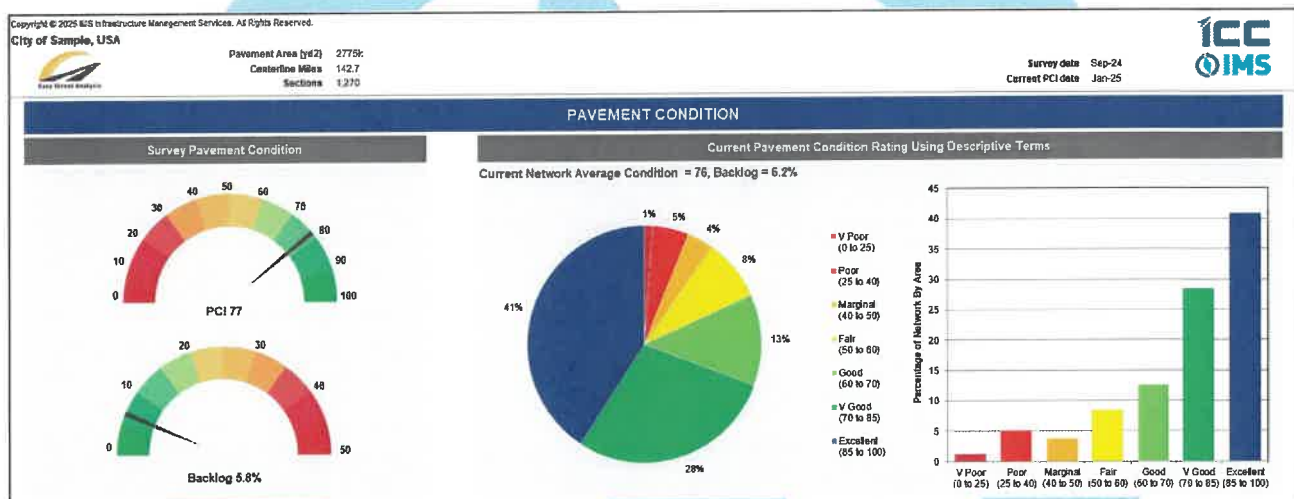
www.icc-ims.com



- Project groupings by proximity, functional classes, pavement types, and similar conditions (PCI spread of 20 and PCI below 40)
- *If structural testing using the Fast-Falling Weight Deflectometer (FFWD) is involved: traffic data (AADT, %Trucks, and/or ESALs), provided in a GIS-compatible format (shapefile, geodatabase, or list of GISIDs). Default traffic count will be used if requested data is one of the specified formats.

Additional parameters and customizations are possible and can be discussed with the pavement engineer during the analysis initiation. IMS pricing includes up to 2 iterations (back-and-forths) of the analysis. Additional iterations or parameters will incur an additional cost. Also, any analysis parameter inputs such as completed or planned work lists provided in non-GIS or non-digital formats will incur an extra cost.

The following snapshots showcase some of the highlights of ESA:



ESA dashboard, providing overview of network condition. ESA offers a detailed evaluation of the network's PCI, with the ability to breakdown analyses by pavement type, functional classes, and index, delivering valuable insights into the overall network condition. The distribution of network area by pavement type and functional classes is displayed.



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com



Network Analysis Summary - Five Year Rehab Plan Development

Current PCI Date: 1/1/2025		Annual Budget Increase (%/yr): 0.00		% of Budget Dedicated to Surface Treatments: 0							
Analysis Start Date: 1/1/2025 (MM/DD/YYYY)		Unit Rate Inflation (%/yr): 9.00									
Program Year	Annual Budget (\$)	Calendar Year	Block Count	Annual Expenditure (\$)	Pavement Costs (\$)	Peripheral Concrete Costs (\$)	Miles (mi)	PCI	Backlog (%)	<div style="border: 2px solid green; padding: 5px; text-align: center; color: red; font-weight: bold;">Refresh Q</div> <div style="border: 1px solid orange; padding: 5px; text-align: center; color: orange; font-weight: bold; margin-top: 5px;">Run ESA</div> <div style="border: 1px solid orange; padding: 5px; text-align: center; color: orange; font-weight: bold; margin-top: 5px;">Agency Budget</div> <div style="border: 1px solid orange; padding: 5px; text-align: center; color: orange; font-weight: bold; margin-top: 5px;">Inventory and Rehab Plan</div>	
Avg:	1,380,000	1,380	2024	1,270	19,006,510	19,006,510	0	142.7	76		6.2
1	1,380,000	2025	25	1,379,910	1,379,910	0	3.7	76			
2	1,380,000	2026	30	1,379,402	1,379,402	0	3.9	75			
3	1,380,000	2027	20	1,379,960	1,379,960	0	2.6	75			
4	1,380,000	2028	31	1,379,804	1,379,804	0	3.2	74			
5	1,380,000	2029	30	1,379,919	1,379,919	0	3.8	74	4.5		
Totals:			136	6,898,995	6,898,995	0	17.1				

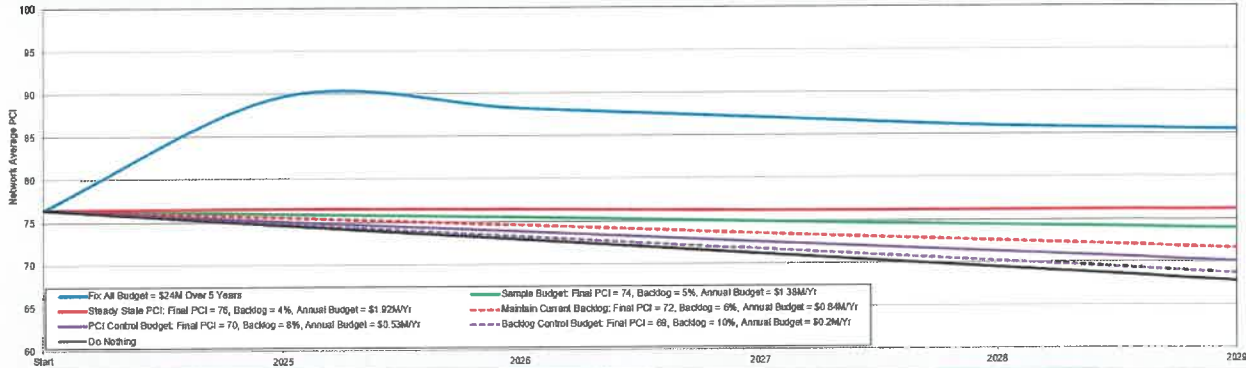
Need Year	Committed Year	Year of First Selection	Segment Rehab Results	Rehab Activity Code	Rehab Activity	Avg Unit Rate (\$/yd ²)	Segment Peripheral Concrete Costs (\$)	Segment Pavement Cost (\$)	Segment Total Cost (\$)	Project Cost (\$)	Five Year Post Rehab PCI
4	0	0	Fall Thru Yr 4						0	0	79
4	0	4	Selected Yr 4	56	FWM + Thick Overlay (> 2.0 - 3.0) + Strctrl Ptch	29.00	0	73,863	73,863	169,302	94
4	0	4	Selected Yr 4	56	FWM + Thick Overlay (> 2.0 - 3.0) + Strctrl Ptch	29.00	0	49,880	49,880	169,302	94
4	0	4	Selected Yr 4	56	FWM + Thick Overlay (> 2.0 - 3.0) + Strctrl Ptch	29.00	0	45,559	45,559	169,302	94
6	0	0	Not Selected						0	0	84
1	0	0	Fall Thru Yr 1						0	0	52
3	0	0	Fall Thru Yr 3						0	0	42
3	0	0	Fall Thru Yr 3						0	0	45
3	0	0	Fall Thru Yr 3						0	0	44
4	0	5	Selected Yr 5	30	Edge Mill + Thin Overlay (1.5 - 2.0)	15.25	0	31,293	31,293	258,107	92
4	0	5	Selected Yr 5	30	Edge Mill + Thin Overlay (1.5 - 2.0)	15.25	0	57,813	57,813	258,107	92
4	0	5	Selected Yr 5	30	Edge Mill + Thin Overlay (1.5 - 2.0)	15.25	0	169,001	169,001	258,107	92
3	0	3	Selected Yr 3	50	FWM + Thick Overlay (> 2.0 - 3.0)	27.00	0	41,526	41,526	149,715	91
3	0	3	Selected Yr 3	50	FWM + Thick Overlay (> 2.0 - 3.0)	27.00	0	48,519	48,519	149,715	91
3	0	3	Selected Yr 3	50	FWM + Thick Overlay (> 2.0 - 3.0)	27.00	0	59,670	59,670	149,715	91
2	0	0	Fall Thru Yr 2						0	0	37
2	0	0	Fall Thru Yr 2						0	0	41

ESA has a straightforward design with simplified buttons to allow for agile review of recommended solutions for selected segments. The total budget and annual breakdown of each year of the respective analysis and network-level evolution of PCI and backlog are summarized.

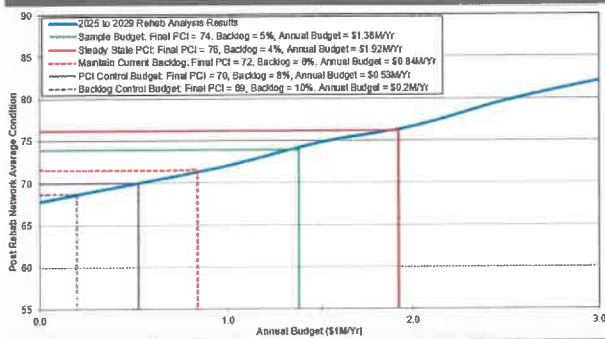


PAVEMENT MANAGEMENT PLAN - ANALYSIS PERIOD 2025 TO 2029

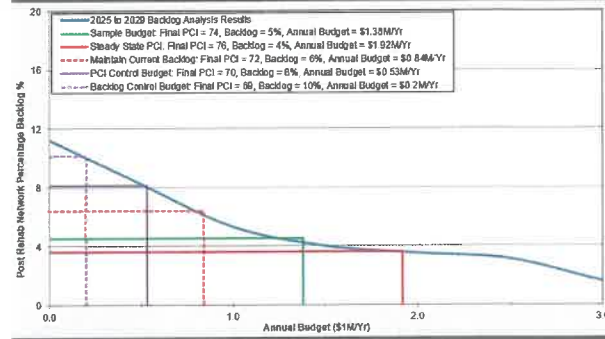
Annual PCI for Various Budget Levels



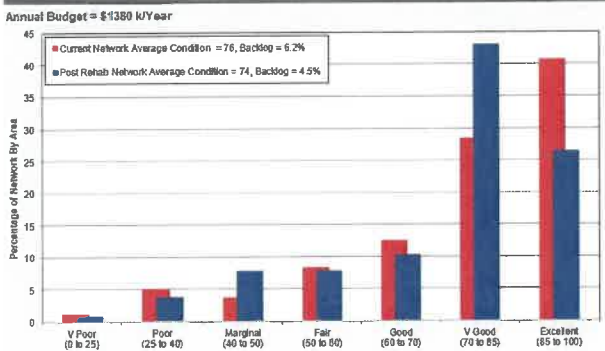
Five Year Post Rehab PCI versus Annual Budget



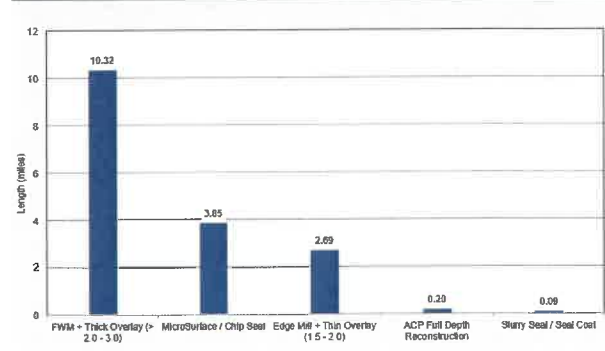
Five Year Post Rehab Backlog (%) versus Annual Budget



Post Rehab Pavement Condition Comparison - Current Condition Versus Selected Budget

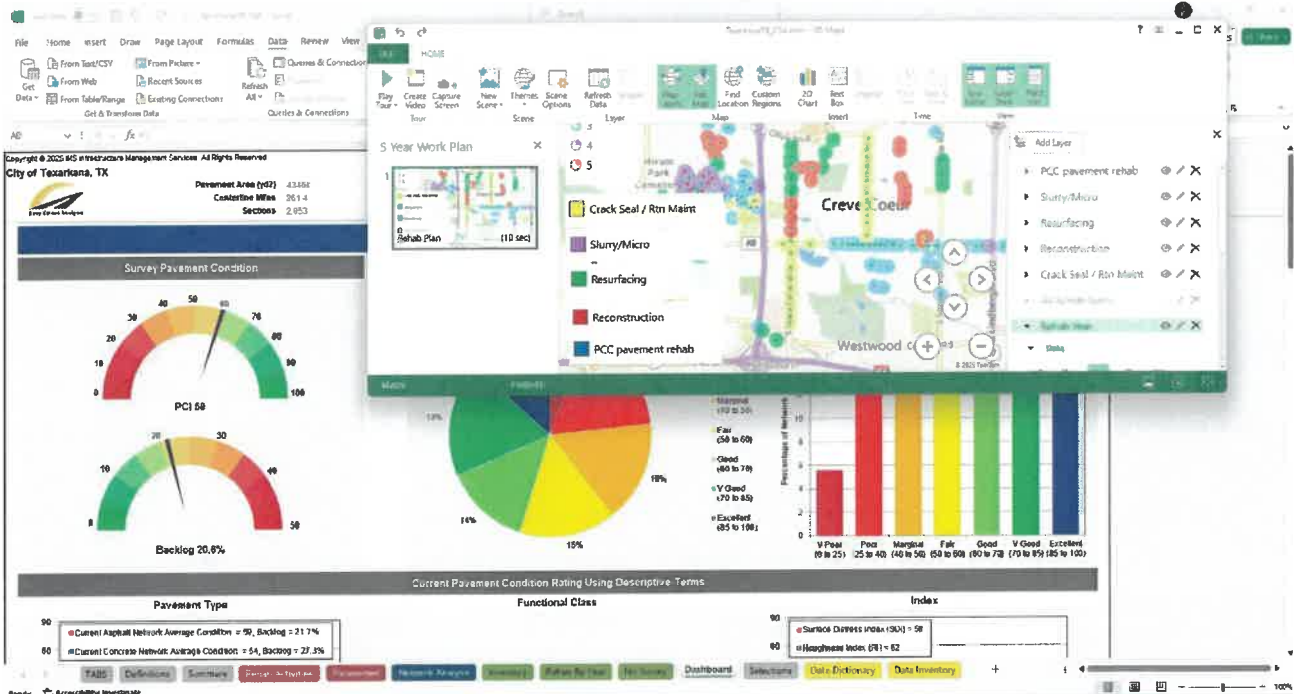


Pavement Rehab Activities Distribution by Extent



ESA dashboards, presenting PCI and backlog values after a 5-year analysis is generated under various budget scenarios and summarizing the recommended rehabilitation activities by extent.





ESA contains embedded GIS maps, allowing users to open GIS maps within the Excel interface.



ESA viewer, provides a map-based view of the pavement condition before and after applying recommended treatments. Various options can be accessed and filtered from this view. Clicking any segment on the map displays detailed information such as GISID, PCI, year, and more.



Optional Value-Added ESA Enhancements

- Increase analysis period from 5 years to 10 years (ESA fee is multiplied by two (2))
- Additional budget breakdowns, other than one value in \$/YR (*specific scoping required by pavement engineer*)
- Conversion of rehab unit rates to \$/SY (*specific scoping required by pavement engineer*)
- Conversion of completed work (rehab type and rehab date for any work done after survey but before analysis start date) from any format other than a GIS-compatible format (shapefile, geodatabase or list of GISIDs) to an acceptable format for ESA (*specific scoping required by pavement engineer*)
- Conversion of planned work (rehab type and rehab date for any work to be done after analysis start date e.g., CIP, future work etc.), provided in a GIS-compatible format (shapefile, geodatabase, or list of GISIDs) to an acceptable format for ESA (*specific scoping required by pavement engineer*)
- Inclusion of project groupings by any other approach such as groupings by subdivisions, zones, neighborhoods, etc. (*specific scoping required by pavement engineer*)
- Conversion of traffic data for integration of FFWD data into ESA (*specific scoping required by pavement engineer*)
- Client GIS 1-to-1 synchronization with ESA via one of our trusted partners, NewEdge.
- ESA Viewer - Full GIS Map, Allows for Client Updating of Map Scenarios from 5-Year Plan (*Priced as a \$2,000 one-time cost add-on; a lightweight software installation is required that allows for regeneration of maps of your pavement management plan. As part of the core ESA deliverable, a map is generated. ESA Viewer allows for unlimited map refreshing if you make updates to the plan. Allows for viewing in any current web browser.*)



10630 75th Street
Largo, FL 33777



+1 727-547-0696



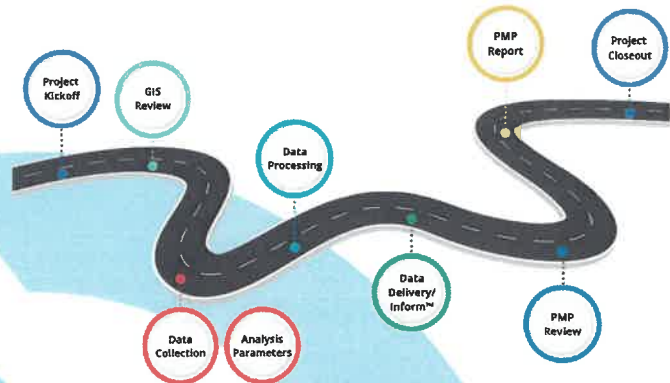
www.icc-ims.com

APPENDIX

Appendix A – Typical Project Roadmap

Step 1: GIS Linkage and Survey Map Development

Following the kickoff meeting, IMS' GIS team reviews the agency's roadway network and verifies the roadways to be collected. The agreed-upon roadway network is loaded into ICC Drive™ software, which defines the pavement network segmentation and attribution to be collected and delivered.



Step 2: Project Kickoff

The IMS project manager schedules a kickoff meeting with your agency's project team to review the project scope, schedule, and fee. The IMS project manager ensures that the IMS team and agency stakeholders clearly understand the goals and objectives of the project.

Step 3: Data Collection

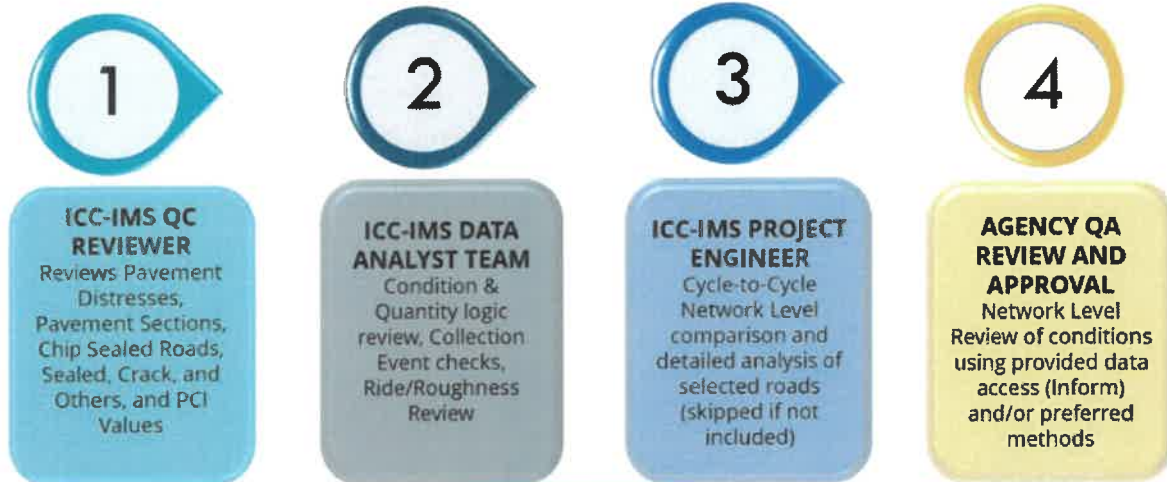
The pavement condition survey is performed with an ICC IrisPRO Pave™ data collection system. Georeferenced, high-resolution 3D imagery of the pavement surface, spherical right-of-way imagery, and longitudinal and transverse profile measurements are collected.

Step 4: Data Processing

The collected data are processed using ICC Connect™ software to quantify the type, severity, and quantity of pavement surface distresses, including cracking and rutting. Pavement roughness values are reported using the International Roughness Index (IRI) method.



Comprehensive Data Quality Management



Step 5: Multi-step QC/QA IMS has developed a unique approach to pavement condition surveys by coupling the power of automated algorithms with manual review of distress data by trained and certified pavement raters. All data is manually reviewed by our QC team, then reviewed by Data Analysts and Project Engineers, and lastly, submitted to the agency for final review and acceptance. This rigorous QC/QA process provides an added measure of confidence that the pavement condition data is accurate.

Step 6: Data Analysis & Reports

- **Comprehensive Analysis**
Our data analysis is thorough and tailored to provide insights that drive decision-making.
- **Detailed Reporting**
We deliver comprehensive reports that are clear, concise, and customized to your reporting standards.

Step 7: Project Closeout

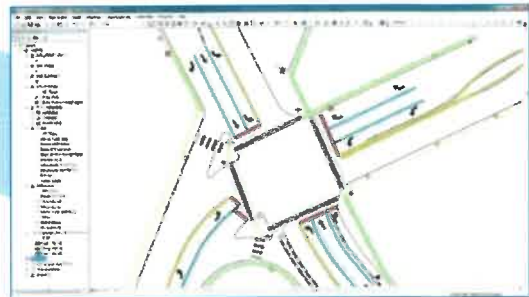
Project deliverables will be sent to you for final approval and acceptance. Once accepted, we will facilitate a final project close-out meeting with you, where we will present our findings and recommendations. This workshop-style meeting is an opportunity to clarify any final questions and discuss other ways IMS can support your pavement management program in the future.



Appendix B – Additional Value-Added Services

Right of Way (ROW) Asset Collection (e.g., signs, markings, curb, and gutter, etc.)

Imagery collected during the pavement condition survey can be used to build ROW asset inventories and condition assessments for signs, sign supports, curb and gutter, sidewalks and multi-use trails, pedestrian curb ramps, pavement markings and striping, traffic signals, trees, and many others. Our ability to leverage the high resolution 360-degree imagery already collected makes this a frequently used add on service by our clients.



Web-based GIS Visualization via StoryMaps and Dashboards

Easy-to-use and easy-to-maintain web-based, geocentric StoryMaps and Dashboards can be built to serve not only internal staff but also constituents. These tools provide a dynamic way to present complicated information visually. StoryMaps and Dashboards may be configured for use within the agency for coordinating projects across departments or for presentation to the public to promote transparency and trust.



Inform™ Web Based Viewing Software, Including Thematic Maps

IMS offers a convenient, web-based tool for reviewing pavement condition data and associated imagery. Our cloud-hosted visualization and analysis software Inform™ enables agencies to review collected pavement and asset data. The software is fast, intuitive, and is the simplest way to make valuable photolog images available to every user. **Ninety (90) days of complimentary hosting is included with all IMS projects.** Competitive pricing for data hosting in year two and beyond is available upon request.





Structural Testing with a Fast-Falling Weight Deflectometer (FastFWD)

IMS offers additional pavement testing techniques to enhance decision-making and project prioritization.

The FastFWD applies a dynamic load to the pavement surface to measure structural capacity and pavement layer stiffness values.

We integrate the structural index (SI) as a component of each roadway's final PCI to help you better predict future performance and fine-tune rehabilitation activities, such as determining when to reconstruct vs. mill and overlay.



Sidewalk, Trail, and Parking Lot Surveys with a Sidewalk Surface Tester (SST)

We deploy our Sidewalk Surface Testers (SST) for capturing sidewalk inventory and condition data, SSTs may also be deployed to collect data for narrow alleys, parking lots, bike paths, and multi-use trails. SST surveys yield comprehensive sidewalk condition data that may be used in combination with lidar pedestrian curb ramp data to develop detailed ADA non-compliance identification. With the evolving PROWAG requirements, it is critical for agencies to have a plan in place for routinely assessing the condition of and proactively maintaining their pedestrian walkways.



Mobile Lidar for Pedestrian Curb Ramp Assessments

Mobile Lidar is deployed to supplement ROW inventory surveys by creating a 3D point cloud from which measurements can be extracted. Our mobile lidar system (a Riegl VMQ-1HA) collects 1.2 million points per second, resulting in extremely dense point clouds. The integrated Ladybug 5+ camera captures high-resolution spherical imagery at defined intervals. Using the lidar point cloud, IMS can efficiently take detailed measurements of pedestrian curb ramps to identify non-compliance.



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com

Roadway Friction Testing

Friction testing is a critical element of roadway safety inspections. Adequate friction can help reduce accidents and save lives. In the last five years alone, we have successfully completed over 200 friction testing projects. The friction of the pavement surface is measured in accordance with ASTM E274 and incorporates a ribbed tire in accordance with ASTM E501 for studies of the left wheel path at each site.



In-Person (or Virtual) Council Presentations

IMS is often asked to develop and deliver a council presentation to educate council members and the public on the concepts of pavement management and the results of the surveys, health of the roadway network and recommendations as a value-added service. We work collaboratively with agency staff to develop highly focused presentations that layout the existing state of the agency's roadways and the funding required to meet the agency's goals and objectives.



Customized Written Reports and Specialty Maps

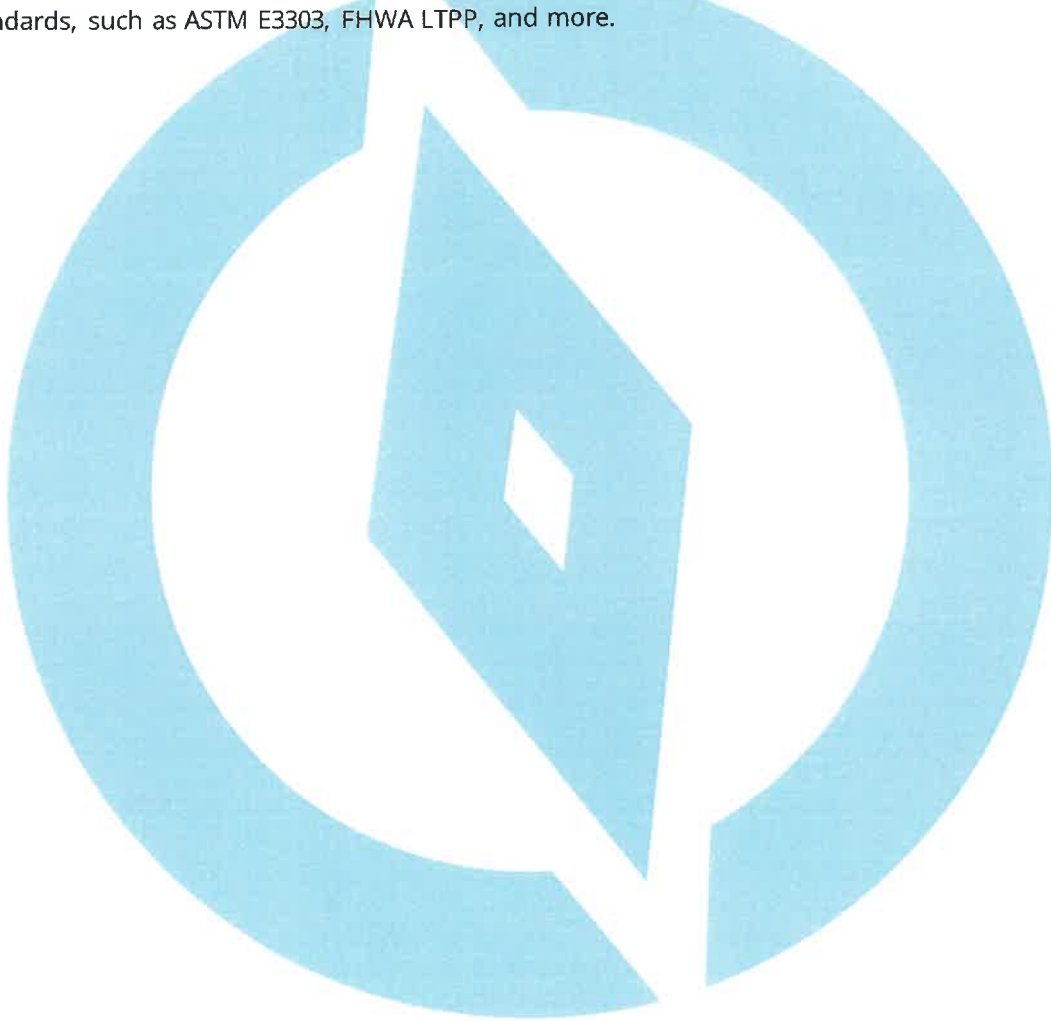
IMS will prepare all project documentation, including a draft and final summary report of the findings and conclusions as part of the project. Additional analyses and specialty maps may be added to the final report to enhance the ability of the agency to communicate existing pavement conditions, forecasted conditions, and M&R needs and priorities.





Appendix C – Enhanced ASTM D6433 Data Dictionary

The following pages outline the standard measurements that will be reported from our collected and processed data for roadways. We refer to this as a data dictionary, to clearly outline to our clients all data points we will be collecting and reporting data for. While this is the most typical data dictionary for municipal/county agencies, we can offer modifications to this. We additionally offer data dictionaries for other standards, such as ASTM E3303, FHWA LTPP, and more.



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com



	Field Name	Units	Description
A	SegmentID	n/a	Unique Segment ID as per the client provided network GIS
B	Road	n/a	Road name as per the client provided network GIS
C	Road ID	n/a	Integer version of Road, Called Street Number in ESA - New field to be generated by Connect
D	Sequence ID	n/a	Polyline order, called Block Number in ESA (use integers 1, 2, 3, etc) - New field to be generated by Connect
E	Supersegment ID	n/a	Segment grouping by logical treatment area - Imported into Connect from Excel; attached to network definition
F	From Street	n/a	From Street in ESA - Imported into Connect from Excel; attached to network definition
G	To Street	n/a	To Street in ESA - Imported into Connect from Excel; attached to network definition
H	Primary_Direction_Collection	n/a	True where collection matches digitized direction of GIS, False where collected opposite.
I	Direction	n/a	Predominant direction of travel, N/E/S/W based upon average heading value of the segment.
J	FunctionalClass	n/a	Client functional class from GIS (Local, Collector, Arterial, etc)
K	PavementType	n/a	Predominant pavement type observed over reporting interval
L	StartChain	Miles	Start chainage as defined for segment by the shp file
M	EndChain	Miles	End chainage as defined for segment by the shp file
N	Length	Feet	Chainage Length of the Segment in feet
O	Inform Link	URL	URL to launch Inform to beginning of this section
P	Image Path	File Path	This is the internal path to the first image of each segment (e.g. M:/Raw/Images/image1.jpg)
Q	ASP %	%	Percentage of segment that is ASP and not affected by any Event Flags
R	ASP Area	Square Feet	Total accessible pavement area that is ASP and not affected by any Event Flags
S	Other %	%	Percentage of segment that is Other and not affected by any Event Flags
T	JCP %	%	Percentage of segment that is JCP and not affected by any Event Flags



U	JCP Area	Square Feet	Total accessible pavement area that is JCP and not affected by any Event Flags
V	Valid %	%	Percentage of the segment length containing valid data and not affected by any Event Flags
W	EventFlag		Flag indicating presence of either Construction, Bridge, Railroad etc for which the data is invalidated
X	AssessableLength	Feet	Assessable pavement length captured from IrisPRO Pave not affected by any Event Flags
Y	AssessableWidth	Feet	Assessable pavement width captured from IrisPRO Pave not affected by any Event Flags
Z	AssessableArea	Square Feet	Assessable pavement area captured from IrisPRO Pave not affected by any Event Flags
AA	PavementLength	Feet	Actual pavement length from aerial images - Imported into Connect from Excel; attached to network definition
AB	PavementWidth	Feet	Actual pavement width from aerial images - Imported into Connect from Excel; attached to network definition
AC	Speed	mph	Average speed of collection through segment
AD	MinSpeed	mph	Minimum speed of collection through segment
AE	MaxSpeed	mph	Maximum speed of collection through segment
AF	IRI Left	in/mi	Lane left IRI where speed is greater than 12.5mph (Average)
AG	IRI Right	in/mi	Lane right IRI where speed is greater than 12.5mph (Average)
AH	IRI Avg	in/mi	Lane average IRI where speed is greater than 12.5mph
AI	IRI %Invalid	%	Percentage of segment where IRI has been invalidated due to low speed or Event Flags
AJ	Rutting Left	Inches	Left wheelpath rut depth (Average)
AK	Rutting Right	Inches	Right wheelpath rut depth (Average)
AL	Alligator_Low	Square Feet	Total area of low severity Alligator Cracking as defined by ASTM D6433
AM	Alligator_Mod	Square Feet	Total area of moderate severity Alligator Cracking as defined by ASTM D6433
AN	Alligator_High	Square Feet	Total area of high severity Alligator Cracking as defined by ASTM D6433
AO	LongTrans_Low	Feet	Total length of low severity Longitudinal & Transverse Cracking as defined by ASTM D6433
AP	LongTrans_Mod	Feet	Total length of moderate severity Longitudinal & Transverse Cracking as defined by ASTM D6433
AQ	LongTrans_High	Feet	Total length of high severity Longitudinal & Transverse Cracking as defined by ASTM D6433



AR	PatchingUtilityCuts_Low	Square Feet	Total area of low severity Patching & Utility Cuts as defined by ASTM D6433
AS	PatchingUtilityCuts_Mod	Square Feet	Total area of moderate severity Patching & Utility Cuts as defined by ASTM D6433
AT	PatchingUtilityCuts_High	Square Feet	Total area of high severity Patching & Utility Cuts as defined by ASTM D6433
AU	Pothole_Low		Count of low severity Potholes as defined by ASTM D6433
AV	Pothole_Mod		Count of moderate severity Potholes as defined by ASTM D6433
AW	Pothole_High		Count of high severity Potholes as defined by ASTM D6433
AX	Rutting_Low	Square Feet	Total area of low severity Rutting as defined by ASTM D6433
AY	Rutting_Mod	Square Feet	Total area of moderate severity Rutting as defined by ASTM D6433
AZ	Rutting_High	Square Feet	Total area of high severity Rutting as defined by ASTM D6433
BA	CornerBreak_Low		Count of low severity Corner Break as defined by ASTM D6433
BB	CornerBreak_Mod		Count of moderate severity Corner Break as defined by ASTM D6433
BC	CornerBreak_High		Count of high severity Corner Break as defined by ASTM D6433
BD	DividedSlab_Low		Count of low severity Divided Slab as defined by ASTM D6433
BE	DividedSlab_Mod		Count of moderate severity Divided Slab as defined by ASTM D6433
BF	DividedSlab_High		Count of high severity Divided Slab as defined by ASTM D6433
BG	Faulting_Low		Count of low severity Faulting as defined by ASTM D6433
BH	Faulting_Mod		Count of moderate severity Faulting as defined by ASTM D6433
BI	Faulting_High		Count of high severity Faulting as defined by ASTM D6433
BJ	Linear_Low		Count of low severity Linear Cracking as defined by ASTM D6433
BK	Linear_Mod		Count of moderate severity Linear Cracking as defined by ASTM D6433
BL	Linear_High		Count of high severity Linear Cracking as defined by ASTM D6433
BM	Patching(Large)UtilityCuts_Low		Count of low severity Patching (Large) & Utility Cuts as defined by ASTM D6433
BN	Patching(Large)UtilityCuts_Mod		Count of moderate severity Patching (Large) & Utility Cuts as defined by ASTM D6433
BO	Patching(Large)UtilityCuts_High		Count of high severity Patching (Large) & Utility Cuts as defined by ASTM D6433
BP	Patching(Small)_Low		Count of low severity Patching (Small) as defined by ASTM D6433
BQ	Patching(Small)_Mod		Count of moderate severity Patching (Small) as defined by ASTM D6433



BR	Patching(Small)_High	Count of high severity Patching (Small) as defined by ASTM D6433
BS	CornerSpalling_Low	Count of low severity Corner Spalling as defined by ASTM D6433
BT	CornerSpalling_Mod	Count of moderate severity Corner Spalling as defined by ASTM D6433
BU	CornerSpalling_High	Count of high severity Corner Spalling as defined by ASTM D6433
BV	SlabCount	Count of slabs within the segment, not affected by any Event Flags
BW	Deflection Results	Empty Placeholder field for ESA
BX	SNeff	Empty Placeholder field for ESA
BY	SNreq	Empty Placeholder field for ESA
BZ	Rutting (ACP Only)	Distress Index field for ESA - Will be populated by Python processor
CA	L&T Crk / Linear Crk	Distress Index field for ESA - Will be populated by Python processor
CB	Alligator Crk / Divided Slab	Distress Index field for ESA - Will be populated by Python processor
CC	Map Crk (Block Crk) / Crnr Brk	Distress Index field for ESA - Will be populated by Python processor
CD	Edge Crk / Jnt Spall	Distress Index field for ESA - Will be populated by Python processor
CE	Distortions / Faulting	Distress Index field for ESA - Will be populated by Python processor
CF	Bleeding / Polished Agg	Distress Index field for ESA - Will be populated by Python processor
CG	Raveling / Scaling	Distress Index field for ESA - Will be populated by Python processor
CH	Patches	Distress Index field for ESA - Will be populated by Python processor
CI	Potholes	Distress Index field for ESA - Will be populated by Python processor
CJ	Crossfall	Crossfall, positive when right side is lower than left side
CK	Grade	Grade, positive when pitching uphill
CL	PCI	Pavement Condition Index (PCI)
CM	PSCM	ASTM Pavement Surface Cracking Metric (Crack Length * Crack Width / Interval Area) as defined by ASTM E3303
CN	PSCI	ASTM Pavement Surface Cracking Index as defined by ASTM E3303
CO	PSCPRM	Pavement Surface Cracking, Potholes and Repair Metric is a variation of the PSCM which also includes patches, potholes and sealed cracks



CP	PSCPRI		Pavement Surface Cracking, Potholes and Repair Index is a variation of the PSCI which also includes patches, potholes and sealed cracks
CQ	Roughness Index (RI)		Roughness Index field for ESA
CR	Structural Index (SI)		Empty Placeholder field for ESA (Structural Index, calculated from Deflections)
CS	Overall Condition Index (OCI)		Empty Placeholder field for ESA (Composite Index, calculated from PCI, RI, and SI) 50% PCI + 25% RI +25% SI (with structural) or 67% PCI + 33% RI (without)
CT	Start_Coords (LAT)	Decimal Degrees	Latitude at start of segment in decimal degrees (WGS84)
CU	Start_Coords (LON)	Decimal Degrees	Longitude at start of segment in decimal degrees (WGS84)
CV	End_Coords (LAT)	Decimal Degrees	Latitude at end of segment in decimal degrees (WGS84)
CW	End_Coords (LON)	Decimal Degrees	Longitude at end of segment in decimal degrees (WGS84)
CX	SurveyDate	Date	Date of data collection.



10630 75th Street
Largo, FL 33777



+1 727-547-0696



www.icc-ims.com



February 11, 2026

City of Jonesboro
1859 City Center Way
Jonesboro, Georgia 30236

Attention: Marcus Heard, CPSI, CPM, Public Works Director
Reference: 2026 Pavement Analysis Quote

Dear Mr. Heard,

We appreciate the opportunity to partner with the City of Jonesboro to deliver pavement analysis services. **In the last 5 years, RAS executive team members have managed over 100,000 miles of pavement condition and asset inventory data.** The RAS team has led pavement condition and ROW asset surveys for many similar agencies across Georgia and nearby regions including: **Tucker, Forsyth County, Henry County, Athens-Clarke County, Spalding County, GA;** Clarksville and Kingsport, TN; Tallahassee, Okaloosa County, Collier County, Sarasota County, FL; and many others.



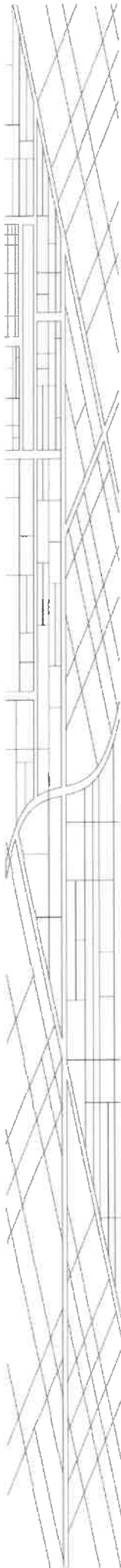
RAS is a full-service pavement and asset management consultant that collects pavement performance data using laser-based automated technologies and analyzes the data using sound financial optimization modeling.

RAS understands the City is seeking a qualified data collection vendor to conduct a condition assessment on approximately **28 centerline miles** of paved roadways. To ensure comprehensive network coverage, RAS will conduct two-pass testing on major roadways (e.g. arterial and collector) and one-pass testing on local roadways. Based on this approach, the total estimated collection effort is approximately **34 test miles**. In addition, RAS will perform pavement analysis within our Budget Optimization Street Selector (BOSS™) software for the development of a multi-year maintenance and rehabilitation plan that financially optimizes the City’s budget.


RAS is an approved vendor through the BuyBoard and HGACBuy purchasing cooperatives for Pavement Condition Surveys. Our team is prepared to deliver a scope of work that is tailored to the needs and goals of the City Stakeholders. We look forward to building a long-term relationship with the City of Jonesboro. Please do not hesitate to reach out with any questions or comments regarding these services.

Sincerely,

Bart Williamson, FCLS
CEO



Firm Overview

 **Roadway Asset Services, LLC (RAS)** is an engineering firm (License #: F-22104) headquartered in Austin, Texas. RAS team members have managed automated data collection, performed QA/QC, developed pavement management plans, supplied GIS based deliverables, and provided imports and modeling for cities and counties across the United States. RAS offers comprehensive experience and subject matter expertise in the fields of engineering, surveying, asset management, transportation planning, and GIS.

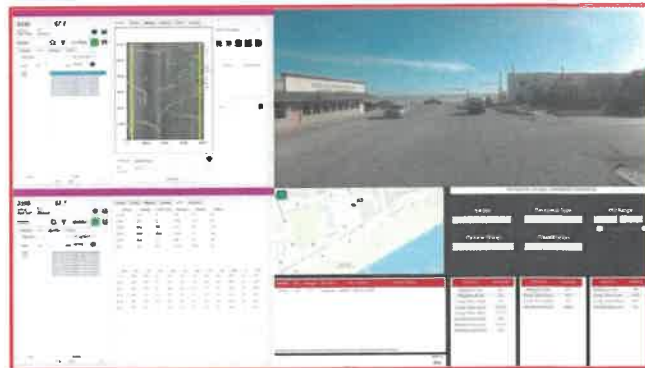
The Firm's Service Commitment to Customers: **RAS was founded on the core principles of collaborating with our clients, cultivating those relationships, and embracing innovation in technology resources.** RAS strives to provide accurate data-driven results that allow our clients to make the best possible management decisions while enjoying the passion we all share in improving infrastructure. Our team will provide prompt and relevant services as demonstrated by RAS leadership's direct involvement in each project the Firm undertakes.

Pavement Condition Surveys and ASTM D6433 Data

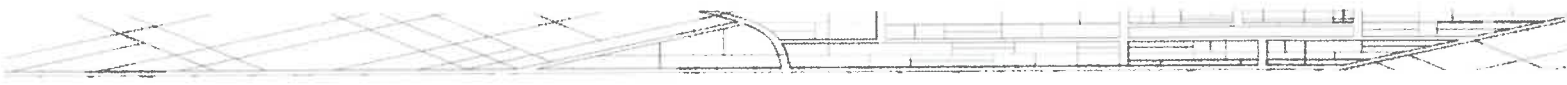
RAS has invested in the most sophisticated fleet of roadway asset collection (RAC) vehicles and pavement analysis tools for automated data collection that provides a **100% linear assessment of the roads driven**. This methodology removes the subjectivity of rating small sample areas of the road segment. RAS utilizes a high-definition ROW capture system to provide an immersive view of assets that can be extracted for various attributes. Furthermore, RAS' RAC vehicles have **received independent inertial profiler certification for accuracy and repeatability from the Texas A&M Transportation Institute (TTI)**.



After data is collected in the field and uploaded to the office environment, it is imported using the RAS AI pavement rating tool **Road TRIP™ (Technical Rating Intelligence Program)**. The import process creates mappings to the data so that users do not need to keep track of where the data is stored on central data server(s). 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.

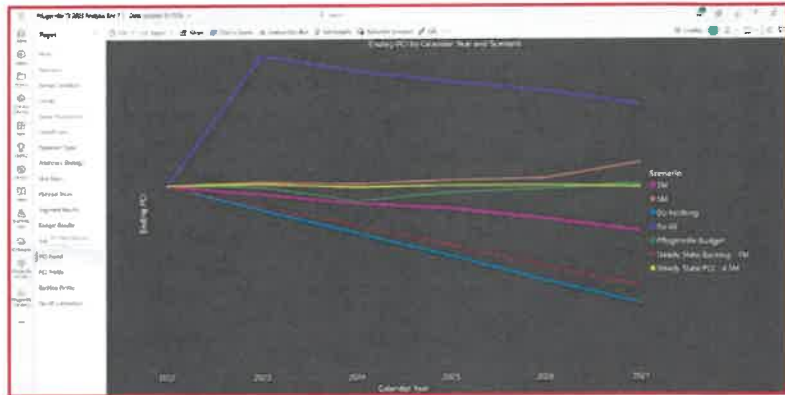


The detected cracks are overlaid on the pavement images and offset to assist with the verification of the detected cracks. During reporting, the distress cracks are defined by road zone and accumulated according to the units defined in the client specification. The severity levels are identified based on the defined limits (ASTM D6433) and verified for resolution through visual quality control checks of image files.



Budget Optimization Street Selector (BOSS™)

For agencies that do not have a pavement management program developed or do not desire to manage pavement maintenance and budget analyses, RAS has developed a pavement management program called **BOSS™ (Budget Optimization Street Selector)** that is utilized to run budgetary modeling scenarios, configure maintenance and rehabilitation strategies, configure customized pavement deterioration curves, optimize rehabilitation candidate selection using sound financial modeling constraints such as cost of deferral, develop logical projects, and showcase the true cost of deferred maintenance over time. The final output of a BOSS™ analysis is a prioritized multi-year rehabilitation plan that is financially optimized and ready to be presented to City administrators or elected officials. The benefit of the **RAS BOSS™ Analysis** is that there is no software to install, purchase, or maintain. The results of the analysis are delivered to the City in a **Power BI Dashboard** and bound in a final report to City Staff.

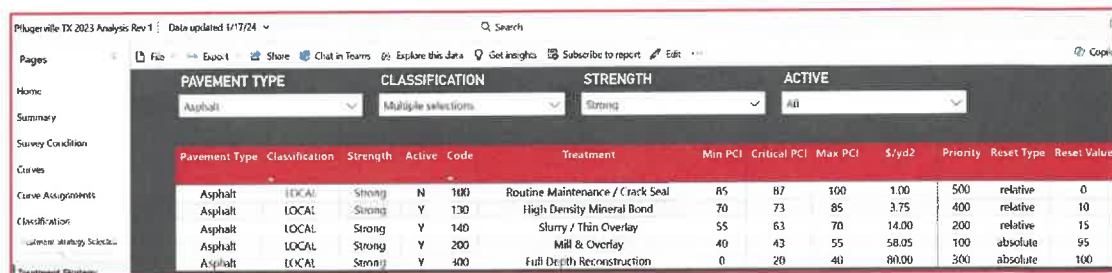


BOSS™ Configuration

The BOSS™ analysis involves the following sequences and client engagements during the process:

- Maintenance & Rehabilitation Setup** – to ensure the results of the budget model runs meet the City’s expectations, RAS will discuss the City’s current maintenance and rehabilitation operation and recommend updates. The RAS team is well versed with the application of pavement rehabilitation techniques, min/max PCI, breakpoint PCI, decision trees for treatments, costs, real-world impact to PCI, reset PCI values, and life cycles. As a part of this process, RAS will work with the City to determine the right treatment (prescription) at the right time.

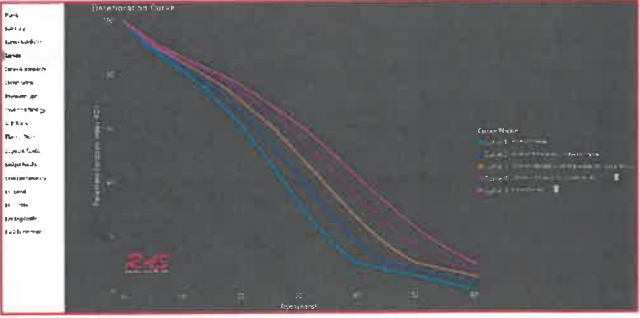
BOSS™ software retains the ability to use the density of load-associated distresses to trigger additional structural patching or an entirely different rehabilitation activity. For example, segments that have greater than a 10% density of load-related distresses are generally categorized as weak, with moderate strength between 2%-10%, and strong less than 2% density. The screenshot below shows the current configuration of local roadways from another municipality.

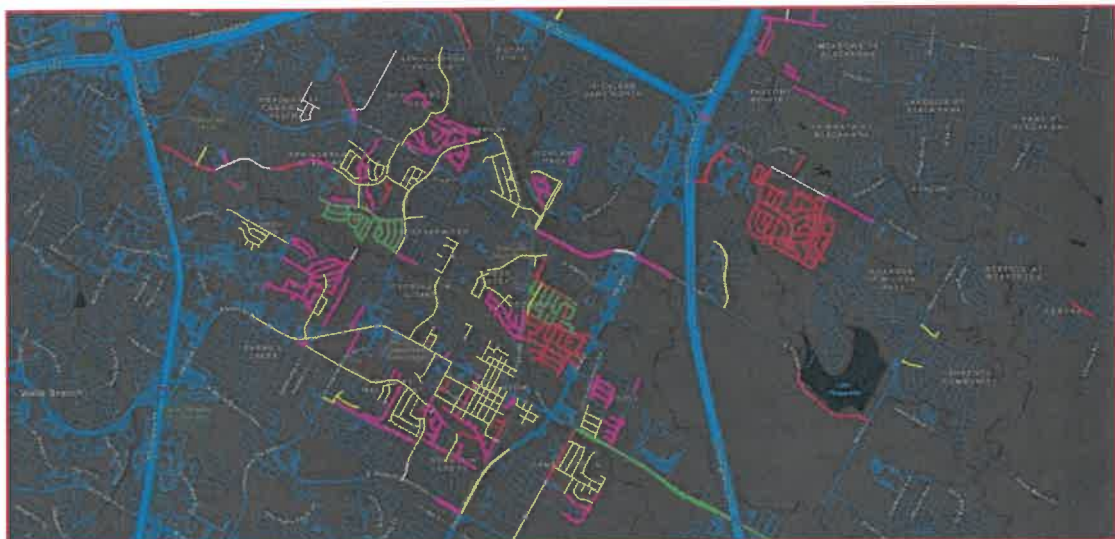


The screenshot shows a Power BI dashboard with a table of pavement configuration data. The table has columns for Pavement Type, Classification, Strength, Active, Code, Treatment, Min PCI, Critical PCI, Max PCI, \$/yd2, Priority, Reset Type, and Reset Value. The data is as follows:

Pavement Type	Classification	Strength	Active	Code	Treatment	Min PCI	Critical PCI	Max PCI	\$/yd2	Priority	Reset Type	Reset Value
Asphalt	LOCAL	Strong	N	100	Routine Maintenance / Crack Seal	85	87	100	1.00	500	relative	0
Asphalt	LOCAL	Strong	Y	130	High Density Mineral Bond	70	73	85	3.75	400	relative	10
Asphalt	LOCAL	Strong	Y	140	Slurry / Thin Overlay	55	63	70	14.00	200	relative	15
Asphalt	LOCAL	Strong	Y	200	Mill & Overlay	40	43	55	58.05	100	absolute	95
Asphalt	LOCAL	Strong	Y	400	Full Depth Reconstruction	0	20	40	80.00	300	absolute	100

- 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. RAS will develop the deterioration curves utilized in the analysis with City staff to ensure they reflect realistic degradation rates. **The number of curves is unlimited as we can setup models by functional class, pavement type, and structural conditions.**


- Project Development** – the **BOSS™** analysis includes stitching segments (blocks) together to form a logical project, also known as a “management section” or “supersegment”. RAS will work with City Staff to review the initial model results and begin “stitching” segments together to form logical projects that best meet the needs of the City. The benefit of utilizing management sections is that **BOSS™** runs the budgetary scenario at the project level, producing real-world rehabilitation plans that are ready for City review, modification, or action. Our team will also provide recommendations to City staff for best practices in developing practically sized management sections to yield model results that can be acted upon. A Microsoft Access database of final configuration, setup, model, etc. will be provided.
- Financial Optimization & Prioritization** – RAS’ **BOSS™** analysis uses sound engineering and economic logic to prioritize which street candidates are selected throughout the multi-year plan. While most pavement management programs will prioritize by roadway traffic and condition, a **BOSS™** analysis takes it a step further and introduces **financial optimization into candidate selection through the use of a “Need Year” analysis that identifies each segment’s cost of deferral.** Understanding the “Cost of Segment Deferral” allows the analysis to maximize the City of Jonesboro’ limited funds in the best manner possible. As seen in the image below, the RAS AGOL map displays the prioritized multi-year rehabilitation plan that leverages cost of deferral financial optimization within it’s prioritization logic.



Final Summary Report and Budget Scenarios

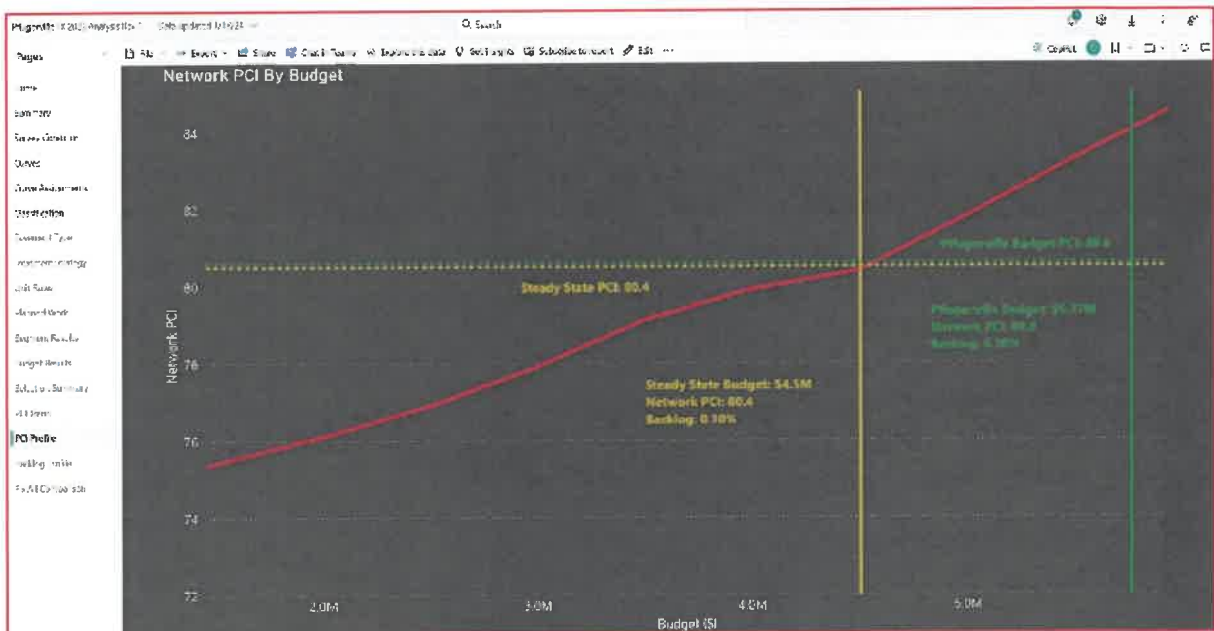
RAS will provide the City with a final report/executive summary including study objectives, methodology utilized, project summary, analysis of current pavement management practices, rehabilitation plans, and multi-year budget scenarios. In addition, the City will receive statistical charts, graphs, and area maps illustrating all PCI results, street segment lengths, widths, pavement type, the City's overall road quality, and findings from the pavement evaluation.

Running budgetary models within a pavement management system requires a deep understanding of the database structure behind the application. The RAS approach to budgetary modeling will involve at least 10 pavement management scenarios using different philosophies, budget levels, and distributions.

While RAS will work with the City staff to define the scenarios, at a minimum the following questions should be answered with the scenarios:

- What will the overall average pavement condition be if current funding levels remain unchanged for the next three, five, or ten years?
- What funding will be necessary on an annual basis to ensure an average overall pavement condition of 65, 70, 75, or 80 PCI?
- What budget is required to maintain my existing network PCI?
- What budget is required to control the growth in backlog?
- What are the recommended pavement strategies?

The report will be provided for review by City staff and modified based on comments to produce a final report which will be delivered as a bound report 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.



Annual BOSS™ PMaaS Subscription

As a dedicated pavement and asset management consultant, RAS is committed to the long-term success and improvement of the City’s roadways. As such, RAS can provide on-call pavement and pavement analysis support related specifically to BOSS™. Support activities can include the common tasks identified in the table below or even ad-hoc requests such as running a new scenario’s requested by City Administration. The 12-month support subscription is meant to be flexible and provide the City with immediate access to consulting services that are dedicated to the use of the BOSS™ pavement management analysis. Hours can be used for additional PowerBI and AGOL training or even the assignment of tasks to the RAS support team such as programming in City completed work on a monthly basis, assigning tasks (planned work), modifying supersegments when projects do not match their existing geometry, running ad-hoc budgetary scenarios, refreshing PCI, or even simply consulting on best practices related to the use of pavement preservation techniques.

Pavement Management as a Service (PMaaS) Subscription Levels	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 Synchronization	●	●	●	●	●
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					●

Optional ROW Asset Inventory

RAS can use high-definition cameras to inventory and capture right-of-way (ROW) assets for extraction. Each image would be electronically tagged with location information for plotting within a spatial environment. The RAS team retains GIS-based asset extraction software and a dedicated team of GIS analysts who utilize high-definition imagery to develop a feature class and appropriate attribution for nearly any asset that can be seen in the imagery. All asset management assignments are conducted in a spatial environment and end with the delivery of a File Geodatabase or an ArcGIS Online Endpoint.



Common roadside feature classes that are inventoried as a phase during the pavement condition assessment include: **traffic signs and supports (MUTCD), sidewalks, pedestrian curb ramps, pavement markings, pavement striping, curb & gutter**, and many other assets.





Cost Proposal

Below you will find a summary of the budget scenario associated with the services discussed during our meeting for the City's pavement management needs. This proposal includes RAS performing pavement condition surveys on approximately 28 centerline miles. RAS estimated 34 test miles with two-pass testing on arterial/collector roadways while single-pass testing local roadways. RAS has quoted the City with the published rates available via our contract through HGACBuy.

HGACBuy		CONTRACT PRICING WORKSHEET For Catalog & Price Sheet Type Purchases		Contract No.:	HP08-25	Date Prepared:	2/18/2026
<i>This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents MUST be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.</i>							
Buying Agency:	City of Jonesboro, GA			Contractor:	Roadway Asset Services, LLC		
Contact Person:	Marcus Heard			Prepared By:	Bart Williamson		
Phone:	(470) 372-8609			Phone:	(210) 837-5249		
Fax:				Fax:			
Email:	mheard@jonesboroga.gov			Email:	bwilliamson@roadwayassetservices.com		
Catalog / Price Sheet Name:	HP08-25_Response_Price_List_Form (RAS)_JUN25						
General Description of Product:	Pavement & Asset Management Services						
A. Catalog / Price Sheet Items being purchased - Itemize Below - Attach Additional Sheet if Necessary							
Quan	Item No	Service Description	Unit Pr	Total			
1	1	Project Initiation and Administration	\$ 2,430.00	\$ 2,430.00			
1	2	GIS Centerline Identification & GPS Network Creation	\$ 2,475.00	\$ 2,475.00			
1	3	Field Setup & Mobilization	\$ 6,750.00	\$ 6,750.00			
34	4	Collect Paved Road Network	\$ 135.00	\$ 4,590.00			
34	5	Modified ASTM D6433 [PCI] RoadTRIPTMAI with 100% Rating	\$ 54.00	\$ 1,836.00			
1	6	Virtual RAS Data Reviews	\$ 2,025.00	\$ 2,025.00			
46	7	Pavement Width Verifications	\$ 12.00	\$ 552.00			
1	Data-5	BOSS™ Pavement Analysis & Multi-Year Plan	\$ 20,000.00	\$ 20,000.00			
			\$ -	\$ -			
				Total From Other Sheets, if Any:			
RAS will bill lump sum based on percent complete for each task item				Subtotal A:		\$ 40,658.00	

