BENNETT BENNETT

SPATIAL SERVICES

CAPABILITY
STATEMENT

DETAIL/FEATURE SURVEYS

Detail or feature surveys are foundational services in surveying, providing comprehensive and precise information about site conditions and natural and/or built features. These surveys map out essential details of a site, including buildings, structures, vegetation, utilities, terrain, and boundaries, creating an accurate and up-to-date representation of the land.

Our experienced surveyors use the latest surveying equipment and techniques - including total stations, GNSS, and 3D laser scanning - to collect accurate data efficiently and effectively.

We understand that each project is unique, which is why we customise our detail and feature surveys to match the specifications and requirements of each client. Our final survey deliverables provide a complete view of the site, supporting well-informed decisions and seamless project progression.

PROJECT HIGHLIGHT

ALBION STATION CLIENT: TMR | TRANSLINK

The Albion Station Upgrade is a Queensland Government project focused on enhancing the existing Albion railway station, improving accessibility, increasing capacity, and providing better connections for commuters in Brisbane's northern suburbs.

SCAN TO BIM

Scan to BIM is a 3D mapping technology involving laser scanning and reverse engineering a BIM from Point Cloud data.

Terrestrial laser scanning (TLS) is a powerful, ground-based surveying technique that captures high-resolution 3D data of objects, structures, and landscapes with high accuracy. Using advanced laser technology, TLS systems emit pulses reflecting off surfaces to create a dense “point cloud” representing the surveyed area in meticulous detail. This technology can be used for a wide variety of applications - from civil engineering and construction to natural conservation and infrastructure management.

PROJECT HIGHLIGHT

WIVENHOE DAM IMPROVEMENT PROJECT

CLIENT: SEQWATER

Wivenhoe Dam is one of several dams to be upgraded as part of Seqwater’s Dam Improvement Program. The dam plays an important role in the SEQ Water Grid, and its continued performance and safety is critical to the region. The dam improvement project will ensure the dam continues to operate safely in extreme weather events and provides water security for years to come.

UNDERGROUND SERVICE LOCATION

Underground service location is a critical aspect of surveying that ensures the safe and efficient management of subsurface utilities, including water, gas, electricity, telecommunications, and sewage systems. With these surveys, we help clients avoid costly damages, ensure safety, and facilitate informed decision-making for construction and development projects.

KEY BENEFITS

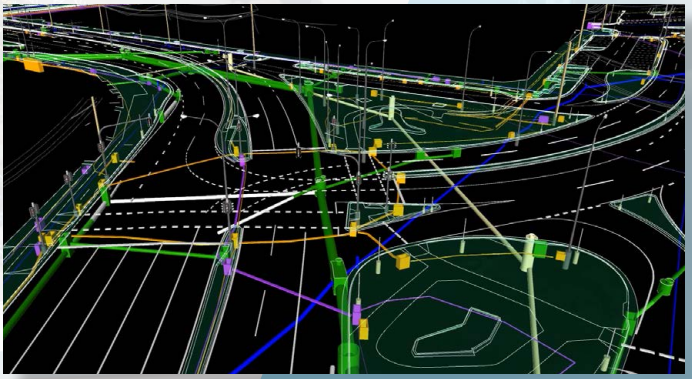
- Risk Mitigation
- Improved Project Planning
- Enhanced Safety
- Design Optimisation
- Accelerated Construction

PROJECT HIGHLIGHT

GOLD COAST LIGHT RAIL | STAGE 3

CLIENT: JOHN HOLLAND | GOLDLINQ | TMR

The Gold Coast Light Rail project is a major public transport initiative connecting key areas along the Gold Coast, providing efficient, sustainable transport to support the region's growth and reduce road congestion.



MOBILE LASER SCANNING

Mobile laser scanning (MLS) is a surveying method that combines laser scanning technology with mobile platforms to capture high-resolution, geospatial data of large areas with exceptional speed and efficiency.

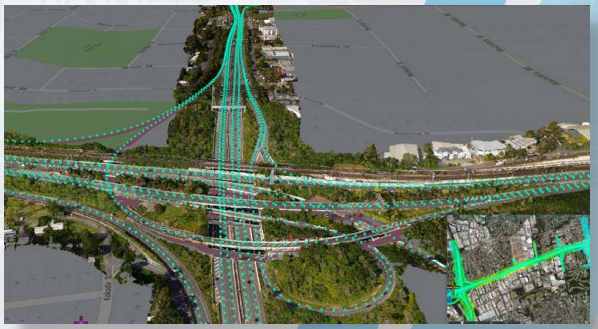
By mounting laser scanners on vehicles, MLS can rapidly survey extensive sites, including roads, railways, and urban landscapes, with minimal disruption to surrounding activities. This technology can be used for a wide range of projects in transportation, infrastructure management, construction, and urban planning.

Our Bennett + Bennett mobile laser scanning vehicles capture detailed 3D point clouds that provide precise information on the site's features, such as buildings, road surfaces, utility networks, and terrain. This technology enables us to conduct complex surveys over long distances quickly, offering a high level of spatial accuracy that supports data-driven decision-making and efficient project execution. Our MLS services are adaptable and scalable, ideal for large infrastructure projects and fast-paced urban developments.

PROJECT HIGHLIGHT

IPSWICH MOTORWAY CLIENT: TMR

The Ipswich Motorway Upgrade is a Queensland Government project aimed at improving safety, reducing congestion, and enhancing travel efficiency between Brisbane and Ipswich through upgraded lanes, interchanges, and better connectivity.



AERIAL LASER SCANNING | LIDAR

LiDAR (Light Detection and Ranging) is an advanced remote sensing technology that is revolutionising the field of surveying. By emitting pulses of laser light and measuring their reflections off surfaces, LiDAR creates detailed and precise 3D representations of the physical environment.

Our LiDAR services are designed to provide accurate, fast, and cost-effective solutions for projects of any size or complexity. Mounted on a drone, plane or the strut of a helicopter, our LiDAR systems can cover extensive areas quickly and capture data with millimetre accuracy. This versatility enables us to offer tailored solutions that meet the unique requirements of each project, delivering actionable insights that enhance decision-making and project outcomes.

LiDAR SCANNING APPLICATIONS

- Aerial Feature Surveys
- Topographic Mapping
- Flood Risk and Waterway Management
- Forestry and Vegetation Analysis
- Infrastructure and Utility Management
- Environmental Monitoring
- Construction Progress Monitoring

PROJECT HIGHLIGHT

SUNSHINE COAST DIRECT RAIL

CLIENT: TMR | TRANSLINK

The Sunshine Coast Direct Rail Project is a proposed rail extension connecting the Sunshine Coast to Brisbane, aiming to provide faster, more reliable public transport, reduce congestion, and support regional growth.

REALITY MESH MODELS | PHOTOGRAMMETRY

Reality Mesh Models are 3D photo-realistic digital representations of the real world. These are created by processing large amounts of geospatial data gathered using photogrammetry techniques from drones and manned aircraft platforms. These highly detailed and accurate models capture the true dimensions, textures, and geometry of real-world objects, landscapes, or buildings.

Our team utilise a revolutionary process by combining LiDAR point clouds with photogrammetry depth maps. This innovative workflow leverages the strengths of both technologies, with photogrammetry capturing high-resolution images from multiple angles to create detailed depth maps and LiDAR using laser pulses to accurately measure distance, creating optimal Reality Mesh Models.

REALITY MESH MODELS | PHOTOGRAMMETRY APPLICATIONS

- Stakeholder engagement/Visualisations
- Construction progress monitoring
- Geotechnical Investigations
- Environmental assessments
- Disaster response efforts
- Infrastructure Inspection & Maintenance
- Urban Planning
- Virtual & Augmented Reality (VR/AR)

PROJECT HIGHLIGHT

LOGAN AND GOLD COAST FASTER RAIL

CLIENT: TMR

The Logan and Gold Coast Faster Rail project will address a bottleneck by doubling the number of tracks between Kuraby and Beenleigh to allow the free movement of all-stops and express trains. The project will also upgrade stations, remove 5-level crossings, improve park ‘n’ ride facilities, and provide a new continuous active travel path connecting to stations along the 20km project corridor.

GEOSPATIAL DIGITAL ENGINEERING

Building Information Modelling (BIM) is transforming the construction and design industries by enhancing collaboration, accuracy, and project visibility from concept through to completion and beyond. At Bennett + Bennett, in collaboration with SiteDE, we provide expert BIM support services that empower our clients to leverage the full potential of BIM technology.

Our team integrates precise survey data with BIM systems to create accurate, detailed, and dynamic models that support architects, engineers, contractors, and project managers in making data-driven decisions at every stage of the project lifecycle.

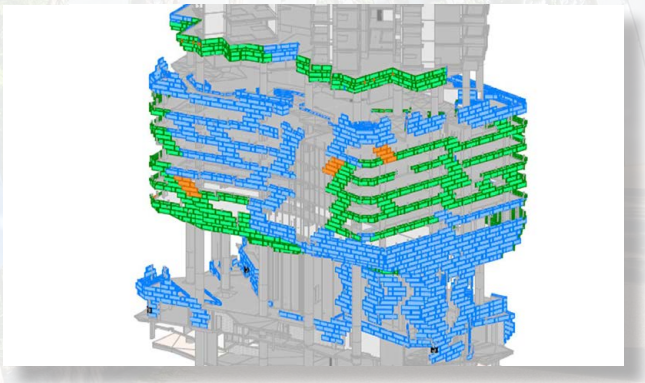
BIM SUPPORT APPLICATIONS

- 3D Laser Scanning and Point Cloud Integration
- Model Validation and Clash Detection
- Topographic and Site Mapping for BIM
- As-Built Documentation and Model Updates
- Facade and Structural Scanning
- Infrastructure and Utility Modelling

PROJECT HIGHLIGHT

443 QUEEN STREET CLIENT: HUTCHINSON BUILDERS

The 443 Queen Street project is a mixed-use development in Brisbane's central business district, offering premium office spaces, retail opportunities, and modern amenities, aimed at enhancing the area's urban landscape and business environment.



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