

Trimble Groundworks machine control system

Turn precision into profit

Boost safety, accuracy and efficiency across your drilling and piling operations.

The Trimble® Groundworks machine control system provides stakeless navigation that eliminates labor-intensive layouts and delivers design plans directly to the machine operator. Improve productivity and profitability by deploying this aftermarket system across your entire mixed fleet.

Built to thrive in extreme environments, Groundworks pairs intuitive software with shock-certified hardware for unmatched jobsite precision. Because on any jobsite, precision pays.



Avoidance zones

Easy to use interface

Configurable views

- **Avoidance zones:** Protect your crew and fleet with clear visual alerts of restricted work areas
- **Auto stop:** Prevents under- or over-drilling and piling by automatically stopping at the exact design depth
- **Industry-leading accuracy:** Delivers high-precision horizontal and vertical RTK positioning
- **Stakeless navigation:** Eliminates manual layouts while cutting operator workloads
- **Fleet versatility with Trimble Earthworks integration:** Maintain precision across your entire fleet regardless of make, model or attachment setup — even turning Trimble Earthworks excavators into piling rigs
- **In-field adaptability:** Navigate to inclined or vertical holes/piles from any direction and adjust plans instantly in the field
- **Real-time insights:** Capture live as-built data and sync it instantly to the cloud for up-to-date productivity and quality control reporting
- **Wireless data-sync (optional):** Instantly transfer project data between the field and the office

Drilling and blasting

Optimize every penetration across blast holes, oil/gas extraction and rocky terrain pre-drilling. Improve fragmentation, cut explosive costs and reduce machine and drill bit wear.

UP TO 30% INCREASE
in crusher throughput



Solar farm construction

Pile faster and safer with smaller crews. Groundworks combines stakeless navigation with real-time plumbness and depth control to deliver perfectly aligned rows for subsequent racking.

30+ SECONDS
saved per pile



Heavy infrastructure and deep foundations

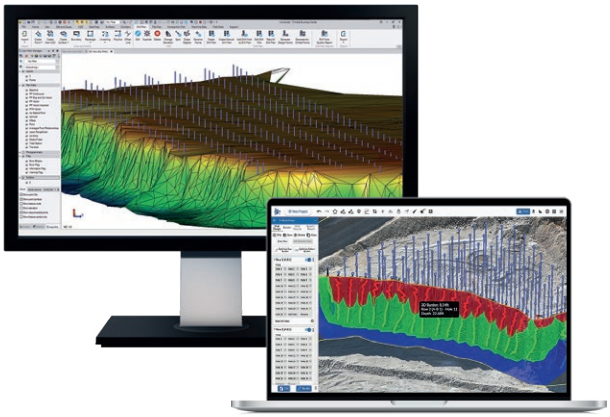
Deliver flawless structural alignment for bridges, overpasses and high-rises across continuous flight augering (CFA/auger cast), anchor/monopile drilling, bored shafts or ground improvement with wick drains.

PROVE COMPLIANCE
Capture data as you work



Connect it all with Trimble

More than machine control, Groundworks is part of an integrated ecosystem of solutions that connects the physical and digital worlds. This seamless connectivity keeps all stakeholders aligned, prevents costly rework and maximizes operational efficiency.



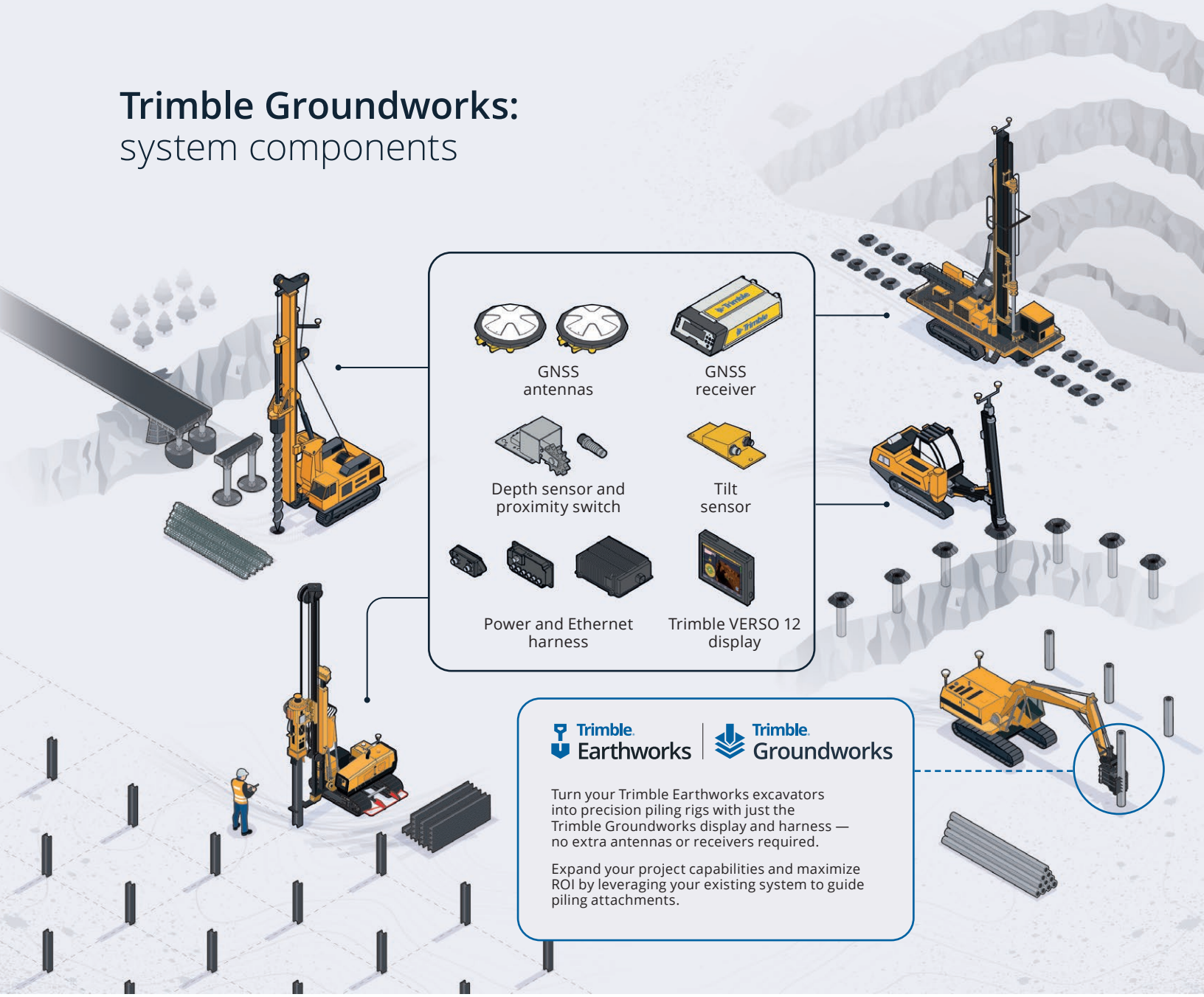
Plan
Build optimized drill and pile plans in Trimble Business Center (TBC) software, or create specialized mining and quarrying drill plans in Trimble Mine Insights™ software — avoiding errors before breaking ground.

Execute
Guide operators with industry-leading precision while capturing accurate as-built data during operations.

Check
Manage designs and machines across all your sites, without leaving the office. Send design updates instantly, visualize progress in 3D and keep your projects running smoothly with Trimble WorksManager software.

Improve
Drill down into the data in TBC or leverage Trimble Mine Insights integrated AI-powered analytics to optimize drilling, blasting and geotech performance. Turn jobsite data into smarter decisions that continuously improve your bottom line.

Trimble Groundworks:
system components



Trimble Earthworks | Trimble Groundworks

Turn your Trimble Earthworks excavators into precision piling rigs with just the Trimble Groundworks display and harness — no extra antennas or receivers required.

Expand your project capabilities and maximize ROI by leveraging your existing system to guide piling attachments.

Worry-free ownership — your way

Always have the latest Trimble technology, world-class service and accidental damage cover with no upfront investment through a subscription. Prefer a traditional purchase? Add a Trimble Protected protection plan for coverage including wear and tear, environmental damage and more.

Available on Trimble Works Subscription

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