MPanel InSite

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1. MPanel InSite

What's new

Version 9.0 major update (Jan 2026):

- Marquee selection of multiple items such as poles to change properties ...more.
- Shift/Select to de-select items previously selected ...more.
- Conics can now be added to library models ...more.
- Export models to MPanel for patterning ...more.
- Export models for structural analysis using MPanel FEA ...more
- Save models for MPCore Apps to produce patterns ...more

Version 8.0 major update (Nov 2024):

- New conic tool allows for free form tensile conic structure designs
- Conics can include fixed edges or can be fixed/connected to walls
- 2 conics can share poles and can be joined
- Export to obj works with conics
- Export to sketchup works with conics
- Startup log window will close automatically after 1 minute.
- The program is now 64 bit for faster execution and larger image sizes.
- A 32 bit is available for old computers for 12 months providing time to upgrade old hardware.

Version 7.0 major update (Nov 2023):

- Add constrained pole to specified distance with optional orthogonal lock...more.
- FlexPoint can now be fixed or floating simplifies building complex or multiple joined sails...more.
- Pole library saves users preferred pole sizes and descriptions....more.
- New Footer library saves users preferred footer sizes and descriptions...more.
- Poles can now be circular (CHS) or square (SHS).
- "Use this view in report" now includes current zoom selection...more
- Layout dimensions now snap to base of pole or sail corner.
- New post and footer report page.

Version 6.0 major update (Oct 2022):

- New Library Model tool added allowing users to save common designs for rapid re-use more..
- Library models once added to scene can be scaled and rotated to suit new site.
- Most recent Library models shown in tool menu.
- New project button option to preserve current project information
- File open button includes list of most recent files used.
- New "Select" tool added allows group selection of elements to apply property changes ...more
- Property grid now has range checking for dip-span ratios, Lat/Long values and library scaling factors.
- Undo/Redo tool combined into one button.

Version 5.0 major update (Nov 2021):

- New field added for site address (added to updated Visualization reports)
- Move grid allows grid alignment to ground image reference
- New opacity adjustment for sails and poles added to view settings
- New site and projected area of selected sail/shade added to information properties
- New "Fix Point" provides a floating shade sail connection point
- New parametric arch shade added to Framed shade structures:
  - Single Post cantilever arched shade for seating shelters or carparks
  - Double post arched barrel vault large span shade structures
- New Umbrella property to hide pole allowing user to draw a side pole in design
- New shadow report pages with color background and shade outline or with fabric color and assigned opacity
- New report Layout Detail template with sail/post layout, pole and sail numbers and a table of sail connection heights
- Shadow report templates now include options for color background and sails

Version 4.1 maintenance release (April 2021):

- Minor bug repairs.
- Updated Visualization report template includes sail edge length.
- Landscape Visualization report template added.
- For new installations, a change in the default file locations allow more reliable installations on computers shared between different users.

(an update to an existing installation will not change any file locations or lose any data. (for computer experts, in depth technical information on this change is available here:)

Version 4.0 major update (Dec 2020):

- Addition of parametric framed shade structures:

Rectangular Framed Shade Structures (a.k.a. hip and ridge)
Polygon (multi-sided) Framed Shades
Rectangular umbrella
Standard (multi-sided) umbrella

- New Report Generator replaces previous pdf reports

New template pages including some Landscape pages
New report fields for additional area information

- Visualization report now includes ground plane and North arrow
- Layout pages now include minimum canopy heights automatically
- Program remembers size and position when using multiple displays.

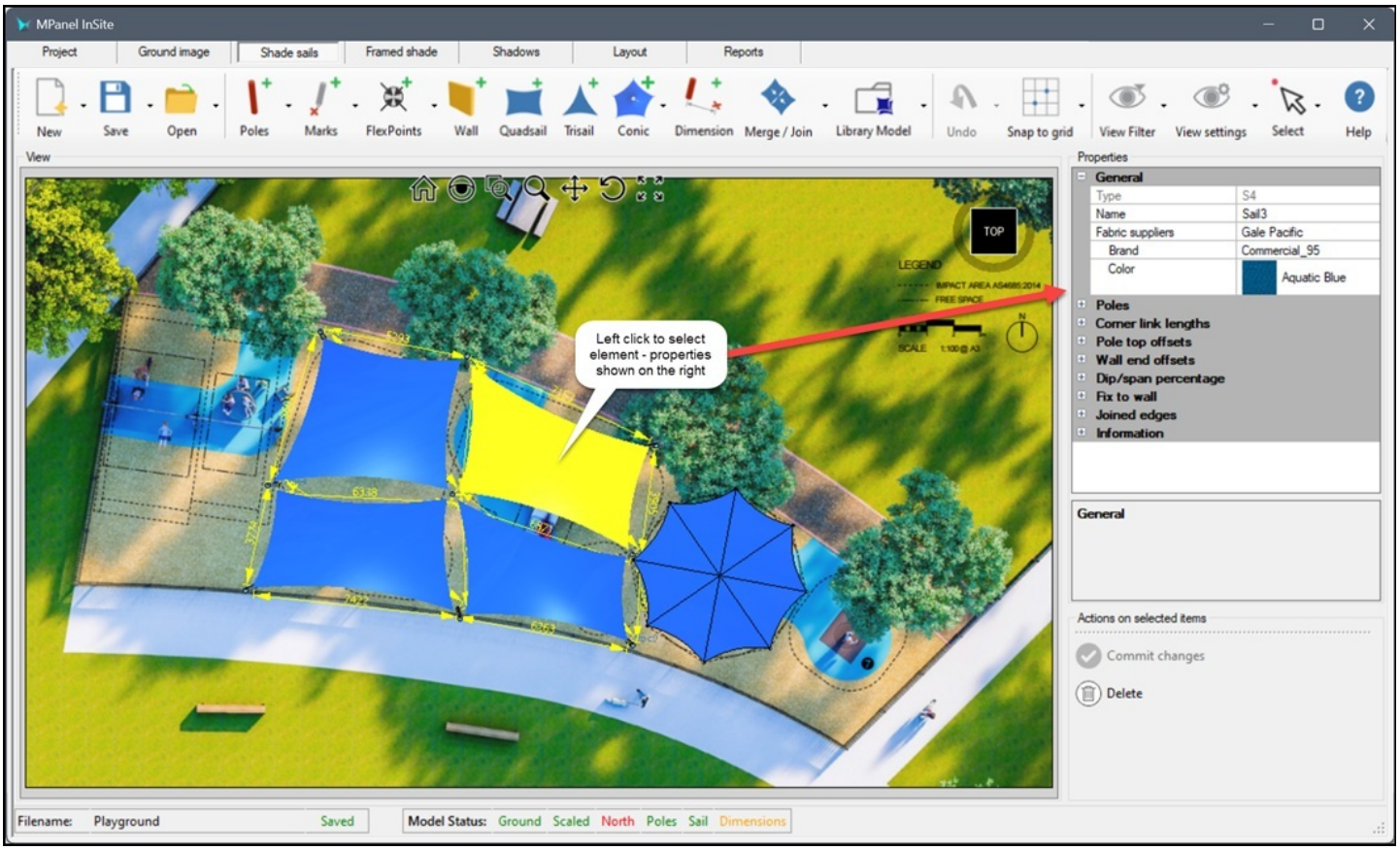
Version 3.0 major update (Sep 2019):

- Poles, sails, mark points, etc can now be renamed in the property window.
- Sails connections to a wall can now be fixed edge or cable edge.
- Sails can now be attached between two walls.
- Sails can use a wall as a single point connection, like a pole.
- Sails can be fixed in a wall corner by allowing fixed edges between different walls.
- Sail colors can now be selected from supplied fabric manufacturers databases, showing the fabric type and color swatch image.
- Ground images can now be created from a ground plan dxf file.
- Sail properties now include information including sail area and perimeter.
- Shadow time zones can now be set in 30 minute increments.
- We can now export a sail (one at a time) to MPanel Shade Designer format.
- We can now export the model to Sketchup (includes a Sketchup plugin to import the model)

Introduction

MPanel InSite is an Interactive Site designer for shade sails and frames shades such as hip and ridge and umbrellas.

InSite allows easy interactive design layout of poles, walls, sails and framed shades on a scaled ground image to achieve the correct sun shadow placement, and then create detailed reports for the design, shadows, and pole footings.



The design consists of placing poles or walls in position, adding sails between the poles, and then changing the poles and sails as needed. Framed shades can be added as blocks and parametrically re-sized and moved and rotated to suit the design requirements. The design can be viewed in 3D and the view can be rotated and zoomed.

Shadows can be shown for specified date and times, and the shadow can be "designed" by moving the poles or framed shades, changing heights or sizes or the design.

When the design is finalized, InSite produces several reports that can be shown to the client to obtain job approval, and also reports that assist with transferring the design into reality on the ground, by specifying the pole footing positions, pole lean direction, and the position of the lugs on the pole tops.

InSite does not design or pattern the sail. This is because good practice is to concrete the poles in place, and then take actual pole top to pole top measurements for each sail. These measurements are entered into a companion product, MPanel Shade Designer, to produce the sail patterns. Another companion product called MPanel-Pro can also produce shade sail and framed shade patterns.

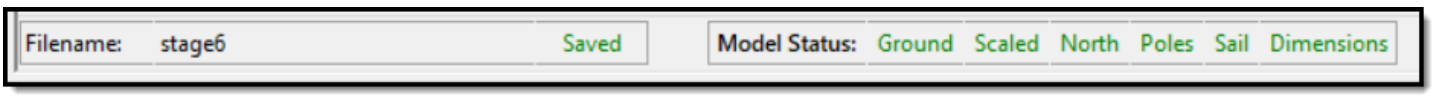
Short Video: Introduction

YouTube Link: Tutorial Library

How to use the program

MPanel InSite is arranged as a series of tabs. Use the program by using each tab in turn progressing from left to right.

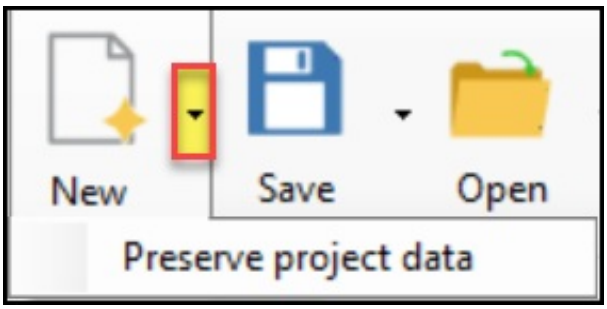
The status bar at the bottom will show the design status. When you start a project all stages are shown in red and as each stage is completed, the status label color changes to green. Framed shades when added are blocks and show as the addition of poles in the status bar.



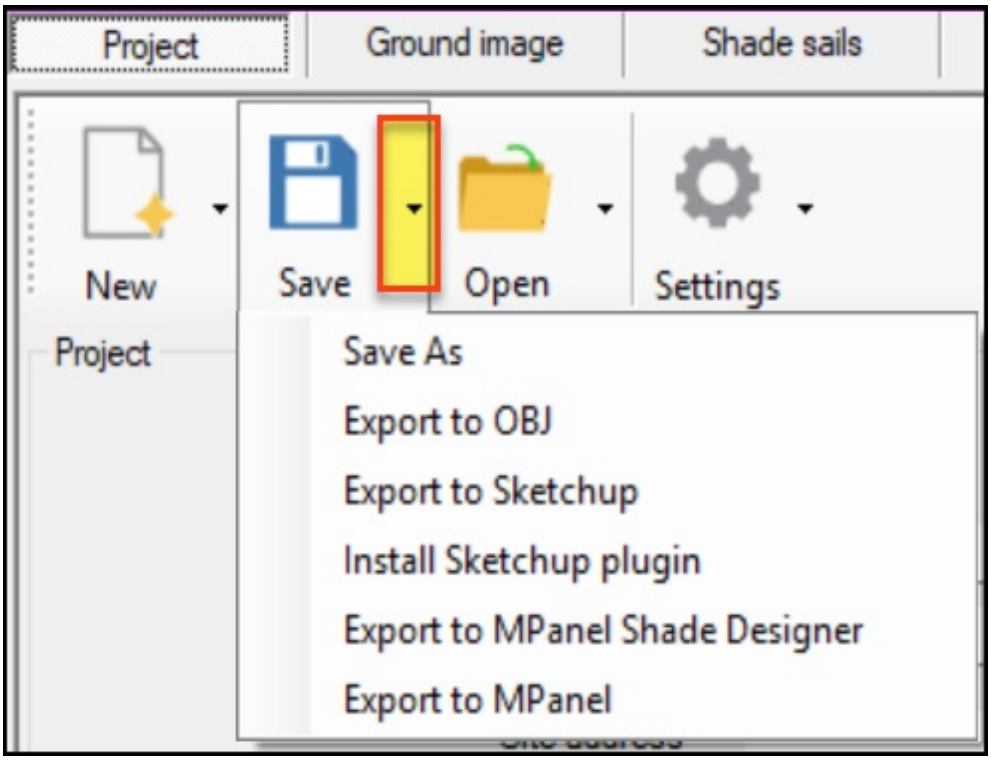
Short Video: Status Bar

Starting a New Project.

Click on the New button to start a new project. Click on the small arrow on the right of the New button to open a new project while preserving the current project information. This is useful when creating multiple design proposals for the one client.



Saving and Opening files.



From all pages you can open and save your model files. The models are saved as a pair of files:

model_name.dxf
model_name.bmp

The files are usually stored in the folder ..... Documents\MPanel Insite\Models but you can choose other folders instead.

Clicking on the open or save button will open the windows folder where project files are saved. The small dropdown arrow on the right of the open button will show the list of the 10 most recent projects.

From the Save drop down arrow you have several options:

- to export to OBJ. This produces an OBJ file in a style that can be read by Awning Composer(*).
- to export to Sketchup. This produces an MPX file which can be read into Sketchup (#) using the Sketchup supplied plugin.
- Install the Sketchup plugin - this will add a tool to Sketchup to import MPanel files.
- to export to MPanel Shade Designer (mpm format) - limit to 6 sided - to select the sail you wish to export
  - hold the shift key then left click on the pole/wall which will be corner A (in MPSD)
  - then the sail or parts of the sail (if merged e.g. 5 and 6 sided)
  - release the shift key
  - select the export to MPanel Shade Designer and specify file name and location to save.
- Export to MPanel for use with patterning using MPanel-Pro or structural analysis using MPanel FEA
  - Select all posts and sails then choose the Export to MPanel and specify file name and location to save.
- Saved Insite files can now be imported into MPCore Apps for patterning

Short Video: Export models for patterning and engineering analysis

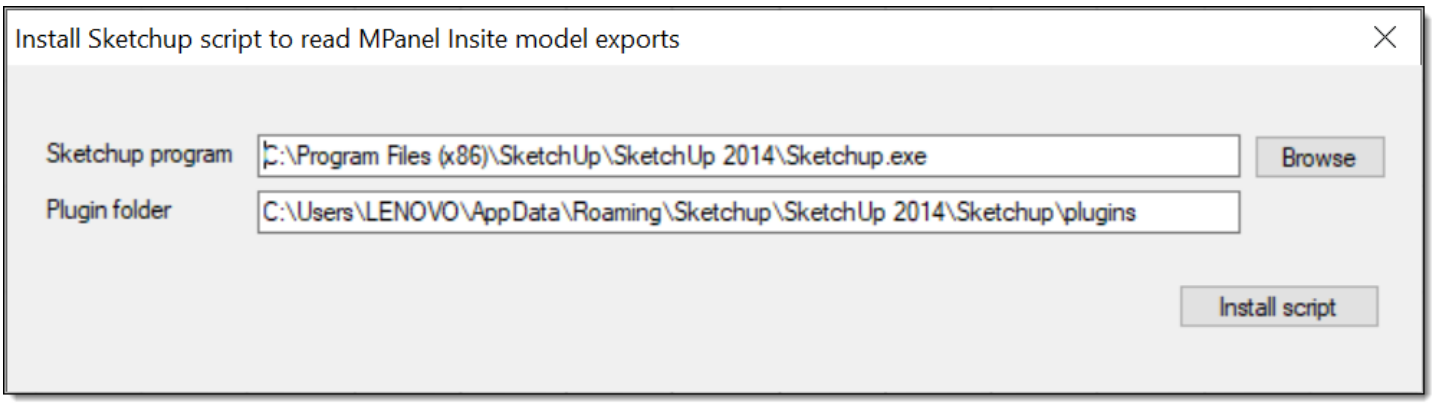
Selection

Model elements (such as poles, sails, and framed shades etc) can be selected using several methods:

- left click to select one element
- shift left click to select a second (hold the shift and left click to continue selecting more items)
- marquee selection - there are 2 options available:
  - draw a box containing all items you want to select - left click at top left corner and then drag the mouse to the bottom right corner of the marquee box
  - draw a box through the items you want to select - left click on the right side of the selection area then drag the mouse to the left side and items which the box cuts through will be selected. If more items are selected than you want then hold down the shift key and left click to de-select individual items from the selection set.

To import the model in Awning Composer using the Add Object.... Open from 3D model menu item. The model may be appear to be floating above the ground. To change this, in the object properties, in the miscellaneous setting, change the movement plane from Building to Ground. Then click on the menu button to reset the object.

To install the Sketchup plugin select the option and the program will attempt to find your version of Sketchup and the location where plugins are stored and you will be presented with the dialog shown below. Generally, these selections are correct unless you run multiple versions or have made changes to default file locations for the program in which case you will need to use the "Browse" button to tell the installer where to locate the program and place the plugin.



Short Video: Export to Sketchup

To import a model into Sketchup - open the plugins menu and select "Import MPanel File" then locate the mpx file you previously exported from InSite.

To import a model into MPSD open the saved file using the open file button and locate the saved file. You will be prompted that you are importing a partial file (similar to a file created by MPCalc.com). The file contains the sail geometry only - no information about fabric or connections is exported from MPI. This tool has been added for quoting purposes only - we do not recommend fabrication of sails until the poles are installed and accurate site measurements are then taken.

- **Project**

Enter the project details, and select the units you will work in.

In addition, this page gives access to default settings for poles, walls, sails, fabric, dimensions and marks. The default setting will initially be set to reasonable values for the selected unit system, but you can change them and they will be automatically saved and will be the default settings next time you start the program.

- **Ground Image**

Initially you will see a default grid based on the selected unit system and the default setting.

Import a ground image, from an image file, a pdf or from the clipboard. During the image import you can select your "working area". All report images are based on the working area, so restrict the area to just what is needed to obtain good report images.

After the ground image is imported, specific points in the image can be clicked on, and the distance between them specified. This scales the grid to the image. and ensures that poles sizes, dimensions, etc. are the correct size in the image.

You should also set the north direction, as this will affect the shadow positions.

- **Shade Sails & Conic**

Add poles or walls as needed in their initial positions, and then add sails between the poles by selecting the poles in a clockwise direction and the sail will be automatically be added. Merge 3 and 4 sided sails to make larger multi-sided sail. The procedure for Conics is slightly different as you are prompted to first select the center post then the perimeter posts (clockwise) then using the tool dropdown, select "add membrane".

The height of the poles, and the amount that the sail connection lug is offset from the pole top, can be specified and changed.

In addition, ground reference marks can be added. Dimensions are added between poles and reference marks to fully define the pole positions by triangulation.

- **Framed Shade**

Add framed shades and umbrellas as needed in their initial positions, and then define size and rotation angle to provide the required coverage.

In addition, ground reference marks can be added. Dimensions can be added between the reference pole (bottom left corner for framed shades and centre post for umbrella) and reference marks to fully define the structure location by triangulation to site reference points.

- **Shadows**

Shows the shadows from the sails, poles, and framed shades for specified times and dates, at the specified location.

This allows you to see where the shade will be, and if needed, you can go back to the Shade Sail or Framed Shade pages to move poles, adjust the sails/structures, etc.

- **Layout**

You can add some layout dimensions that will be used in the layout report. Typically these are overall dimensions of the whole project, and are regarded as illustrative only. Layout dimensions are for illustrative purposes only, and are not used to dimension and fix pole positions.

- **Reports**

Shows a visualization report which can contain your company name and logo. This can be given to the customer for project acceptance, along with a standardized shadow report, which shows the shadow position at four different dates and times.

In addition there are a range of Installation related reports that will assist with the physical site layout, such as the pole fabrication, pole footing location, pole lean angles, etc.

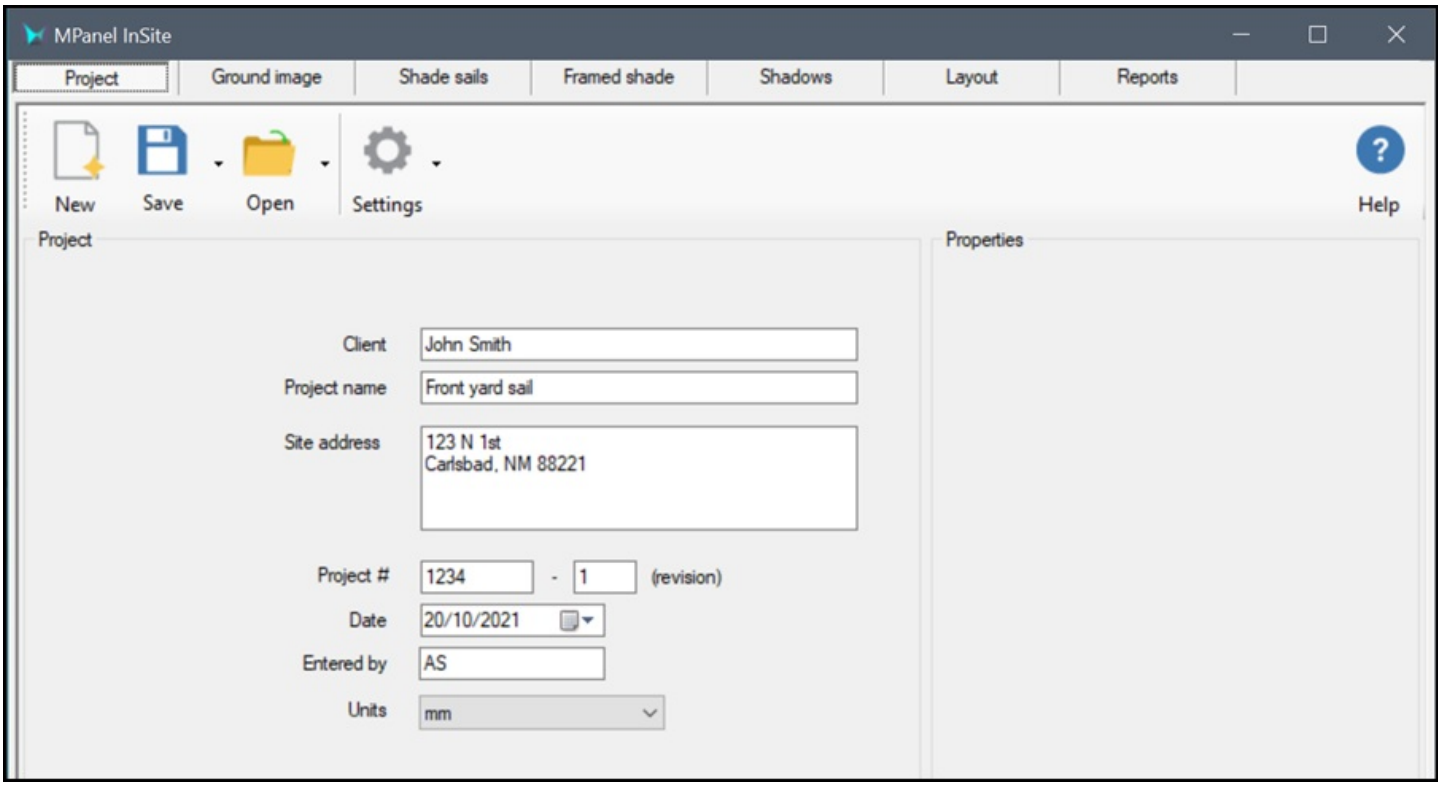
Project

This page has two purposes:

a) set default settings before you use the program for the first time.
b) enter the project details for each new project.

Project details.

Enter the project details, and select the units you will work in.



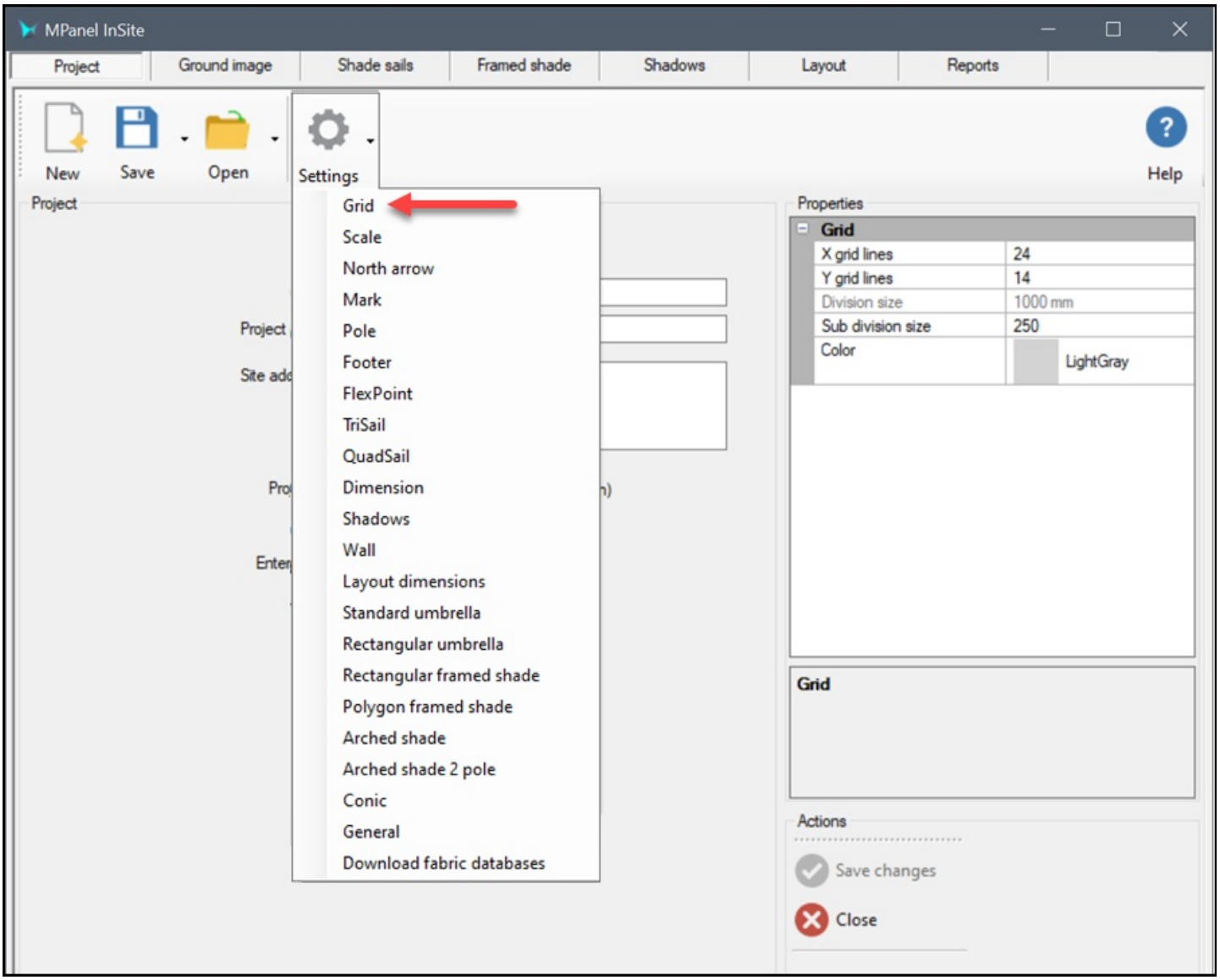
Settings.

You can change the default settings for all of the entities that can be used in MPI, as well as general

program settings. To make changes, select the entity and change the property value then click on "Save changes" below the properties zone. Once set, these will become the defaults for each future use of the program.

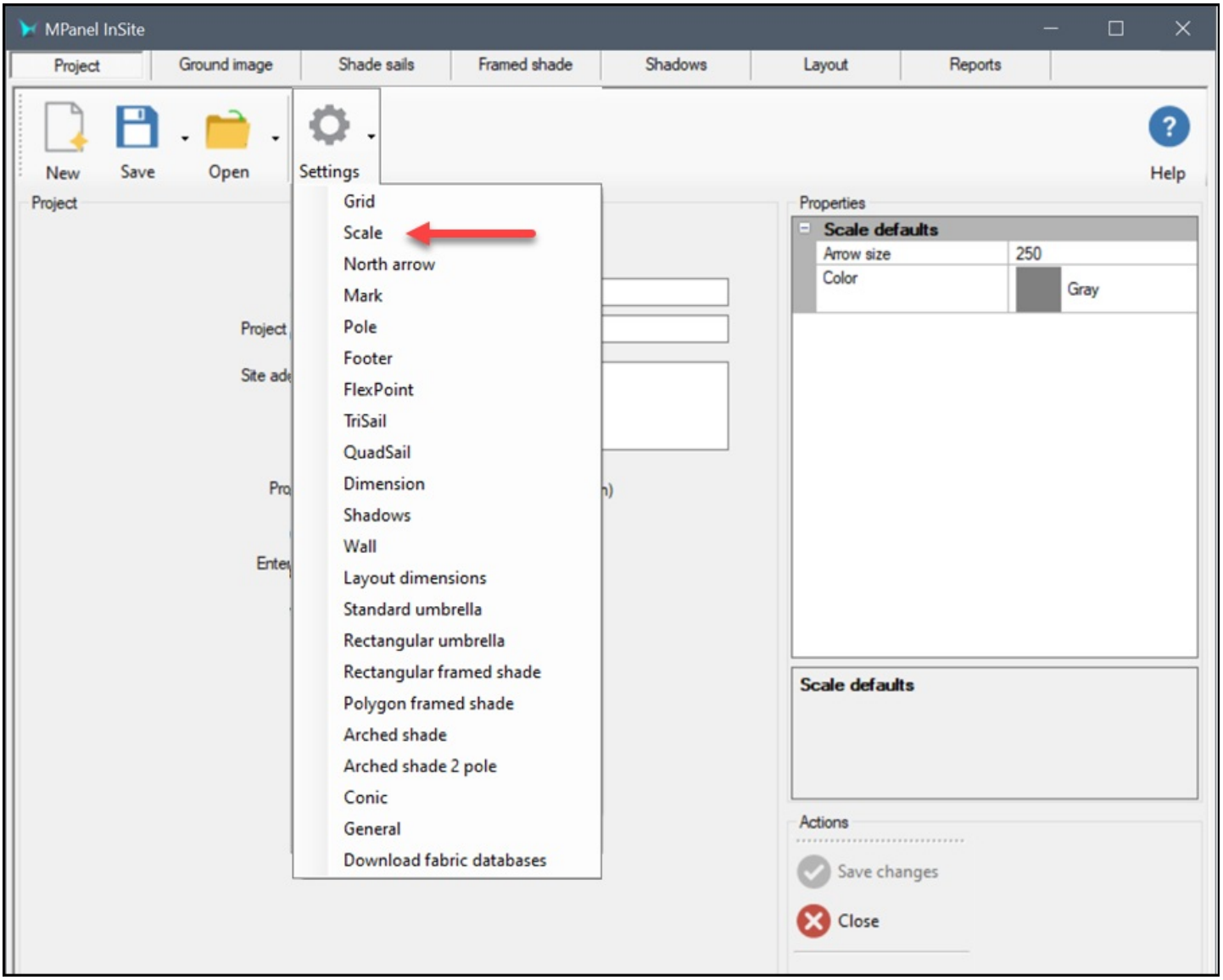
The default values supplied with the program will usually be suitable for using the program initially, however, as a minimum, you should change the settings for the measurement units that you prefer to work in, and your default location, so that the shadows will be correct. Each of the settings are explained below:

Grid - Here is the screen where you specify the default grid size - in this example we have a grid of 15 in the x direction (from left to right) and 10 in the y direction (from bottom to top). Each grid is 1000mm (1m) and the default sub division size is 250mm and the grid color is set to grey.



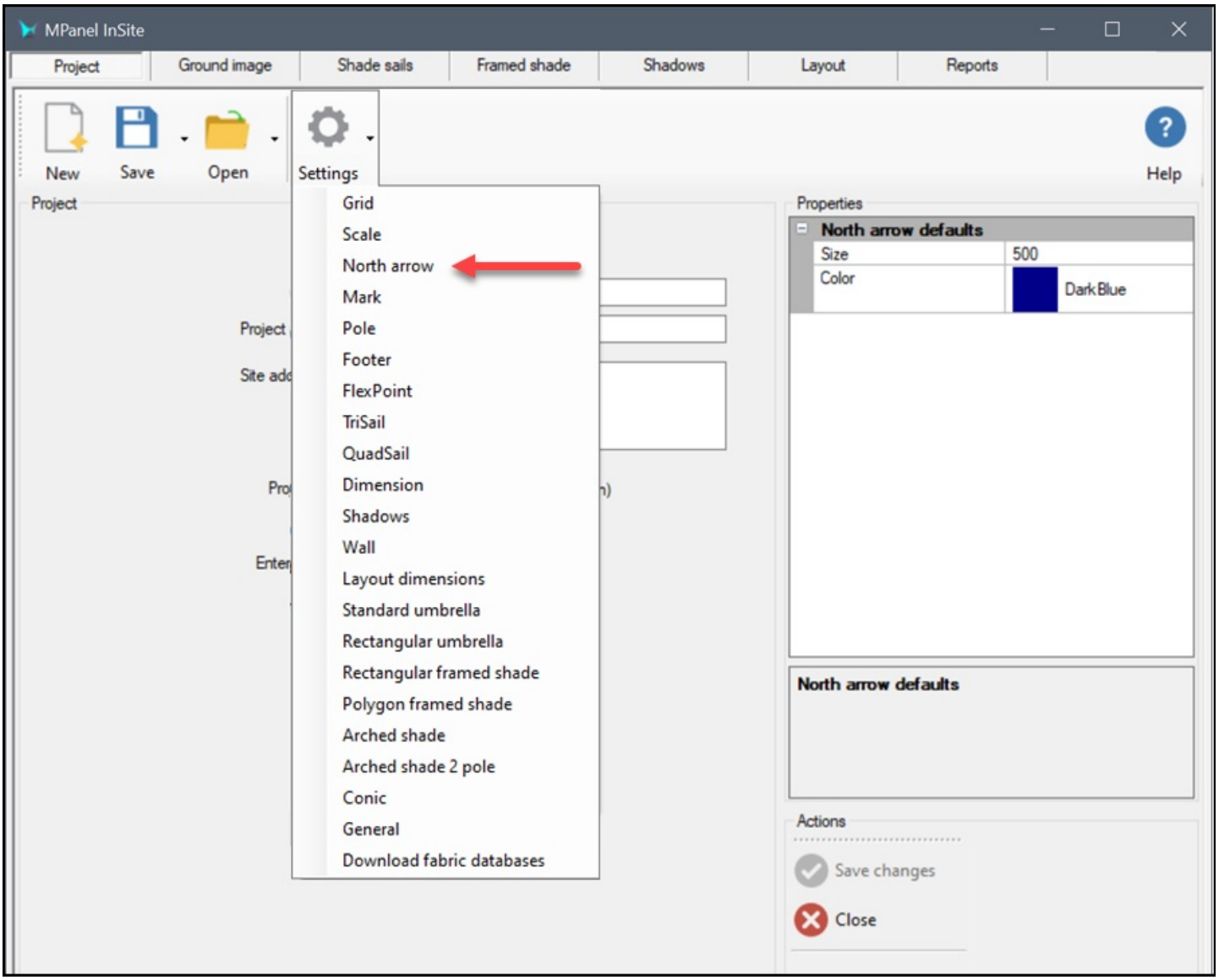
Short Video: Grid Default
Short Video: Using Grid

Scale - Here is the screen where you specify the default arrow size and color for the scale dimension which is added to the background image after scaling.



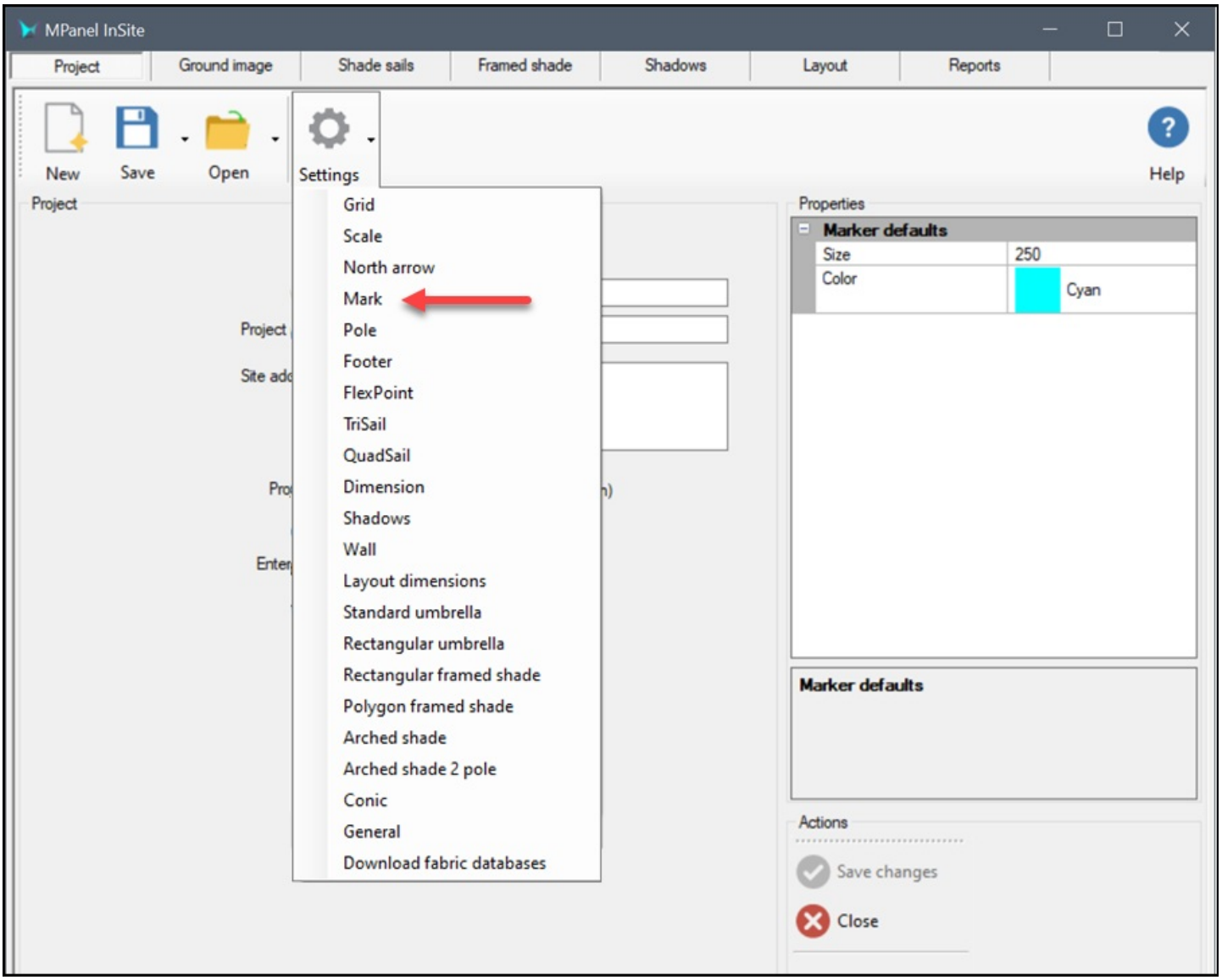
Short Video: Scale Default

North - Here is the screen where you specify the default size and color of the north indicator symbol which is added to the background image.



Short Video: [North Default]

Mark - Here is the screen where you specify the default size and color of the mark symbol which is added to the background image during model building to identify reference points at the site such as building corners etc that installers will use to locate the post setout.

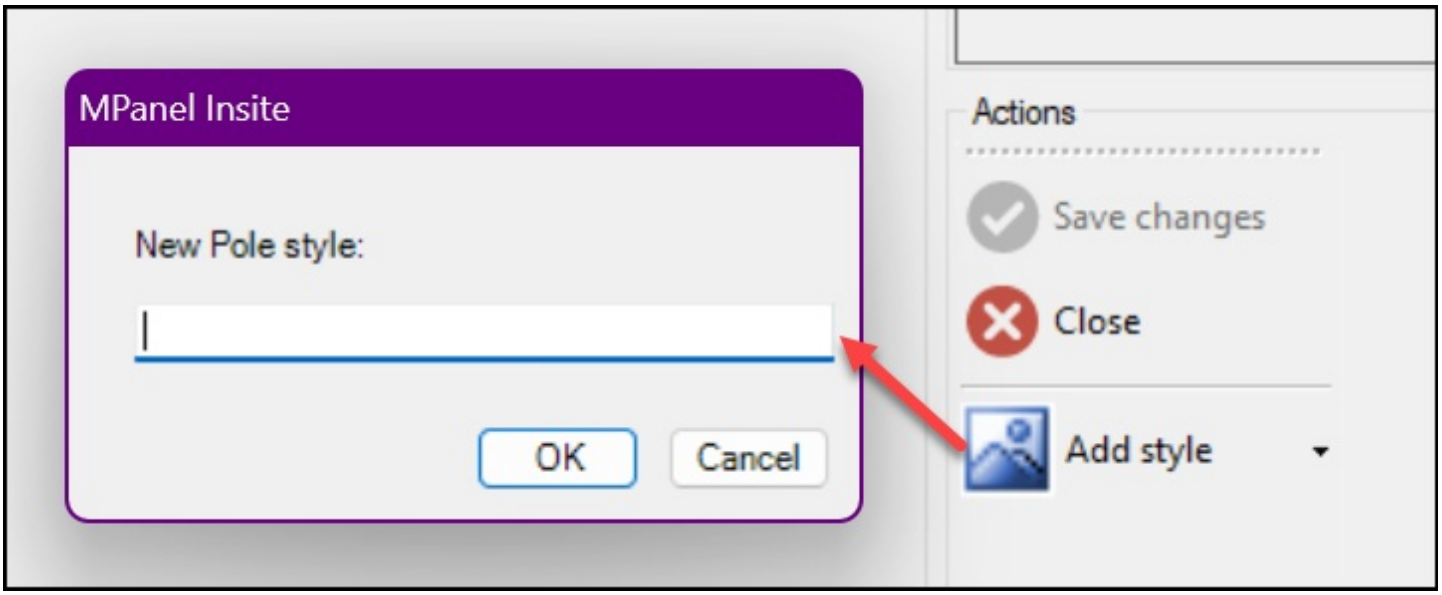


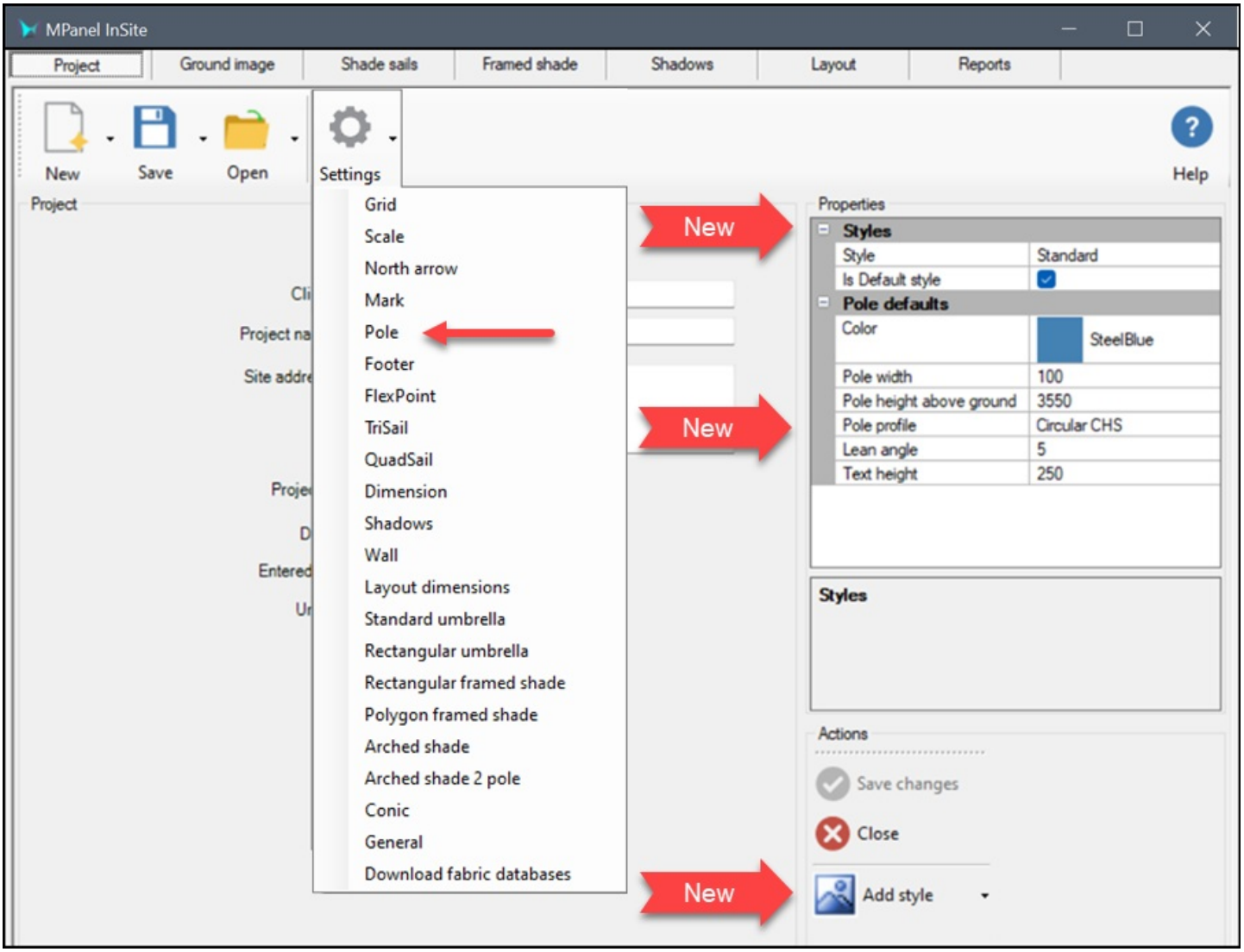
Short Video: Mark Default

Pole - Here is the screen where you specify the default pole settings and colour and define multiple pole styles:

- Pole Style
- Pole color
- Pole width
- Height - above ground
- Pole style - Circular (CHS) or Square (SHS)
- Lean angle - in degrees
- Text height - of the post label in the drawing.

Add pole style (new in V7) allows creation of a library of standard poles typically used in user designs. After clicking "Add style" button, enter new style name, then set properties for the new style and "Save changes"





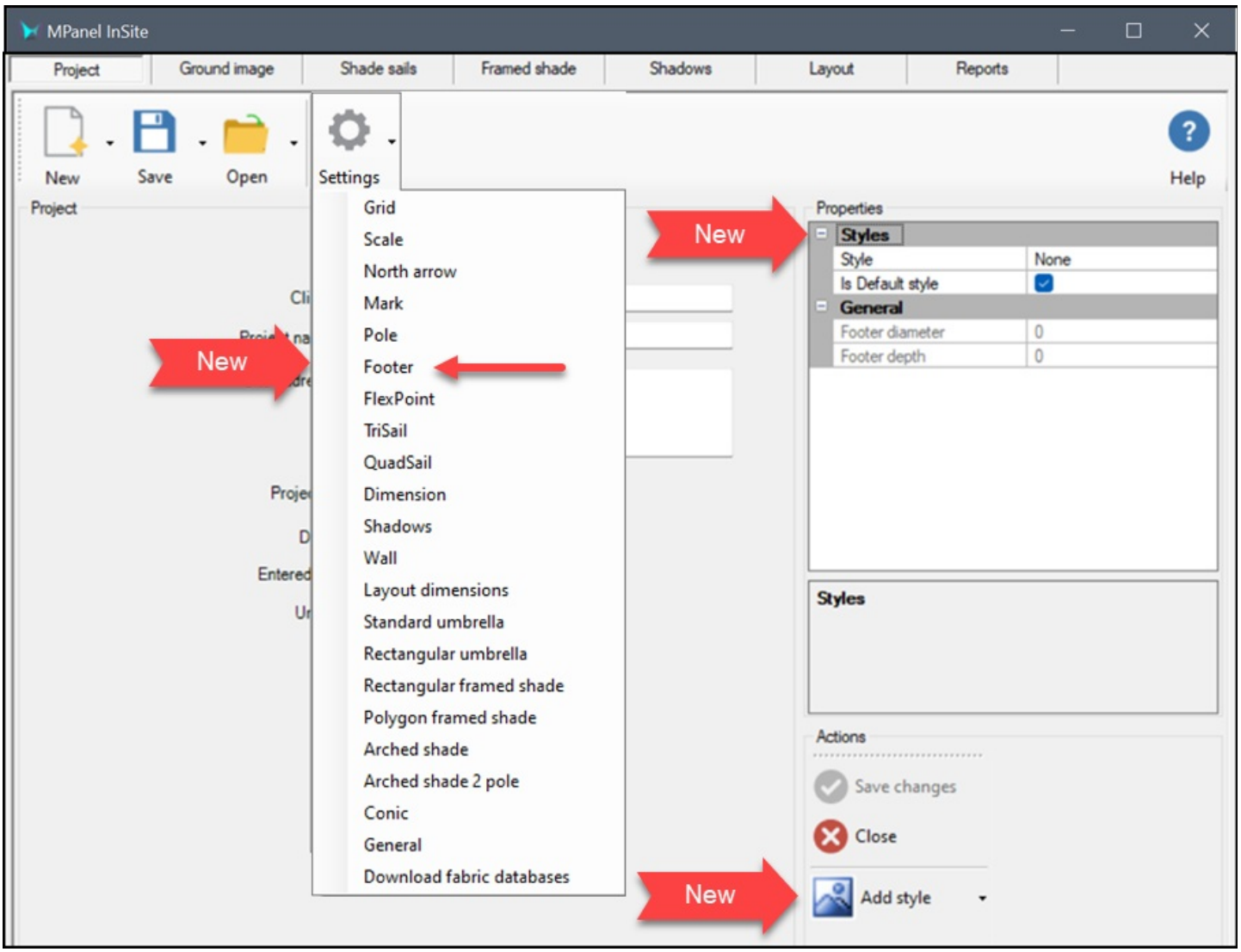
Short Video: [Pole/Footer Default]

Footer - Here is the screen where you specify the default footer settings and define multiple footer

styles:

- Footer diameter
- Footer depth

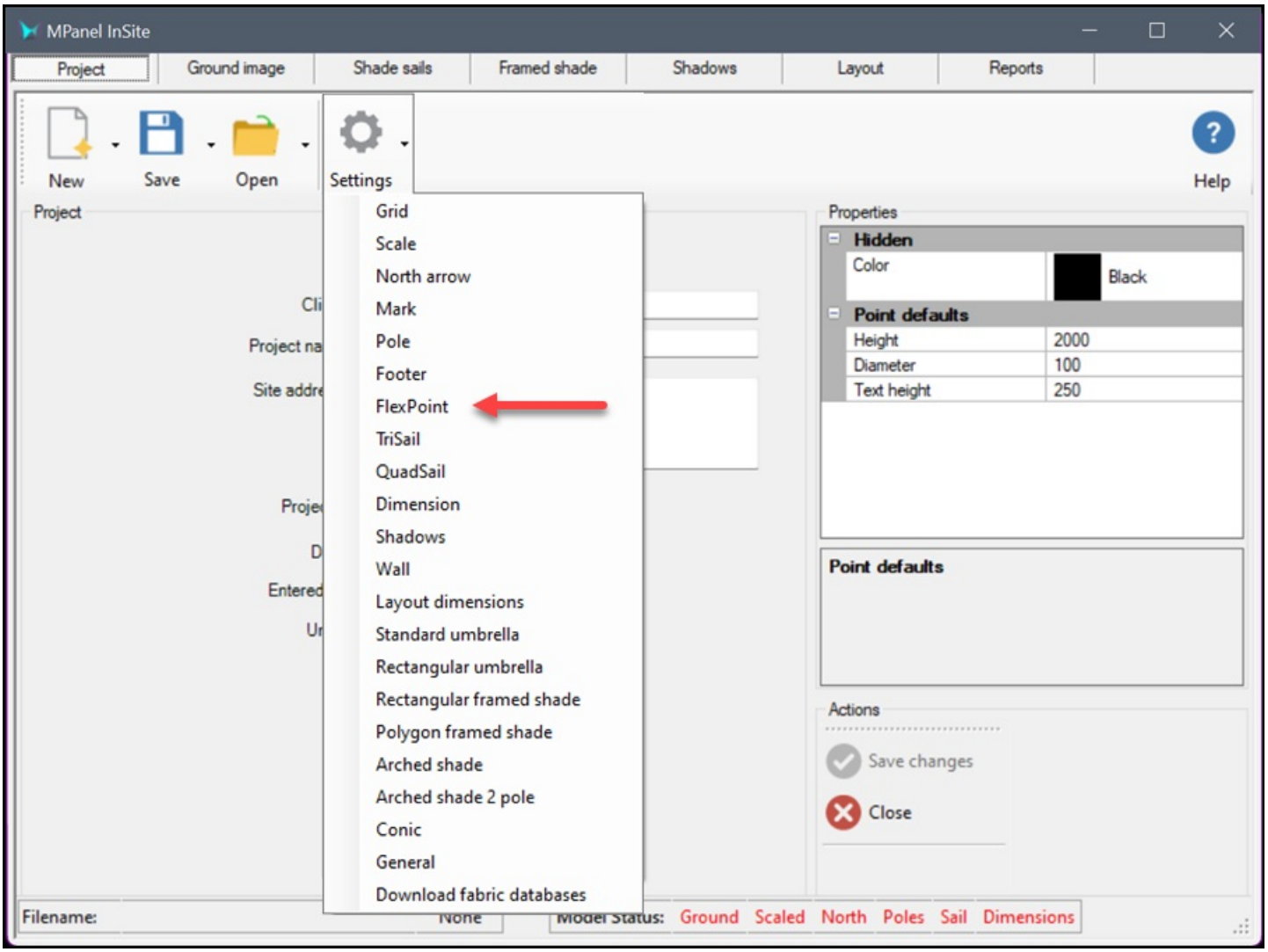
Add style (new in V7) allows creation of a library of standard footers typically used in user designs. After clicking "Add style" button, enter new style name, then set properties for the new style and "Save changes"



Short Video: Pole/Footer Default

FlexPoint - Here is the screen where you specify the default point settings:

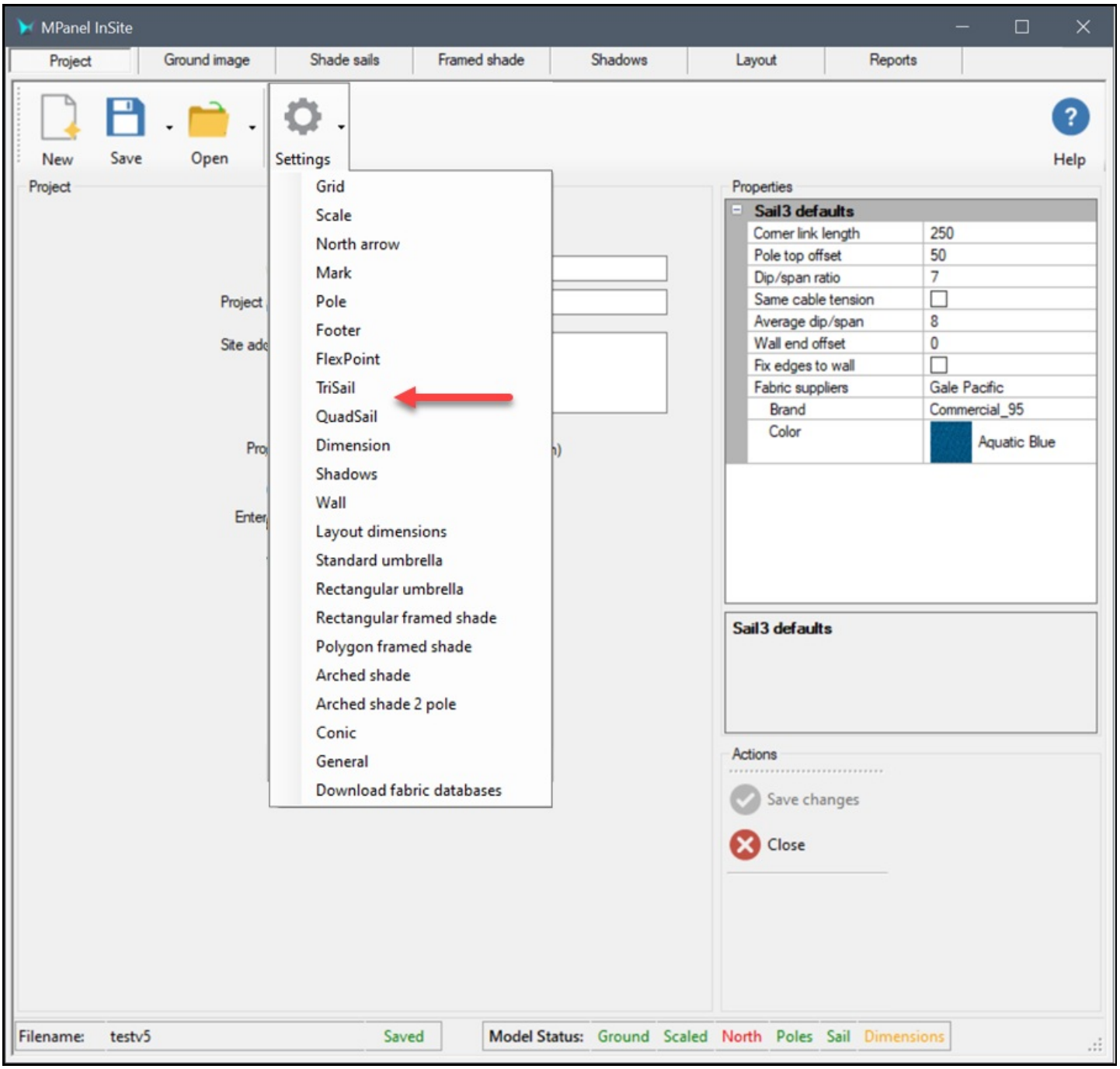
- Point color
- Point height
- Point diameter
- Text height



Short Video: [FlexPoints]

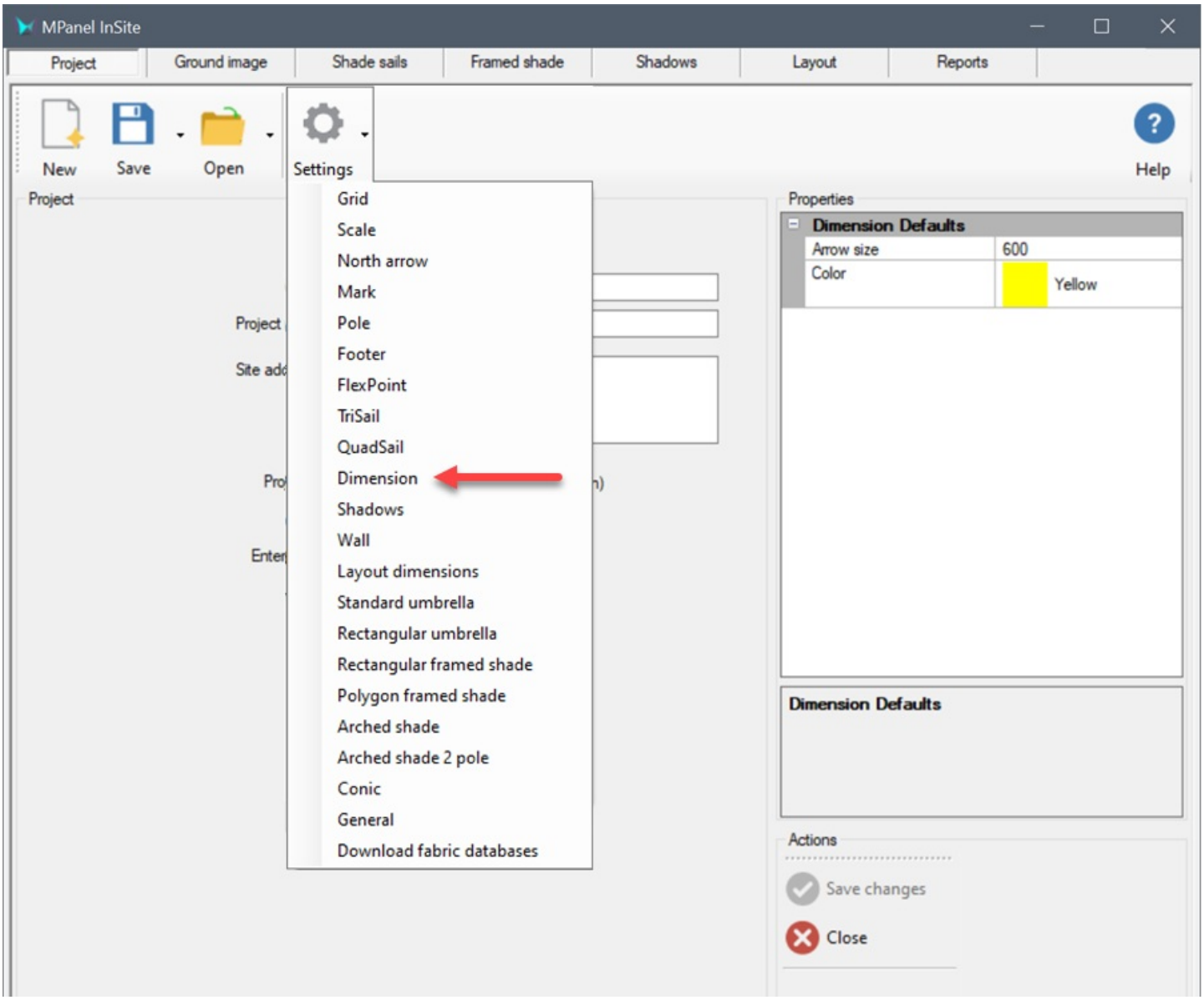
Sails - Here is the screen where you specify the default settings for a three sided TriSail (four sided QuadSail settings are the same):

- Corner link length - defines the connection hardware between the pole and sail corner (turnbuckles etc.)
- Pole top offset - defines the distance down from the pole top to the default sail connection point
- Dip/span ratio - the depth of the edge dip as a % of the span (a 7% dip/span of a 20ft span would be 20 x 0.07 = 1.4)
- Same cable tension - should be checked whenever you use sails with a single edge cable with rings in the corners (ezy-slides etc)
- Average dip/span - % value should be set when same cable tension is selected.
- Wall end offset - will set the default distance sails will connect from the end of walls.
- Fix edges to walls - if checked will automatically assume wall connections are fixed edges (such as keder edges to awning track and similar).
- Fabric Supplier - allows selection of fabric supplier, brand and color (see below how to add databases)



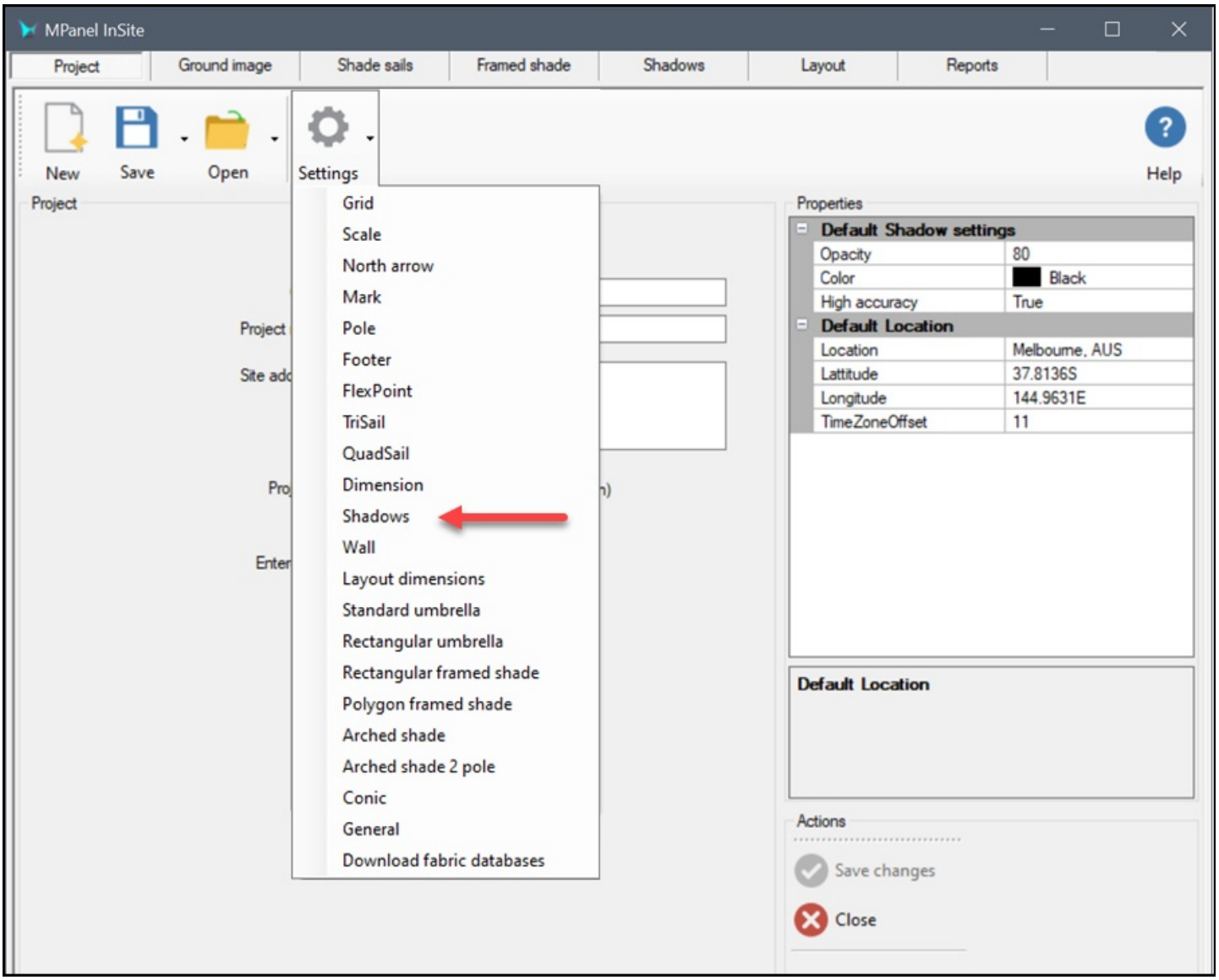
Short Video: TriSail Default
Short Video: QuadSail Default

Dimensions - Here is the screen where you specify the default dimension arrow size and color for dimensions added during model building.



Short Video: [Dimension Default]

Shadow - Here is the screen where you specify your default location, latitude and longitude, and your time zone offset from UTC/GMT as a + or - value up to the half hour, e.g. a value of 10.5 would be +10 and a half hours from UTC. Below is a map of time zones around the world which you can find at [timeanddate.com]


MPanel InSite
Project
Ground image
Shade sails
Framed shade
Shadows
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Open
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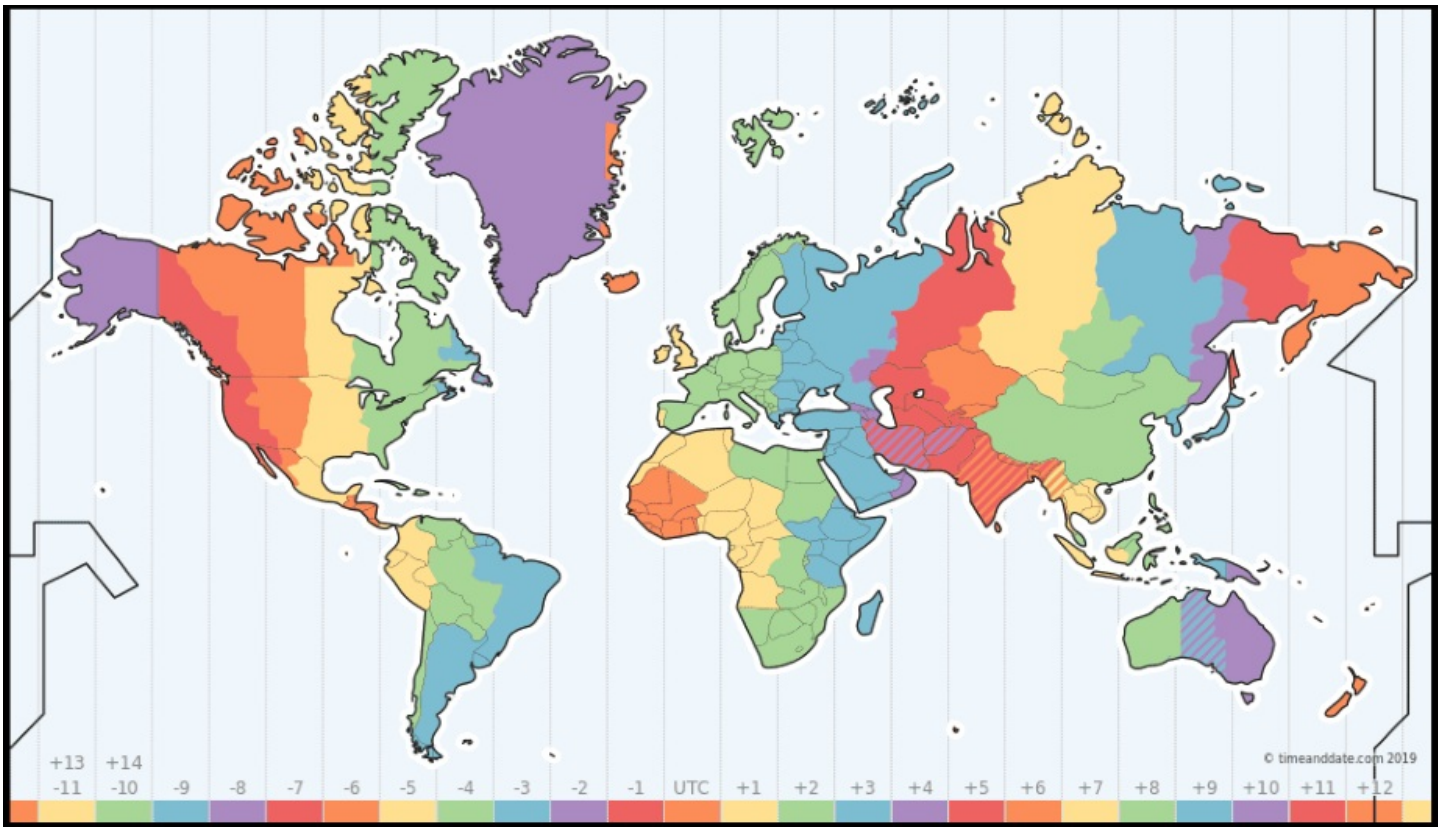
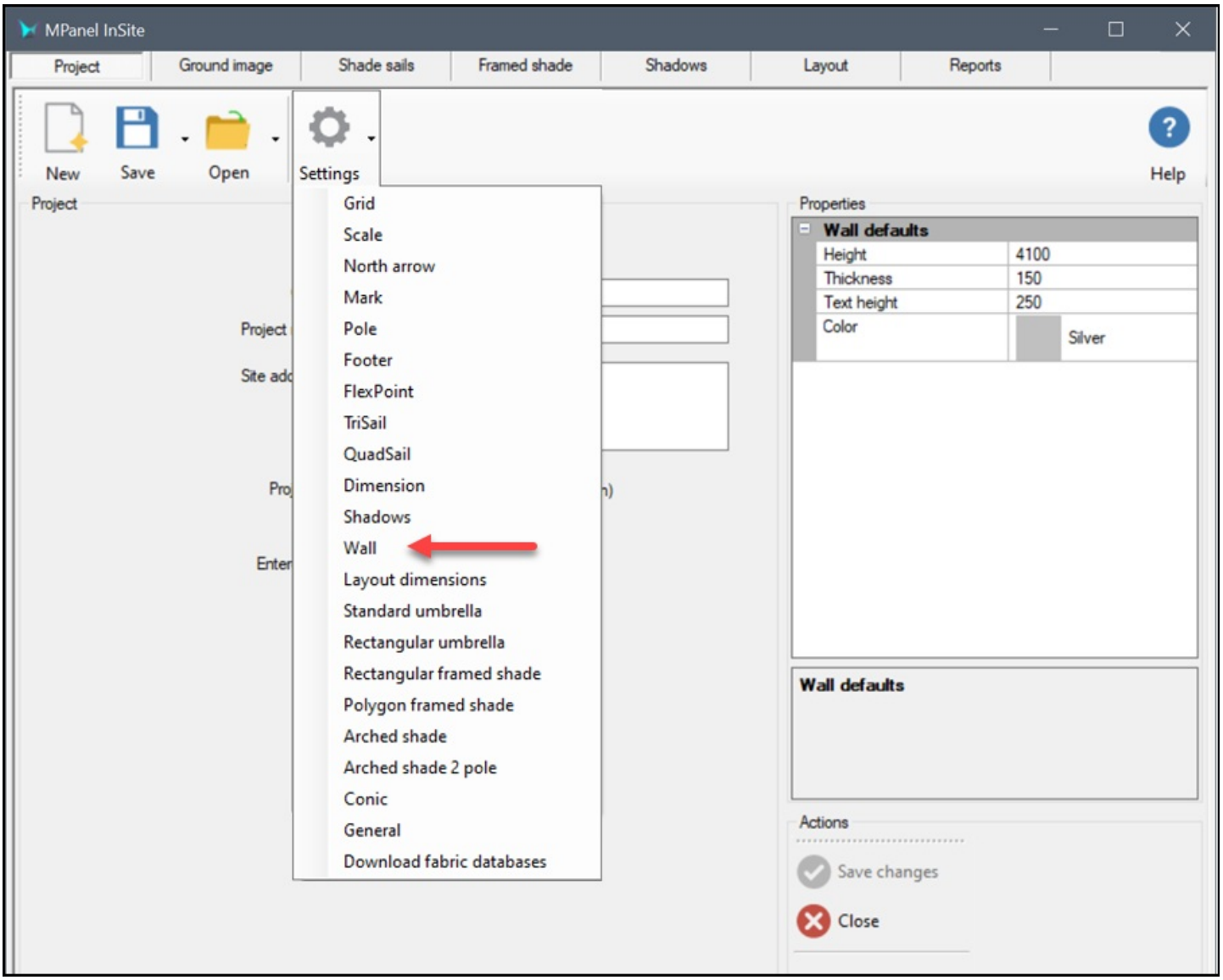
Rectangular umbrella
Rectangular framed shade
Polygon framed shade
Arched shade
Arched shade 2 pole
Conic
General
Download fabric databases
Properties
Default Shadow settings
Opacity 80
Color Black
High accuracy True
Default Location
Location Melbourne, AUS
Lattitude 37.8136S
Longitude 144.9631E
TimeZoneOffset 11
Default Location
Actions
Save changes
Close


+13 +14
-11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 UTC +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 +11 +12
© timeanddate.com 2019

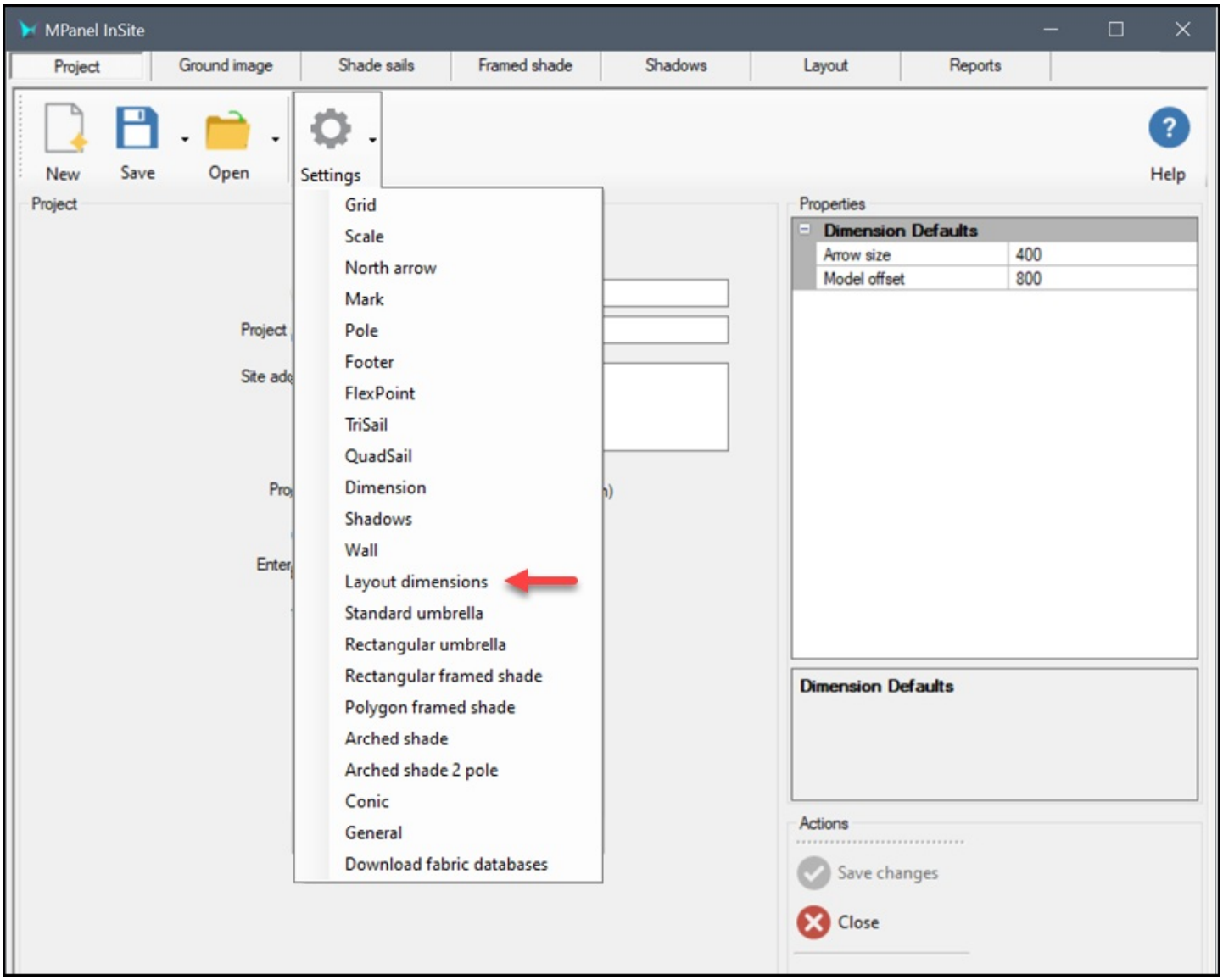
Short Video: Shadow Default

Wall - Here is the screen where you specify the default wall settings and colour:

- Height - above ground
- Thickness of the wall
- Text height - of the wall number label in the drawing.

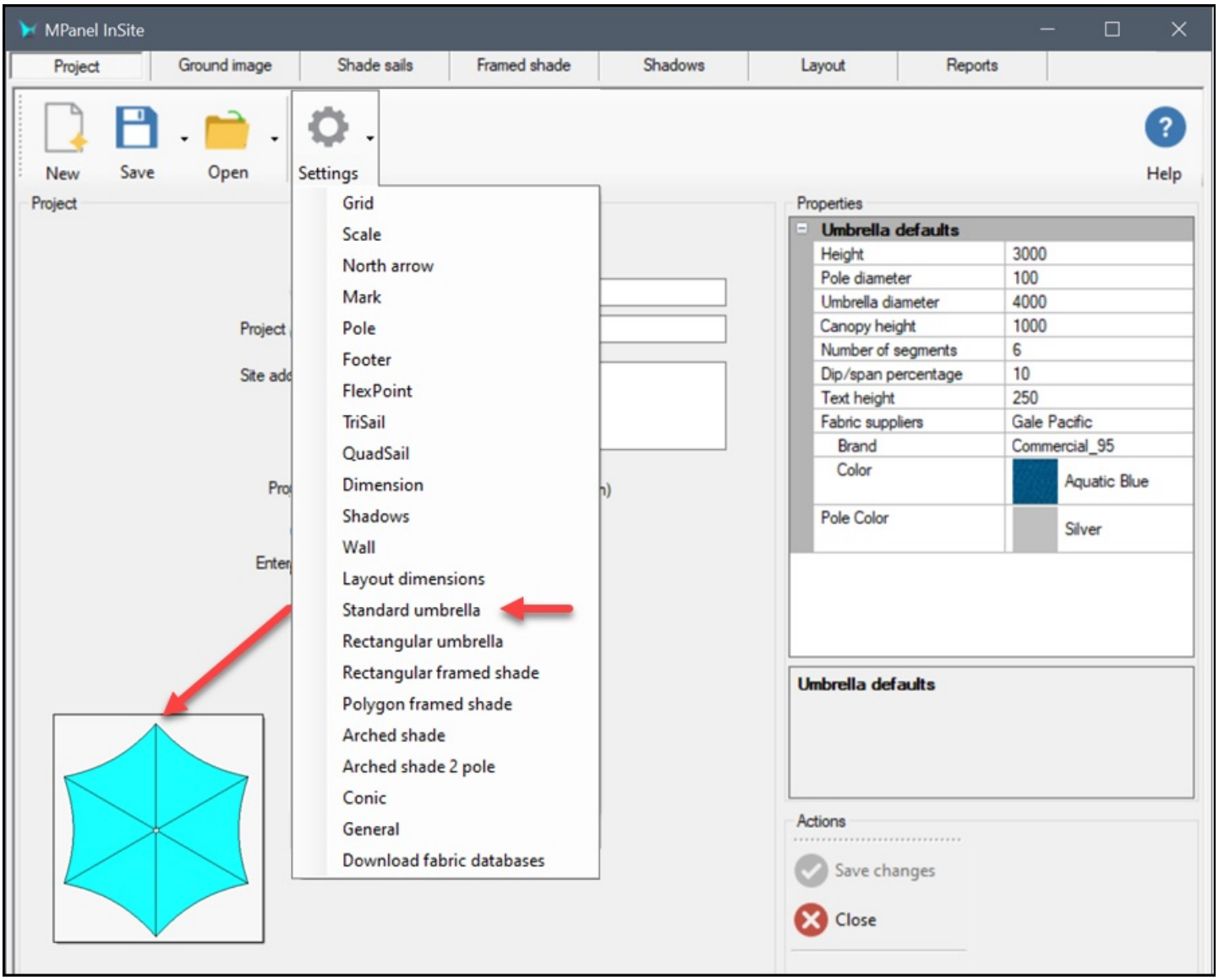


Layout DImensions - Here is the screen where you specify the default arrow and text size and offset distance of dimensions used in layout tab and shown in layout reports.



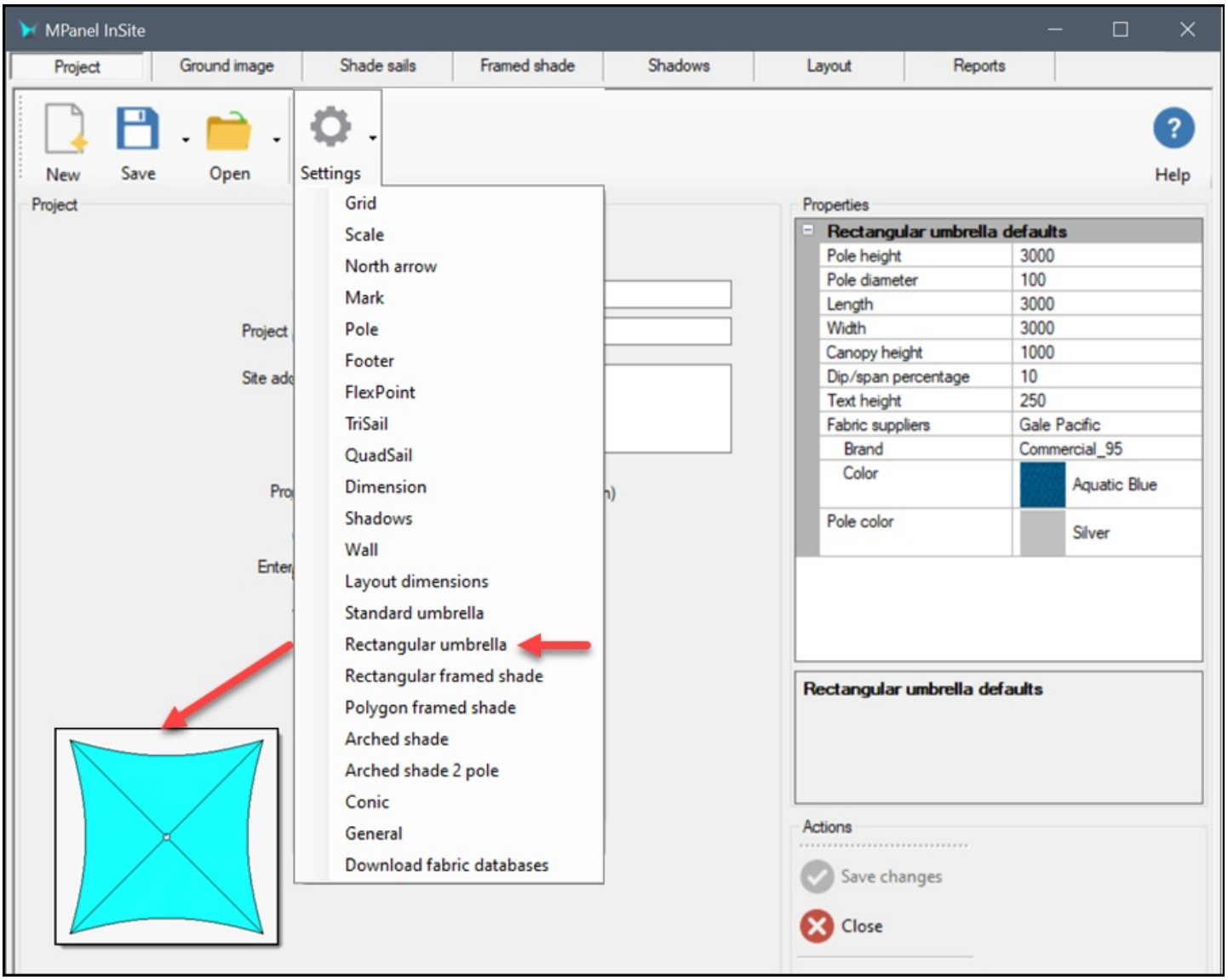
Standard Umbrella - Here is the screen where you specify the default settings for a multi-sided umbrella defined by its diameter:

- Height - defines the pole height from the ground to the peak of the umbrella and next the pole diameter
- Diameter - defines the size of the umbrella from the tip of one arm to the tip of the opposite arm
- Canopy height - defines the vertical distance from the bottom to the top of the canopy
- Number of segments - defines the number of arms and therefore fabric bays e.g. a 6 sided (hex) umbrella will have 6 segments
- Dip/span ratio - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the umbrella number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)
- Pole colour - allows selection of color of pole



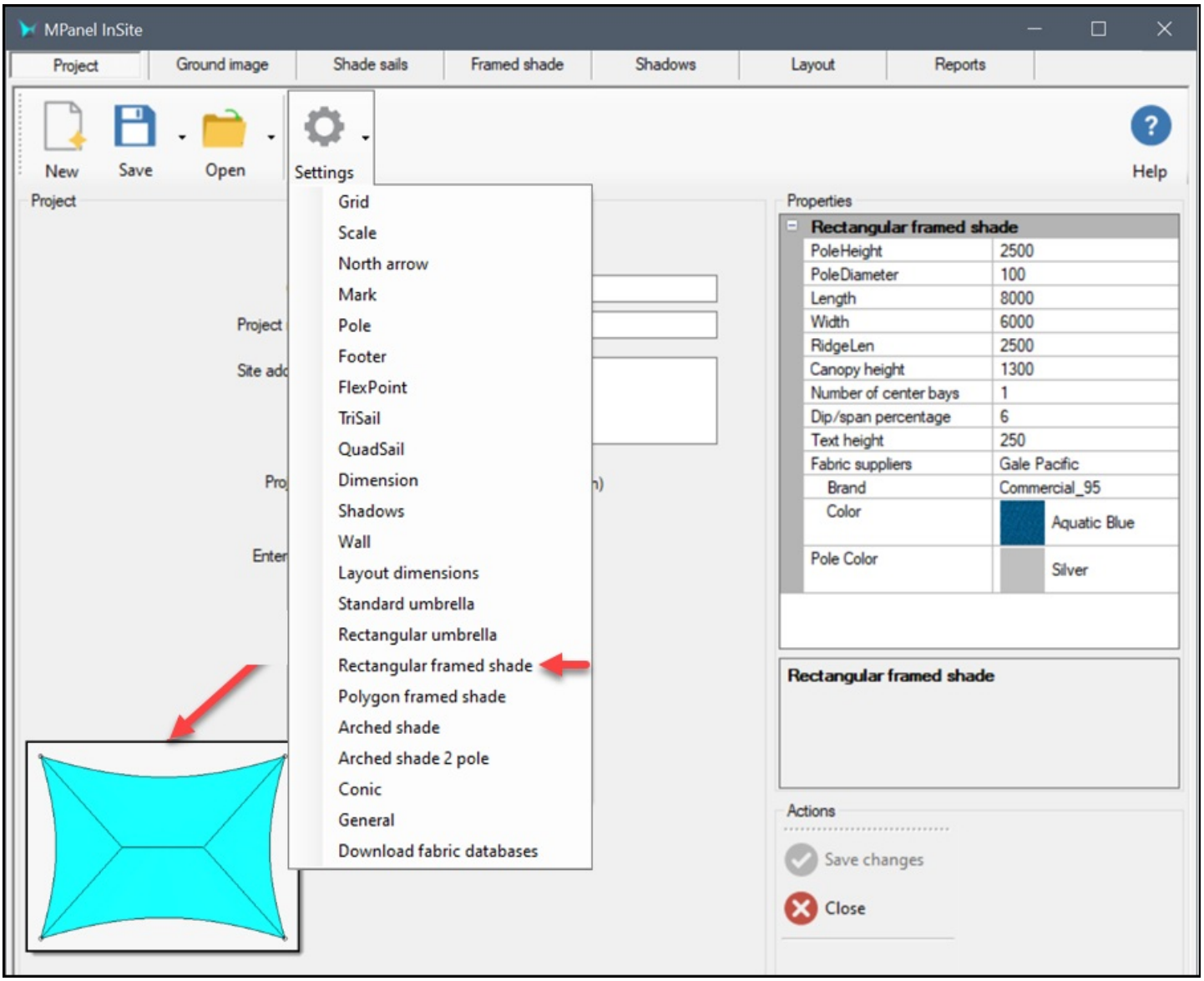
Rectangular Umbrella - Here is the screen where you specify the default settings for a 4-sided umbrella defined by its length and width:

- Height - defines the pole height from the ground to the peak of the umbrella and next the pole diameter
- Length - defines the size of the umbrella from left to right of the screen
- Width - defines the size of the umbrella from bottom to top of the screen
- Canopy height - defines the vertical distance from the bottom to the top of the canopy
- Dip/span ratio - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the umbrella number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)
- Pole colour - allows selection of color of pole



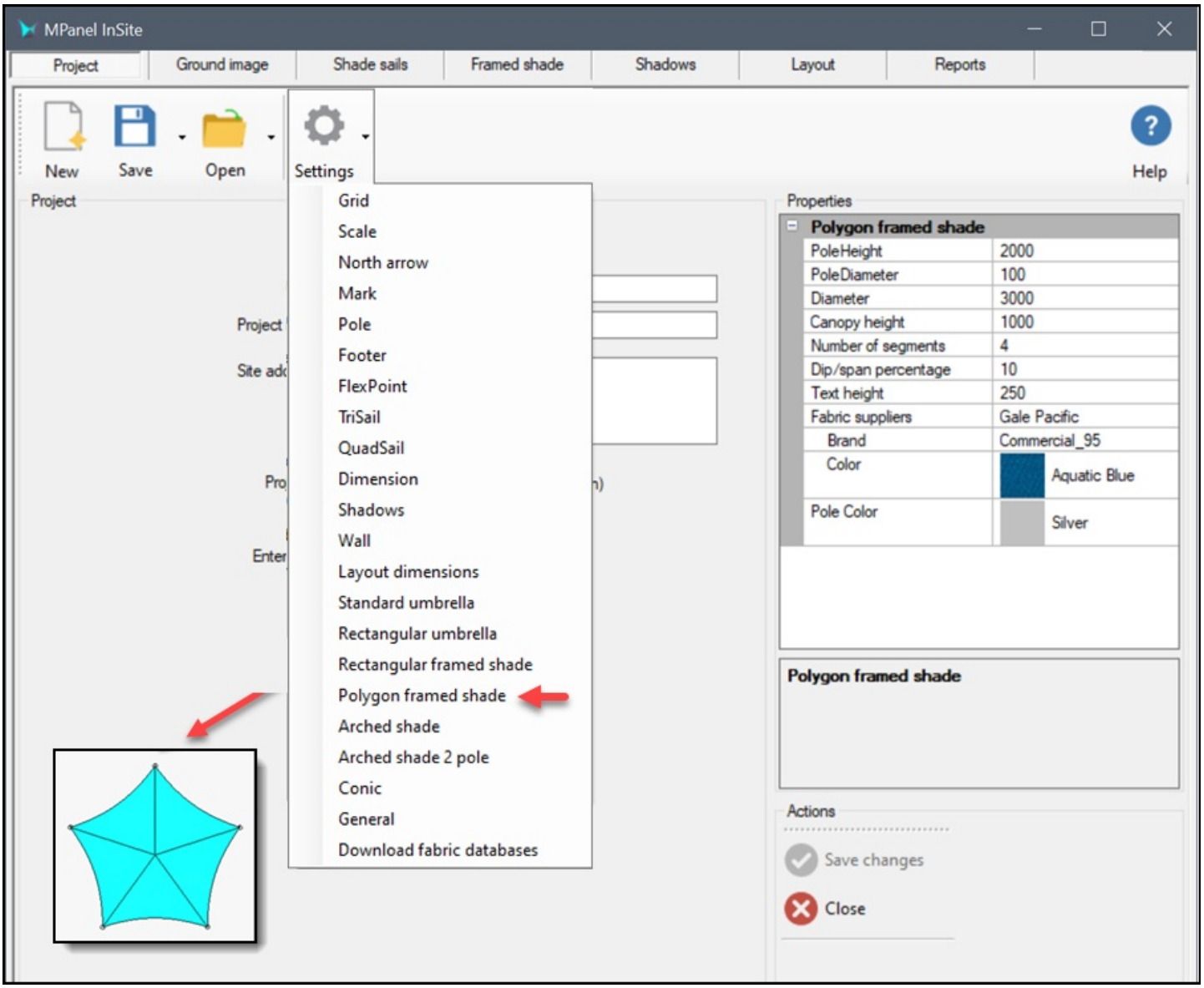
Rectangular Framed Shade Structure - Here is the screen where you specify the default settings for a 4-sided framed shade defined by its length and width:

- Pole Height - defines the pole height from the ground to the base of the fabric canopy - next is the pole diameter
- Length - defines the size of the umbrella from left to right of the screen
- Width - defines the size of the umbrella from bottom to top of the screen
- Ridge Length - defines the length of the roof ridge beam which is by default in the length dimension of the framed shade
- Canopy height - defines the vertical distance from the bottom to the top of the canopy
- Number of centre bays - the length of the structure can be sub-divided into multiple bays by adding posts between the lengthwise posts - e.g. 2 centre bays will result in a structure with 6 posts.
- Dip/span ratio - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the framed shade number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)
- Pole colour - allows selection of color of poles



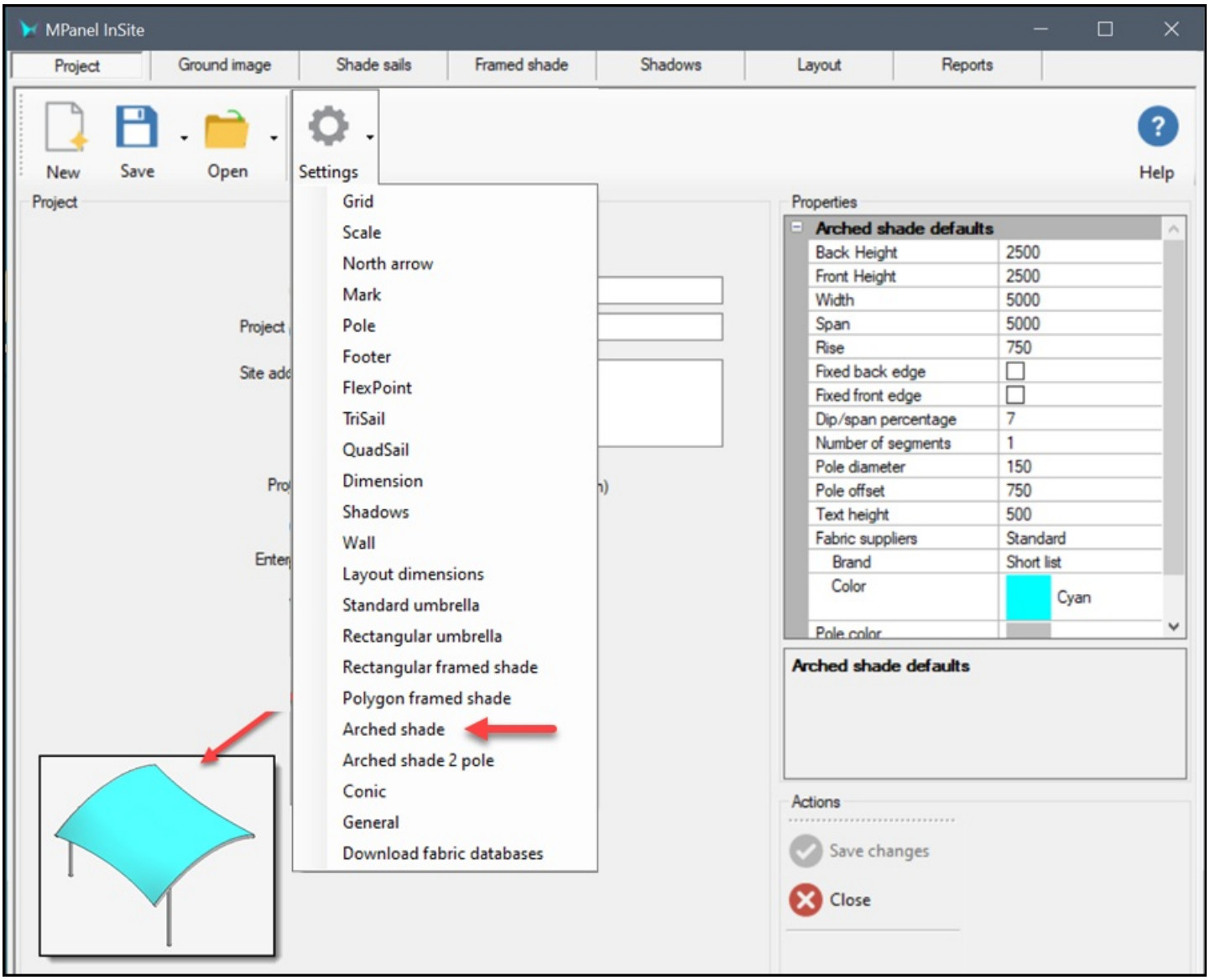
Polygon Framed Shade Structure - Here is the screen where you specify the default settings for a multi-sided framed shade defined by its diameter:

- Pole Height - defines the pole height from the ground to the base of the fabric canopy - next is the pole diameter
- Diameter - defines the size of the framed shade from one post to the diagonally opposite post
- Canopy height - defines the vertical distance from the bottom to the top of the canopy
- Number of segments - defines the number of posts and therefore fabric bays e.g. a 6 sided (hex) framed shade will have 6 segments
- Dip/span ratio - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the framed shade number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)
- Pole colour - allows selection of color of poles



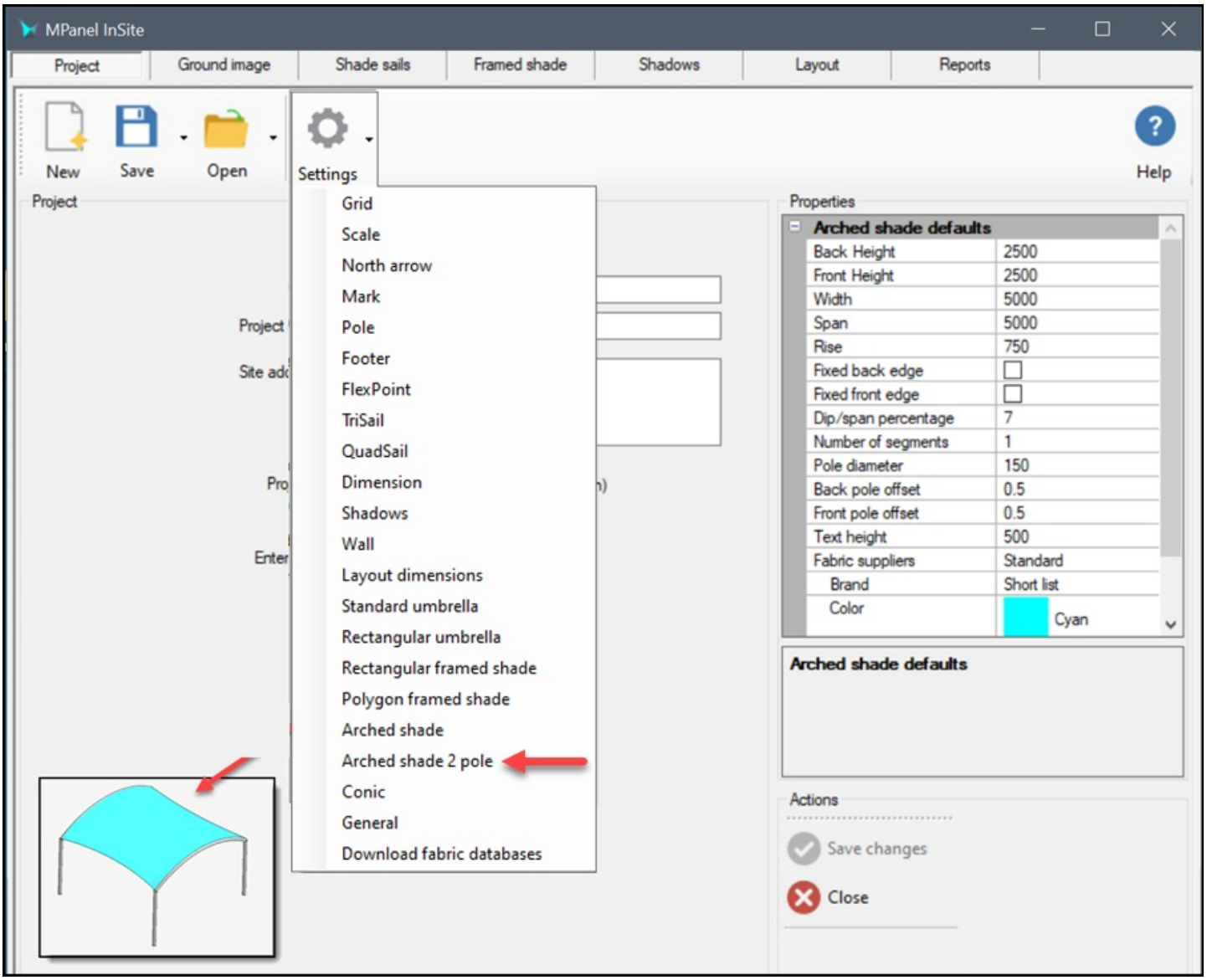
Arched Shade Structure - Here is the screen where you specify the default settings for a single pole arched framed shade defined by its length and width:

- Pole diameter - defines pole diameter
- Pole offset - defines the distance from the end of the arch to the pole center line.
- Width - defines the distance between arches
- Span - defines the projection of the arches
- Arch rise - defines the vertical distance from the arch ends to the mid arch point
- Back height - is the entry height of the arch on the post side
- Front height - is the entry height of the arch on the non post side
- Number of bays - the number of spaces between arches
- Fixed back edge - assumes a beam edge on the post side
- Fixed front edge - assumes a beam edge on the non post side
- Angle - defines the CCW rotation angle of the structure with base point as bottom left corner post centre
- Dip/span ratio - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the framed shade number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)
- Pole colour - allows selection of color of poles



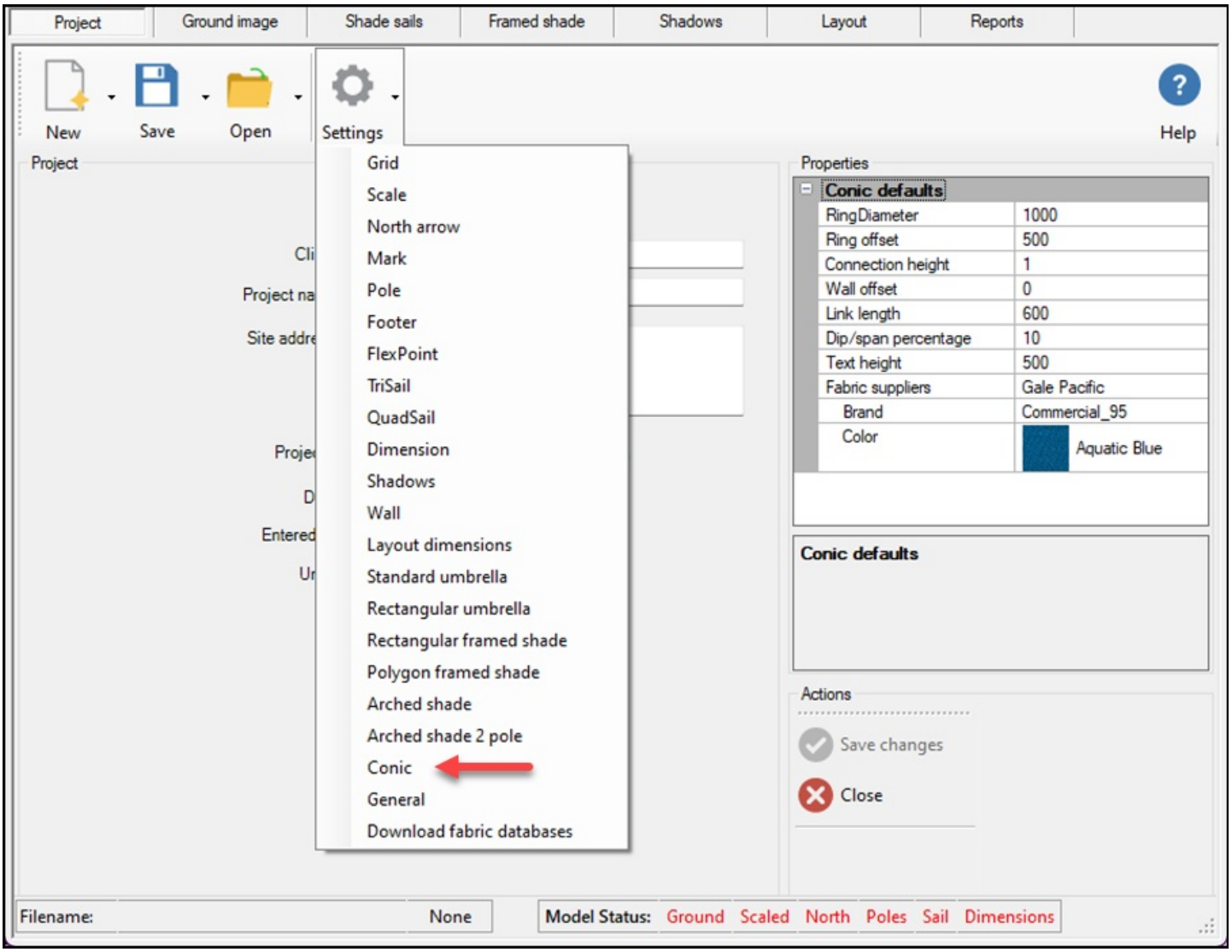
Arched Shade 2 Pole Structure - Here is the screen where you specify the default settings for a two pole arched framed shade defined by its length and width:

- Pole diameter - defines pole diameter
- Back pole offset - defines the distance from the left end of the arch to the pole center line.
- Front pole offset - defines the distance from the right end of the arch to the pole center line.
- Width - defines the distance between arches
- Span - defines the distance between the ends of the arches
- Arch rise - defines the vertical distance from the arch ends to the mid arch point
- Back height - is the entry height of the arch on the left side (0 angle)
- Front height - is the entry height of the arch on the right side (0 angle)
- Number of bays - the number of spaces between arches
- Fixed back edge - assumes a beam edge on the left side (0 angle)
- Fixed front edge - assumes a beam edge on the right side (0 angle)
- Angle - defines the CCW rotation angle of the structure with base point as bottom left corner post centre
- Dip/span ratio - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the framed shade number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)
- Pole colour - allows selection of color of poles

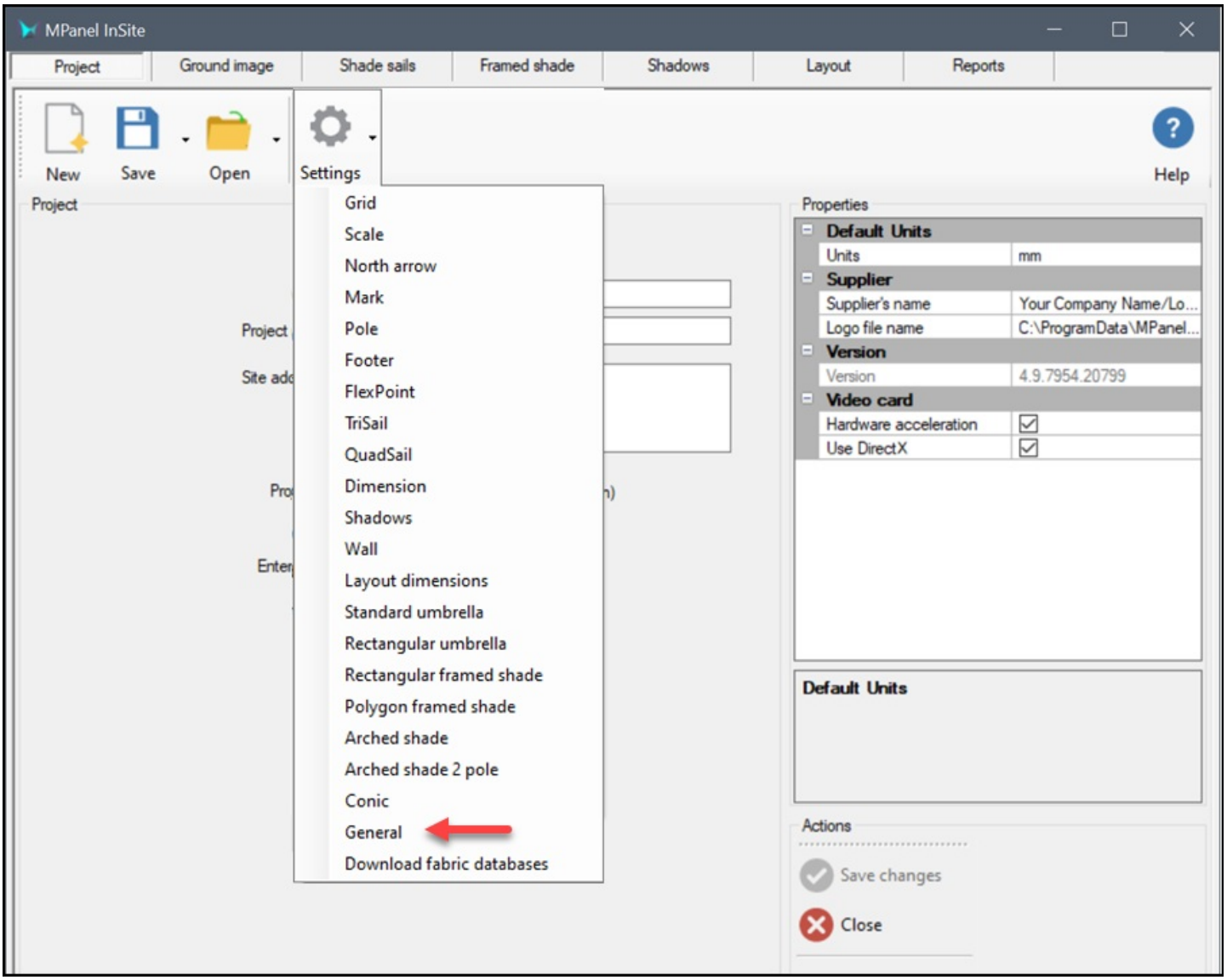


Conic Structure - Here is the screen where you specify the default settings for one or two conic tensile structures:

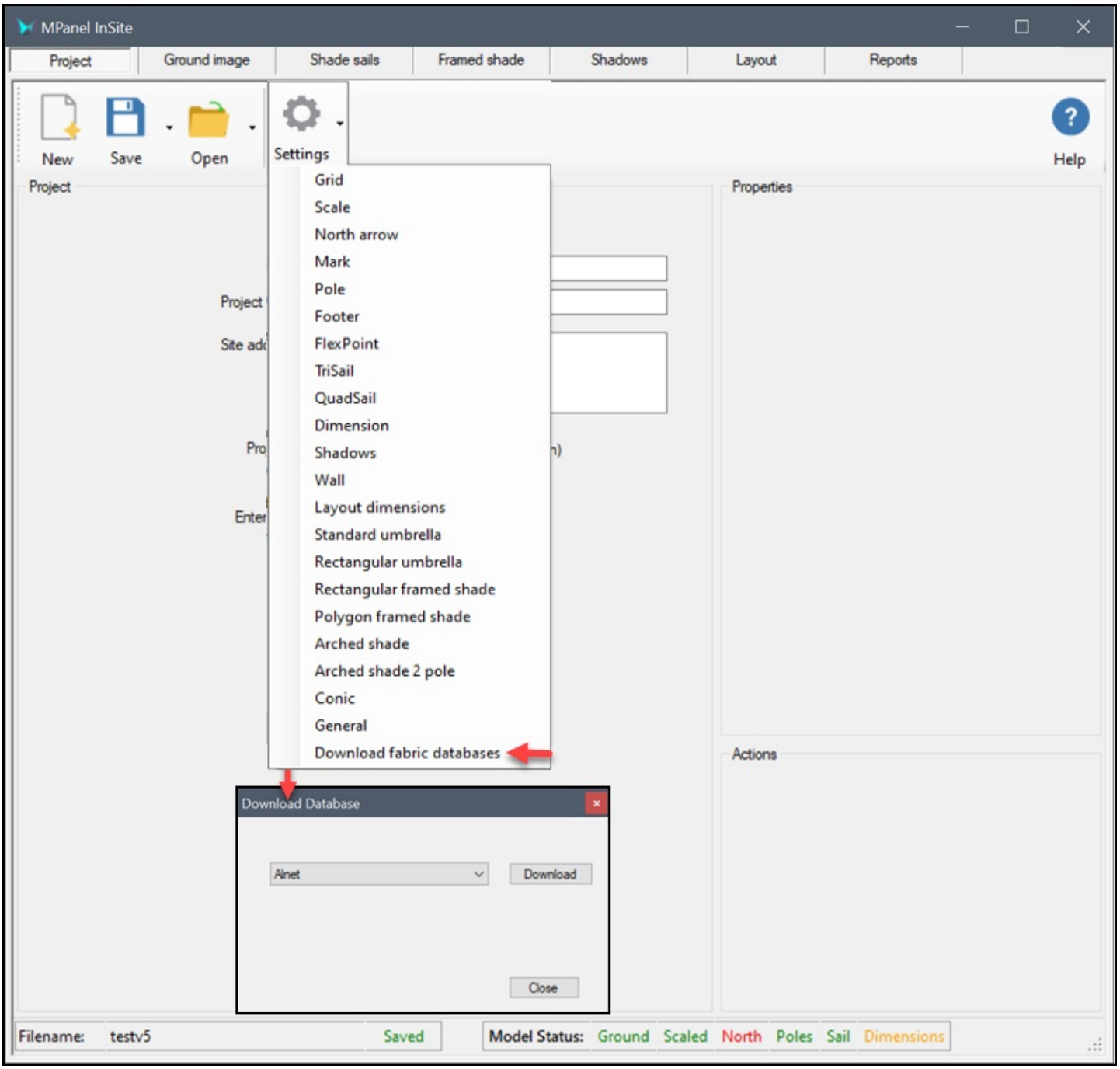
- Ring diameter - defines bale pole diameter
- Ring offset - defines the distance from the top of the center pole.
- Connection height - defines the distance from the tops of the corner post to the conic connections.
- Wall offset - defines the distance from the wall ends to the conic connections.
- Link length - defines the distance between the conic and the corner posts
- Dip/span percentage - the depth of the edge dip as a % of the span (a 6% dip/span of a 10ft span would be 10 x 0.06 = 0.6ft)
- Text Height - defines the size of the text label defining the framed shade number.
- Fabric Supplier/Brand - allows selection of either standard colours or selection of fabric supplier, brand and color (see below how to add databases)



General - Here is the screen where you specify the default units (you can also specify your "supplier" name and logo that will be used in the reports later). This is also the place to change video card settings if your graphics card struggles with image quality - see System requirements for more details.



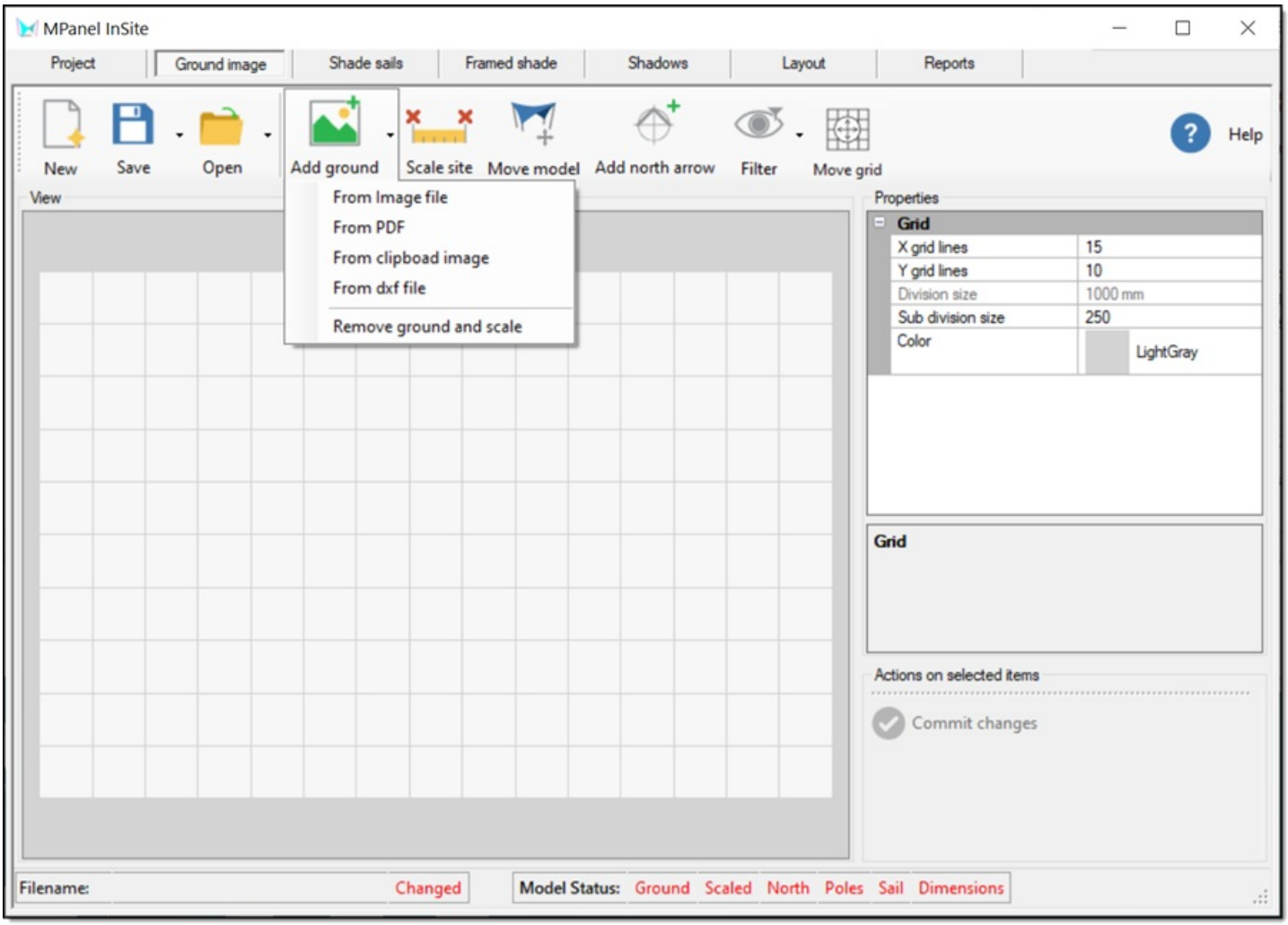
Download Fabric Databases - Here is the screen where you select to download new fabric databases. After you select this option in the settings menu a separate user interface will popup allowing you to choose from the available fabric databases we have available on our server. Select from the available brands and the click the "Download" button. Next time you start MPI the new fabric will be available for selection.



(*)Awning Composer is the copyright brand name owned by Trivantage
(#)Sketchup is the copyright brand name owned by Trimble

Ground Image

Initially you will see a default grid based on the selected unit system. If you don't want to use a ground image then you can use this grid as your working area to design the sail structure much as you would with graph paper. You can also add a ground later.

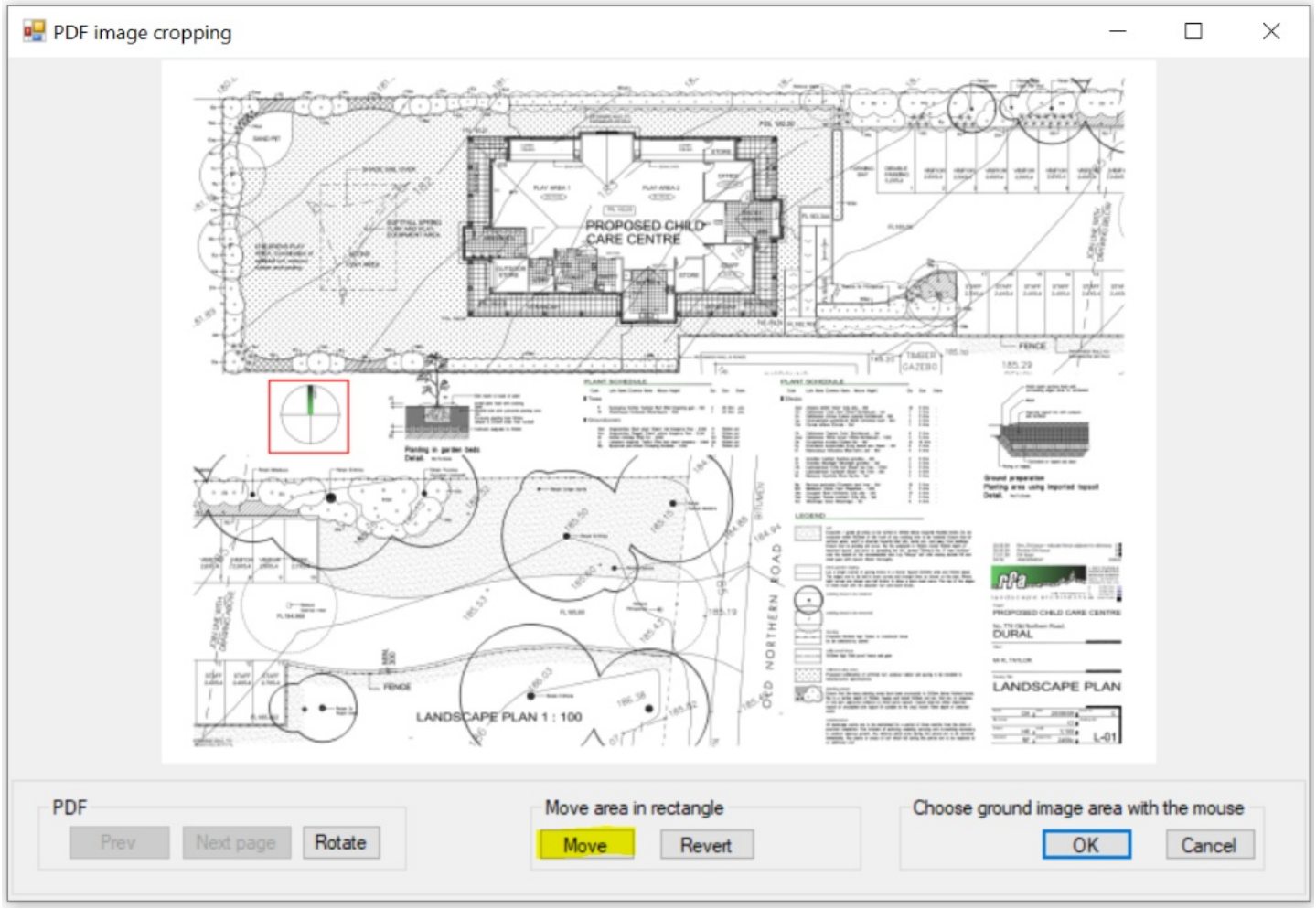


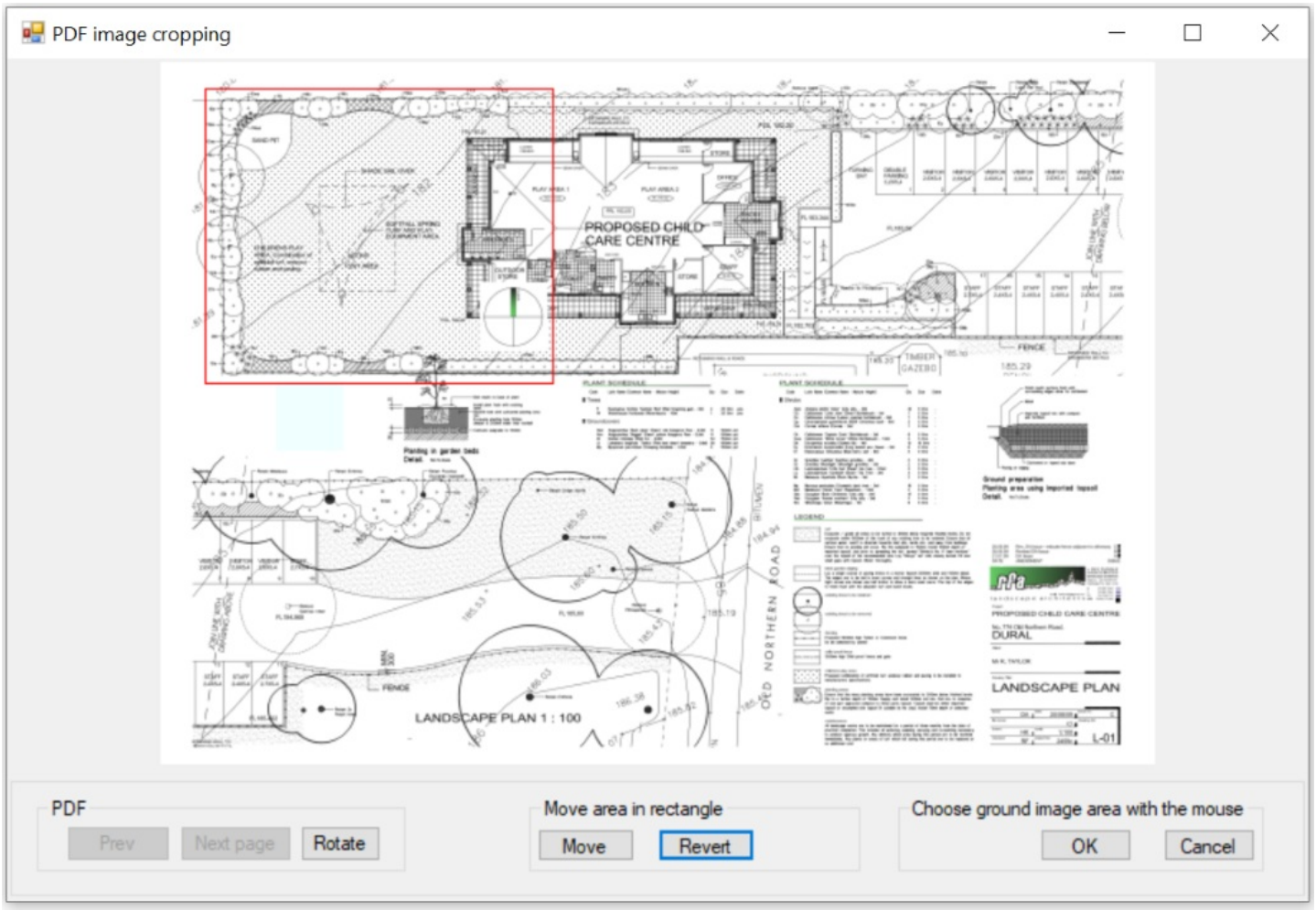
Normally you import a ground image, from an image file, a pdf, the clipboard, or from a 2D dxf file.

During the image import you can:

- select your "working area"
- rotate the image
- select an area and move it inside your "working area" which is useful to include scales or north indicators

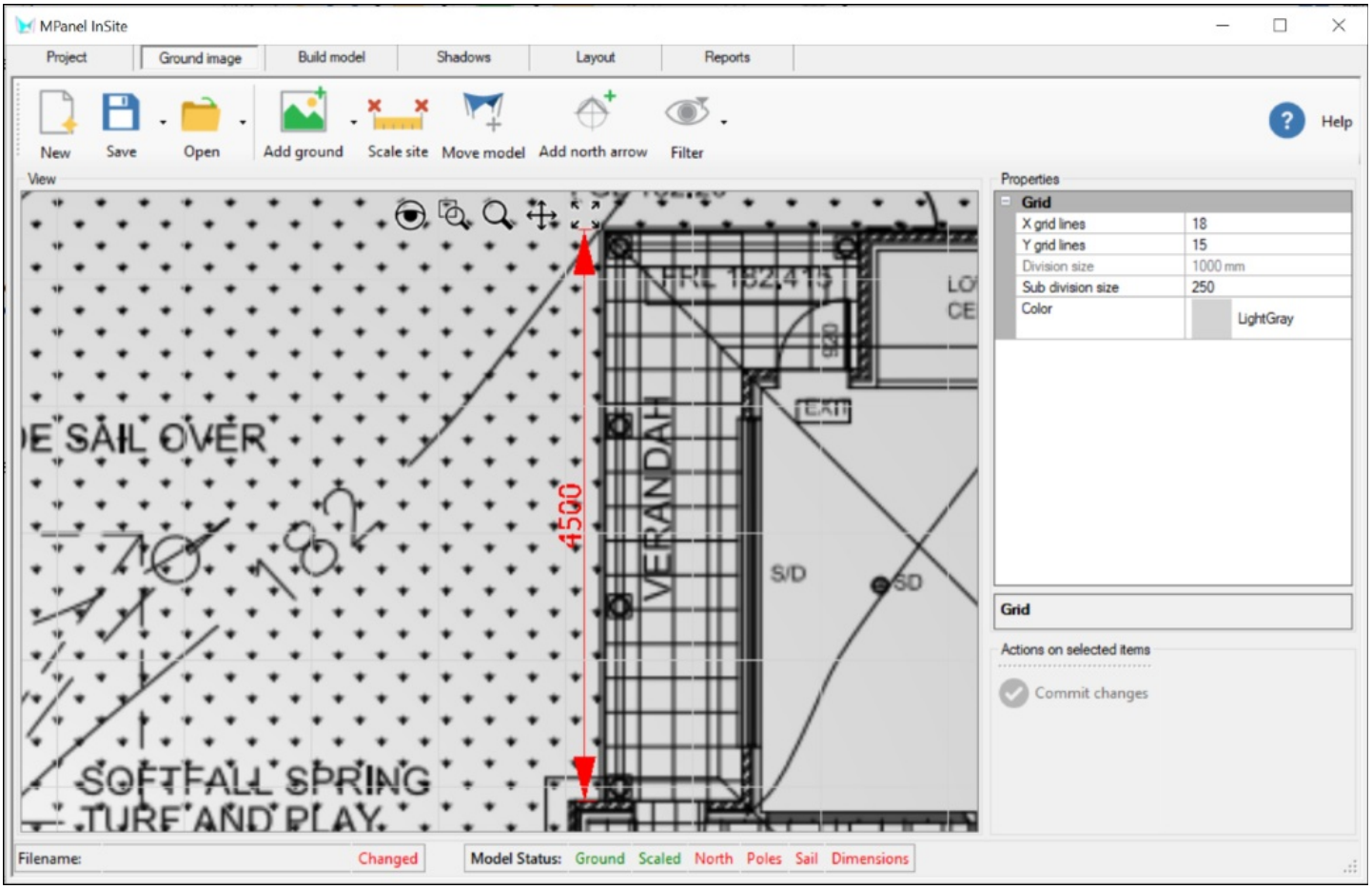
All report images are based on the working area, so restrict the area to just what is needed to obtain good report images. If you select too large an area then the sail will appear too small in the reports to be very useful.


PDF image cropping
PROPOSED CHILD CARE CENTRE
LANDSCAPE PLAN 1 : 100
LANDSCAPE PLAN
PDF
Prev
Next page
Rotate
Move area in rectangle
Move
Revert
Choose ground image area with the mouse
OK
Cancel

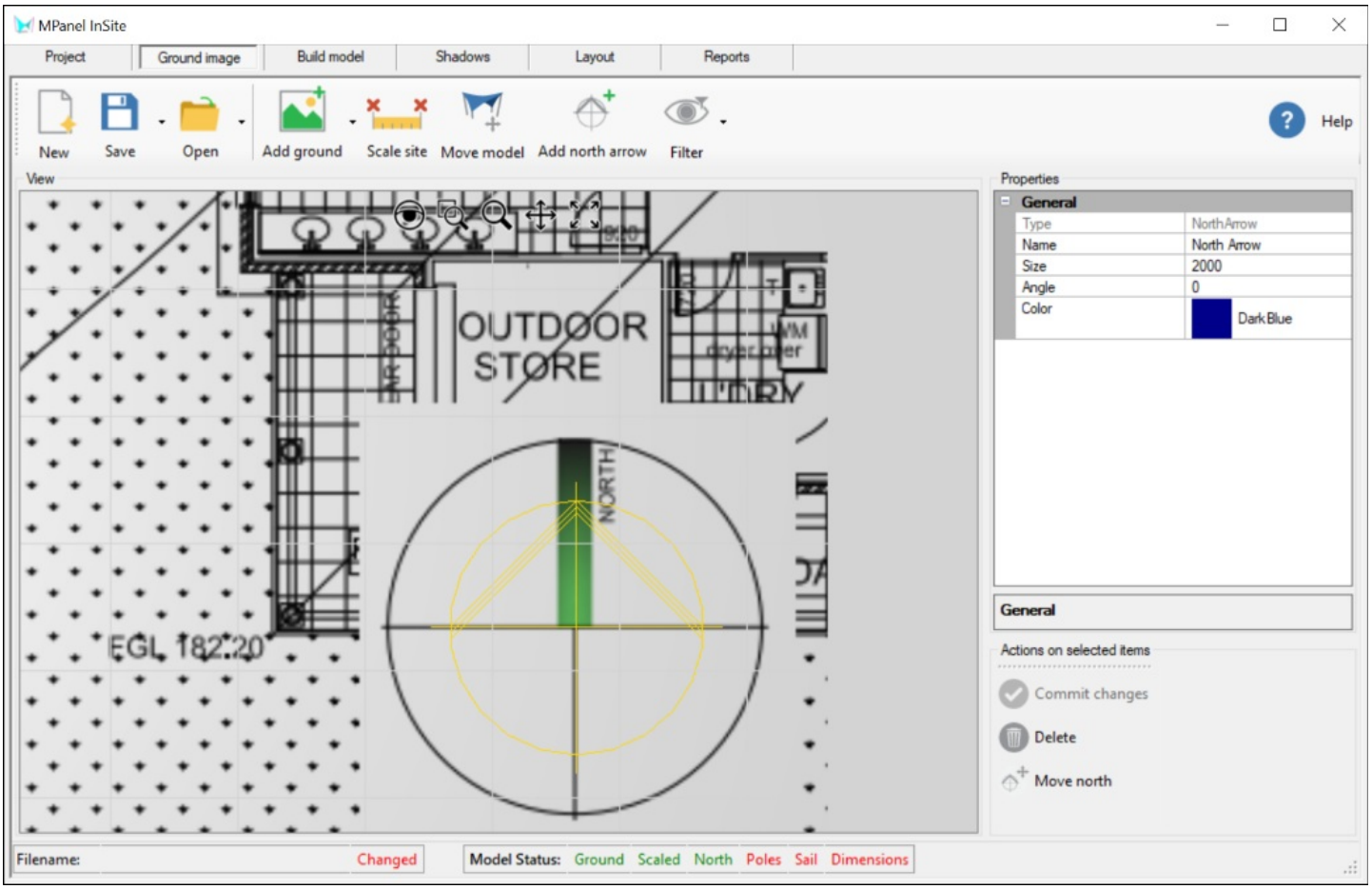

PDF image cropping
PROPOSED CHILD CARE CENTRE
LANDSCAPE PLAN 1 : 100
LANDSCAPE PLAN
PDF
Prev
Next page
Rotate
Move area in rectangle
Move
Revert
Choose ground image area with the mouse
OK
Cancel

Short Video: PDF Background with Scale

After the ground image is imported use the "Scale Site" tool and pick 2 points in the image with a known distance, left click on the points, and then enter the distance. This scales the image the grid and ensures that pole, sails and dimensions, etc are all drawn to the correct size/scale in 3D in the image. Often the ground points used for scaling can also be used a ground reference marks, that you will dimension to later to help contractors correctly locate the sail relative to the reference points.



You should also set the north direction, as this will affect the shadow positions. You set the north direction by adding a north arrow, then (left) clicking on the north arrow, use the move tool (in this case you can see it is placed on top of the North symbol we moved into the working area, and then specifying the north direction in degrees by changing the angle in the properties (angle is clockwise with 0 at 12 o'clock) then "Commit changes". North angle is 0 degrees by default.



The ground image can be removed and replaced with another, perhaps a better quality image obtained later. It will then be necessary to re scale the ground to the original model.

The complete model can also be moved in the grid, and this can be used for:

a) repositioning the model after a ground rescaling
b) locating a standard model in the desired position on the ground.

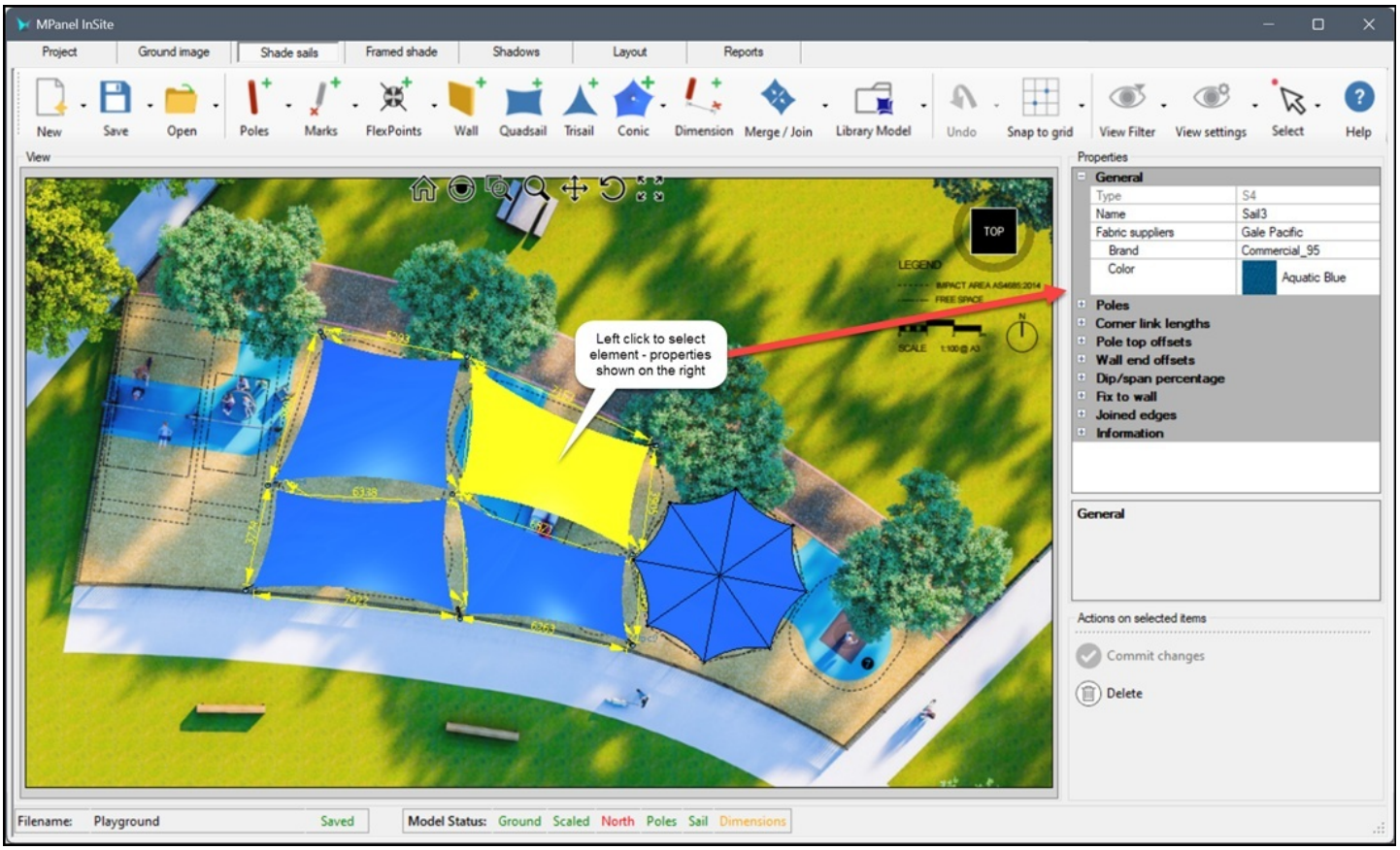
The grid can also be moved to align the grid with a reference on the ground image. This is useful when adding sail poles or shade structures with "snap to grid" enabled.

Shade Sails

This is the main page where the shade sail design is performed. Changes that you make can be undone, and the view can be filtered to view or hide the sails, poles, etc.

The view can be set to perspective or parallel in the view settings. The default lighting is usually OK, but you can adjust this as well.

When you have a good view of the completed design, that view orientation and it's associated settings can be saved and will be used in the visualization report.



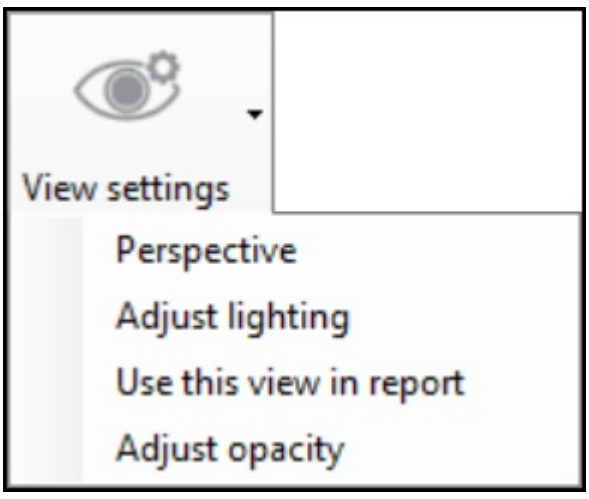
Snap to grid

It can be helpful to snap the poles and wall position to the underlying grid. You can snap to the grid divisions, or to subdivisions that are set in the grid properties. Snap to grid is not used with marks, as these should be placed exactly where the mark on the ground is.

View Filter

It can be helpful turn the visibility of the grid, ground, poles, walls, sails, etc on or off during the design and this can be done with the view filter.

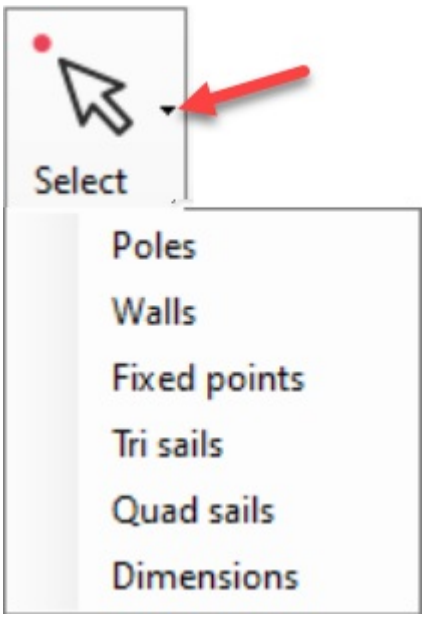
View settings



In the view settings you can:

- specify if the build view is perspective or orthogonal
- adjust the scene lighting (seldom needed)
- save this scene 3D angle to be used in the visualization report
- adjust opacity of sails and poles/frames

Select

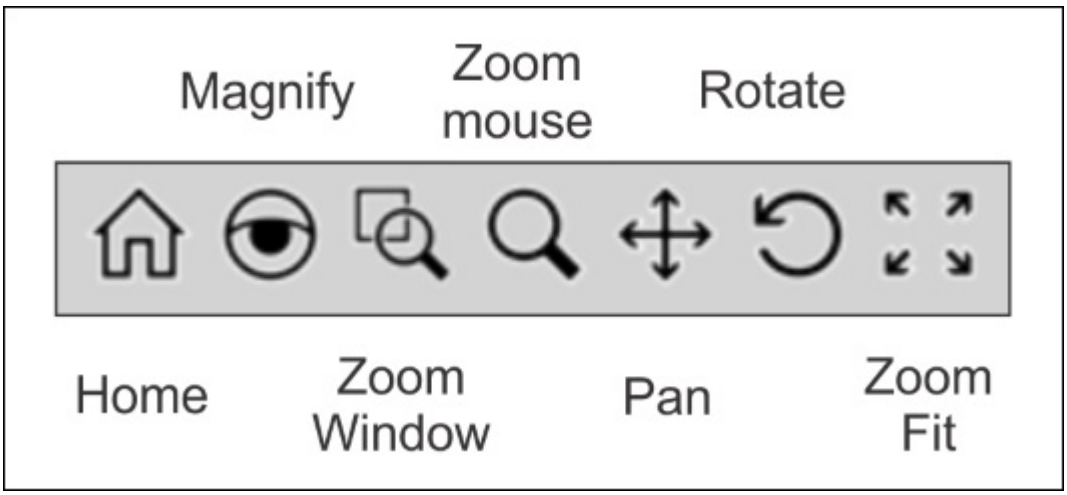


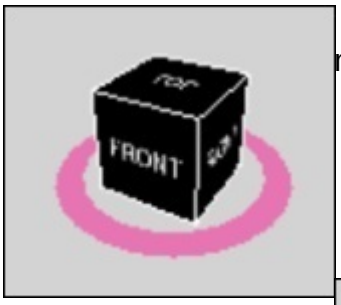
The Select tool allows the user to select groups of elements (poles/walls etc.) allowing:

- assign properties to the group
- change colours etc.

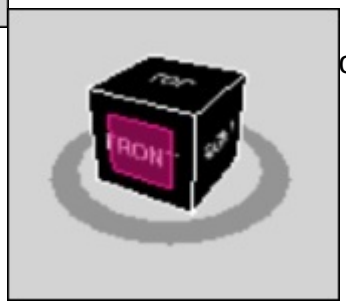
View and Navigation Tools

These tools assist zooming and navigation including pan and rotate.





Left click on the ring and hold while moving your mouse to rotate the scene.

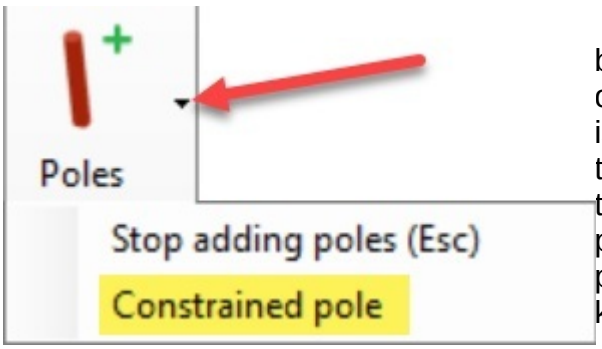


Left click on a face, edge or corner of the nav-cube will change the view.

Model Building Steps

Poles

Add poles will place a default pole at each point you select by left clicking at their initial positions. Continue adding poles and then esc or right click to exit pole entry mode. The pole height, diameter, etc can be altered by selecting the pole with the left mouse button (shift click to select multiple poles), changing it's properties, and committing the changes.



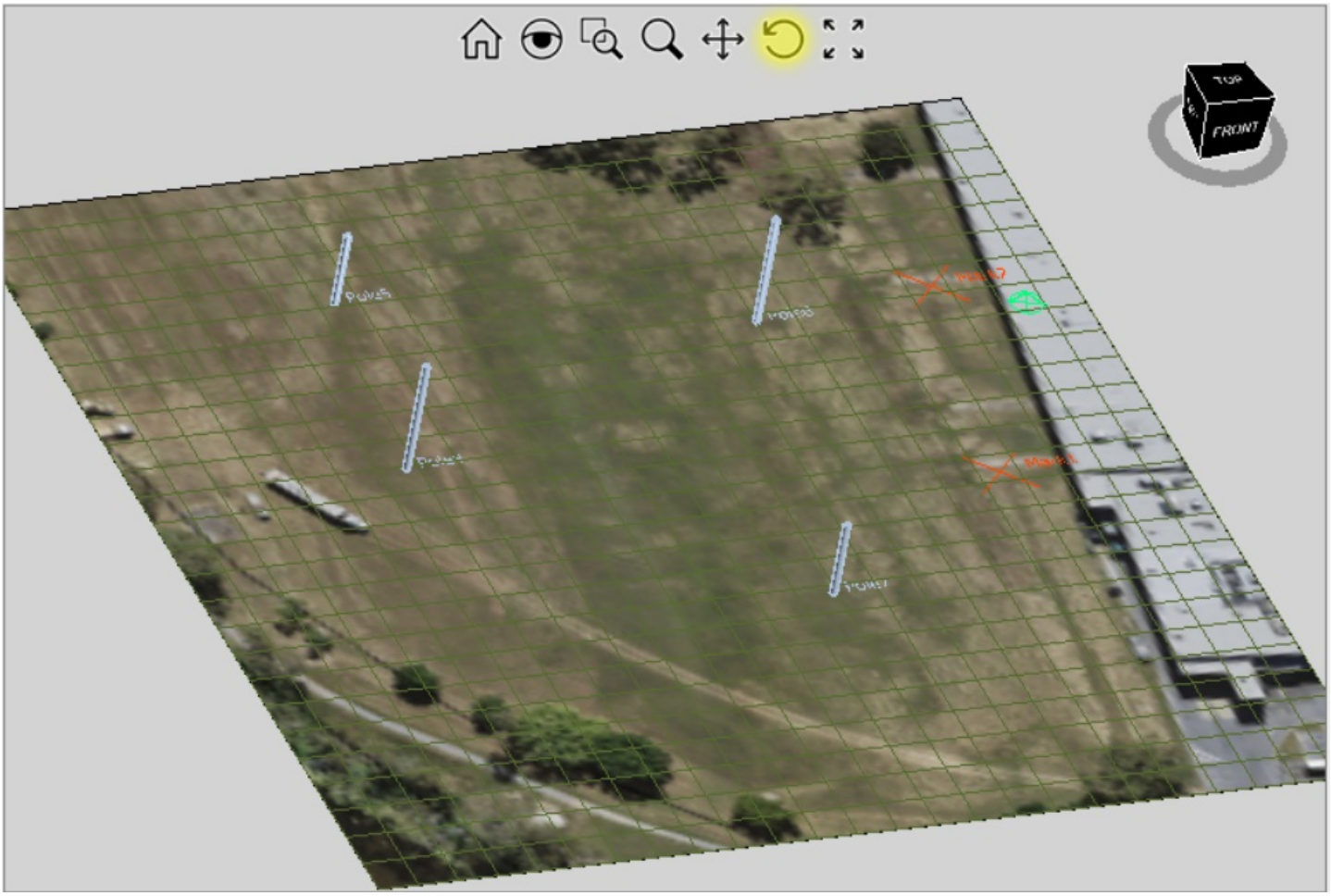
Add constrained pole will place a default pole at a point based on a specified distance from an "anchor" pole (point or wall). The tool will prompt you for an anchor pole which is the reference pole you add another pole a distance from, then you specify the distance. The pole insertion point is then constrained to the specified distance. The insertion point can be further constrained to 90 degree orthogonal points in relation to the anchor pole by pressing the shift key prior to inserting.

It can be useful to use "snap to grid" when setting the poles, this will restrict the pole position to points on the grid or on grid subdivisions.

Poles can be moved by selecting a pole (left click) then use the move pole tool below "Commit changes" - after the pole is moved, the sail design will be automatically recalculated.

Poles can be deleted by selecting a pole (left click) then clicking then "Del" key on your keyboard or the delete tool below "Commit changes". Do not delete poles which have sails connected to them as the model will become unstable. If you want to make changes like this then restart a new design.

Poles can be difficult to see in top view, so rotate the view around a little with the rotate tool.



Short Video: Add constrained poles

Short Video: Moving Poles

FlexPoint

The Flexpoint behaves in the same manner as a pole but is drawn as a small sphere. This is ideal for situations such as building or rooftop sail connection points and for building sails with asymmetric (different) sail connection points on each side. This tool also provides an option to allow a point to float to accurately provide a "force balance" floating connection between multiple or joined sails. Points can be hidden using the "View Filter" tool.

Add Flexpoints will place a default point at each place you select by left clicking at their initial positions. Continue adding flexpoints and then esc or right click to exit entry mode. Snap to grid, move and delete functions are the same as for a pole - see above. Note, multiple sails can be connected to a flexpoint however, sail connection heights cannot be changed using pole top offset as used with poles. Instead, the height of the point should be changed in properties.

Short Video: FlexPoints

Walls

 Add walls as needed in their initial positions. The wall height, thickness, etc can be altered when you are adding a wall, or later by selecting the wall with the left mouse button, changing it's properties, and committing the changes.

Walls are always added as a pair, the left and right half's of the wall. This simplifies the later stage where we are connecting a sail to the walls.

 It can be useful to use "snap to grid" when setting the walls, this will restrict the wall position to points on the grid or on grid subdivisions.

Walls have a connection side, and an unused side. The connection side is shown with a diagonal line on the top of the wall going to the default wall end connection point. To assist with this and to be consistent it is best to add walls in a clockwise direction i.e. by clicking the 2nd wall point clockwise from the first point.

Walls ends are regarded as fixed mark ground points and they can be used to dimension from. This approach is taken because the wall is usually in position before the shade sail design starts.

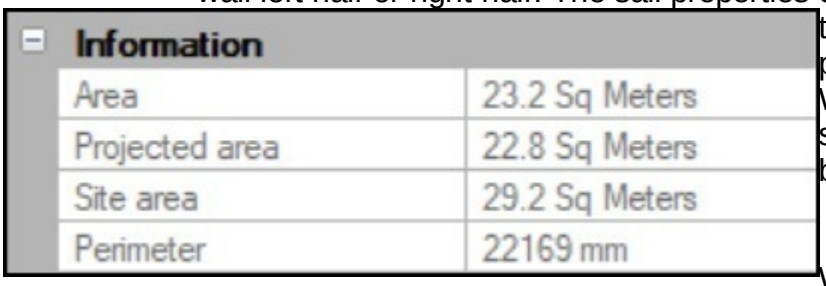
 Walls can be moved by selecting a wall (left click) then use the move wall tool below "Commit changes"

 Walls can be deleted by selecting a wall (left click) then clicking then "Del" key on your keyboard or the delete tool below "Commit changes"

Walls can be difficult to see in top view, so rotate the view around a little with the rotate tool.

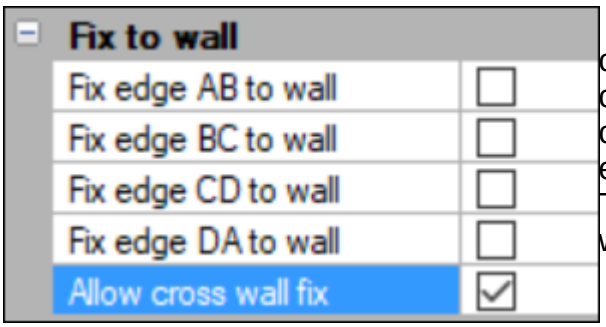
Sails

Once you have some poles and walls you can add a TriSail or a QuadSail between them. The poles, walls should be selected in a clockwise direction. You can select the wall left half or right half. The sail properties can be modified by selecting the sail with the left mouse button, changing it's properties, and committing the changes. When selected, the sail properties such as selected fabric, sail area and perimeter can be read.

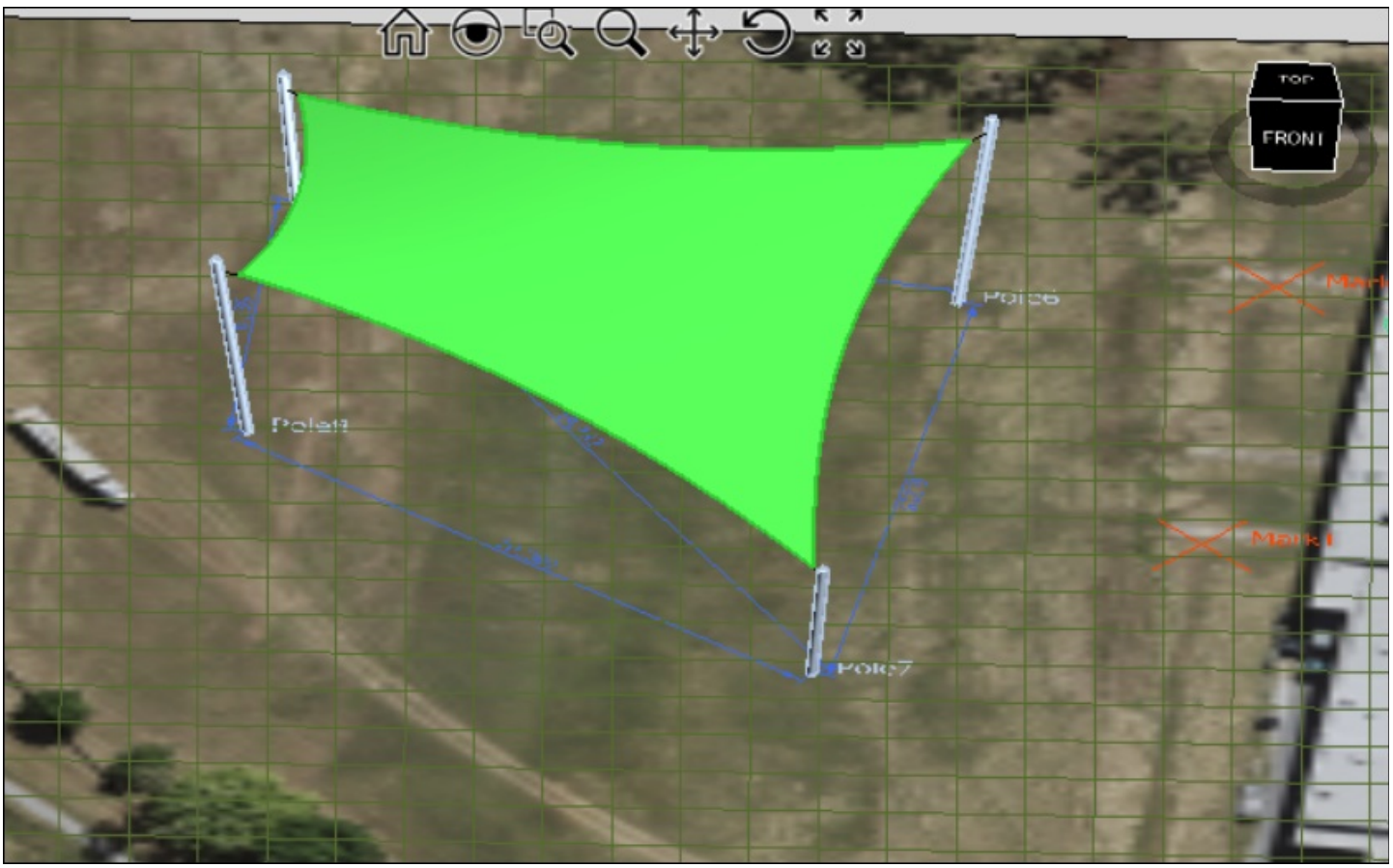


When attaching a sail to a wall the sail is usually connected to the very end of the wall half. This can be altered by changing the wall end offset in the sail properties for that sail corner.

Alternatively by holding down the shift key and clicking on the wall at the required attachment point the wall end offset value will be calculated automatically. This method can also be used to connect multiple sails to a wall.



Sails connected to walls can be either fixed edge or catenary edge - this is determined by selecting the sail and checking the sail edge that is connected to the wall. A sail can connect to 2 opposite walls and an apparent "fixed edge" can be created by enabling the cross wall fix option. This will create a straight edge on the selected sail side which spans between the walls.



Multiple sails can be connected to a single pole, sometimes at the same or different heights by selecting the sail and changing the pole top offsets between the pole tops and the sail connections. This also applies for sail connected to walls.

Links can be specified between the poles and the sails.

Sails can be merged together to make a single bigger multi-sided sail, for example, merge a 3 and 4 sided sail to create a 5 sided sail or two 4 sided sails to make a 6 sided sail. Click the tool then follow the prompts to select the first then second sail and they will automatically merge.Selecting the drop-down arrow on the tool reveals the option to add a mid connection between sails so they joined together just at their mid points. You also have the choice to split joined or merged sails.

Conic

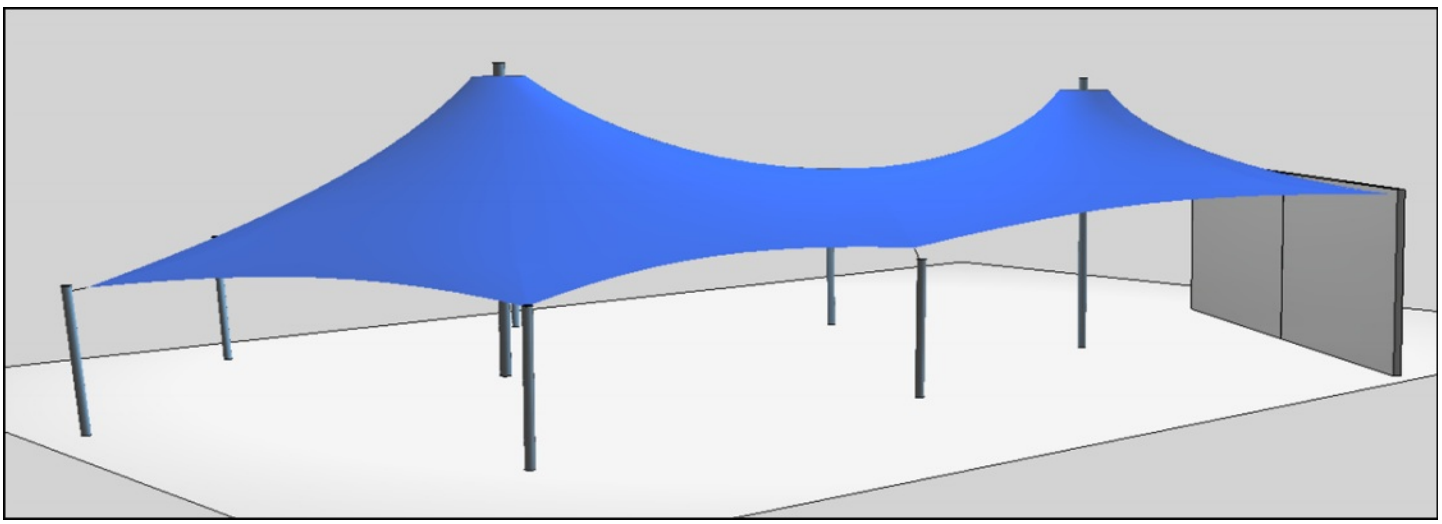
Once you have some poles and walls you can add a conic by selecting the down arrow on the right of the conic tool and selecting the "Select conic poles" tool starting with the center post then the corner posts or wall connections in a clockwize direction. (You can select the wall left half or right half).

Then again select the right down arrow on the conic tool then "Add membrane to conic" tool to add the conic membrane.

The conic properties can be modified by selecting the membrane with the left mouse button, changing it's properties, and committing the changes.

When selected, the conic properties such as selected fabric, sail area and perimeter can be read.

When attaching a sail to a wall the sail is usually connected to the very end of each wall half. This can be altered by changing the wall end offset in the conic properties.



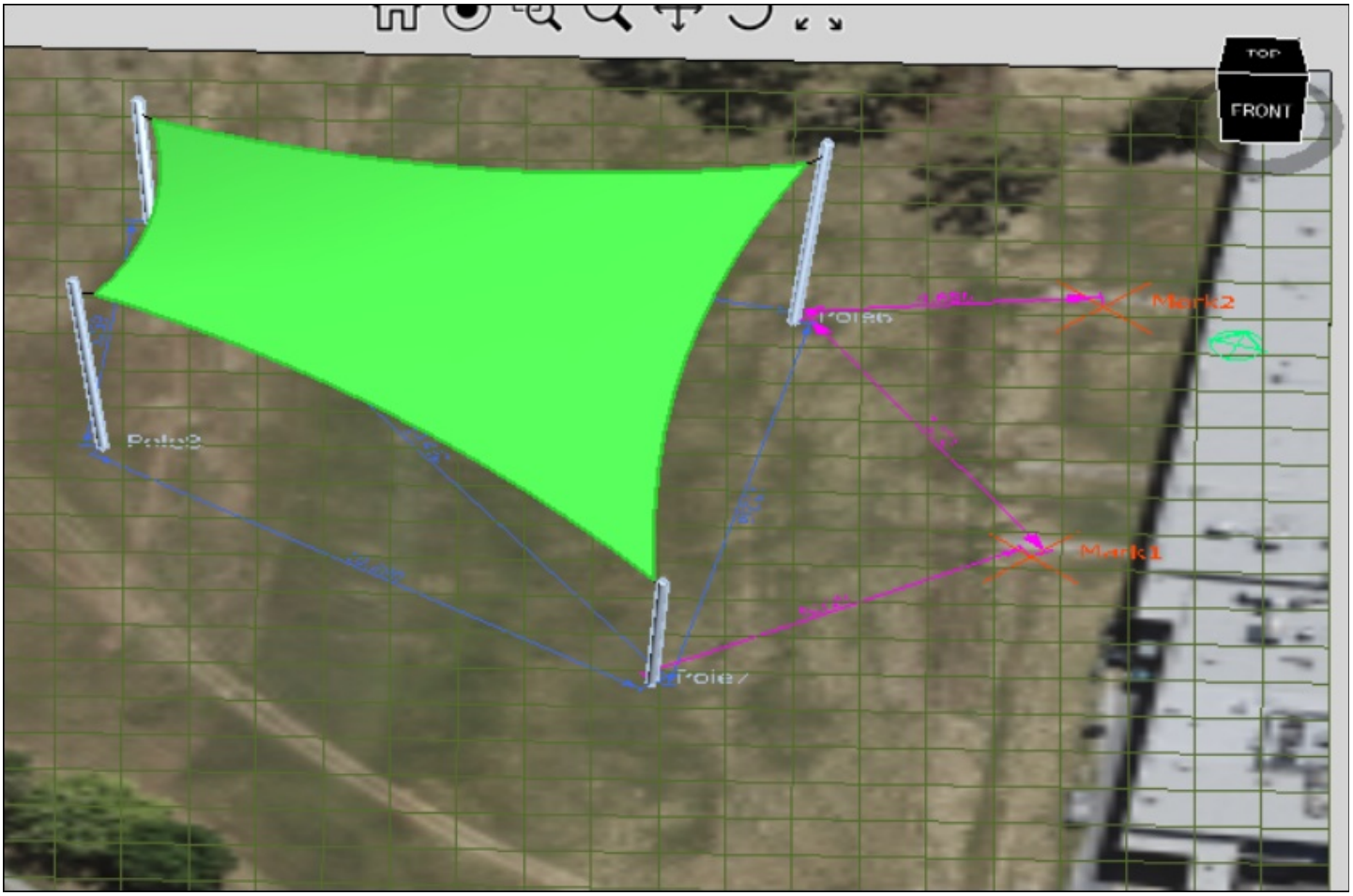
Short Video: Tensile Conic Structures

Marks and Dimensions

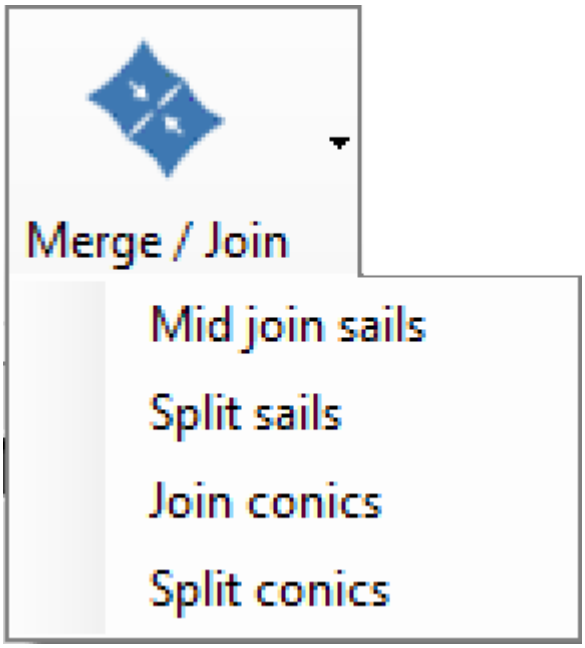
To correctly locate the sail design on-site, each pole must be "triangulated" by dimensions from other poles, or from ground reference marks.

Ground reference marks can be added at any identifiable point on the ground, such as a survey marker, property corner, etc.

Dimensions are added until the dimensions, from the ground reference marks to the poles and between the poles, make a fully triangulated set of dimensions. These can be used in the field to specify the pole positions from the reference marks on the ground.



Short Video: Setout Dimensions

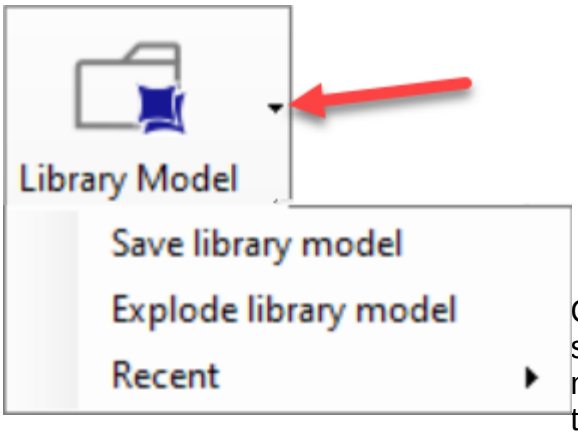


Merge/Join Sails and Conics

Left click on this button will allow merging 2 shade sails to form a single sail e.g. 2xquad sails merged will become a 6 sided sail etc. The down arrow on the right of the button includes options to add a mid connection between 2 sails, split merged or joined sails, join/merge 2 conics or split joined conics.

Library Model

The Library Model tool allows users to save a shade sail design (assume a commonly used design) for later re-use. Note that models are treated as blocks - if changes are required to post heights, sail colors etc. require that you explode the models.



Click on the Library model button to open the location of your saved models then select a model to apply the model to your new project. You will be prompted to click on the background to specify the insertion point of the model. This will be typically the bottom left corner post. The location isn't critical as you can select and move the location of the model using the move pole tool or by changing coordinates in properties. Once the location is correct you can then rotate the model to the required orientation by selecting the model and changing the angle in the General properties - a positive value will rotate the model anti-clockwise and a negative angle will rotate the model clockwise. The model can be scaled in X (left to right direction),Y (top to bottom direction), or Z (up or down direction). A scale value such as 150 is 150% or 1.5 times larger and a scale of 50 is 50% which is half the original size. Note the undo function does not undo changes in model scale so if you scale and decide to change the value you will need to start over with the original library model and repeat the scaling.

Save library model will save the current design as a re-usable library model

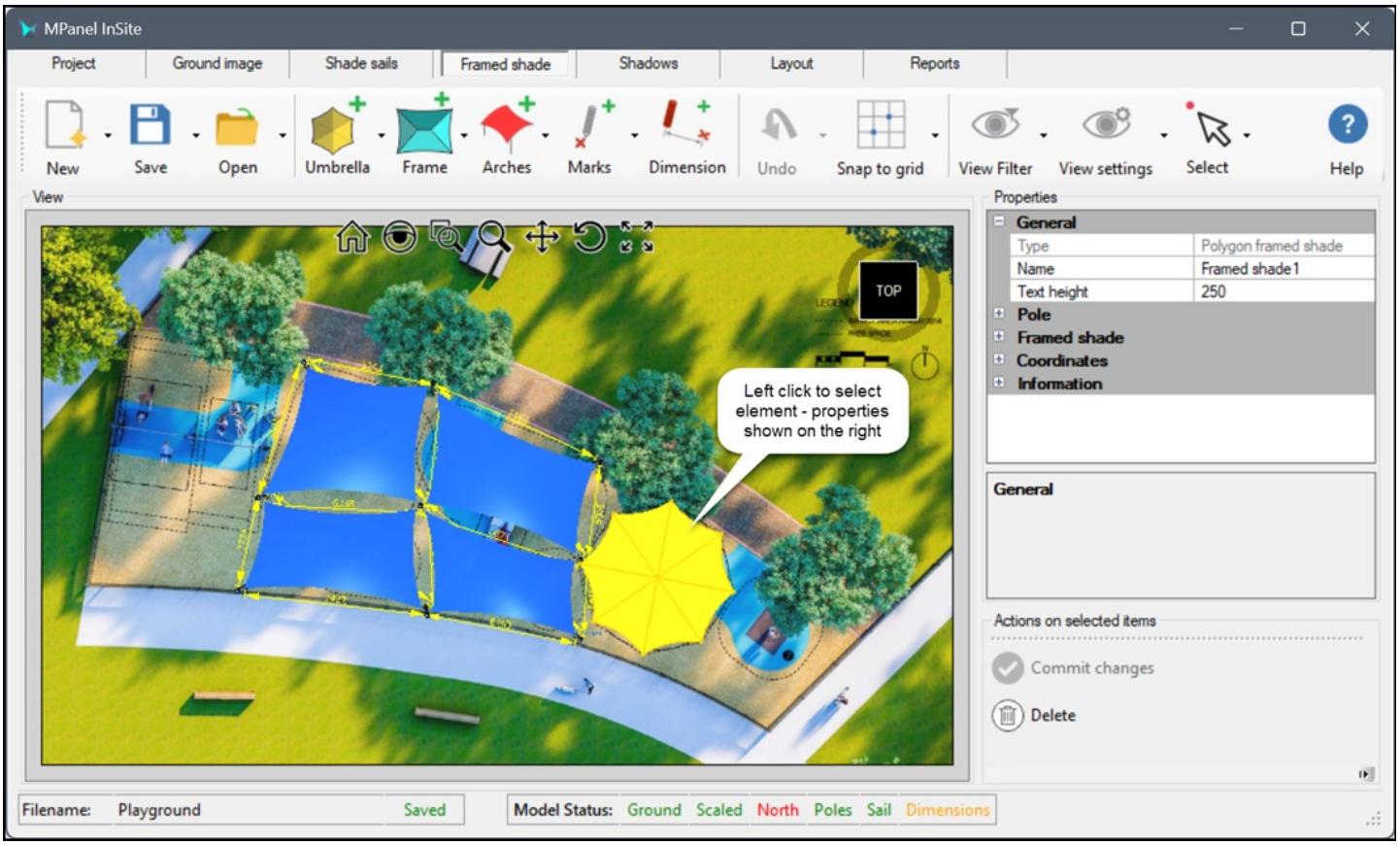
Explode library model	explodes a model so user can change properties or location of individual elements.
Recent	shows a list of most recent models used.

Short Video: Library Model Tool

Framed Shades

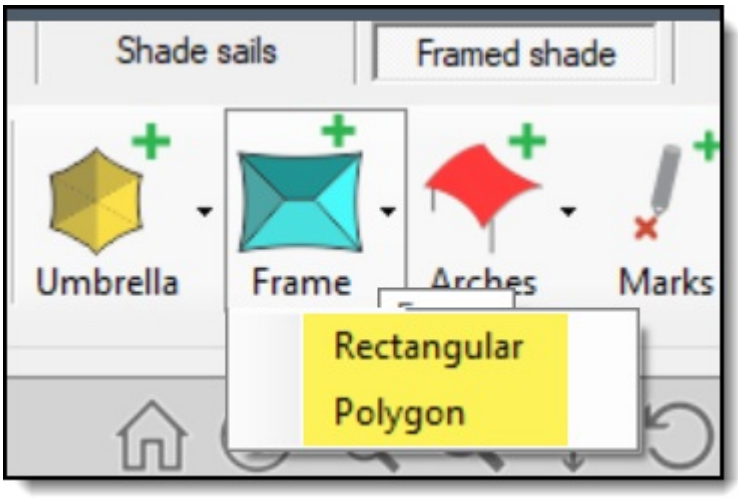
This is the main page where framed shade structures can be added to the final design solution. Currently available framed shades include Umbrellas and Hip and Ridge structures. These structures are parametric blocks created for the purpose of providing clients with a design visualization and to establish shading performance. These models are generalised and therefore may not be exactly the same as the products you or your suppliers produce but are suitable for visualization and shadow purposes.

Most tools in the ribbon are the same as the tools on Shade Sail design page so we haven't repeated them on this page.



Model Building Steps

Framed Shades



Add framed shade will locate the bottom left post (reference post) of the selected shape default at each point you select by left clicking at their initial positions. Repeat this procedure for each additional structure. The framed shade size, height, pole diameter, colours, rotation, etc. can be altered by selecting the framed shade with the left mouse button (one shade structure at a time), changing it's properties, and committing the changes. Frame shades can be rotated about their reference post by selecting the structure (left click) then changing the "Frame angle" value and committing the change. A positive frame angle will rotate the frame anti-clockwise and a negative value will rotate the frame clockwise.

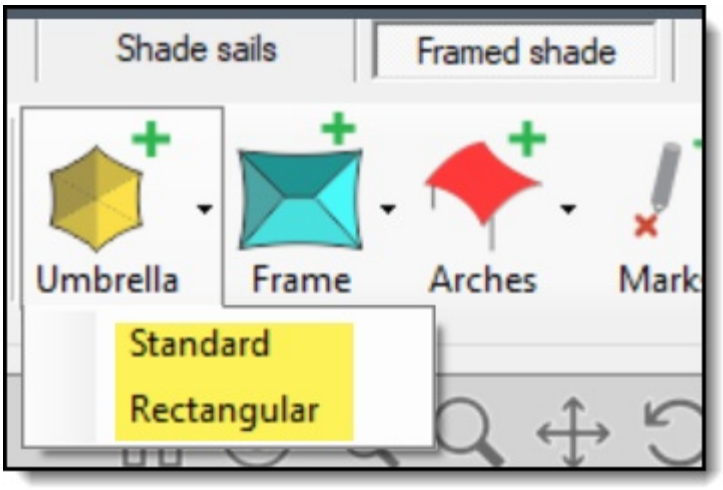
It can be useful to use "snap to grid" when setting the structure reference post, this will restrict the post position to points on the grid or the default defined grid subdivisions.

Framed shades can be moved by selecting the structure (left click) then use the move pole tool below "Commit changes".

Framed shades can be deleted by selecting the structure (left click) then clicking then "Del" key on your keyboard or the delete tool below "Commit changes".

Short Video: Framed Shades

Umbrellas



Add umbrella will locate the post of the selected shape default at each point you select by left clicking at their initial positions. Repeat this procedure for each additional structure. The umbrella size, height, pole diameter, colours, rotation, etc. can be altered by selecting the umbrella with the left mouse button (one umbrella at a time), changing it's properties, and committing the changes. Umbrellas can be rotated about their post by selecting the structure (left click) then changing the "Umbrella angle" value and committing the change. A positive frame angle will rotate the umbrella anti-clockwise and a negative value will rotate the umbrella clockwise.

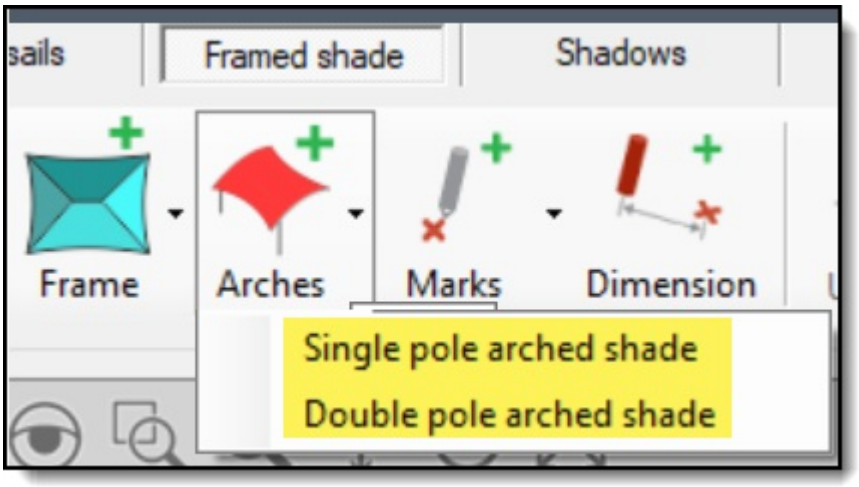
It can be useful to use "snap to grid" when setting the umbrella post, this will restrict the post position to points on the grid or the default defined grid subdivisions.

Umbrellas can be moved by selecting the structure (left click) then use the move pole tool below "Commit changes".

Umbrellas can be deleted by selecting the structure (left click) then clicking then "Del" key on your keyboard or the delete tool below "Commit changes".

Short Video: Umbrella

Arched Shade Structures



Add arch shade will locate the post of the selected shape default at each point you select by left clicking at their initial positions. Repeat this procedure for each additional structure. The arched shade size, height, pole diameter, colours, rotation, etc. can be altered by selecting the arched shade with the left mouse button (one shade at a time), changing it's properties, and committing the changes. Arched shades can be rotated about their reference post by selecting the structure (left click) then changing the "angle" value and committing the change. A positive frame angle will rotate the umbrella anti-clockwise and a negative value will rotate the umbrella clockwise.

It can be useful to use "snap to grid" when setting the arched shade post, this will restrict the post position to points on the grid or the default defined grid subdivisions.

Arched shades can be moved by selecting the structure (left click) then use the move pole tool below "Commit changes".

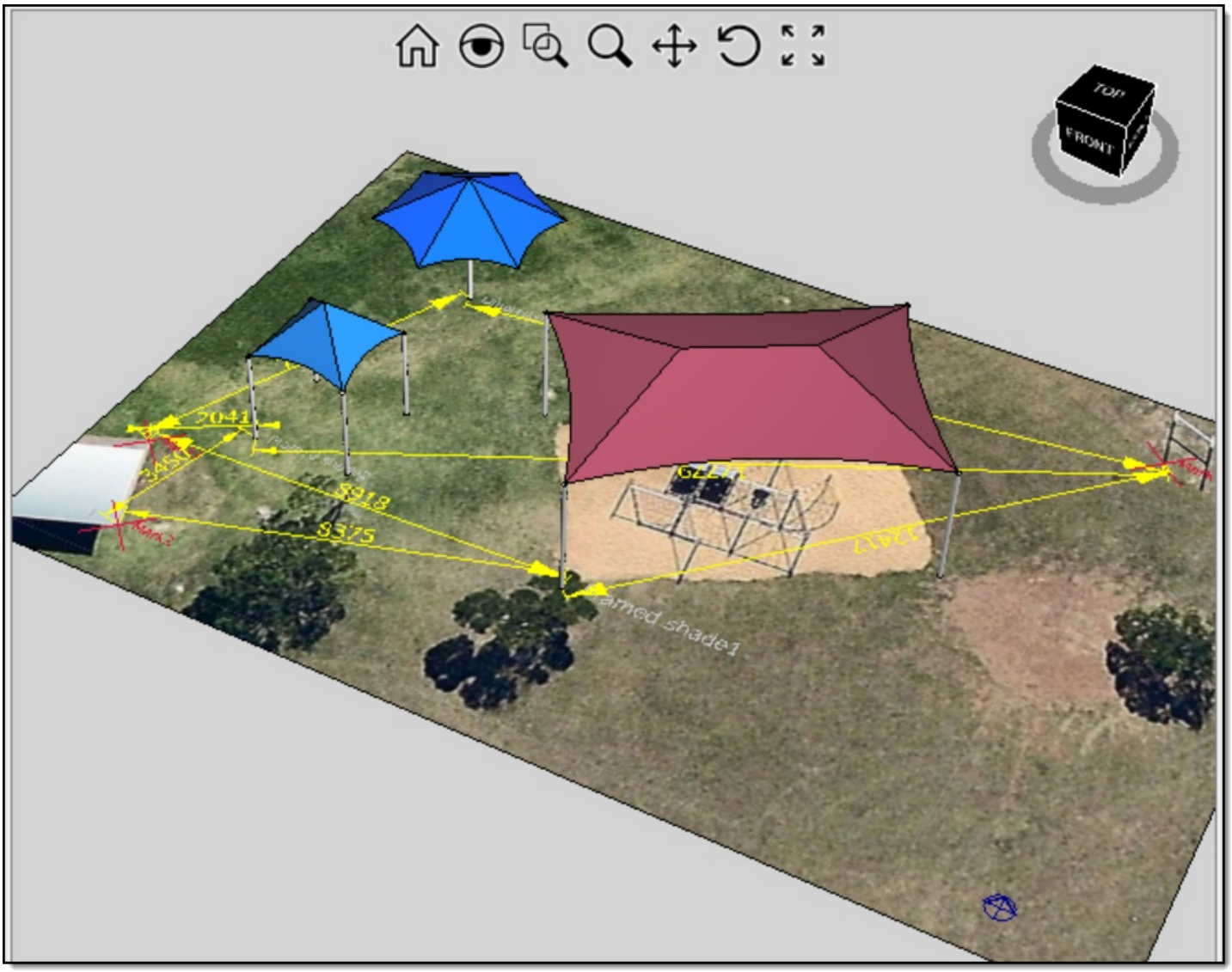
Arched shades can be deleted by selecting the structure (left click) then clicking then "Del" key on your keyboard or the delete tool below "Commit changes".

Dimensions

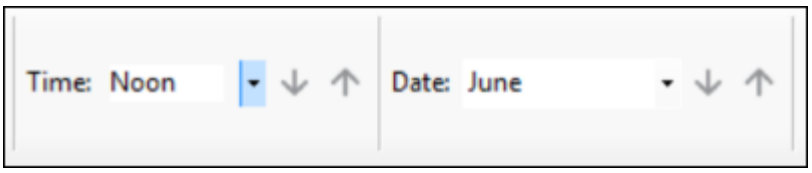
To correctly locate framed shade on-site, the reference pole must be "triangulated" by dimensions from ground reference marks.

Ground reference marks can be added at any identifiable point on the ground, such as a survey marker, building/property corner, etc.

Dimensions are added until the dimensions, from the ground reference marks to the reference poles including between structures, make a fully triangulated set of dimensions. These can be used in the field to specify the reference pole positions from the reference marks on the ground.



Shadows



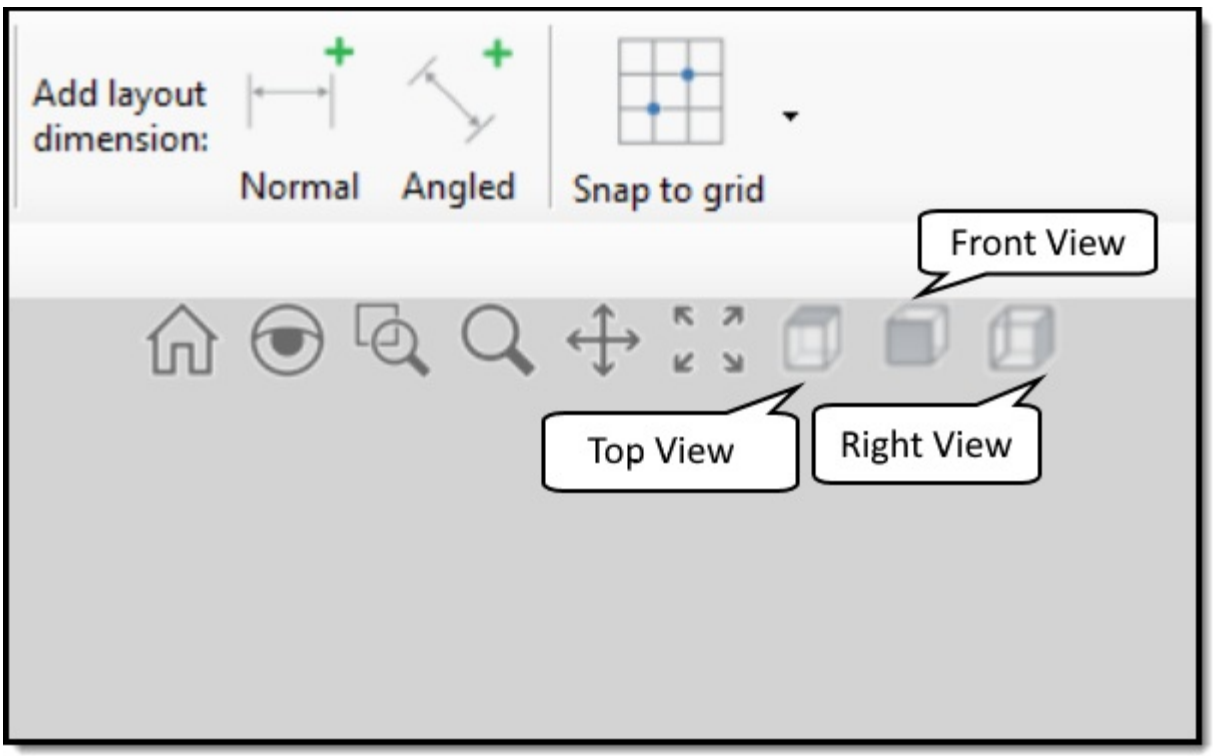
Show the shadows from the sails poles and wall, for specified times and dates, at the specified location and for the months and times selected in the toolbar. These can be adjusted to see quickly see real time how effective the shadow will be for the current sail/framed shade design.

This allows you to see where the shade will be, and if needed you can go back to the Shade sails or Framed shade tabs to move poles/structures, adjust the sizes/heights, etc. The shadows are semi transparent so you can see ground items that would be in shadow.

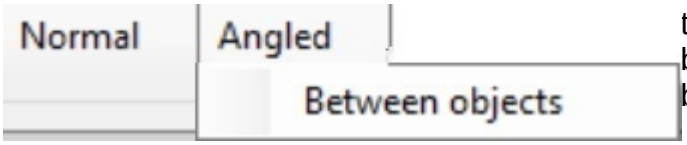
The specified location, latitude and longitude can be changed, but it will be changed just for this one project. To change the location for all future projects set the location in the shadow defaults on the project page.

Layout

On the layout page an outline sketch of the model is shown in 3 views (highlighted in yellow rectangle on image below) with overall layout dimensions added in. These layout dimensions are for illustrative purposes only, and are not used to dimension and fix pole positions.



Additional layout dimensions can be added, and will be saved with the model. The additional dimensions can be normal (horizontal or vertical) or angled/aligned. The small down arrow on the right of

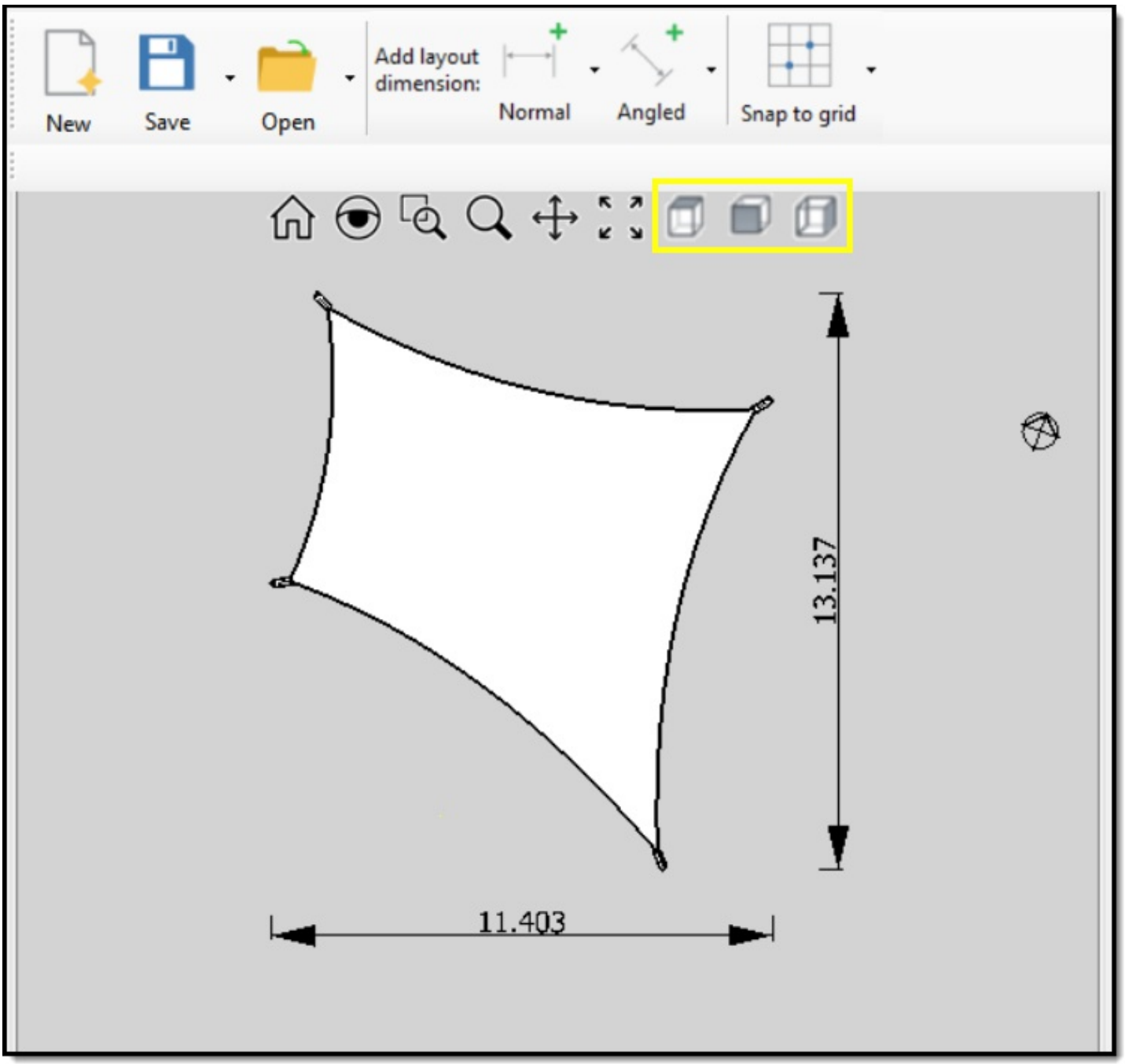


the buttons allows dimensions to snap to pole bottoms or sail corners to add measurements between objects.

The layout dimension text value can be over-ridden in the properties, and this allows illustrative values to be used rather than exact vales.

The dimensions can also moved to provide a better layout view using this tool which can be found below the Delete button (lower right corner below properties).

The layout views will appear on the layout reports.



Reports

On this TAB the user can preview and print reports that contain a range of information depending on the selected

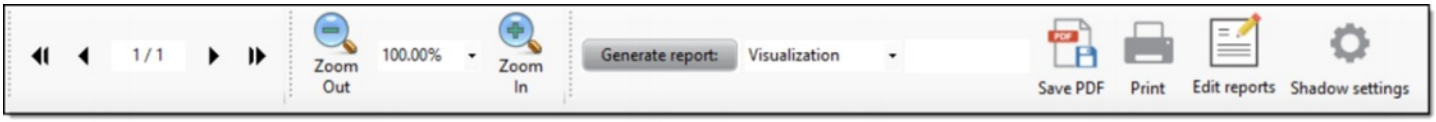
report and report pages. The report generator includes the 2 default reports Visualization and Installation, but also allows the user to create custom reports and define which pages will be included in any report.

The reports can be zoomed to fit the page width or the page height to the screen.

The reports can be made into PDF's either individually or all together.

The reports can be printed, either individually or as a set of reports.

Short Video: Report Generator

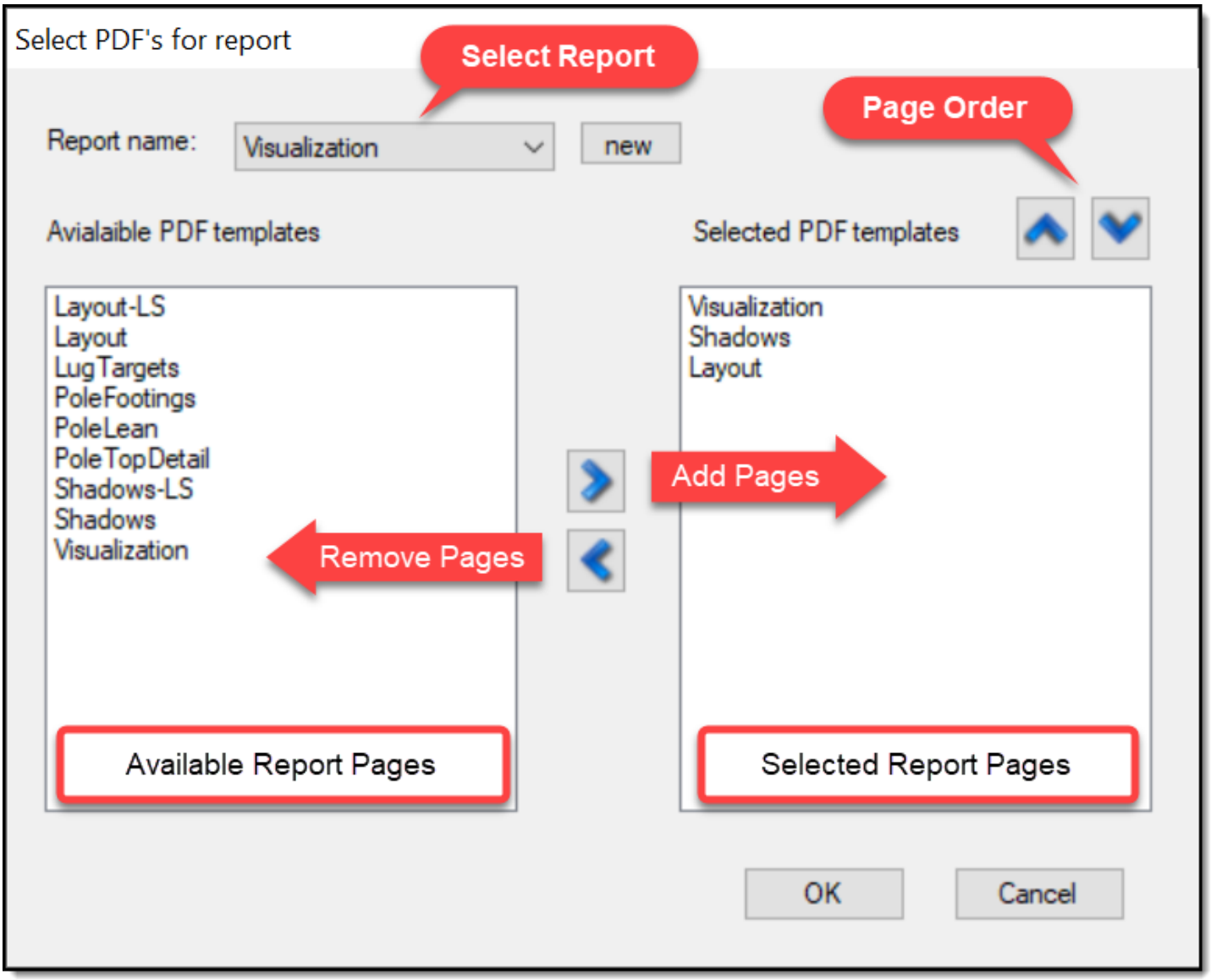


In the toolbar you can click on buttons to (from left to right of toolbar):

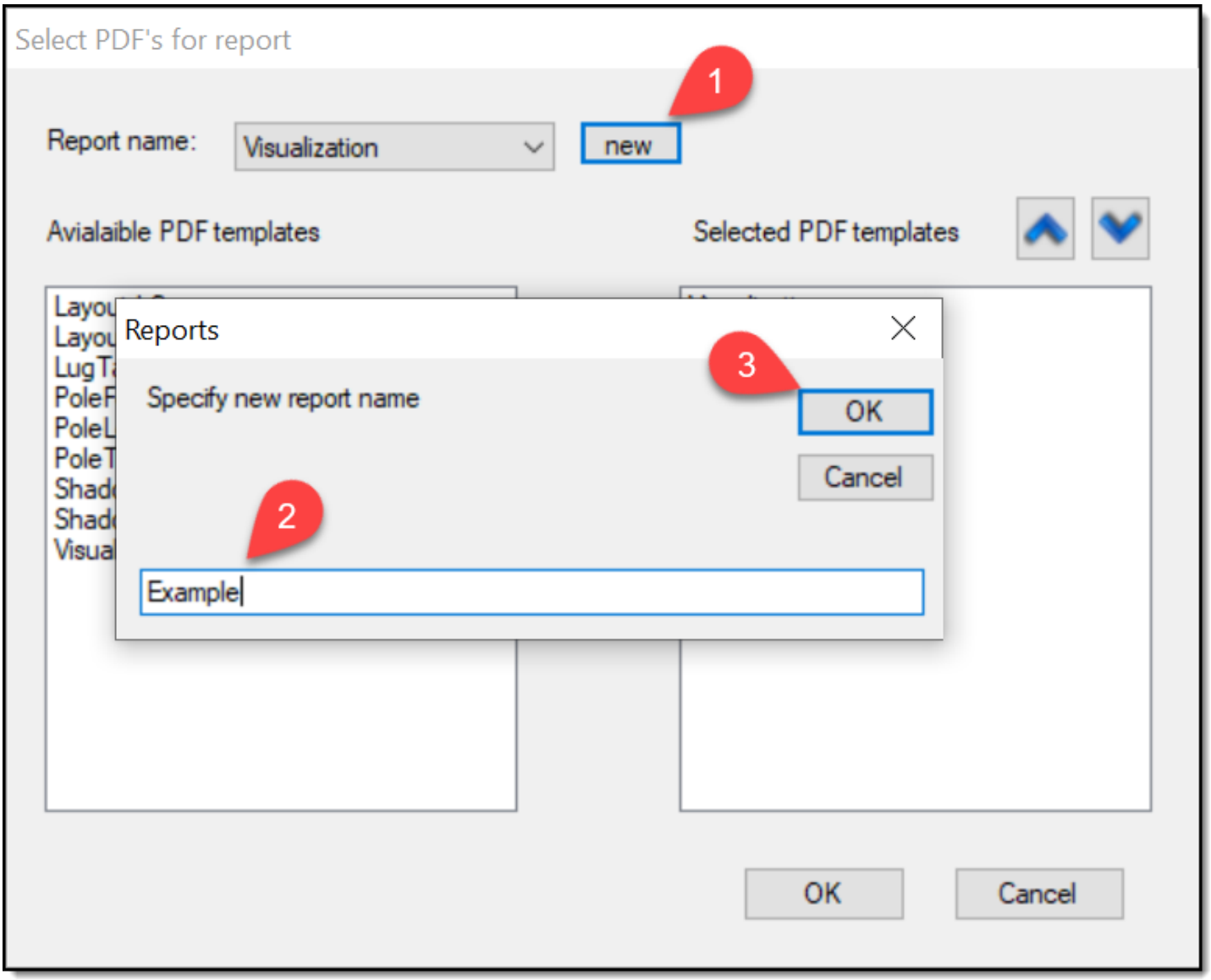
- Arrows — select the current report pages
- Zoom — select the zoom level
- Report — select which report to show then "Generate" to produce the report
- PDF — creates a pdf of the report page, or all the report pages
- Print — prints the report, or all the reports
- Edit — edit or create new reports and select which pdf template pages to include in a report
- Shadow settings — set time and date and image darkness used in shadow reports

- **Report Editor**

The report editor allows the creation and selection of reports, change which pages are included in a report and the order of pages in the report.



To create a new custom report, click new and assign a name for the report then click OK to save. Then select the pages you want included in the report and click the right arrow to add them to the report. When you have finished adding pages click OK to save and the new report will now be available in the list of available reports.



Visualization report - pages available

- **Visualization Page Template - Visualization and Visualization-LS(Landscape)**

Shows an overall view of the design, along with a summary details of the design. The orientation and lighting of the design model image can be set by saving the settings on the shade sail and framed shade model building pages.

There is also a place for your company name and logo. These are defined in the settings on the project page.

At the bottom is a customer acceptance box, which can be used to obtain a sign off on the project.

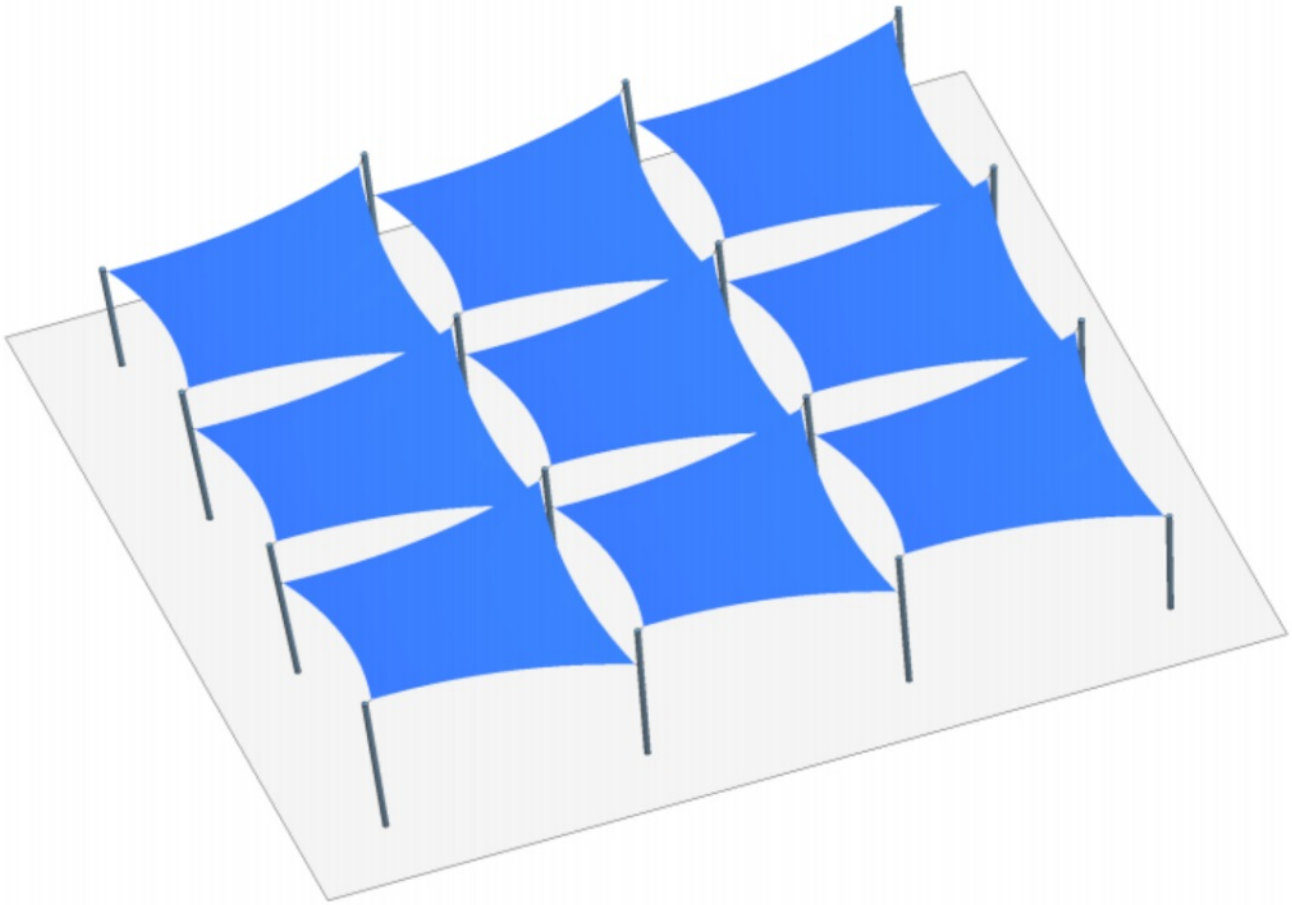
MPanel InSite - Visualization

Client	Rigby		
Project	Multi-sail grid		
Project #	1234-1	Date:	8/11/2021

sq meters	Sails	Framed	Sum
Area	259.4	0.0	259.4
Site Area	324.0	0.0	324.0
Perimeter	215.5	0.0	215.5
Count	9	0	9

Supplier	Your Company Name/Logo go here

Model view



Project approval / Client acceptance Signature Date	Site address: 123 John Street Unit 23 Johnstown NM 88222

- **General Layout Template - Layout and Layout-LS(Landscape)**

Shows a general layout drawing, as defined in the layout page. Layout dimensions are shown for illustrative purposes only, and are not used to dimension and fix pole positions.

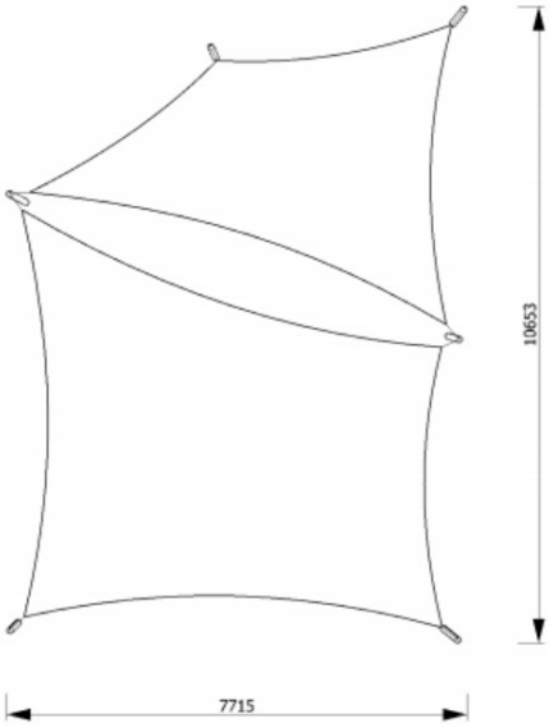
MPanel InSite - General Layout

Client	smith
Project	test
Project #	123-1

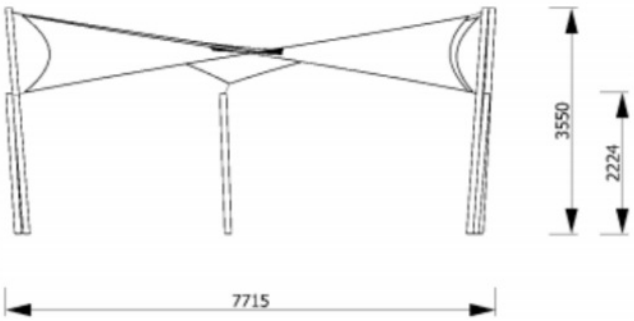
Date	20/10/2020
Entered by	AS
Units	mm

Isometric View

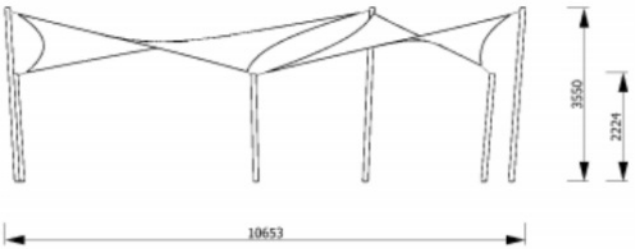
Top `View



Front View



Right View



- **Layout Detail Templates - LayoutDetail and LayoutDetailExt**

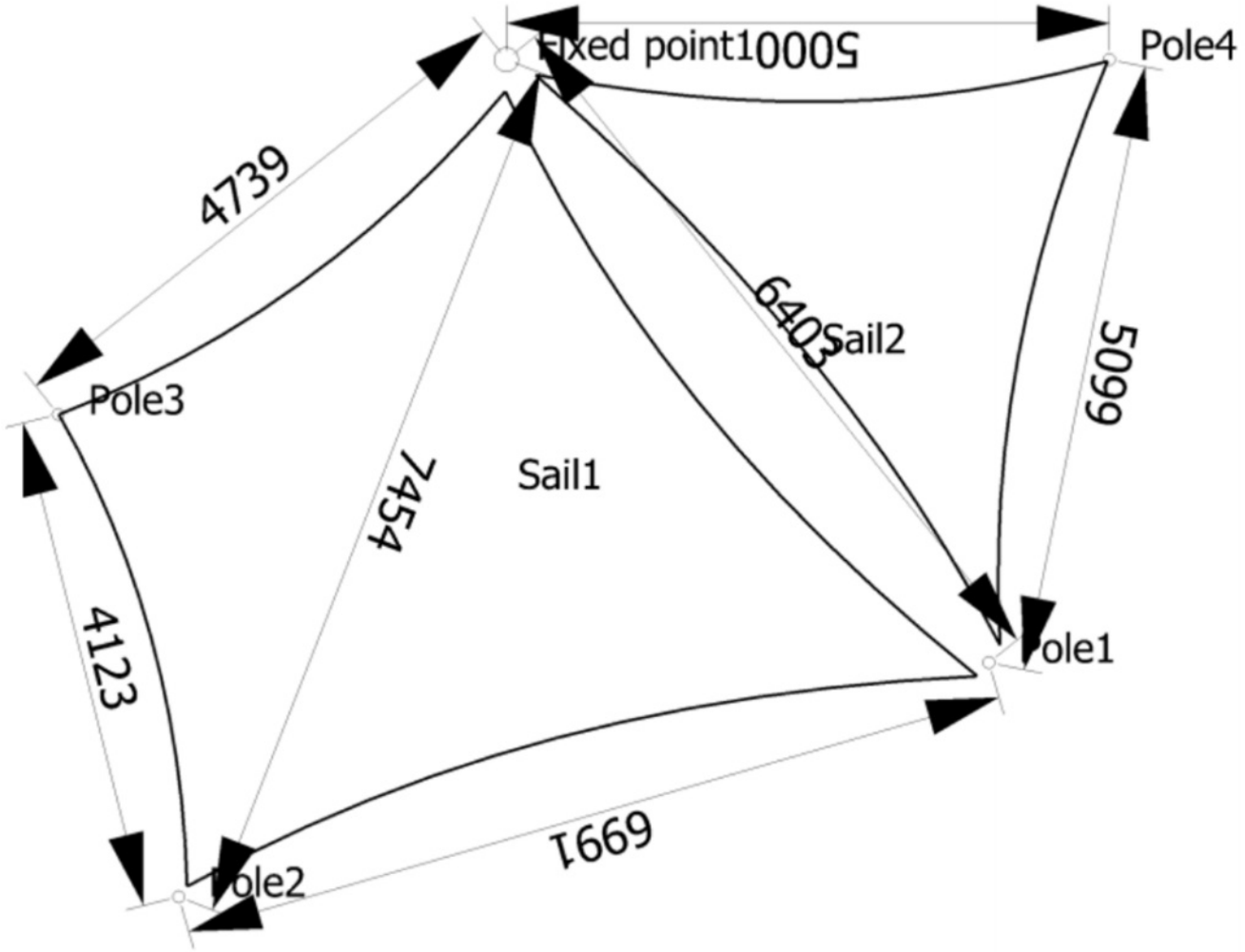
Shows a plan view layout drawing including dimensions and a table showing the pole numbers. heights to top of pole, and then connection heights for each sail to each pole. The table in Layout Detail provide up to 8 pole/connections and up to 7 sails. Layout DetailExt provide extended details for up to 30 poles/connections and up to 10 sails. Layout dimensions are shown for illustrative purposes only, and are not used to dimension and fix pole positions.

MPanel InSite - Layout Detail

Client	John Smith
Project	Front yard sail
Project #	1234-1

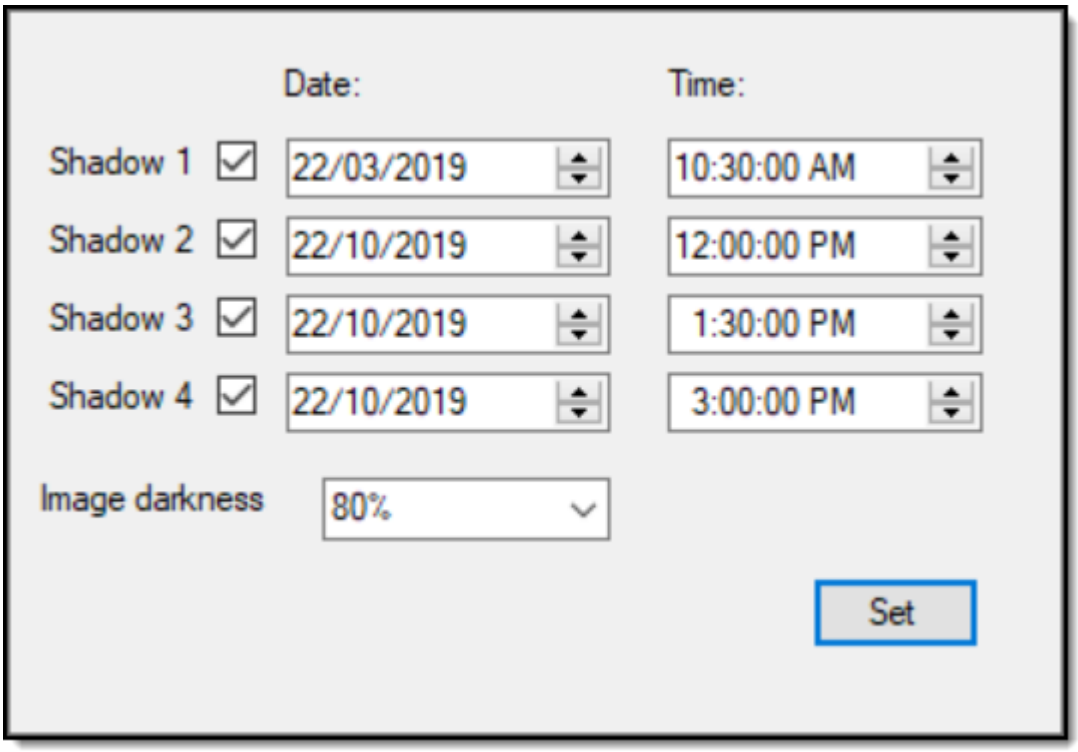
Date	8/11/2021
Entered by	AS
Units	mm

Pole and fixing layout



Pole/fixing #	Height	Sail1	Sail2					
Fixed point1	2000	2000	2000					
Pole1	3550	3500	3000					
Pole2	2550	2500						
Pole3	3550	3500						
Pole4	3550		3500					

- **Shadow Analysis Template - Shadows and Shadows-LS(Landscape)**



Shows the shadow positions at four standard dates and times (which can be set as needed), and an outline of the sail over the ground image.

The shadow is semi transparent and is shown over a toned down grey and white image of the ground, and the darkness of that image can be adjusted with the darkness level setting which also affects the darkness of images used in the installation reports. Additional Templates were added in V5 including a color background and with colored sails rather than sail outlines. These are available in standard portrait or LS = landscape view.

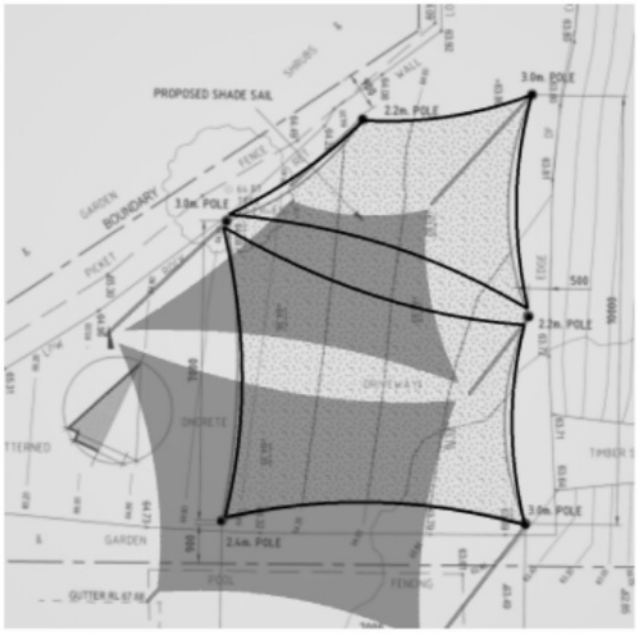
Often the client will require shadows for different dates and times. To deal with this requirement you can set the times and then produce a single pdf report for each requested date and then combine each of these pdf reports into one shadow analysis using a low cost pdf editor tool.

MPanel InSite - Shadow analysis

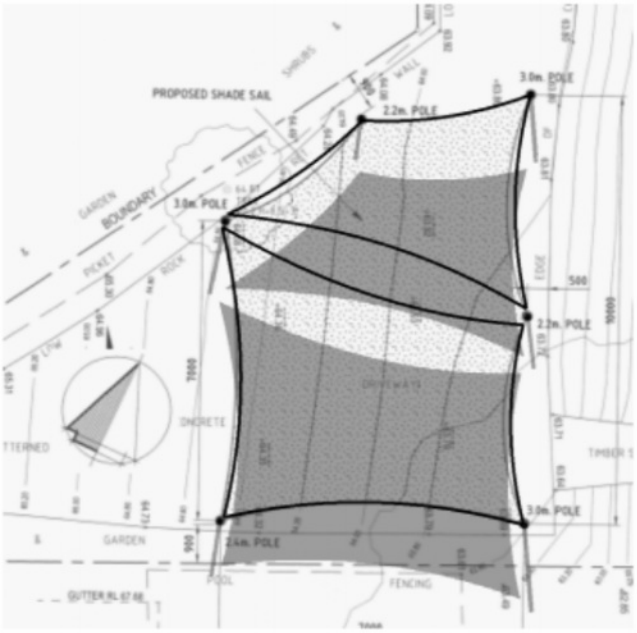
Client	smith
Project	test
Project #	123-1
Date	20/10/2020

Location	Melbourne, AUS
Latitude	-37.814
Longitude	144.963
Time Zone	GMT + 10

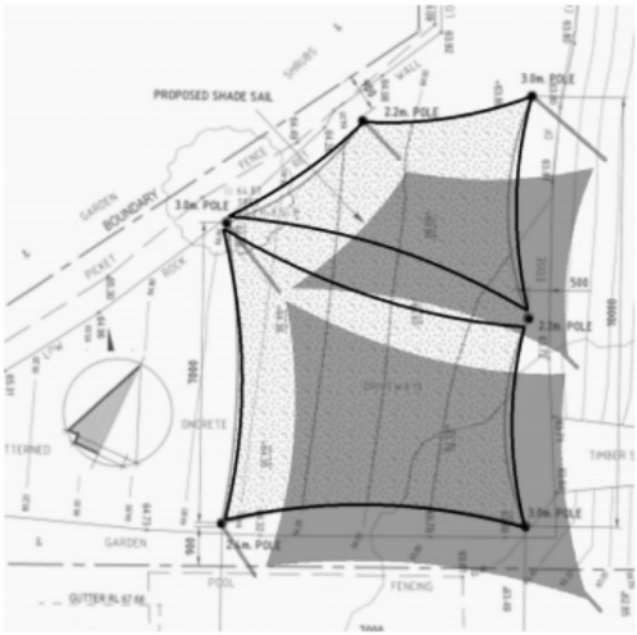
22/03/2019 10:30 AM



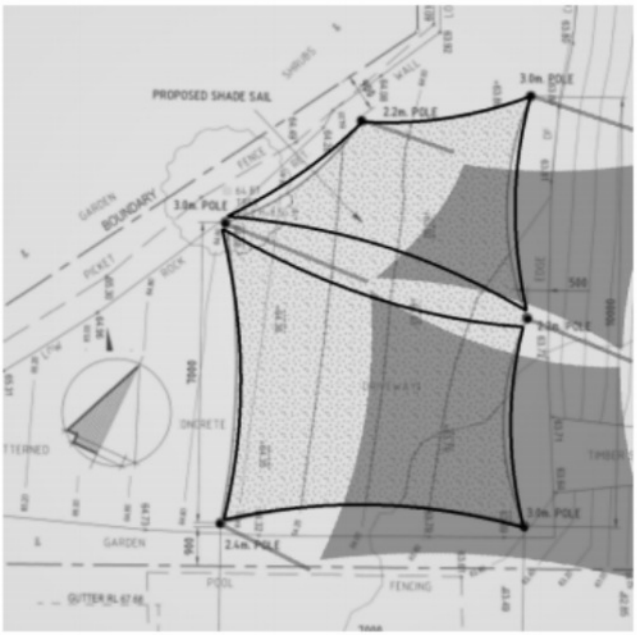
22/10/2019 12:00 PM



22/10/2019 1:30 PM



22/10/2019 3:00 PM



Installation reports available

- **Footing Setout**

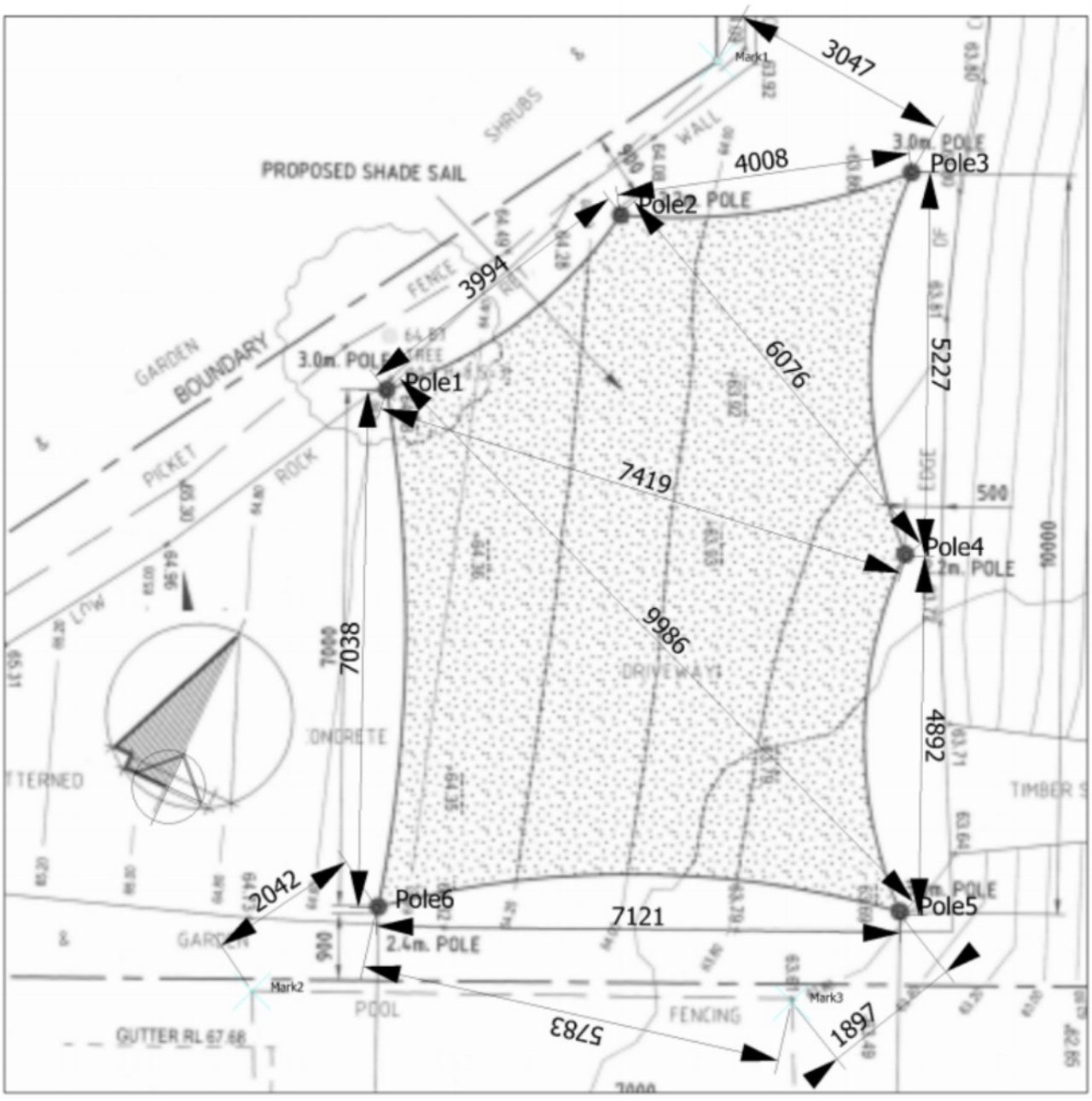
Shows the pole footing positions, by measuring from the ground reference marks. With a fully triangulated set of dimensions this completely defines the pole positions on the ground. If the dimensions are not fully triangulated a warning is given. The pole layout is shown over a toned down grey and white image of the ground, and the darkness of that image can be adjusted with the grey level setting in the Shadow settings tool. Framed structures can be triangulated to the reference pole only (centre pole for umbrellas).

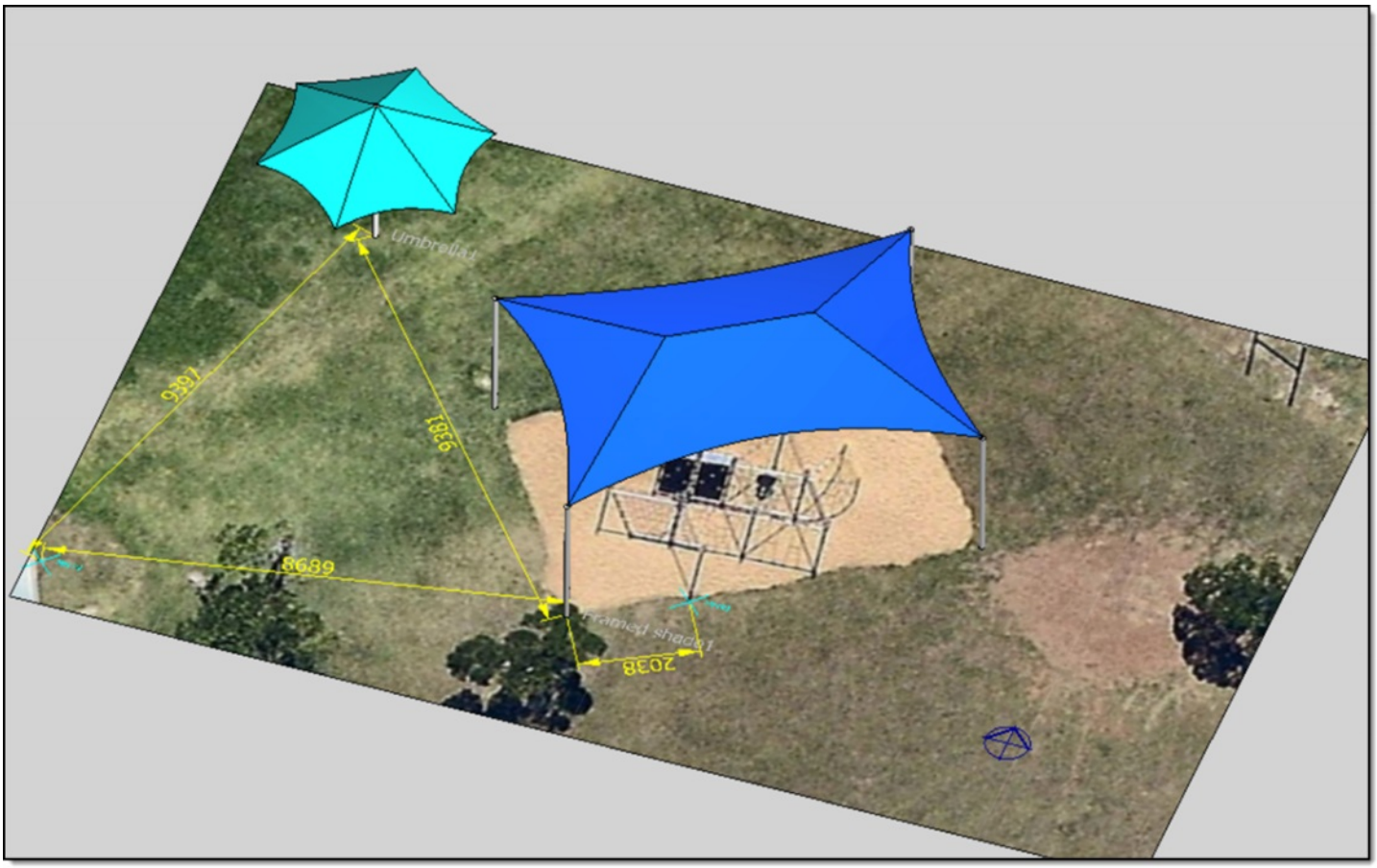
MPanel InSite - Footing Setout Plan

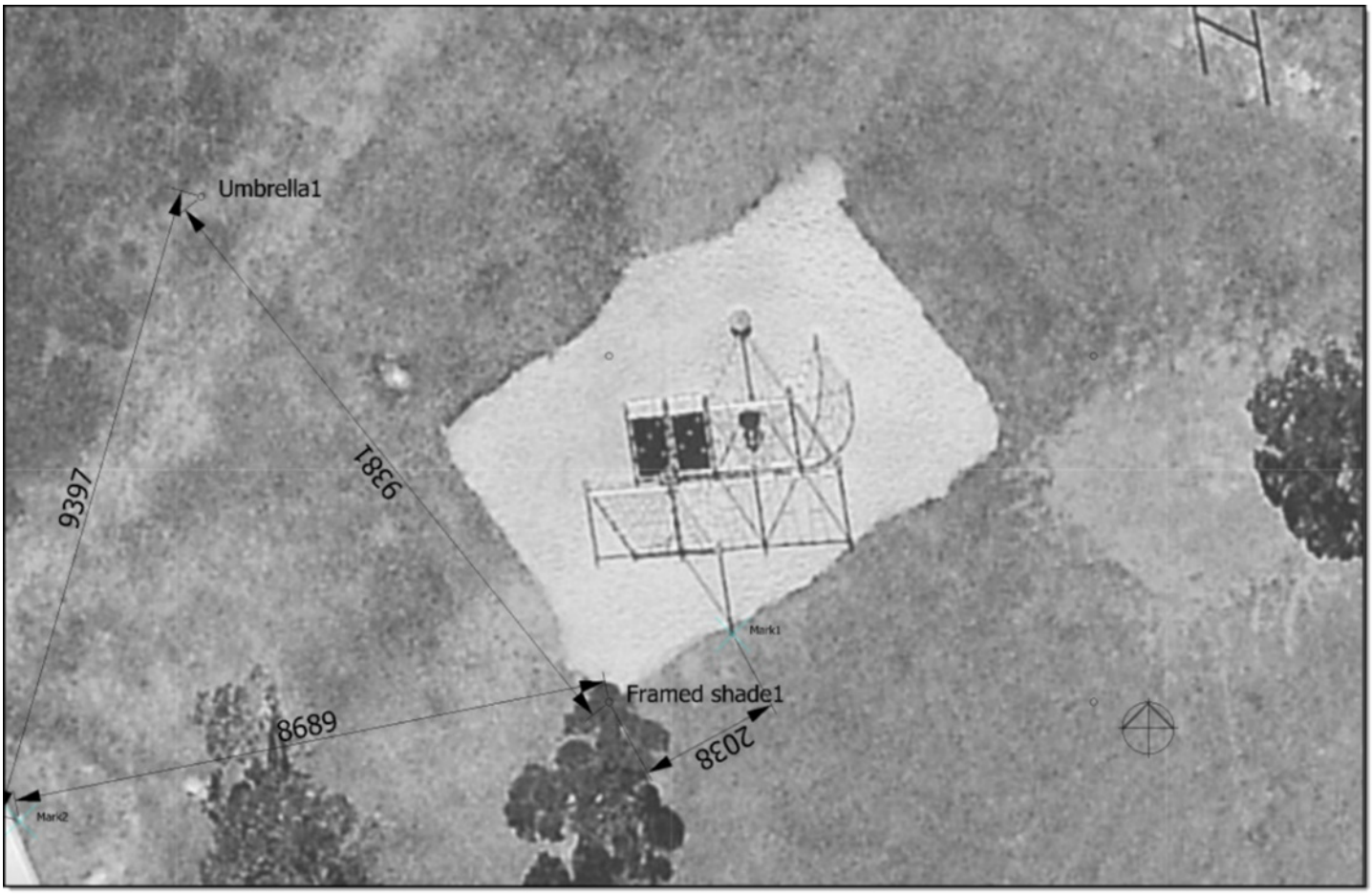
Client	smith
Project	test
Project #	123-1
Date	20/10/2020

Notes:
Pole footing position shown by circle.
Reference marks shown by cross.
Dimensions given are to the centre of the pole footing.
Sufficient dimensions to determine pole positions

Pole footings layout







- **Pole lug targets**

Shows the direction that the pole lugs (pole sail connectors) should be pointed to, by specifying a target point. The target point is measured along an existing dimension line, from the nearest pole. The pole layout is shown over a toned down grey and white image of the ground, and the darkness of that image can be adjusted with the grey level setting in the Shadow settings tool. If needed an additional overflow page is generated for the pole lug target positions. This report does not apply for Framed structures.

Pole lean and Lug target reports explained

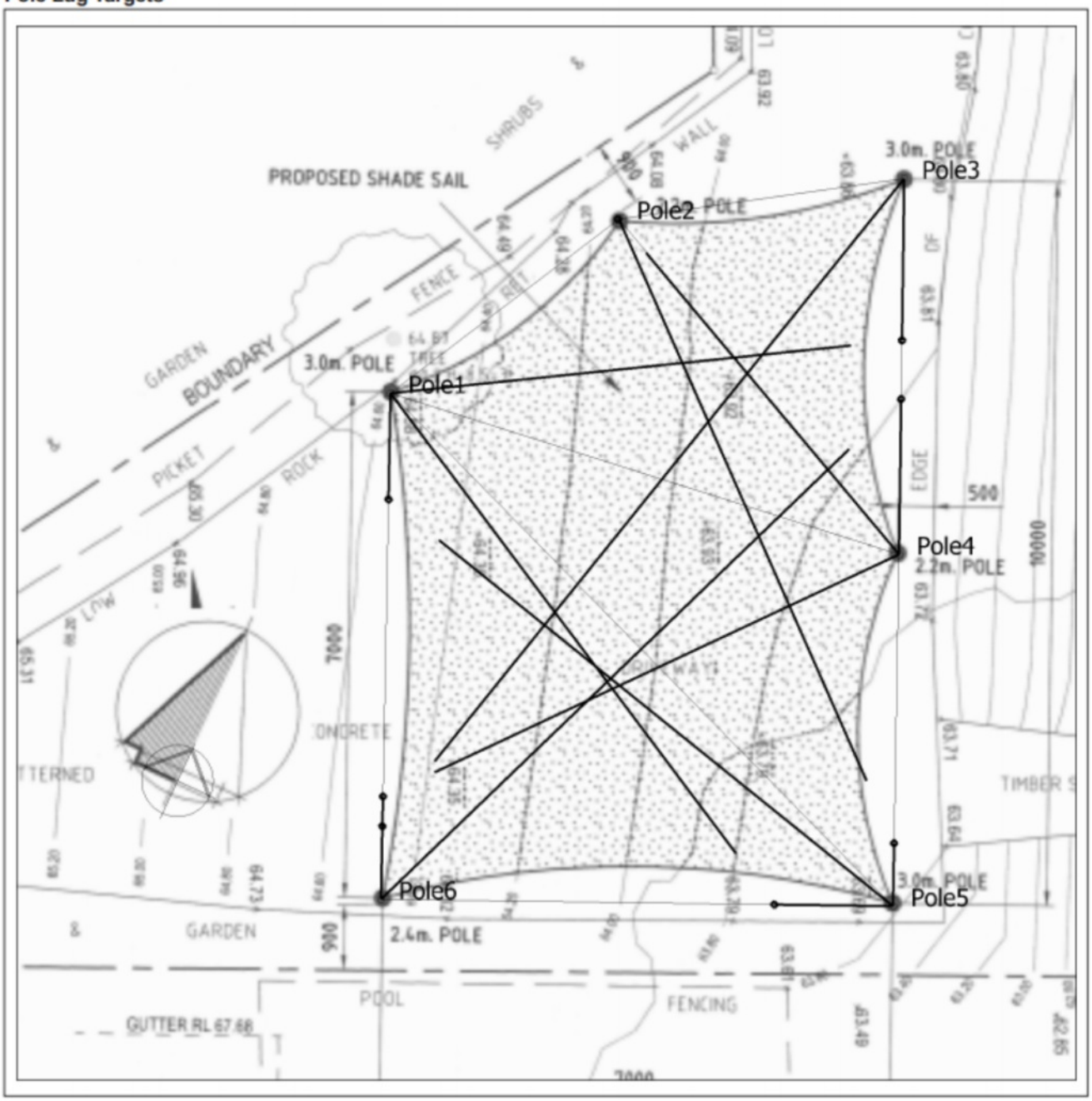
MPanel InSite - Pole Lug Targets Plan

Client	smith		
Project	test		
Project #	123-1		
Date	20/10/2020	units:	mm

Notes:
Target shown by diamond.
Offset measured to nearest pole.

Pole	Target Offset	From
Pole2	875	Pole5
Pole3	1015	Pole6
Pole4	14	Pole2
Pole1	2248	Pole3
Pole1	1651	Pole5
Pole4	1428	Pole6
Pole5	1476	Pole1
Pole6	2159	Pole4

Pole Lug Targets



- **Pole lean targets**

Shows the direction that the pole should lean by specifying a target point. The target point is measured along an existing dimension line, from the nearest pole. If there is only one sail connection lug on each pole, the Pole lean angle report will be the same as the Pole lug angle report.The pole layout is shown over a toned down and white image of the ground, and the darkness of that image can be adjusted with the grey level setting in the Shadow settings tool. If needed an additional overflow page is generated for the pole lean target positions. This report does not apply for Framed structures.

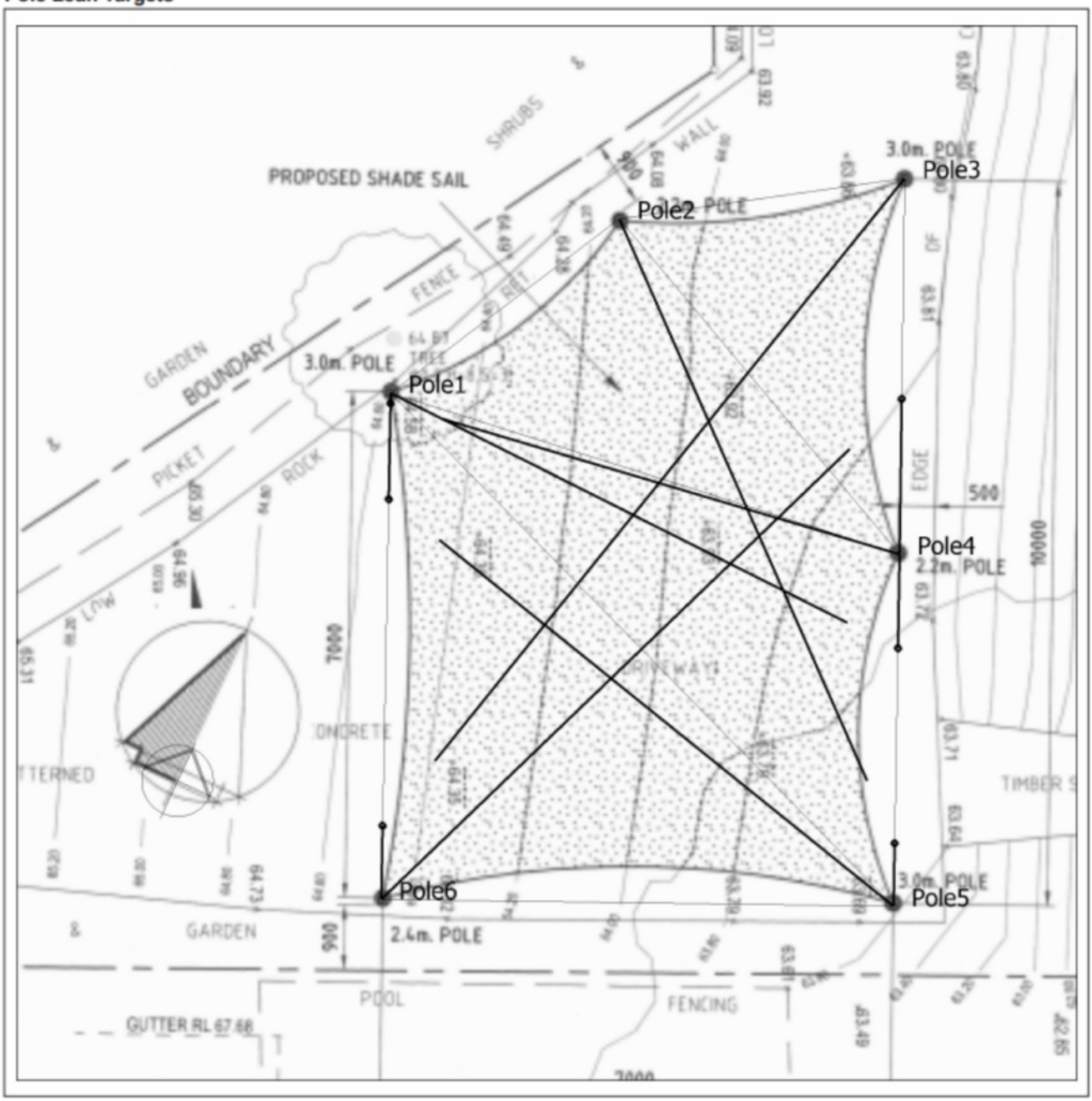
MPanel InSite - Pole Lean Targets Plan

Client	smith		
Project	test		
Project #	123-1		
Date	20/10/2020	units:	mm

Notes:
Target shown by diamond.
Offset measured to nearest pole.

Pole	Lean Offset	From
Pole1	1305	Pole4
Pole2	875	Pole5
Pole3	1022	Pole6
Pole4	146	Pole1
Pole5	1474	Pole1
Pole6	2159	Pole4

Pole Lean Targets



- **Pole top details**

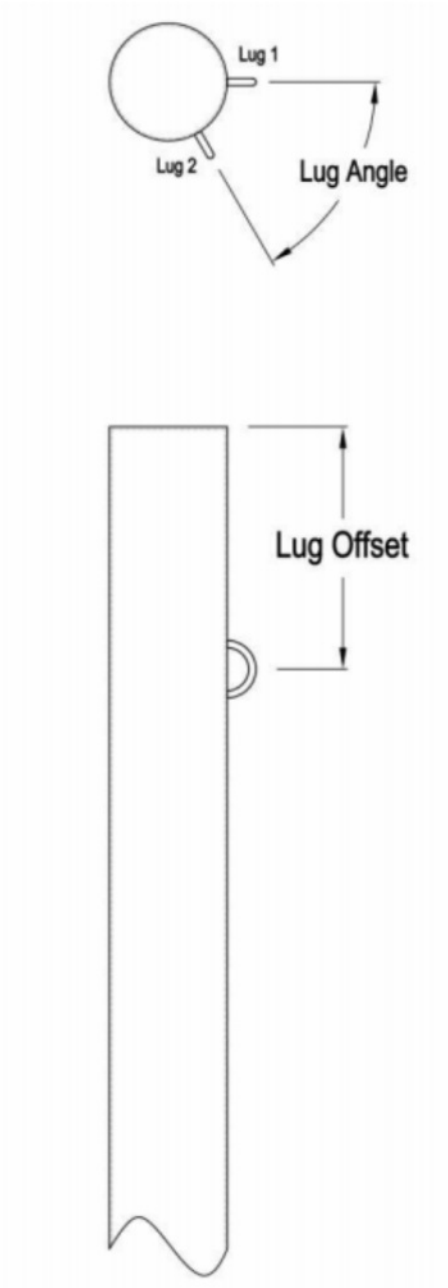
Shows the angle and pole top offset for the lugs at the pole tops. This can be used by the pole fabricators to define the pole construction. When there are multiple sail connection lugs on a pole, the angle between the lugs will be specified. This report does not apply for Framed structures.

MPanel InSite - Pole Top Details

Client	smith		
Project	test		
Project #	123-1		
Date	20/10/2020	units:	mm

Notes:
Angles measured clockwise from Lug 1

Pole Top Details



Pole	Lug	Lug Offset	Lug Angle
Pole1	Lug 1	50	0.0
Pole1	Lug 2	50	303.1
Pole2	Lug 1	50	0.0
Pole3	Lug 1	50	0.0
Pole4	Lug 1	50	0.0
Pole4	Lug 2	50	73.3
Pole5	Lug 1	50	0.0
Pole6	Lug 1	50	0.0

- **Poles and footer details**

Shows a list of all poles and footing details including pole style name, height above ground (HAG), width/diameter, section profile (CHS=circular hollow section, SHS=square hollow section) and total length including above and below ground. The footer style name, diameter and depth are also listed. This report does not apply for Framed structures.

MPanel InSite - Pole & Footer Report

Client	MPanel University
Project	Test pole detail report

Pole #	Pole style	Height (AG)	Pole width	Pole profile	Footer style	F. Diameter	Footer depth	Tot pole len.
Pole1	Standard	3550	150	Round CHS	1500 x 450	450	1500	5050
Pole2	Standard	2550	150	Round CHS	1500 x 450	450	1500	4050
Pole3	Standard	3550	150	Round CHS	1500 x 450	450	1500	5050
Pole4	Standard	2550	150	Round CHS	1500 x 450	450	1500	4050
Pole5	Standard	3550	150	Round CHS	1500 x 450	450	1500	5050
Pole6	Standard	2550	150	Round CHS	1500 x 450	450	1500	4050
Pole7	Standard	3550	150	Round CHS	1500 x 450	450	1500	5050
Pole8	Standard	2550	150	Round CHS	1500 x 450	450	1500	4050
Pole9	Standard	6550	220	Round CHS	Standard	600	2000	8550

Contact Us

Technical support is available to customers who:

Have a valid annual technical support contract
or purchased MPanel InSite within the previous 12 months
or are evaluating an MPanel InSite demo product

In general, it is best to send the model file (projectfilename.dxf) and the associated image file (projectfilename.bmp) as an attachment to the email, as this will allow us to respond specifically to your question.

Support questions should be sent to:
support@mpanel.com

System Requirements

These are the minimum requirements to run MPanel Insight:

Operating system: at least Windows Vista (Windows 7 to 11 are all OK)
Net framework: at least Net 4.5
Graphics card: should support OpenGL, at version 2 or above.
alternatively DirectX can be used but may show lower quality graphics

Notes:

Operating systems before Windows 8 will need to have Net 4.5 installed. If this is missing then it will be asked for during program installation.

Due to the requirement for Net 4.5, it is not possible to run this program on Windows XP

If your graphics card gives a poor image, try these steps:

a) turn *video card hardware acceleration* off in the Settings... General. Then restart the program.

b) turn *use DirectX* on in the Settings... General. Then restart the program.

b) turn high accuracy shadows off in the Settings... Shadows.

Use of these settings will give somewhat lower quality graphics, with a slower frame rate, but may enable a computer with a low spec graphics adapter to run MPI satisfactorily.

License agreement

MPanel Software Solutions LLC License Agreement

This is a legally binding software License agreement (the "License") between the following parties:

(1) MPanel Software Solutions LLC of 3615 Queens Hwy., Carlsbad, NM 88220 U.S.A. ("MPanel", "we" or "us" or "Licensor"). We are a company registered in New Mexico with identification number 821926203; and
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