



COMPANY PROFILE 2016







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ABOUT US

By name we are a directional drilling, rock trenching and excavation company, but that is just a small portion of our capabilities. We specialise in the installation of underground utilities, utilising many methods, including directional drilling, auger boring, trenching and open cut trenching when installing underground utilities including water-mains, (DICT, PVC, polyethylene) storm water (FRC, concrete, PVC) sewer, manholes (In site, precast), telecommunication, electrical, electro-fusion welding, and butt welding.

As Telstra accredited pit and pipe installers and polyethylene welding licenses we are able to deliver on a range of civil construction projects. Safety and the right training are really important to NDD and throughout the year we maintain comprehensive training programs. Our entire team is ticketed in confined space and senior first aid and has been individually trained in house with directional drills, excavator, manual handling, operation of demo saw and angle grinder, working with machinery, house keeping and return home safe.

Since our beginning in 2012, we have worked on large-scale projects within the Canberra region and have built important networks that have enabled us to utilise experienced sub-contractors, when required.

STAFF

Michael Delaney – Manager

Mick joined NDD in 2012 and has quickly become a valuable member of the NDD team, moving in the role of manager at the end of 2014.

Mick's role at NDD was as the Site Supervisor and Team Leader of NDD Civil crew and applied the principles of civil engineering to major civil projects – namely NBN.Co Queanbeyan and Armoured cable upgrade O'Connor. Delivering high quality advice and provision of civil engineering support and services in gas, sewer, storm water, telecommunication pipelines.

Gaining experience in delivering accredited Construction for Developer works. Project scopes and responsibilities included construction of varying size civil, pipeline and directional drilling (ranging from high to medium pressure PE, Nylon, PVC pipelines, gravity and conduits). Trenching and HDD techniques. Mick

has managed crews of up to 10 from pre-commencement to completion. Obtained Work site landing, identification and control of Environmental and Occupational Health and Safety (OH&S) risks and hazards. On occasion, Mick has managed investigation and reporting on incidents, near misses, accidents and illness/injury, employing safe work methods, material and plant compliances, and decommissioning of project sites.

Mick comes from a carpentry background. As an apprentice and then qualified Carpenter Mick worked on commercial and domestic sites ranging from multi-million dollar commercial buildings to bathroom renovations and decks. Developing his skills throughout his apprenticeship to become a high quality tradesman. He was able to learn quickly and always looked to improve. Mick developed a good working relationship with other tradespeople and was able to communicate well with clients.

Mathew Morales – Construction Manager

Mathew has had fifteen years of experience in the installation of assets for utility companies in regional and metropolitan cities as well as regional areas. Including delivering the Power Co Gas network to Launceston Tasmania, and Bungendore Gas Network and multi-million dollar installations across New South Wales. Mathew has strong leadership skills, this ensures quality management of underground assets and utilities. He has an excellent track record and experience in delivering accredited construction for developer works. Excellent interpersonal skills have commanded respect from colleagues and clients alike.

QUALIFICATIONS

- Qualified Senior First Aid
- OH&S Induction Training for Construction Work
- Asbestos Awareness
- Overhead Power lines Safety Awareness Cert
- Sydney Water Accredited Confined Space
- Heavy Rigid License
- Butt & Electrofusion Welding (PE Pipe. high pressure) Accredited
- ZNX Accredited
- Water Operations Training Package NWP07
- Sewer Construction NWP250A
- Machine Operators Licenses LE, LB, LS





SERVICES

NDD has a huge range of capabilities, listed below are the different services we have to offer starting with.

CASE BORING

Case boring, auger boring or pipe jacking is a fantastic solution for sewer, water, gas, electrical and communications.

Case boring is a method of horizontal boring where a steel casing or sleeve is installed at the same time as it is bored utilising a minimal over cut and removal of spoil material from the face via the sleeve and augers which run the inside of the sleeve. This makes it an extremely effective method of boring under roads and sensitive areas as there is no displacement of spoil material. (There is no upward thrust).

Boring sizes 300 to 1,350mm, All bore's set out by GPS and are GPS logged.

This method has many advantages

- Being environmentally friendly, as the spoil material is in dry form and not liquid form which keeps waste to a minimum.
- Being a safe option with depths greater than 1.5m the footprint remains minimal and is restricted to entry and exit pits where adequate storing can be utilised.
- The other advantage is that boring can still be achieved through different ground conditions including rock and soft soil, where a vacuum boring method would struggle, case boring could succeed.

EXCAVATION & TRENCHING

NDD has a range of excavation and trenching machinery available to suit the needs of any excavation project.

We can source excavators ranging from 1.5 to 30 t. A range of fitted attachments gives our excavators excellent flexibility. NDD excavators are compact in design and with rubber padded tracks are suitable for inner city works.

Excavation in construction is any operation in which earth, rock, or other material in or on the ground is moved or otherwise displaced by means of tools, equipment, or explosives, and includes earthwork, trenching, wall shafts, tunnelling and underground work. High-risk obligations apply to excavations with a depth greater than 1.5metres.

Benefits of our excavators:

- Zero swing excavators are suitable for restricted and high density work sites
- Large and extensive range of bucket sizes to suit all applications
- Rock hammer and augers with a range of sizes from 300mm through to 900mm and extension to auger to a depth of 6m
- Bucket changes are quickly completed
- Flexible to lift, position& lower pipe strings into trenches

Hazards associated with excavation work

Without careful planning and management, an excavation site can be hazardous to all persons in the vicinity of the construction work. NDD are excavation specialists and take particular care in regards to issues like:

- The depth of the excavation
- Nature of the strata (soil variations creating the potential for the sides to collapse)
- Fractures or faults
- The presence of water (from other sources) Exposure to wet weather
- Any load close to the edge of the zoned of influence
- The exposure time
- Any previous disturbance Adjoining buildings Adjacent excavations
- Vibration which may increase the potential to collapse
- The presence of existing underground services and chemical gases

GRUNDOMAT SOIL DISPLACEMENT

Grundomat soil displacement hammers are designed to install pipes and cables over distances up to 50m and pipe sizes up to 200mm.

Grundomat's are a pneumatically operated thrusting tool that displaces the soil to create a void for the installation of required services.

Advantages:

- Extremely cost effective
- Environmentally friendly with minimal footprint (entry pit 1200 x 300, exit pit 600 x 300).

HORIZONTAL DIRECTIONAL DRILLING

NDD specialise in providing horizontal directional drilling for electrical, telecommunications, water and gas. We have modern equipment capable of handling any job and the experience to deliver exceptional results.

Horizontal directional drilling is fast becoming a popular technique for the installation of utilities such as gas, water, sewerage and electricity and communications cables.

Directional drilling not only saves time but also eliminates the social costs usually associated with open trench installations such as the interruption of motor and foot-traffic and the ecological damages to highways, footpaths, driveways, lawns and gardens. HORIZONTAL DIRECTIONAL DRILLING

HYDRO EXCAVATION

Hydro excavation is a mechanical method of excavation utilising water and vacuum as the method of removal for spoil material.

Hydro excavation is a fantastic method when excavating around existing services, tree roots or where services could not be identified (inside block boundaries)

Advantages:

- Clean
- Safe
- Minimal environmental impact

The use of vacuum spoil material is contained within the tank and is removed from site and deposited at a registered waste disposal site.

The high pressure water lance is monitored and kept between 1,800-2,000 psi making it safe to work around fragile networks such as gas, fibre optic and electricity.

ROCK TRENCHING

NDD have a selection of trenchers able to cut various widths, to fit small and large diameter pipelines in residential, industrial and commercial areas.

Rock trenching is gaining a reputation as the smart alternative to the often dangerous rock blasting method.

Unlike rock blasting, trenching is a cleaner, more controlled and faster method of cutting through rock. The crushed rock by-product caused by trenching can often be reused as back fill, which saves both time and money in waste removal.

Rock trenching produces a much neater trench and less disturbance of the ground and surrounding environment, which allows rock trenchers to be used near roads and other utilities.

Advantages:

- Are more time efficient than excavators
- Are highly mobile and can easily navigate residential areas
- Have excellent depth and width accuracy
Can cleanly remove soil



BED BORING

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POLYETHYLENE WELDING

Polyethylene pipe is a sustainable fully sealed system, which is impact and UV resistant. Because of its versatility, polyethylene pipe is becoming a more prevalent material used within; gas, electrical and communication, non-portable water and water supply mains.

Welding of PE pipes by electro fusion couplings provides a homogeneous joint with end load bearing capabilities and the same corrosion resistance as the parent pipe.

Electro fusion joints consist of resistance wires embedded into the parent material of the coupler which, when heated by the passage of controlled electrical current, cause the surrounding PE material to melt and form a fusion point.

The NDD team are fully licensed specialists in polyethylene welding and are able to:

- Perform butt-welding and electro fusion welding of polyethylene pipes from sizes 20mm to 1200mm
- Complete projects on larger pipelines
- Complete the welding process without interference pipes
- Pipe lay and de-bead welds to maximise capacity of the pipeline.





CASE STUDIES





BELCONNEN COMMUNITY MEDICAL CENTRE

Work Summary:

NDD was approached by Hindmarsh to install 43m of 150mmdiameter gravity sewer main, across Cohen street Belconnen. After consultation with Browns and ActewAGL it was decided that a case bore was the most feasible option, with the idea of maintaining the structural integrity on the road.

- 300mm diameter casing
- On grade 3.25%
- Through different ground condition's (rock-soft fill)

Key Outcomes:

This project was performed on time and on budget, with the key outcome of maintaining the structural integrity of the road achieved. Utilising the case boring method there was no environmental impact and keeping with a relatively small entry and exit pit safety was paramount.

- Required line and invert levels achieved
- Mobilisation and demobilisation 3 days through different ground conditions
- Nil disruption to the public



BARTON HIGHWAY & CLARRIE HERMES ROAD

Work Summary:

NDD was engaged by Cut and Fill to repair existing storm water lines of various sizes. The project consisted of the repair of 13 separate lines, with a total of 15 repairs.

- Maintain relative standards
- Maintain minimal impact on existing environment and public services

Key Outcomes:

Cut and Fill were conscious of cost and time, so NDD was flexible through out the duration of the project to help cut and fill meet their targets.

- Completion on time
- Completed within budget
- Working with a fragile network (FRC pipe)



ACT PEDESTRIAN LIGHTING UPGRADE

Work Summary:

NDD was engaged by Affinity Electrical to excavate and install 50mm electrical conduits at 19 separate sites around Canberra for the installation of pedestrian lighting.

- 2 poles per site
- Auger holes for installation
- Technically demanding

Key Outcomes:

NDD had to overcome some hurdles, with many site's not always close together and with every site being extremely close to live traffic and in close proximity to existing services, some extremely fragile. NDD was able to overcome all hurdles, with the ability to utilise all methods of installation in house. Being directional drilling, grndomat, hydro excavation, open cut trenching and bed boring. Had NDD not have had this all in house the project time frame and budget would have been compromised.

- Many methods utilised in house
- Proximity to live traffic
- On time and budget





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