# **User Guide 57 ePlan Visualisation Enhancement Tool**

# **Purpose of this User Guide**

The purpose of this User Guide is to provide information on how to use the ePlan Visualisation Enhancement Tool (VET) to improve the presentation of the Plan PDF generated by SPEAR from the ePlan LandXML file.

# Who should read this guide?

Primary audience: **ePlan enabled Applicant Organisations** 

For information: Other SPEAR users

#### **Introduction**

This tool allows the Victorian ePlan-enabled surveyors to enhance the Plan PDF visualised by SPEAR, using the following main functions:

- adjust labels and arrows
- create enlargement diagrams
- define sheets
- define exaggerations
- adjust title connections.

#### 57.01. How can I access VET?

VET is accessible through the following views:

#### **Document Details View within SPEAR**

From the Details screen of the application in SPEAR, click the <u>Plan of Subdivision</u> document link and then in the Current Document details page click the <u>`ET'</u> button.



Alternatively, you can access VET by selecting 'Enhance Diagram' option from the drop-down list next to <u>Plan of Subdivision</u> and clicking 'go'.



If you need to download the enhanced diagram file, in the Current Document details page click the 'ED' button.



#### **Public View**

By accessing the ePlan Services available at: <a href="https://www.spear.land.vic.gov.au/spear/eplanPublicServices/Prepare.do">https://www.spear.land.vic.gov.au/spear/eplanPublicServices/Prepare.do</a>

Tick the 'Visualise' checkbox and upload your ePlan LandXML file.



NOTE: If you already have an Enhanced Diagram File, you can upload it along with your XML file in this screen. Enhanced Diagram File is a file in JSON (JavaScript Object Notation) format which includes the diagram representation information and can be downloaded from the ePlan Visualisation Enhancement Tool.

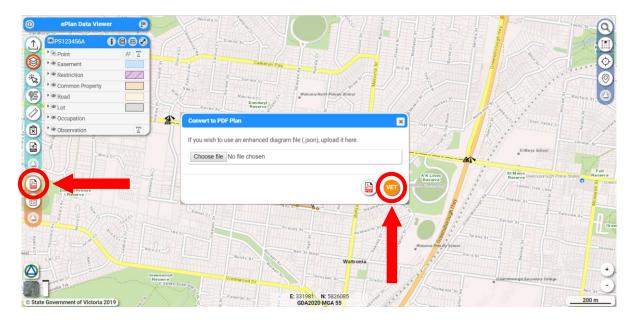
For more information, see 'What are the ePlan Services?' section of <u>User Guide 52 – Creating ePlan</u> Applications Using ePlan Services.

#### **ePlan Data Viewer**

By accessing the ePlan Data Viewer at <a href="https://www.spear.land.vic.gov.au/spear/Eplan/dataViewer">https://www.spear.land.vic.gov.au/spear/Eplan/dataViewer</a>.

After uploading the LandXML file to the Data Viewer environment, click 'Convert to PDF Plan' button and select 'VET' option.

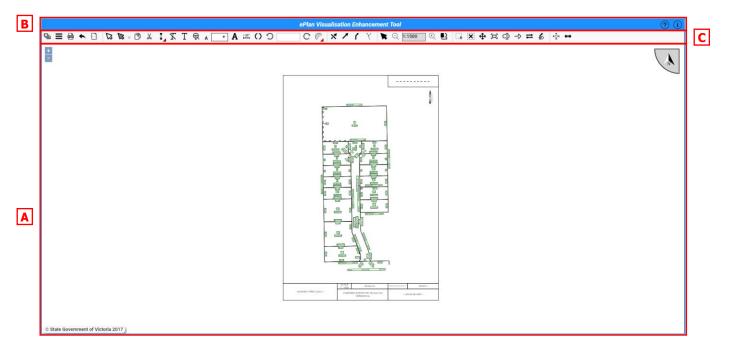
NOTE: This is the same as accessing VET in Public View, If you already have an Enhanced Diagram File, you can upload it along with your XML file in this screen.



# 57.02. What are the components of VET?

VET consists of the following components:

- A. Display Area
- B. Header
- C. Toolbar



#### A) Display Area

This area shows the diagram part of the plan.

NOTE I: The front sheet and Owners Corporation Schedule are not displayed in VET. Any changes required to those sheets must be applied to the ePlan LandXML file using ePlan-enabled software packages.

NOTE II: On the Restriction Sheets, only the diagram's content such as labels and arrows can be enhanced in VET. Restriction text is just displayed and it's not editable in VET. Any changes required to the Restriction text must be applied to the ePlan LandXML file using ePlan-enabled software packages.

#### **B)** Header

The header provides access to two buttons:

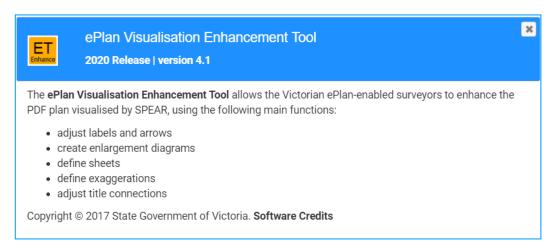


#### Help

The 'Help ?' button provides access to the current User Guide. Click this button to open the User Guide in a separate tab in your web browser.

#### **About VET**

The 'About  $\mathbf{i}$ ' button provides further information about the VET's copyrights, contributors, credits, etc.



# C) Toolbar

The toolbar provides access to all functionalities of VET. The toolbar consists of the following components:

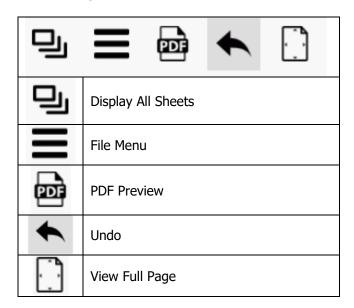


- A. General Tools
- B. Label Tools
- C. Arrow Tools
- D. Diagram Tools

- E. Enlargement Tools
- F. Exaggeration Tool
- G. Truncation Tool

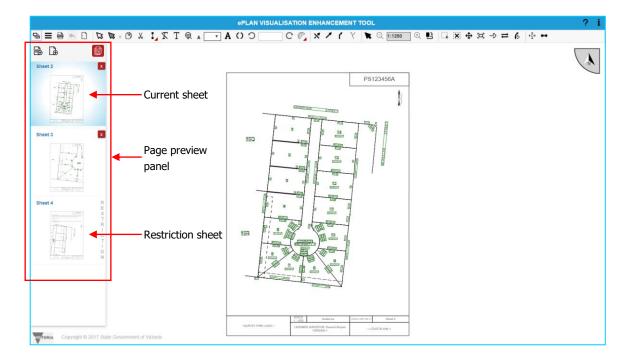
# **57.03. General Tools**

The following tools are available in the 'General Tools' section:



# **Display All Sheets**

This button opens the page preview panel. This panel provides an overview of all sheets in the plan including the Restriction sheets, if applicable. The current sheet is shown as highlighted in the panel. To navigate to another sheet, click on that sheet.



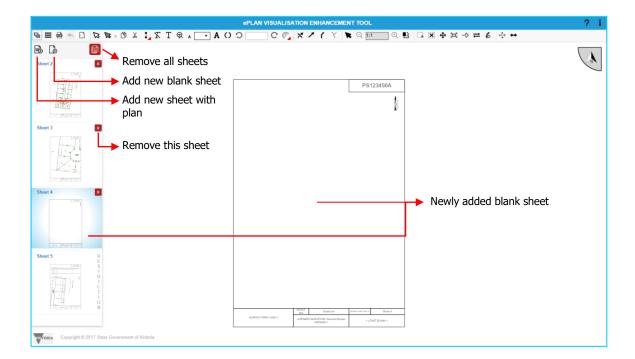
#### **Add sheet**

The panel can also be used to add or remove sheets to / from the plan. There are two methods to add a new sheet to the plan:

- 1. Click the 'Add new sheet 'button to add a new sheet including a diagram. By default, this new sheet contains all the line work and labels in the ePlan data.
- 2. Click the 'Add new blank sheet button to add a new blank sheet with no diagram on it. New enlargement diagrams can be added to the blank sheet using the 'Create Enlargement 'L' tool. Blank sheets will have no 'SCALE' as each diagram on this type of sheet will have its own scale.

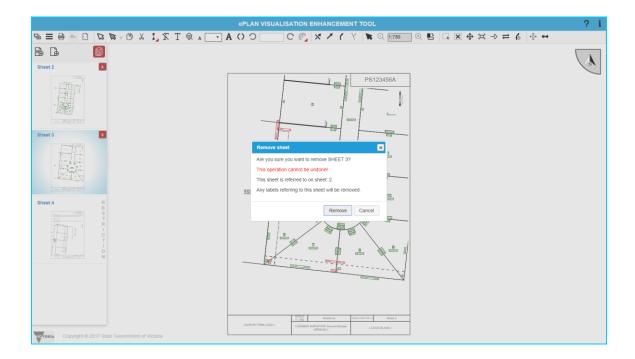
The new sheet will be added to the end of the list as the last sheet. The sheets can be reordered by dragging and repositioning the sheets.

NOTE: If the plan has Restriction sheets, the new sheet will be added before the first Restriction sheet. Restriction sheets' order is controlled by the ePlan visualisation service and these sheets cannot be reordered by the user.



#### Remove all sheets

To remove all sheets, click the 'Remove all sheets button. A dialog box will appear to confirm your action. Clicking the 'Remove' button will remove all sheets (except the Restriction sheets) from the plan. New sheets can be added to the plan using the 'Add sheet' function.

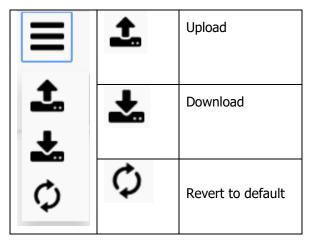


#### **Remove sheet**

To remove a sheet, click the 'Remove this sheet 'button. A dialog box will appear to confirm your action. If the sheet being removed is referenced on other sheets, the dialog box will notify you about those sheets. Clicking the 'Remove' button will remove the sheet from the plan and will also remove any 'See Sheet' references to that sheet on other sheets.

#### **File Menu**

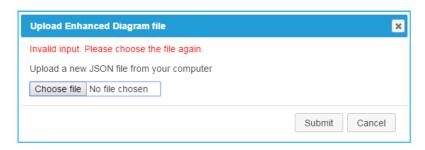
The 'File Menu' has three buttons:



# **Upload**

The 'Upload 'L' button allows you to upload an enhanced diagram file from your computer onto VET. This may be useful in situations when it is not possible to make all necessary edits to the plan in one session. In such cases, you have the option to save the unfinished work by downloading the enhanced diagram file and later uploading it and continue finishing the remaining work.

VET validates the uploaded enhanced diagram file which should be in JSON format. If your uploaded file is invalid, VET provides you with an error.



#### **Download**

The 'Download 'button provides you with the option to save any unfinished work by downloading the enhanced diagram file. The downloaded file can be later uploaded onto the VET to resume the work. The file will be downloaded in a JSON file format.

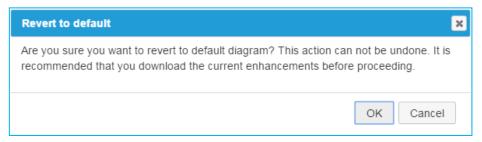
#### **Revert to default**

The 'Revert to Default 'D' button is useful in situations where you have edited the plan but for any reason wish to go back to the default visualisation. This function will replace the current visualisation with a default visualisation created by the ePlan visualisation service.

#### **PDF Preview**

The 'PDF Preview '' button generates a PDF for the plan as seen in VET.

You can click the 'Revert to Default' button and change the visualisation to the original visualisation undertaken by SPEAR. Once you click the 'Revert to Default' button, VET shows you a dialog box to confirm that you would like to revert to the original visualisation.



NOTE: Since you will lose all your enhancements by reverting to the default visualisation, it is recommended that you download the enhanced diagram file from VET before proceeding with 'Revert to Default' action.

# **Undo**

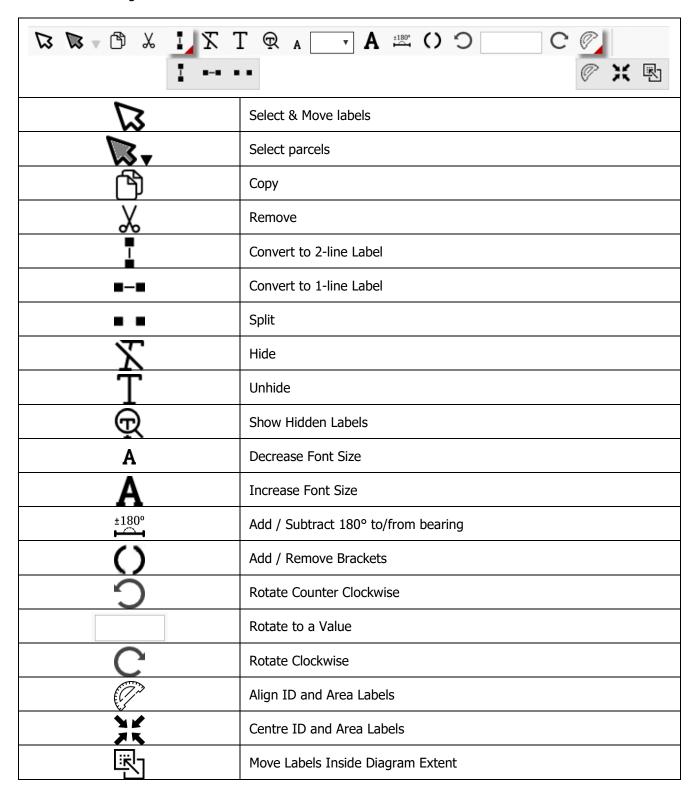
The 'Undo  $\checkmark$ ' button allows the user to undo their actions. The Undo function is also accessible using the keyboard shortcut 'Ctrl + Z'.

#### **View Full Page**

The 'View Full Page '' button zooms the page view to fit an entire sheet in the plan display area.

# 57.04. Label Tools

The following tools are available in the label tools section:



#### **Select & Move**

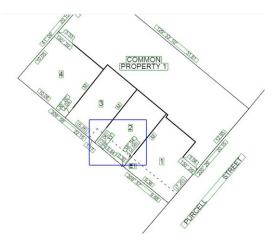
Clicking the 'Select & Move 'S' button activates the label selection mode. The icon will be highlighted to show the activated status. To select a label, click on the label. To move a label, select it and then drag the mouse. Moving a bearing and distance label will automatically generate an arrow from the associated line to the label. For parcel identifier label, an arrow will be automatically generated when the label is moved outside a closed parcel.

Arrows drawn for any label can be edited in VET. Please see the 'Arrow Tools' section of this guide for information about editing arrows.

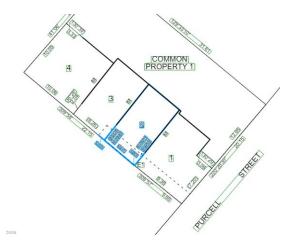
NOTE: When the selected label is a 'Referencing Label', using this tool to move the label will only move the label itself. Holding 'Control Key (Ctrl)' on keyboard before starting to move the label will move the corresponding arrow together with the label. When the label is selected, by pressing the 'Control Key (Ctrl)' the related arrow will be highlighted.

#### Selecting multiple labels

To select multiple labels, press 'Shift' and click the labels. Pressing 'Shift' and clicking a label will select that label in addition to other selected labels. Pressing 'Shift' and clicking on a previously selected label will deselect that label from the group. To select all labels in a specific area, press 'Ctrl' and drag the mouse. Labels from a single diagram can be selected at the same time, when dragging is started using 'Ctrl' and a diagram's border will get highlighted to determine the active diagram.



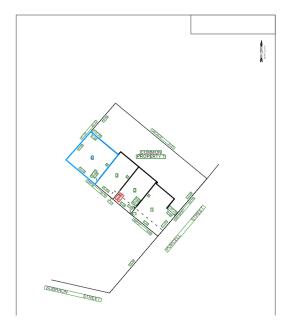
Selecting multiple labels through pressing 'Ctrl' and dragging the mouse

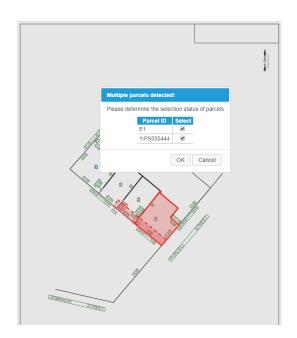


Selecting multiple labels through pressing 'Shift' and clicking on labels

#### **Select Parcel**

The 'Select Parcel' tool can be used to select the labels of a given parcel. Once the tool is activated, clicking on a parcel will select the parcel. Multiple parcels can be selected/deselected by clicking while keeping the 'Shift' key pressed. If the point of click contains more than one parcel, a pop-up message will be displayed to select desired parcels.

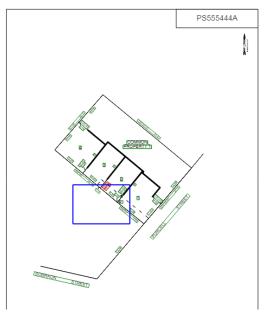




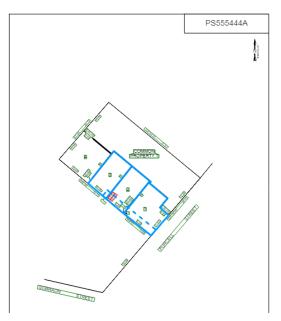
A parcel is selected using the Select Parcel tool

Pop-up message appears when there are multiple overlapping parcels

Alternatively, parcels can also be selected by drawing a box pressing the 'Ctrl' key and dragging the mouse. Parcels within the same diagram can be selected all at once when dragging is started using 'Ctrl' and the diagram border will be highlighted to identify the active diagram.

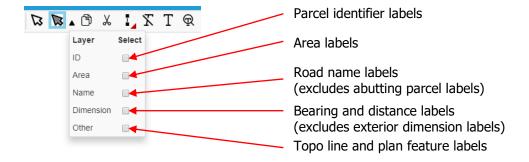


CTRL + Drag creates a box for selecting group of parcels



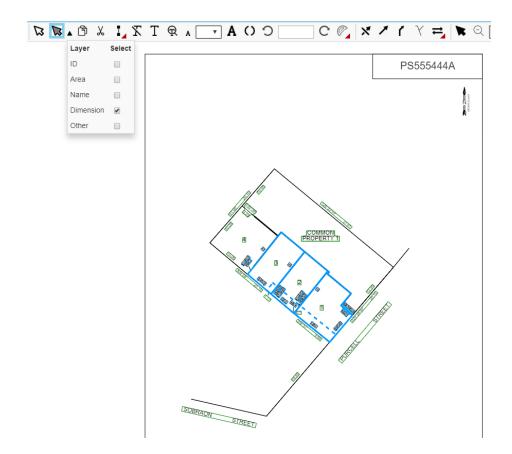
A group of parcels gets selected

Once the parcels are selected, the layers drop-down list can be used to select all the labels of a given type. The list allows the user to select the following types of labels:



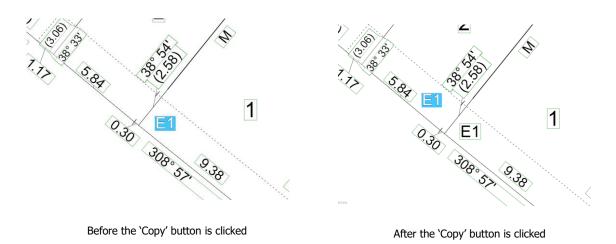
By selecting a checkbox, the labels of that type will get selected for all the selected parcels.

Once the desired labels are selected, the other label tools mentioned in the subsequent sections can be used to edit the labels.



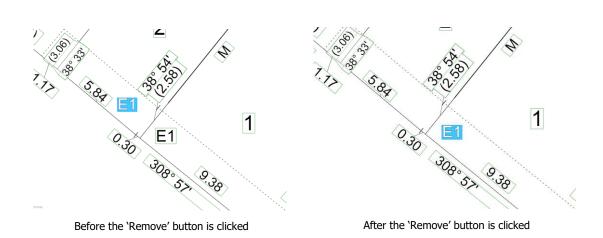
#### Copy

To create a copy of a label, select the label and then click the 'Copy 'B' button. A duplicate label will appear next to the original label.



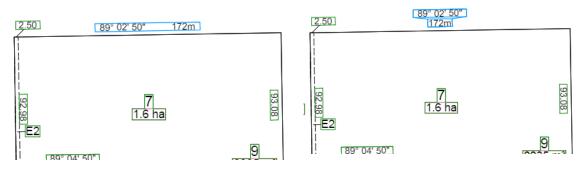
**Remove** 

To remove a label, select the label and click the 'Remove  $\frac{1}{4}$ ' button. Only labels created using the 'Copy' button can be removed. Other labels cannot be removed using this functionality. You can hide such labels using the 'Hide' button.



# **Convert to 2-line Label (Wrap Label)**

Clicking the 'Wrap Label I' button converts the selected bearing and distance labels from a 1-line label to a 2-line label.

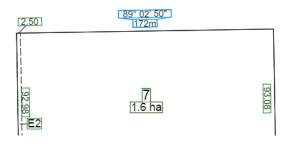


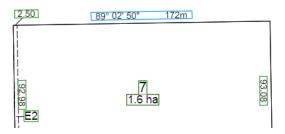
Before the 'Wrap Label' button is clicked

After the 'Wrap Label' button is clicked

# **Convert to 1-line Label (Unwrap Label)**

Clicking the 'Unwrap Label •••' button converts the selected bearing and distance labels from a 2-line label to a 1-line label.



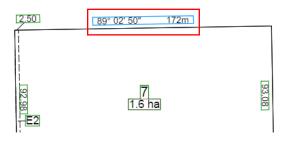


Before the 'Unwrap Label' button is clicked

After the 'Unwrap Label' button is clicked

#### **Split**

Use the 'Split • •' button to create two labels from a single label, e.g. bearing and distance label or abutting road label.



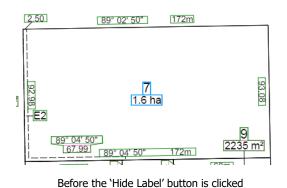


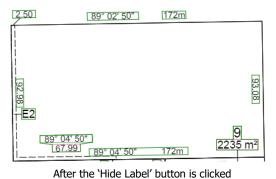
Before the 'Split Label' button is clicked

After the 'Split Label' button is clicked

#### Hide

Use the 'Hide  $\Sigma$ ' button to hide any labels from the diagram.

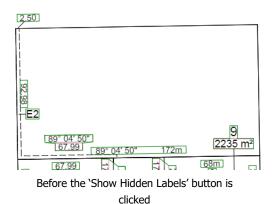


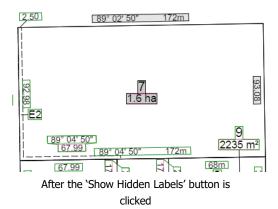


NOTE: Any label needs to be available in at least one sheet of the plan. If you hide a label from a sheet, make sure that it is displayed in another sheet.

#### **Show Hidden Labels**

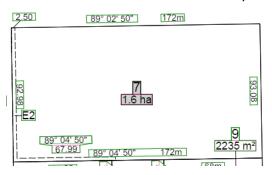
Use the 'Show Hidden Labels 'q' button to see which labels are currently hidden in the diagram.



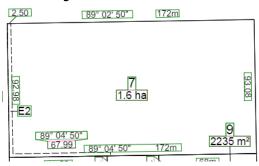


**Unhide** 

Use the 'Unhide T' button to unhide any labels from the diagram.



Before the 'Unhide Label' button is clicked (grey background shows this label is hidden in VET)



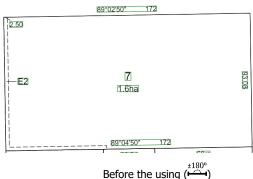
After 'Unhide Label' button is clicked

#### **Decrease / Increase Font Size**

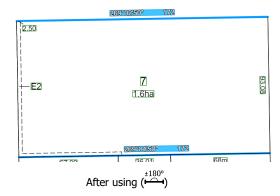
Use the 'Decrease / Increase Font Size \* A / buttons to change the size of the text in a label. The minimum font size possible is 2mm and maximum is 8mm.

# Add / Subtract 180° to / from bearing

Use the  $(\stackrel{{}_{1}}{\longleftarrow})$  button to change the bearing value of the selected label by 180°.



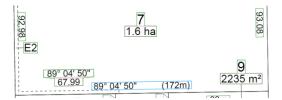
Before the using ( $\stackrel{\scriptscriptstyle{\pm 180^{\circ}}}{\longleftarrow}$ )



#### **Add / Remove Brackets**

Use the 'Add / Remove Brackets 'O' button to add or remove brackets for distances which may run across easements.





Before the 'Add Brackets' button is clicked

After the 'Add Brackets' button is clicked

#### **Rotate Counter Clockwise / To a Value / Clockwise**

Use the 'Rotate Counter Clockwise / To a Value / Clockwise  $^{\circ}$  C  $^{\circ}$  functions to rotate a label to a different angle. The buttons  $^{\circ}$  and  $^{\circ}$  will change the angle by 10 degrees. The text box can be used to set the angle of a label to a specific value. The value should be entered in DD.MMSS format e.g. 89° 01′ 50′  $\rightarrow$  89.0150.

NOTE: When the selected label is a 'Referencing Label', using the 'Rotate Counter Clockwise / Clockwise' tools to rotate the label will only rotate the label itself. Holding 'Control Key (Ctrl)' on the keyboard before clicking the tools will rotate the corresponding arrow together with the label. When the label is selected, by pressing the 'Control Key (Ctrl)' the related arrow will get highlighted.

#### **Align ID and Area Labels**

Use the 'Align ID and Area Labels  $\mathcal{O}'$  function to align the angle of ID and Area labels according to the longest line of related parcels. This tool only affects ID and Area labels for all parcels excluding 'Easements'.



Before the 'Align ID and Area Labels' button is clicked



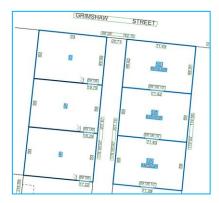
After the 'Align ID and Area Labels' button is clicked

#### **Centre ID and Area Labels**

Use the 'Centre ID and Area Labels \* function to move the ID and Area labels to the calculated centre of the parcel (The destination point is normally inside the parcel). If the ID or Area labels are selected individually, each label will be placed on the calculated centre point of the parcel but if the ID and Area labels of a parcel are selected together the ID label will be placed at the top and the Area label will be placed at the bottom of the centre point.



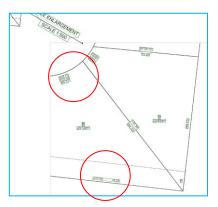
Before the 'Centre ID and Area Labels' button is clicked



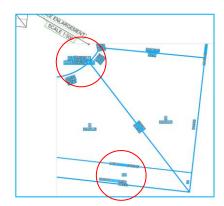
After the 'Centre ID and Area Labels' button is clicked (The tool's behaviour is different when ID labels are selected as opposed to when ID and Area labels are selected together)

# **Move Labels Inside Diagram Extent**

Use the 'Move Labels Inside Diagram Extent \( \brace{\mathbb{N}} \) function to move the visible parcels' labels inside the diagram's extent so you can find the labels easily. When a diagram (in particular an 'Enlargement Diagram') is rescaled or moved, the labels can go out of the diagram's extent and sometimes, it is hard to find needed labels as they are not reachable. With this tool the labels related to all lines and parcels inside the diagram's extent will be moved to the centre of the visible part of the lines or parcels. This function affects all diagrams and enlargement diagrams excluding 'Main Diagram' which appears on the first sheet in VET.

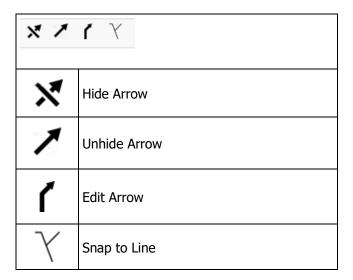


Before the 'Move Labels Inside Diagram Extent' button is clicked After the 'Move Labels Inside Diagram Extent' button is clicked



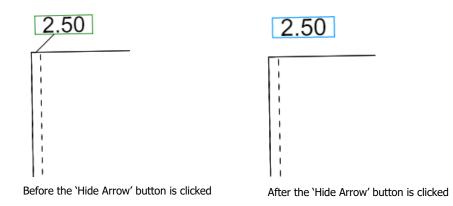
### 57.05. Arrow Tools

The following tools are available in the 'Arrow Tools' section:



#### **Hide Arrow**

Use the 'Hide Arrow 'Y' button to hide the arrow for a label. To hide the arrow, select the label and click on the 'Hide Arrow' button; the arrows for parcel identifier labels cannot be hidden. This tool can also be used to hide the arrow for 'Referencing Labels' such as 'See Sheet' labels.

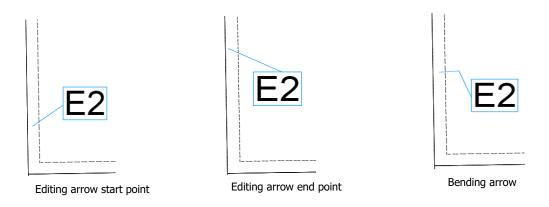


#### **Unhide Arrow**

Use the 'Unhide Arrow '' button to display the arrow of a label that was previously hidden. Select the desired label and click this button to show the arrow again. This tool can also be used to display the arrow for 'Referencing Labels' such as 'See Sheet' labels.

# **Edit Arrow**

Use the 'Edit Arrow ' button to move the location of the arrow relative to the label. It may also be used to 'bend' the arrow. To move the arrow, move the cursor over to one of the end points of the arrow and drag it by that point. To bend the arrow, drag the arrow from any point on the line.

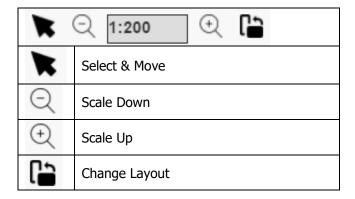


# **Snap to Line**

When this mode is activated by clicking the 'Snap to Line 'Y' button, VET makes sure that the arrow touches the associated line. However, in a situation where some space is desired between the line and the arrow, this mode can be switched off before moving the arrow.

# **57.06. Diagram Tools**

The following tools are available in the diagram tools section:



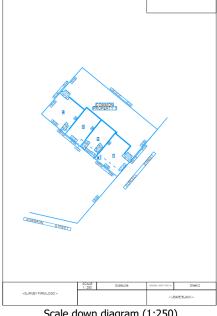
#### **Select & Move**

Clicking on the 'Select & Move 's' button activates the diagram selection mode. When this mode is active, you can select a diagram for editing. To select a diagram, click inside one of the closed parcels of the diagram. To move the diagram, select and then drag the diagram.

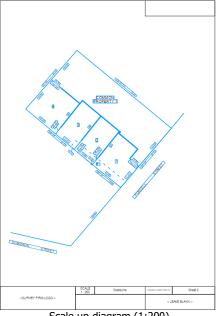
## Scale Up / Down

To change the scale of a diagram, select the diagram and then click on the 'Scale Up ( ) Scale Down Q' buttons.

NOTE: Scales can be changed to only those values compliant with the **Survey Practice <u>Handbook</u>** published by the Surveyors Registration Board of Victoria.



Scale down diagram (1:250)

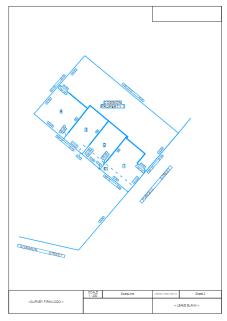


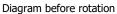
Scale up diagram (1:200)

# **Rotate Diagram**

To rotate the diagram, simply click on the 'Rotate Diagram <sup>2</sup> C' buttons described previously for labels. The rotation buttons are common between labels and diagrams. When the diagram selection mode is active, clicking the rotation buttons or providing an input will rotate the diagram.

# NOTE: If there are any enlargements on the sheet, they will also be rotated.





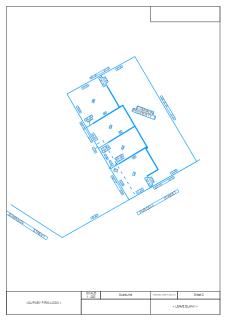


Diagram after rotation

# **Change Layout**

The 'Change Layout <sup>1</sup> button can be used to change the layout of the page between portrait and landscape.

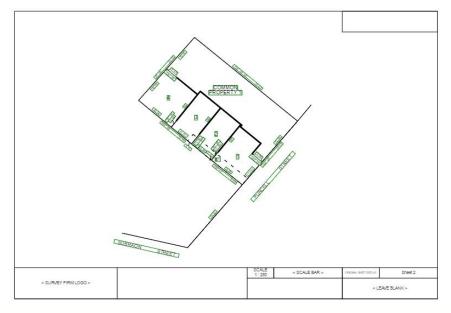
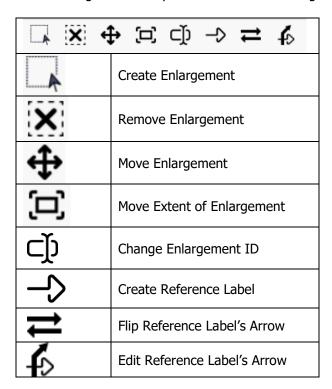


Diagram layout has been changed from portrait to landscape

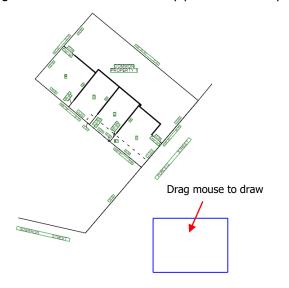
# **57.07. Enlargement Tools**

The following functionality is available in the Enlargement Tools section:

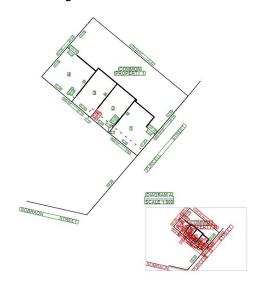


#### **Create Enlargement**

To create an enlargement, click the 'Create Enlargement 'button and draw a box anywhere in the sheet by dragging the mouse. When the dragging action is completed, VET creates an enlargement diagram and by default populates the enlargement with all line work existing in the ePlan data. A 'Diagram ID' label is automatically placed at the top of the enlargement.

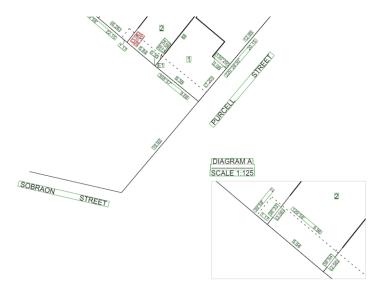


Drawing a box after the 'Create Enlargement' button is clicked



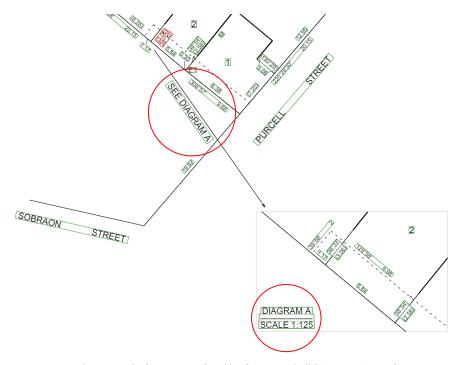
Line work and 'See Enlargement' label added to the sheet

The enlargement diagram can now be selected and then scaled up as required to appropriately show the area of interest.



Scaling up the enlargement diagram

Once the area of interest is scaled up, the labels will be placed automatically by the visualisation service in their default position. Use the 'Move Labels Inside Diagram Extent 'E' function, to place the labels located outside the diagram extent within the extent. The labels can be adjusted as desired by using the label tools. Once the labels placement is completed, a 'Reference Label' can be added and appropriately placed using the related tools.



Positioning and rotating the 'Diagram ID' and 'Reference Label' (SEE DIAGRAM A)

# **Remove Enlargement**

To remove an enlargement, select the enlargement and click the 'Remove Enlargement 'E' button. This action will also remove the associated 'Diagram ID' and Reference labels.

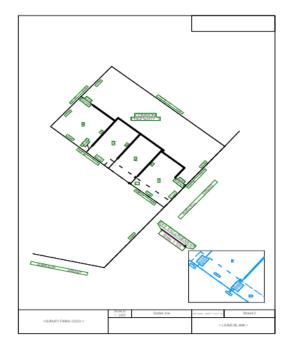


Diagram including enlargement

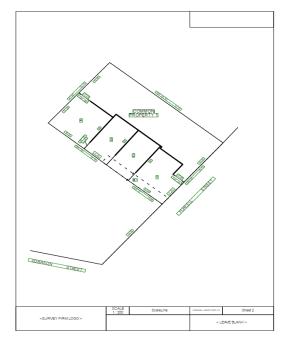
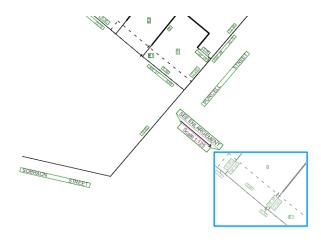


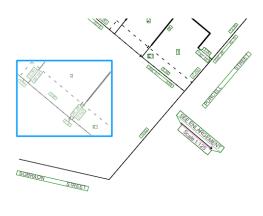
Diagram after enlargement is removed

# **Move Enlargement**

To change the placement of the enlargement within the sheet, click the 'Move Enlargement button, select the enlargement and drag the mouse.



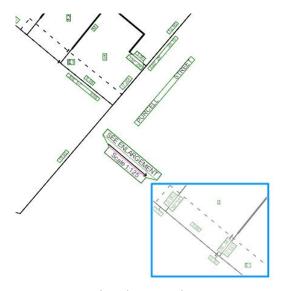
Enlargement diagram before moving



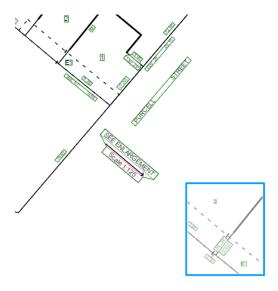
Enlargement diagram after moving

# **Modify Extent of Enlargement**

To modify the extent of an enlargement, click the 'Modify Extent of Enlargement 'D' button and select the diagram. Modify the extent of the enlargement by moving it at the edges or corners.







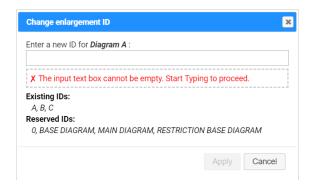
Modifying the enlargement diagram extent by mouse

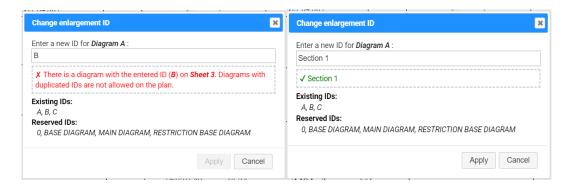
#### **Change Enlargement ID**

When an enlargement diagram is created, a unique ID will be assigned to the created diagram starting from "A". This enlargement ID can be changed using this function. The process can be followed using one of the following actions:

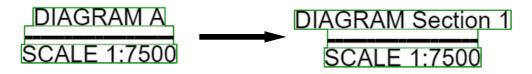
- CTRL + click: Click on the enlargement ID label while the CTRL key is pressed.
- **Select the label:** Select the enlargement ID label and then click on button.
- **Select the diagram:** Select the enlargement diagram and then click on button.

When one of the these actions is performed, a new dialog box will appear. In this box the desired enlargement ID can be entered. The enlargement ID will get validated while it is being typed. A descriptive message describes the acceptability of the entered ID.





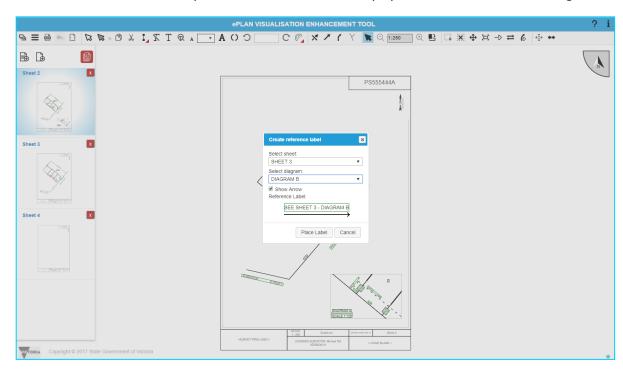
The dialog box for the *Chage Enlargement ID* 



The enlargement ID label before and after changing the enlargement ID

#### **Create Reference Label**

'Reference Labels' can be created using this tool. 'Reference Labels' are used for referring to other sheets or diagrams in the plan. To add a 'Reference Label', click the '-' button. A dialog box will be displayed on the screen to select the desired sheet and diagram, which this label will refer to. The sheets list will contain the existing sheets in the plan and the diagrams list will only show the diagrams on the selected sheet. There is a checkbox to select the display status of the arrow relevant to reference label. A preview of the label will be displayed at the bottom of the dialog box.



When the desired sheet and diagram are selected, press the 'Place Label' button, move the mouse curser and drop the label at the appropriate position. VET will automatically create a 'Reference Label' at the selected position. The label and arrow editing tools can be used to modify this label and its related arrow.

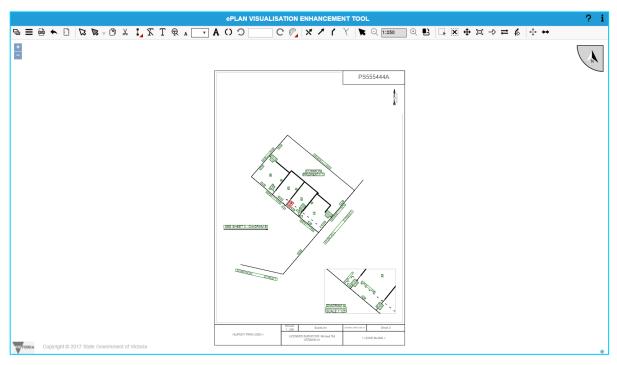
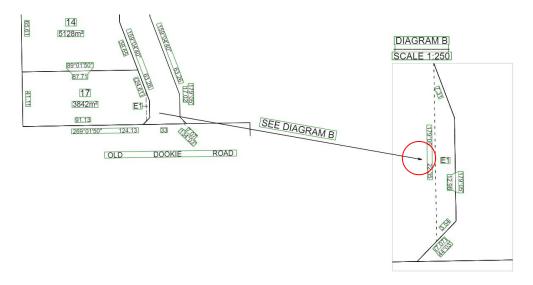


Diagram after 'Reference Label' is placed

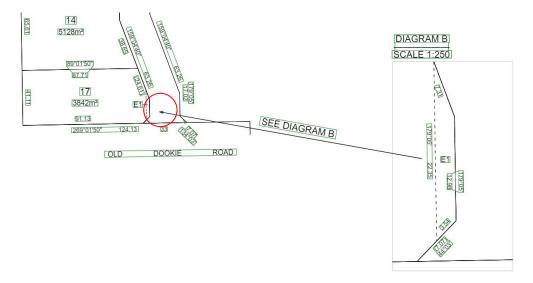
# Flip Arrow for a 'Reference' Label

Using the 'Flip Reference Label's Arrow 

→ button, the label arrow's direction can be reversed.



Arrow before flipping

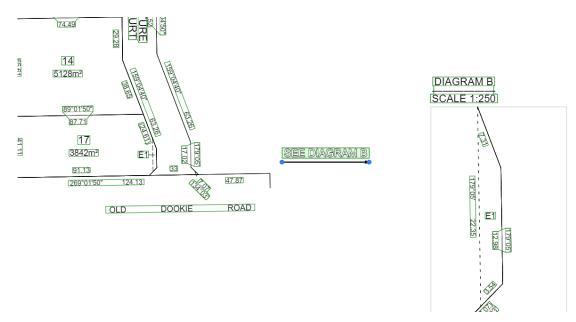


Arrow after flipping

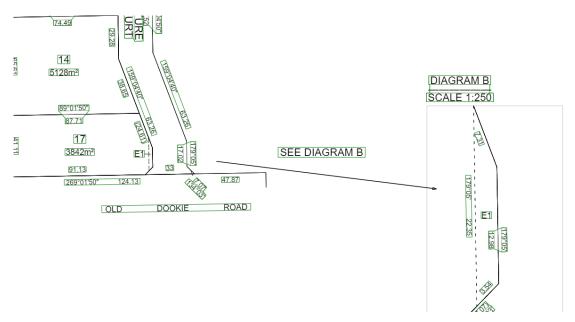
#### **Edit Reference Label's Arrow**

When a 'Reference Label' is created, an arrow can be generated as well. This arrow will be placed below the label and the length of the arrow is equal to the length of the label.

Use the 'Edit Reference Label's Arrow \$\forall '\circ\' button to move the position of the arrow relative to a reference label. When the label is selected and the 'Edit Reference Label's Arrow' is active, two small blue circles will appear at the start and end points of the arrow highlighting the editable points. Move the cursor over to one of the highlighted points and drag it. After dragging, the point can be placed at any position in the sheet. While moving, the points will be snapped along the current direction of the arrow which is aligned with its corresponding label.



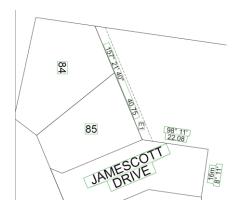
The start and end points of the arrow are highlighted

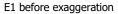


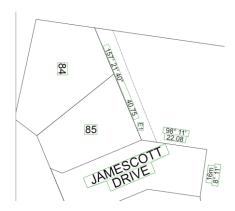
The 'Reference Label's Arrow' after editing

# 57.08. Exaggeration Tool

Use the `Exaggeration Tool ''' to exaggerate any features on the plan. Select the exaggeration tool and then click the line that requires exaggeration. To move the line, drag the end of the line. The feature can be exaggerated by moving one point at a time.

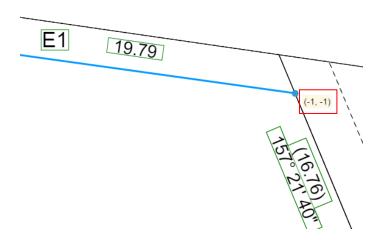






E1 after exaggeration

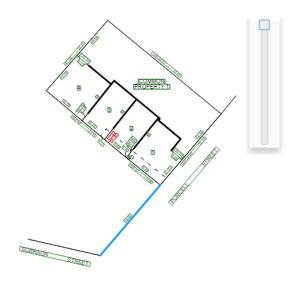
When the point is being moved, a pop up will appear next to the pointer showing the displacement of the point in (x,y). These values may be useful to move the other end of the line by the exact value to maintain the parallel bearing of the line regarding other lines.



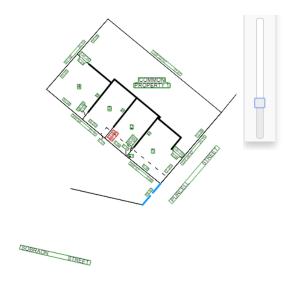
Displacement of the point in (x,y) during exaggeration

# **57.09. Truncation Tool**

The Truncation Tool allows any existing roads to be truncated. To truncate a road, click the tool and select the desired segment of the road. Once the line is highlighted, use the truncation slider to decrease/increase the length of the road.



Road before truncation



Road after truncation

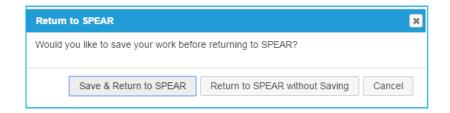
# 57.10. How can I return to my SPEAR application once I have enhanced the diagram?

Once the enhancements are completed, click the 'SPEAR blue button **S**' in the VET toolbar, to return to your SPEAR application.

NOTE: The SPEAR blue button is available in VET when you access VET from your SPEAR application. This button is not available when you access VET from within the ePlan Services public page.



Once the SPEAR blue button is clicked, VET will ask you to either save the enhancements and return to SPEAR or return to SPEAR without saving the changes.



When the 'Save & Return to SPEAR' button is clicked, the enhanced diagram file is stored by SPEAR and you are returned to the SPEAR application page. Alternatively, click the 'Return to SPEAR without Saving' button to return to the SPEAR application without any change to the diagram.

#### **Need more information?**

Further information on this topic can be found by:

- Visiting the SPEAR website <u>www.spear.land.vic.gov.au/SPEAR</u>.
- Contacting the SPEAR Service Desk on 9194 0612 or email <a href="mailto:spear.info@delwp.vic.gov.au">spear.info@delwp.vic.gov.au</a>