Michael Baker
INTERNATIONAL

Anatomy of a Network Survey Vehicle (NSV)

Pavement inventory systems are comprised of numerous, independent remote sensing systems which work in tandem to capture pavement and roadway features that reside within the public Rights of Way (ROW).



- **Laser Crack Measurement System (LCMS)** – 3D pavement imaging for automated detection of pavement distresses, such as alligator cracking, raveling, edge cracking, weathering, block cracking, macrotexture, pavement ride quality, grade, cross slope, curvature, and lane width. The LCMS is the foundation for compilation of the **Pavement Condition Index (PCI)** rating.
- **High Definition (HD) Digital Imaging System** – Four (4) configurable Basler ACE area-scan camera imaging system (front left, front middle, front right, rear), capable of capturing frames every 26' (configurable), to a resolution of 3840 x 2160. Each image is georeferenced and adjusted for scale measurement to enable geolocated right-of-way asset extraction with sub-meter accuracy.
- **Spherical Camera Array** (optional) – High resolution spherical/panoramic imaging is available through the integrated Mosaic 51 camera system. The camera system is comprised of an array of 6 independent, 12-megapixel cameras that generate an astonishing 72-megapixel spherical image to support ultra high-resolution viewing of the ROW.
- **Intertial Profiler System** – A high speed inertial profiler (i.e. rut bar) meeting ASTM E950 Class 1 profiler specifications for ride quality and compilation of the **International Roughness Index**

Michael Baker International, Inc.
310 New Pointe Drive
Ridgeland, MS 39157

(IRI) measurement. Our Class 1 profiling system is certified annual at the National Center for Asphalt Technology (NCAT) in accordance with AASHTO R-56.

- **Inertial Measurement Unit (IMU)** – A GNSS spatial positioning system that supports GPS and GLOSNASS with DGPS capability for higher absolute accuracy via post-processing accuracy.



Michael Baker International, Inc.
310 New Pointe Drive
Ridgeland, MS 39157