



CAPABILITY STATEMENT

Oct 2024 - v1.17

ABOUT US

Precise Spatial is a specialist surveying company offering comprehensive survey solutions in the fields of mining infrastructure, transport & construction. Our company boasts extensive experience in catering to diverse project scopes in numerous geographical locations 📍 with both FIFO (Fly-In, Fly-Out) & DIDO (Drive-In, Drive-Out) capabilities.

Since its inception in 2017, Precise Spatial has earned a reputation for its focus on safety, expertise & integrity within the industry. These accomplishments are the direct result of our dedicated team's professionalism, quality assurance practices & commitment to continuous improvement.

Our Orange and Mascot office locations 📍 are designed to facilitate staff movement, training & support for our projects. Since opening the Orange office in 2019, we have continued to service, maintain & support projects in Central West. The Mascot office serves as a hub for interstate staff, enhancing our FIFO capacity and training.



SAFETY - Safety remains our foremost priority. We support & encourage a culture where our employees are productive & vigilant in maintaining a safe workplace. As part of our commitment to safety, we actively employ standards, procedures & toolboxes to implement essential safety precautions, as well as a dedicated safety officer which functions above project specific safety standards.

EXPERTISE - Precise Spatial recognises the values of diversity, experience & best practice opportunities to ensure the company's success in delivering great results. We encourage furthering education & skill development with many staff currently studying. With dedicated CAD & LiDAR departments we are capable of providing a comprehensive solution & manage projects remotely.

INTEGRITY - Consistently act with honesty, integrity & trust within the team & to our clients. We take pride & ownership of all our works & maintain best quality assurance practices.

COMMUNITY - Precise Spatial regards high-quality Science, Technology, Engineering and Mathematics (STEM) education as an important pathway for future surveyors. We are currently supporting STEM programs such as the CSIRO Young Indigenous Women's STEM Academy, which aims to set young women up for success.

OUR VALUES, VISION & MISSION

KEY STAFF

OUR PEOPLE



NATHAN RICHARDSON - Director

ANDREW JACKSON - Survey Operations Manager

ISAAC RICHARDSON - Survey Manager - NSW Central West & CRP

CAMERON HACKSHALL - Survey Manager - FIFO Projects

LUKASZ SKOP - Digital & Spatial Manager

JASON CALDERON - CAD & IT Manager

ROCHELLE HANANIA - People, Performance & Culture Manager

With over 350 years of combined industry experience, Precise Spatial has the expertise & talent to get the job done right. Our extensive background in Surveying, CAD, Digital & Spatial & Management ensures that every project is executed efficiently & effectively.

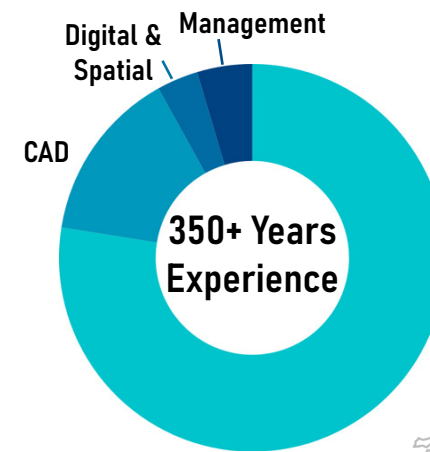
When you choose Precise Spatial, you're partnering with a team that has proven track record of success & a commitment to excellence in all of our work.

Precise Spatial acquires equipment through C.R.Kennedy, the sole & exclusive distributor of Leica Geosystems instruments.

Precise Spatial currently possess the following survey instruments:

- Leica TS16, TS15, TS13 - 1" & 3" Accuracy
- Leica MS60 - 0.5" Accuracy
- Leica LS15 Digital Level
- Leica DS2000 GPR
- Leica GNSS Rover GS14, GS16 & GS18
- vLoc3-Pro Utility Locator
- Leica HDS ScanStation P40
- DJI Phantom 4 Pro UAV Drone
- DJI Matrice 350 RTK UAV Drone
- CHCNAV AlphaAir 450
- Emesent Hovermap ST-X

Accompanying these instruments are all supporting survey resources.



30+ Staff, across 5 different States & Territories

Homeports



OUR EQUIPMENT



- Surface Compliant 4WD vehicles
- Underground Mine Compliant 4WD vehicles with Self Rescuers

Programs used to support the survey tasks include:

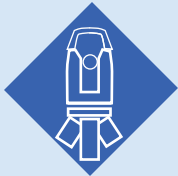
- 12d Field & 12d Model
- AutoDesk AutoCAD, Civil 3D, Recap Pro, Revit & Navisworks
- Pointerra3D
- Leica Infinity
- Leica Captivate
- Leica Viva
- Leica Cyclone3DR
- Leica Cyclone Register 360
- Leica Cyclone Core
- CoPre 2.0
- Emesent Aura
- MicroSurvey StarNET

SERVICES

At Precise Spatial, we take pride in offering a diverse range of survey disciplines, led by a team of motivated & professional surveyors. Having established ourselves with a wealth of experience & expertise in the Surface & Underground Mining Infrastructure sector, we have branched into Road, Rail, Renewable Energy & LiDAR services.

Our comprehensive survey solutions span a variety of fields & services, offering off-site drafting support, utilising our team's proficiency in programs such as 12d Model & AutoDesk Civil 3D.

We are committed to delivering precision & excellence in every project, ensuring that our clients receive the most accurate & reliable survey solutions tailored to their needs. Our dedication to innovation & quality, sets us apart as a leader in the surveying industry. We strive to utilise & learn the latest technologies, methodologies and training, to stay up to date with emerging trends.



ENGINEERING SURVEY



SURFACE & UNDERGROUND MINING INFRASTRUCTURE



ROAD SURVEY



RENEWABLE ENERGY



RAIL SURVEY



LiDAR - SCANNING & UAV



BUILDING INFORMATION MODEL (BIM)



SUBSURFACE UTILITIES SERVICES



MONITORING SURVEY



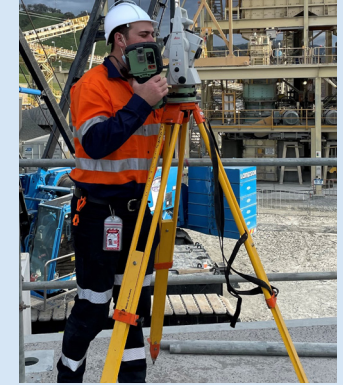
ENGINEERING DRAFTING





ENGINEERING SURVEY

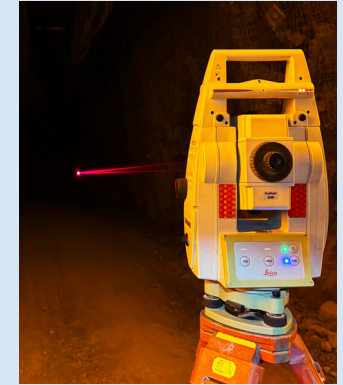
Surveyors provide crucial survey support, inspecting, monitoring & analysing structure designs on a variety of projects, including Civil, Structural, Mechanical & Piping. Using specialised Leica instruments such as TS13, TS15 & TS16, along with CAD programs such as 12d Field & AutoCAD Civil 3D. Precise Spatial is able to conduct accurate survey reports & calculations.



SURFACE & UNDERGROUND MINING INFRASTRUCTURE

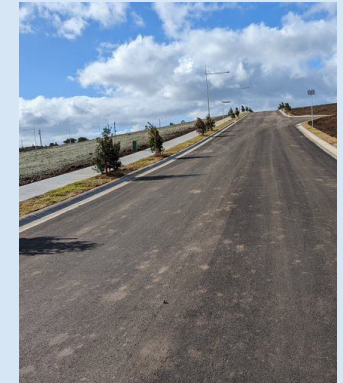
Precise Spatial has established itself as a reliable leader in mining infrastructure projects. Our services covers a wide range of solutions for both surface & underground survey, including:

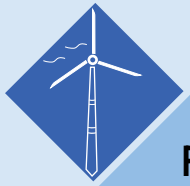
- Installation, survey & adjustment of complex control networks to a high degree of accuracy
- Interpretation of PDF design plans, calculated into CAD for on site survey
- Scanning & modelling of design for volume & clash detection
- Set-Out, Pre-Pour & As-Built surveys & reports for Civil, Structural, Mechanical & Piping works



ROAD SURVEY

We possess the capability to efficiently collect road data related to the planning, design, construction & maintenance of roads & ensure that survey reports falls within specified tolerances. We adhere to the Roads & Maritime Services (RMS) conformances & standards, complying with the G71 Specifications to ensure the highest quality & adherence to regulations.

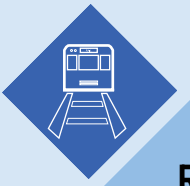
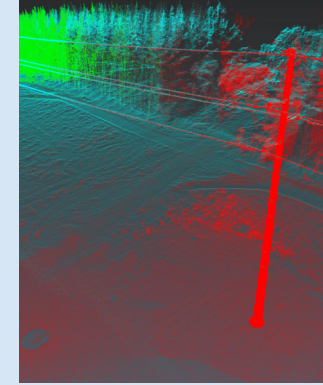




RENEWABLE ENERGY

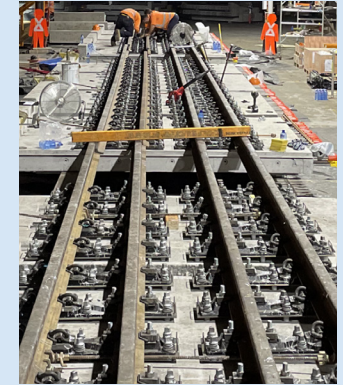
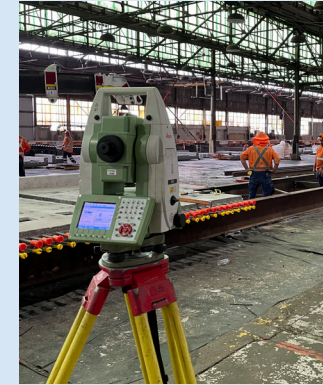
▶ YouTube Link

With a commitment to precision, efficiency & sustainability, we leverage advanced technologies such as drone DJI Matrice 350 RTK equipped with our LiDAR systems to support the successful development & operations of renewable energy projects throughout Australia. Our rigorous quality control process ensures that all deliverables are fully compliant with industry standards & regulatory requirements.



RAIL SURVEY

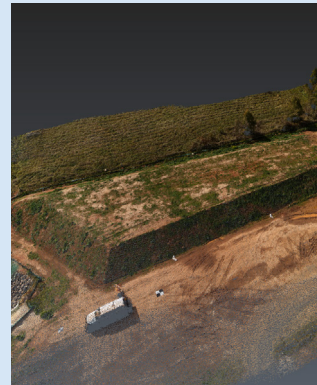
We have worked on the railway network as well as on the pre-fabrication of tracks & alignment installation. Precise Spatial is able to provide support on both ends of the project using the best surveying equipment available to specific Australian standards & ensure work compliances. This is essential for ensuring safety & efficiency for smooth operations of the rail network.




LiDAR - SCANNING & UAV

▶ YouTube Link

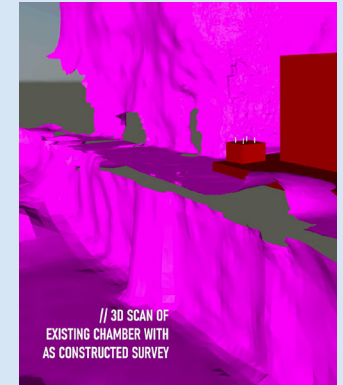
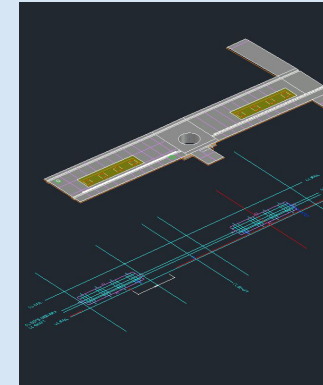
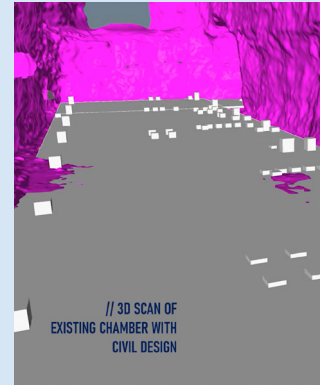
LiDAR services provide unprecedented amounts of data, ensuring large areas are surveyed safely & efficiently. This facilitates further analysis, drafting, modelling, inspection, & obtaining measurements without needing to return to the site. Our methods include the use of the Leica ScanStation P40, which delivers the highest quality 3D data & High-Dynamic Range (HDR) imaging, as well as the latest generations of drone & vehicle-mounted scanners.





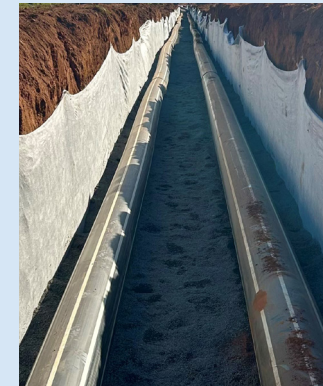
BUILDING INFORMATION MODEL (BIM)

Initial stages of any project, BIM provides visual assessments & verification in 2D & 3D properties. Throughout the project, BIM will be constantly updated with amended or additional information to maintain & ensure reliability. This can generate an immersive virtual environment that can be explored for a greater understanding of the project & assist in future design & verifications.




SUBSURFACE UTILITIES SERVICES

Using specialised equipment to scan the area, Precise Spatial can provide a detailed report before digging commences. The report can provide details such as type and location of these utilities & ensure all safety precautions are managed for all workers on site as well as the environment. All Precise Spatial Utility Location services are conducted to, & delivered in accordance to the Australian Standard AS 5488.1-2019 Subsurface Utility information (SUI)




MONITORING SURVEY

Precise Spatial is able to establish control networks & provide measurements & checks of horizontal & vertical movements. These checks are made regularly & repeated in order to determine the amount of movement or deformation in order for it to be reported.



BASELINE	DIFFERENTIAL POSSESSION							
	18/02/23	19/02/23	21/02/23	23/02/23	25/02/23	27/02/23	28/02/23	31/02/23
11:00am	11:00pm	10:00pm	3:00pm	10:00am	2:00pm	1:00pm	10:00am	
87242.820	0	0	0	0	0	0	0	0
43379.708	-1	0	1	0	0	0	0	0
4579.832	0	0	-1	-1	-1	0	0	0
87256.542	2	0	0	0	0	1	0	0
43390.852	-2	0	2	0	1	0	0	0
4582.814	0	1	0	-1	0	0	0	0
87270.932	2	0	1	1	0	1	1	1
43402.280	-2	0	1	0	1	0	1	0
4586.238	-1	0	-2	-1	0	-2	0	0
87283.494	2	0	1	1	0	1	0	0
43413.867	-1	0	2	0	1	0	1	1
4598.832	0	0	-1	-1	-2	-1	-1	-1
87310.886								
43436.408								
4596.184								
87337.862								
43459.056								
4602.720								
87365.140								
43481.872								
4609.408								
87392.051								
43504.544								
4616.073								
87419.146								
43527.387								

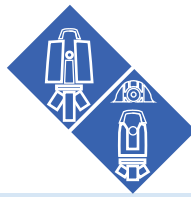




Orange Southern Feeder Road Stage 4

Client: MAAS

Location: Orange, NSW



Tanami U/G Expansion Project (TE2)

Client: UCA

Location: Tanami, NT



Parkes Special Activation Precinct (SAP2)

Client: Fulton Hogan

Location: Parkes, NSW

The 1.5km project between Anson Street & the end of Park Road, will connect the southern & western residential areas of Orange to the health & industrial precincts, as well as through to the Mitchell Highway.



The Tanami Expansion Project 2 (TE2) is well underway & involves the construction of a headframe & vertical hoisting shaft to a depth of 1,460m, which will be used to transport people & ore.

- Scanning & modelling of design for volume & clash detection
- Interpretation of PDF design plans, calculated into CAD for on site survey
- Set-Out, Pre-Pour & As-Built surveys & reports for Civil contractor
- Survey support to Structural, Mechanical & Piping contractor, including As-Built reports



Parkes precinct covers an area of 4,800 hectares in the Central West region of NSW. It is situated at the only junction of Australia's two rail spines, the Inland Rail and the Trans-Australian Railway. Stage 2 is the installation of polyethylene pipe through open trenching & underboring roads & rails accompanied with two pump stations.

- Monitoring & reporting of rails during underboring
- Survey requirements for open trenching & underboring utility installation
- Create QA reports for AsBuilt Data



North Head Water Resource Recovery Facility

Client: San Marcos

Location: North Head, NSW



Carrapateena Surface - Coarse Flotation Building

Client: AWCON

Location: Carrapateena, SA



Carrapateena Surface - Ventilation Riser

Client: AWCON

Location: Carrapateena, SA

The project involves the construction of two new digesters & associated structural & mechanical install that will treat up to 336 million litres of wastewater daily. This system will serve an area covering 452 square kilometres, including Seven Hills in the west, Bankstown to the south & extending north to Ku-ring-gai & Calloray



Works continues at the Carrapateena Expansion Project, with the team providing comprehensive survey solutions for the Coarse Flotation Building, which plays a pivotal role in the mineral processing phase of the project.

- Install, survey & adjustment of complex control networks
- Interpretation of PDF design plans, calculated into CAD for on site survey
- Create Pre-Pour & AsBuilt reports for conformance
- Create QA reports for AsBuilt Data
- Create verticality reports



Our team is providing crucial data to ensure accurate placement & alignment verification, supporting the installation of the Ventilation Riser at the Carrapateena Surface Structural, Mechanical & Piping Project.

- Install, survey & adjustment of complex control networks
- Interpretation of PDF design plans, calculated into CAD for on site survey
- Create Pre-Pour & AsBuilt reports for conformance
- Create QA reports for AsBuilt Data



- Install, survey & adjustment of complex control networks
- Create Monitoring Reports
- Create Set-Out, Pre-Pour & As-Built reports for conformance
- Create QA Reports of As-Built Data

OVERVIEW OF OUR COMPLETED PROJECTS



Flyers Creek Wind Farm

Client: LAKEFIELD
Location: Flyers Creek, NSW



Cadia Ventilation Fans
VR11 & VR51

Client: M2P
Location: Orange, NSW



Cadia Expansion Project Stage 1
Civil & SMP

Client: M2P
Location: Orange, NSW



Carrapateena U/G
Expansion Project

Client: AWCON
Location: Carrapateena, SA



Wastewater Treatment
Plant Upgrade

Client: Ferrycarrig
Location: Winmalee, NSW



Cadia Expansion Project Stage 2
Civil

Client: ACG
Location: Orange, NSW



Cobar Mine
Replacement Mill

Client: KMS
Location: Cobar, NSW



Molybdenum Plant
Civil & SMP

Client: AWCON
Location: Orange, NSW



Sydney Harbour Bridge
Redecking

Client: Brefni
Location: Sydney, NSW



Cadia U/G
Expansion Project

Client: NEWCREST
Location: Orange, NSW



Prominent Hill
Shaft Collars & Civil

Client: AWCON
Location: Prominent Hill NSW



Sydney Harbour Bridge
Pre-Redecking

Client: Brefni
Location: Sydney, NSW

CLIENTS



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