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**MEMO**

TO: Mayor Blad and Members of City Council

FROM: Tom Kirkman, Director of Public Services

DATE: January 15, 2025

SUBJECT: Recommendation for Procurement:  
Pavement Condition Survey Services

It is my recommendation that the City of Pocatello Street Services Department procure professional pavement condition survey services with IMS Infrastructure Management Services, LP for the cost of \$58,795.00. The purpose of this procurement is to update Street Services' pavement management program to maintain accurate and efficient pavement treatment plans. This amount has been budgeted for in the FY25 Street Services budget.

The documentation from IMS Infrastructure Management Services, LP is attached for Council and Mayor approval. The Council may wish to authorize Mayor Blad to sign and execute the paperwork necessary to effectuate the procurement.

**MEMORANDUM**

TO: City Council and Mayor  
FROM: Brian Trammell, Deputy City Attorney BT  
DATE: January 24, 2025  
RE: Recommendation for Procurement:  
Pavement Condition Survey Services

I have reviewed the recommendation for procurement of pavement condition services with IMS Infrastructure Management Services, LP. I have no legal concerns with the procurement. Please let me know if you have any questions or concerns.



Quote for Professional Services  
**Pavement Management Program Update**



**Tom Kirkman, Director of Public Services**

**City of Pocatello, Idaho**

**April 26, 2024**

**IMS Infrastructure Management Services, LP**  
**Jim Tourek, Client Services Manager**

## IMS Today and Our History with Pocatello

IMS Infrastructure Management Services, LP is pleased to submit a quotation to update the City's pavement management program. IMS is an industry leader with 38 years of pavement and asset management experience. Since our founding in 1985, we have provided similar services to more than 1,000 municipalities across the United States. **Collectively, the IMS engineering team brings more than 350 years of pavement and asset management experience to the table.**

IMS brings significant regional experience and expertise to meet the City's pavement condition assessment, right-of-way asset, and software integration. As we understand, the City of Pocatello maintains approximately **267 centerline miles (based on the 2020 survey)** of roadway. IMS has performed objective pavement data collection for **similar Rocky Mountain Regency agencies** such as *Chubbuck, Sandpoint, Pocatello, ID; Herriman, Salt Lake City, UT; Casper, Lander, Laramie, Natrona County, Riverton, Sheridan, Wyoming DOT, and many others in the region.*



*Members of the IMS Engineering, Technical and Sales Teams at our December 2022 in-service meeting week.*

Similar to the previous projects and to ensure adequate coverage across the network, the Road Surface Tester (RST) will survey the arterial, collector and residential roadways in both directions, resulting in a **survey mileage of an IMS estimated 344 miles (+31 miles from last survey and unless there's been any growth since 2020).** The RST is equipped with a Laser Crack Measuring System 2 (LCMS-2) that is the most technologically advanced data collection equipment available in the industry.

The prior IMS-City of Pocatello collaborative projects (2015, 2020) were completed using the same Lucity software that's proposed for 2024. This included a pavement condition data load of the network. Unique to the City of Pocatello, city staff will then run the pavement analysis and reporting. New for this project, IMS is including a web map and imagery for Year 1 from project completion is included; subsequent years (if desired will have a hosting+ fee).

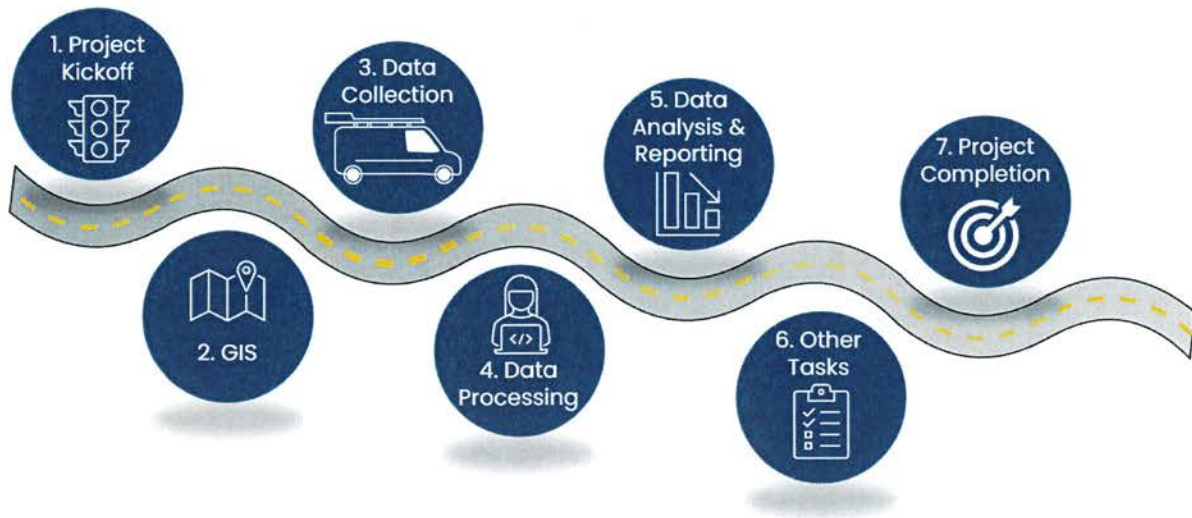
**We have added six pavement engineers and nine GIS analysts to our team along with five state-of-the-art Road Surface Testers (RST) equipped with the latest 3D Laser Crack Measurement System (LCMS-2) technology. We have also added Fast Falling Weight Deflectometer (FastFWD) pavement structural testing equipment along with mobile Lidar technology for asset inventories and ADA sidewalk and ramp compliance surveys.** The combination of our larger technical team and fleet of testing equipment provides IMS with greater capacity and redundancy for completing larger projects in a timelier manner.

We are confident that IMS will be the ideal partner to ensure that the City achieves its project goals, given our past successful work with the City, our significant regional experience, and our possession of the largest fleet of advanced pavement data collection systems in the United States.

## Project Overview

### Scope of Work

The IMS project approach for pavement condition and asset inventory projects typically follows the seven steps shown in the graphic below. In this section, we detail the specific tasks and milestones that will be required for the successful completion of this project.



IMS assigns seasoned pavement engineers as the project managers for all our projects. We believe it is imperative that the project manager have the requisite technical and domain knowledge – as well as practical project management experience – to lead the team. Our project management process is based on thorough planning, proactive management of schedules, and constant communication. The result of effective project management is higher quality with respect to project deliverables and satisfied stakeholders.

### Kickoff Meeting

IMS has standardized a project approach based upon our 38 years of pavement management experience and the subsequent lessons learned after performing hundreds of projects. Detailed conversations with our clients allow us to tailor a solution to the specific needs of an individual municipality.

A prerequisite for a successful project is an initial project meeting with the City team members and the IMS team. This early communication is critical to ensuring that we are fully aligned with the City's overall vision for this project as well as the specific data needs for the City. Through this project initiation process, we will prepare the project plan for overall implementation. The plan includes:

- Contacts and stakeholders
- Measurable tasks and milestones
- Project approach and specific data collection methods
- Allocation of resources, including personnel and equipment
- Deliverables and schedule
- Performance and schedule risks

We will ensure that the plan remains current with any further data needs. Our Project Initiation Form and GIS Setup Form are part of our process, where the outcome will include a final project plan and an

approved schedule in collaboration with the City's staff and stakeholders. This plan is established before any data collection begins. Project requirements are incorporated in the two project success documents. The project success documents ensure transparency and act as a reference point to ensure all stakeholders are accounted for and involved.

## Quality Management Plan (QMP)

Based on discussions with the City during the project initiation and kickoff meetings, IMS will develop a project-specific version of our standard QMP for this project. The plan will address the following:

### Phase 1. Project Planning – Before Data Collection

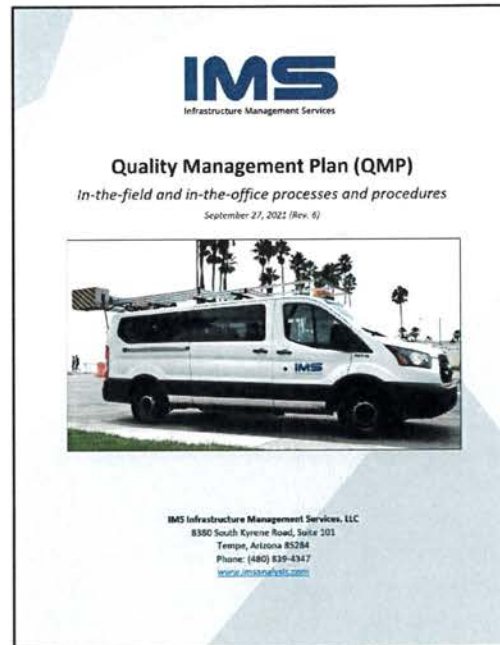
- Project team and schedule
- Equipment calibration and control sites
- Rater calibration

### Phase 2. Project Execution – During Collection & Processing

- Fast-tracked data collection, processing, and reporting
- Production data collection and processing
- Routine equipment inspection and calibration

### Phase 3. Data Delivery – Post Data Processing

- City acceptance and corrective action procedures
- Final data review
- Database delivery and technical memo



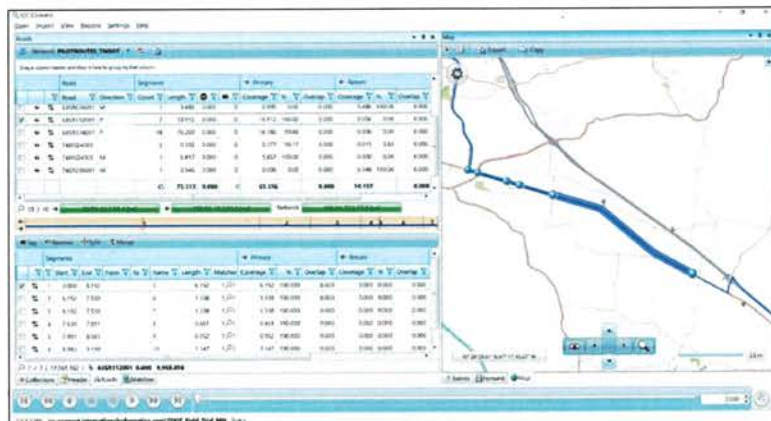
IMS' standard Quality Management Plan (QMP) document that is customized for each project.

**New to the IMS Project Workflow:** Our engineering team has worked extensively to improve the AI and data processing algorithms of the LCMS-2 technology. This has resulted in more repeatability, improved automation (quality and speed), and better data. Our stated goals are to continuously improve and build upon the tools at our disposal to deliver the best data to our clients.

## GIS Survey Mapping & Network Referencing

Data collection is unique in every jurisdiction, varying by network complexity, the mix of urban and rural roadways, type of terrain, schedule constraints, and most notably, the analysis and data delivery requirements. To facilitate a standard approach that yields deliverables tailored to our clients' needs, we developed our Unify™

Software Suite that includes Drive™ for data collection, Connect™ for data processing, and Inform™ for online visualization. This comprehensive software relies on street centerline GIS data provided by

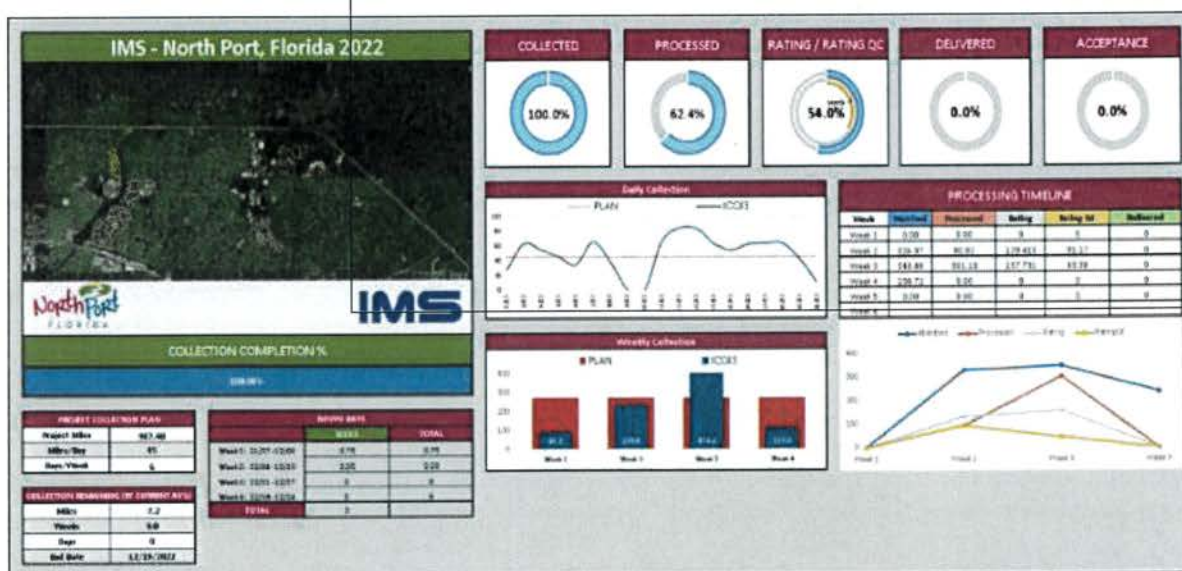


Sample road network loaded into Connect™ software

the City to build all successive processes, which include calibration, collection, processing, analysis, and reporting. The Unify™ Suite eliminates the need to use numerous scripts and transformations to produce the geodatabase and tabular deliverables.

Our technical team will review City-provided roadway network files (expected in an Esri GIS file format) that define the routes to be collected. The GIS will be reviewed against any existing pavement database street segments and roadways. If discrepancies arise, they will be noted and discussed for resolution with the City before the start of data collection. The finalized roadway network will be loaded into the Drive™ software, which defines the pavement network segmentation and attribution to be collected and delivered, minimizing routing problems and location errors.

Sample reporting dashboard showing data collection and processing progress



The GIS files will include attributes such as road section ID, street name, street type, beginning description, ending description, start reference, and end reference for each segment.

Our Unify™ software automatically extracts data from the various sensors on the data collection vehicle and combines it with location information and imagery. The Unify™ Suite workflow provides easy field data collection using the Drive™ software onboard each RST, which seamlessly transfers collected data to Connect™ for spatial analysis and processing. Unify™ software provides our clients with a perfect match between their existing GIS and the resulting condition data and allows us to configure our data deliverable in many formats that are compatible with all pavement management software, GIS, and other management systems.

Connect™ enables daily progress tracking. The field crew will upload the day's collection for office-based data analysts to match against the network for location and completeness. For larger projects, it is customary practice to divide the network into smaller, more manageable segments, such as council districts or maintenance areas.

## Pavement Condition Survey

Our two-person field crews will collect both outward facing and downward facing pavement imagery, using one of our RSTs equipped with LCMS-2 3D pavement imaging technology. Pavement surface distresses including load cracking, block cracking, rutting, raveling, reflective cracking, loss of section, bleeding, edge distress, and patched areas as well as right-of-way imagery will be collected on a segment-by-segment basis, with each distress being captured by type, extent, and severity. The data and imagery that is collected is then linked to the City's existing GIS data.

The LCMS-2 system is the highest resolution 3D pavement scanning technology available. Each LCMS-2 system relies on two downward-facing, high-resolution 3D cameras. Combined, the two 3D cameras capture continuous downward imagery for more than a standard lane width. The cameras are coupled with downward-facing lasers that provide constant and consistent illumination of the pavement surface regardless of ambient lighting conditions. The impacts of shadows from trees, buildings, or simply overcast sky conditions are eliminated by the laser illumination.



*IMS Road Surface Tester (RST) equipped with Laser Crack Measurement System (LCMS-2)  
(Note: IMS has five RST LCMS-2 equipped systems dedicated to municipal pavement management.)*

The 3D cameras can detect one-millimeter-wide cracks and full-lane-width rutting, as required by ASTM D6433, on the pavement surface at speeds up to 65 mph. Due to the versatility of the LCMS-2 technology, the automated pavement condition survey will be performed at posted speeds, and traffic control will not be necessary for the data collection effort. Pavement data collection and imagery surveys are expected to progress at a rate of between 35 and 50 miles per day for the City.

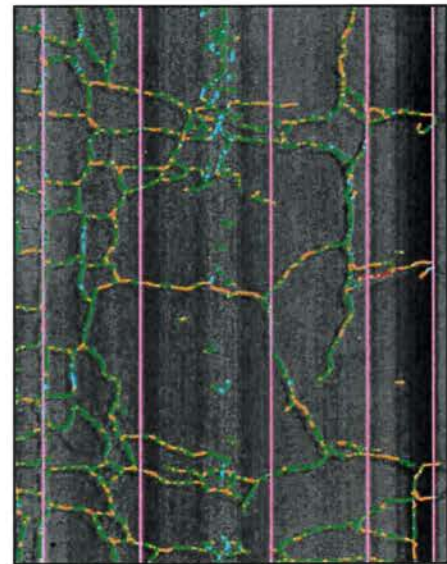
The IMS team then processes the collected data using a combination of advanced analytical tools and rigorous, manual QC/QA performed by IMS' certified Pavement Condition Index (PCI) raters to determine accurate and repeatable PCI values for each roadway segment. Furthermore, we deliver our PCI ratings and supporting data (distress information, rutting, and IRI values) in both spreadsheet and GIS formats for easy review. The data that we provide may be used immediately for decision making or be imported into any pavement management system. During data collection, IMS implements routines that are performed each day of data collection to ensure data consistency. These include:

- Equipment is calibrated, and daily reports are completed.
- All sensors are continually monitored to ensure they are receiving data within specifications.
- The Crew Chief and operator manually monitor the HD digital images, GPS, distress recorder, roughness measurements, and rutting data.
- Each street is noted on the inventory and map, as well as through GPS and assignment of the RST van number.
- Production is tracked and records of coverage are documented.
- A corrective action plan is followed, as necessary.
- All data is backed up and sent to the IMS main office for processing.

## ASTM D6433 Pavement Condition Evaluation

During and following the data collection effort, our team will evaluate all collected pavement imagery and surface measurements to arrive at Pavement Condition Index (PCI) values. This is a six-step process that includes the following tasks:

1. **RoadInspect™ Pavement Distress Detection** – Cracks, rutting, and other pavement distresses are automatically detected in both the 2D and 3D pavement images. IRI values are also calculated at this time. *(Note: The RoadInspect™ software was developed by Pavemetrics, the firm that manufactures the LCMS-2 technology.)*
2. **IMS Pavement Distress Classification** – Pavement distresses detected by the RoadInspect™ software are then classified by type (e.g., alligator cracking, bleeding, edge cracking, etc.) and severity (e.g., low, medium, or high) based on predefined criteria (e.g., ASTM D6433). IMS has created a suite of custom tools that include rule-based algorithms in conjunction with artificial intelligence to accurately classify pavement distresses.
3. **IMS PCI Calculation** – Pavement distress data is imported into IMS' PCI calculation software, and PCI values are determined for each roadway segment using a scale from zero (0) to one hundred (100) as defined in ASTM D6433.
4. **IMS Quality Control (QC)** – The IMS project manager then does a review of the data and works with the QC team lead to address any issues that may be identified.
5. **IMS Quality Assurance (QA)** – The IMS project QA Manager independently reviews the rated data and works with our Project Manager and QC team to correct any issues observed.
6. **Client QA** – The IMS Project Manager reviews the findings of the pavement condition data with City staff before beginning any analysis activities. IMS will present the pavement condition data in a Client Review Spreadsheet (CRS) along with maps illustrating pavement conditions for the client to independently review.



LCMS-2 cracking data in QC/QA review stage.

## Rutting and Roughness

IMS' LCMS-2 systems detect rutting on asphalt roadways using laser measurements of transverse profiles that are collected continuously as the vans drive at normal traffic speed. With more than 4,000 measurement points collected per transverse profile and sub-millimeter vertical accuracy, the LCMS-2 can define transverse profiles with a high level of precision, accuracy, and repeatability.

Once all the transverse profiles are collected for a roadway, IMS uses the Brazilian Method, which is an industry standard method, to determine the rut area and the deepest (or maximum) rut depth for the profiles. These values, as well as width of rut and color coding, can be seen in the LCMS-2 laser image to the right. Red represents high severity rutting, while orange represents moderate severity rutting. The severities are determined based on maximum rut depth thresholds that are specified in ASTM D6433.

Pavement roughness is evaluated by measuring the accumulated difference in the vertical displacement of a road surface, independent of chassis response, over a prescribed road length (longitudinal profile). This roughness is typically reported via the International Roughness Index (IRI). IRI data is calculated in real time from continuous longitudinal profile data collected by the LCMS-2's 3D profile device. To determine the road profile, data is simultaneously obtained from three devices: a pulse transducer-based distance-measuring instrument (DMI), high-speed 3D laser sensors operating at 112 MHz, and an accelerometer in compliance with ASTM E 950. The LCMS-2 unit conforms to a Class I profiling device, and it can also "pause" over non-valid roadway sections such as localized maintenance activities, railroad crossings, speed bumps, and brick inlays and not affect the IRI value.

## Quality Control and Quality Assurance

IMS has developed a unique approach to pavement condition assessments by coupling manual review of distress data with automated algorithms. This more rigorous QC/QA process ensures that the automated distress detection and classification algorithms that we use work correctly. Our Pavement Engineering team fully understands the capabilities and limitations of the state-of-the-art LCMS-2 technologies and sophisticated algorithms that we employ, and our QC/QA steps are extremely important in ensuring the success of the project.

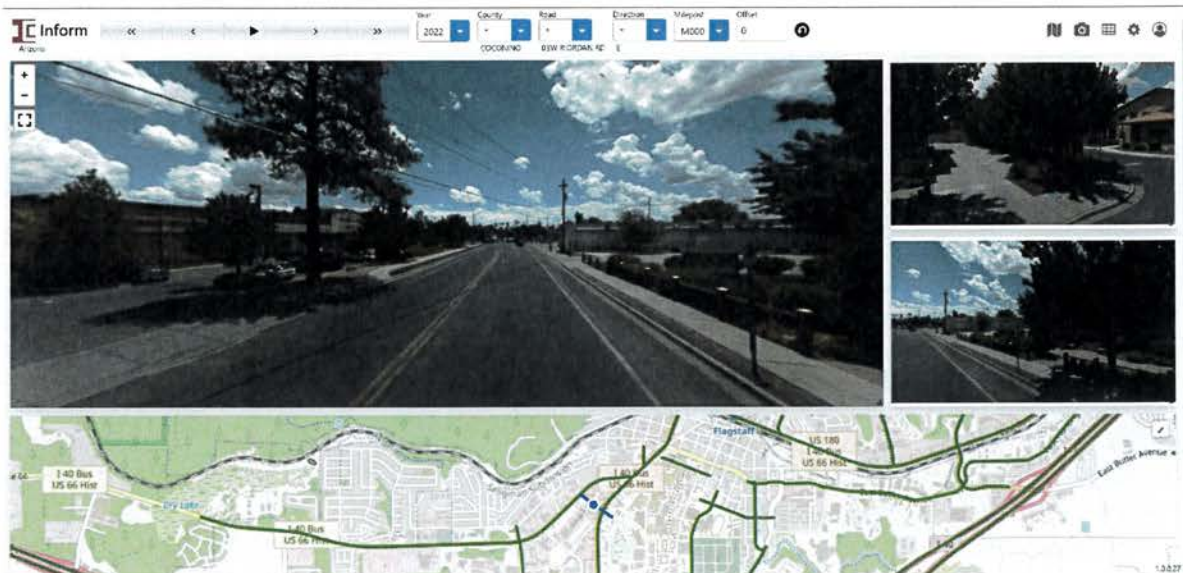
The IMS QC/QA process is comprehensive and makes use of field observations, automated data processing tools, manual data review by our QC team, independent review by our QA manager, and lastly, final review by the City. There are QC/QA checks at each stage of the project to ensure data quality before the data is moved into the next steps.

Machine learning and artificial intelligence have made leaps and bounds in speeding up distress identification. And when supplemented with trained pavement raters, field staff, and expert engineers, they establish high data confidence and integrity. The final quality assurance performed by City personnel will ensure that the City has confidence in and takes ownership of the condition data.



*New QA Tool! IMS QC/QA interface for manually reviewing automated distress detection and classification results.*

Data collection is unique in every jurisdiction. To facilitate a standard approach that yields deliverables tailored to our clients' needs, **we developed our Unify™ Software Suite that includes Drive™ for data collection, Connect™ for data processing, and Inform™ for online visualization.** Our comprehensive software suite relies on street centerline GIS data provided by the City to build all successive processes, which include calibration, collection, processing, analysis, and reporting.



- Play forward and reverse; step by image
- Easy search using map
- Drop-down lookup using any locators like District, City, Route, Direction, Milepost, etc.
- Go back in time: multiple cycles of data
- Panoramic 360-degree image view with pan/tilt/zoom controls
- U-turn button
- Tabular data
- Detail and summary charts

Year 1 from project completion is included; subsequent years (if desired will have a hosting+ fee.

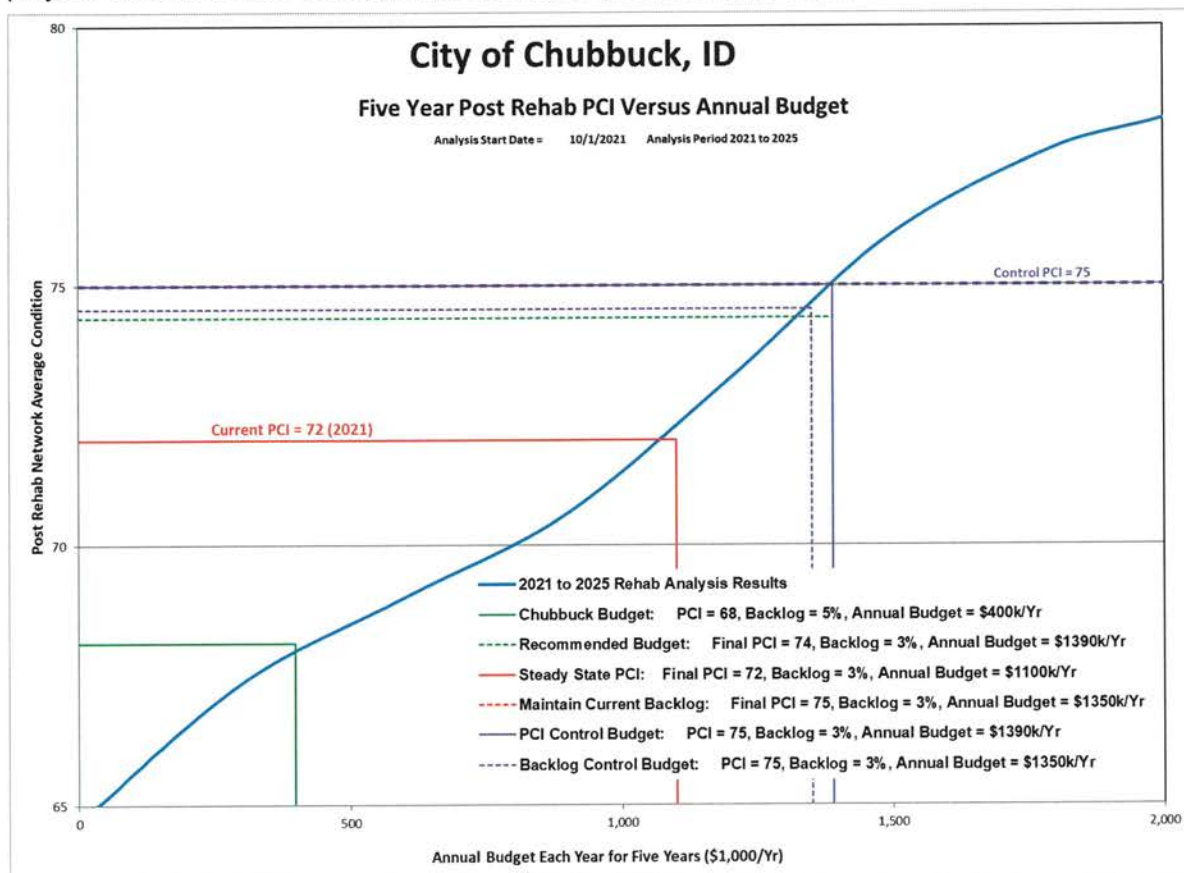
## Optional Lucity Analysis for the 2025 Project

Once the QC/QA process has been completed, our project team will deliver a Client Review Spreadsheet (CRS). This spreadsheet includes the pavement inventory, life-cycle cost estimates, and the familiar graphs and charts to understand the health of the network. This information will provide quality data, based on sound engineering principles, and realistic budgets for the City staff to utilize in their project selections and internal analyses.

Once the City reviews the PCI data, the Project Manager will set up a meeting with City staff to discuss the analysis requirements and identify additional budget scenarios to prepare. At a minimum, the following pavement management scenarios have been recommended, based on the simplified approach to this project:

- Annual funding required to maintain existing pavement conditions.
- Funding required to maintain an average PCI of 65 over the next 5 years.
- Funding allocation for asphalt overlay and/or surface treatments to maintain an average PCI of 70 over the next 5 years.
- PCI for the network if current funding levels remain the same for the next 5 years.
- Recommended pavement strategies for the various budget scenarios investigated.

We look forward to collaborating with the City staff to ensure that the pavement management program addresses the needs and priorities of the stakeholders involved. Assuming the City will request utilizing the **Lucity software**, similar to what the City of Chubbuck, ID – 2021-22 (see graph, below) has used for their multi-year analysis. As with most projects, we plan to run budget scenarios and develop paving projects with our streamlined approach utilizing the referenced IMS solution.



## Capacity to Perform Work

IMS employs 49 full-time staff, including 8 pavement engineers – five of whom hold PhD degrees in pavement engineering, 10 GIS analysts and technicians, nine independently, OCTA certified ASTM D6433 pavement raters, and 15 trained and experienced field technicians. Together, we complete over 100 pavement and asset management projects annually. We stand second to none in our ability to establish cost-effective pavement management programs for large and small agencies alike, and our team has earned a reputation for excellence over the course of thousands of projects for municipal clients across the United States. Our multi-disciplinary team, led by pavement engineers, has the experience and expertise to assist our clients with full-service pavement and asset management services, software needs assessments, and custom implementations.

Key personnel identified for the project will be assigned to the City for the duration of the project. Our team is accustomed to working on multiple projects at a time, and we adjust resources on a routine basis to ensure that we have the staff and equipment required to meet project milestones.

## Proposed Project Schedule

This is a representation of our proposed schedule for the 2024 City of Pocatello project, which reflects our improved project workflow. The field surveys are expected to progress at approximately 35 miles per day, and account for an estimated 2 weeks of testing.

| Proposed Schedule of a 5-Month Project                                                            |                                                                                                             |                       |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------|
| Assumes a NTP is issued <b>March 31<sup>st</sup>, 2025</b> – Data Collection is Weather Dependent |                                                                                                             |                       |
| Task                                                                                              | Description                                                                                                 | Estimated Milestone   |
| 1                                                                                                 | Executed Agreement/NTP                                                                                      | If by late-March 2024 |
| 2                                                                                                 | GIS Acquisition and Validation                                                                              | April 2025            |
| 3                                                                                                 | Kick-off with Review Map Iterations and Approval                                                            | April 2025            |
| 4                                                                                                 | RST LCMS-2 Pavement Surveys ( <b>344 Test-Miles</b> ):<br>* 6-week after GIS verified and Executed Contract | * May 2025            |
| 8                                                                                                 | QC/QA for Data Collected                                                                                    | May-July. 2025        |
| 6                                                                                                 | Deliver Pavement Condition Data/Client Review Spreadsheet                                                   | August 2025           |
| 7                                                                                                 | Pavement Condition Data Load to Lucity                                                                      | August 2025           |
| Opt.                                                                                              | Draft Analysis Development & Client Comments                                                                | TBD                   |
| Opt.                                                                                              | Final Analysis, Draft & Written Report                                                                      | TBD                   |
| Opt.                                                                                              | Right-of-Way Assets, IMS Dashboard, Council Presentation                                                    | TBD                   |

## Fee Proposal

The detailed budget presented on the next page is based on the IMS work plan and deliverables. It represents a realistic budget to complete the work, and we are confident we can maintain an on-time, on-budget assignment. IMS is proposing to survey all City-maintained major roads in both directions and all locals in one direction to ensure a sufficient representative sample. Please review our [assumptions](#) below and the optional services on the following page:

| Budgetary Estimate                                            |      |            |                     |       |                    |
|---------------------------------------------------------------|------|------------|---------------------|-------|--------------------|
| Name                                                          | Qty. | Units      | Price               | Disc. | Total Price        |
| <b>Project Setup and Kickoff</b>                              | 1    | Lump Sum   | \$2,500.00          |       | <b>\$2,500.00</b>  |
| <b>GIS Review</b>                                             | 267  | Test Miles | \$10.00             |       | <b>\$2,670.00</b>  |
| <b>GIS Survey Map Development</b>                             | 267  | Test Miles | \$5.00              |       | <b>\$1,335.00</b>  |
| <b>Mobilization/Calibration</b>                               | 1    | Lump Sum   | \$3,000.00          |       | <b>\$3,000.00</b>  |
| <b>Field Data Collection - IrisPRO Pave</b>                   | 344  | Test Miles | \$105.00            |       | <b>\$36,120.00</b> |
| <b>GIS Review</b>                                             | 267  | Test Miles | \$10.00             |       | <b>\$2,670.00</b>  |
| <b>Inform Web Hosting (first year included)</b>               | 344  | Lump Sum   | (\$2k+) \$1.20      | 100%  | <b>\$0.00</b>      |
| <b>Data Processing: Modified ASTM D6433 (Including QC/QA)</b> | 344  | Test Miles | \$20.00             |       | <b>\$6,880.00</b>  |
| <b>PMS Data Load to Lucity</b>                                | 1    | Lump Sum   | \$3,500.00          |       | <b>\$3,500.00</b>  |
| <b>Project Management</b>                                     | 1    | Test Miles | \$2,790.00          |       | <b>\$2,790.00</b>  |
|                                                               |      |            | <b>Total Price:</b> |       | <b>\$58,795.00</b> |

### Optional Lucity Analysis & Report

|    |                                                         |   |                                     |            |                   |
|----|---------------------------------------------------------|---|-------------------------------------|------------|-------------------|
| L1 | Lucity Analysis of Pavement & 5-Year Budget Development | 1 | LS                                  | \$5,500.00 | \$5,500.00        |
| L2 | Standard IMS Draft Written Report                       | 1 | LS                                  | \$2,500.00 | \$2,500.00        |
| a. | Standard IMS Final Written Report                       | 1 | LS                                  | \$500.00   | \$500.00          |
|    |                                                         |   | <b>Lucity Analysis &amp; Report</b> |            | <b>\$8,500.00</b> |

## Assumptions

- Test miles are calculated based on the number of centerline miles and whether they will require one pass collection, or two pass collection based the number of lanes. We have assumed 2-pass collection for all arterial, collector, and 1-pass of local roadways.
- Prior to kickoff meeting, agency will provide IMS with:
  - Primary POC, secondary POC and other stakeholder contact information.
  - Preliminary centerline GIS (i.e., geodatabase).
- Data collection relies heavily on up to date and topologically sound GIS centerline information.
- Pavement data collection is dependent on the agency's approval of the GIS maps representing the street inventory to be surveyed.
- Pavement data collection is weather dependent and assumes one mobilization to the area. Data cannot be collected if the pavement is wet or if the temperatures are below 32 F or above 95 F.
- Agency will actively participate in submission review and provide comments within a period of time that the agency and IMS will agree to during the kickoff meeting. The current proposed schedule assumes a two-week review period for draft deliverable submissions.

The following tasks highlights several value-added services that IMS could provide in conjunction with the pavement condition assessment:

**Pocatello, ID: IMS Additional Optional Services**  
**IMS Pavement Management Assessment & Analysis**

**Value-Added Service Activities:**

|    |                                                                                |         |     |         |                          |                    |
|----|--------------------------------------------------------------------------------|---------|-----|---------|--------------------------|--------------------|
| 10 | Annual Fee: Downward Images in Inform Continuous Intervals                     | Year 2+ | 1   | LS/YR   | \$2,000.00               | \$2,000.00         |
|    | a. Data Fee for Hosting (Web Based; No Crack Display)                          | Year 2+ | 344 | T-Mi/YR | \$1.20                   | \$412.80           |
|    |                                                                                |         |     |         |                          | <b>\$2,412.80</b>  |
| 10 | FastFWD (Deflection) Mobilization                                              |         | 1   | LS      | \$2,500.00               | \$2,500.00         |
|    | a. Deflection Testing (55.5 CL Mi. 2-pass 72.5 CL Mi. Testing at 500' spacing) |         | 155 | T-Mi    | \$150.00                 | \$23,250.00        |
|    | b. Data Analysis of Deflection Testing                                         |         | 1   | LS      | \$2,250.00               | \$2,250.00         |
|    | c. Deflection Traffic Control (provided by City, IMS Est. 0-64 Hrs.)           |         | 0   | HR      | \$135.00                 | \$0.00             |
|    |                                                                                |         |     |         |                          | <b>\$28,000.00</b> |
| 11 | Right of Way Assets (GPS & Camera Config.; Select Once w/Any Asset Below)      |         | 344 | T-Mi    | \$5.00                   | \$1,720.00         |
|    | a. Sidewalk Database Development                                               |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | b. Curb Ramp Database Development                                              |         | 344 | T-Mi    | \$30.00                  | \$10,320.00        |
|    | c. Sign & Support Database Development                                         |         | 344 | T-Mi    | \$75.00                  | \$25,800.00        |
|    | d. Pavement Markings & Striping Database Development                           |         | 344 | T-Mi    | \$50.00                  | \$17,200.00        |
|    | e. Curb & Gutter Database Development                                          |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | f. Traffic Signals/ Flashers. Controllers Database Development                 |         | 344 | T-Mi    | \$25.00                  | \$8,600.00         |
|    | g. Street Lights Database Development                                          |         | 344 | T-Mi    | \$45.00                  | \$15,480.00        |
|    | h. Drop Inlets Database Development                                            |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | i. Drivepads Database Development                                              |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | j. Bridges Database Development                                                |         | 344 | T-Mi    | \$25.00                  | \$8,600.00         |
|    | k. Street Furniture Database Development                                       |         | 344 | T-Mi    | \$25.00                  | \$8,600.00         |
|    | l. Cattle Guards Database Development                                          |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | m. Speed Humps Database Development                                            |         | 344 | T-Mi    | \$25.00                  | \$8,600.00         |
|    | n. Guardrails & Roadside Pedestrian Fence Database Development                 |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | o. Catch Basins/ Drainage Inlets Database Development                          |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | p. Culverts & Ditches Database Development                                     |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | q. Cabinets Database Development                                               |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | r. Utility Poles Database Development                                          |         | 344 | T-Mi    | \$45.00                  | \$15,480.00        |
|    | s. Fire Hydrants Database Development                                          |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | t. Medians Database Development                                                |         | 344 | T-Mi    | \$22.00                  | \$7,568.00         |
|    | u. Valves Database Development                                                 |         | 344 | T-Mi    | \$32.00                  | \$11,008.00        |
|    | v. Manhole Covers Database Development                                         |         | 344 | T-Mi    | \$25.00                  | \$8,600.00         |
|    | w. Trees Database Development                                                  |         | 344 | T-Mi    | \$55.00                  | \$18,920.00        |
| 12 | IMS Web-Story Map of County's Pavement Condition (for External Portal)         |         | 1   | EA      | \$7,500.00               | \$7,500.00         |
|    | a. Years 2 & 3 Annual Updates of Rehabs; Update                                |         | 3   | EA      | \$2,000.00               | \$6,000.00         |
| 13 | IMS Web-Dashboard of County's Pavement Condition (for Internal Staff)          |         | 1   | EA      | \$5,500.00               | \$5,500.00         |
|    | a. Years 2 & 3 Annual Updates of Rehabs; Update                                |         | 3   | EA      | \$2,000.00               | \$6,000.00         |
| 14 | City Council Presentation - Virtual                                            |         | 1   | EA      | \$3,500.00               | \$3,500.00         |
|    | a. Add for an Onsite City Council Presentation                                 |         | 1   | EA      | \$2,000.00               | \$2,000.00         |
| 15 | Non-Standard Written Report (Min. 8-Hours; beyond at Hourly Rate)              |         | 8   | HR      | \$150.00                 | \$1,200.00         |
| 16 | Additional or Specialty Maps for Reporting (Beyond Typical 2 Sets)             |         | 1   | EA      | \$175.00                 | \$175.00           |
| 17 | Additional Hard Copies of the Final Report (>3 Sets Included)                  |         | 1   | EA      | \$200.00                 | \$200.00           |
| 18 | Functional Class Review                                                        |         | 16  | HR      | \$175.00                 | \$2,800.00         |
| 19 | GIS Clean-up Services                                                          |         | 6   | HR      | \$175.00                 | \$1,050.00         |
| 20 | Sidewalk-Surface Tester (SST) Mob., Survey & Analysis: Sidewalks               |         |     |         | (See Separate Submittal) |                    |
| 21 | Lidar-Mounted Unit Mob., Survey & ADA Compliance Data: ADA Curb Ramps          |         |     |         | (See Separate Submittal) |                    |
| 21 | Software Evaluation Needs Assessment                                           |         | 1   | LS      | \$1,750.00               | \$1,750.00         |
| 22 | Convert Street Layer Polygons to Polygons                                      |         | 344 | T-Mi    | \$6.00                   | \$2,064.00         |
| 23 | Convert Street Layer Polygons to Polygons                                      |         | 344 | T-Mi    | \$20.00                  | \$6,880.00         |

Thank you for your continued interest in working with the IMS team. We value developing and maintaining long-term partnerships with our clients. We will strive to remain an asset and extension of the City of Pocatello staff and team. If any questions arise, please do not hesitate to contact me at (480) 741-1847 or [jtoure@imsanalysis.com](mailto:jtoure@imsanalysis.com).

**IMS Infrastructure Management Services, LP**

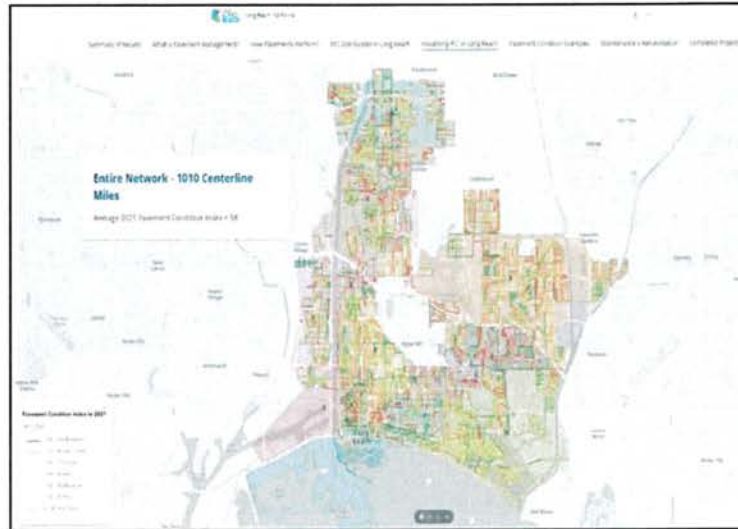


**Jim Tourek, Client Services Manager**

Pgs. 13 – 14 highlighted some additional services captured above

## Optional: Esri Story Map

IMS is an Esri Authorized Business Partner and an early adopter of Esri technologies. The partnership between IMS and Esri makes unparalleled industry and subject matter expertise available to our clients. Our team of GIS experts are focused on building easy-to-use and easy-to-maintain web-based, geocentric story maps and dashboards to serve not only our clients, but also their constituents. These tools provide a dynamic way to present complicated information visually. Many agencies are already using Esri software and ArcGIS Online, and we look for ways to leverage that existing licensing, subscriptions, and infrastructure to elevate the data we are delivering. We have built story maps for clients to help explain to citizens how a pavement survey works, how the analysis is performed, and how the maintenance and rehabilitation budgets are distributed to maximize the use of scarce funding. In addition to the story maps, we have also deployed agency-focused dashboards to enable managers to easily review the planned work, existing and forecasted conditions, and funding impacts on a map.



*IMS interactive Esri GIS story map: City of Long Beach, CA*

### Project Highlight: Long Beach, CA

Link to live story map: [Long Beach Story Map](#)

IMS is working with the City of Long Beach, CA to web-enable their pavement management plan to engage citizens in the pavement management process. To facilitate this activity, IMS has authored and deployed an Esri Story Map that shares complex engineering information in an easy to understand public-facing framework. A second, password protected configuration as a dashboard exists that allows City engineers to access additional information and data.

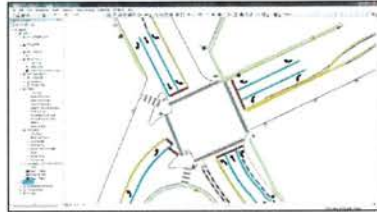
## Deliverables

The following products can be delivered to the City:

- Report summarizing the findings of the pavement condition survey
- Client Review Spreadsheet (CRS) with inventory, charts, and graphs
- Esri geodatabase containing updated pavement information including distress information
- Signs geodatabase and multiple views of imagery along with a viewing tool.

## Additional Value-Added Services

On the following page, the table presents additional services that the IMS Team can provide for this project. We have performed these services for agencies in Arizona and across the United States to assist agencies in better managing their pavement, sidewalk, and asset inventories.

| Technology                                         | Value Added                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Photo                                                                                                                                                                      |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Right of Way Asset Collection</b>               | Imagery collected during the RST survey can be used to build ROW asset inventories and condition assessments for signs, signposts, curb and gutter, sidewalks, ramps, striping, and many other assets. A subconsultant will be added to the team if this is selected.                                                                                                                                                                                                     |                                                                                          |
| <b>Story Map and/ or Dashboard</b>                 | IMS is an Esri Authorized Business Partner and an early adopter of Esri technologies. The partnership between IMS and Esri makes unparalleled industry and subject matter expertise available to our clients. Our team of GIS experts are focused on building easy-to-use and easy-to-maintain web-based, geocentric story maps and dashboards to serve not only our clients, but also their constituents. Link to a live story map: <a href="#">Long Beach Story Map</a> |  <p>IMS interactive Esri GIS story map:</p>                                              |
| <b>Fast Falling Weight Deflectometer (FastFWD)</b> | Deployed for measuring pavement structural capacity and pavement layer stiffness values. This information is combined with pavement distress data to better predict future performance and fine-tune rehab activities. This is frequently used to determine when overlays are no longer effective, and reconstruction is needed.                                                                                                                                          |                                                                                         |
| <b>Sidewalk Surface Tester (SST)</b>               | Deployed 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 provide agencies with comprehensive sidewalk condition data that may be used in combination with Lidar sidewalk ramp data to develop detailed ADA transition plans.                                                                                                                |                                                                                        |
| <b>Mobile LiDAR for Sidewalk Ramp Assessments</b>  | Deployed to supplement right-of-way inventory surveys by creating a three-dimensional point cloud from which measurements can be extracted. The integrated Ladybug 5+ camera captures high-resolution spherical imagery at defined intervals.                                                                                                                                                                                                                             |   |