

# SITECH<sup>®</sup>

## Increase Productivity With The Latest Construction Technology



 **Trimble**  
Authorised Dealer

SITECH Mid-Canada Ltd. represents Trimble machine control systems for your entire fleet of heavy equipment, along with Trimble's complete portfolio of Connected Site Solutions—Site Positioning Systems, Construction Asset Management Services, software and powerful wireless and internet-based infrastructures. The experienced construction professionals at your SITECH dealership provide:

- Local on-site customer service and sales
- Installation services
- Personalized training
- Technical support
- Professional Services
- Support Agreements (Long Term / Short Term)

### GLOBAL REACH + LOCAL SUPPORT

SITECH is a global distribution network for Trimble solutions - the most reliable and rugged construction technology systems available to the heavy civil construction contractor.

You get the best of both worlds. The stability and experience of a local partner combined with the best construction technology available from Trimble, and the global reach of the SITECH distribution network.



Improve efficiency and productivity, while minimizing waste and expense throughout the life of the project with Trimble® Connected Site® solutions for earthworks. Create a 3D constructible model, use it to plan the most cost-effective schedule, and then use the same model to track project progress.

### SURVEY THE SITE

Collect survey, grade check, and as-built data from the field and send it to the office in real-time to build an accurate 3D constructible model for takeoff estimating, data preparation and reporting. Or take advantage of fast and safe aerial data collection with Trimble Unmanned Aircraft Systems (UAS) to replace ground surveys and provide more data at shorter intervals for lower overall cost.

With field software designed specifically for construction workflows and seamless integration with other Trimble software solutions, job site delays and rework are significantly reduced. Easy-to use and learn field software means you spend less time training and preparing data, and more time getting the job done.

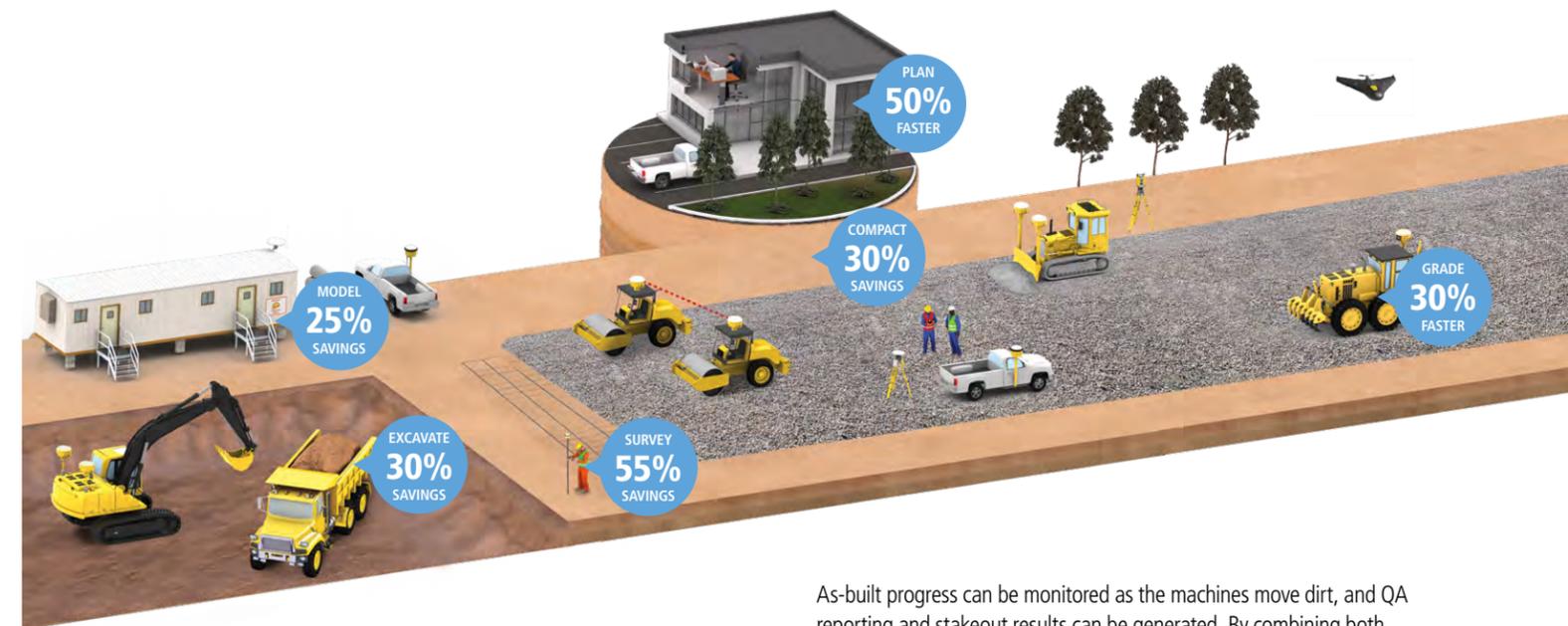
### BUILD A 3D CONSTRUCTIBLE MODEL

Combining current field conditions from multiple sources with design information provides the foundation for the 3D constructible model. Validate and improve the site operations plan with a 3D constructible model, so you know what to build and where to build it before costly construction begins. Adding intelligence to the model, such as how dirt will be moved, and updating the model with up-to-date field information makes the Trimble 3D constructible model a powerful tool to plan, manage and construct projects.

### SYNC REAL-TIME DATA WIRELESSLY

The 3D constructible model is used to automatically sync design files and work orders between the office and the field in real-time so everyone is working with the latest files.

When up-to-date design information can be sent to the field crews or machine operators without leaving the office, you get 100% less drive time, and 100% less rework, 100% of the time.



### SUPPORT AND TRAIN REMOTELY

Get real-time technical support for field crew personnel or earthworks machine operators, without the time and cost of waiting for a technician to drive to the construction site. Both the field crews and the support team see the same picture, eliminating costly delays, downtime and drive time.

### TRACK AND REPORT PROGRESS

Intelligently combining as constructed information from across the project allows for advanced, near real-time reporting for progress payments.

As-built progress can be monitored as the machines move dirt, and QA reporting and stakeout results can be generated. By combining both survey and machine data, contractors get the best overall picture of the current state of the project. In addition, soil compaction operations can be monitored to ensure compaction requirements are being met.

### COLLABORATE EFFECTIVELY

All your important files for the whole team are now located and backed up securely in the cloud. Overlay designs and cut/fill maps onto Google Maps or digital imagery, so everyone can see what's happening. Even site inspections and routine site visits are easily recorded and uploaded – including photos.

# BENEFITS OF MACHINE CONTROL

## TRIMBLE READY

Trimble has worked with all leading machine manufacturers to reduce system installation time and effort of Trimble machine control technology onto the machine. Trimble Ready™ machines come pre-plumbed and with brackets for the Trimble components. Today, a number of machine manufacturers have Trimble Ready solutions for easy installation and cross-machine type and brand portability, allowing for a maximized utilization of the technology across your fleet as well as maximizing your return on the investment. Ask your local machine manufacturer dealer if the Trimble Ready option is available for your new machine.

**PRODUCTION  
INCREASED BY  
100%**

**INCREASED  
JOB SAFETY**



**98%**  
ON GRADE  
ACCURACY

**43%**  
SAVINGS IN  
DIESEL FUEL

“SITECH has been fantastic to work with. Whenever we’ve needed additional assets they’re there to help us and get us up and going. Their support system, whenever we need it, it’s there. Any problems we run into, SITECH has always been there to help.”

BRANDON ROBINSON, ESTIMATOR AND GPS ASSET MANAGER, DRAIN BROTHERS  
PETERBOROUGH ON, CANADA

YOUR CONSTRUCTION TECHNOLOGY PROVIDER

# PROVEN COMPONENTS THE RIGHT FIT FOR EVERY JOB

## CONNECTED MACHINE COMPONENTS



### Trimble CB450 Control Box

Designed for use in harsh construction environments, the Trimble CB450 Control Box gives the operator a full-color graphical display for easy viewing and guidance to grade.

#### Features include:

- 4.3" (10.9 cm) full-color LCD display with adjustable backlight controls
- Audible tones for real-time grade guidance or warnings and alerts
- Four led light bars to provide grade guidance at a glance



### Trimble SNM941 Connected Site® Gateway

Connect your machine with rugged hardware from Trimble. Featuring both Wi-Fi® and cellular connectivity, the SNM941 enables wireless data transfer of design files and GNSS corrections, and fleet, asset and site productivity information.



### Trimble CB460 Control Box

The Trimble CB460 Control Box is the premium display for all machine types in the Grade Control System portfolio. The CB460 offers the same key features as the CB450, plus:

- A large, easy-to-read 7" (17.78 cm) full-color LCD display
- Support for external light bars
- Faster data transfer via Ethernet connection

## 2D COMPONENTS



### Spectra Precision GL700 Series Grade Laser

Spectra Precision GL722 Series Grade Lasers provide years of durable, precise machine guidance with GCS900 2D Grade Control Systems, the GCSFlex Grade Control Systems and laser-based compact machine installations. Ideal for site preparation, trenching and pipe laying, fine grading and road construction, the GL700 lasers can help you get to grade faster with more accuracy.



### Trimble LR410 Laser Receiver

The LR410 is mounted to an electric mast on the blade and connected to the machine hydraulics to control lift to an accuracy of 3-6 millimeters (0.01 to 0.02 feet).



### Trimble ST400 Sonic Tracer

The ST400 is mounted to the blade and uses a physical reference such as curb and gutter, stringline, existing or previous pass as an elevation reference.



### Trimble SR300 Laser Receiver Mast

The SR300 is mounted on the blade and used with the GL series Grade Laser. It can be upgraded with a Trimble GNSS Smart Antenna for blade control to 3-6 millimeters (0.01 to 0.02 feet).

## 3D COMPONENTS



### Trimble MS995 GNSS Smart Antenna

The MS995 contains an integrated GPS+GNSS receiver, antenna, and isolation system all in a single, durable housing. It uses the advanced Trimble RTK engine for faster initialization times when satellite lock is lost and enhanced performance near obstructions.



### Trimble GNSS MS975 Smart Antenna

The MS975 offers a cost-effective alternative for contractors who need a highly accurate GNSS receiver at a lower price point. It is optimized for cab or machine body mount only.



### Trimble SNR On-Machine Radios

Rugged Trimble on-machine radios offer a modernized platform for communicating with Trimble Universal Total Stations or with a fixed GNSS base station. Available in:

- Single-band 450 MHz, 900 MHz, and 2.4 GHz
- Dual-band 900 MHz + 2.4 GHz and 450 MHz + 2.4 GHz



### Trimble Total Stations

Trimble SPS Series Universal Total Stations can be used for even greater accuracy when performing fine or finished grading, with blade guidance to 2-5 millimeters (0.007 to 0.016 feet).



### Trimble SR300 Laser Receiver Mast

When improved vertical accuracy is needed, the GNSS systems can be enhanced with the Trimble SR300 Laser Receiver Mast for blade control to 3-6 millimeters (0.01 to 0.02 feet).

**SITECH**

# TRIMBLE EARTHWORKS

CONTROL THE FUTURE



Trimble® Earthworks is an advanced machine control platform which will position yourself and your company for a bright future. It allows automation as well as the integration in existing factory installed machine control systems. Experience the unrivaled reliability and flexibility you are used to from Trimble, additionally with:

- 10" touch 3D Colour-Display
  - Gorilla® Glass
  - Best visibility even in bright sunlight
- Android Operating System
- High performance IMO Sensorik (10x faster)
- 2D/3D Automatic System
- With various optional upgrades

# MACHINE CONTROL REDEFINED

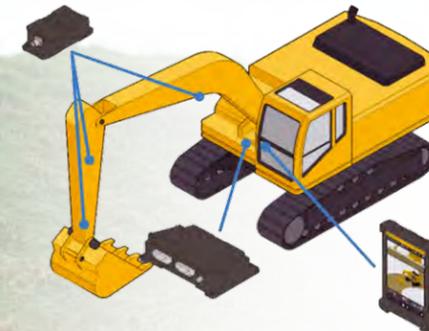
The new Trimble® Earthworks for Excavators Grade Control Platform is designed to help you do more in less time. State-of-the-art software and hardware give operators of all skill levels the ability to work faster and more productively than ever before.

The system holds what it promises:

- Latest inertial sensoric on all components for 10x faster results (100Hz, 3x 3x)
- Construction tough hardware with the 10" touchscreen display (1920x1200 Pixel) with gorilla glass and IP66 certification.
- Used of proven and performing Trimble components

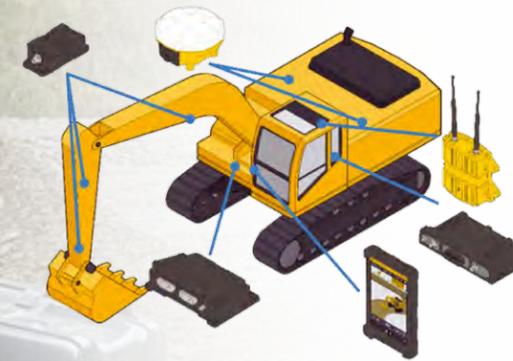
## 2D CONFIGURATION FOR HEIGHT AND SLOPE

Flexible entry level solution for excavation, sewer construction, leveling work and profile work - the start of productivity.



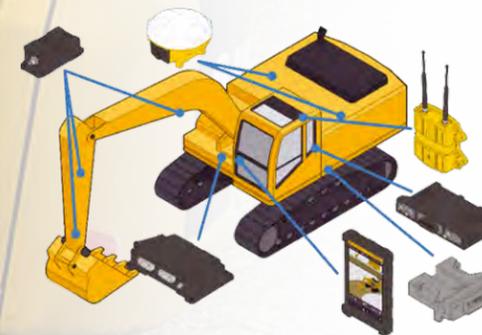
## 3D - DUAL GNSS

Powerful 3D control system measuring the exact position of the bucket for grading and excavating tasks according to slope and complex projects.



## 2D/3D AUTOMATIC SYSTEM

The automatic controls the hydraulic of the machine and achieves a great high precision in flat or inclined surfaces. The slicer blade always moves to the desired level. With the benefits of automatic function, increase the productivity of your machine up to 40%.



## INTUITIVE SOFTWARE, RUGGED HARDWARE

- 10-inch (25.7 centimeter) Trimble TD520 touch-screen Android display
- Interface is optimized for ease-of-use
- Colorful graphics, natural interactions and gestures, and self-discovery features make Earthworks intuitive and easy to learn
- Each operator can personalize the interface to match their workflow using a variety of configurable views
- Files can be transferred to or from the office wirelessly and automatically so you've always got the latest design.



# TRIMBLE EARTHWORKS

CONTROL THE FUTURE

The proven performer for excavators is now rolling out for dozers. The Trimble Earthworks Grade Control Platform offers your dozer operators cab-mounted portability, a user-friendly Android™ UI, and the convenience of a 10-inch touch screen. Simply put, it helps new and veteran operators do things right the first time, and in less time, than ever before.



## CAB-MOUNTED PORTABILITY

Trimble Earthworks for Dozers mounts dual GNSS receivers on top of the cab to eliminate masts and cables traditionally located on the blade. The dual GNSS receivers are ideal for steep slope work and complex designs with tight tolerances.

The new configuration allows you to easily remove the receivers to other machines, to maximize your investment and keep your machines working. Cab-mounting receivers is more convenient and can save you time by reducing the need to reinstall them each day.



# MACHINE CONTROL REDEFINED

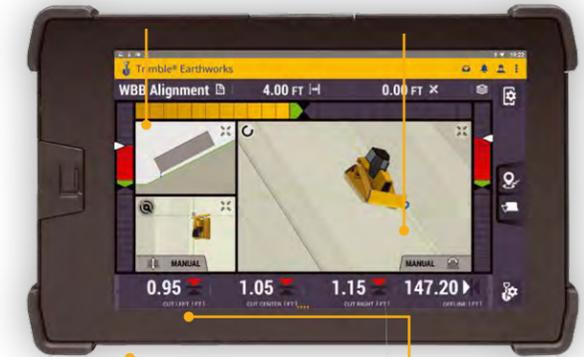
## INTUITIVE SOFTWARE

**Rugged Hardware.** The Trimble Earthworks grade control app runs on the new 10-inch (25.7 centimeter) Trimble TD520 touch-screen Android display. The software was created in collaboration with construction equipment operators around the world, so the interface is optimized for ease-of-use and productivity. Colorful graphics, natural interactions and gestures, and self-discovery features make Earthworks intuitive and easy to learn. Each operator can personalize the interface to match their workflow and a variety of configurable views make it easier to see the right perspective for maximum productivity.

Earthworks allows data files to be transferred to or from the office wirelessly and automatically so you've always got the latest design. Using the Android operating system, you can download other useful applications.

ANDROID OS

MODERN, COLORFUL GRAPHICS



RUGGED TD520 DISPLAY

CONFIGURABLE VIEWS

## Electronic Controller EC520

- The processing unit is separated from the display and is permanently installed on the machine
- Integrated Inertial Measurement Unit (IMU) body sensor with 6 degrees of freedom
- Optional integrated Wi-Fi for on machine wireless connectivity to Displays, Laptops, Hot Spots or Mobile devices
- 4 GB internal memory for machine data and designs



## Gyrosensor GS520 Inertial Measurement Unit

- Six degree of freedom inertial measurement unit, based on the latest inertial sensor technology and particularly responsive - : 100Hz, 3x axle pitch, 3x axle acceleration
- Compact form factor: Mount in any orientation
- Suitable for harsh vibration environments (HEX bucket and dozer blades)
- Mount directly to linkage; no shock mounting required
- Precision locating feature for positioning and re-positioning



Trimble machine control systems are flexible enough to let you equip your entire fleet—excavators, dozers, scrapers, graders, trimmers, milling machines, compactors, pavers and more—with fully upgradeable technology. Start where you need to start and add as you need to add. Sonic, angle sensors, laser, GNSS, total station ... select the best option for the machine and application.

### 2D ENTRY LEVEL MACHINE CONTROL SYSTEMS

Trimble entry level 2D machine control systems are ideal for smaller projects from initial site prep through to the finished grading and paving, and leverage a range of fully portable components. All components are easy to move from machine-to-machine, easy to use, quick to set up and extremely durable to ensure the highest uptime and longest life possible in jobsite conditions. Additionally, these systems can be operated in manual or auto mode; in auto mode the blade is automatically moved to the correct position.

2D MACHINE CONTROL SYSTEMS	CONFIGURATION	TARGET MACHINES	DESCRIPTION	KEY COMPONENTS
	<b>CROSS-SLOPE ONLY</b>	Dozers, Graders, Compact Grading Attachments	Cross-slope control system to be used on motor graders for fine grading work for road maintenance, ditches and slope work	2 angle sensors, Rotation sensor Control box, SNM941
	<b>SINGLE ELEVATION PLUS CROSS-SLOPE</b>	Dozers, Graders, Compact Grading Attachments	Single control system uses a laser or sonic receiver to control the lift of the machine blade and the cross-slope for flat, slope work, and finished grading	Laser, Laser receiver -or- Sonic tracer, Rotation sensor, 2 angle sensors, Control box, SNM941
	<b>DUAL ELEVATION</b>	Dozers, Graders, Compact Grading Attachments	Dual control system that uses two laser or sonic receivers for higher accuracy lift control. Blade edge can be controlled independently or linked	Laser, 2 Laser receivers -or- 2 Sonic Tracers, Control box SNM941
	<b>DEPTH, SLOPE, AND ELEVATION CONTROL</b>	Excavators	Highly flexible system for excavation, trenching, grading and profile work	Angle sensors, Laser catcher, Control box, SNM941

### 3D MACHINE CONTROL SYSTEMS

Trimble machine control systems are the most versatile grading technologies available and can be used on a wide range of machine types including excavators, dozers, motor graders, compactors, milling machines, trimmers, pavers and more. By putting design surfaces, grades and alignments inside the cab, the system gives operators unprecedented control over grading, excavating, compaction and paving applications, significantly reducing material overages and dramatically improving productivity and profitability. The 3D systems can be operated in manual or auto mode and leverage a range of components that are fully portable and can be easily moved from machine to machine.

3D MACHINE CONTROL SYSTEMS	CONFIGURATION	TARGET MACHINES	DESCRIPTION	KEY COMPONENTS
	<b>SINGLE GNSS</b>	Dozers, Graders, Scrapers, Excavators, Compact Grading Attachments	Measures the position and slope of the blade and compares that to design data for grading and mass excavation on complex design surfaces	Angle and rotation sensors, Single GNSS Smart Antenna, Control box, Rugged on-machine radio and SNM941
	<b>DUAL GNSS</b>	Dozers, Graders, Scrapers, Excavators, Compact Grading Attachments	Measures the exact position, cross slope and heading of the blade, bucket, drum for rough grading and mass excavation on steep slopes and complex design surfaces	Dual GNSS Smart Antennas, Control box, Rugged on-machine radio and SNM941
	<b>CAB-MOUNTED SINGLE GNSS</b>	Dozers, Wheel Loaders	Measures the position of the blade on the ground, comparing that to the 3D design for rough grading applications	Single GNSS Smart Antenna, Control box, Rugged on-machine radio and SNM941
	<b>SINGLE OR DUAL GNSS WITH LASER AUGMENTATION</b>	Dozers, Graders	Single and dual GNSS systems enhanced with laser augmentation to improve vertical accuracy for high accuracy guidance to complex design surfaces such as super-elevation grading for rough through finished grade work	Single or dual GNSS Smart Antenna(s), Laser receiver, Control box, Rugged on-machine radio and SNM941
	<b>UNIVERSAL TOTAL STATION</b>	Dozers, Graders, Excavators, Soil Compactors, Compact Grading Attachments	Total station-based system for high accuracy lift and layer control, material placement and monitoring, or for jobs where GNSS is not the ideal solution because of overhead obstructions	Single on-machine active target, Control box, Universal Total Station, Rugged on-machine radio and SNM941
	<b>3D + SONIC</b>	Graders, Compact Grading Attachments	Uses 3D control on one blade tip and a sonic tracer on the other blade tip to match an existing structure, feature or the last machine pass	On-machine active target -or- GNSS Smart Antenna(s), Sonic tracer, Control box, Rugged on-machine radio and SNM941



Reliability is critical in paving work because the paving can not stop. Trimble components are built to withstand the heat, steam, tamping and vibration that are regular on pavers, milling machines and compactors. And while system durability prevents downtime, Trimble's extensive dealer network ensures that training and support always close.

## PAVING COMPONENTS TO STAND UP TO ANY JOB CONDITION



### CB440 Control Box

- Monitor both sides of the screed with one operator with split-screen feature
- Bright dual light bars per box can be monitored from a distance
- Easy operation: start a paving run with only 2 button clicks
- Easy operator control of height and slope settings
- Single or dual-operator control



### AS200 Angle Sensor

- One of the most accurate slope sensors in the business
- Produces slopes as tight as 0.5%



### CS200 Contact Sensor

Mechanically traces a surface or a stringline



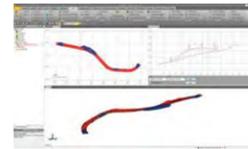
### ST200 Sonic Tracer

- The five sensors on the sonic tracer average out small irregularities on the surface
- Contact-free sensing of ground, curb or stringline
- More than 25 centimeters (10 inches) of sensing range when placed perpendicular to a stringline or narrow curb
- Maintenance-free ceramic sensors
- Automatic temperature compensation

## BUSINESS CENTER – HCE SOFTWARE GOOD DESIGNS MAKE GOOD SURFACES.

**Data preparation and management is easy with Business Center HCE.**

Using Business Center – HCE, you can create 3D design models and automatically generate uncompacted surface designs for the Trimble PCS900 3D paving system.



The uncompacted surface designs guide the paver to automatically lay more material above low areas and less material in high areas, anticipating and eliminating longitudinal waves that can occur after asphalt compaction.

## TRIMBLE SPS930 UNIVERSAL TOTAL STATION

The Trimble SPS930 Universal Total Station controls alignment of the machine and gives the system millimeter control over the pan. It works flawlessly in tunnels and overpasses, in tight corridors and over long distances. It also:

- Offers the best accuracy on the market— every millimeter saved reduces your milling and paving costs substantially. It can very accurately drive the mill drum to cut to the 3D design within 0.01 - 0.02 feet (3-6 millimeters).
- Is flexible and reliable—you can work on sites where there is an obstructed view of the sky
- Has a 45 degree tracking angle—you can set it up very close to the mill in narrow corridors or in the drainage area between divided highways.
- Transitions faster—Trimble Hot Swap technology transitions to the next total station without stopping the machine
- Maximizes your return on investment— other survey and machine control work can be done with the same instrument.

## TRIMBLE HOT SWAP

Trimble Hot Swap technology makes total station transitions faster and less dependent on manual intervention from the operator. It automatically maintains the same tolerance between total stations, ensuring a smoother surface at the transition point and reducing the need to grind problem spots.

## 3D MILLING WITH TRIMBLE PCS900 PAVING CONTROL SYSTEM

Milling to a fixed depth often satisfies the specification for a resurfacing project, but it leaves any road smoothness improvements to the paver. With the Trimble PCS900 Paving Control System you can mill at variable depth and slope, eliminating undulations and preparing a smoother sub-surface for new asphalt. When used in conjunction with a paver equipped with PCS400 or PCS900, the end result is a significantly smoother road surface using less material and finished in less time.

## ACCURATE MILLING. NO STRINGLINES

Accurate milling begins with a quality 3D design model created in Business Center – HCE. The 3D design is displayed to the machine operator showing areas that are on, above, or below ideal grade. Comparing the actual drum position and slope with the digital design, the system automatically guides the milling drum to cut the ideal depth and slope without stringlines or manual adjustments.

With PCS900 on your mill, you easily handle transitions, super-elevated curves, variable drainage slopes and longitudinal waves. And you can do it all without re-work.

## MILL SMARTER

- Using PCS900 on your milling machine provides several benefits:
- Smoother base—mill out the existing undulations, creating a smoother surface for paving
- Shorter lane shutdowns—trucks can run more efficiently unhindered by stringline and stakes
- Reduced machine wear—by only milling to the depth required, the machine will burn less fuel and experience less teeth wear
- Less material to remove—fewer trucks and cost required to remove waste material
- Less asphalt usage—mill off the minimum depth and use less asphalt for the final surface

Result after fixed depth milling of a road with longitudinal waves

Result after 3D milling of a road with longitudinal waves

### PRISM:

Patented Trimble active tracking technology guarantees total station lock to the on-machine target and ensures millimeter control of the milling machine drum.

### TRIMBLE CB460 CONTROL BOX:

The Trimble CB460 Control Box indicates the position of the drum versus the 3D design or pre-defined vertical offset.



# TRIMBLE ROADING SOLUTIONS

## 2D PAVING

### 2D PAVING WITH TRIMBLE PCS400 PAVING CONTROL SYSTEM

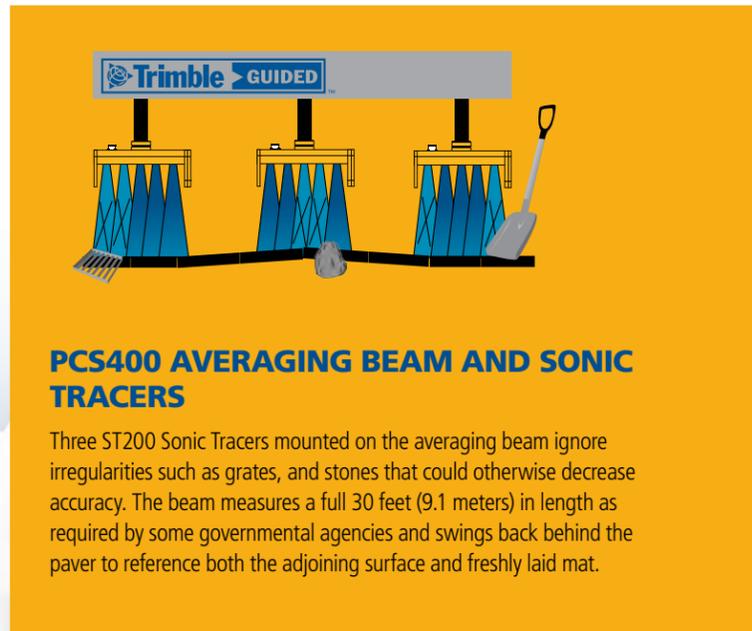
The Trimble PCS400 Paving Control System is ideal for projects that require meeting a thickness specification. When milling is done to design using Trimble 3D technology, Trimble 2D paving technology can easily handle the task of paving a fixed thickness.

The Trimble PCS400 Paving Control System can reference off a surface, stringline or cross-slope. This makes the PCS400 an excellent, lower cost option for roads that have been graded or milled using Trimble PCS900 Paving Control Systems.

### MANY BENEFITS FROM ONE SYSTEM

The Trimble PCS400 system can help you:

- Lay the finished surface with accuracy to 0.01 feet (3 millimeters)
- Minimize use of expensive material... pave within a tighter tolerance and get closer to the minimal asphalt thickness specification
- Reduce labor costs by controlling the screed with one operator
- Eliminate operator mistakes with the easy-to-use display interface
- Achieve maximum smoothness and rideability
- Finish on time



### PCS400 AVERAGING BEAM AND SONIC TRACERS

Three ST200 Sonic Tracers mounted on the averaging beam ignore irregularities such as grates, and stones that could otherwise decrease accuracy. The beam measures a full 30 feet (9.1 meters) in length as required by some governmental agencies and swings back behind the paver to reference both the adjoining surface and freshly laid mat.

# TRIMBLE ROADING SOLUTIONS

## 3D ASPHALT PAVING

### 3D PAVING WITH TRIMBLE PCS900

The Trimble PCS900 Paving Control System adds the accuracy and flexibility of 3D technology and allows you to also pave with variable depth and slope based on the 3D design.

### AVOID THE PROBLEMS OF STRINGLINE

3D technology resolves the problems inherent to stringline because:

- It eliminates time consuming and costly manual setup and possible human errors
- It eliminates the possibility that stringlines can be moved or damaged
- It improves truck productivity with less travelling and maneuvering around the stringlines

### TRIMBLE CB460 CONTROL BOX

The Trimble CB460 Control Box offers a 7 inch (18 centimeter) graphical display and adjustable light settings for day or night paving.

### PRECISION PAVING WITH LESS MATERIAL

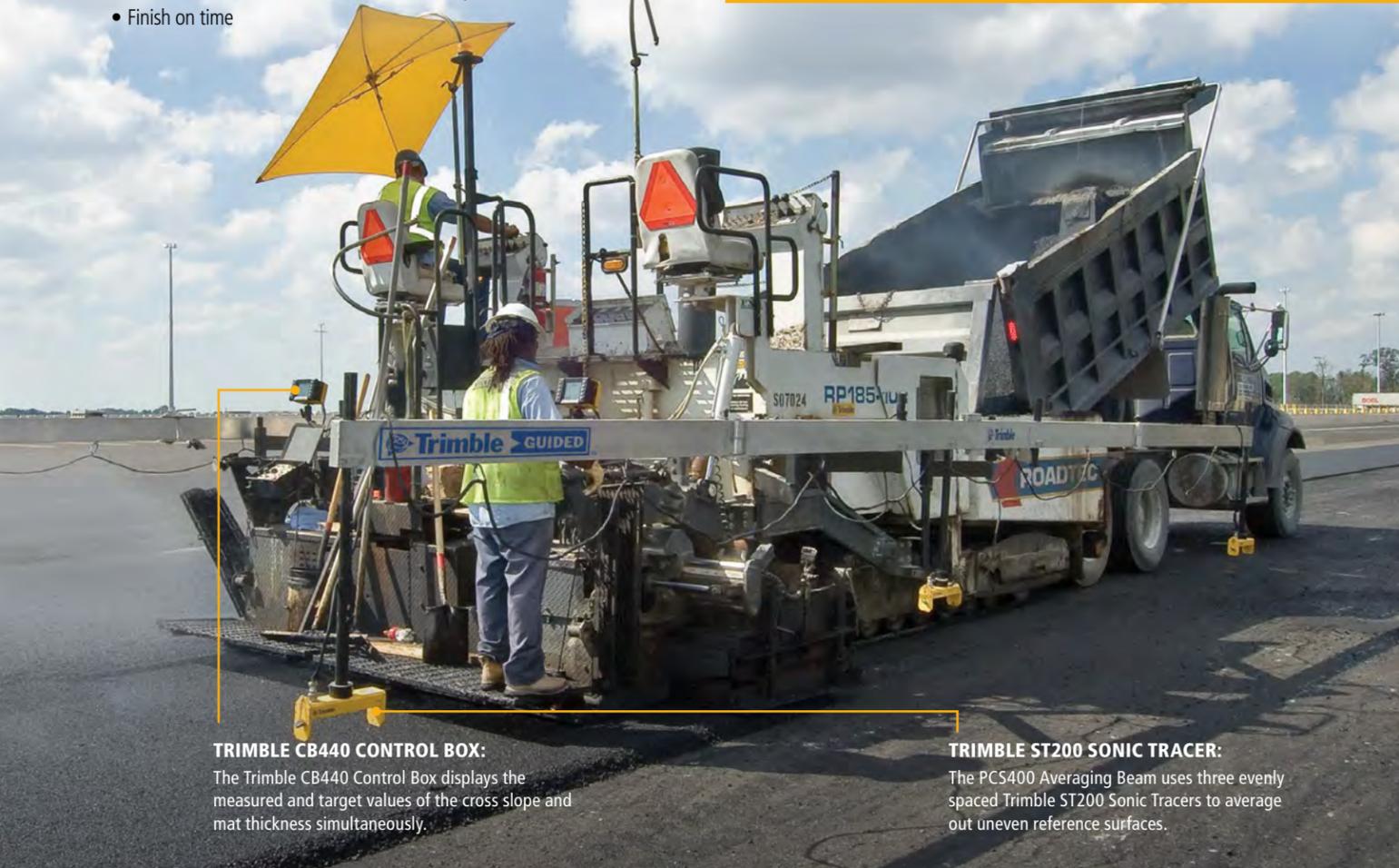
The PCS900 system regularly achieves asphalt mat accuracies of 0.01-0.02 feet (3-6 millimeters), making it ideal for projects such as airports, large commercial surfaces and highways.

Accurate 3D control of the screed allows you to:

- Take out high and low areas early in the process with the less expensive materials
- Increase road smoothness using less asphalt than with traditional paving methods
- Lay complex designs such as transitions, super-elevated curves and frequently changing cross slopes
- Achieve accuracy and smoothness specifications, which can mean bonus income

### PRISM

Patented Trimble active tracking technology guarantees total station lock to the on-machine target and millimeter control of the screed.



#### TRIMBLE CB440 CONTROL BOX:

The Trimble CB440 Control Box displays the measured and target values of the cross slope and mat thickness simultaneously.

#### TRIMBLE ST200 SONIC TRACER:

The PCS400 Averaging Beam uses three evenly spaced Trimble ST200 Sonic Tracers to average out uneven reference surfaces.



#### HOT SWAP TRANSITIONS:

Unique Trimble technology allows the system to hot swap, or instantly transition, to the next total station without stopping the machine to make adjustments.

#### TRIMBLE CB440 CONTROL BOX:

The Trimble CB440 Control Box displays the measured and target values of the cross slope and mat thickness simultaneously.

# TRIMBLE ROADING SOLUTIONS

## 3D SLIPFORM PAVING

### NO STRING NO DELAYS

It's time to kick stringline off your job site...for good.

Stringline delays your pour, it costs too much, and it's just too hard for your haul trucks to drive around. Every time it breaks, you have to stop the machine. Every time it sags, your surface suffers and so does your bonus.

Once you start paving with the Trimble PCS900 Paving Control System, you'll wonder how you could ever use string in the first place. You'll start working faster every day. Your haul trucks can pull up and dump without driving around string. You'll stop less often, grind fewer problem spots and blow away your target IRI number.

### MORE CONTROL. LESS WASTE.

Trimble PCS900 Paving Control System for Slipform Pavers uses automatic steering and 6-way control of the pan to keep the paver exactly on the target alignment, grade and slope. The result is a more consistent concrete surface with better rideability and a bigger bonus – without the time and cost of string.

You'll see efficiency improvements through:

- Improved site logistics and safety
- On time delivery of mix
- Better yield
- Increased smoothness

### ONE INTEGRATED WORKFLOW

The cost of concrete rework is too high to be working with multiple manufacturers and file formats. Using one integrated workflow from Trimble, you can be confident of the quality of your work, and stake your reputation on the results.

Pave to the 3D design, and your grade checker can work from the screed using a Trimble rover, the same 3D design model and total stations to verify the as-poured surface.

Plus, training and support from your local SITECH® Technology Dealer means you are never working alone.

# TRIMBLE ROADING SOLUTIONS

## ASPHALT AND SOIL COMPACTION

### 3D COMPACTION WITH TRIMBLE CCS900

The asphalt compactor is the last machine to pass over your paving project, and mistakes during this phase can be very costly to fix. You can significantly reduce the need for re-work by installing the Trimble CCS900 Compaction Control System on your asphalt compactors.

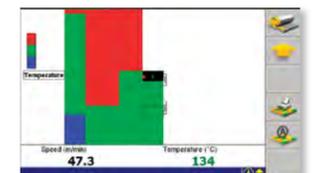
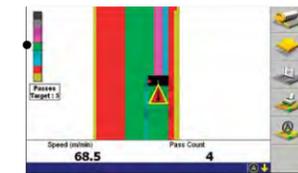
The CCS900 system eliminates much of the guess work from asphalt compaction and helps achieve more consistent compaction to target design density. You will also be able to roll a more efficient pattern, increase productivity, and save fuel.

### MAP IT AND GET IT RIGHT

Pass count mapping in the CCS900 system allows you to monitor the number of passes over an area and adjust your effort to avoid over or under-compaction. Using the roof-mounted GNSS receiver or machine target, the system calculates the exact position of the machine and displays a color map indicating the current number of passes and where you have overlaps or gaps. When installed with two optional IS310 Infrared Sensors, CCS900 maps the surface temperature of the mat and pinpoints exactly where you need to be for ideal compaction timing.

### REPORTING AND DOCUMENTATION

In-field reporting and an in-cab printer allow on-site supervisors and quality managers to monitor compaction operations and correct possible issues immediately. Compaction data logs can be wirelessly transferred from the machine to the office for analysis using the web-based VisionLink fleet, asset and productivity management solution from Trimble.



Operator view of pass count mapping    Operator view of temperature mapping

### MONITORING COMPACTION IN VISIONLINK

For longer term analysis of compaction operations and productivity enhancements, VisionLink 3D Project Monitoring lets you:

- Continuously monitor pass counts and compaction meter values to improve testing success, reduce rework and lower ongoing maintenance costs.
- Reduce over-compaction to optimize fuel use and machine time.
- Monitor temperature maps to ensure compaction per the target temperature range.



### MS972 GNSS SMART ANTENNA

The Trimble MS972 Smart GNSS Antenna measures the position of the compactor using a base station or satellite delivered correction sources such as SBAS.

### IS310 INFRARED TEMPERATURE SENSORS

IS310 Infrared Temperature Sensors measure surface temperature of the mat in the direction of operation.

### CB460 OR CB450 CONTROL BOX

The Control Box graphically maps pass counts and surface temperature readings with high and low temperature warnings to indicate potential issues in real-time.



# DPS900

## DRILLING AND PILING SYSTEM

# OPTIMISE DRILLING AND PILING

## PRODUCTION AND REVENUE

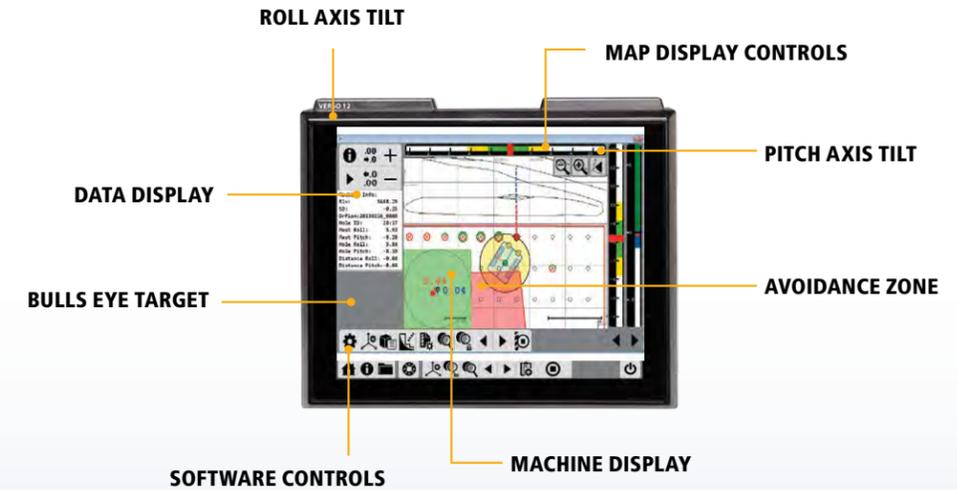
Made from rugged Trimble components and using advanced Trimble positioning technology, the Trimble® DPS900 Drilling and Piling System helps increase the safety, accuracy and efficiency of your drilling and piling operations. All day. All night. And under almost any conditions.

- Drilling exactly to the depth you need — reduced over drilling means your machine drill bits and hammers won't wear out as fast.
- Drilling angles and holes that are evenly spaced — an even pattern of blasting delivers better surfaces and improves rock fragmentation to minimize hauling expense.
- Increasing safety — with DPS900 the operator can see machine blind spots and receive a warning when he's working where he shouldn't be. In addition, you don't need surveyors or other staff around working machines.
- Reducing survey personnel and stakes, especially for incline drilling — stop pounding stakes and start making more money.
- Monitor productivity and quality
- Manage design data from office to field



VERSO 12 TOUCH DISPLAY, SPS RECEIVERS, JUNCTION BOX, I/O BOX  
Add SNM940 modem for cell or WiFi (optional)

We engineered the system for drilling and piling operations. With large icons, a streamlined workflow and a screen that's easy to read, even in bright sunlight, DPS900 was designed for the construction environment.



### OFFICE SOFTWARE

Business Center - HCE Powered by Trimble  
Optimized drill plans. Optimal results.

Rapidly create optimized 3D drill plans with the Business Center – HCE Drill and Pile Manager Pack, then generate comprehensive quality and production reports. With Business Center - HCE and DPS900, more profits are at your fingertips.



# BUSINESS CENTER – HCE

## POWERFUL TOOL TO MANAGE DATA AND CREATE DESIGNS

Business Center - HCE contains powerful tools to help you quickly and easily create accurate, integrated 3D constructible models for sites, corridors and marine applications. Make better decisions, decrease costly mistakes, and increase efficiency in the office and on the job site.

- Create and manage design data to avoid costly mistakes
- Win more bids by preparing earthwork and construction models quickly and accurately with expanded levels of detail
- Reduce rework by ensuring data is clean, up-to-date and delivered in the right format to get the job done
- Increase profits by optimizing the creation of site and corridor model
- Reduce drive time by effectively and seamlessly managing data between the office and field



### Road Takeoff Tools Pack Plus

- Easily model and check corridor data from multiple data sources including Adobe® PDF cross section data
- Use intuitive tools to create surfaces for your corridor models and manage aerial image data
- Includes mass haul analysis tools for the management of in situ and construction grade materials using borrow and waste sites, and processing locations



### Construction Pack Advanced

- Streamline your entire workflow from estimation, to design through preparation and to drafting
- Rapidly generate or edit drawings to improve accuracy and reduce rework



### Takeoff Pack Plus

- Perform site takeoffs from CAD or Adobe® PDF data and create 3D constructible models to analyze work balance
- Create detailed estimation data for material quantities and manage topsoil quantities



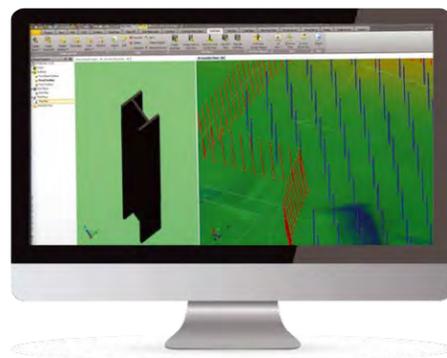
### Data Preparation Pack

- Effectively clean, check, prepare and manage data for field operations
- Create 3D constructible models of your project from multiple data sources



### Marine Projects

- Business Center - HCE is ideal for many marine applications including: hydrographic surveying, dredging surveys and volumes, large multi-beam data set management, and marine and land construction design
- Manage marine point cloud data to check for errors in the data set
- View models in 3D to check validity of marine and land topography



### Drill and Pile Manager Pack

- Rapidly create optimized 3D pile plans, then generate comprehensive quality and production reports to increase profits
- Take the plan to the field and execute against the 3D constructible model
- Perform QA analysis on field operations against your drilling plan



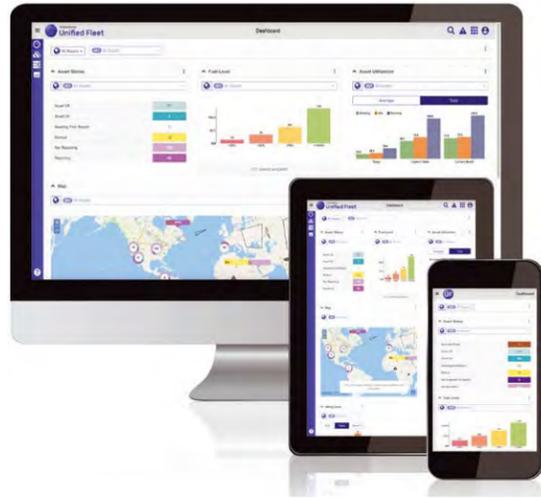
### Utility Modeling Module

- Parametrically model utility networks (storm, sanitary, water, gas, electric, cable) and associated trenches; change any aspect and it redraws automatically—including surface changes
- Compute detailed takeoff quantities for estimating, and 3D models in the form of points, lines and surfaces for use with machine control and site positioning systems

# VISIONLINK UNIFIED SUITE

## HEALTH, LOCATION AND PRODUCTIVITY INFORMATION

VisionLink® offers a unified view of health, location and productivity for your fleet, regardless of manufacturer, providing actionable information for key decision-making to help you improve your bottom line. VisionLink Unified Suite mobile-ready applications include Unified Fleet, Unified Service, Unified Productivity and Administrator.



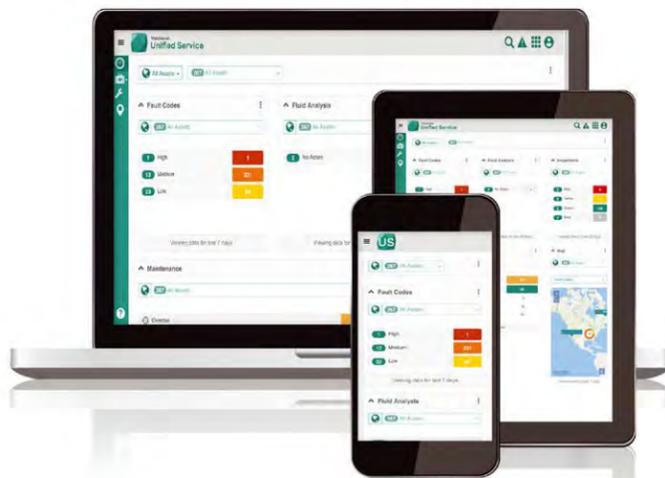
### VisionLink Unified Fleet

VisionLink Unified Fleet's user-friendly screens display asset information to help better manage a mixed fleet, no matter the machine brand. Developed with the fleet or equipment manager and owner/operator in mind, VisionLink Unified Fleet's user-friendly and configurable dashboard displays information such as: hours, miles, fuel, odometer, locations, idle time, asset status, asset utilization and operation, and customer-defined asset STATES.



### VisionLink Unified Productivity

VisionLink Unified Productivity optimizes project productivity by monitoring the movement of materials against project or asset targets, helping project managers, foremen and operators maximize site efficiency in near real-time to keep projects on time and on budget. This application enables monitoring of payload, volumes, as well as other material movement metrics including load counts and cycle times.



### VisionLink Unified Service

VisionLink Unified Service integrates health and maintenance information, delivering a complete picture of fleet health that allows users to proactively schedule maintenance while minimizing asset downtime. To stay operational and extend asset life, manage maintenance schedules and track machine health with VisionLink Unified Service.



### 3D Project Monitoring

With VisionLink 3D Project Monitoring, continuously monitor and record 3D earthmoving, grading and finishing operations throughout the life of the project, and use the information to make timely decisions regarding equipment use and deployment. Also, continuously monitor pass counts and compaction meter values over the entire area of compaction and on all material layers to improve testing success, reduce rework and lower ongoing maintenance costs.

### VisionLink Administrator

VisionLink Administrator unifies all of the applications by enabling users to define what is important, manage access and configure settings to optimize workflow. Designed to provide administrative functions across the VisionLink Unified Suite of applications, VisionLink Administrator allows user-assigned administrators to set up and manage users, geofences, asset settings, reports, notifications, workflows and more from a centralized location.



### VisionLink Landfill

VisionLink Landfill tracks the compaction efforts of GPS-equipped compactors, and calculates the waste volumes placed and the compaction densities achieved in active cells. Use the Density chart to identify upward or downward trends in daily values for weights brought into the landfill or site (cell) within the landfill. Optimize compaction and maximize landfill life with this easy-to-use solution.

# TRIMBLE SITEWORKS SYSTEMS

FOR SURVEYORS AND SUPERVISORS

On site, the word “wait” is the enemy of progress. That’s why the fully integrated Trimble® Siteworks Positioning Systems are designed to eliminate downtime by making every minute more productive. With increased processing power and Windows 10, the systems enable quicker handling of complex files and 3D data sets, all on a much larger screen—meaning you can spot issues and solve problems before they slow you down. These systems consist of the new Trimble Siteworks Software, Trimble SPS986 GNSS Smart Antenna, and a choice of the new Trimble TSC7 Controller or the Trimble T10 Tablet.

## SITWORKS POSITIONING SYSTEMS

### For Construction Surveyors

#### Key Features

- Work with complex 3D models
- Collect large data sets faster
- Visualize and manipulate complex 3D models more easily
- Work day or night efficiently

#### Components

- Trimble Siteworks Software
- Trimble TSC7 Controller
- Trimble SPS986 GNSS Smart Antenna

### For Supervisors

#### Key Features

- Run full office software packages, including Business Center - HCE and Microsoft Office
- Work easily with data and 3D models in the field
- Leave the laptop in the office

#### Components

- Trimble Siteworks Software
- Trimble T10 Tablet
- Trimble SPS986 GNSS Smart Antenna



### Trimble TSC7 Controller

The Trimble TSC7 Controller is a wirelessly connected, rugged handheld controller for GNSS or total station operations. It gives construction surveyors, grade checkers, and site engineers total control over their on-site tasks. Designed for construction site operations, the TSC7 offers integrated Wi-Fi and Bluetooth, built-in cameras, and GPS in a lightweight, shock, dust and water resistant package.



### Trimble T10 Tablet

Trimble brings the advantages of fast computing power and a large screen to the field with the Trimble® T10 Tablet. Integrated GNSS capabilities close the gap between office design and field implementation for design changes in the field, instant approvals and fast communication of changes to field crews. From the field, to the truck cab, to the office, users stay connected, work more and drive less.



### Trimble SPS986 GNSS Smart Antenna

The ultra-rugged Trimble® SPS986 GNSS Smart Antenna offers unmatched reliability for construction site positioning. Ideal for use on small and large job sites, the SPS986 can serve as a GNSS rover system or as a Wi-Fi enabled base station for other GNSS operations including machine control.



# TRIMBLE SITE POSITIONING SYSTEMS

FOR SURVEYING OR MACHINE CONTROL APPLICATIONS

## THE RIGHT TOOLS TO DO THE JOB RIGHT.

Trimble Site Positioning Systems give contractors targeted tools for every person on the jobsite; work at every stage is performed faster, with fewer errors and less material costs.

### Trimble Site Positioning Systems provide:

- the ability to measure, stake, check, manage, inspect
- control and communications infrastructure
- tools to move data between the office, machines, and site personnel
- the confidence to finish projects on time, on cost, and on specification

From the field, truck, or office, any person on the construction site can be connected and equipped with accurate positioning, consistent digital design information and the ability to locate, measure and record information. Contractors can share information, track results instantly, make smarter decisions, and manage multiple jobsites with ease. Data can be leveraged across more professionals on the jobsite, making every resource a direct contributor to the success of the project.

### Trimble SPS855 GNSS Modular Receiver

Whether you need a reliable GNSS base station or a rugged rover, the Trimble® SPS855 GNSS Modular Receiver gives you the flexibility to perform all of your construction site measurements. As a permanent or semi-permanent base station, it provides GNSS corrections for site measurements and machine control. As a rover, it can move easily from a site supervisor truck to a pole mount for grade checking, site measurement and stakeout.



### Trimble Total Stations

Trimble offers a full range of high accuracy total stations. The robotic Universal Total Stations come equipped with the industry’s fastest servos, ensuring accurate high speed tracking of the target, making them ideal for machine control and site positioning. They include 3Hz scanning capabilities for the rapid scanning of surfaces such as deep cuts, rock faces and stockpiles in dangerous or inaccessible locations. Trimble also offers entry level total stations that are a cost-effective alternative for site measurement and stakeout. With an operating range of 500 meters, they are ideal for smaller site operations and work on structures such as bridges or culverts.



### Trimble Site Tablet 10

The Trimble Site Tablet 10 is a tablet controller ruggedized to stand up to any construction site, in any weather. The vibrant display is powerfully illuminated, so you can finish any job fast, even in bright sunlight conditions. The long life lithium ion batteries ensure hours of field computing and Connected Site® operation.



### Trimble Site Mobile

Combining a camera, a controller and a smartphone into one lightweight device, the Site Mobile is so easy-to-use, inexperienced employees can begin using the system for simple positioning tasks in less than an hour. Now anyone on the construction site can be equipped with accurate positioning and digital designs, saving you time, money and rework.



### Trimble TSC3 Controller

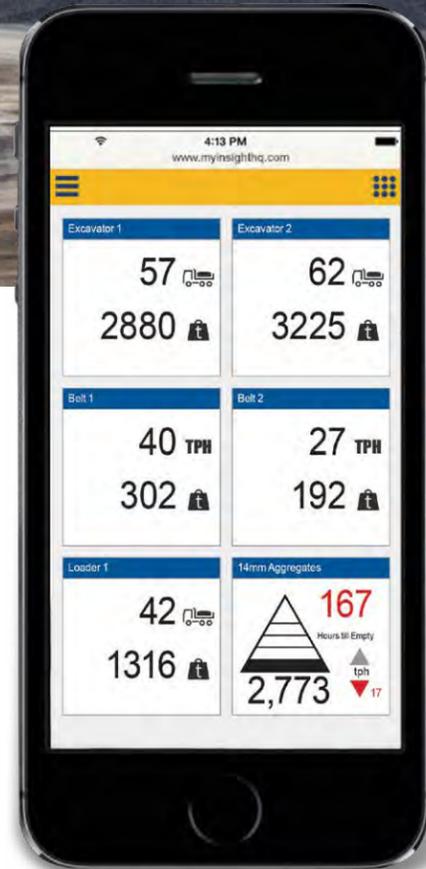
The Trimble TSC3 Controller is water and dust resistant to withstand the toughest weather and jobsite conditions. The display is designed for operation in all light conditions whether at night or in the bright sunshine. And it operates in temperatures ranging from -30°C to +60 °C (-22 °F to 140°F).



# THE CONNECTED QUARRY



POTENTIAL IMPROVEMENT  
20%  
more productivity using SITECH technology

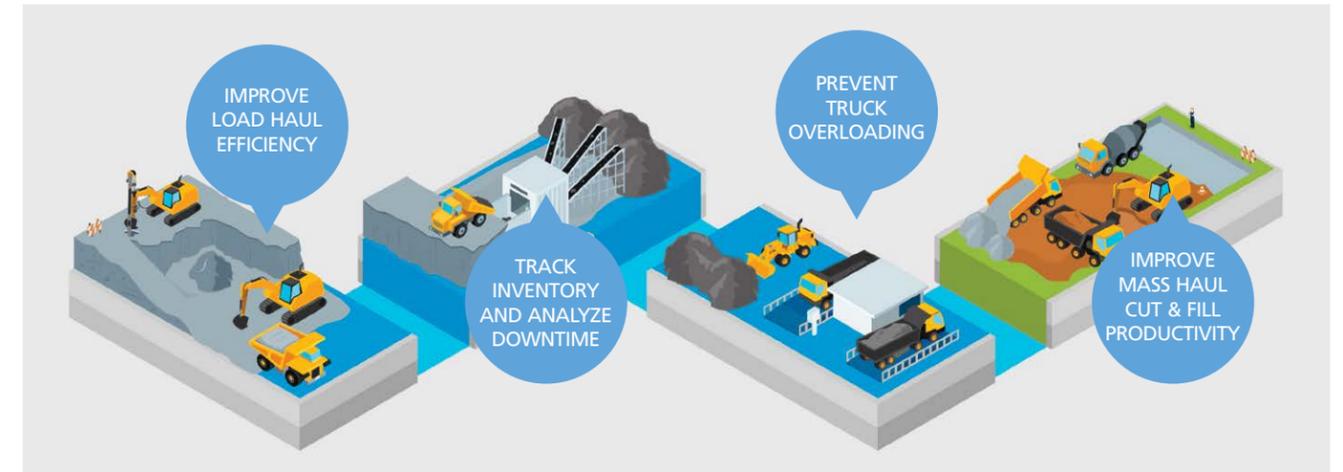


Knowledge is power. LOADRITE and InsightHQ enables the Connected Quarry which helps you manage your operation from wherever you are. It gives you the power to manage your operations, tracking the main drivers of your business. Easy-to-use reporting helps track daily operations and major process change management. Simple graphs help quickly identify bottlenecks and workflow issues.

InsightHQ is a productivity and performance reporting and management portal showing near real time productivity, from your LOADRITE scales. With insightHQ you can

- See site performance and productivity information presented in an easy to read graphs and tables
- Respond to respond to issues, optimize production and productivity with accurate data
- Control your data, how, when and where you want it, all during the shift
- Access anywhere, anytime on your web browser or mobile device.

## WHAT IS REALLY HAPPENING IN YOUR OPERATION?



SITECH provides the tools and support for the extraction, processing, loadout, transportation and construction phases of aggregates industries for more efficient operations and higher profits.



### LOADOUT MANAGEMENT SYSTEM AND LOADER SCALES (LR360)

LOADRITE 360 for Loadout is a Connected Quarry solution that improves loadout operations through accurate onboard weighing, metric tracking, job data automation, and real-time 360° job visibility. LOADRITE 360 connects the loader and scale house to provide data sharing of loadout jobs which result in greater efficiency, improved visibility and higher product sales. Features:

- Accurate onboard weighing (+/- 1% margin of error)
- POS system and in-cab automated connection
- Real-time job list
- True tare trucking loading



### HAUL TRUCK MONITOR (H2250)

The LOADRITE H2250 provides near real-time reporting of haul truck productivity and process monitoring, to help increase production and reduce costs. Features:

- Detailed cycle time reports
- Productivity reporting
- Overloading, tray up, tip over, carry back and speeding operator warnings.

# PAYLOAD MANAGEMENT SYSTEMS



## LOAD ONCE, LOAD RIGHT

Trimble LOADRITE Payload management systems support the Connected Quarry and the Connected Site by accurately measuring material production and movement. All LOADRITE systems are compatible with InsightHQ and LOADRITE printers.

For more information visit [loadritescales.com](http://loadritescales.com)



## LOADER SMARTSCALE (L3180)

A SmartScale is the next generation of loader onboard scale that uses smarter weighing intelligence for more accurate, precise and faster loading. It also connects machines and devices for the collection and syncing of loading data. Also features:

- Smarter weighing (~40% more precise)
- Connected Quarry connectivity including built-in WiFi and GPS
- Best-in-class interactivity and interface
- New paperless eTicket workflow

Trimble LOADRITE onboard scales ensure optimal loading and quality data for productivity analysis. LOADRITE systems are installed on wheel loaders, excavators, conveyor belts and other equipment across a range of industries—construction, aggregate, mining, waste management, and more.

The accuracy you can expect from a LOADRITE weighing system is demonstrated by 'Legal for Trade' approval in many countries around the world.

## EXCAVATOR SCALES (X2350)

LOADRITE excavator scales can improve the load haul operation in the pit or measure real-time progress of the mass-haul cut-fill operation at the construction site. Features:

- Accurate to +/- 3% margin of error
- Dynamic 2D and 3D weighing
- Option for mining-class machines (X2650)



## LOADER SCALES (L2180, L2150, FORCE)

LOADRITE L2180 is the world's #1 selling loader scale. It, the L2150 and Force onboard scales provides accurate bucket payload to measure and optimize loadout for production and utility loaders. Features:

- Accurate to +/- 1% margin of error
- Connect to printer, and InsightHQ web portal via a browser or mobile device.
- 'Legal for Trade' option available



## CONVEYOR BELT SCALES (C2880, C2850)

LOADRITE belt scales measure and report TPH, stockpile totals and black belt time. The ideal tool for monitoring inventory, production output and product load out, while providing essential data management tools to drive productivity and machine performance decisions. Features:

- Accurate measurement of production and performance (including downtime/black-belt-time)
- Suitable for fixed plant (C2880) and mobile crushers, screeners and stackers (C2850).



## TRACTOR, COMPACT MACHINE SCALES (S1100)

The Trimble S1100 on board scale that provides an accurate in-cab payload measurement for compact machines. It is suitable for use on tractors, forklifts and skidsteers, across a range of machine sizes, brands and models. Features:

- Reliable accuracy to within +/-2% margin of error
- Easy-to-use and compact interface
- Support for up to 9 attachments



## REACH STACKER SCALES (L2180)

Ensure compliance to SOLAS regulations, track and improve container handling with accurate weight information. The L2180 weighing system verify the weights of every container moved, so you can provide accurate information for logistics compliance and reporting. Features:

- Superior non-disruptive weighing
- 'Legal for Trade' option available
- Multiple data field capture and reporting

# SITECH SERVICES

YOUR LOCAL PARTNER



## SERVICE CENTER

We understand that downtime of equipment costs you money so we are committed to getting your equipment repaired and back in the field as quickly as possible with our strong team of Certified Service Technicians.



All of our technicians are members of the Trimble Preferred Service Alliance and are trained to Trimble's exacting standards, highly skilled, resourceful and knowledgeable. With this team of highly trained technicians our goal is to ensure that issues are resolved the first time.



## TRAINING

Trimble construction technology is a game changer – and to benefit from all its power, you want to make sure to take advantage of SITECH's expert professional training.



Whether you and your crew are new to machine automation, you need a refresher or there are team members who have recently joined, let's talk and make sure you get the right training.



## SITECH SUPPORT

Our Support Team are dedicated to making sure your downtime is kept to a minimum.



Our support staff is there to help you over the phone, or on site, whatever you need, we can help!



## RENTAL

From base & rovers to full machine control systems, we rent the most current technology available. We also provide full "Professional Services" that include site setup, calibration and Data Prep services to help get you up and running quickly.



We also offer flat rate service rentals while your equipment is in our service centre for repair. This is a flat rate fee, determined by the specific unit that you are renting and it stays the flat rate for the duration of time that your unit is our service department getting repaired.

## People and technology you can rely on.

SITECH® is a leading provider of easy-to-use, comprehensive TRIMBLE construction technology systems for construction companies of all sizes. From Trimble machine control systems to the Site positioning and construction site software - at SITECH you will find just the right support and know-how and the experience to increase your productivity and profitability through the use of powerful and connected construction site systems.



YOUR CONSTRUCTION TECHNOLOGY PROVIDER

# Close to you.

## Head Office – ON

SITECH Mid-Canada Ltd.  
200 Hanlan Road, Unit A  
Woodbridge, ON  
L4L 3P6  
Tel: 905-851-5658

## Manitoba

SITECH Mid-Canada Ltd.  
360 Keewatin Street, Unit 45  
Winnipeg, MB  
R2X 2Y3  
Tel: 204-477-4677

## Québec

SITECH QM  
350 Rue Vachon  
Trois-Rivières, QC  
G8T 8Y2  
Tel: 819-373-7543

## Nova Scotia

SITECH QM  
81 Ilsley Ave, Unit 7  
Dartmouth, NS  
B3B 1L5  
Tel: 902-468-4181



[Sales@SitechMidCanada.com](mailto:Sales@SitechMidCanada.com)  
[SITECHMIDCANADA.COM](http://SITECHMIDCANADA.COM)

