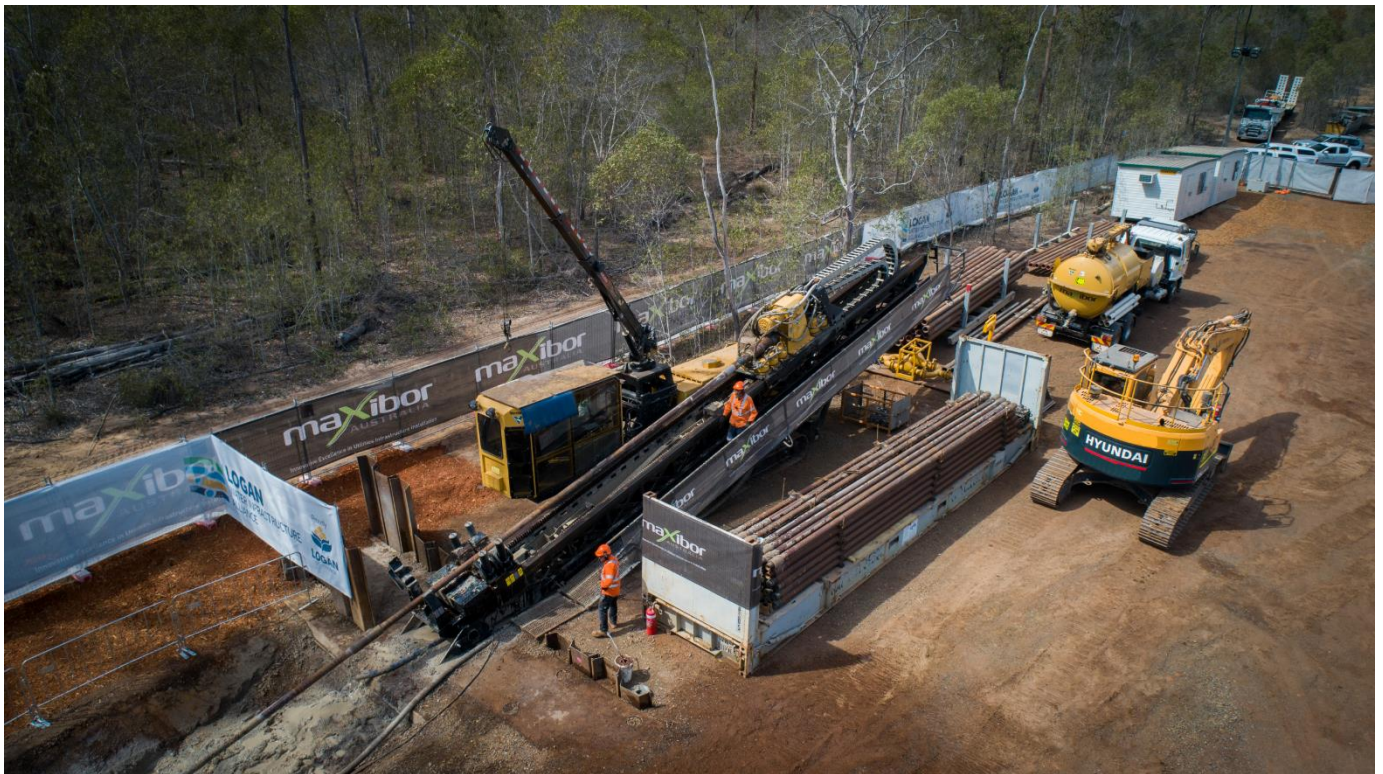




## COMPANY PROFILE AND CAPABILITY STATEMENT



**INNOVATIVE EXCELLENCE IN UTILITIES INFRASTRUCTURE INSTALLATION**  
**BUILD A FUTURE WE ALL LOOK FORWARD TO**

Australia's Leading HDD Specialist

## COMPANY PROFILE AND CAPABILITY STATEMENT

Maxibor is an independent, Australian owned HDD design and construct company with an Australia-wide presence. Maxibor provides its HDD services across the water and sewer, rail, power, gas, telecommunications, mining, defence, fuel, sea cable, data centre, hydrogen and renewables sectors. It has one of the largest HDD fleets in Australia including maxi-rigs, midi-rigs, rock rigs and smaller rigs with capacity to complete pipeline bores in length from 20m to 3.0km and with diameters from 63mm up to 1.6m. It is also the proud owner of four of the most powerful pumps in the HDD industry.

Continually adding to our key capabilities over the past decade we have earned a reputation for superior performance. Our HDD design and delivery experience and knowledge have been gained through successes and taking on challenges.

Our people are our most valued asset. They reflect our passion and share in our energy. We possess the knowledge and skill to deliver on every project. Together we take collective pride in our strong performance and design and delivery of quality infrastructure.

We acknowledge the clients and various government departments who have contributed to our success by allowing our participation in key infrastructure projects. Thank you for helping us to pave the way for our future.

We also thank the many communities we serve including the Australian Indigenous community. Our desire to build a future we all look forward to will be achieved with the co-operation and collaboration of all.

Yours sincerely



Rodney O'Meley  
Chief Executive Officer





### OUR COMMITMENT TO YOU

Maxibor is committed to be Australia's leading HDD design and construct company.

Maxibor's purpose is to create long-term value for all stakeholders including clients, employees, suppliers and the communities we share.

Maxibor's values are people focused, future orientated and performance driven. They reflect integrity and verify our claim of safety, efficiency and reliability. We promote individual responsibility with clear lines of accountability with incentives aligned to delivering on our objectives and providing fair reward for exceptional performance.

We harness innovation and search for technical and industry leadership. We deliver on excellence. Our strategy is based on diversity and the creation of long-standing cooperative and collaborative relationships to achieve sustainable profitability and increased value for all stakeholders. Seeking to build a future we all look forward to allows us to go beyond just economic outcomes and thereby look for wider benefits from our involvement in projects for the broader community.

Maxibor complies with the following standards:

Occupational Health and Safety Management System  
ISO 45001:2018

Environmental Management System  
ISO 14001:2015

Quality Management System  
ISO 9001:2015

Integrated Management Systems  
4801/14001:2015/9001:2015



### WORKING TOGETHER TO MAKE TOMORROW SAFER TODAY

We provide reliable and highly effective support services on significant infrastructure projects across all the sectors we serve.

We thrive in all terrain by finding innovative solutions and meeting design and construct challenges that deter other contractors. Our "make it happen" attitude has secured for Maxibor a reputation for great service on all projects, for diligent attention to safety and successful completion on time and within budget of all the contracts we undertake.

Our ever-growing customer base and repeat business therefrom is clear evidence that Maxibor is delivering to all who engage with us. Customers warm to our cooperative and collaborative approach which provides a fair price, value, convenience and overall good outcomes.

## **WORKING WITH OUR INDUSTRY EXPERT PARTNERS**

Maxibor's successful approach is based on good design and planning, detailed estimating and construction methodology, quality delivery prevailing over cost, open and timely communication with the asset owner and principal contractor, total commitment around safety and environment, precise service location, quality pipe and drilling fluid products, the right equipment and people, being prepared to ask for advice from our extensive network across the civil construction sector and lots of hard work. This combination provides an informed and organised project and confidence to enable decisionmakers overcome all challenges.

Maxibor does not pretend that it has the answers to every project's challenges. We are however able to draw upon the expertise of leading specialists who can provide informed input to the project design and delivery process to help optimise the outcomes for all stakeholders in a project.

Some of the industry leaders with whom we have a long and trusted relationship with include:



Maxibor works with leading trenchless technology experts HDD Engineering and Underbore Solutions who provide specialist HDD services including trenchless concept designs and feasibilities, design analysis software to evaluate all engineering aspects, frac analysis and stress and strain analysis. Maxibor regularly engages them to advise on more complex projects to ensure that our bids and project delivery have the benefit of the combined knowledge of our years of experience in the industry. This enables informed decisions to be made at both the project bid and delivery stages for the benefit of Maxibor, infrastructure asset owners and other stakeholders so that project outcomes can be optimised through good practice design and delivery processes.



KenKar Plastics is a market leading supplier and installer of plastic pipe systems over a wide range of applications and industries. Their core focus is polyethylene (PE) pipe systems, but also have expertise in other materials such as PVC, Polypropylene (PP), PVDF and ABS.

We use KenKar and Jag Poly for on-site poly welding of pipes with 63mm to 1600mm outside diameter. Maxibor often uses their considerable knowledge and experience to provide us with quality products and services, delivered economically and in a timely manner. Our long-term

## COMPANY PROFILE AND CAPABILITY STATEMENT

relationship around their product supply and pipe welding services means that they are very responsive to helping us meet the project needs of our customers.

# TRANSCO CARBIDE BIT CO

TRANSCO and Carbide Bit Co are Australian manufacturers and repairers of down hole drilling tools for HDD and other drilling industries. Through these suppliers Maxibor has ready access a wide range of these quality HDD tooling products suitable for all conditions across Australia.



Prime Horizontal are a leading global horizontal directional drilling steering company. Maxibor calls upon their specialised services for more technically and/or geographically challenging and very long-distance bores to ensure that the pilot holes are successfully completed.



AMC develop, manufacture and supply a comprehensive range of quality drilling fluids and specialty products to mining, water well, HDD, CBM, civil construction and tunnelling industries worldwide. These products are complemented by our integrated range of equipment, which is designed to optimise our clients' drilling operations and reduce environmental impact. Maxibor works with AMC to develop the most suitable drill fluid program for each larger project. We work together at an industry level to promote the importance of having the right mud management programs in place on each project.

### WHAT MAXIBOR CAN OFFER TO YOU FOR YOUR PROJECT

Maxibor can provide a full suite of civil works to clients. While our specialist skills revolve around horizontal directional drilling, we are happy to deliver this service in conjunction with other civil works to provide the client a one-stop provider solution for their pipeline installation and other civil projects.

- Horizontal Directional Drilling
- Rock drilling
- Access road construction
- River crossings by way of Horizontal Directional Drilling
- Services locating – radio location and/or exposure by way of vacuum extraction
- Gravity sewer pipe installation
- Hydro testing – pre and post installation – of water and sewer mains
- Installation of Pipes to grade in all conditions including under obstructions, by way of trenchless methodologies
- Polyethylene pipe welding
- Open trench excavation
- Rising main installation
- Detailed site survey – mapping of underground services allowing for proper design of works
- Non-destructive excavating around gas, water, sewer, power and telecommunication lines



Maxibor has access to a range of specialist contractors in other civil construction services who can work with Maxibor to deliver integrated project solutions including:

- Live connection to water and sewer mains
- Welding of steel gas pipelines
- Telecommunications works including trenching, ploughing and pit and pipe installation

## COMPANY PROFILE AND CAPABILITY STATEMENT



Maxibor also has the expertise to provide comprehensive construction management and contract administration covering:

- Construction design and project scoping
- Quantities and pricing estimates
- Preparation of tender and contract documents
- Tender report and recommendations
- Resource planning and utilisation programs
- Full production scheduling and reporting
- Construction supervision
- Subcontractor management
- Project reporting including variance analysis
- Project completion reporting including as constructed drawings



### MAXI-RIG PROJECT CAPABILITIES

Maxibor has access to a significant fleet of maxi-rigs, powerful pumps and cleaning systems capable of taking on the largest of HDD projects in Australia.

The maxi-rig fleet includes:

- Vermeer D330x500.
- Gallagher 600
- American Auger 660
- Vermeer 100x120 – extension to range 2 rods (9.6m)
- Gallagher 600e

In support of the maxi-rigs are highly efficient, positive displacement piston mud pumps. The two Gardner Denver PZ9 pumps with 1000HP engines and two Gardner Denver PZ8 pumps with 750 HP engines are a vital component of the HDD spread on long bore/large diameter HDD projects.

It is common to think of horizontal directional drilling spreads in terms of rig size, but the true workhorse of the spread is in fact the mud pumps. The pumps supply the drilling fluid to the bore at pressure, to either jet drill or motor drill, providing bore stability and ease of removal of cuttings.

These pumps have proven project after project to operate at high flow and high pressure all day every day for months on end.

Having ready access to additional maxi-rigs and powerful mud pumps is a key means to maintaining project productivity and mitigating the impact of unscheduled repairs. If the pumps are down, the drilling stops.

The Maxibor dual PZ8 and PZ9 pumps have delivered bores in Australia at lengths of 2500 m in the civil industry and at lengths of 4000 m in the gas drainage industry.

The pumps allow very long bores to be drilled to solve particular infrastructure installation challenges, or they allow forward motor reaming, which is another technique to solve particular requirements where exit site sensitivities exist or it is not possible to drill a mud return line. It is these types of pumps that allow high performance cutting edge HDD bore designs to be achieved.

Pumps of this capacity are invaluable, if not a prerequisite, on long bore (+1,000 m) and large diameter hole (+800 mm) projects requiring larger maxi-rigs. They are most often required in Australia on river and harbour crossings and long and deep water and sewer projects.





*Gardner Denver PZ8 Pump*

Maxibor has used its extensive knowledge and innovation to extend one of its Vermeer 100x120 drill rigs so that it can take up to 9.6m drill pipe thereby allowing the drill to ream out to a larger diameter especially in hard ground conditions. Vermeer 100x120s, or similar sized rigs, unless extended to take the long rods, are limited in the size they can expand bore holes to in hard ground conditions due to the greater wrap/flex of the conventional smaller rods.

The extended Vermeer 100x120 now effectively has the same capacity of a maxi-rig with a smaller site footprint and lower operational cost.



*Extended Vermeer 100x120*

**DESIGN AND DRILLING METHODOLOGY DEVELOPMENT**

Maxibor uses its experienced HDD design engineering capabilities to work cooperatively alongside asset owners, engineering design firms and T1 contractors to help provide intelligent and creative solutions to complex pipeline project challenges.

Intelligent HDD design solutions offer significant project and whole of life asset economies as well as helping to preserve the environment and cultural heritage.

HDD solutions have relevance across most infrastructure sectors including water and sewer, rail, power, gas, telecommunications, mining, defence, fuel, sea cable, data centre, hydrogen and renewables. It is also becoming an important climate change adaptation action to mitigate the impact of fire, wind, flood, inundation, drought and rain bombs.

Australia is poised to take greater advantage of HDD as a solution to many of the challenges associated with pipeline projects. It is just a matter of getting the right minds together at the right stages of a project so that the full range of solutions can be considered, including HDD.

The disciplined design and drilling methodology development approach used by Maxibor and its cooperative knowledge sharing attitude is something asset owners and design engineer consultancies are being very receptive to. First principles, foundation-based engineering is key to delivering longer, larger and more complex projects. It is about using the combined knowledge to get a better outcome for all the project stakeholders.

In the context of Maxibor, the foundation for the success of this approach is a combination of experience in engineering design and the delivery of complex and challenging pipeline projects installed by HDD. Bringing this knowledge together in a cooperative and collaborative manner is the best way to optimise value for all stakeholders on a project.

**Maxibor's design methodology**

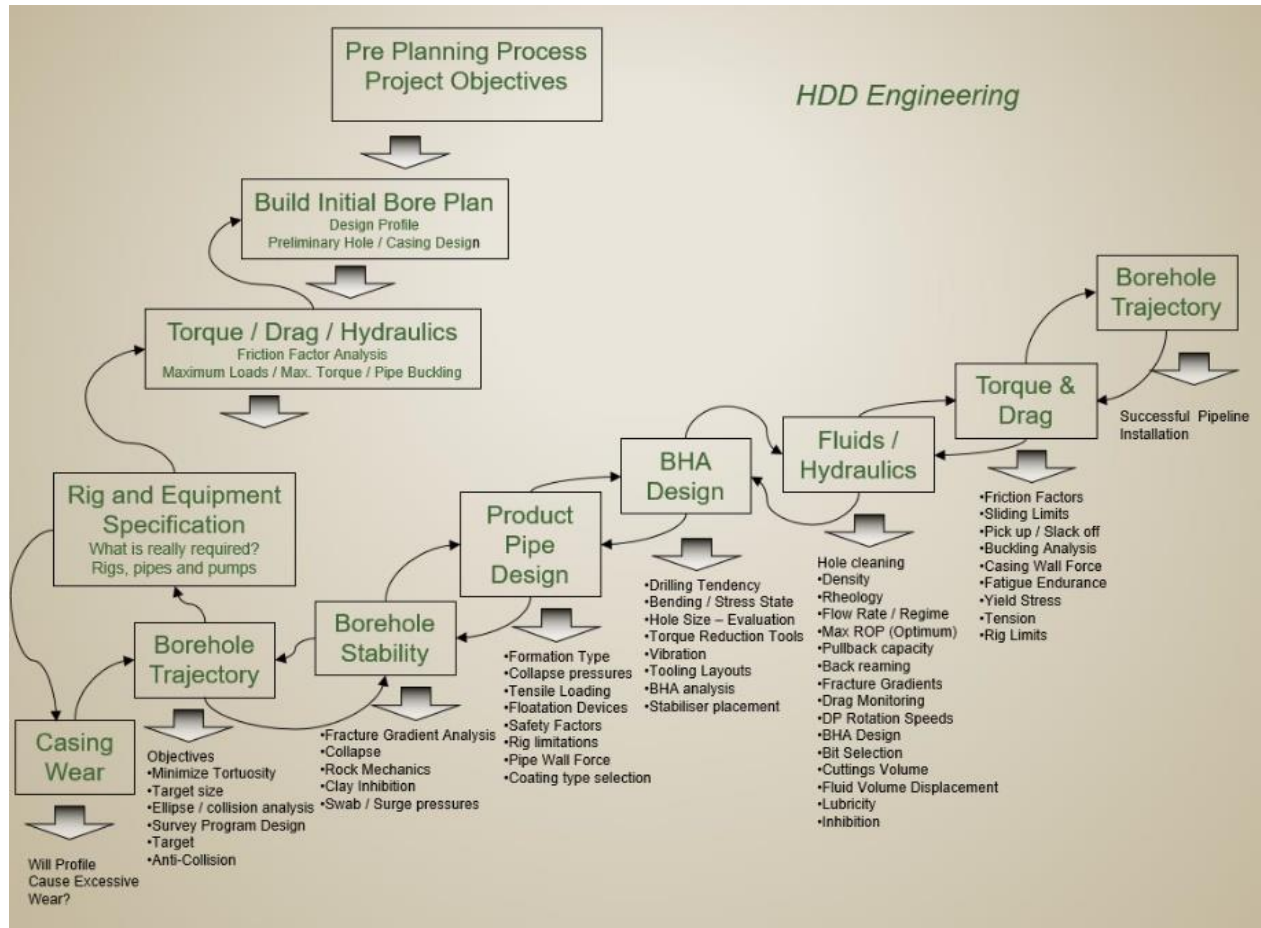
Maxibor applies a procedure for each project that adapts accepted practices and then focuses on specifically solving the project issues through engineered design. Maxibor's HDD design and methodology development processes are highly iterative for the more complex bores.

Each step in the design process feeds back to the previous parameters which causes an evolution in the design to get to a point that provides a pipeline installation solution which considers safety in design, constructability through engineering application and ultimately usable infrastructure.

Maxibor's approach is developed within an integrated discipline framework, with the design and methodology development processes requiring a wide range of engineering, HDD operations and commercial knowledge to achieve successful installation.

## COMPANY PROFILE AND CAPABILITY STATEMENT

Maxibor applies an integrated disciplined design frameworks such as that developed by HDD Engineering.



The extent of factors to consider highlights the range of knowledge required to achieve an optimised fit for purpose design and a drilling methodology.

In the application of this approach, Maxibor has been able to draw upon its extensive experience of installing complex pipeline projects and its network of industry specialists, which have further facilitated the build of its internal knowledge bank. This pool of knowledge can be applied to each project and provide significant confidence to clients that using HDD will be successful.

Risk and opportunity analysis is also undertaken through the design process and integrated with a broader risk and opportunity analysis at an operational, corporate and strategic level.

Maxibor has also compiled a comprehensive risk analysis for HDD operations that provides a point of reference to consider the risks associated with each project and identifies good practice actions that can be taken to mitigate those risks.

The risk analysis is relatable to the design and drilling methodology as well as broader operational areas around labour, plant, materials and HSEQ and corporate risks and opportunities. This process makes both Maxibor and other stakeholders much more informed about the project.

### Achieving desired outcomes for clients

Maxibor frequently puts forward alternative design solutions to clients to help achieve better outcomes and has applied its integrated design and drilling methodology development process to more complex projects, demonstrating the benefits of the disciplined and cooperative approach.

*By investing Maxibor's expertise and resources to undertake this additional work in the bidding stages, it helps clients have an achievable project.*

Maxibor's cooperative and collaborative approach was much appreciated on the design and install of a new 400 metre section of DN400 PN20 pipeline between Lamb and Macleay Islands in Queensland. With the existing pipeline slowly leaking, Maxibor was engaged by Christopher Contracting to help Seqwater ensure continued service to the Lamb Island community. Our approach enabled the various stakeholders to be brought together to quickly provide a design which solved the problem and minimised costs. Maxibor completed the works well ahead of schedule, much to satisfaction of contractor and asset owner and to the relief of the Lamb Island community.



*Maxibor's Vermeer 300x500 on way to Lamb Island*

Maxibor has provided its expertise into the design and construct of the two dual bores on the South West Pipeline project in Queensland. Our design and construct expertise has enabled the diameter of one of the dual bores to be reduced which helped minimise risk, saved time and reduced environmental impact of the works. The meticulous cleaning of the borehole enabled the 500mm SDR6 PN32 PE100 pipe to be pulled through the 650mm gravel and rock borehole without any damage.



## **COMPANY PROFILE AND CAPABILITY STATEMENT**

An early design initiative of Maxibor on the Logan Water project was to combine two shorter bores into a 1.320 km bore, which reduced the cost to the client, provided whole of life operational economies and reduced the impact on the local vegetation and noise and dust to nearby residents.

This outcome was achieved through a complete understanding of the project objectives before commencement of the detailed design and drilling methodology development activities. Effective communication with the client and other key stakeholders is essential to ensure all HDD activity on a project is aligned with the objectives and needs of other parties.

*"Our clients are increasingly appreciating the extent of our knowledge and our willingness to cooperatively share that knowledge to help achieve better outcomes."*

### **The risks of complex projects**

One of the major risks on the more complex HDD projects is 'frac out.' Maxibor's engineering design process considers fracture gradient modelling as a way of predicting the annular drilling fluid pressure compared to the ability of the formation to resist a crack or fracture forming from the annular drilling fluid pressure.

There are several factors that influence this calculation, including bore hole diameter; borehole depth of cover; drill pipe diameter; drilling fluid composition; drilling fluid flow rates; formation cohesion and plasticity; and formation ground water.

There are two principal models that are generally applied in the HDD industry to evaluate the fracture point – the overburden density model and the DELFT model. While both models each have their place, it is important that the mechanics of these complex models is fully understood since it is not a matter of simply plugging in numbers. We see numerous examples where the input values into the models is done with little understanding of the mechanics of the models or how it applies to real world drilling. We have also seen other examples of "plugging numbers" to show a desired curve on a chart. At Maxibor we do not believe this is a wise approach, and certainly does not ultimately provide clients or contracts with great outcomes. At Maxibor we believe a cooperative approach at the design stage of a project can help impart our collective knowledge of how to mitigate HDD project risks such as frac out and get a design that will be able to be delivered.

## COMPANY PROFILE AND CAPABILITY STATEMENT

### RAIL SIGNALLING AND INFRASTRUCTURE

Maxibor has extensive experience and capacity to deliver civil works into rail projects. Our staff are highly experienced working in the rail corridor whether it be in busy metropolitan lines or remote regions across Australia.

Both our civil works and HDD design and construct capabilities enables Maxibor to deliver rail signalling and infrastructure works for rail asset owners and principal contractors. Our capabilities include:

- Signalling Infrastructure**
  - Installation of main and local cable routes
  - Cable installation – hauling, rod and rope
  - Installation of power and of cast in-situ manholes
- Rail Infrastructure**
  - Installation of main cable and local cable routes
  - Power installation
  - Pit and pipe installation
- Access road construction
  - Embankment stabilisation
  - Signal base installation
  - Pad and culvert build
  - Fencing
  - Solar installation
- Horizontal Directional Drilling**
  - River crossings – design and construct
  - ULX – construction of special designed sleeving

Maxibor’s staff have been involved in many rail projects across Australia including construction of new tracks and track upgrades. Our labour and plant resources can be readily mobilised from our depots in New South Wales and Queensland.



Our key senior and operational staff have all the required accreditations to work in the rail sector. Most of our operational staff already have RIW cards with others holding Safely Access the Rail Corridor and Rail Infrastructure (trackwork) tickets.



*Sydney Trains electrical and communications upgrade*



*Goonyella Riverside technology enabling project*

## COMPANY PROFILE AND CAPABILITY STATEMENT

### CAPACITY AND FOUNDATIONS



Continuing investment in a well-resourced fleet of heavy and light vehicles, the latest technology in plant and equipment, on call and ready to serve and the ability to recruit, train and retain the skilled and experienced workers we need to handle diverse and often difficult projects.

We own our fleet of vehicles, plant and equipment. This means we have resources and expert skills ready to help when you call.

Maxibor's core values focus on:

- **Relationships** - we follow a strategy towards the creation of long-standing collaborative relationships to deliver better outcomes for clients, staff and other stakeholders
- **Safety, environmental and social responsibility** of the highest standards
- **Sustainability** – we act today with the future in mind. The design methodology of our projects meets the needs of the present without compromising its purpose in future generations
- **People** - we cherish our people and foster a culture in which diversity is valued and personal development is encouraged. We equip, inspire, empower and incentivise our people to reach their full potential
- **We keep up to date** with advances in science and technology and provide our clients with innovative cost-efficient solutions
- **Excellence over mediocrity** – we are proud of our reputation of superior performance in project delivery. We focus on continuous improvement, consistently uplift our standards and improve our cost and quality platforms. We add value in the execution of the contract. We suggest the best solution (rather than later seek the variation)
- **Accountability** – we work to clear and mutually accepted responsibilities, engage in hands-on management and decision making and accept appropriate rewards and consequences
- **Integrity** – we behave ethically, safely, honestly and lawfully. We treat our employees with respect and dignity. We nurture a culture of mutual respect and trust. We are consistent in our commitment to creating and maintaining long standing relationships with our clients, employees, suppliers, subcontractors and all other stakeholders, to mutual benefit
- **Knowledge sharing** – we are a strong believer in sharing our combined HDD knowledge with asset owners, principal contractors, engineering design consultancies, suppliers, other staff and even competitors in a manner which allows more informed trenchless decisions to be made by all stakeholders in the industry.
- **Innovation** – we take a disciplined, professional approach to every project. We continuously search for new and improved solutions. We benchmark, embrace positive change and aim for technical leadership.

## WORKING TOGETHER TO MAKE TOMORROW SAFER TODAY

## **OUR COMMITMENT TO WORK HEALTH SAFETY, ENVIRONMENT & QUALITY**

Our first and most important priority is safety. We target the constant goal of no workplace accidents or injuries through an active employee awareness program. We document safety procedures systematically for each project, including:

- Work Health Safety, Environmental and Quality Assurance Management Plans
- Site Specific Safety Work Health Environmental Quality & Community Management Plan
- Safe Work Method Statements and Hazard Specific Assessments for contract work and sub-contract assignments.

These documented systems incorporate all relevant HSEQ laws, regulations and industry standards, distilled into safe work practices that all our employees must abide by.

Key Maxibor employees are trained in safety, holding such qualifications as Rail Track Safety Awareness Certificates and Working under Power Lines Certificates. We continually brief our employees to remind them of our shared values of working safely and working well. We do that through toolbox talks and pre-work safety briefings. Site personnel as well as visitors are inducted to each Maxibor work site.

Details of work on each site – labour, plant, and project activity and incidents including any lost-time injuries are captured through our in-field Assignar technology to help us monitor, plan and improve safety standards and project delivery. In these ways we safeguard everyone on our work sites and protect the interests of our clients.

## **CARING FOR THE ENVIRONMENT**

The infrastructure projects on which Maxibor works can have major impacts on local environments and wider ecosystems. We ensure our part of each project accords with the highest environmental standards.

Attention to the impact of our activities starts from the design phase and continues throughout the project to completion according to the Environmental Policy Statement that we establish for each project. This includes formal protocols for induction and training, incident and performance reporting, and preventative and corrective action. We also comply with our client’s environmental standards and practices on every project including the provision of regular sustainability reports.





### WE UNDERSTAND WHAT YOU NEED

We understand that the quality of our works reflects strongly on our client, it is this understanding that drives our team to ensure that only the highest quality results are delivered on each project.

We assume full accountability. We work with our client to assess project safety, environmental, financial and constructability risks and implement appropriate controls. Maxibor endorses proactive budget management and provides clients with complete, regular reports. Our ingrained cost culture starts at the shop floor. We manage Dial-Before -You-Dig reports, radio detection of underground services, detailed mapping of underground services including non-invasive locating, and potholing, and excavating around utility service lines.

We provide a fully integrated service. From the preliminary design and tendering process to successful completion, our ability to design, plan, construct and manage all project activities guarantees all the project requirements are met. With safety, efficiency and reliability as cornerstones, our processes contain three identifiable stages: Concept and feasibility, Build and implementation, Finalisation and handover.

During each stage, Maxibor:

- Creates the complete detailed positional design of the proposed new infrastructure
- Works with the client to assess the project's safety, environmental, financial and constructability risks and determines appropriate controls
- Prepares the construction scope of works and methodology that complies with identified controls
- Prepares the project safety and environmental management plans
- Prepares resource, plant and material schedules and lists and prepares the construction program. All activities are identified and time-lined in the project plan to determine the critical path. This guarantees both Maxibor and the client are focused and committed to agreed project objectives.

We inculcate a spirit of pride in good workmanship. Our engineers, executives, drillers, skilled plant operators and administration staff all share our passion for getting the job done on time and right up to the high standards our clients require.



**OUR PLANT**

**Vermeer 330 x 500 Maxi Rig** with 330,000lbs (150 tonne) of thrust and pullback. Rotary 50,000 ft lbs.

Capable of drilling up to 2,600m long and 1.6m diameter bores in all ground conditions including extremely hard rock.



**Gallagher HDD 660 Electric Maxi Rig (The Hulk)** with 660,000lbs (300 tonne) of thrust and pullback. Rotary 100,000ft lbs.

Capable of drilling over 3,000m and up to 1.6m diameter bores in all ground conditions including extremely hard rock.



**Gallagher HDD 600 Maxi Rig (The Iceman)**

600,000lbs (272 tonne) of thrust and pullback. Rotary 100,000ft lbs.

Capable of drilling over 2,500m and up to 1.6m diameter bores in all ground conditions including extremely hard rock.



**American Auger 660T Maxi Rig** with 660,000lbs (300 tonne) of thrust and pullback. Rotary 100,000ft lbs.

Capable of drilling up to 2,500m long and 1.6m diameter bores in all ground conditions including extremely hard rock.





## COMPANY PROFILE AND CAPABILITY STATEMENT



**Two Vermeer 100x120 Series II** rigs with 100,000lbs (45 tonne) of thrust and pullback. Rotary 12,000 ft lbs.

Capable of drilling up to 800m long and 1m diameter bores in most ground conditions including very hard rock.



**Vermeer D36x50 Series II short rod rig and Vermeer 36x50 Series II DR** with 35,000lbs (15.8 tonne) of thrust and pullback. Rotary 4,500ft lbs.

Capable of drilling up to 400m long and 0.7m diameter bores in all conditions including very hard rock.



**2 x Vermeer 9t x 12t Mud Recyclers 1500 GPM**



## Gallagher Recycling System



## COMPANY PROFILE AND CAPABILITY STATEMENT

- Desander and desilter & shale shaker three in one unit for compact footprint.
- Polyurethane material hydro cyclone for long life.
- Removable hydro cyclone assembly for adjust to be a shale shaker.
- Mechanical shaker deck angle adjustment while working.
- Patent tighten rubber sealing for shaker deck and screen for fine screen
- Shaker bottom deck made from stainless steel for long service life.
- Heat treatment on complete shaker deck for high G force operation.
- Pretension shaker screen for fast screen replacement.

### Vacuum and Tanker Units

Locating services via non-destructive cable locating methods and protecting the environment is a mandatory aspect required under Maxibor's systems. We have vacuum and tanker units that can assist all civil and HDD operations on your project, they include:

- 32,000L Water tanker
- 16,000L Vacuum tanker
- 4 truck mounted vacuum and with high pressure water service location units 6,500L to 12,000L



### Vector Magnetics ParaTrack2 Guidance System



ParaTrack2 is a fast and accurate tracking system for HDD. The system converts AC mains power to a variable current AC waveform, driven through a guide wire. Current flow on the guide wire generates a powerful magnetic field at <math>< 10\text{Hz}</math>, designed to be resistant to interference from surrounding infrastructure – providing reliable survey verification in any environment.

By providing a direct measurement to the drilling assembly underground, ParaTrack2 enhances the accuracy of HDD pilot bore surveys. As drill lengths grow longer and profiles more complex, it is critical to both survey pilot bore positions, and verify them. ParaTrack2 delivers verifiable results, eliminating surprises.

The drilling of the 460 metre pilot hole through hard rock formation for a 4" steel gas pipeline crossing 35 metres beneath the Boyne River in Gladstone, Queensland, Australia is one example of how the ParaTrack2 system has been used to achieve the required pilot hole precision.





Guidewire magnetic surface coil was laid on entry and exit side. AC Beacon, a wireless magnetic source, was used for the river section of the crossing. The drilling technique incorporated a Mud Motor Assembly, enhancing control and efficiency in navigating the challenging hard rock terrain. This technical approach combined cutting-edge technology and strategic engineering to achieve successful directional drilling in challenging geological conditions.

### **Mag 8 and Mag 9 Locating Systems**

Maxibor is using modern magnetic guidance technology to further de-risk its HDD projects across Australia. The stronger frequency transmitters on the magnetic guidance systems are now capable of providing readings from depths of up to 100m. The enhanced technology saves valuable time and significantly enhances the accuracy of the bore alignment thereby reducing unwanted consequences of the HDD operations.

Maxibor uses the Underground Magnetics Mag 8 and Mag 9 locating systems to assist the HDD drill operator in locating and tracking underground drill head locations and orientations. The systems consists of a transmitter, a receiver, and a remote display.

The systems provides up to ten channel license free radio telemetries between the receiver and remote display. The user can easily "pair" any two receivers and displays so that communications between the "pair" will not be interfered by other "pairs".

The transmitter sends digital information of the transmitter's pitch, roll, temperature, and battery status through an FM modulated RF signal. The receiver receives this information and uses RF signal to identify the transmitter's status and location.

The receiver transmits the locating information to a remote display through a radio telemetry system. A horizontal directional drill operator can use the information from the display to guide the drill head to the desired path.

**COMPANY PROFILE AND CAPABILITY STATEMENT**

One major advantage of the Mag systems is their simplicity. Once the receiver and transmitter are paired, the operator is not required to push any buttons to pinpoint the location, direction or depth of the transmitter.

Another advantage is that the frequency can be changed when the transmitter is downhole saving significant time through not having to pull out.



**SST Steering Tool** -The SST® system monitors the tool's compass heading (azimuth) in degrees and provides the operator with a lateral deviation (in degrees) from the intended path for quick steering corrections.



The system consists of a transmitter (attached to the drill-head) and the handheld drill-head locator or wireline which together calculate depth, position, and direction. This data is displayed on the handheld receiver and transmitted to a display on the HDD rig, allowing two operators to direct the drill's progress.

**Tooling and Ancillary Equipment**

Maxibor uses the most technologically advanced drilling products in the industry, and our innovation and expertise are evident in our completed crossings.

Our investigation and preparation processes before site commencement activities include site specific detailed assessments to ensure the required disciplined systems are in place for ground conditions.

The steering guidance system minimises traffic flow disruption, inconvenience to the public or surrounding landowners, and preserves cultural heritage and vegetation whilst reducing carbon emissions by up to 70%.



## COMPANY PROFILE AND CAPABILITY STATEMENT



*Vermeer 100x120 with rock cutter*

Maxibor has 7,000 metres of 5" drill pipe and 4,500 metres 6 5/8" drill pipe along with a range of cutters and reamers for any sized bore.

Also in the Maxibor plant fleet is a range of other equipment including:

- 7 excavators from 5.5t to 35t
- 2 x 20,000 litre AMC mixing systems
- 1 x Weatherford 400gpm pump
- 1x Gardner Denver 500gpm pump
- 250kVA Caterpillar and other generators
- 3x 70,000 litre frac storage tanks
- 20 and 40' decked out tool containers
- 5 semi prime mover/float trailers
- 2 side loaders
- Deck widening low loader and dolly with capacity up to 50 tonne and 5.0m wide with escort
- Tool trucks and support vehicles

**The extensive plant fleet enables Maxibor to comfortably operate across multiple projects at any time.**

## PLANT HIRE

Maxibor's extensive plant fleet is available for dry and wet hire. Popular hired items include the maxi-rigs, Gardner Denver PZ8 pumps, generators, 35t excavator, Vermeer cleaning systems, prime movers and side and low loaders.

Hire fees are competitive and negotiable for extended periods.

Contact David Turner on 0499 375 511 or email [david.turner@maxibor.com.au](mailto:david.turner@maxibor.com.au) to discuss your plant hire needs.

Our Robinson R44 Clipper II helicopter is also available for hire.

**COMPANY PROFILE AND CAPABILITY STATEMENT**  
**SELECTION OF PROJECTS DELIVERED**



**Water** Design and install of two dual river crossing bores of 500mm SDR6 PN32 PE100 pipe for South West Pipeline project. Total length of the four bores 1,495m, average length 374m. Ground conditions OTR, cobble and rock.

**Sydney WATER**

**Sewer** Installation of rising main at West Dapto 374m 315mm pipe reamed to 400mm diameter in rock up to 70MPa.

**Water** Installation of multiple 250mm HDPE road crossings in Western Sydney. Total length 2km in OTR.



**Gas** Installation of 460m 110mm steel gas pipeline in rock under Boyne River Qld in sand, cobble and rock ground conditions.



**Water and Sewer** Two M1 430m and 450m crossings of DN500mm SR11 PN16 Case Pipe and DN630mm SDR 11 PN16 Case Pipe plus two 150m and 208m watermains of DN630mm SDR 11 PN16 Case Pipe at Warner Business Park Jilliby Warnervale NSW.



**Water** Three river crossing bores of 125mm, 630mm and 800mm each 370m in length. 800mm bore required 1.050mm diameter. Project had to contend with impact of South East Queensland floods. Ground conditions rock and clay.



**Water** design and construct of five bores of 355mm SDR9 PN20 SRM pipe with lengths raging from 80m to 764m in OTR and rock at Wyee NSW



**Gas** Dual 236m of 200mm steel pipe main in OTR and rock up to 15MPa at Bayswater power station.



**Water** Lamb Island Qld Install of a new 400m DN400 PN20 water pipeline between Lamb and Macleay Islands for Seqwater. Vermeer 100x120 rig completed the pilot hole and most of the reaming. Vermeer 330x500 maxi-rig used its extra muscle to ream the bore hole to a 550mm diameter and pull the pipe through.



**Wastewater** Connecting the Greater Flagstone Priority Development Area with the Cedar Grove sewerage treatment plant. Longest bore of 1.320km installing 500mm of PE100 HSCR PN20 to a depth of over 50 metres. Another six bores ranging in length of between 190m and 400m and pipe sizes of between 450mm to 560mm.



**Australian Government**

**Defence**

**Power** Williamtown NSW Over 3km of 3-way 250mm in water charged sand. Assisted with achieving best design outcomes. Sensitive environmental requirements and stringent Defence and Lendlease clearances all met.



## COMPANY PROFILE AND CAPABILITY STATEMENT



**Power** Cabramurra NSW 7 bores ranging in length from 50m to 240m in rock up to 200 MPa. 240m bore for 2 x DN160mm and 1 x 63mm PN16 HDPE conduit.



**Wastewater** Refresh Diamond Bay to Vaucluse project. Design of 1.850km DN 335 HDPE pipeline. Construct expected in 2024.



**Water** Pacific Motorway M1 - Burleigh to Palm Beach – Gold Coast City Council utility service relocation. Design and install. 5 bores for PN20 PE100 pipe ranging in diameter 280mm, 630 mm and 710mm. Ground conditions OTR and rock up to 60MPa.



**Sewer** South Kempsey Sewer 6 bores of DN63 to DN225 - total 691m in OTR



**Power** Bruce Highway Upgrade 11 bores, 1.7km of 3x140mm and 4x140mm power conduits in very hard rock.



**Rail** NSW Sydney Trains ninety multiple length bores for electrical and communications upgrade between Gosford and Awaba. Significant input into design in conjunction with client.



**Water** Swansea NSW 335m of 800mm diameter pipe crossing Swansea channel for Hunter Water. Installed in water charged sand to a depth of 30m.



**Potable Water** Salt Ash NSW 2.7km of various size water main installed in sand. **Sewer Rising Main** Nelson Bay NSW 2.5km of 160mm & 140mm HDPE PN16 installed in water charged sand.



**Rail** Wickham Transport Interchange Newcastle NSW two bores of 400mm to 450mm pipe. Complex site with numerous services – detailed design assistance provided.



**Sand slurry** 1,293m of 450mm for to return of sand from The Spit to Surfers Paradise beach

**Comms** Multiple bores for Communications Conduits 580m of 100mm PN12.5, 245m of 200mm PN16 and 825m of 450mm PN16 HDPE



**Water** Installation of 315m of 1 x DN560mm HDPE Water Main and 380m of 1 x DN560mm HDPE Water Main in cobble/gravel and rock ground conditions.



**Gas** Roma multiple +60m bores of 125mm, 160mm and 250mm HPDE pipe

## COMPANY PROFILE AND CAPABILITY STATEMENT



**Water** Wentworth construction of directional bores under the Darling River (302m of 630mm PN16 HDPE) and Tuckers Creek (220m of 630mm PN16 HDPE)



**Water** Causeway Lake Qld twin 360m bores of 315mm and 450mm Iplex pipe with new Qenos resin installed to 15m depth under the causeway through 260m of hard rock and 100m sandy clay.



**Power WestConnex Alexandria NSW** Package of 18 bores under the Alexandria Canal and Sydney Water Culvert to accommodate power and communications services.



**Telco**  
Scotts Head NSW twin 500m continuous bores 300mm steel case pipe for 110mm PN25 through very hard rock and cobble.  
Macksville NSW 500m river crossing 30m under Warrell Creek on the mid-north coast of NSW.  
Project was a finalist in the Bore of the Year at the 2019 No Dig Down Under Exhibition in Melbourne



**Gas** Western Sydney install of 70m of 250mm Steel Pipe with Dirax sleeve (130m surface to surface) in OTR.

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