



The services of Eisenbraun & Associates feature the technology of the Leica ScanStation 2 Laser Scanner. The benefit to the client is that data can be collected in an ultra-fast, highly accurate manner. The spatial data is used to create realistic, easy-to-understand 3D models of any object or space.

**High speed laser** measures a structure exactly as it exists, capturing data without making physical measurements.

**Millions of survey points** are now captured in less time than it takes for 100s of points using conventional equipment.

**Detailed 3D point cloud** created from multiple scans from different vantage points of a site; then used for making traditional CAD drawings, 3D CAD models or virtual fly-through animations.

**High Resolution Photography** also obtained by the scanning system: full dome, 360-degree images

**For indoor and outdoor use**, in all light levels – even total darkness

Eisenbraun & Associates is a regional surveying and engineering firm with a history of being a leader in early adoption of innovative technology. Established in 1976, the firm's owners and personnel are committed to excellence in the profession by providing quality technical service to each client.



#### **Daniel Eisenbraun**

is President of Eisenbraun & Associates and has provided leadership to the firm since its inception. A graduate of the SD School of Mines & Technology in Civil Engineering, he is a Licensed Professional Engineer in SD, NE, and MN and a Licensed Professional Surveyor in SD, MO, CO, and MN.



#### **Brett Kennedy**

is the Director of Surveying Services for the firm. He is a graduate of Southeast Technical Institute in Milford, NE, and is a Licensed Professional Surveyor in SD, ND, NE, IA, CO, MN, and KS. He is also a Certified Federal Surveyor.

*Eisenbraun & Associates*  
*Professional Engineers & Surveyors*

High Definition Surveying  
using 3D Laser Scanning

*Eisenbraun & Associates*  
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**Innovative solutions ♦ Long-term value**

**HISTORIC DOCUMENTATION**

Fast, Comprehensive,  
Accurate & Reliable data

# HISTORIC DOCUMENTATION

When documenting historic structures, you can depend on Eisenbraun and Associate's high definition surveying technology for the ultimate in comprehensive data.



## HOW IT WORKS

Historians, researchers, preservationists, architects and historical archeologists benefit from the permanent documentation of historic buildings and landmarks. By understanding the past, our present is enriched – and the future can be planned for properly.

Skilled surveyors from Eisenbraun & Associates use high-end technology to capture millions of survey points at a site. Every detail in the scanner's field of view will be recorded for immediate view as well as for future access.

In addition to providing measurements, data collected will include high resolution, full-dome photography. With application software a user can rotate the 3D images to any perspective, zoom in on details of the building, and measure angles and distances between any of the objects.

Scans will be taken from different vantage points of the structure. These different scans then can be expertly combined by our engineers into the type of documentation that will best suit you, for your specific type of use and audience.



Entire buildings or small interior rooms can be scanned with equal effectiveness using the high definition 3D laser scanner. Structural intricacies or deformations can be documented exceptionally well.



Fast, accurate measurement data is provided by the Leica ScanStation 2 laser scanner. The instrument works indoors and outside, in all light levels – even total darkness.



Every measurement and detail of this building's early 20th century Italian marble staircase was captured. What looks like a photo is actually a point cloud consisting of millions of survey points that are so dense that they take on the appearance of a photo.



Surveying and documenting historic buildings is a critical part of architectural historic preservation!

The grandiose Mead Building, found on the campus of the South Dakota Human Services Center, is an example of the practical use of high definition 3D laser scanning. The National Trust for Historic Preservation placed this building on its 2009 list of the 11 most endangered historic places in America. The entire building – inside and out – was scanned as a means of documenting the structure's viability for future renovation. Over 70 million survey points were captured over several days time. The surveying was done in a fraction of the time that traditional surveying would take.

Using the scanned data, the user can experience a virtual tour of the building without ever stepping foot on the property. The fly-through animations create a graphically stunning record of every detail of the property. The point cloud data can also be used to create conventional 2 dimensional drawings or 3D CAD models.

*Eisenbraun & Associates*  
Professional Engineers & Surveyors