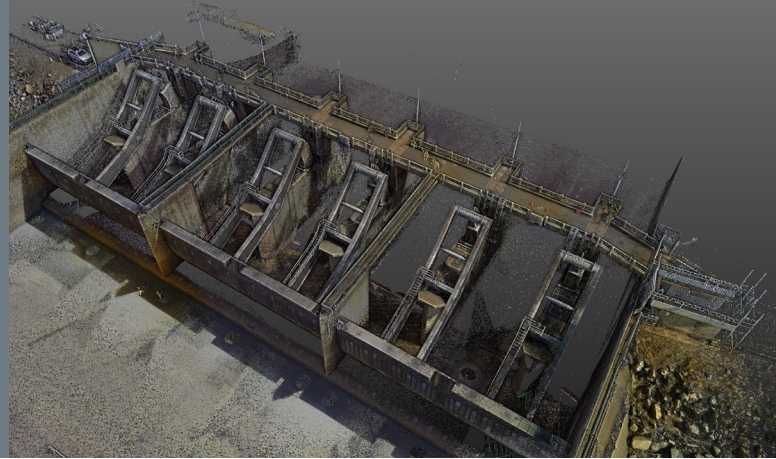


# 3D LASER SCANNING

## INFORMATION SHEET



## OVERVIEW

3D Laser Scanning (LiDAR) has quickly become the preferred method of retrieving fast, accurate and cost-effective spatial information from any site, offering a level of detail not previously achieved with traditional site measure and surveys.

Using the latest 3D laser scanning equipment and software, millions of 3D points can be captured to form spatially accurate visual/point cloud models of any environment, structure or object. These models can be delivered as point cloud or further developed into 3D CAD models by directly importing into most CAD-based software systems. This non-contact measurement from a distance provides the ideal solution to capture 3D data for large-scale, complex, or hostile environments, or where direct access is not feasible.



## HOW DOES IT WORK?

Terrestrial laser scanning (TLS) incorporates survey grade LIDAR systems on a stationary mount. LiDAR (Light Detection and Ranging) involves projecting fine lines of laser light and measuring their reflections with a sensor that analyses the return time and wavelength of the laser to determine the exact position of each point it captures of the object or environment.

This system utilises target and cloud to cloud registration to produce survey grade point clouds, typically accurate to 1-5mm dependent on method and equipment used. 3D Scanning also incorporates high-resolution imagery captured simultaneously during scanning to allow point cloud colourisation to give end users a better perspective and accurate representation of the site.





## APPLICATIONS FOR 3D SCANNING:

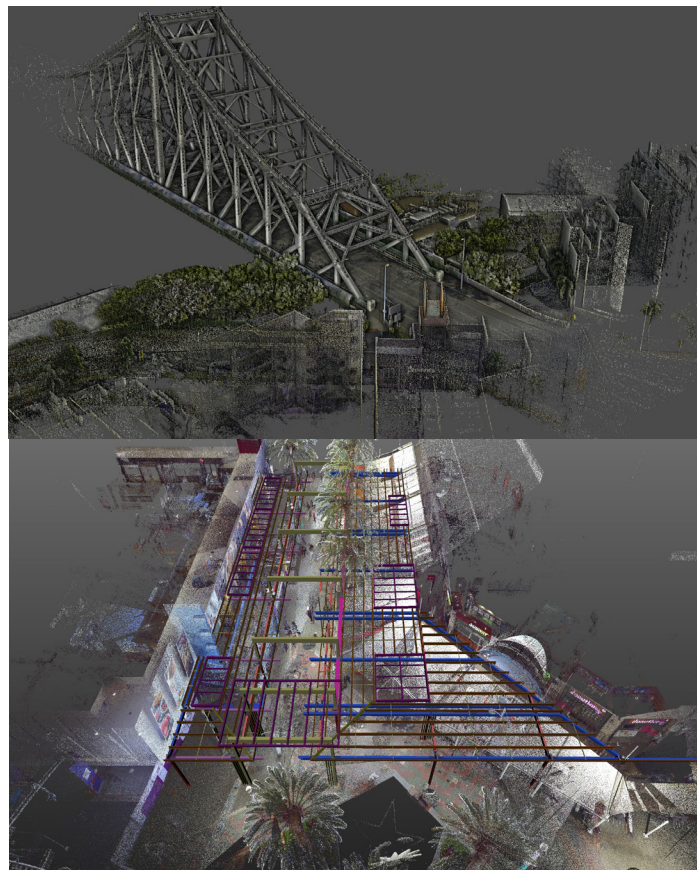
- Architecture and Heritage Façade Surveys
- Corridor Surveys for Road
- Rail, Tunnels and Infrastructure
- As-Constructed Surveys
- Archaeology and Cultural Heritage Surveys
- Monitoring Surveys
- Volume Surveys
- MEP/Plant Surveys
- Building Infrastructure Management (BIM).

## BENEFITS:

- De-risk your projects – offer project confidence
- Efficiency – Full site measure in fragment of the time it takes using traditional methods
- Detail & Accuracy - Comprehensive & reliable measurements captured from the start
- Virtually access sites from anywhere – reduce site visits
- Take precision measurements from within the scan data
- Streamline project collaboration & reduce miscommunication
- Reduce project time, costs and waste by removing human error

Point clouds can be imported into a range of CAD-based software or easily accessed through Holovision's web-based viewing platform; some benefits of this web-based platform include:

- Share and distribute the scan data with whoever via the cloud with no compromise on accuracy
- View, annotate & measure the laser scan data from anywhere at any time in any web browser
- Compare as-built scan data with the design intent (3D BIM) during construction
- Distribute the scan data via the cloud for Scan-to-BIM
- Creates a single source of information for improved collaborative work on projects.
- Extract high-quality 360 imagery
- View the data using virtual reality for a more immersive experience



Phone :  
1300 HOLOVISION



Email :  
[info@holovision.com.au](mailto:info@holovision.com.au)



Web :  
[holovision.com.au](http://holovision.com.au)