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VEKTA (formerly Survey21) sets the benchmark in providing Surveying and Spatial Information solutions to its clients.

It operates in the broad Survey, Mapping and Spatial Information area and is a leader in performing surveys using new 3D Terrestrial Laser Scanning technologies.

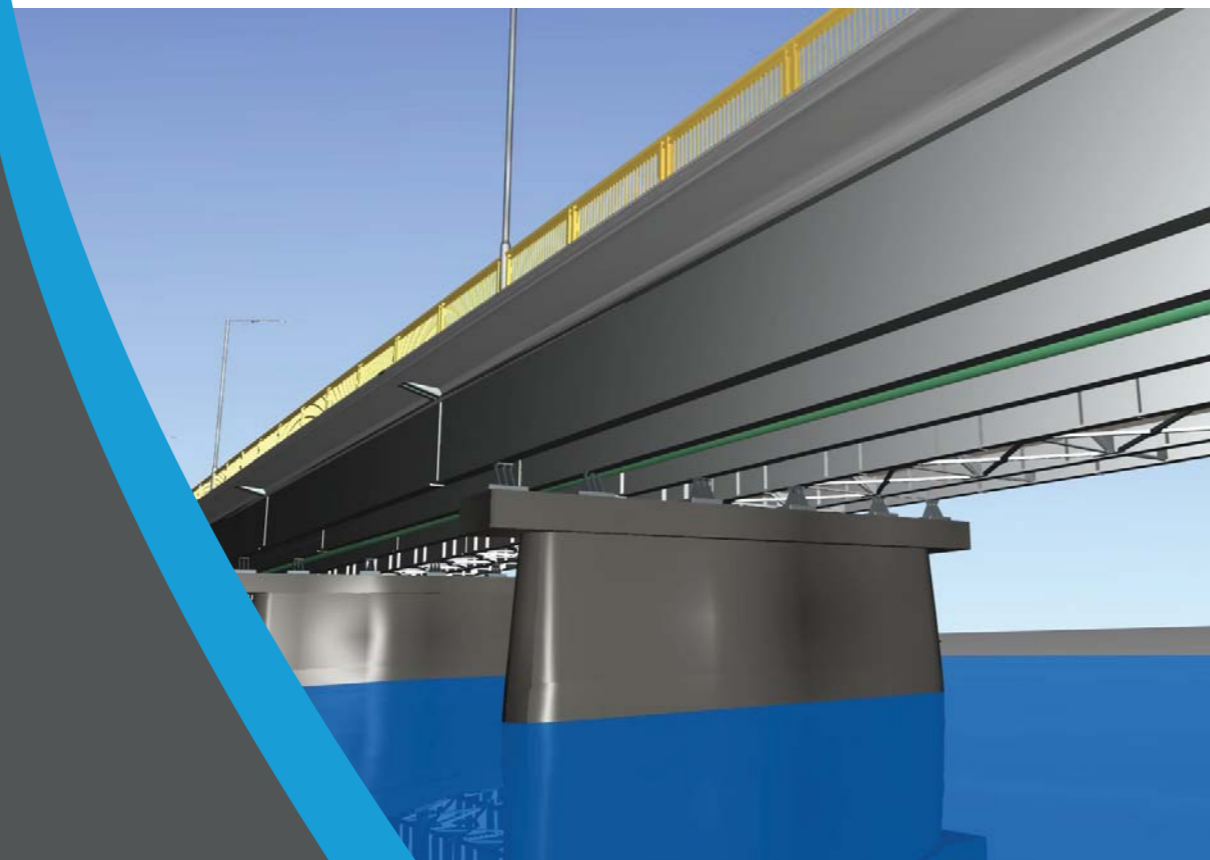
With the stability of a firm that has been in operation for over 60 years and the flexibility of national resources through 11 Australian Offices, VEKTA has the dynamics of a company on the move.

VEKTA specialises in Land, Engineering and Mining/Infrastructure Surveying; as well as Aerial Photography, Airborne Laser Scanning, Photogrammetric Mapping and Digital Ortho Photo services.

## terrestrial scanning to 3d moorabool st bridge

Moorabool St Bridge walkway Project located in Geelong, Victoria involved the replacement of the existing access walkway beneath the Moorabool St Bridge and to provide safe access for bridge maintenance works.

VEKTA were engaged by works contractors for complete 3D acquisition of the existing bridge structure using Terrestrial Laser Scanning technology. This was to aid the design works for interfacing with the bridge as required.



Laser Scanning is the technique of collecting the data of a given area by taking millions of distance measurements from an instrument and resulting in a three-dimensional photograph of the area.

Data is collected through horizontal and vertical swathes of user-defined intensity. A sample of the modelling process can be found from another project below; but incorporates accurate 3D data being converted into meaningful 3D lines, 3D ACIS solids and Polyface meshes for use by Engineers, Architects and Project Managers on redevelopment and construction projects.

The results from Laser Scan data can be used in AutoCAD and other Autodesk products such as Revit but most the effective software package for Inspection, Viewing and QA/Verification by VEKTA and other Consultants is with Autodesk Navisworks.

This packaging Laser Scan data into Autodesk Navisworks allows us to compare our modelled information with raw laser scanning data and view it in several different ways – the most effective being the walk-through mode.

From this data, plan and elevation drawing sets can be prepared for contract use if required using AutoCAD – particularly the “xclip” command to isolate and hatch areas for better visualisations.

