

SHORT SHARP MANUALS

1702

Drawings For Landscape



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Introduction.....	4
Beginner Topics	5
Design Layers	5
Classes	9
Controlling Visibility	9
Controlling Graphic Style	10
Scheduling and Reporting.....	11
Sheet Layers and Viewports.....	12
Viewports And Sheet Layers	13
Creating Drawings	15
Intermediate Topics	22
Site Model.....	22
Buildings	23
Plants	24
Symbols.....	26
Hardscapes.....	27
Fences	29
Advanced Topics	31
Section Viewports	31
Perspective Viewports	36
Linking Viewports	41

Introduction

When you create drawings, you need to use the concepts that are built into Vectorworks in order to make your drawings efficient. In this manual we will be looking at several concepts that we can use to speed up the creation of drawings, concepts such as Design Layers, Classes, Sheet Layers, Viewports Site modeling, and BIM.

It is important to use these concepts because it allows you to create information and use it on several drawings. For example, if you are creating paving (using a hardscape object) you could use the same hardscape on the location plan, the site plan, a detailed hardscape in plan, and sections. If you needed to make a change to the paving, when you updated it on the design layer, it would update in all viewports. This makes it really efficient to create your drawings, but more importantly, it removes the ability to make mistakes.

In this manual we will be looking at these concepts and why they're important. We will start off with basic techniques which will be the concepts of design layers, classes, viewports, and sheet layers.

The intermediate techniques we will be looking at will be the BIM (Building Information Modelling) objects. This includes objects like Site Models, furniture symbols, planting, fencing, et cetera. We use these objects because they have 2D presentation, 3D information, and they also have detailed information that we can report later. We will not be looking at reporting a detailed information. But we will be looking at the 2D and 3D information. you will also find information about BIM for landscape in this manual ([1503](#))

The advanced topics that we will be looking at will be to take these BIM objects and use them to create more complex drawings. We will be looking at creating sections, elevations, perspective views, and details. We will also look at the tools and techniques that Vectorworks has to link our details to our other parts of our drawings. It's extremely useful to have a reference object that is linked to a detail viewport so that if you move the detail viewport from one sheet to another, or if you renumber the viewport, the reference updates.

Beginner Topics

These are topics are the foundation stones of creating drawings. Creating the information is nothing if you cannot organise it into drawings.

To create drawings we use several concepts. These concepts include Design layers, Classes, Viewports, and Sheet Layers. These concepts are used in conjunction with each other to create a drawings, but we will be looking at them individually to see how they used.

Design Layers

Design layouts are an organizing concept to help you to develop your designs. You can think of layers as being containers. The Design Layer contains parts of your design. Some people say “layers are **where** information is, classes are **what** information is.”

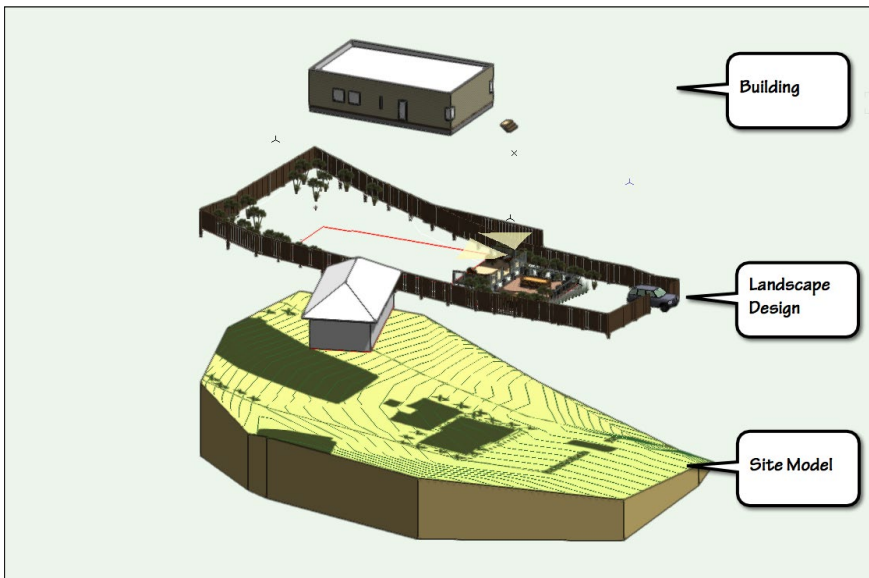
If you are creating an architectural project, the easiest way to think of Design Layers is to think of each story of the building as a Design Layer. This is a very simplistic way of looking at it, and there is much more to it than that.

You can use Design Layers to control visibility of objects in your file, but it is often better to use Classes for this.

I have three simple rules that decide when to use Design Layers:

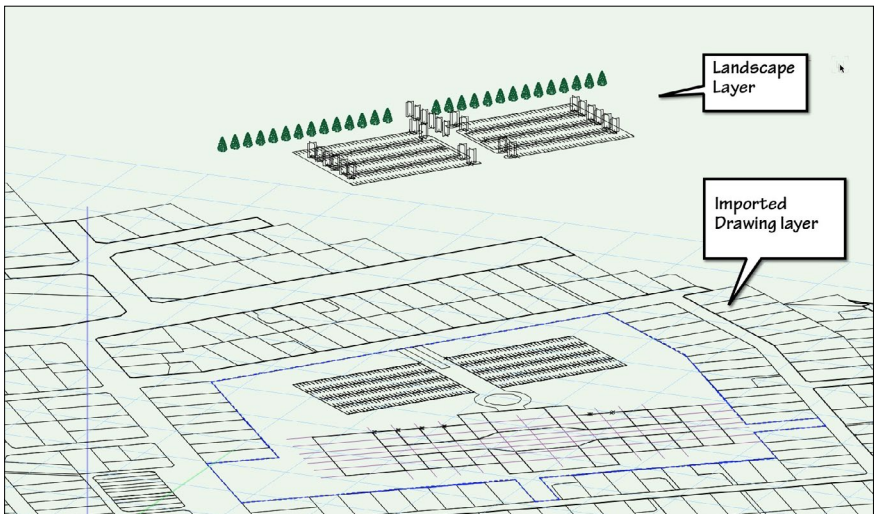
- structure your file;
- different scales;
- scheduling and reporting.

Design Layers are useful for structuring the file, for example, creating Design Layers that contain the various part of the design, separating the landscape design from the site, from the imported base information, or the buildings.



For some projects it is more effective to use Vectorworks to create the model, then use that model to create 2D sections of the building. This allows you to put a high level of detail into these sections, which you can then use for detail viewports.

For landscape work, you very often have to import a base drawing. The base drawing should be on its own Design Layer, and then you can put your landscape design on a separate layer. Separating your landscape into soft and hard landscaping is an advantage for large projects, but may not be necessary for a small project.

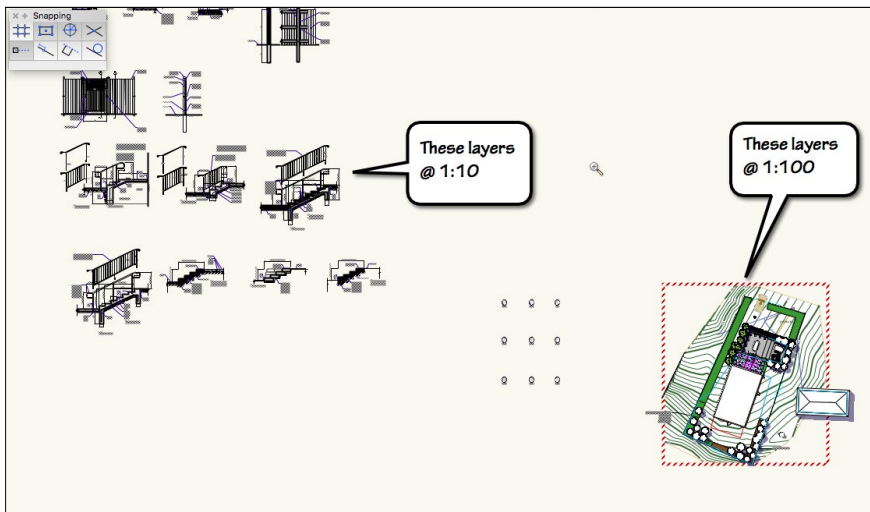


It is important to remember that your Design Layer is a container, containing information that you need to keep together.

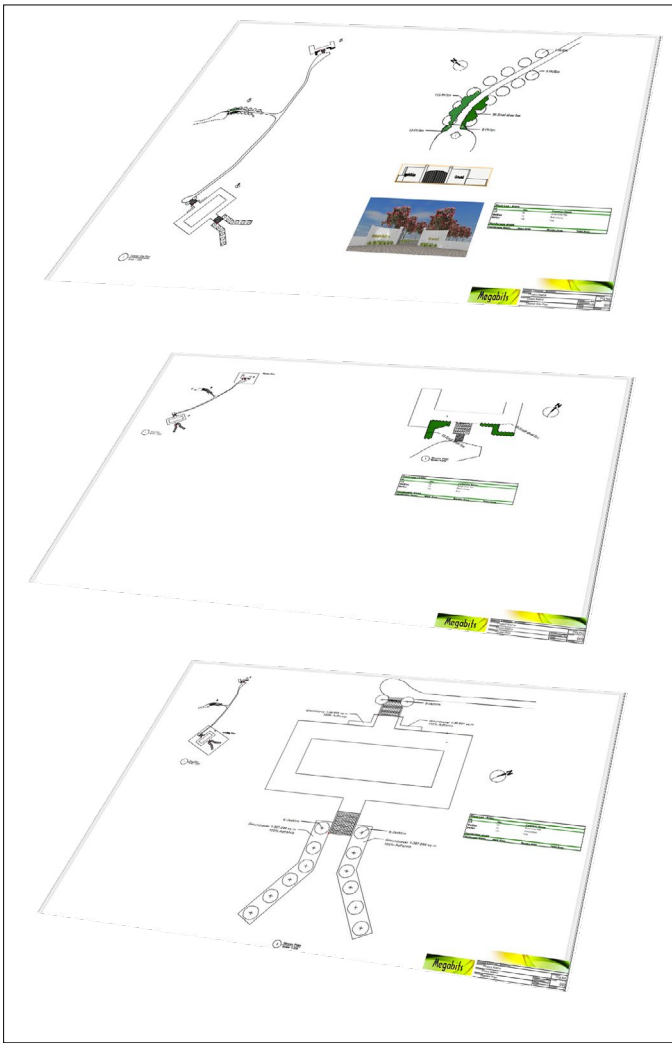
When you need to create information at different styles, it space to create layers for each scale. What this means is when it is time to do the detailing, it is often easier to put the details at the larger scale on a separate design layer.

I usually create a design layer with approximately the same scale as I will be outputting it. I know later on when we look at viewports you will see how you can change the scale of the viewport, but it is still easier to have a design layer set to the right scale. It will make annotation and dimensions easier to deal with.

In this example you can see the details for the stairs and the landscape plan are at different scales. when I create annotations on the stair details layer they will be at the right size when it comes to make viewports from them and when I create viewports of the landscape plan, the annotations will be at the right size for printing.



Design Layers can be used to separate information for scheduling and reporting. For example, in a landscape project, layers are extremely useful for separating information so that you can report specific areas of the landscape. In this example I have three main areas of the landscape that I want to report independently. I have the entrance area, the main house area, and the stables area.



Classes

Classes are an organizing concept that you can assign objects to. This allows you to control the visibility of these objects as well as controlling the graphic style of the objects.

The easiest way to think of Classes is to think of them as an attribute that you apply to objects. Classes are **what** the objects are, Design Layers are **where** the objects are.

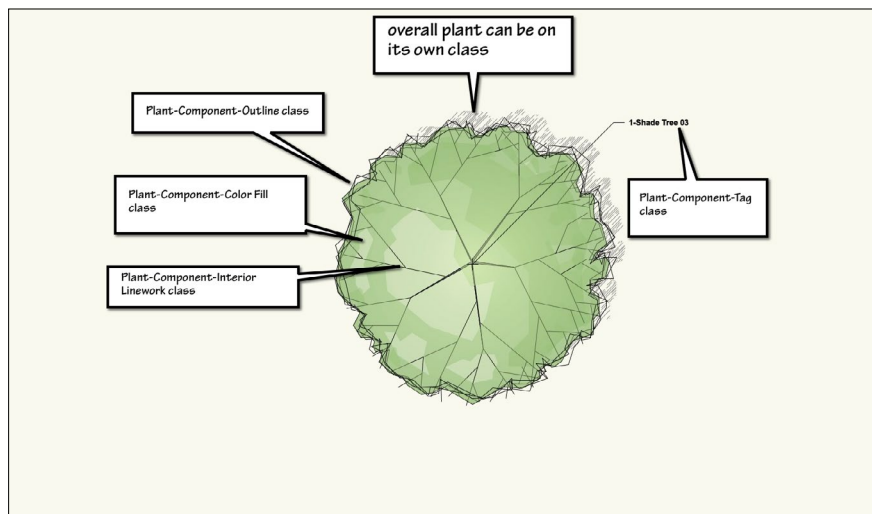
I have three simple rules for deciding when to use a class:

- control visibility;
- controlling graphic styles;
- scheduling and reporting.

Controlling Visibility

Classes should be used to control the visibility of objects, e.g. show / hide only that object.

When you use objects from Vectorworks they often come with their pre-defined classes, which are then automatically added to the class list, e.g. windows, dimensions, plants. When you place a Vectorworks plant, it already has classes associated to it. These classes control the color fill, the interior line work, and the plant tag. This allows you to show or hide parts of the plant to suit your design.



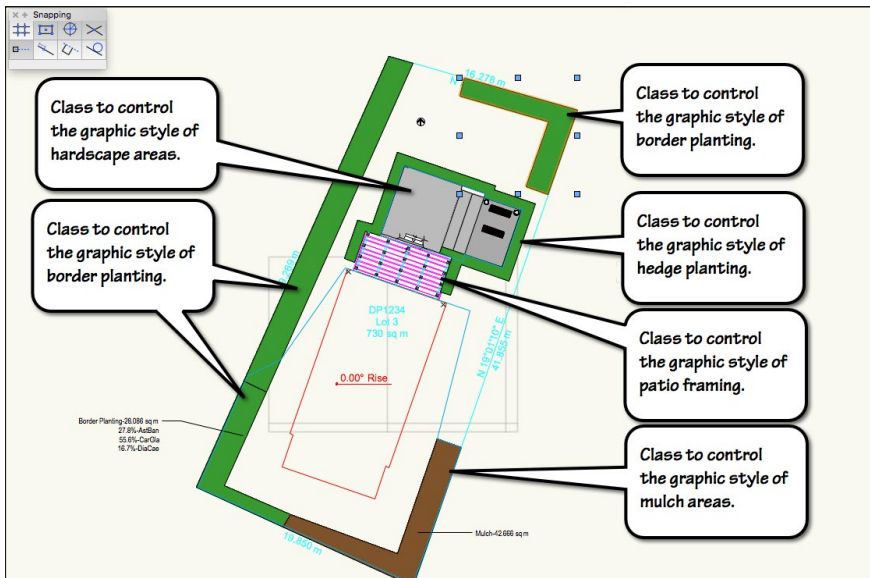
If you have objects that will be shown or hidden together they can be on the same class, even if they are not the same type of object. You can create an almost infinite number of classes, but it is better to keep your number of classes to a minimum.

You can use layers to control the visibility, but not to the same fine detail that you can with classes. For example, in the tree image above, it is impossible to use layers to control visibility of parts of the plants. But classes are ideal for this kind of visibility control.

Controlling Graphic Style

As seen above, Classes are ideal for controlling the graphic style of objects, such as the line type, line color, line weight, and so on. This also includes the fill style, fill settings, and textures. So things that you want to look the same should be on the same class. Often you will find that the class you used to control visibility can also be used to control the graphic style.

In this image you can see several objects that have different colors. These colors are being controlled by the classes, and they show me not just the color, but they also help me understand the line weight.



If you have come from an AutoCAD background, you might be used to using color to represent line weight. Vectorworks does not do this, but you can assign a color and a line weight so that you can tell the line weight of objects by their color.

Controlling the graphics is easy with classes, but just not possible with layers.

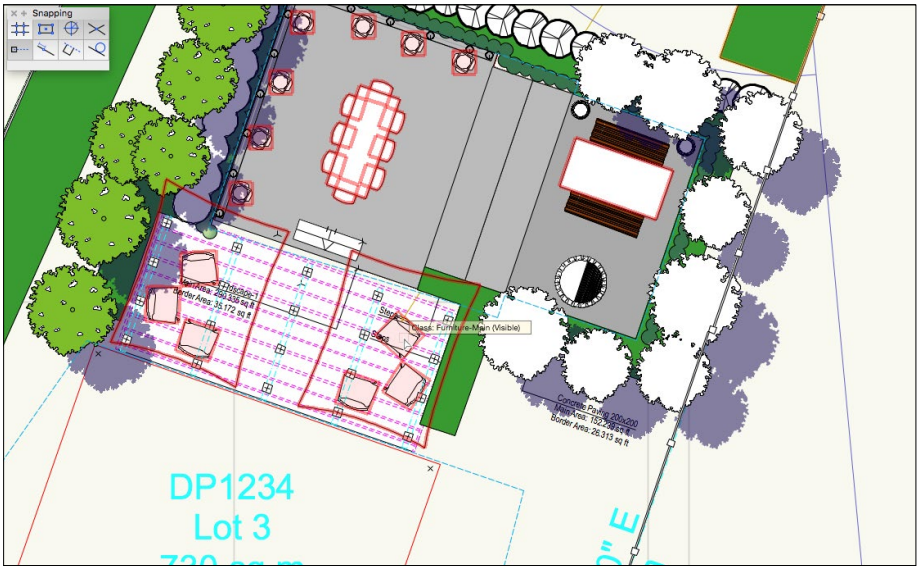
Scheduling and Reporting

You can use both layers and you can use classes for scheduling and reporting, so which one should you use?

It comes back to layers being a container and classes being an attribute assigned to an object. So it depends on the report you are creating. If you are making a report to collect a lot of objects, use layers (as in the landmark example used earlier), if you are trying to report a range of objects but you want them to be reported together, then classes are better. For example, you can use Vectorworks to report areas for fire reports, energy reports, landscape areas, and so on.

When you create a symbol you have the option to assign a specific Class to the symbol. Every time you place an instance of that symbol, it will be assigned to the correct Class, regardless of the active Class.

This is a fantastic way of building your office drawing system. It makes it foolproof to place symbols in the drawing because they are automatically assigned to the correct class. When you want those symbols to disappear turning off the class will make them all become invisible. This is impossible to do with layers.



Sheet Layers and Viewports

Sheet layers are used for printing. So, Design Layers for designing, sheet layers for printing.

Generally, there is no need to use classes on your sheet layers.

Viewports should be assigned to the None class. They are not assigned automatically to the None class, they are always assigned to the active class. You need to be careful when changing the active class if you are creating viewports. I have wasted several hours looking for viewports because they were on a class that was turned invisible. If you are going to make viewports set your active class to None.

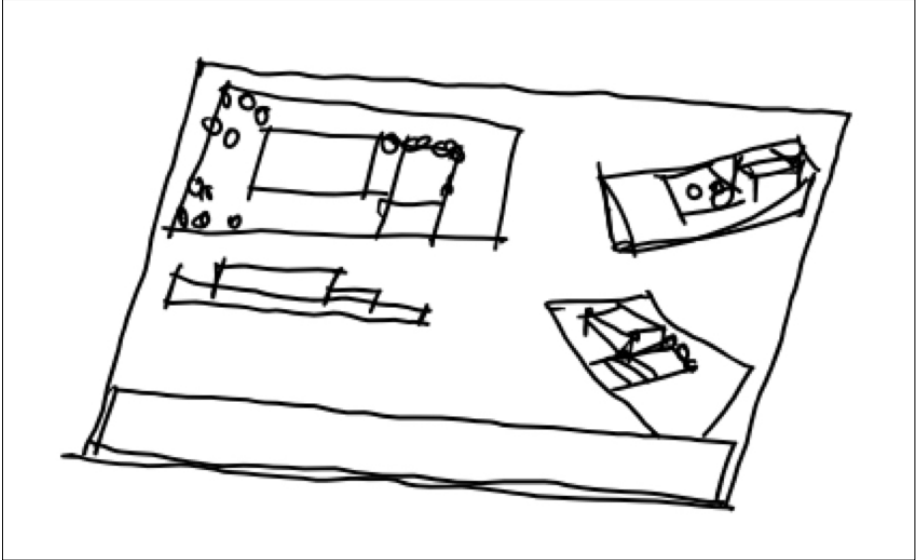
Title blocks and sheet borders might be assigned to specific classes if you want to create a drawing report showing phases of the construction. You cannot use layers for this.

Viewports And Sheet Layers

A viewport can be used on a sheet layer or on a design layer.

Sheet Layers

A sheet layer is a special layer that is used for printing. You could think of it as a plotting layer. If you are familiar with other CAD products, you could think of sheet layers as being like paper space.



On a sheet layer you can place viewports and a title block to make drawings.

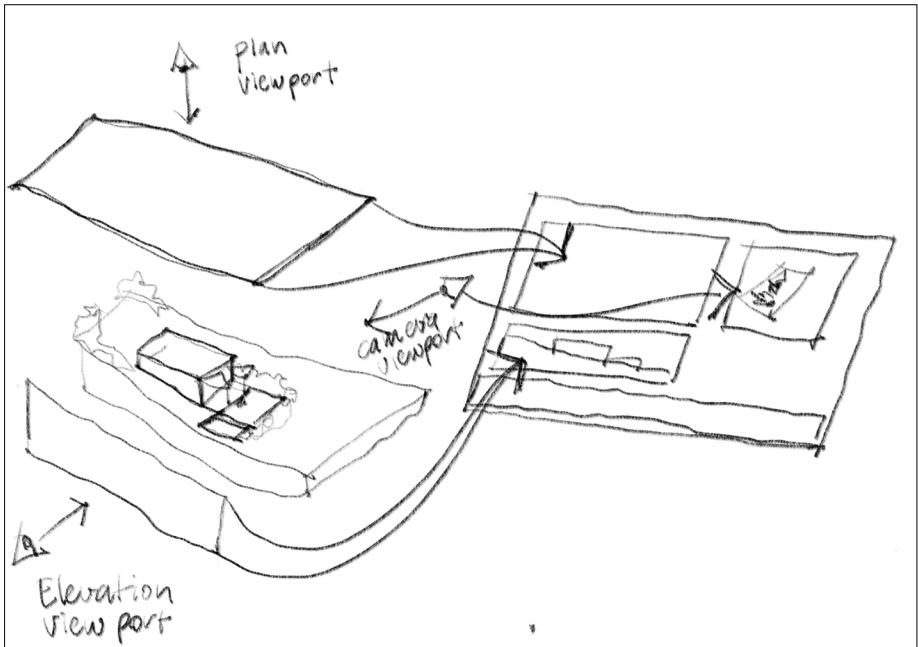
You can only view one sheet layer at a time, but you can put as many viewports on the sheet layer as you need.

Each sheet layer has its own printable area. This means that you could set up A4 presentation drawings and A1 construction drawings in the same file.

Viewports

A viewport allows you to show a view of design layers (other layers in the same file). Each viewport has its own

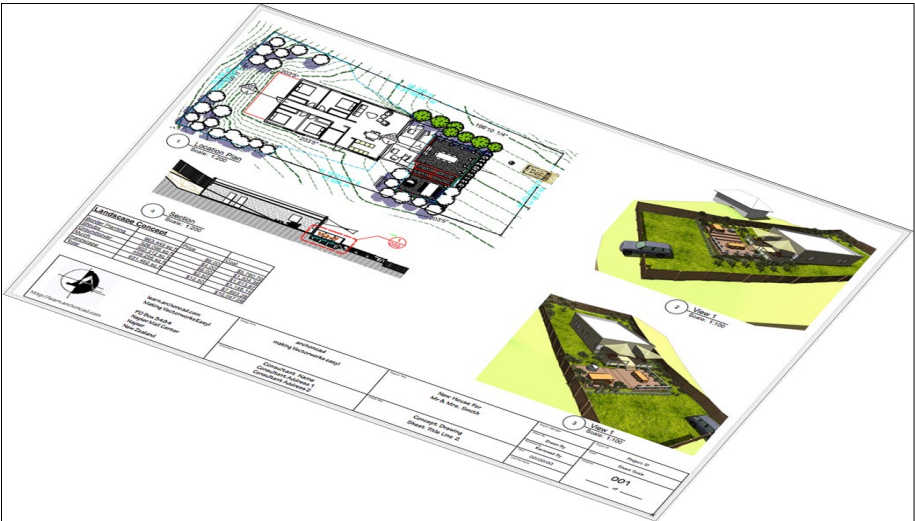
- cropping shape,
- scale (if it's on a sheet layer),
- layer settings,
- class settings,
- View settings,
- rendering settings, and
- lighting settings.



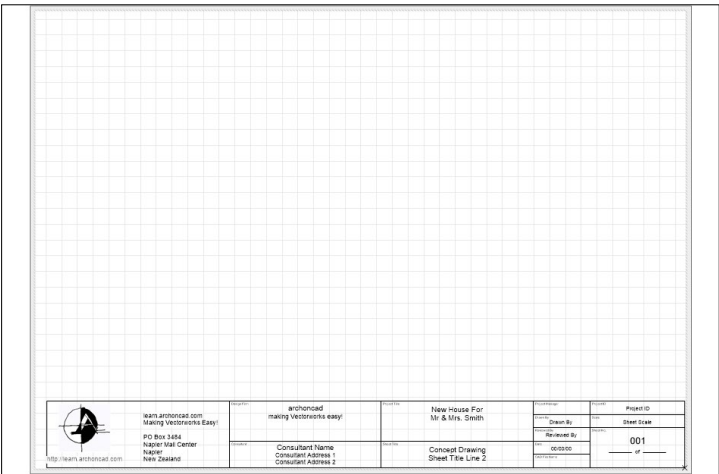
Creating Drawings

In this section we can use the concept we have learned to put together drawings. The drawing we want to create is a concept plan that includes an overall site plan and an elevation. We also like to add other three-dimensional views but we will cover those later.

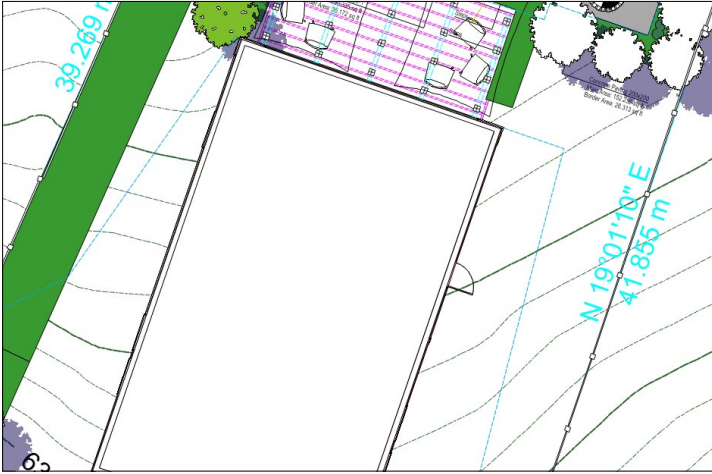
- This is the drawing we want to create. It has a title block (we have a tool for that), an overall location plan, a section and two perspectives. In this part of the manual we will not be looking at creating the section and the perspectives, they will be in the advanced portion of the manual.



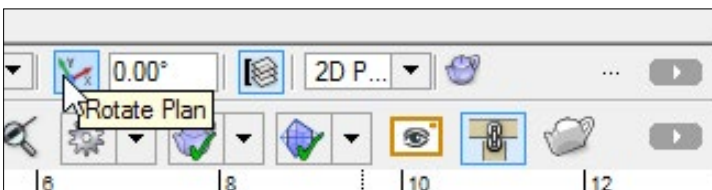
- We can start with a new Sheet Layer.
- In this image you can see that I have already placed the title block. If you are using Vectorworks Landmark Australia, then you will be able to use the VAA Title Block. Otherwise, use the Sheet Border tool to place a title block. We will not be covering how to customise your title block in this manual.



- Return back to your design layer that has the landscape design.
- In this image you can see that I have made the building layer visible, the patio layer visible, and the planting layer visible.
- It is easier to turn on all the design layers and classes that you require before you make the viewport. That way, you can see all the required information and you will not have to edit your viewport later.
- In this particular example the site plan has been set up so that true North is straight up the page. This means that the landscape plan will be at an angle to my title block.



- For the presentation to the client I would like the site to have the house square on the page. We have a tool that will rotate the plan temporarily without affecting the design.
- Go to the **View** bar.
- Click on the **Rotate Plan** tool.



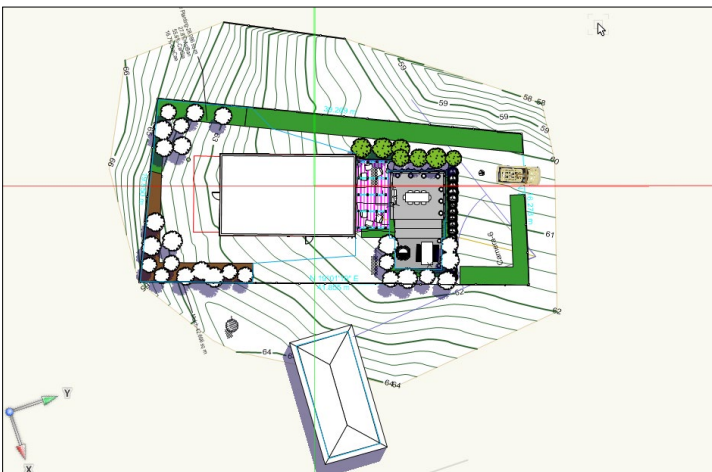
- Click once for the first point on the building. This point becomes the centre of the rotation.



- Click once more on another corner of the building.



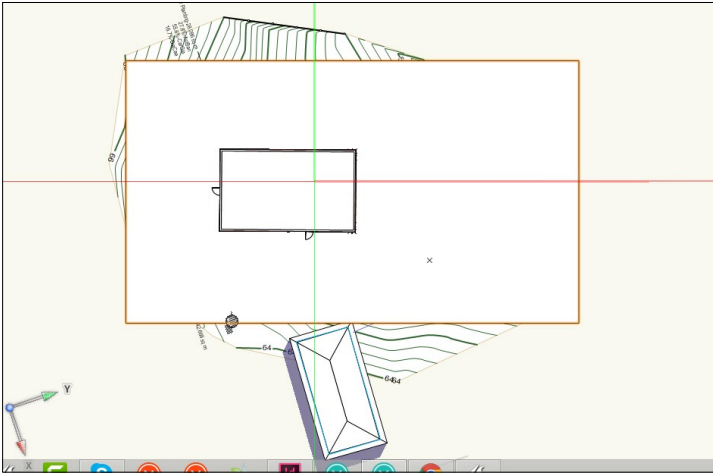
- The line between these two clicks will be rotated to be horizontal on the screen. The beauty of this technique is that it allows you to work orthogonally.



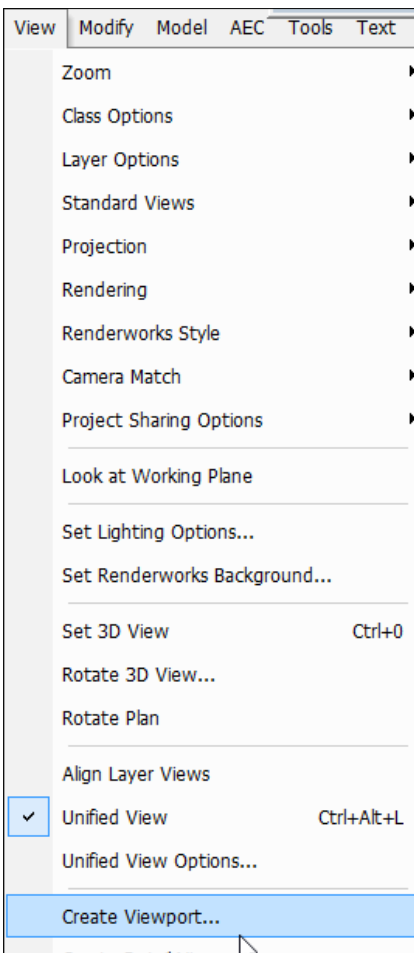
- This can be a useful technique when you want to present the plan in this

direction, and you want to ensure that your plant ID tags, hardscape tags, et cetera are horizontal in the viewport.

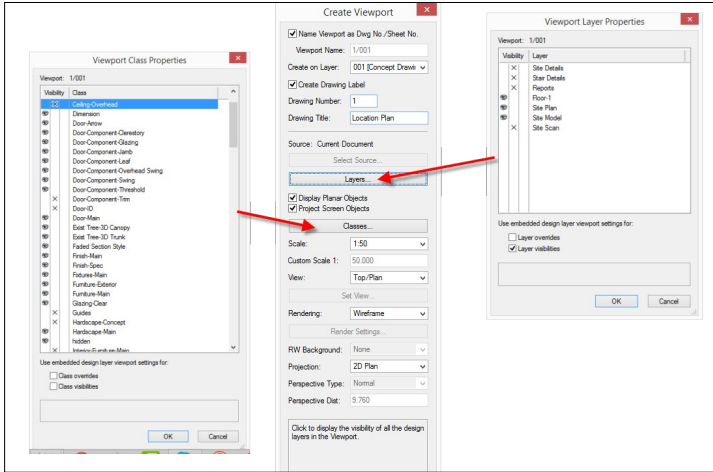
- Draw a planar object (shape) over the area that you want to become the viewport. This object will become the viewport crop. Everything outside the shape will not be visible, everything inside the shape will.



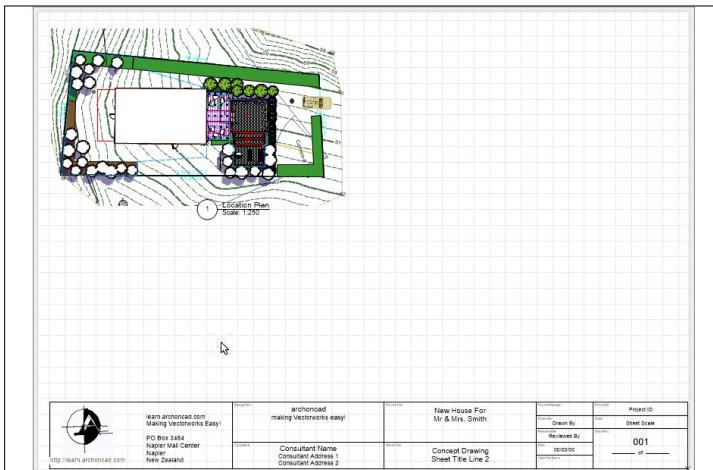
- Go to the **Menu** bar.
- Choose **View > Create Viewport...**



- Enter the required information such as the name and destination of the viewport.
- Remember to check the design layers and classes that should be visible in the viewports. If you don't check these now, you can always fix them later.



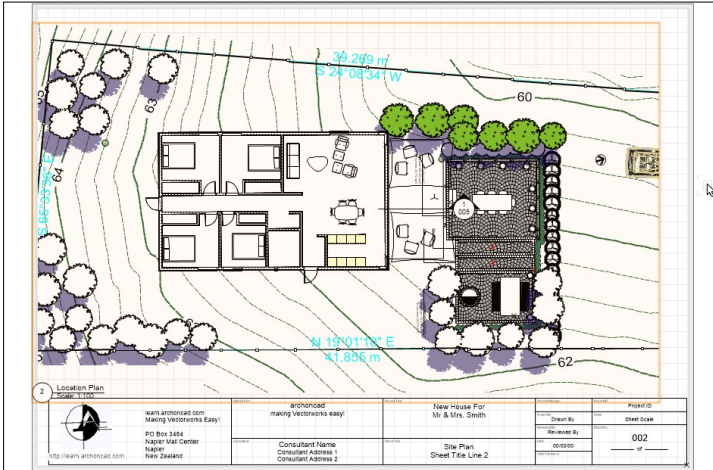
- Click on the OK button to finish creating your viewport.
- The viewport will be located on your sheet layer, but it may not be in the required location.
- Use the Selection tool to drag the viewport to the required location. In this case, I want my location plan to be in the top left of my sheet.



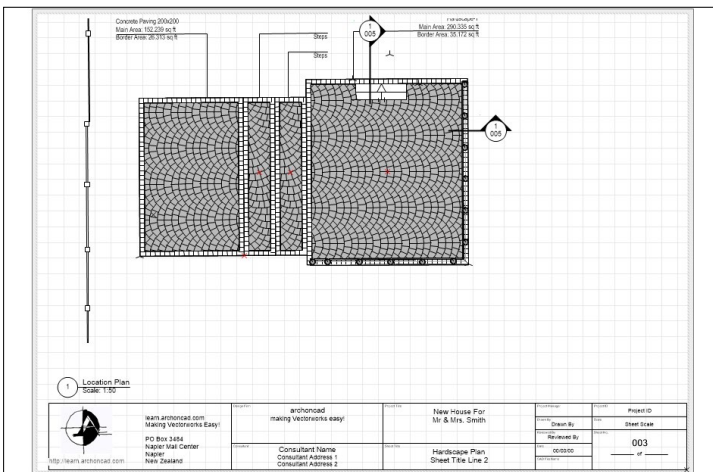
- Creating viewports is fundamental to creating your drawings. You can place more than one viewport on each sheet layer. The general rule is to put as many as appropriate on the sheet layer.
- In some cases the scale of the project will prevent you from having more than one viewport on the sheet layer. In the following example we only have room for one viewport.
- The purpose of the next drawing is to give the contractor a detailed view

of the entire project so it should include the site, planting, hardscape, buildings, patios, furniture, et cetera.

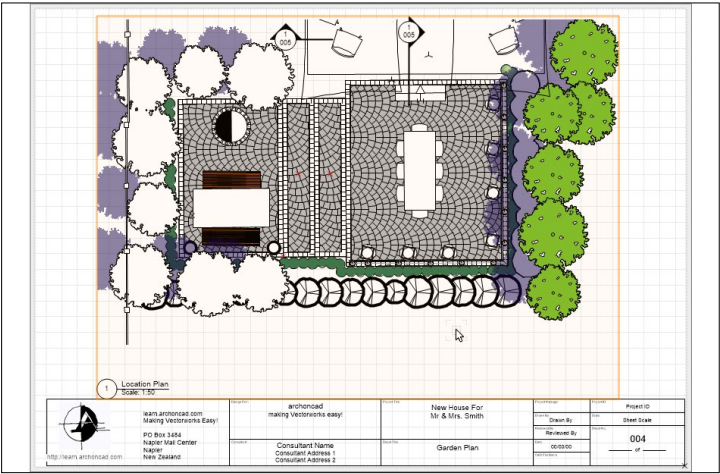
- Later on we will return to this drawing to create section references, detail references, and links to other drawings.



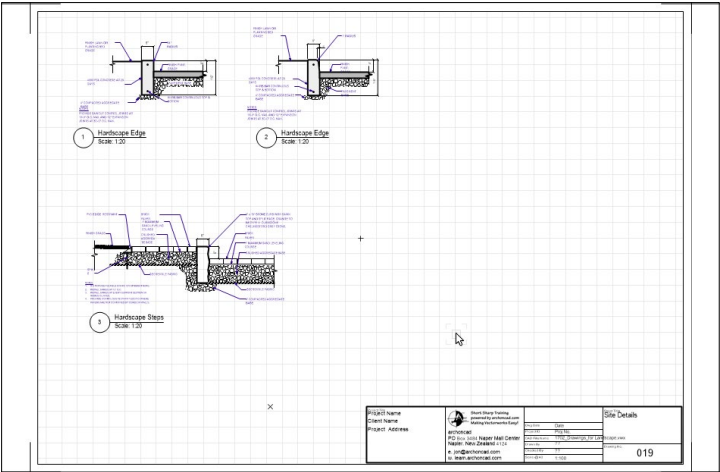
- The purpose of this drawing show the detailed layout for the hardscape. Because it's only showing the hardscape, we do not need to show the furniture, the site contours, planters, barbecues, et cetera. These items should be created on classes so that for this drawing those classes can be turned off.
- In the advanced section of this manual we will return to the drawing to create the detail references.



- The next drawing is similar to the drawing above, except that it wants to show many of the items that we switched off. So for this drawing we need to turn on the furniture, planting, stairs, et cetera.
- In the advanced section of this manual we will return to the drawing to create the detail references.



- This drawing will have all the details for the hardscape. You will find it easier if you create a separate design layer for drawing the details for a particular scale. Generally, I created design layer for each scale of details that I need to draw. So you will find in my drawings 1:5 scale layers, 1:10 scale layers, and sometimes 1:20 scale layers.
- Each detail on this sheet layer is a separate viewport. If you do not make these viewports individuals, it will be difficult to create detail references to each detail later on.



Intermediate Topics

The previous section was all about beginner topics, these are topics that everyone should know. This section is all about the intermediate topics that you will need to know in order to create your drawings from the 3D model.

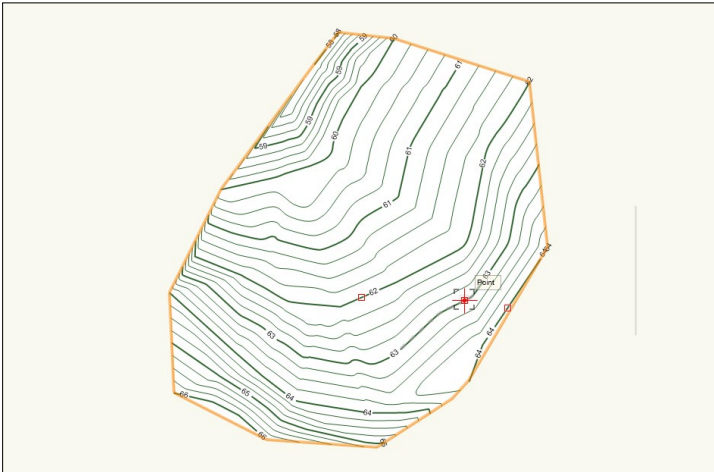
This section will be about how the 3D parts of the design work.

Site Model

This is one of the most valuable parts of your 3D design. In basic terms a site model is a 2D/3D representation of site model data. You are generally create this from imported survey data, imported drawings, or creating 3D objects over some form of plan.

Vectorworks will then use mathematical modelling to create the 2D contour plan and a 3D site model.

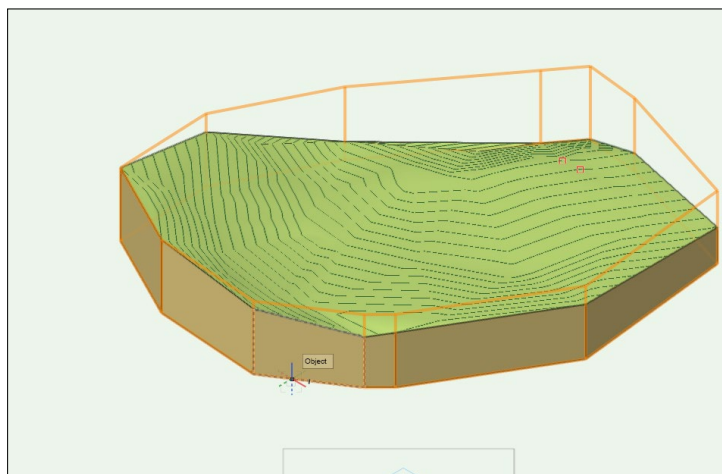
This image shows the 2D contour plan.



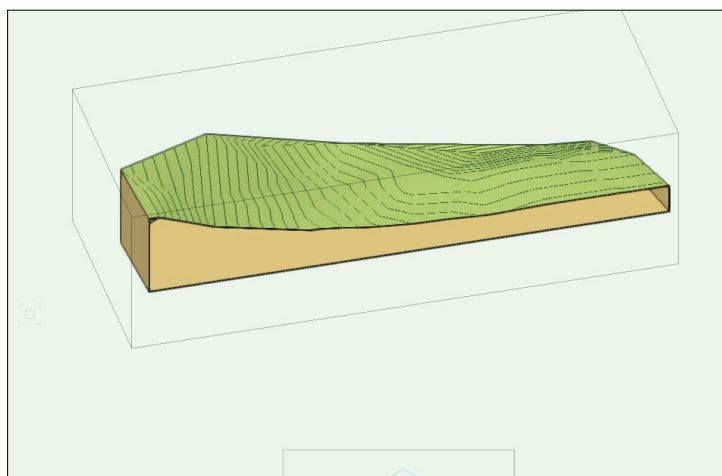
This image shows the 3D site model. the reason that the site model is so important is that it creates the three-dimensional form of the site. You can create site modifies to change the site and these will allow Vectorworks to calculate cut and fill volumes.

When you add plants they are automatically lifted to sit on the site model.

When you create hardscape areas you can use these to modify the site to cut out the required areas or to fill in the area underneath the hardscape.



When you want to create a section through your model, the site model can be used to create the section through the land.



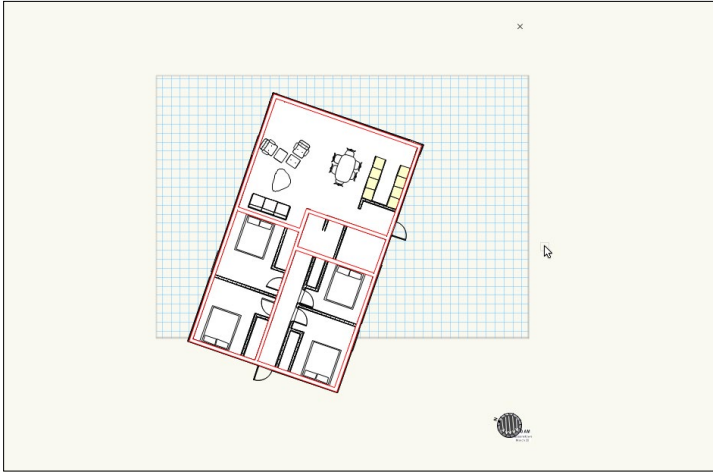
For an introduction to site modelling please refer to the Site Modeling manual (1506).

Buildings

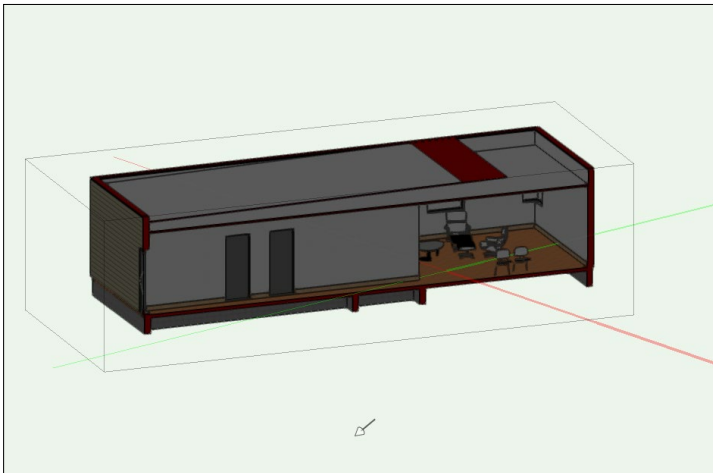
Buildings are also important. if you just need a simple building then it's easy to use a tool like the Massing Model tool. But the massing model doesn't show doors or windows and you can't stand inside the massing model and look out onto the landscape.

Drawing the actual building with walls, roofs, slabs, doors, and windows might seem a laborious way to create your landscape. But creating the building in simple terms with these tools and commands will allow you to see the interaction between the house and your landscape. It will also give you the opportunity to create visuals from inside the building to the landscape.

In this image I've even gone to the trouble of adding the furniture.



When you create a building using the appropriate tools, Vectorworks will create a three-dimensional building. This 3D building can be used to look around walk around and can even used to create the sections for your landscape.

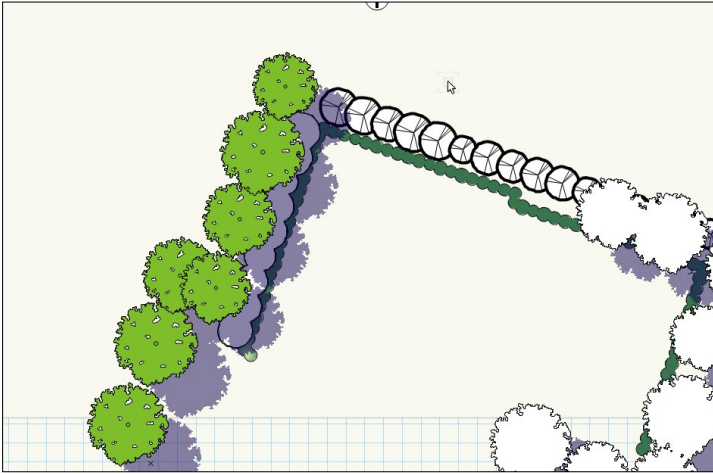


There are several manuals that cover drawing walls and inserting doors and windows. One of the most recent manuals ([1603](#)) related to creating renovation projects, in other words drawing the existing building.

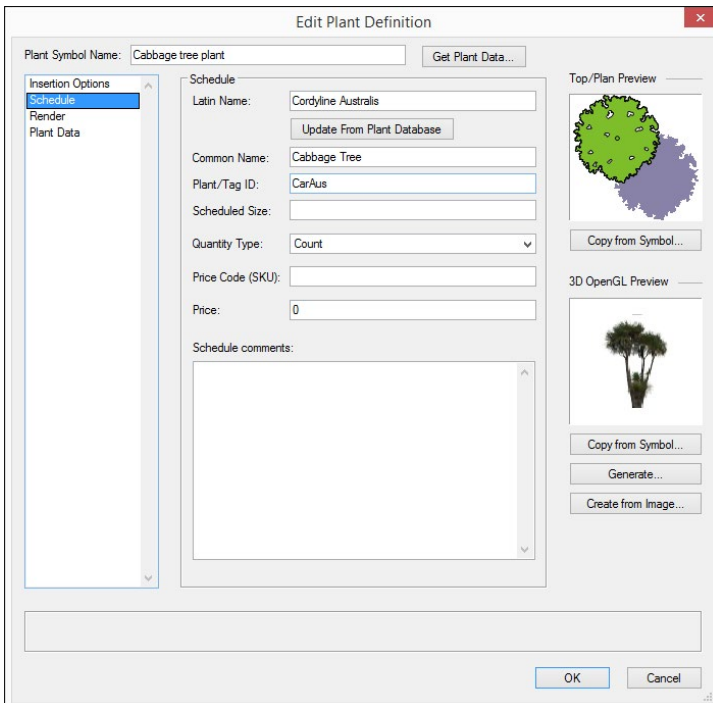
Plants

Plants are a combination of a 2D presentation, 3D presentation, and plant data. In this manual ([1402](#)) you will find information about how to create plants and how to connect plants to the Plants Database. For this manual we want to keep it brief, because were concerned about creating drawings. It is important that use plants correctly so I recommend that you refer to that manual.

- Use the Plant tool to place the plants as required. In this image I have turned off all the other layers and classes so that you can just see the planting.
- Many landscapers find it easier to put the plants on a separate layer from the other information.



- When you create your plants, make sure that you have the correct plant data, that you have the 2D graphic that you want, and that you also have the 3D visualization that you want.



- If you do not add the 3D component to your plants, you will miss out on the opportunity to create the visuals showing the plant.
- When you place plants on a site model, the plants are automatically lifted to sit on the surface of the site model. Therefore, it's important that

you create your site model as well otherwise you will have to manually lift all of your plants to the correct elevation.



Symbols

Symbols can really help the readability of your project. These chair symbols have been taken directly from the Vectorworks libraries. When you are trying to create spaces that the client will understand, furniture is really useful. you might also want to use symbols for planters, barbecues, tables and chairs, et cetera.

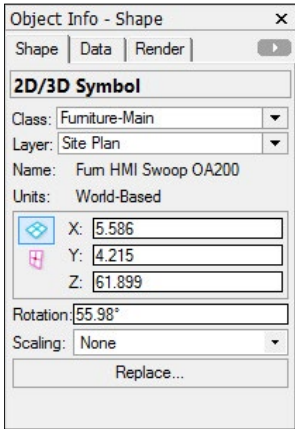
As well as being used for the drawings, symbols can also be used for reporting. Symbols can contain information as well as 2D and 3D graphics (much like the plants). This allows you to use symbols as part of your budget reporting.

- In the image below I have selected one of the chair symbols.

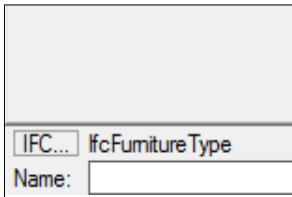


- the image below shows the object Info palette for this chair symbol.you will notice that the object Info palette contains information about the

name of the symbol as well as the layer and class for the symbol. As well as this, you can also use the Data pane to attach other information to the chair.



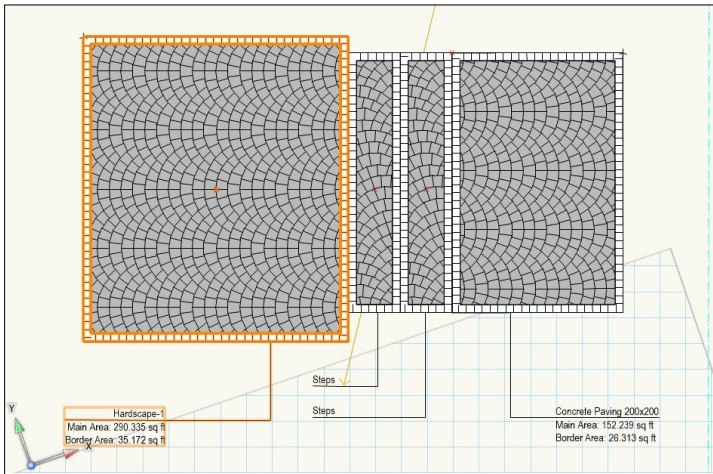
- When you use chair symbols from the Vectorworks library, they often have the correct IFC information attached. When you export this model as an IFC project, this chair will be exported as well



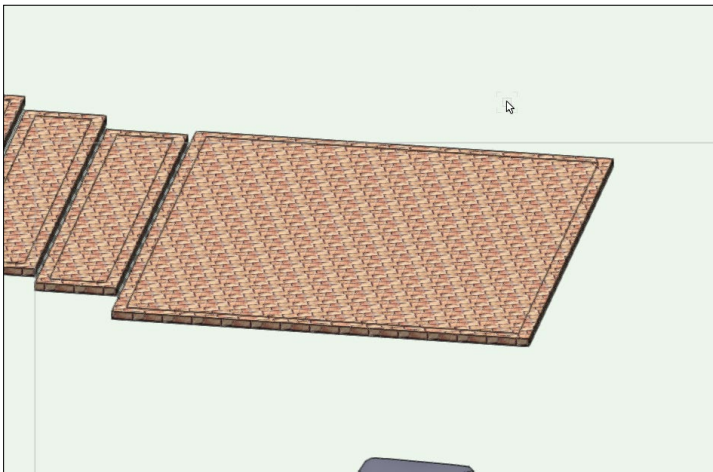
Hardscapes

Hardscape areas are used to create areas of paving. they are flexible in their shape, graphic style, texture, and they can also be used to create site modifiers.

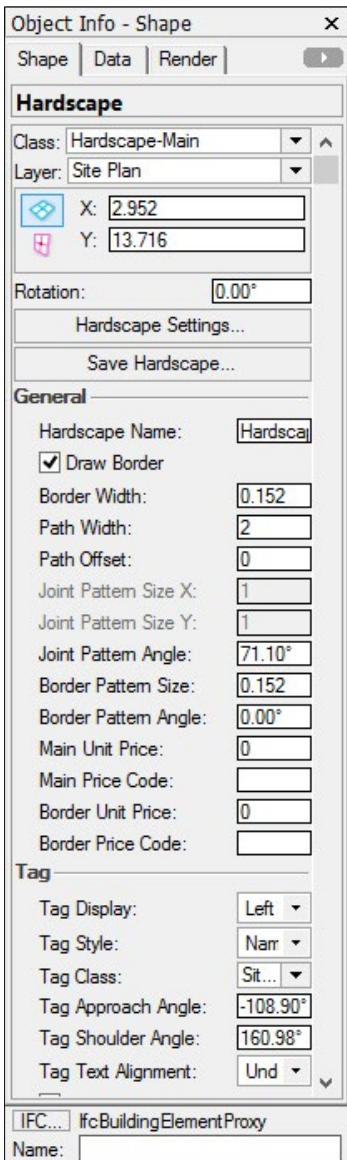
- There is a hardscape tool for drawing a hardscape and you can create a hardscape from a planar object, using the command Create Objects From Shapes...



- When you create a hardscape you also define the elevation of the hardscape. This allows you to create hardscape's with the correct elevation, even creating stepped areas.
- The hardscapes are also site modifiers, which means that these hardscapes can also change the site model creating areas of cut and fill.
- As well as having 2D graphic properties, hardscapes also have the ability to hold a texture. This allows you to choose the texture for the main area and the border area separately. In this image I have the same texture for both the main area and the border.



- When you select a hardscape, the Object Info palette shows a lot of the data related to this hardscape (but there are other settings that are available in the Hardscape Settings...)
- Hardscape objects also have IFC data attached to them. As with symbols and plants, when you export this project is in IFC project these objects will be exported as well.



- As well as controlling the graphic style of the hardscape, you can also add tags and assign those tags to a specific class. This allows you to choose when those tags will be visible by turning the class on or off in specific viewports.

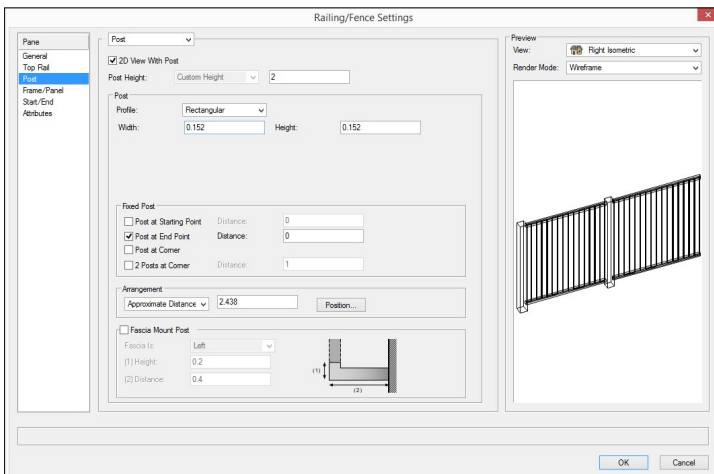
Fences

The Fence object was introduced in Vectorworks 2017. This object creates a hybrid object (it has both 2D and 3D components).

The fence can be drawn in 3D on the site model, which will then follow the rise and fall of your site.



- The tool comes with several predefined fence styles. you can use a predefined style, you can start your own style, we can start with a predefined style and then edit it to suit your design.
- Once you have a style that you prefer, you can then say that your library to use it on other projects.



Many of the objects covered in the section of the manual are what you might call BIM objects. They have 2D, 3D, and information attached to them. That means we can use the same object to create the plan as well as the elevations and perspectives. These objects are fundamental to creating efficient drawings.

Advanced Topics

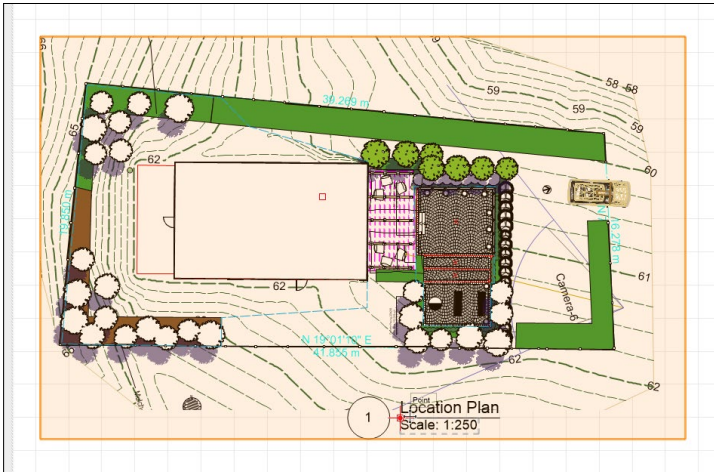
In the previous section we looked at several objects that will speed up the drawing process, especially when we come to create elevations, sections, and perspectives.

In this section we want to look at creating these types of drawings.

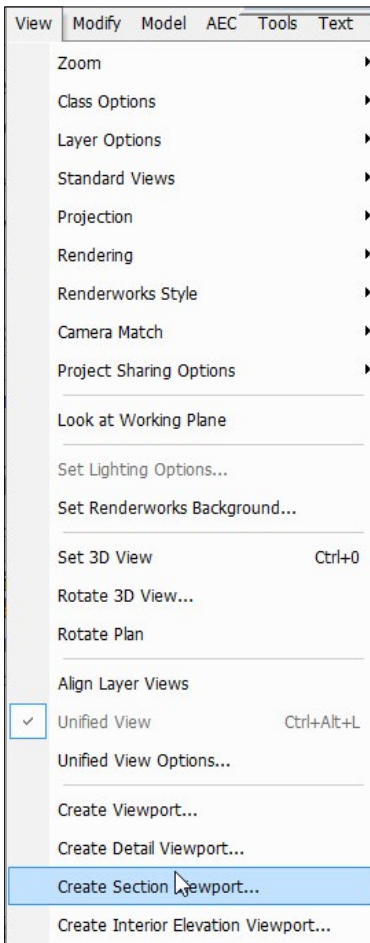
Section Viewports

A section viewport is a cut through your 3D model. You can create a section viewports through any part of your design. In the previous section we looked at several objects that we could use for the 2D and 3D part of the design. Now, we really need those 3D components, otherwise these sections well not be descriptive of the design.

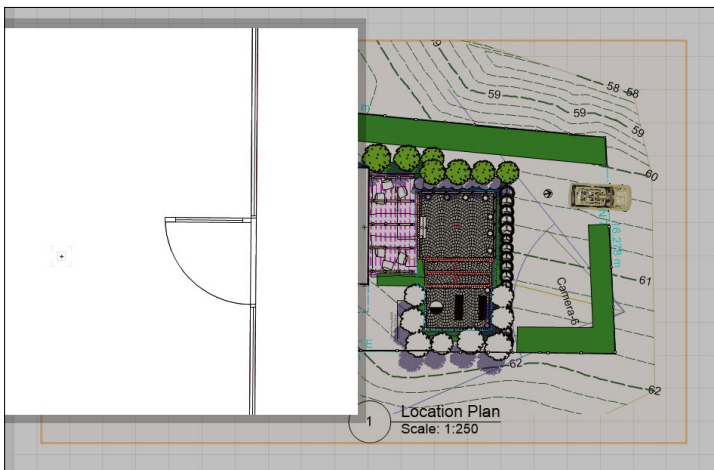
- You do not have to be on a Design Layer to create a section viewport. In the image below I have selected the location plan on the sheet layer.



- To create a section viewport you must use the correct command.
- Go to the **Menu** bar.
- Choose **View > Create a Section Viewport...**

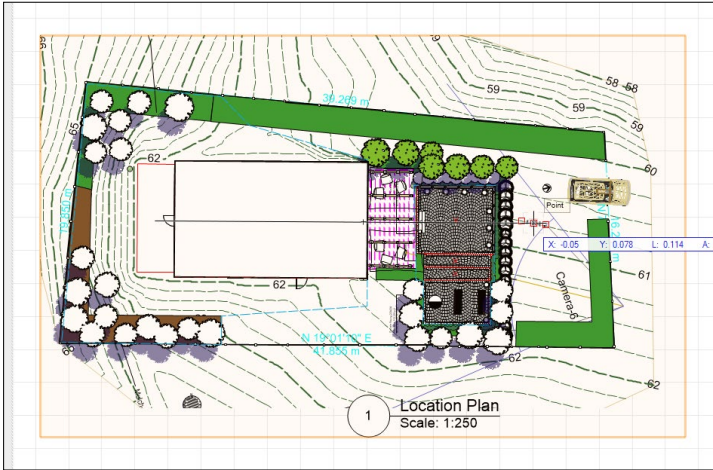


- Go to the viewport.
- Click once to start the section. This first click defines the start of your section viewport. You may want to zoom in temporarily using the Snap Loupe.

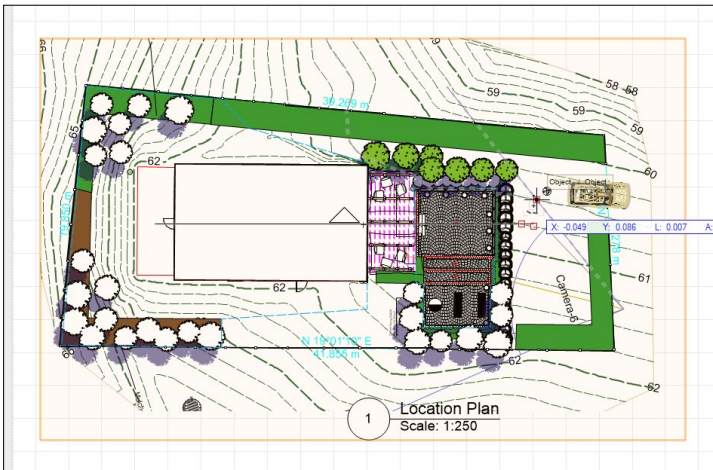


- The second click defines the end of the section line. You can create stepped section line by continuously clicking, but for this section I just

want to create a straight section line.



- Move the mouse to indicate which direction the section should be looking. Notice in the image below that there is an arrow looking up the page, this is the direction that the section will be looking. Don't worry if you make a mistake though, you can always change it later.



- Click once again to finish creating the section.
- The Create Section Viewport dialogue box will open.
- This dialogue box is similar to the other viewport creation dialogue boxes but it does have some extra abilities.
- Make sure that you have selected the required layers and classes for this viewport.
- Make sure that you have told Vectorworks what she lay you want the section viewport to appear on. In this image have chosen to put the section on the same sheet layer as the location plan.

Create Section Viewport [X]

☒ Name Viewport as Dwg No./Sheet No.

Viewport Name:

Create on Layer: [v]

☒ Create Drawing Label

Drawing Number:

Drawing Title:

☒ Display Objects beyond Section Plane

☒ Display Planar Objects

☐ Display Flattened

Scale: [v]

Custom Scale 1:

Rendering: [v]

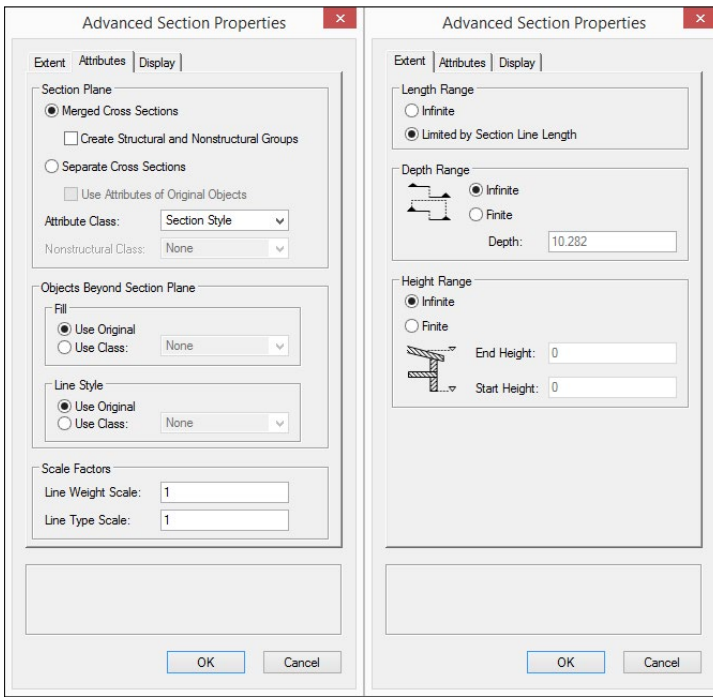
RW Background: [v]

Projection: [v]

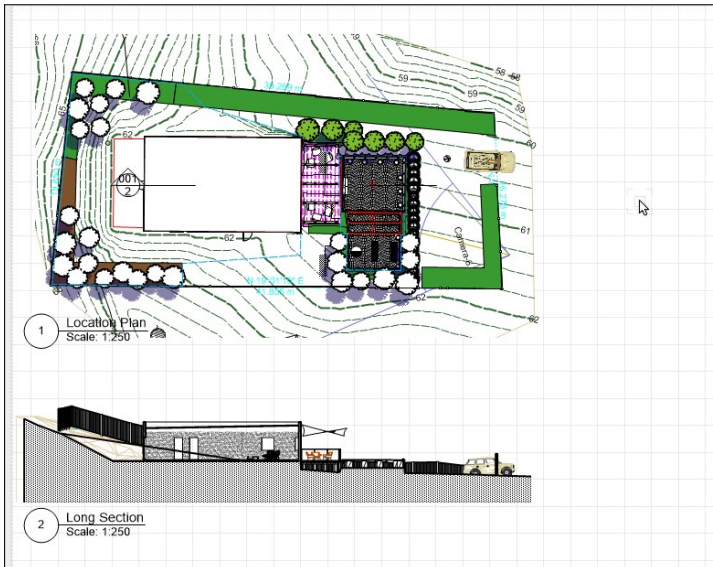
Perspective Type: [v]

Perspective Dist:

- The **Advanced Section Properties...** Button opens another dialogue box for you to choose the graphic style of the objects in the section.
- For conceptual drawings, **Merged Cross Sections** will give you the appearance of a single material through the entire project. This can often be useful to helping the client to understand the parts of the building the solid and the parts that are not.
- If you do not limit the length range of the section, your section will go through the entire project.
- The depth range is how far back your section viewport will show. If you want to see the fence then your depth range must be far enough back include this. Or, you can choose to have an infinite depth and you'll see everything (including the adjoining properties).



- If you lineup the section below the plan then it can give the client or the contractor a good understanding of the relationship between the section and the plan.

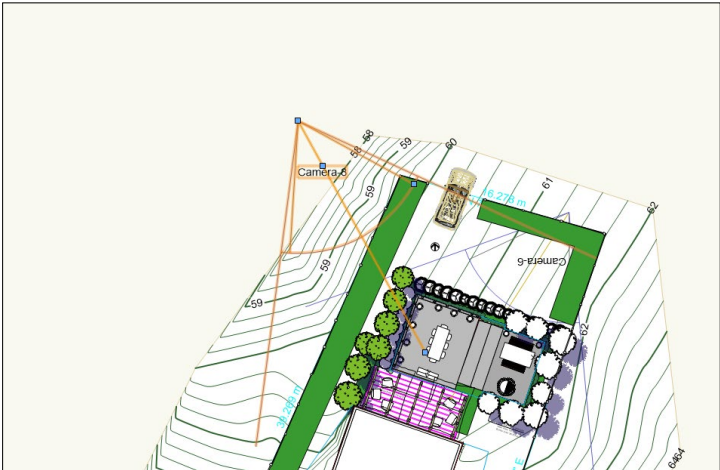


- Create section viewports for all the major parts of the design.

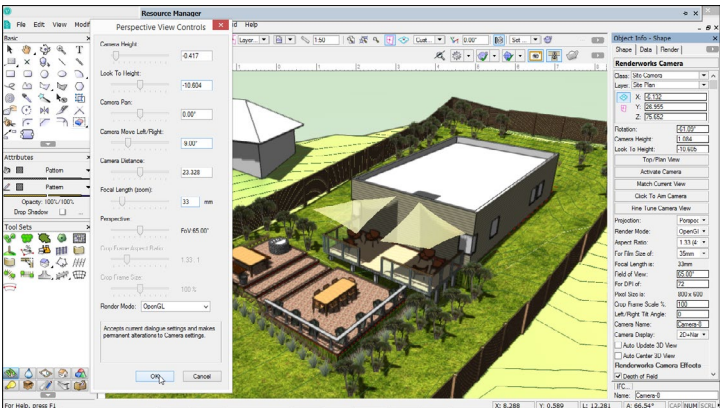
Perspective Viewports

Clients can often struggle to understand sections and plans. They often prefer to look at perspectives. Plans and sections often require the client to do a mental picture of what the project will look like, while perspective viewports do not require the client to do anything, they just have to look at the picture.

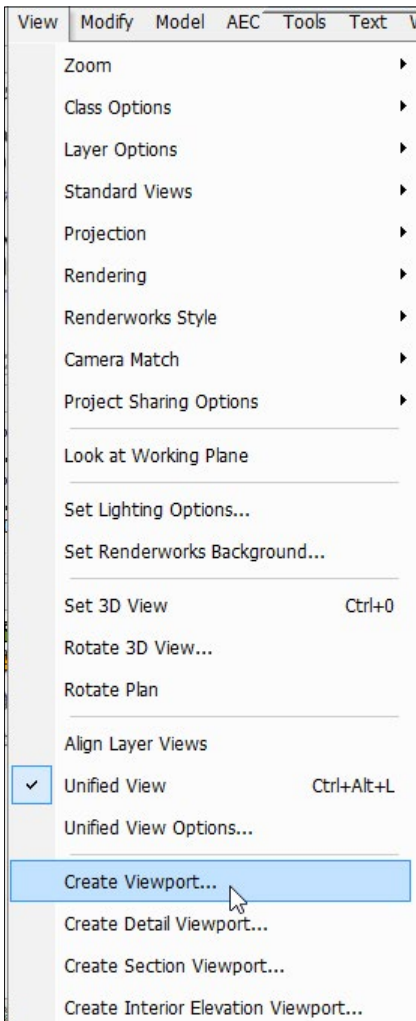
- To create a perspective viewport you can use a Renderworks Camera.
- The Camera is on the Visualisation toolset.
- The first click locates the camera, and the second click locates where the camera is pointing to.



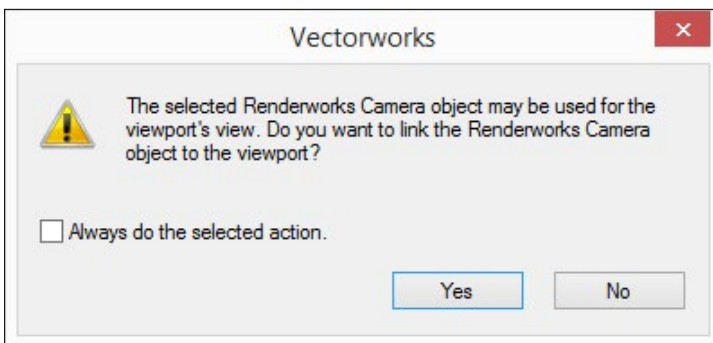
- You can use the Object Info palette to fine tune the camera.



- We have the required perspective view, you can use the camera to create a viewport.
- Make sure that the camera is selected.
- Go to the **Menu** bar.
- Choose **View > Create a Viewport...**



- If the camera is selected you should see this dialogue box telling you that the camera object will be used as the viewport's view.



- Click on the **Yes** button.
- The camera will be embedded into the viewport and you will no longer see it on the design layer. you will still be able to edit the camera through the viewport if you need to make a change.
- Fill in the settings for the Create Viewport dialogue box.

- Choose the required destination layer, layers to be included, and the classes that you want to be visible.
- Choose the required rendering options.

Create Viewport [X]

☒ Name Viewport as Dwg No./Sheet No.
 Viewport Name: 3/001
 Create on Layer: 001 [Concept Drawin] ▾
☒ Create Drawing Label
 Drawing Number: 3
 Drawing Title: [Drawing Title]

Source: Current Document
 Select Source...
 Layers...

☒ Display Planar Objects
☐ Project Screen Objects
 Classes...

Scale: 1:50 ▾
 Custom Scale 1: 50.000
 View: Custom View ▾
 Set View... (mouse cursor)

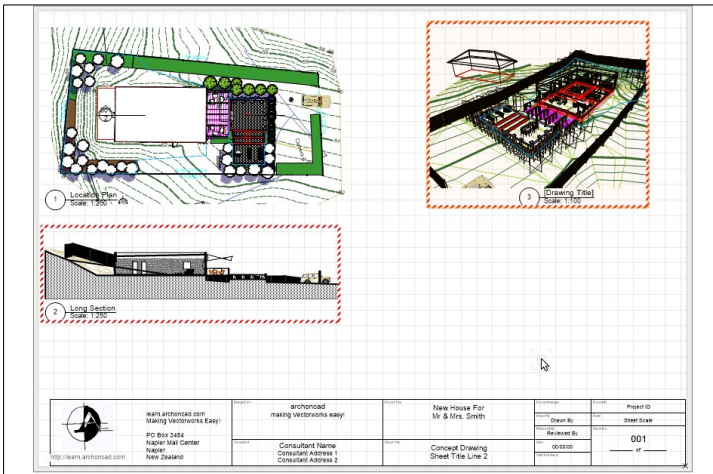
Rendering: OpenGL ▾
 Render Settings...

RW Background: None ▾
 Projection: Perspective ▾
 Perspective Type: Custom ▾
 Perspective Dist: 8.720

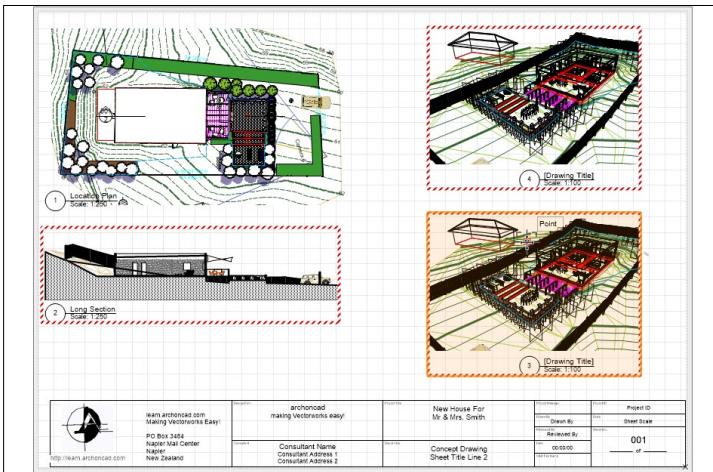
Click to display the 3D Rotation dialog for changing the view orientation for the Viewport.

OK Cancel

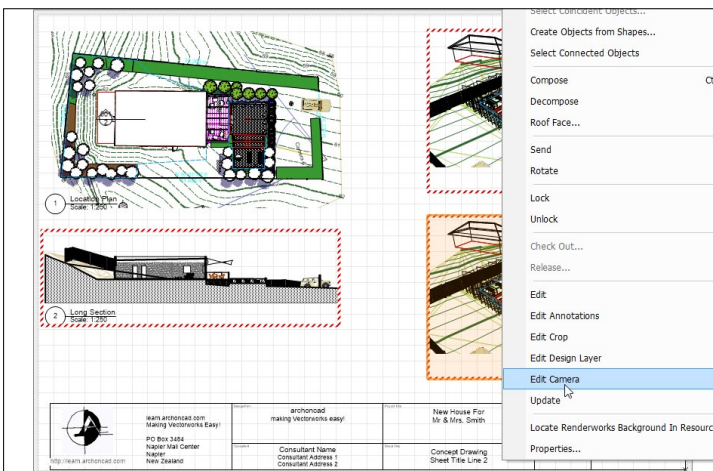
- Click on the **OK** button.
- Move the viewport to the required location.



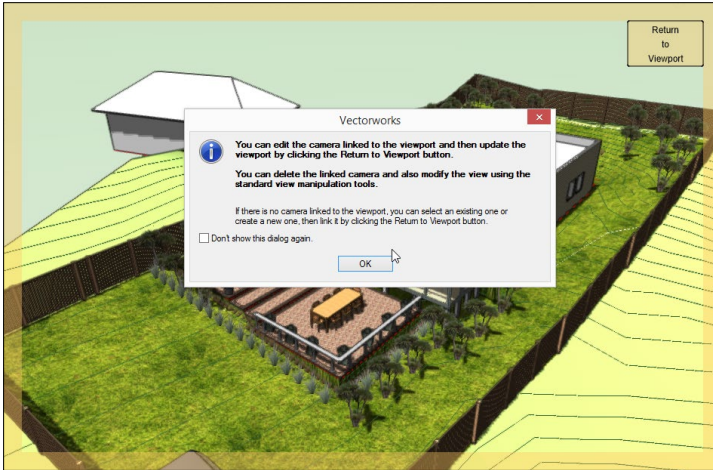
- if you need another perspective viewport, drag a copy of the first viewport. You can drag a copy by using the **ctrl** key on a Windows machine or the **option** key on a Macintosh.



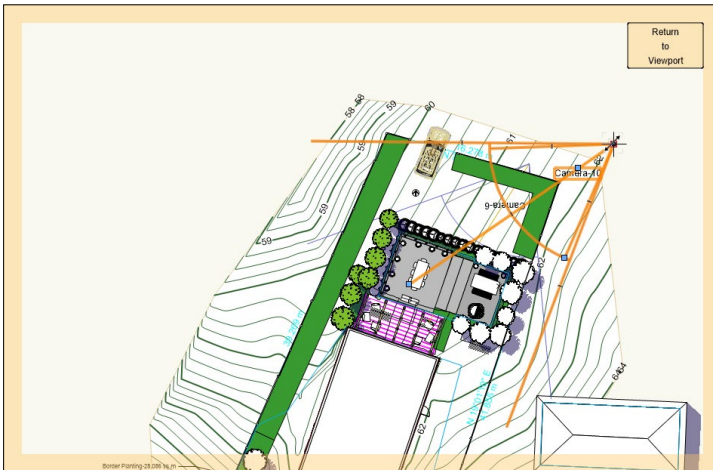
- Right click on the new viewport.
- Choose **Edit Camera**.



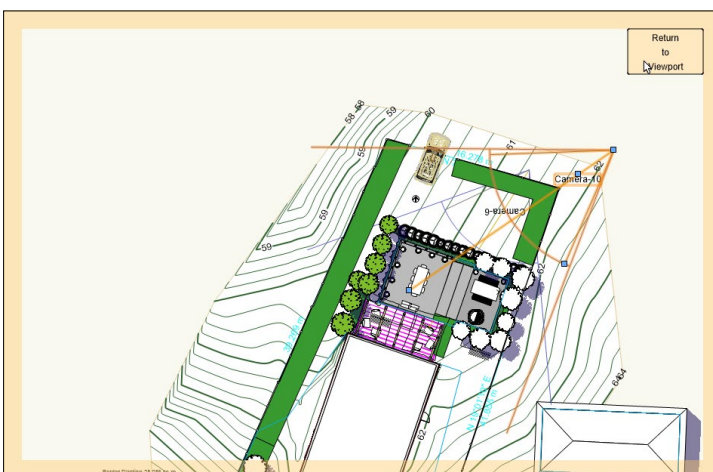
- This will take you back to the original design layer, show you the camera view, and the camera will be selected.



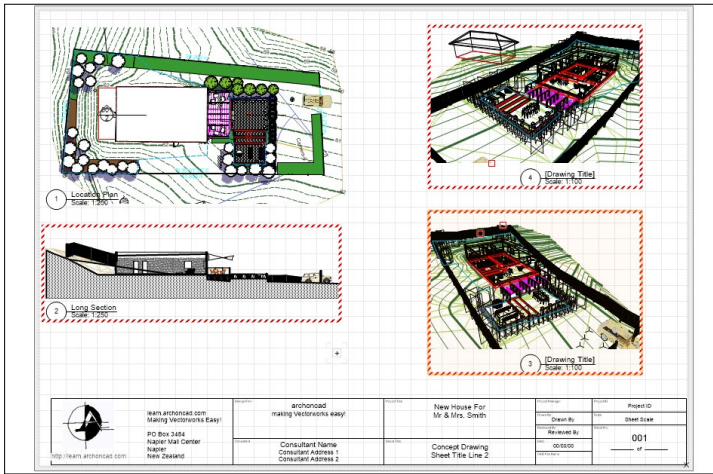
- Use the Object Info palette to fine tune the camera view, or change back to a Top/Plan view and use the selection tool to move the camera around.



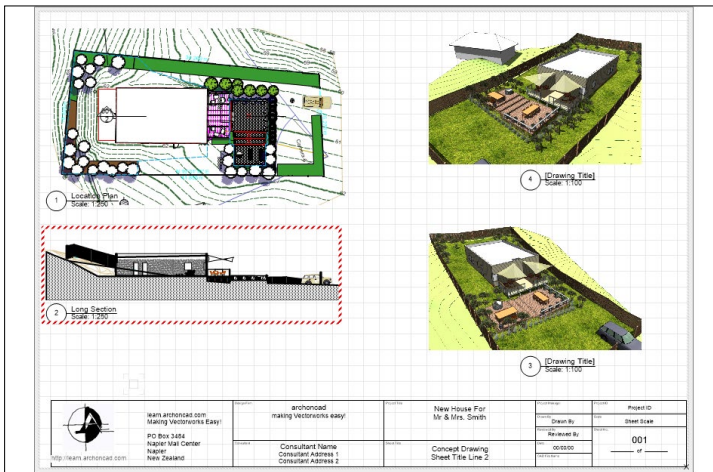
- When you have changed the camera to the required position, click on the Return to Viewport button at the top right-hand corner.



- The viewport will have updated on the sheet layer.



- Update the viewports to see the rendered views.

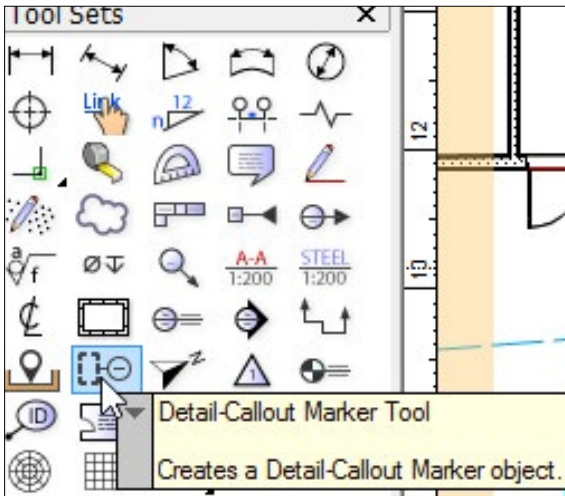


Linking Viewports

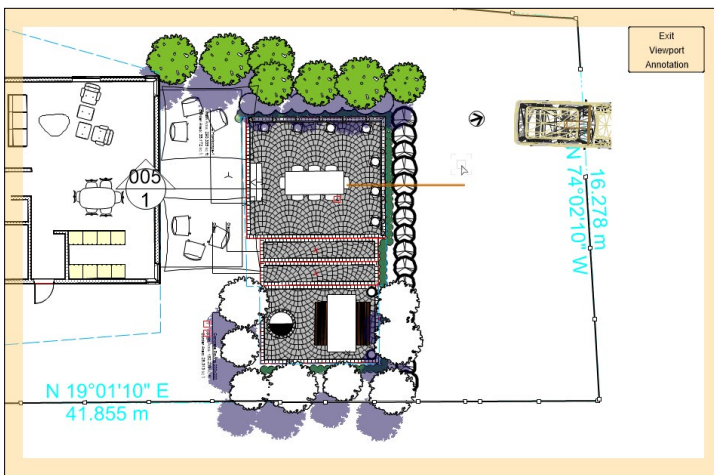
One of the new techniques is the ability to link a drawing label to a specific viewport. This has been possible with section viewport's and some detail viewports in previous versions of Vectorworks, but now it is available with all viewports if you use the correct Marker Tool. there are two marker tools that will link to the viewports: the Section-Elevation Marker tool and the Detail-Callout Marker Tool. Both of these tools are on the Dins/Notes Toolset. I tend to insert both of these objects inside the Annotations part of the viewport.

- A Detail-Callout Marker would be used to show an area that will be blown up into a larger scale detail. This might be an area of hardscape or it might be a detail in the section.
- Go to the Visualization Toolset.

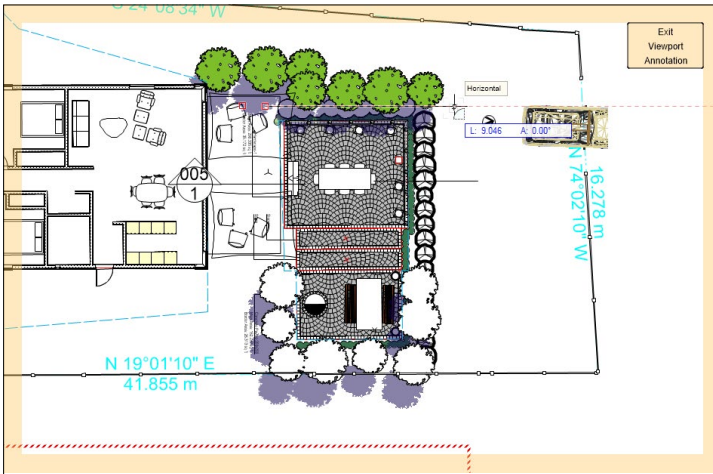
- Choose the Detail-Callout Marker Tool.



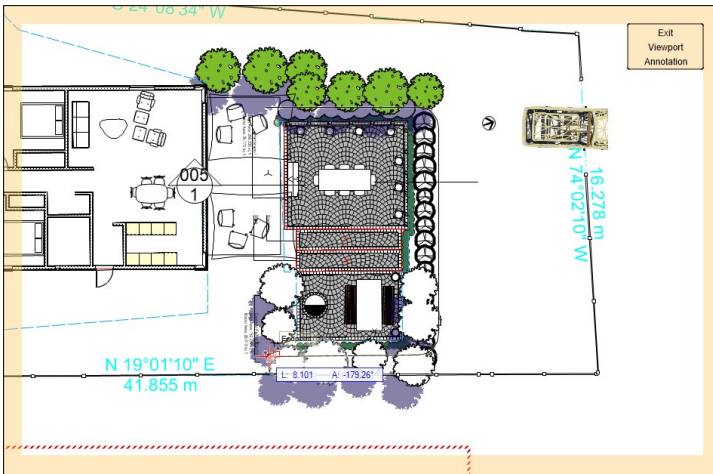
- In this example I will be drawing an area to show where to find more information about the hardscape. In other words this will have a link to my hardscape plan.
- Click once to start the detail callout.



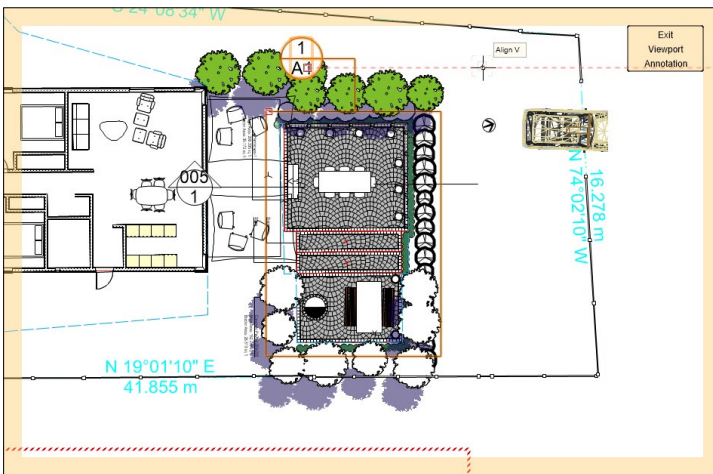
- Move across horizontally and click once more.



- Carry on clicking to define the shape and return back to the start point.



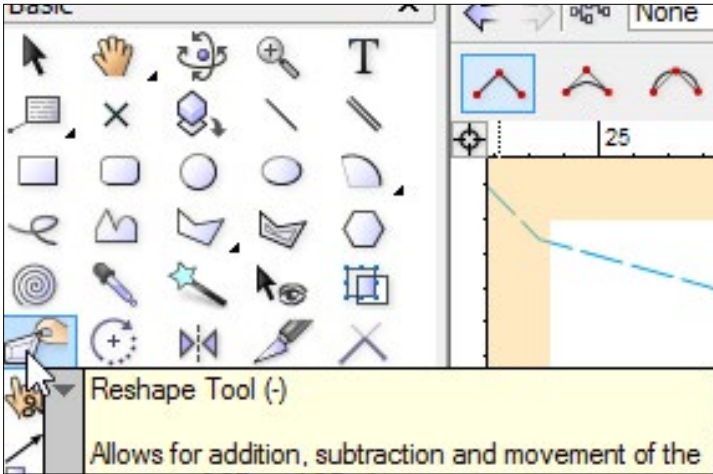
- When you click once more at your start location, the callout will be completed and the reference label will be shown.



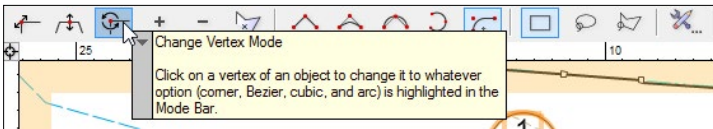
- In this case I have created a detailed callout with a square corners. it might be quicker if you set the polygon to have arc corners before you

start the detail callout.

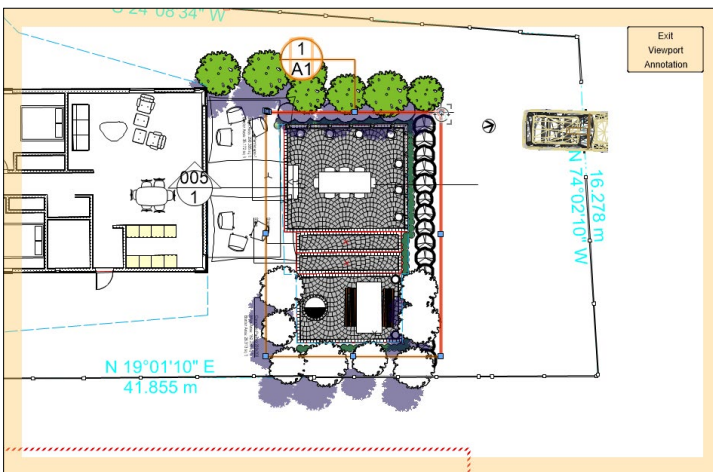
- After you have created your detail callout you can modify using the Reshape tool.
- Go to the **Basic** toolset
- Click once on the **Reshape** tool.



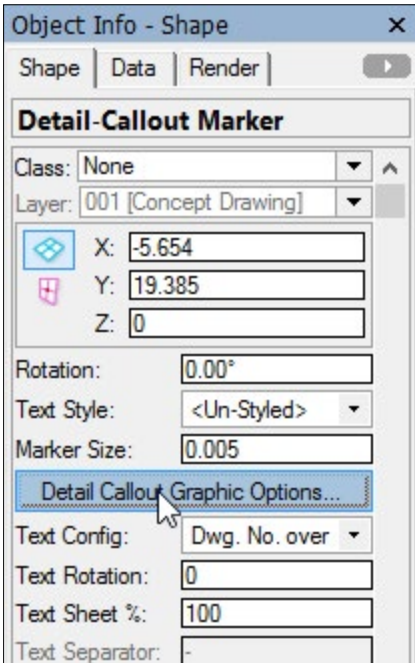
- Go to the **Tool** bar.
- I would like my detail callout to have arc corners, so I will be changing the vertex type. You might also notice that I have selected the arc or fillet vertex.



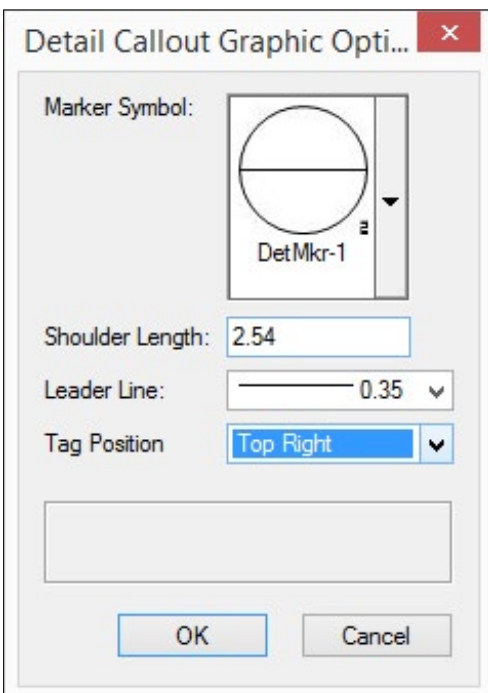
- When I click on each corner vertex, it is converted to a fillet vertex.
- Every corner that you want round off will have to be clicked on. You can see that would be quicker if you set the fillet corner before you start creating your detail callout.



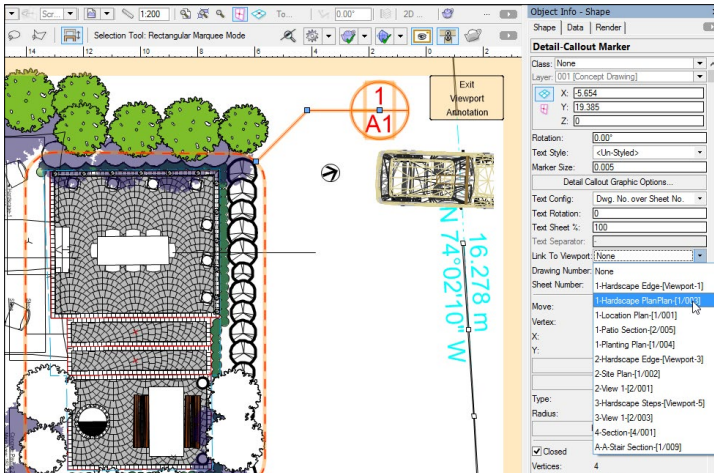
- The settings for your marker are on the Object Info palette.
- Click on the Detail Callout Graphic Options...



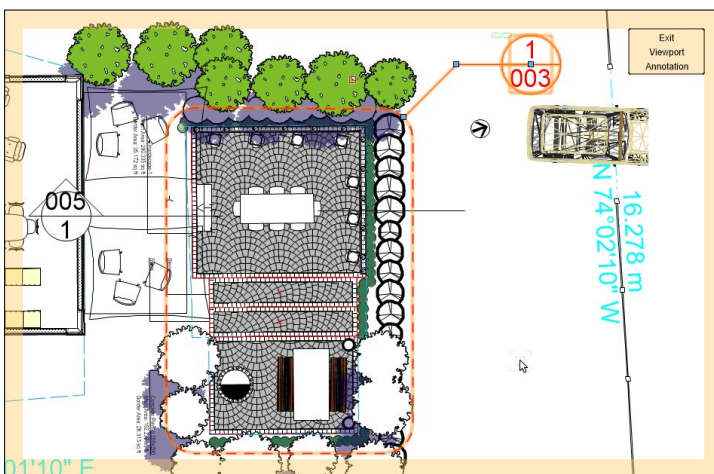
- This button will open a dialogue box allowing you to choose the location of your reference and the symbol (shape) for the marker.
- Choose the required settings. You might notice in this image I have chosen to have my marker symbol at the top right.
- Click on the **OK** button to close this dialogue box and return to the drawing.



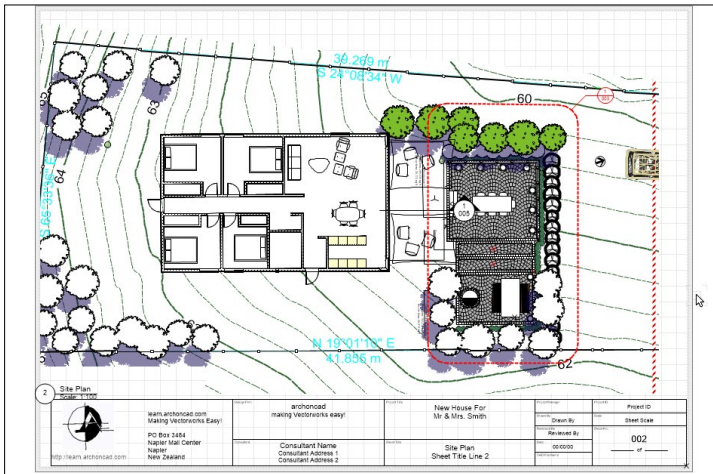
- This will have set the graphic style of your callout, but it has not linked it to the required viewport. Earlier in the manual we created viewports for the hardscape plan. This viewport should have had a unique identifier.
- Select the callout.
- Go to the Object Info palette.
- click on the **Link to Viewport** pop-up menu.
- Choose the required viewport. In this case I want to link to the hardscape plan which is on sheet 003.



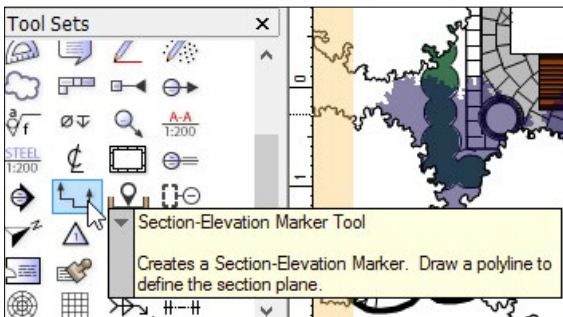
- When you link to a viewport Vectorworks will always link to the number and location of the viewport. If you change the number of the viewport the number in your sheet layer, the number well update automatically in your callout. If you change the location of the viewport to another sheet layer, the sheet layer number well update automatically in your callout.



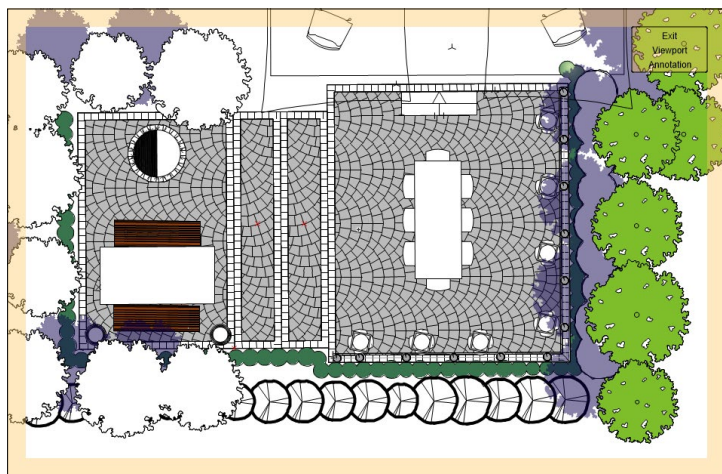
- When you have created all the required callouts, exit viewport annotations.



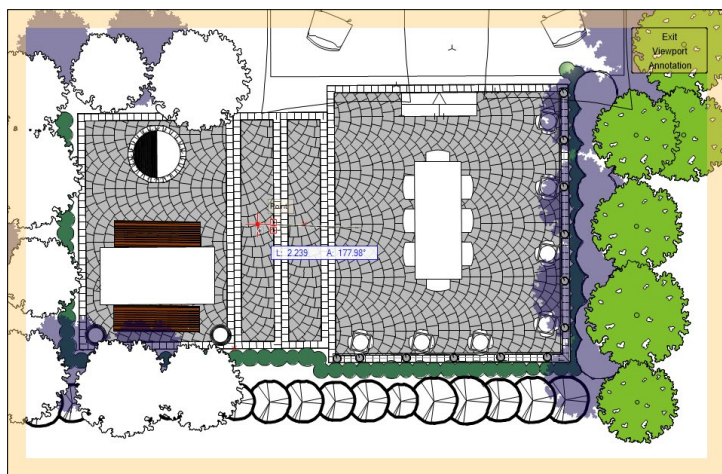
- The Detail-Callout Marker is ideal for highlighting an area and linking it to a viewport, but there are times where you want to indicate a section or detail through a part of your plan.
- The Section-Elevation Marker is ideal for this.
- Go to the **Visualization** Toolset.
- Choose the **Section-Elevation Marker Tool**.



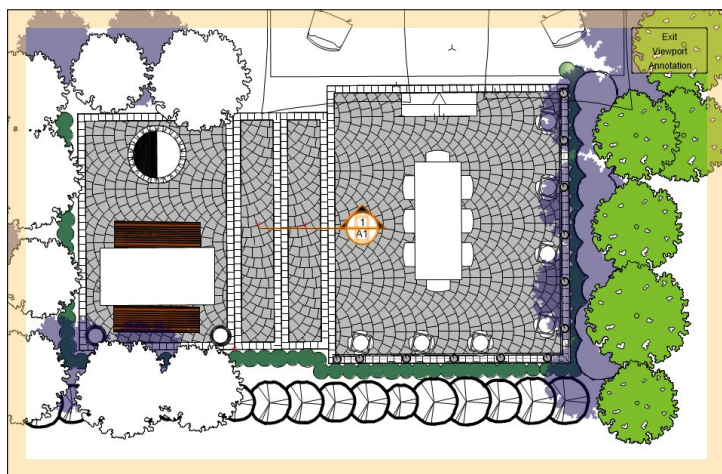
- enter the required viewport.
- Click once to start. In this case I'm going to be drawing a detail reference over the steps of the hardscape.



- Move your cursor to define the length of the detail reference.



- Double-click to finish the marker. If the marker was going in the wrong direction, you can use the Object Info palette to flip it or rotate it.



- Go to the Object Info palette.
- Click on the **Set Marker Styles** button.

Object Info - Shape

Shape | Data | Render

Section-Elevation Marker

Class: None

Layer: 004 [Garden Plan]

X: 0.26

Y: 1.96

Z: 0

Rotation: 0.00°

Text Style: <Un-Styled>

Configuration: Section

Flip

Set Marker Style(s)...

Link To Viewport: None

Marker Size: 0.01

☐ Use Gapped Line

Gap Line Length: 0.025

☒ Text Auto-Rotate

☐ Text Both Ends

Text Config: Dwg. No. over

Text Rotation: 0

Text Sheet %: 100

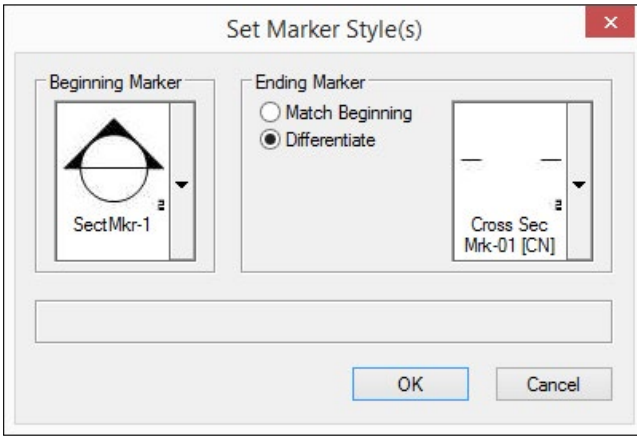
Text Separator: -

Drawing Number: 1

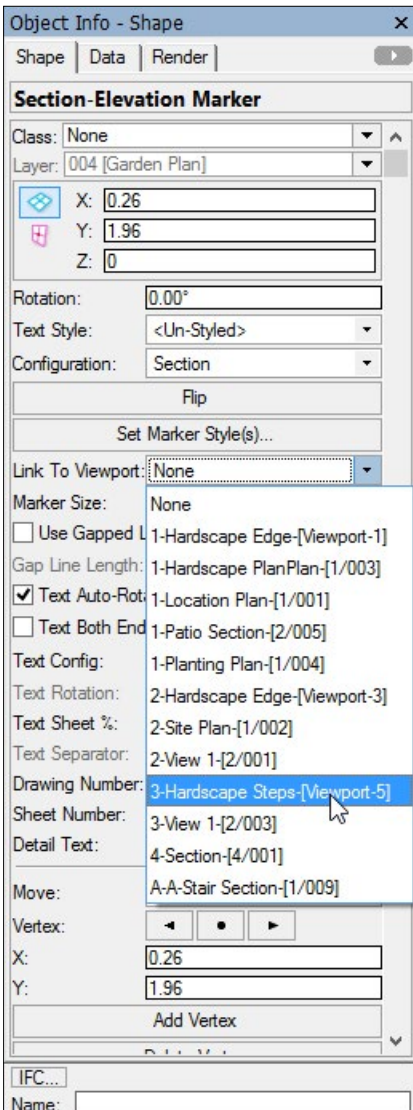
Sheet Number: A1

Detail Text:

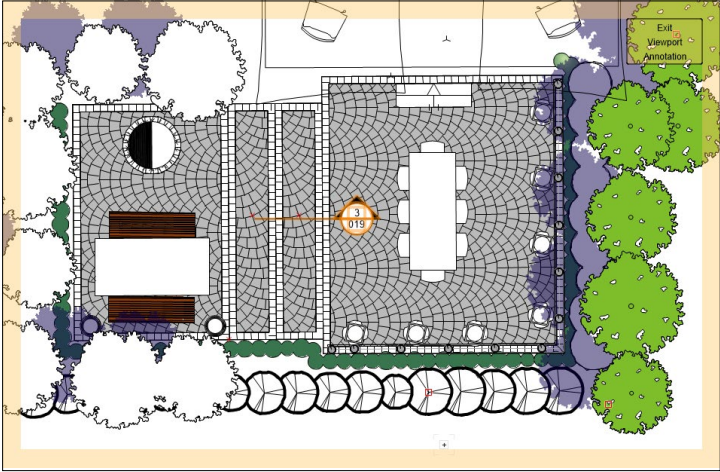
- This button will open a dialogue box allowing you to choose the location of your reference and the symbol (shape) for the marker.
- Choose the required settings. You might notice in this image I have chosen to have no marker at the end.
- Click on the **OK** button to close this dialogue box and return to the drawing.



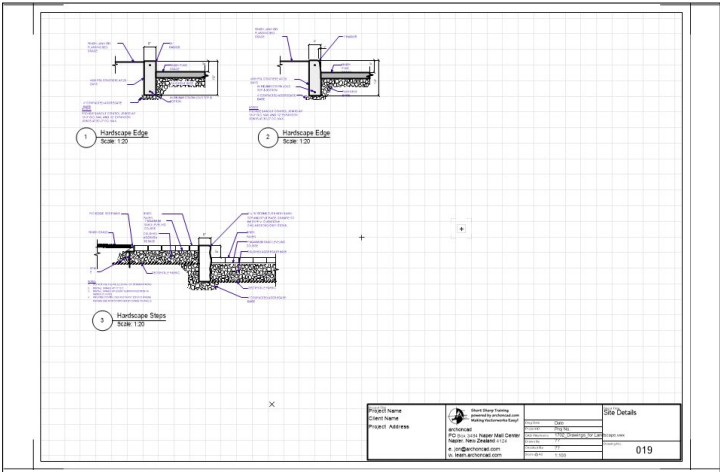
- Go to the Object Info palette.
- Click on the **Link to Viewport** pop-up menu.
- Choose the required viewport.



- When you link to a viewport Vectorworks will always link to the number and location of the viewport. If you change the number of the viewport the number in your sheet layer, the number well update automatically in your callout. If you change the location of the viewport to another sheet layer, the sheet layer number well update automatically in your callout.



- When you have created all the required callouts, exit viewport annotations.



Linking your viewports to the markers is a powerful way of connecting your drawings together. If you do not use this technique to link to your viewports, you will have to manually update your references and manually check these references any time you make a change to the drawing. This is a mistake waiting to happen.

Conclusion

There are some powerful techniques for setting up drawings for landscape project. But these techniques are not unique to landscape projects. Almost all the techniques covered in this manual can be used for creating drawings for any project. Regardless of your profession, you can apply the techniques that you learned in this manual.

You might also have noticed that some of these techniques are too large to cover in this manual and you have been referred to other manuals. Please have a look at these and other manuals to learn more about these techniques.

I'm a strong believer in using the tools and techniques in Vectorworks to ensure that there is a link between your design work and your drawings. For example, creating a site model with modifiers means that your visualisation is accurate, and the sections through the building and landscape are also accurate. This removes a lot of double working. Another example would be to use the callout markers to link your detail references to viewports on other sheet layers. This is a great way of ensuring that your details are correctly referenced. When you move your details or change the sheet number, the reference updates automatically. This is a great timesaver.

Thank you

We trust that you have enjoyed working through this manual and that it has been informative and constructive.

For more information, please visit: <http://learn.archoncad.com/>. If you just want someone to help you learn Vectorworks, to carry out some Vectorworks contract work, or you want someone to make Vectorworks easier, contact us, as this is a service that we also offer:

jon@archoncad.com

Thank you again,
Jonathan Pickup
February 2017