



Trimble SiteVision

- Each battery has a 2.5-3 hour life
- Sun shades
- Pole Bracket
- Catalyst Antenna – an integrated centimeter accuracy GNSS receiver
- Bring your on device (Phone)

Recommended Smartphones

Trimble tested device for SiteVision

- Samsung S10+
- Samsung S9+
- Samsung Note8
- Samsung S10 5G

Other supported devices

- Samsung S8+
- Google Pixel 3 XL
- Google Pixel 2 XL
- Sony Xperia 1
- Sony Xperia 5
- OnePlus 7 Pro

Compatible Device

- Trimble SiteVision runs on mobile devices, smaller than 8", supporting Google Play Services for AR and a minimum Android Operating System



Supported Data types

Supported Data types					
Format	Points	Lines	Surfaces	Attributes	Textures
VCL	X	X	X	X	X
TTM			X	Image overlay	X
TMAPS	X	X		X	
SKP	X	X	X		X
TRB	X	X	X	X	X
LandXML	X	X	X (TBC only)	X	
IFC		X	X	X	
SHP	X	X		X	
GDB	X	X		X	
DWG	X	X	X		

Other Data types

- BIM
- Topographic Surveys
- Construction Models



- VCL – Project link file containing points, lines, surfaces, attributes, and textures
- TTM – surface file in Trimble proprietary format. At TTM can be converted in TBC from a Civil3D surface
- TRB - TrimBIM (.TRB), a 3D model file in a Trimble proprietary format, optimized for visualization in SiteVision.
- TMAPS – is the file extension for a Trimble Connect map space.

Measurement Modes



- GNSS – High accuracy GNSS is required to accurately place the model in your surroundings using the **measured** and **automatic** placement functions.
 - Note – You must be connected to internet to receive high accuracy GNSS positioning. Without internet connection, Trimble Correction Hub connect you to satellite delivered RTX or local SBAS.
- Electronic Distance Measurement (EDM) – EDM measurements use the integrated range finder module located under the antenna in the SiteVision system.
 - Requires Bluetooth connection to be enabled to use.
- Augmented Reality (AR) – AR measurements use the Google AR functionality from within the SiteVision app.
 - Measurements taken before obtaining high accuracy GNSS will move once accurate GNSS is obtained and orientation is set because they are recorder in the AR coordinate space and move with AR model as it is aligned.



- GNSS – using this measurement mode you'll need to be connected to the internet to receive high accuracy GNSS positioning. If your not connected SiteVision will automatically receive corrections via RTX Satellite or SBAS.
- EDM – This is basically your electronic range finder. You must have Bluetooth on to use. Trimble recommends that you have this on while using pit view. When using EDM with Pit View, the Pit height adjusts with the slope of ground, and lines along the wall of the Pit will be more meaningful.
- AR - AR measurements use the Google AR functionality from within the SiteVision app

Workflows

TBC to SiteVision



SiteVision to TBC



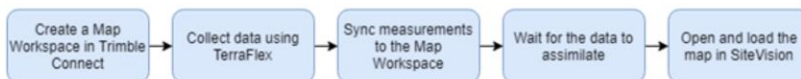
ArcMap to SiteVision



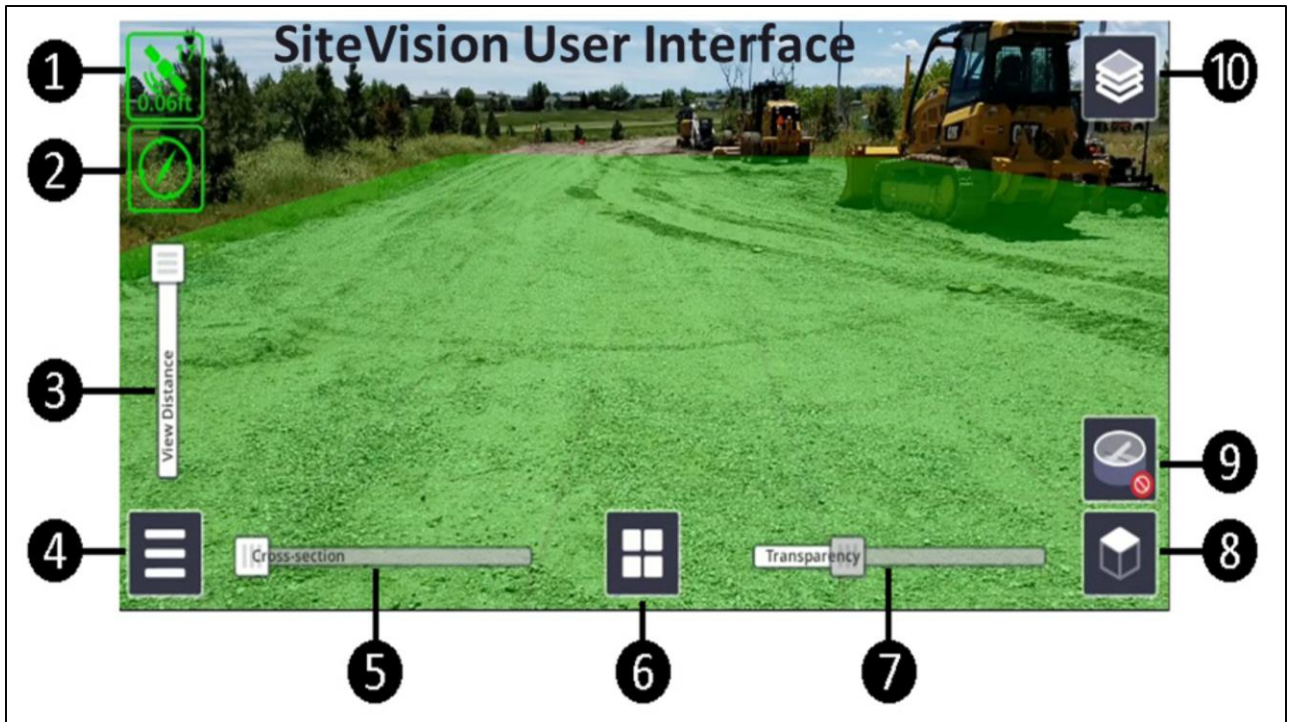
SiteVision to ArcMap



TerraFlex to SiteVision



- TBC – Is the ideal tool for prepping data for use with SiteVision. It can import data from a broad range of formats, and combine data from different sources. (GIS data from an existing database with topographical surveys and design data) The files are created from the AR export and are stored in the selected file. (Site Calibration file, VCL, and a TRB file which is the model optimized for high speed visualization performance for use by SiteVision)
- TBC – Visualize cut/fill map images and PDF files. Key elements to do this are: A TTM file, Site Cal file, and Georeferenced images such as a PGN file with its associate PGW georeferenced file. Export → Construction Tab → Select TTM Exporter.
- No point clouds are supported in SiteVision they will crash the application.



1. GNSS Status
2. Orientation
3. View Distance Slider
4. Menu button
5. Cross-section Slider
6. Applications – Using Reporting and Measurement Tools
7. Transparency Slider
8. 2D/3D View Selector
9. Pit View
10. Layers

Visualize Collaborate Report

- Create ToDo tasks while in field
- Measure Point
- Measure Cut/Fill
- Measure Grade & Distance
- Leverage TeamViewer and AZ Recorder to collaborate with your other project member in the field or in the office in real time.




- **ToDo** – reporting mechanism that enables you to send georeferenced, augmented reality photographs and notes to a project member. You can name it, assign a priority level, as well as a due date. The user it is assigned to will receive an email notification with the details and associated link.
- **Measured Point** - used to record the coordinates of a single position. The point name, code, pole height, and coordinate information is recorded. The measured point will show up as a blue sphere in SiteVision. You can record a point using GNSS, EDM, or AR.
- **Measure Cut/Fill** – records the difference between the existing ground surface and the design surface as a virtual stake. **Red** indicates a cut, **Blue** indicates a fill. This option will only work when there are design surfaces above or below the point. If you have multiple layers filter to the one you need; SiteVision will measure to the lowest design.
- **Measure Grade and Distance** – requires two points to be measured creating a line. The name, code, grade, calculated distance, horizontal distance, and vertical distance are recorded.

Model Placement Chart

Method	Ease in office	Ease in the field	Accuracy	Stability
Automatic Placement	Most complex	Easiest No field work	Best	Best
Measured Placement	Easy No office work	Easy	Good	Best
Manual Placement	Easy No office work	Easy	User dependent	AR only

Loading A Model

1. To load a model, tap  / Load Model.
2. Tap Trimble Connect and select the required project folder
 - If you have previously loaded a model from Trimble Connect and it already on your device, tap **On Device**.
 - You can view models that you previously loaded and not models loaded by a different user.



Placing A Model

- **Automatic Placement** — Requires high accuracy GNSS. It also requires and uses coordinate system information within the data, or reads a site calibration file associated with the model. [Automatic Placement](#)
- **Measured Placement** — Also requires high accuracy GNSS. This method is useful when there is no site calibration file assigned. The [Measured Placement](#) method steps you through measuring two known positions on site, such as control points, and associating them with the corresponding position in the model.
- **Manual Placement** — The [Manual Placement](#) does not use high accuracy GNSS. Placement is just by using gestures on the screen and the AR technology on your mobile device. Best for inside use.



Viewing A Model

- **2D/3D**
- **Layers** – enables you to manage which details of the model you want to view
- **Pit View** - is an important tool to improve the visualization of subsurface models, such as utility data to remove the perception of the data floating. Using Pit View you can fix pit position, and change its diameter, depth, and shape.
 - For more accurate depth information you can use EDM for placement. When using the EDM with PitView, the Pit height adjusts with the slope of the ground, and lines along the wall of the Pit will be more meaningful.
 - *Metric* - thick line interval = 1 m, thin line interval = 10 cm.
 - *International Feet* - thick line interval = 1 ft, thin line interval = 1 in.
 - *US Survey Feet* - thick line interval = 1 ft, thin line interval = 0.1 ft
- **Transparency Slider**- enables you to change the opacity level of the model.
- **Cross-section Slider** – enables you to section through your data from you current position, to the extents of your data.
- **Attributes:** You can view attribute information when in 2D or 3D View, by tapping on a part of the model you are interested in. The attributes available are a function of your model and how it is prepared. Attributes are supported for data From: Esri Geodatabases and Shape files
- Exports from Trimble Business Center
- IFC files
- SketchUp files (see videos on-line for how to prepare SketchUp models with attributes for SiteVision).



Trimble SiteVision - \$3250 + Subscription Plan

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USD 2000

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