

GEBERIT PROPLANNER 2025

TRAINING MANUAL

ROOF DRAINAGE SYSTEMS

**KNOW
HOW**
INSTALLED

ProPlanner Legal Notices

Geberit ProPlanner 2025

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1 ABOUT THIS DOCUMENT

Use this Training Manual during training but also to repeat what you have already learned.







You will learn how to work with Geberit ProPlanner with the aid of planning examples.

The topics at a glance:

- User interface with toolbars
- Planning examples
- Keyboard shortcuts

1.1 Characters and symbols

The following characters and symbols are used in this training manual:

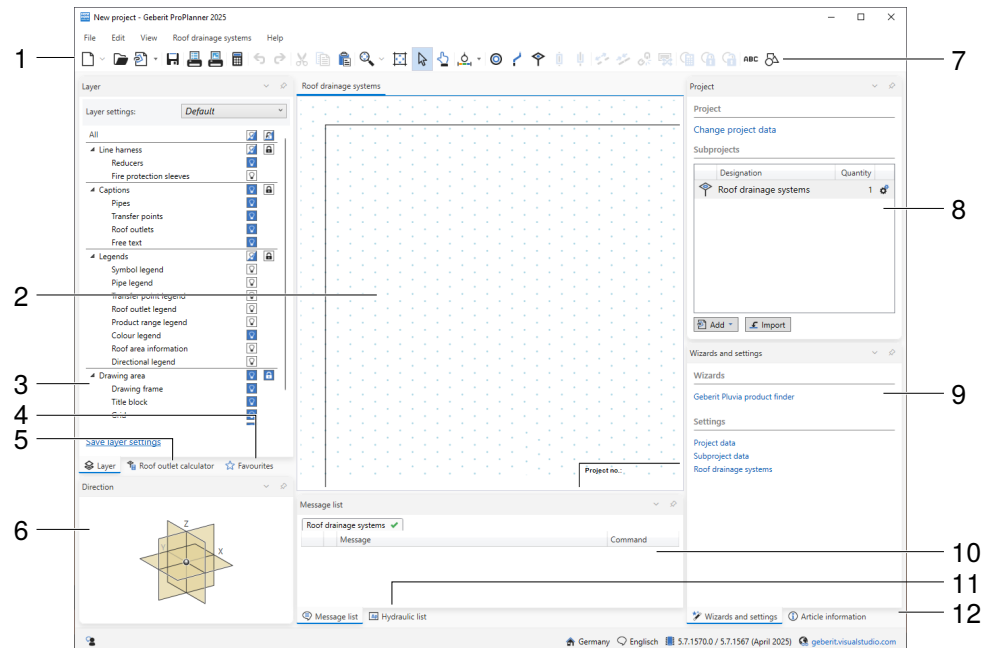
Symbol	Designation	Meaning
	Info	Reference to additional information on the subject under Help or in another training manual
	Hint	Hint for an easier or better approach
	Note	Basic information on a specific procedure
	Action	Instruction for action consisting of only one step
		Instruction for action consisting of several steps
	Result	Result of an action



Find further information using the **Help** menu or by pressing **F1**.

2 USER INTERFACE

The following window appears once you have created a new project with the Roof drainage system subproject:



- 1 General toolbar (see "General toolbar", page 8)
- 2 Drawing area for isometric drawing
- 3 **Layer** window
- 4 **Favourites** window
- 5 **Roof outlet calculator** window
- 6 **Direction** window
- 7 Roof drainage system toolbar (see "Roof drainage toolbar", page 9)
- 8 **Project** window
- 9 **Wizards and settings** window
- 10 **Message list** window
- 11 **Hydraulic list** window
- 12 **Article information** window

2.1 Drawing area for isometric drawing

You can create an isometric drawing in the drawing area.

2.2 Layer window

You can define the visualisation in the drawing area in the **Layer** window.

As soon as you use figures or CAD plans in your planning, the **Images and CAD plans** area also appears, in which you can manage figures and CAD plans.

2.3 Favourites window

The **Favourites** window contains all objects, assemblies and texts that have been saved as Favourites. You can select predefined favourites, depending on the market selection, to plan projects quickly and easily. Predefined favourites are shown in italics and cannot be deleted.

2.4 Roof Outlet Calculator Window

Determine the roof outlets needed for your roof area in the **Roof outlet calculator** window. You can insert the calculated number of roof outlet from the **Roof outlet calculator** window into your drawing.

2.5 Direction Window

You can see the layer in which a pipe is located in the **Direction** window.

You can select between the following views in the pop-up window:

- **Coordinate system**
- **Wind rose**

2.6 Project window

The **Project** window displays the project currently open with its subprojects.

You can execute the following functions in the **Project** window:

- Enter project data and subproject data
- Add, delete subprojects etc.
- Import subprojects from other projects

2.7 Wizards and settings window

You have the following options in the **Wizards and settings** window:

- Entering project data and subproject data
- Entering module settings for Roof drainage system
- Starting the **Geberit Pluvia product finder**

2.8 Message list window

Depending on the calculation, the **Message list** window displays a report that contains the calculation errors, warning notes and information. Error messages are displayed with a red symbol and warnings with a yellow symbol. Information does not have a symbol.

The same messages are displayed grouped together. Clicking on the triangle (▶) shows all grouped messages.



Faults and warnings are shown in colour in the isometric drawing. Faults appear in red and warnings in yellow.

2.9 Hydraulic List Window

All sections of the planned drainage system are listed in the **Hydraulic list** window. The properties of each section, such as length and diameter as well as volumetric flow rate, pressure and flow velocity, are displayed as the result of the calculation in table view. The content of the Hydraulic list changes according to the market set (calculation based on DIN 1986-100 or PSI+).

2.10 Article Information Window

As soon as a subproject has been calculated, you can call up views, dimensional sketches and installation manuals for articles from the Geberit product range in the **Article information** window. If available, you can call up installation videos on YouTube via a link. You need to be connected to the internet for this.

You can obtain the following information:

- Photo and drawing of a selected article
- Dimensional sketches
- Link to the Geberit product catalogue
- Installation manual and installation notes in PDF format
- ZIP file with CAD drawing in DWG or DXF format
- Links to YouTube videos

2.11 Toolbars

2.11.1 General toolbar

All basic functions of Geberit ProPlanner can be called up via the general toolbar.



Deactivated buttons appear light-grey.

















Button	Command
	Create new project
	Open available project
	Add subproject
	Save project
	Show/print lists
	Show/print graphics
	Calculate subproject
	Undo last command
	Redo undone command
	Cut object and copy to clipboard
	Copy object to clipboard
	Paste object from clipboard
	Zoom into drawing frame
	Extend drawing
	Reduce drawing
	Zoom in to all objects
	Select zoom area with the mouse
	Adapt drawing frame to drawing

2.11.2 Roof drainage toolbar

The following additional functions are available for the **Roof drainage systems** module.



Access all the following functions via the **Roof drainage systems** menu.

Button	Function
	Select objects
	Move drawing area
	Show colour visualisation of fastenings, pressure, proportion of water in the water-air mixture, flow velocity and volumetric flow rate
	Set transfer point
	Draw pipe
	Set roof outlet
	Insert an access pipe
	Insert an expansion socket
	Split a pipe
	Join pipes
	Delete unconnected objects
	Arrange label
	Optimise diameters
	Fixing diameters
	Release diameters
ABC	Insert text
	Import figure or CAD plan

3 ROOF DRAINAGE PLANNING EXAMPLE

You can plan Geberit Pluvia roof drainage systems that extract rainwater by negative pressure with the Roof drainage system module. Unlike a conventional roof drainage system, the dimensions of the pipes and outlets ensure that rainwater is drained via syphonic pipes. Complete filling of the pipe system creates negative pressure, enabling pipes to be laid without a slope.

With the aid of two planning examples, you will learn step by step with the Roof drainage system module how to create a Geberit Pluvia drainage system.

3.1 Small roof area

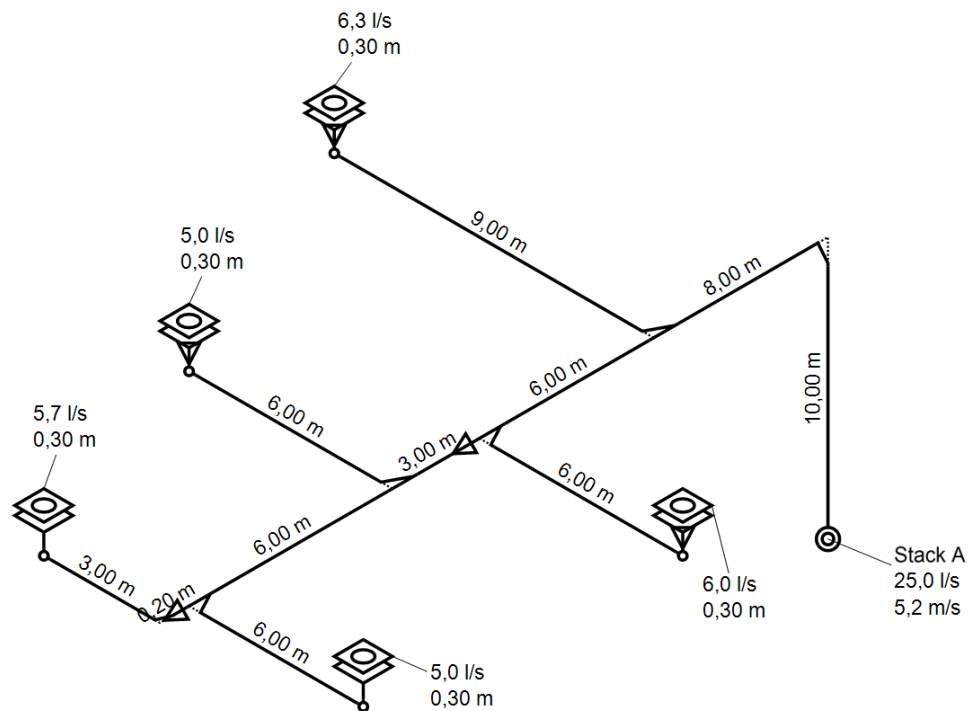
In the "Small roof area" planning example, you will use basic drawing functions to place a transfer point and draw pipes and branch fittings. You will then plan the roof outlets and complete the planning. In a short section you will learn what help Geberit ProPlanner offers to rectify errors or warnings. You will then meet functions that will enable you to adapt the visualisation of your plan.

Advanced drawing functions, which permit more complex planning (e.g. drawing in layers), will be taught in the second "Large roof area" example.

This chapter covers the following topics:

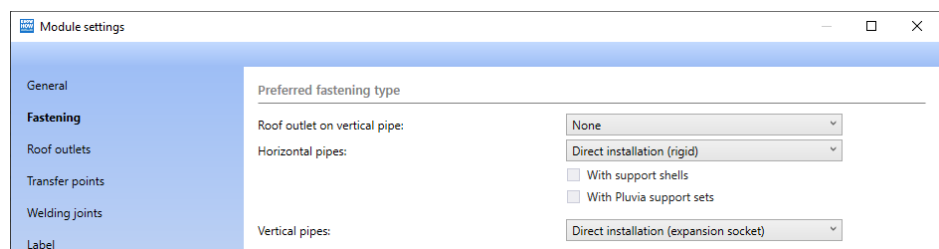
- Creating isometric drawings
- Planning roof outlets
- Adapting pipe lengths
- Correcting errors and warnings
- Functions of the hydraulic list
- Adapting or moving the drawing frame
- Showing, adapting and moving labels
- Hiding or showing fastenings
- Showing colour visualisation

The first planning example plans the following roof drainage system:



3.1.1 Adapting subproject settings

1. Click on **Module settings** in the **Roof drainage systems** menu.
✓ The **Module settings** window appears.
2. Click on **Fastening**.
3. In the **Preferred fastening type** area, select **Direct installation (rigid)** for **Horizontal pipes** and **Direct installation (expansion socket)** for **Vertical pipes**.



Define these settings as the default for additional projects, by clicking on **Default settings** and selecting **Save as user default**. New subprojects will be created with the selected settings in future.

4. Click on **Finish** to apply the settings.

3.1.2 Creating isometric drawings

A drawing is displayed isometrically in the Roof drainage system module. All pipes (sections) and roof outlets that end in a transfer point together form a stack.



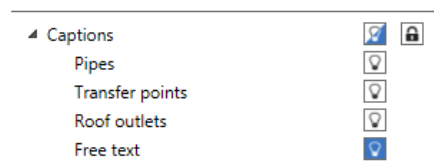
The isometric drawing is not true to scale. The visual length of a section in the drawing does not correspond to the actual pipe length.

3.1.2.1 Hiding Labels

The labels are hidden as they are disruptive for the following steps.



1. Show the **Layer** window if it is not shown.
2. Hide the labels for **Pipes**, **Transfer points** and **Roof outlets**. To do this, click in the **Captions** area on the light bulb symbol beside the entry until it has a white background



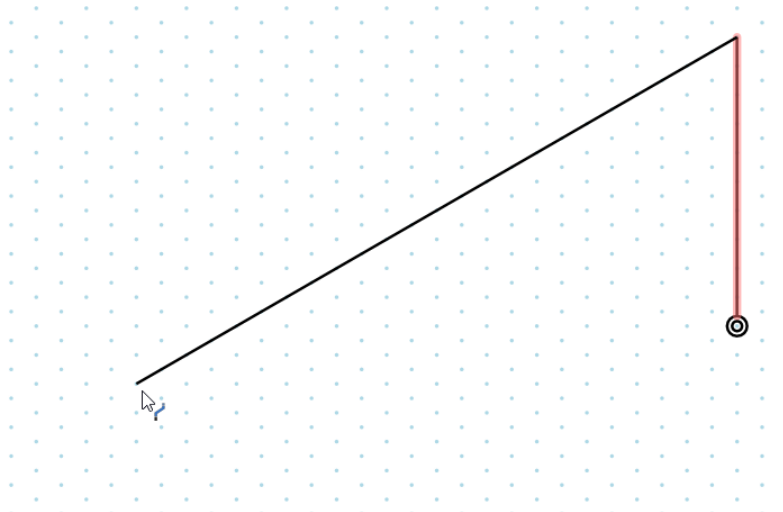
3.1.2.2 Placing the transfer point and drawing the first section



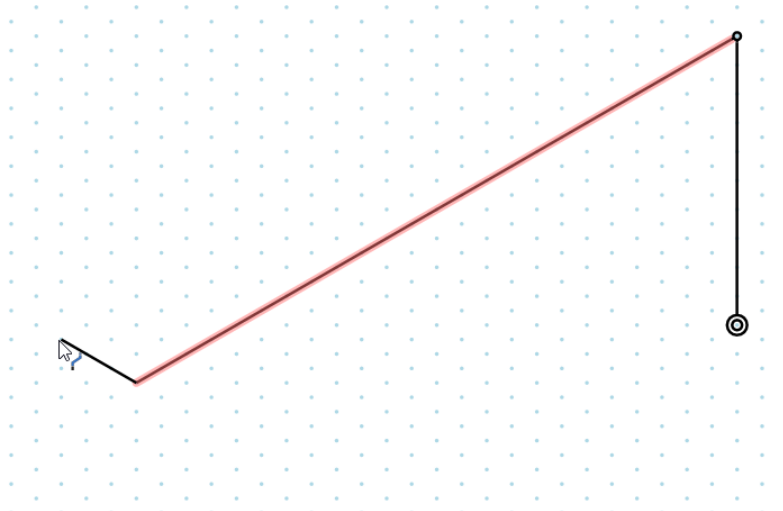
1. Select the **Set transfer point** function in the toolbar.
2. Click in the drawing area to place the transfer point.
✓ Geberit ProPlanner automatically activates the **Draw pipe** function.
3. Move the cursor upwards and click again in the drawing area.



4. Move the cursor to the bottom left and click in the drawing area.

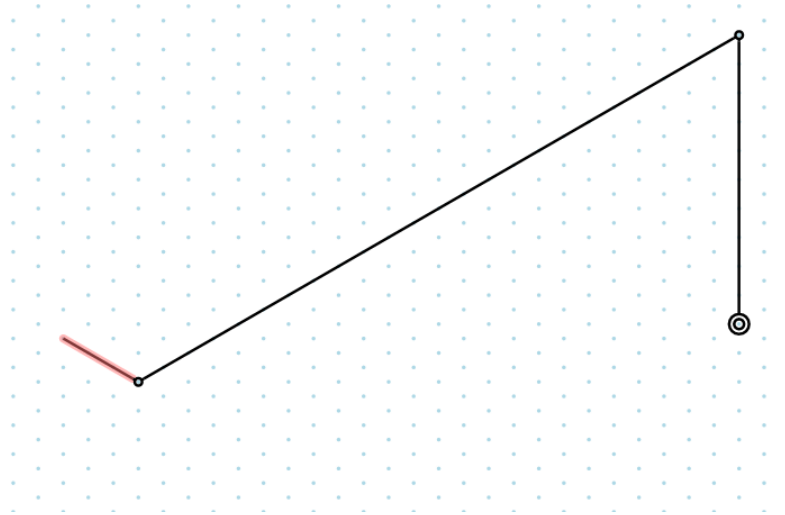


5. Move the cursor to the top left and click in the drawing area.



6. Press **ESC**.

- ✓ The current line system is complete. The **Draw pipe** function continues to be active so that drawing can start at another position.

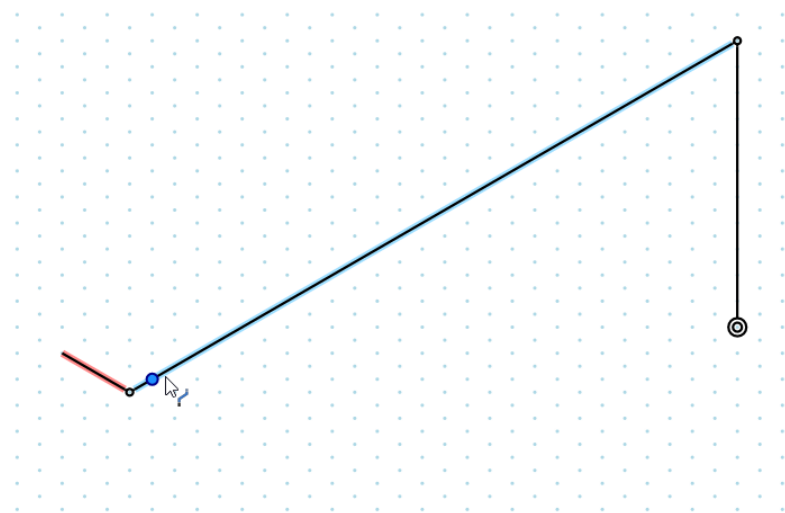


3.1.2.3 Drawing Branching Pipes

Additional sections are drawn below.

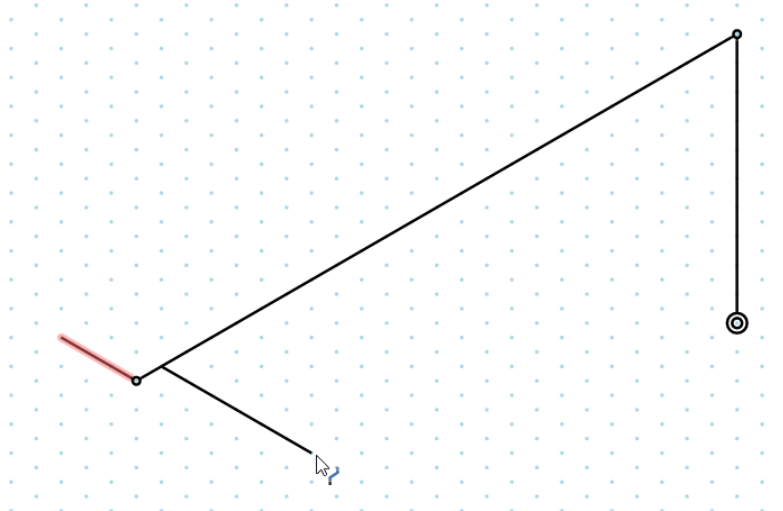


1. Click in the toolbar on **Draw pipe** if the function is not already active.
2. Click on the long pipe section to draw a branching pipe.



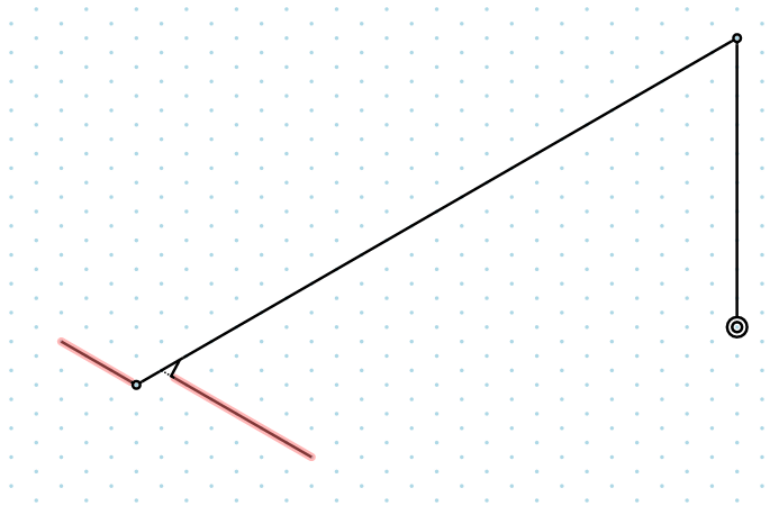
Branching pipes can only be placed at grid points. Once you have clicked on the pipe section, the branching pipe is automatically set at the next grid point.

3. Move the cursor to the bottom right and click in the drawing area.

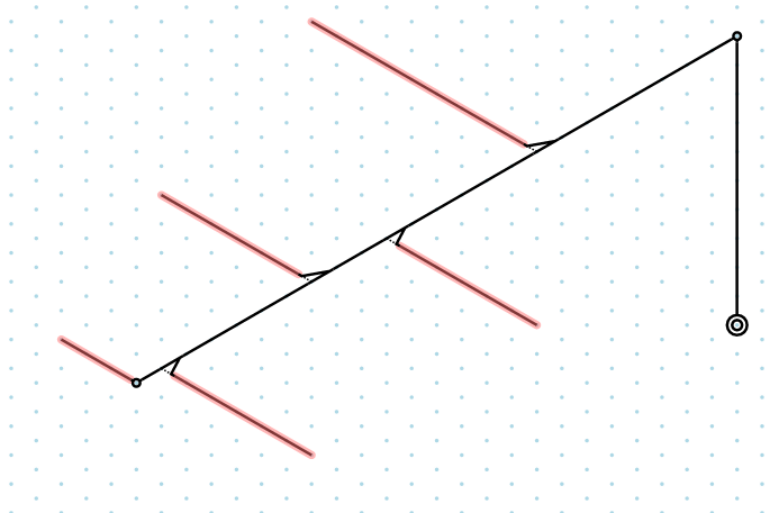


4. Press **ESC**.

- ✓ The current line system is complete. The **Draw pipe** function continues to be active so that drawing can start at another position.



5. Create the additional sections as described and complete the planning example (see "Small roof area", page 55).



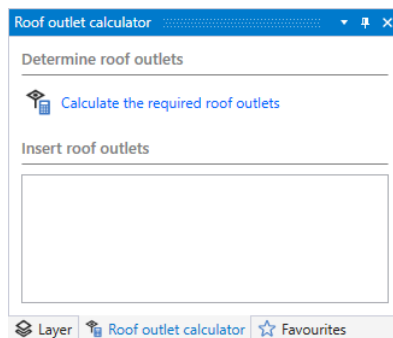
3.1.3 Planning and placing roof outlets

The planning example is divided into two roof areas, which are planned separately. To do so, enter the size of the roof area and the number of roof outlets. Geberit ProPlanner calculates the volumetric flow rate required from this.

3.1.3.1 Planning roof outlets for first roof area

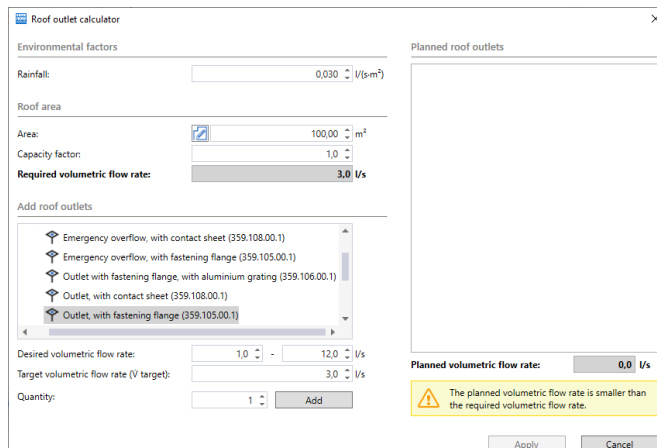


1. Show the **Roof outlet calculator** window.



2. Click on **Calculate the required roof outlets**.

✓ The **Roof outlet calculator** window appears.



3. Select the value **380 l/(s · ha)** or **0.038 l/(s · m²)** or **136.8 mm/h** respectively as the **Rainfall** in the **Environmental factors** area.
4. Enter the value **396.0 m²** as the **Area** field in the **Roof area** area.
5. Leave the **Capacity factor** as **1.0**.
6. Increase the number of roof outlets to **3** in the **Quantity** field.
✓ The **Required volumetric flow rate** and **Target volumetric flow rate (V̇ target)** values are adapted automatically.

Environmental factors

Rainfall: l/(s·m²)

Roof area


Area: m²

Capacity factor:

Required volumetric flow rate: l/s

7. If a default roof outlet is predetermined with a **Target volumetric flow rate (V̇ target)** of > 12 l/s in your market: Select a roof outlet with a maximum **Target volumetric flow rate (V̇ target)** of 12 l/s (d56 connection) in the **Add roof outlets** area.
8. Click on **Add**.
✓ The calculated roof outlets appear in the **Planned roof outlets** area.

Planned roof outlets

	Pluvia One 6L & 12L	<input type="text" value="3"/> pcs	✕
	Flat Roof	<input type="text" value="5,0"/> l/s	
	Universal Outlet	15,0 l/s	




If the required and planned volumetric flow rates agree, the warning in the **Planned roof outlets** area disappears.


9. Click on **Apply** to close the roof outlet calculator.
✓ The planned roof outlets appear in the **Roof outlet calculator** window.

Roof outlet calculator

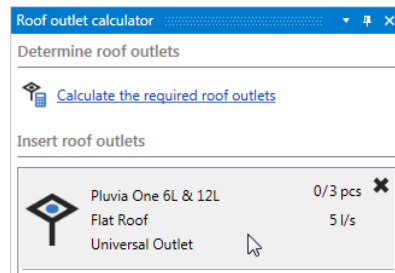
Determine roof outlets

 [Calculate the required roof outlets](#)

Insert roof outlets

	Pluvia One 6L & 12L	0/3 pcs	✕
	Flat Roof	5 l/s	
	Universal Outlet		

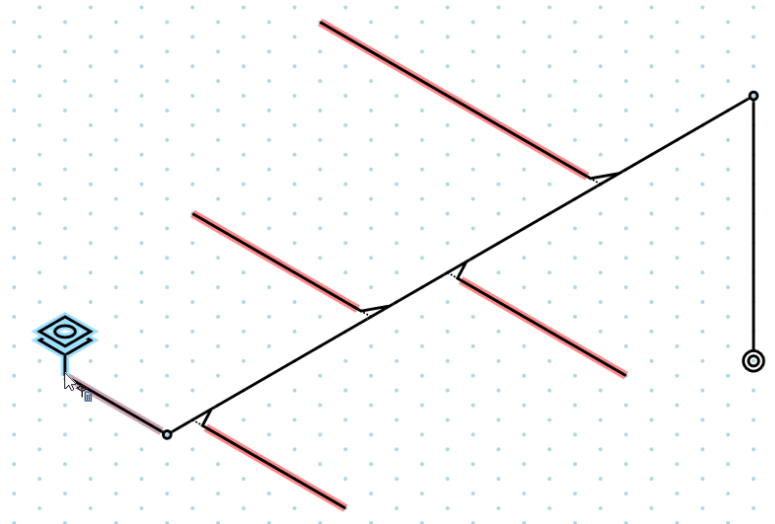
10. Click on the planned roof outlets in the **Roof outlet calculator** window.



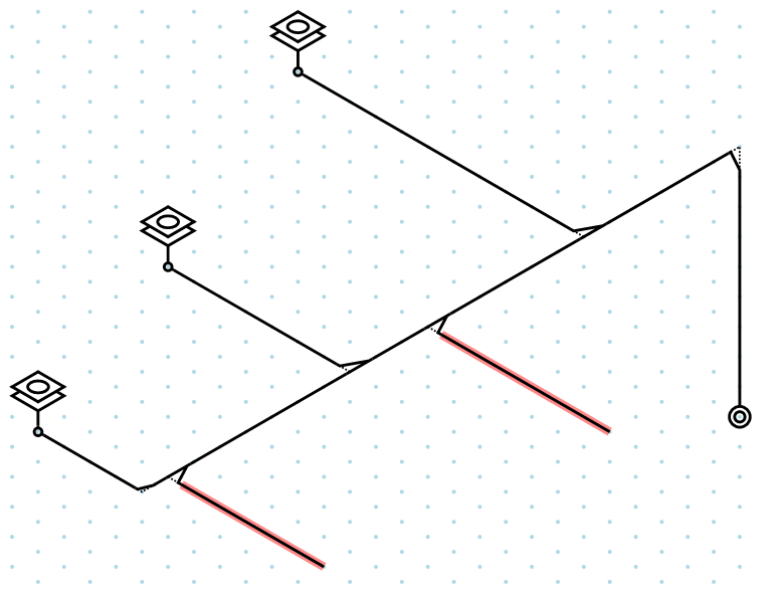
✓ A roof outlet is suspended from the cursor.



11. Set the roof outlet at the end of the first section.



12. Place the two other roof outlets in this manner.



3.1.3.2 Planning roof outlets for second roof area

1. Click on **Calculate the required roof outlets** in the **Roof outlet calculator** window.
✓ The **Roof outlet calculator** window appears.
2. Leave the **Rainfall** on the value **380 l/(s · ha)** or **0.038 l/(s · m²)** or **136.8 mm/h** in the **Environmental factors** area.
3. Enter the value **264.0 m²** as the **Area** field in the **Roof area** area.
4. Leave the **Capacity factor** as **1.0**.
5. Increase the number of roof outlets to **2** in the **Quantity** field.
✓ The **Required volumetric flow rate** and **Target volumetric flow rate (V̇ target)** values are adapted automatically.

Environmental factors

Rainfall: l/(s·m²)

Roof area


Area: m²

Capacity factor:

Required volumetric flow rate: **10,0 l/s**

6. Click on **Add**.
✓ The calculated roof outlets appear in the **Planned roof outlets** area.


Planned roof outlets

	Pluvia One 6L & 12L	<input type="text" value="2"/> pcs	✕
	Flat Roof	<input type="text" value="5,0"/> l/s	
	Universal Outlet	10,0 l/s	


7. Click on **Apply** to close the roof outlet calculator.
✓ The planned roof outlets appear in the **Roof outlet calculator** window.

Roof outlet calculator

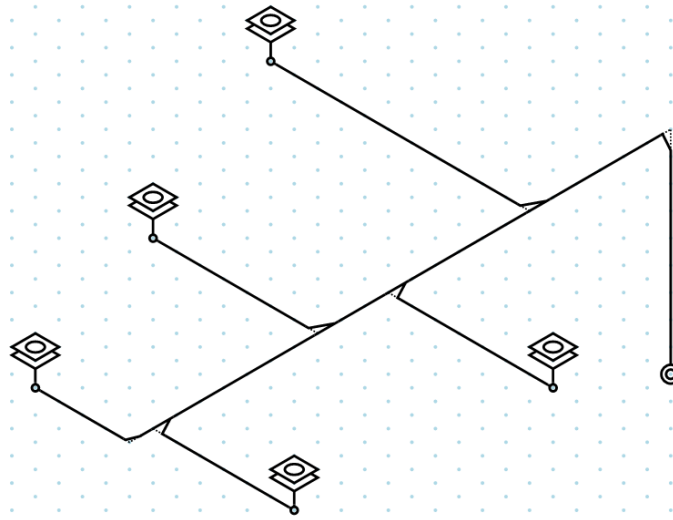
Determine roof outlets

 [Calculate the required roof outlets](#)

Insert roof outlets

	Pluvia One 6L & 12L	0/2 pcs	✕
	Flat Roof	5 l/s	
	Universal Outlet		

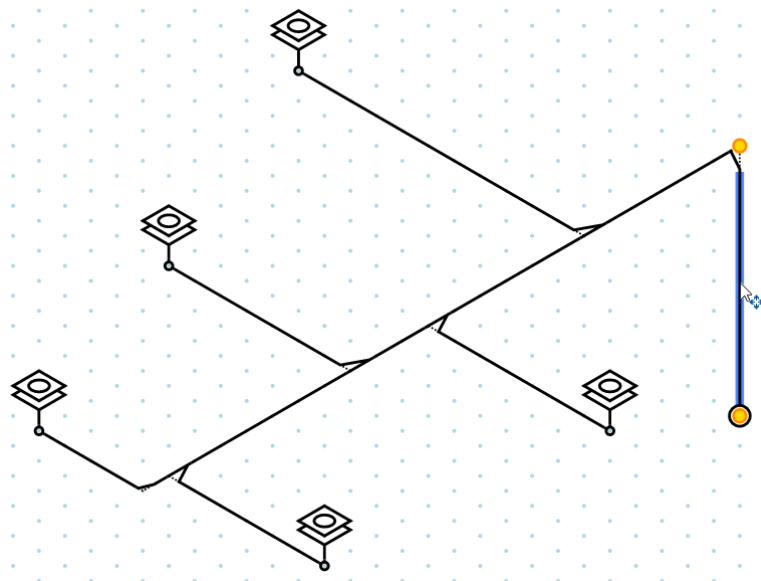
8. Place the roof outlets at the ends of the sections, as described for the first roof area.



3.1.4 Adapting pipe lengths

Define the pipe lengths of the single sections to correctly calculate the planning example.

1. Mark the section at the transfer point.



2. Right-click on the marked section and select **Properties** in the pop-up menu.
✓ The **Properties** window appears.
3. Enter the value **10.00** m in the **Length (L)** field.

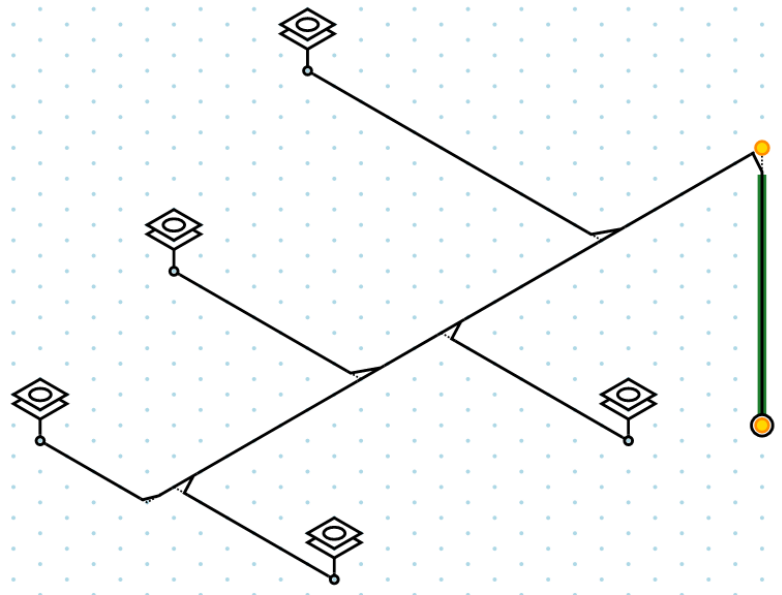
Roof drainage systems

Length (L):

10,00

4. Click on **OK** to apply the settings.

5. The modified section appears green in the drawing area.

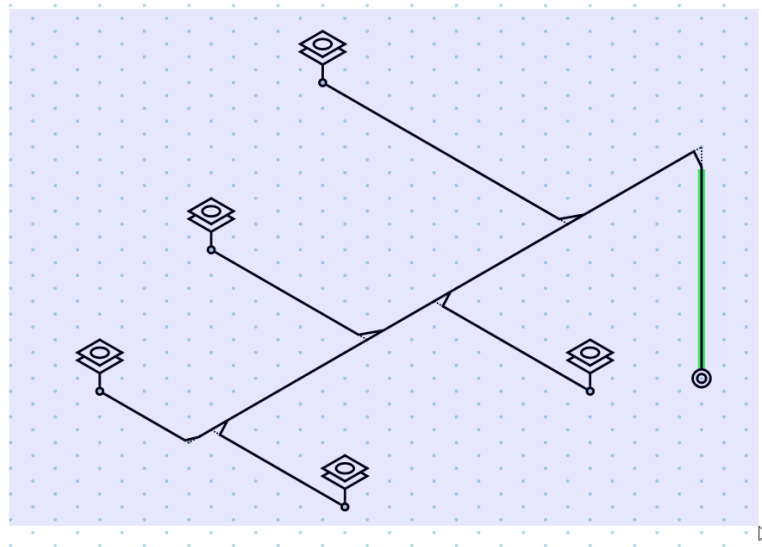


6. Adjust the length of all sections in this way. Obtain the relevant lengths from the planning example (see "Small roof area", page 55).

3.1.5 Defining the length of outlet pipes

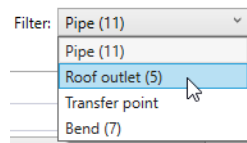
Define the length of the outlet pipes to correctly calculate the planning example.

1. Press and hold down the left mouse key to draw open a selection rectangle so that all the pipes and roof outlets are selected.



Simultaneously press **Ctrl** and **A** to select all pipes and objects.

2. Press **ALT** and **Enter** simultaneously to open the **Properties** window.
3. At the top right, select **Filter Roof outlet (5)**.



The figure (5) in the filter corresponds to the number of roof outlets selected.

4. Enter the value **0.30 m** in the **Length (L)** field.

A screenshot of the 'Roof drainage systems' properties window. It contains two input fields: 'Target volumetric flow rate (V target):' with a value of '5,0' and unit 'l/s', and 'Length (L):' with a value of '0.30' and unit 'm'. The 'Length (L)' field is highlighted with a blue border.

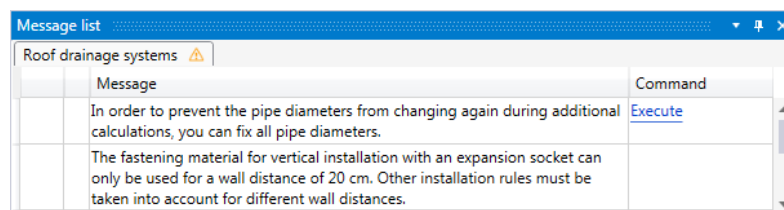
5. Click on **OK** to apply the settings.

3.1.6 Calculation

You can calculate the installation once you have created the plan in the isometry. Errors, warnings and information appear in the **Message list** following a calculation. Errors are highlighted in red in the drawing. The calculated values appear in the **Hydraulic list**. You can adapt single values, such as lengths and outside diameters of pipes and outlet pipes, here. The red colour of the faulty object becomes deeper as soon as you click on an error in the hydraulic list. If there is a warning about an object, the relevant object will appear yellow in the drawing.



- Press **F5** to calculate the subproject.
 - ✓ If the calculation produces errors, warnings or information, then they appear in the **Message list** window. Errors are highlighted in red in the drawing.



Errors, warnings or information are displayed in some markets. You will learn in the next chapter how to clear faults.

3.1.6.1 Rectifying errors and eliminating warnings

3.1.6.1.1 Optimising Diameters

Geberit ProPlanner can optimise the diameters of pipes and automatically correct errors with faulty calculations.

Select one of the following options to optimise the diameters of pipes:



- ▶ Click on **Optimize diameters** in the toolbar.
- ▶ Click in the message list on **Optimize diameters**.

Message list		
Roof drainage systems ✖		
Message	Command	
The calculation could not find a solution. Perform the "Optimize diameters" function.	Optimize diameters	

- ✓ Geberit ProPlanner optimises the diameters of the pipes and automatically corrects the errors.

Message list		
Roof drainage systems ✓		
	Message	Command
	In order to prevent the pipe diameters from changing again during additional calculations, you can fix all pipe diameters.	Execute
	The calculation was performed based on the PSI+ method.	

3.1.6.1.2 Fixing diameters

Fix the diameters of the pipes after optimising them to prevent the optimisation being lost following an additional calculation of the subproject. To do so, select one of the following options:



- ▶ In the toolbar, click on **Fix diameters** and confirm with **Yes**.
- ▶ Click in the message list on **Execute**.

Message list		
Roof drainage systems ✔		
Message	Command	
In order to prevent the pipe diameters from changing again during additional calculations, you can fix all pipe diameters.	Execute	

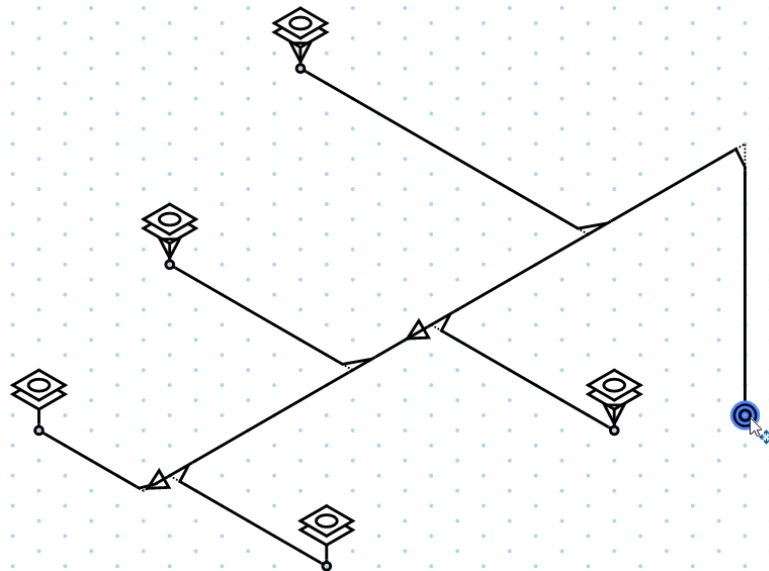
- ✓ Geberit ProPlanner fixes the diameters of the pipes.

Message list		
Roof drainage systems ✓		
	Message	Command
	The calculation was performed based on the PSI+ method.	
	The calculation was successful (22.06.2018 08:45).	

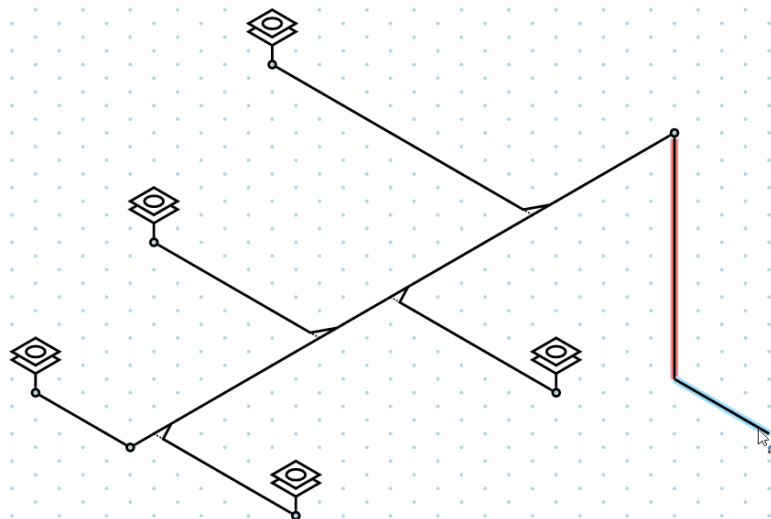
3.1.6.1.3 Inserting a transition section

If you receive the message that the flow velocity is too high when transitioning from full filling to partial filling, the flow velocity can be reduced by installing a transition section.

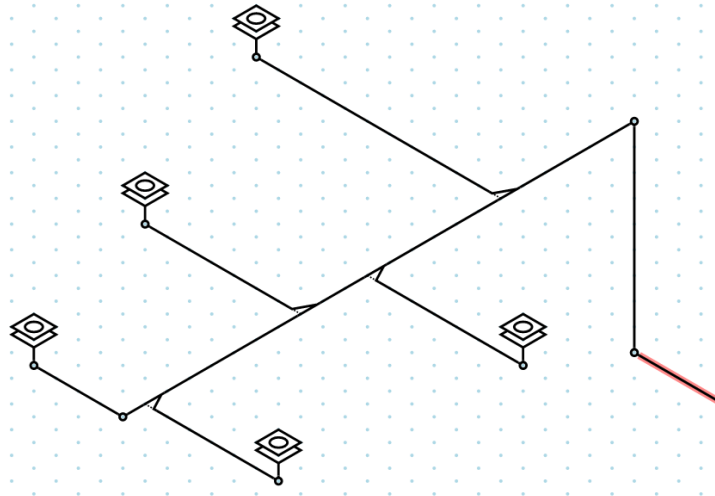
1. Mark the transfer point and press **DEL** to remove the transfer point.



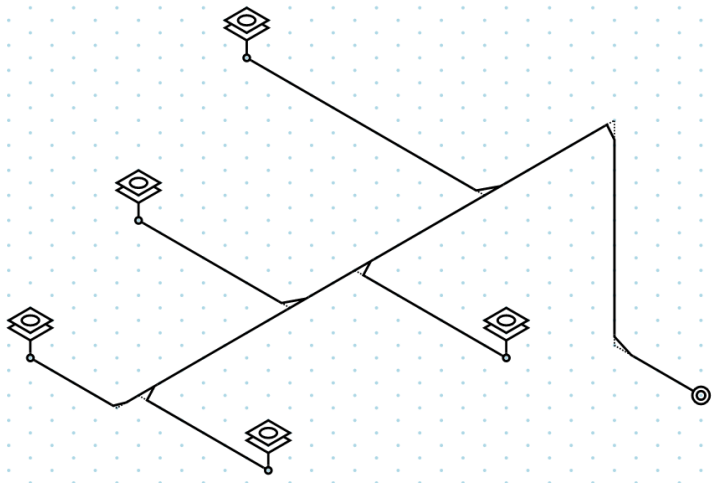
2. Click on **Draw pipe** in the toolbar.
3. Click on the open end of the first section and draw a horizontal pipe.



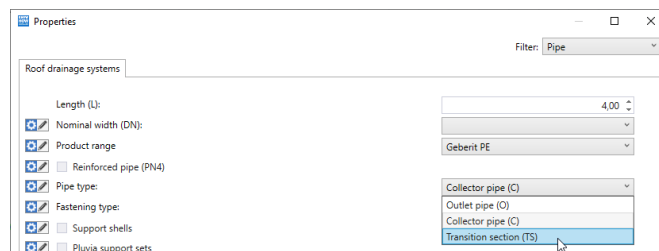
4. Press **ESC** to exit the function.



5. Click on **Set transfer point** in the toolbar.
6. Set the transfer point at the open end of the horizontal pipe.



7. Press **ESC** to exit the function.
8. Double-click on the horizontal pipe to adapt the properties of the pipe.
✓ The **Properties** window appears.
9. Enter the value **4.00 m** in the **Length (L)** field.
10. Select **Transition section (TS)** in the **Pipe type** field.



11. Click on **OK** to apply the settings.
12. Press **F5** to calculate the subproject.



3.1.7 Hydraulic list

Pipes must be connected with a transfer point and roof outlets for a hydraulic list to be created in the calculation. All sections of the planned drainage system are listed in the hydraulic list.

The following properties are displayed for each section:

- Outer diameter/Nominal width
- Length
- Height
- Volumetric flow rate
- Pressure
- Flow velocity

Adapt the values for the Outer diameter (d) / Nominal width (DN) and Length (L) of the pipes. You can change the target volumetric flow rate (\dot{V} target) of roof outlets.



- Changed sections appear green in the drawing area. Changed outside diameters have a green background in the hydraulic list.
- The **Properties** window appears for the selected object as soon as you double-click on an object in the **Type** column.



Additional information on the Hydraulic list can be found in the Help at **Roof drainage > Hydraulic list for roof drainage**.

3.1.8 Visualisation


You can then adapt the visualisation of your plan. You have the following options for doing so:

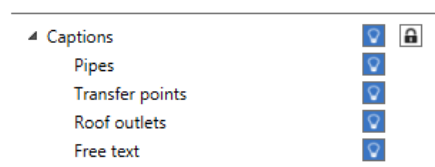
- Show, adapt and move labels
- Adapt or move the drawing frame
- Show colour legends
- Show label legends
- Hide or show fastenings

3.1.8.1 Labels

3.1.8.1.1 Showing Labels

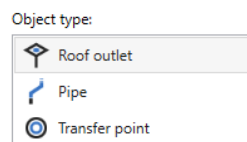


1. Show the **Layer** window.
2. Show the labels for **Pipes**, **Transfer points** and **Roof outlets**. To do this, click in the **Captions** area on the light bulb symbol beside the entry until it has a blue background .

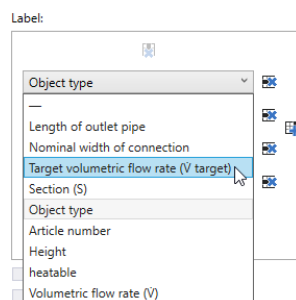


3.1.8.1.2 Adapting Labels

1. Click on **Module settings** in the **Roof drainage systems** menu.
✓ The **Module settings** window appears.
2. Click on **Label**.
3. Make sure that the **Roof outlet** is selected in the **Object type** areas.







4. Open the first menu in the **Label** area and select **Target volumetric flow rate (\dot{V} target)**.



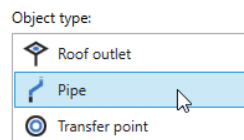
5. In the second menu, select **Length of outlet pipe**.



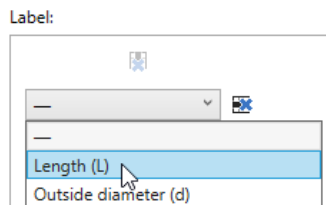
- Clicking on the symbol  or  lets you add as many fields horizontally or vertically to the label.
- Clicking on the symbol  or  lets you delete as many fields horizontally or vertically.



6. Delete all other fields by clicking on  and .

7. Click on **Pipe** in the **Object type** area.

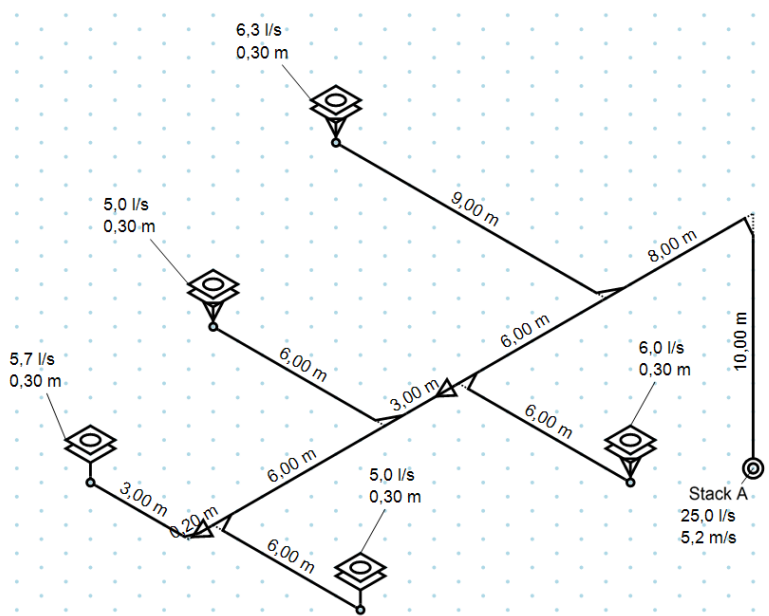


8. Open the first menu in the **Label** area and select **Length (L)**.



9. Delete all other fields by clicking on  and .

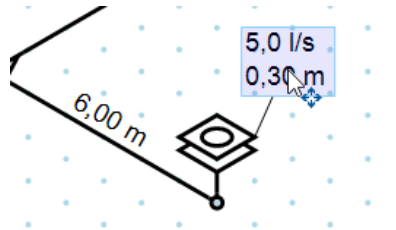
10. Click on **Finish** to apply the settings.




3.1.8.1.3 Moving Labels

You can move single or multiple labels. Labels can now be moved along the pipe or placed freely in the drawing.

- Click on a label and use the cursor to draw the labels to the required position.



Pipes or roof outlets can be fixed to prevent them from being inadvertently moved. To do this, click on the lock symbol in the **Line harness** area of the **Layer** window until it has a blue background .



Find additional information on labels in the Help at **Roof drainage > Visualisation**.

3.1.8.2 Drawing and Drawing Frame


Both the drawing and the drawing frame can be adapted and moved to place them perfectly.

3.1.8.2.1 Adjusting the Paper Format

First adapt the paper format of the drawing to the paper format of your printer.

1. Double-click on the title block of the drawing area.
✓ The **Module settings** window appears.
2. Select your printer's **Paper format** (e.g. **A4**).

Paper format

Paper format: 

× cm


Orientation:

Margin: cm

3. Click on **Finish** to apply the settings.

3.1.8.2.2 Moving, Extending or Reducing the Drawing Frame

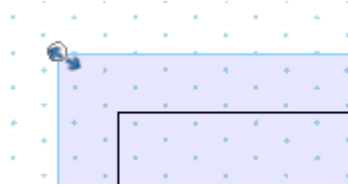
You can move and adapt the drawing frame if the drawing lies outside the drawing frame. As standard, the drawing frame is protected from being moved.


1. Make sure that the drawing area is not fixed. To do this, click on the lock symbol in the **Drawing area** area of the **Layer** window until it has a white background , if necessary.



2. Click on **Adjust drawing frame** to automatically adapt the size of the drawing frame.

3. Click on the drawing frame in the drawing area.
4. Press and hold down the left mouse key to move the drawing frame.
5. Click on a corner of the drawing frame and, holding down the mouse key, draw the drawing frame larger or smaller.



6. Click on the lock symbol in the **Drawing area** area of the **Layer** window until it has a blue background .
 - ✓ The drawing area is fixed.

3.1.8.3 Colour Visualisation

The following values can be displayed in colour in a pipe system:

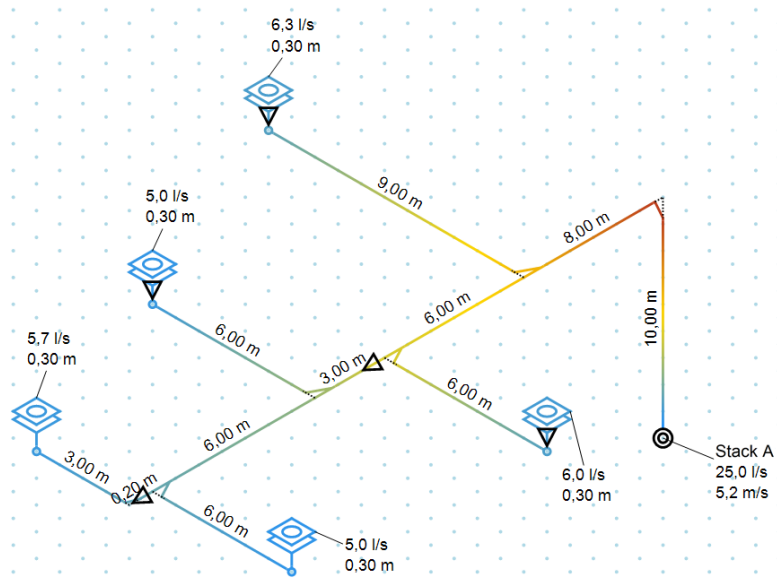
- Fastening
- Pressure
- Percentage of water in the water-air mix
- Flow velocity
- Volume flow

Visualise the print of the planning example in colour.

3.1.8.3.1 Showing Colour Visualisation



- In the toolbar, click on **Color visualization** and select **Pressure (p)**.



3.1.8.4 Legends

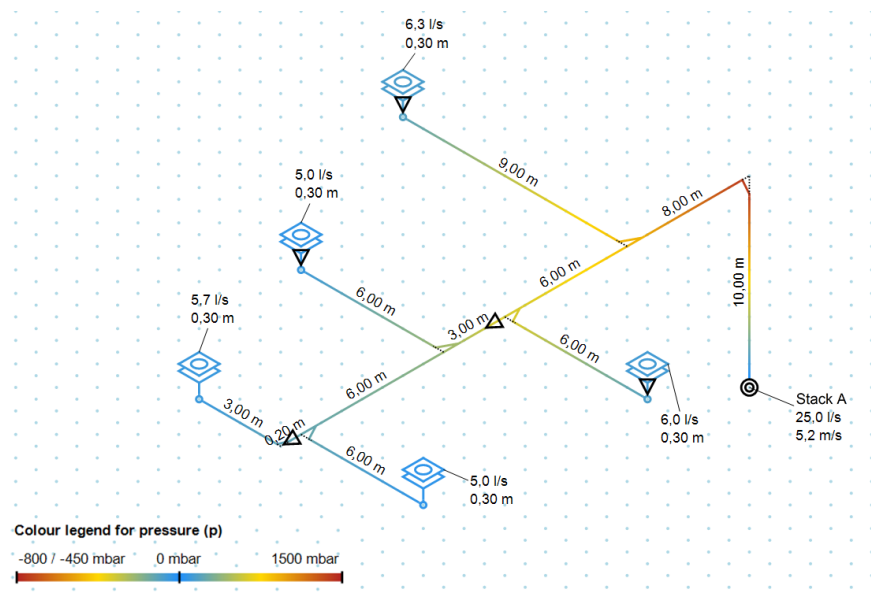
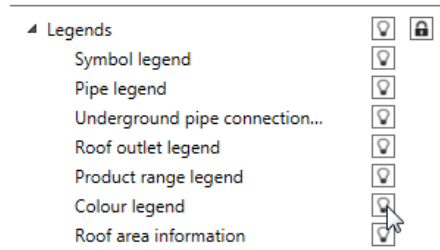
You can show different legends for additional information.

3.1.8.4.1 Showing Colour Legends

The colour legend explains colour visualisations, e.g. of fastenings, pressure graphs and flow velocities. The colour legend for pressure graphs is shown for this example.



1. Open the **Layer** window.
2. To show a legend, e.g. the **Colour legend**, in the **Legends** area, click on the light bulb symbol beside the entry until it has a blue background.

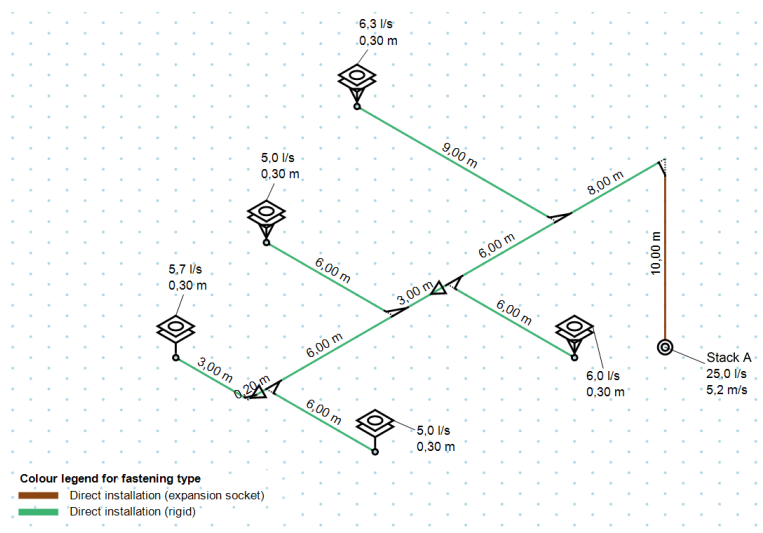


3.1.8.5 Fastenings

Visualise the type of fastening for a pipe (e.g. rigid or expansion socket).

3.1.8.5.1 Showing Fastenings

1. Click on **Module settings** in the **Roof drainage systems** menu.
✓ The **Module settings** window appears.
2. In the **Fastening type** area, select a fastening type e.g. **Direct installation (rigid)** in the **Horizontal pipes** field.
3. Click on **Finish** to apply the settings.
4. In the toolbar, click on **Color visualization** and select **Fastening type**.
✓ The fastening type appears in the label and the colour of the pipes is changed.



3.1.8.5.2 Hiding Fastenings



1. Click on **Color visualization** in the toolbar.
2. Select **Without color visualization**.
✓ The colour visualisation of the fastenings disappears.

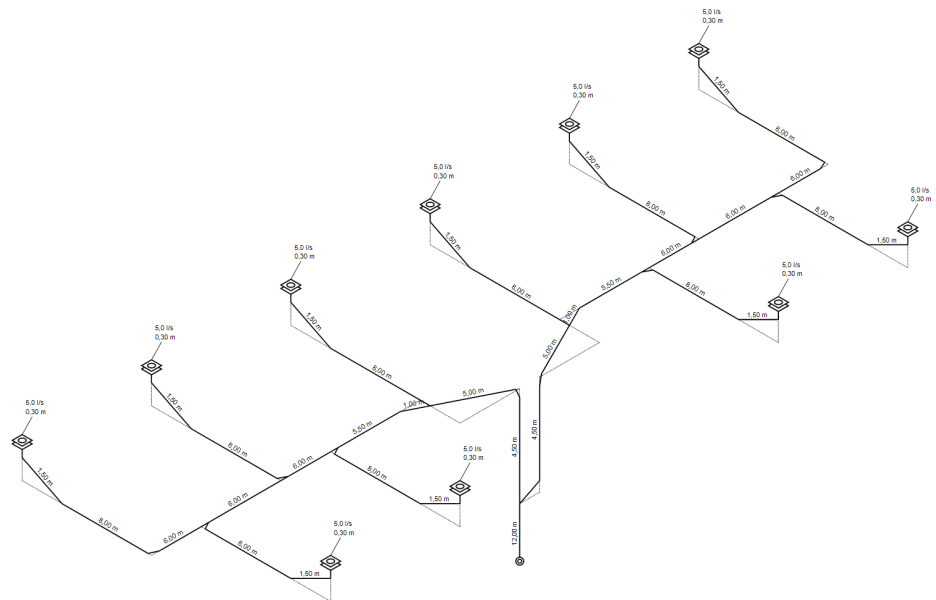
3.2 Large roof area

You have learned in the "Small roof area" planning example how to create a simple isometric drawing. In the next example you will meet other functions that you can use to plan more complex roof drainage systems.

This chapter covers the following topics:

- Adding a new subproject
- Defining layers for pipe alignment
- Creating isometric drawings
- Creating branching pipes
- Calculating the large roof area
- Adapting pipe lengths and roof outlets
- Copying planning sections and inserting them as a mirror image

The second planning example plans the following roof drainage system:



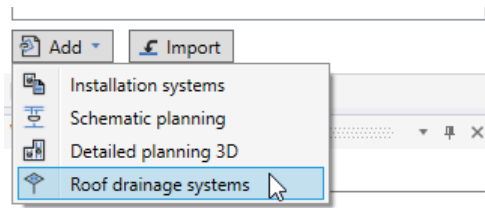
3.2.1 Creating a new subproject

Create a new subproject in the existing project for the new planning example.
Rename the subprojects to allow yourself to differentiate between the two subprojects.

3.2.1.1 Creating Subprojects



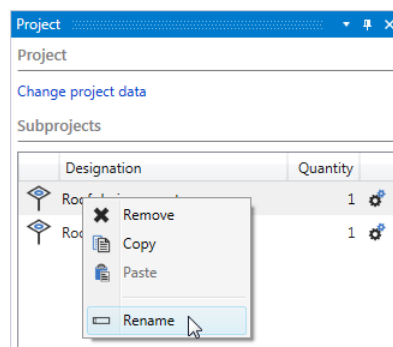
- Click on **Add** in the Project window and select **Roof drainage systems**.



3.2.1.2 Renaming Subprojects



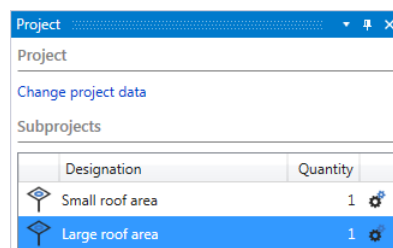
1. Right-click on the first subproject in the Project window and select **Rename** in the pop-up menu.



2. Enter the designation **Small roof area** and confirm with **Enter**.



3. Right-click on the second subproject and select **Rename** in the pop-up menu.
4. Enter the designation **Large roof area** and confirm with **Enter**.

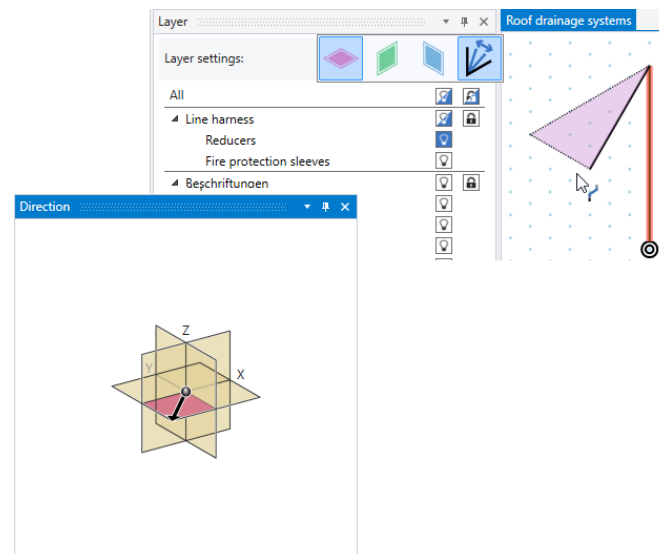


3.2.2 Pipe alignment


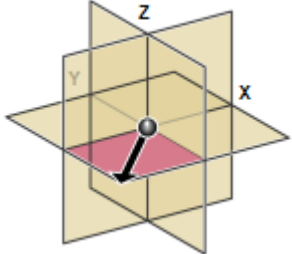

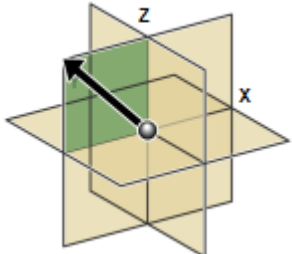
You can draw pipes at certain angles. The visualisation thus becomes clearer with more complex drawings.


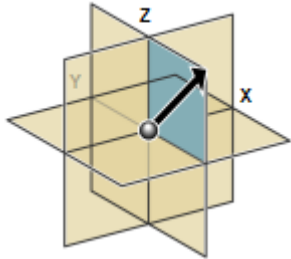
To draw pipes at 45° angles, you need to select a corresponding drawing layer when drawing.

Buttons for selecting a layer appear in the top left section next to the drawing area. To be able to identify at any time in which layer a pipe lies, the current drawing layer appears in the Direction window.



The following layers can be selected:

Button	Layer	Direction
	XY layer: You can only draw in the direction of the x or y axis. The drawing area is shown in red.	
	XZ layer: You can only draw in the direction of the x or z axis. The drawing area is shown in green.	

Button	Layer	Direction
	YZ layer: You can only draw in the direction of the y or z axis. The drawing area is shown in blue.	

3.2.3 Creating isometric drawings

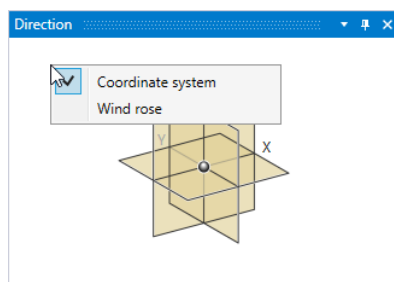
In the following sequence, the drawing begins with a transfer point and a stack. Additional information on the layers function will be explained, permitting more complex visualisation of the plan. An outlet is set at the end of the sequence. The additional sequences explain how branching pipes can be set and what factors need to be taken into account.

As the left and right side of the planning example are mirror images of each other, only the left part of the planning is drawn. The right part is later inserted as a mirror image.

3.2.3.1 Placing transfer points and roof outlets

The transfer point and a roof outlet are set once you have extended the drawing area.

1. Right-click in the **Direction** window and select **Coordinate system** in the pop-up menu.

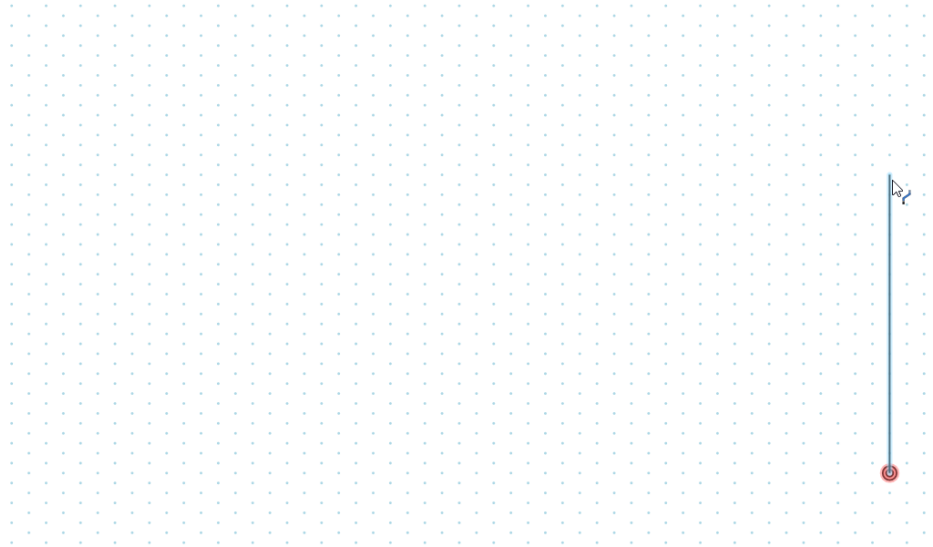


2. Select the **Set transfer point** function in the toolbar.

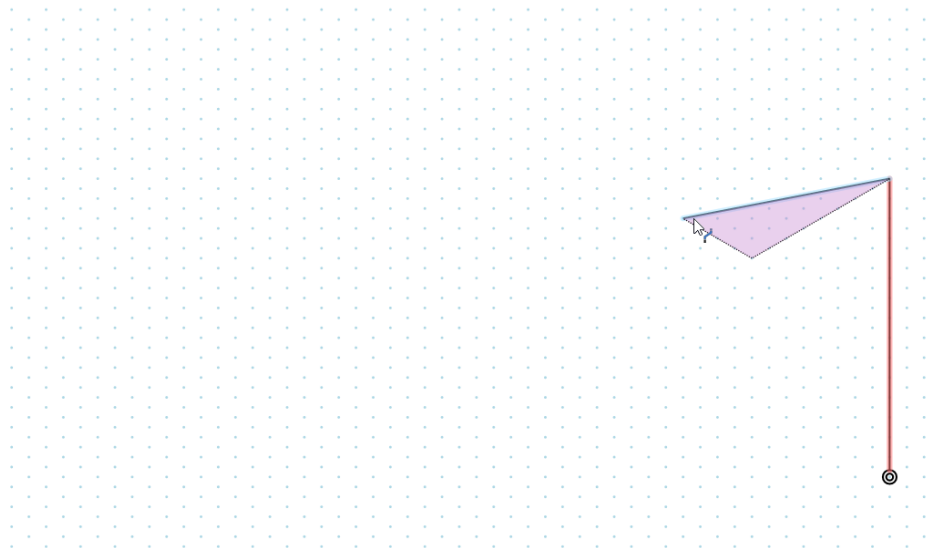


3. Click in the drawing area to place the transfer point.
✓ Geberit ProPlanner automatically activates the **Draw pipe** function.

4. Move the cursor upwards and click again in the drawing area.



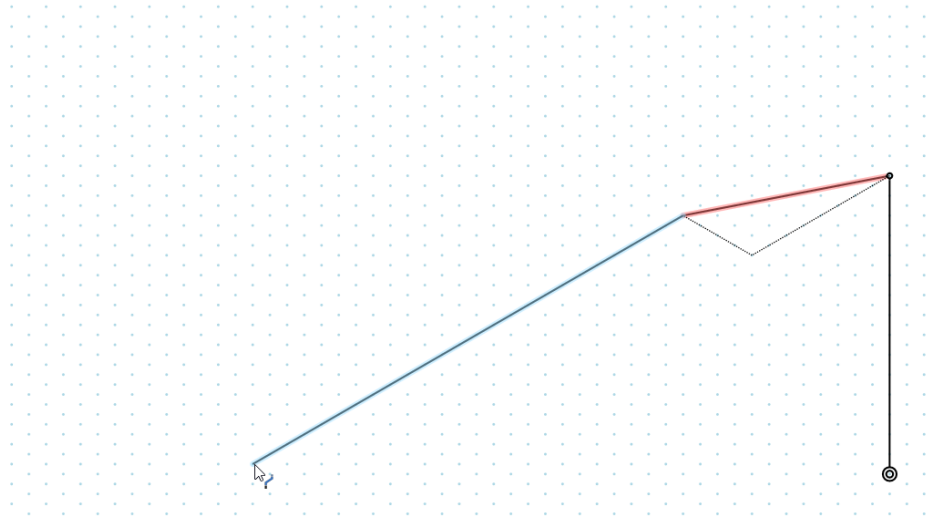
5. Select the function **In XY plane**.
6. Move the cursor to the left and draw open the layer.
 - ✓ The layer is shown red in the drawing area. The layer and direction are displayed in the Pipe position window.



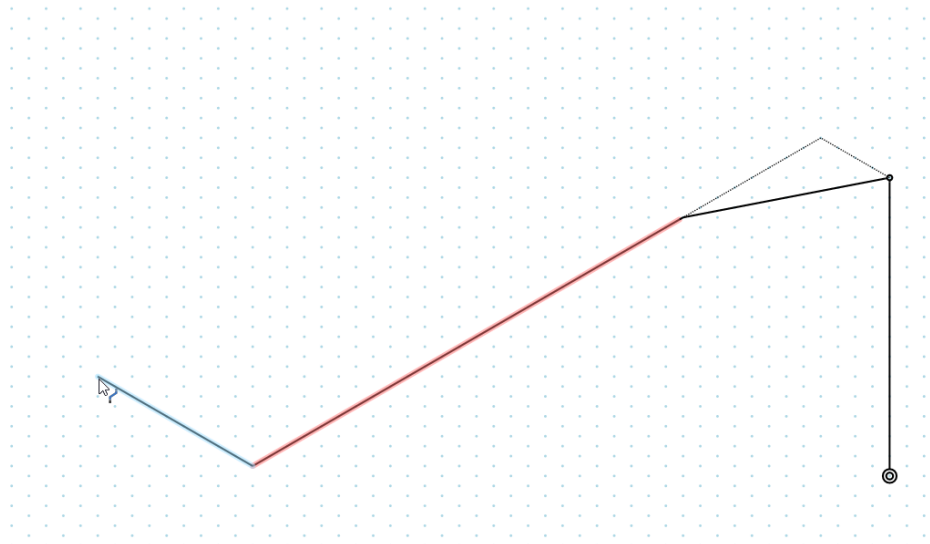
If you need to, change the 45° visualisation by clicking on  .

7. Click in the drawing area to draw the section.

8. Draw your cursor to the bottom left and click in the drawing area to draw the next section.

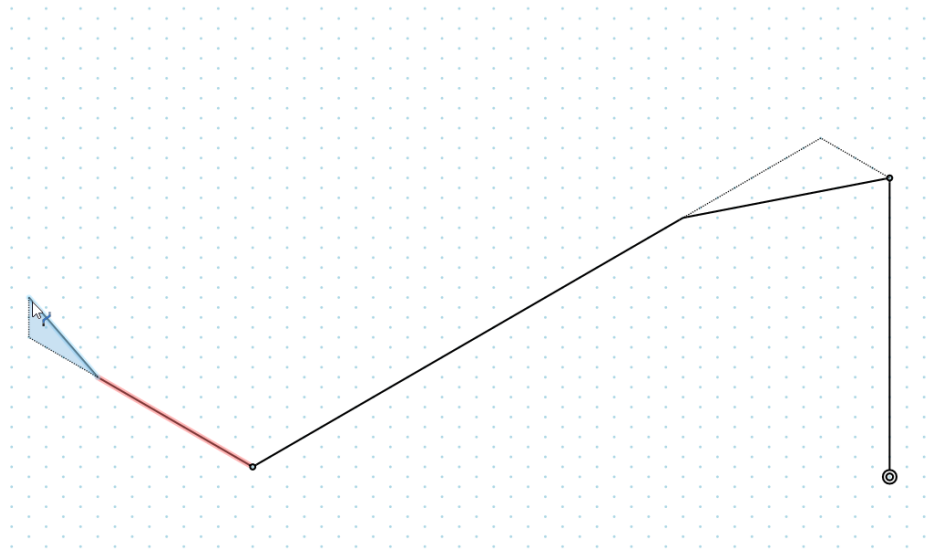


9. Draw the cursor to the top left and click in the drawing area.





10. Select **In YZ plane** and draw the layer open to the left.

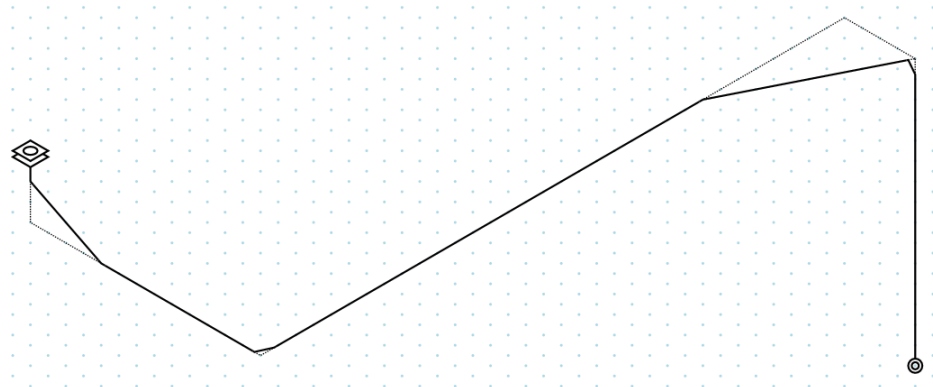


If you need to, change the 45° visualisation by clicking on .

11. Click in the drawing area to draw the section.



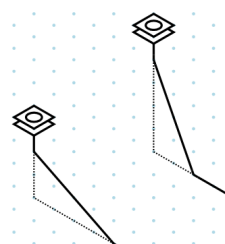
12. Click on **Set roof outlet** in the toolbar and place the roof outlet at the end of the section.



13. Press **ESC** to exit the function.



To adapt the 45° visualisation with pipes already drawn, right-click on the respective pipe and select **Toggle 45° view** in the pop-up menu.



3.2.3.2 Drawing Branching Pipes

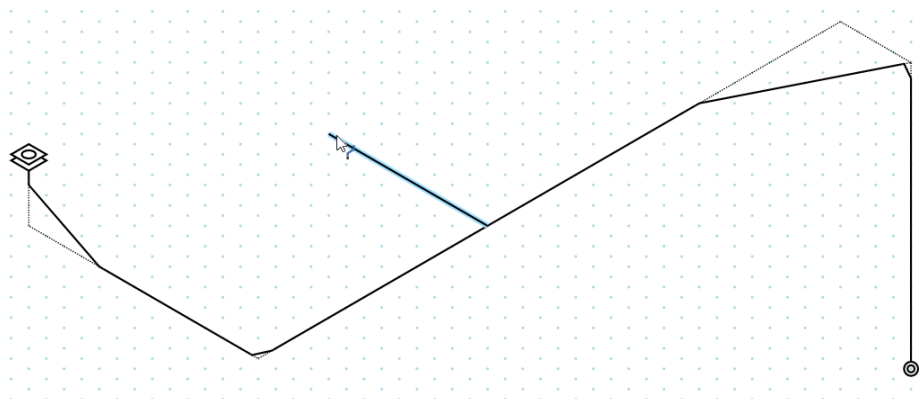
A branching pipe is inserted in the following sequence and another roof outlet is set.



Branching pipes can only be placed at grid points. Once you have clicked on the pipe section, the branching pipe is automatically set at the next grid point.



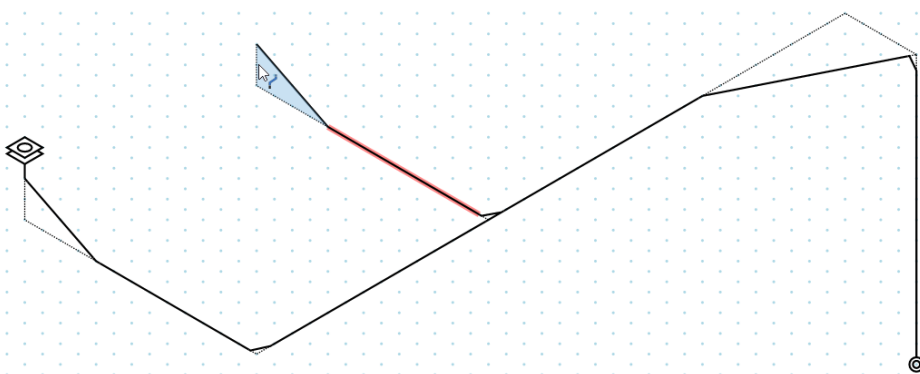
1. Click in the toolbar on **Draw pipe**.
2. Click on the pipe section to set a branching pipe.
3. Move the cursor to the top left and click in the drawing area.



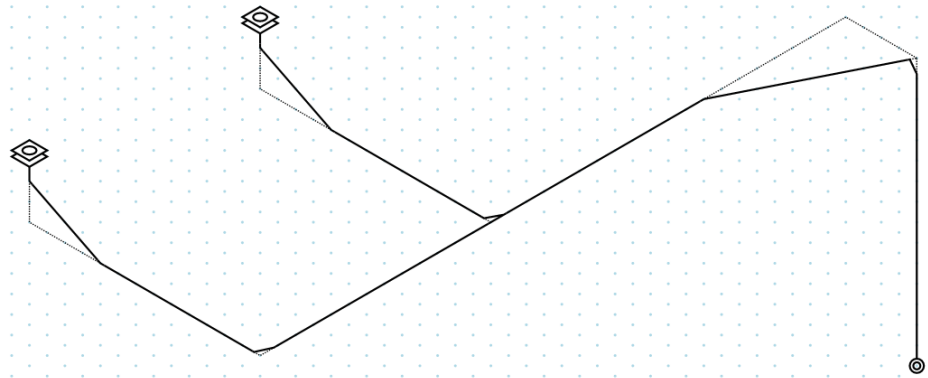
4. Select **In YZ plane** and draw the layer open to the left.



5. If you need to, change the visualisation ratio and click in the drawing area to draw a section.



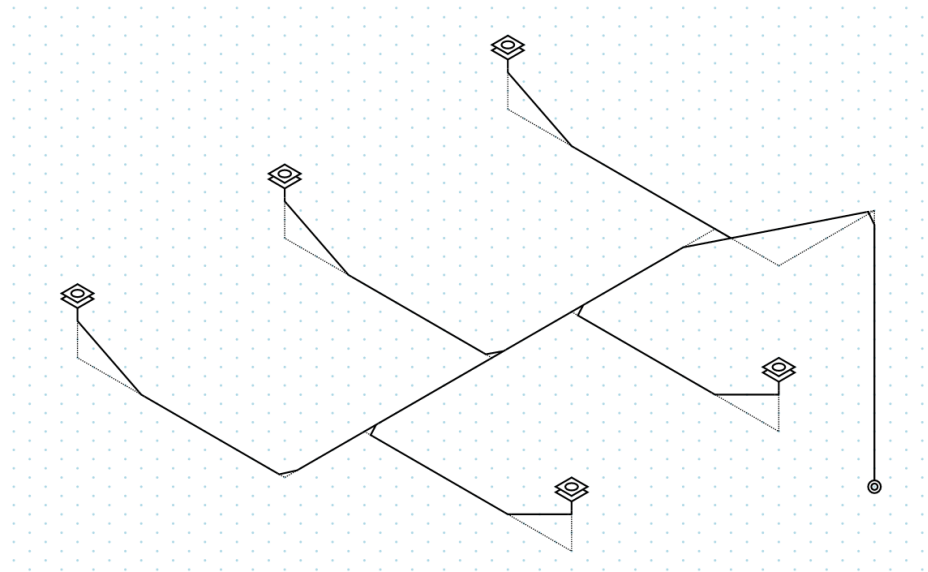
6. Click on **Set roof outlet** in the toolbar and place the roof outlet at the end of the section.



7. Press **ESC** to exit the function.

3.2.3.3 Completing the Example

1. Complete the first part of the planning example using the functions you have already met. Do not yet adjust the pipe lengths.



2. Click on **Calculate subproject** in the toolbar or press **F5** to calculate the subproject.



Errors, warnings or notes are displayed in some markets. You can initially ignore them and rectify them later, as required ("Rectifying errors and eliminating warnings", page 23).

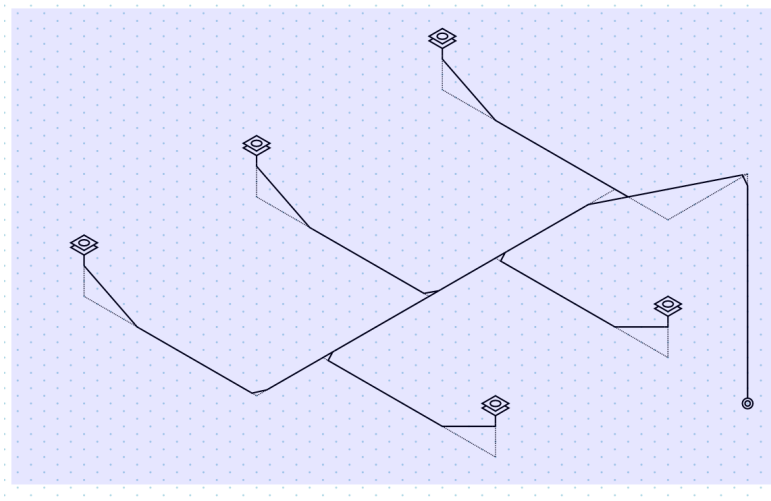
3.2.4 Adapting pipe lengths and roof outlets

3.2.4.1 Configuring Roof Outlets



If a default roof outlet with a **Target volumetric flow rate (\dot{V}_{target})** of > 12 l/s is predetermined in your market, then these roof outlets need to be replaced by ones with a maximum **Target volumetric flow rate (\dot{V}_{target})** of 12 l/s (d56 connection). To do so, call up the **Properties** of the roof outlets and select a suitable roof outlet in the **Object** tab.

1. Press and hold down the left mouse key to draw open a selection rectangle so that all the pipes and roof outlets are selected.

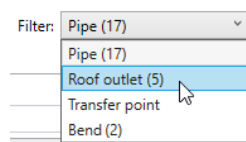


2. Right-click on the marked pipes objects and select **Properties** in the pop-up menu.
✓ The **Properties** window appears.



Alternatively, press **Alt** and **Enter** simultaneously to open the **Properties** window.

3. At the top right, select **Filter Roof outlet (5)**.



The figure **(5)** in the filter corresponds to the number of roof outlets selected.

4. Enter the value **5.0** l/s in the **Target volumetric flow rate (\dot{V}_{target})** field.

- Enter the value **0.30 m** in the **Length (L)** field.

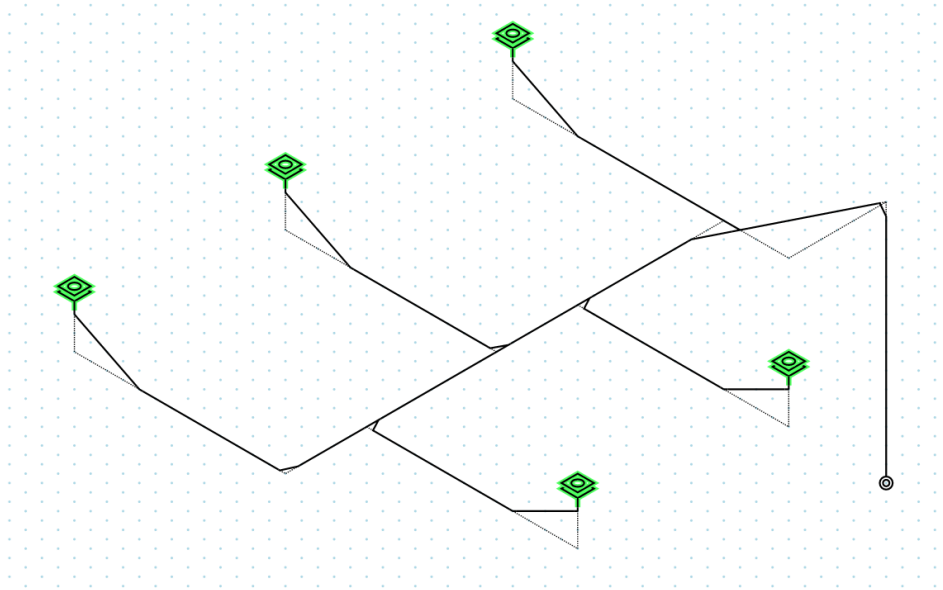
Roof drainage systems

Target volumetric flow rate (\dot{V} target): l/s

Length (L): m

- Click on **OK** to apply the settings.

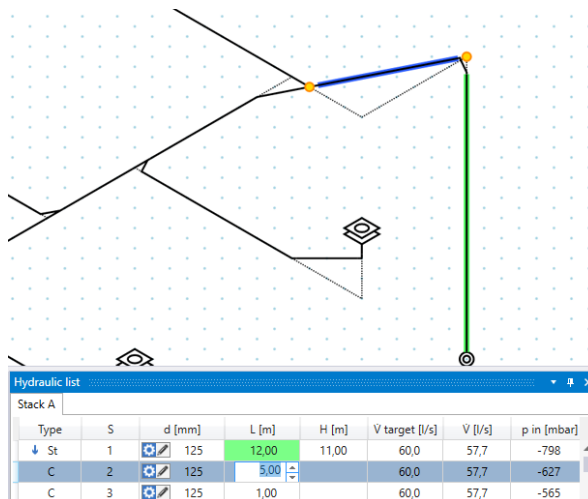
✓ The changed roof outlets and outlet pipes appear green in the drawing area.



3.2.4.2 Adapting Pipe Lengths



- Open the **Hydraulic list** window.
- Click in the **L [m]** field for section 1 (column **S**, entry **1**).
- Enter the value **12.00 m** and press **Enter**.
✓ The changed section appears green and section 2 appears blue in the drawing area. In the Hydraulic list, section 2 (column **S**, entry **2**) has a blue background and the **L [m]** field is activated.



- Enter the value **5.00 m** in the **L [m]** field for section 2 and press **Enter**.

5. Enter all the lengths for the single sections in this way. Take the values from the overview plan (see "Large roof area", page 56).



You can use the arrow keys or the mouse wheel to change values in the **Hydraulic list**. Use the **Enter** key to jump to the next line. Use the **Tab key** to move between the fields.



6. Press **F5** to recalculate the planning.



Errors, warnings or notes are displayed in some markets. You can initially ignore them and rectify them later, as required ("Rectifying errors and eliminating warnings", page 23).

3.2.5 Optimising Diameters

Geberit ProPlanner can optimise the diameters of pipes and automatically correct errors with faulty calculations.

Select one of the following options to optimise the diameters of pipes:



- ▶ Click on **Optimize diameters** in the toolbar.
- ▶ Click in the message list on **Optimize diameters**.

Message list		
Roof drainage systems ✖		
	Message	Command
	The calculation could not find a solution. Perform the "Optimize diameters" function.	Optimize diameters

- ✓ Geberit ProPlanner optimises the diameters of the pipes and automatically corrects the errors.

Message list		
Roof drainage systems ✔		
	Message	Command
	In order to prevent the pipe diameters from changing again during additional calculations, you can fix all pipe diameters.	Execute
	The calculation was performed based on the PSI+ method.	

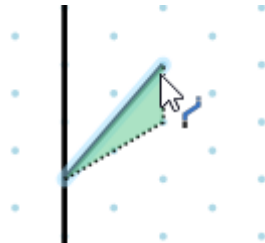
3.2.6 Setting a branching pipe on the stack

A branching pipe has to be set on the stack to complete the planning example with the second planning section.

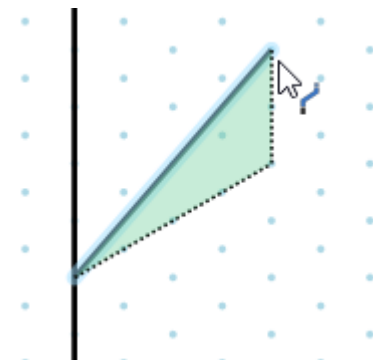
3.2.6.1 Layers Function with Branching Pipes

If you connect an existing pipe to a new pipe, you can draw a branching pipe using the Layers function. You can therefore define whether the branching pipe is directly planned with a bend or with an intermediate pipe and a bend.

- A branch with a directly connected bend is planned as soon as you draw the branching pipe to the first grid point and click there.



- A branch with a directly connected pipe and bend is planned as soon as you draw out the branching pipe beyond the first grid point and click there.



3.2.6.2 Setting a Branching Pipe using the Layers Function



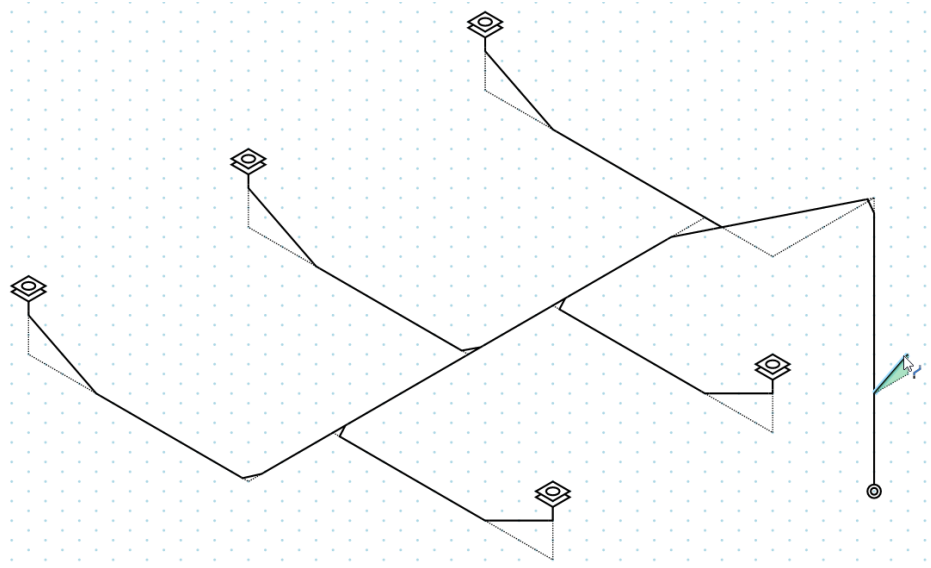
1. Click in the toolbar on **Draw pipe**.



2. Click on the stack and select **In XZ plane**.

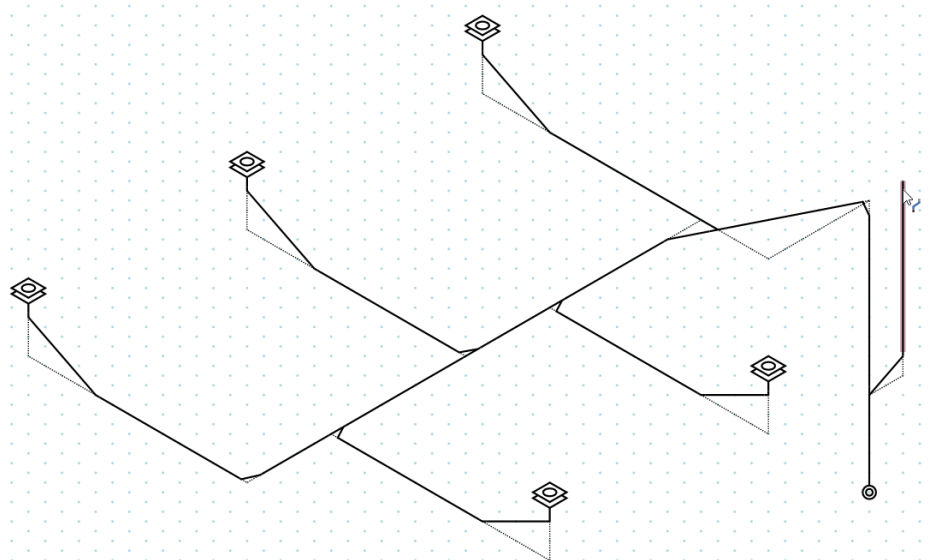


3. If you need to, change the visualisation ratio and move the cursor to the right to open up a layer.



4. Click on the next possible grid point in the drawing area to set a pipe without an intermediate pipe.

5. Move the cursor upwards and click again in the drawing area.

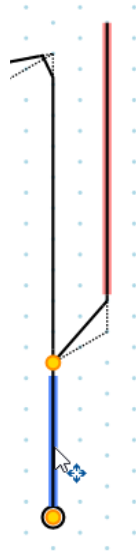


6. Press **Esc** 2x to exit the function.

3.2.6.3 Adapting Pipe Lengths and Stacks

The stack pipe lengths have to be adapted once the branching pipe has been connected.

1. Double-click on the stack at the transfer point.



✓ The **Properties** window appears.

2. Enter the value **12.00 m** in the **Length (L)** field.

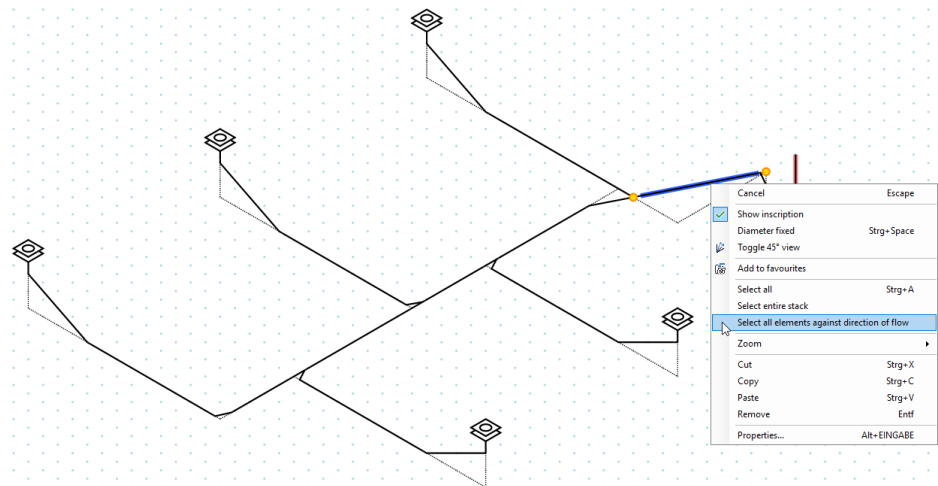
Roof drainage systems	
Length (L):	<input type="text" value="12,00"/>

3. Click on **OK** to apply the settings.
4. Adjust the length of both parallel stacks to 4.5 m in this way.

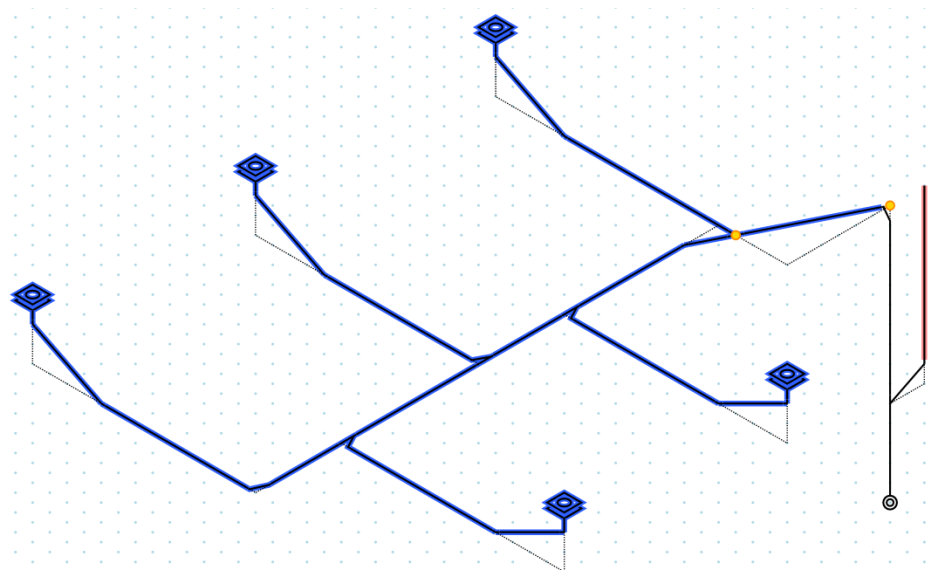
3.2.7 Copying and mirroring

The first part is copied and pasted as a mirror image so that you do not have to draw the second part of the planning example.

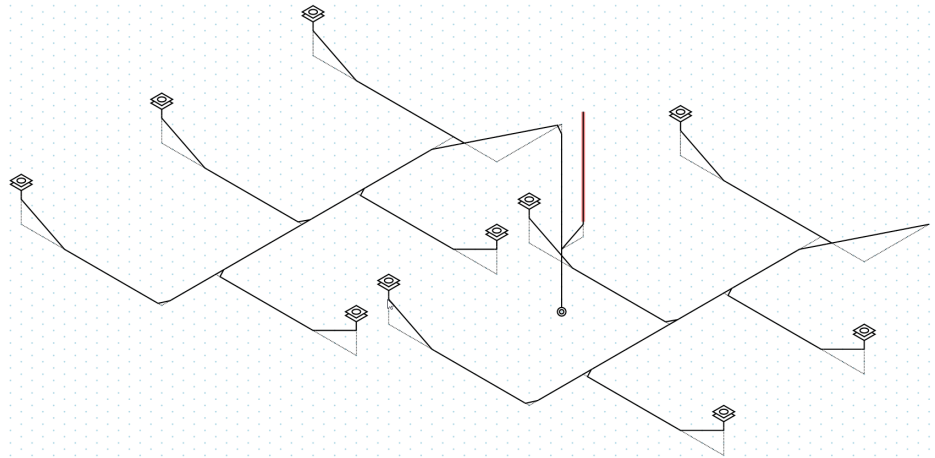
1. Right-click on section 3 and select **Select all elements against direction of flow** in the pop-up menu.



2. Right-click on a highlighted pipe or a highlighted roof outlet and select **Copy** in the pop-up menu.



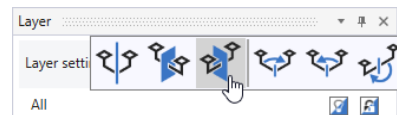
3. Right-click in the drawing area and select **Paste** in the pop-up menu.
- ✓ The inserted planning section is suspended from the cursor.



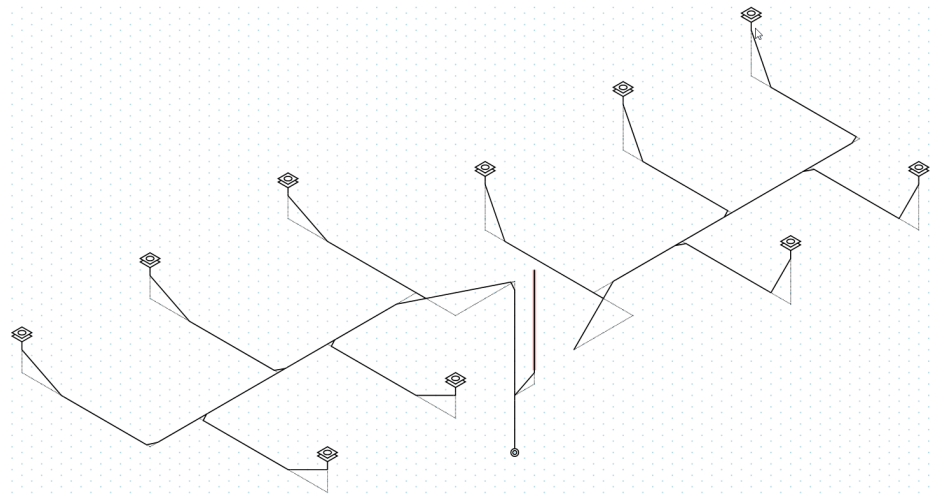
- ✓ Buttons for selecting the reflection layer and rotation appear in the top left section next to the drawing area.



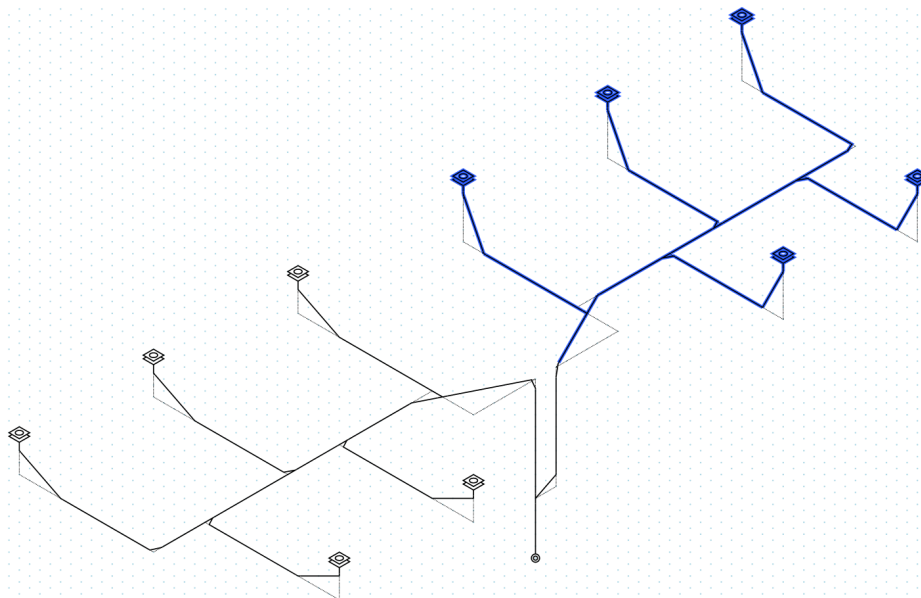
4. Select the function **Mirror on YZ-plane**.



- ✓ The planning section on the cursor is mirrored.



5. Move the cursor so that the two unconnected ends of the planning sections butt again each other.
6. Click in the drawing area to place the second planning section.
 - ✓ The mirrored second planning section is automatically connected to the first planning section.



7. Press **F5** to calculate the subproject.

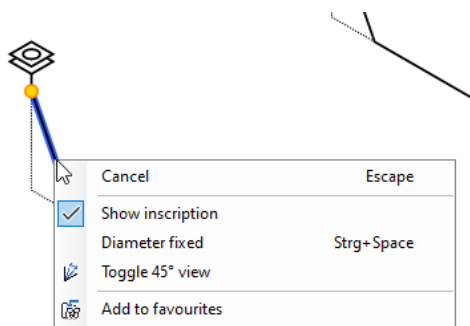


Errors, warnings or notes are displayed in some markets. You can initially ignore them and rectify them later, as required ("Rectifying errors and eliminating warnings", page 23).

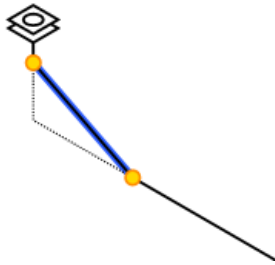
3.2.7.1 Toggling the 45° visualisation

For the newly inserted planning section, the pipes are displayed at a 45° angle differently than in the existing planning section. This will be adjusted in the following sequence.

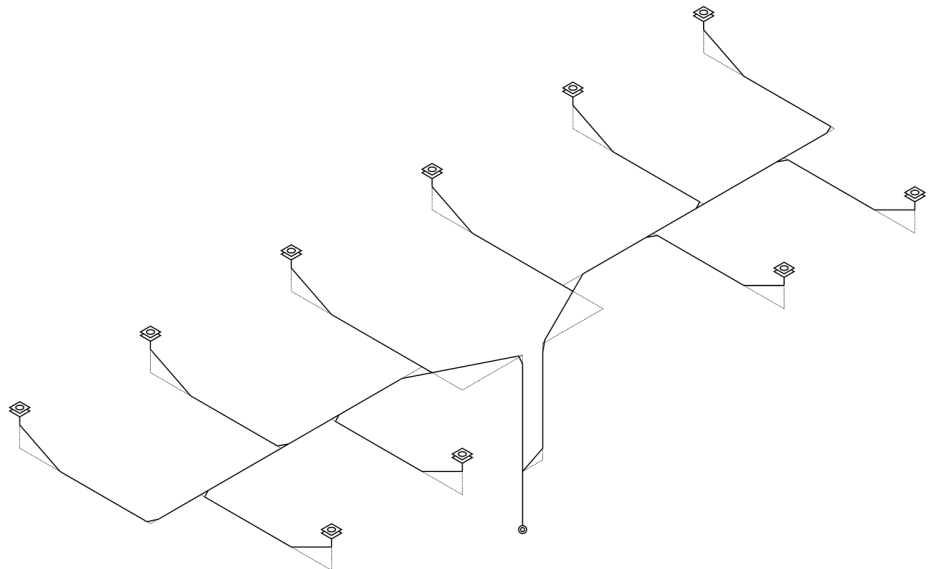
1. Right-click on the first pipe section at a 45° angle.



2. Select **Toggle 45° view** in the pop-up menu.
✓ The display is adjusted.



3. Adjust all other pipes at a 45° angle in the newly inserted planning section in this way.



3.2.7.2 Adapting Visualisation

1. Adapt the visualisation (see "Visualisation", page 27).



2. Click on **Calculate subproject** in the toolbar or press **F5** to calculate the subproject.
3. Correct any errors or warnings as described (see "Calculation", page 22).

4 KEYBOARD SHORTCUTS

Use keyboard shortcuts to work faster with Geberit ProPlanner. Select from general keyboard shortcuts and combinations that apply to the specific module.

Country-specific keyboard shortcuts are not listed here and can be requested from the respective sales company's hotline.

Keyboard shortcuts for Swiss keyboards (English keyboard) are shown in brackets.

The keyboard shortcut for the respective functions is additionally displayed in brackets in the menus and tool tips.

4.1 General

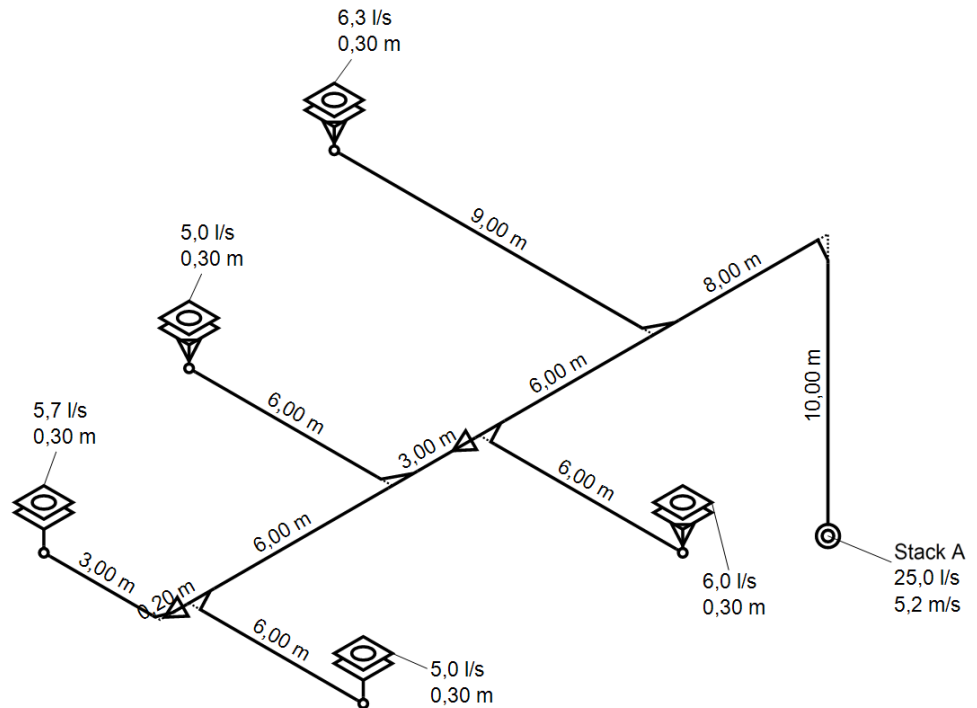
Function	Keyboard shortcut
General	
Cancel/Exit	ESC
Select and edit	
Copy	CTRL + C
Paste	CTRL + V
Cut	CTRL + X
Select all	CTRL + A
Select several objects	CTRL + left mouse key
Undo and Redo	
Undo last command	CTRL + Z
Restore undone command	CTRL + Y
Open and save project	
Open existing document	CTRL + O
Save current project	CTRL + S
Print and export file	
Print/export file (lists)	CTRL + P
Print/export file (graphics)	CTRL + G
Calculate	
Calculate active subproject	F5
Calculate all subprojects	CTRL + F5
Navigation	
Change to the next line	Tab key
Change to the previous line	SHIFT + Tab key
Open pop-up menu	Right mouse key
Objects	
Delete highlighted objects	DEL
Open properties of highlighted objects	Alt+Enter
Help	
Call up the Help function	F1

4.2 Roof drainage system

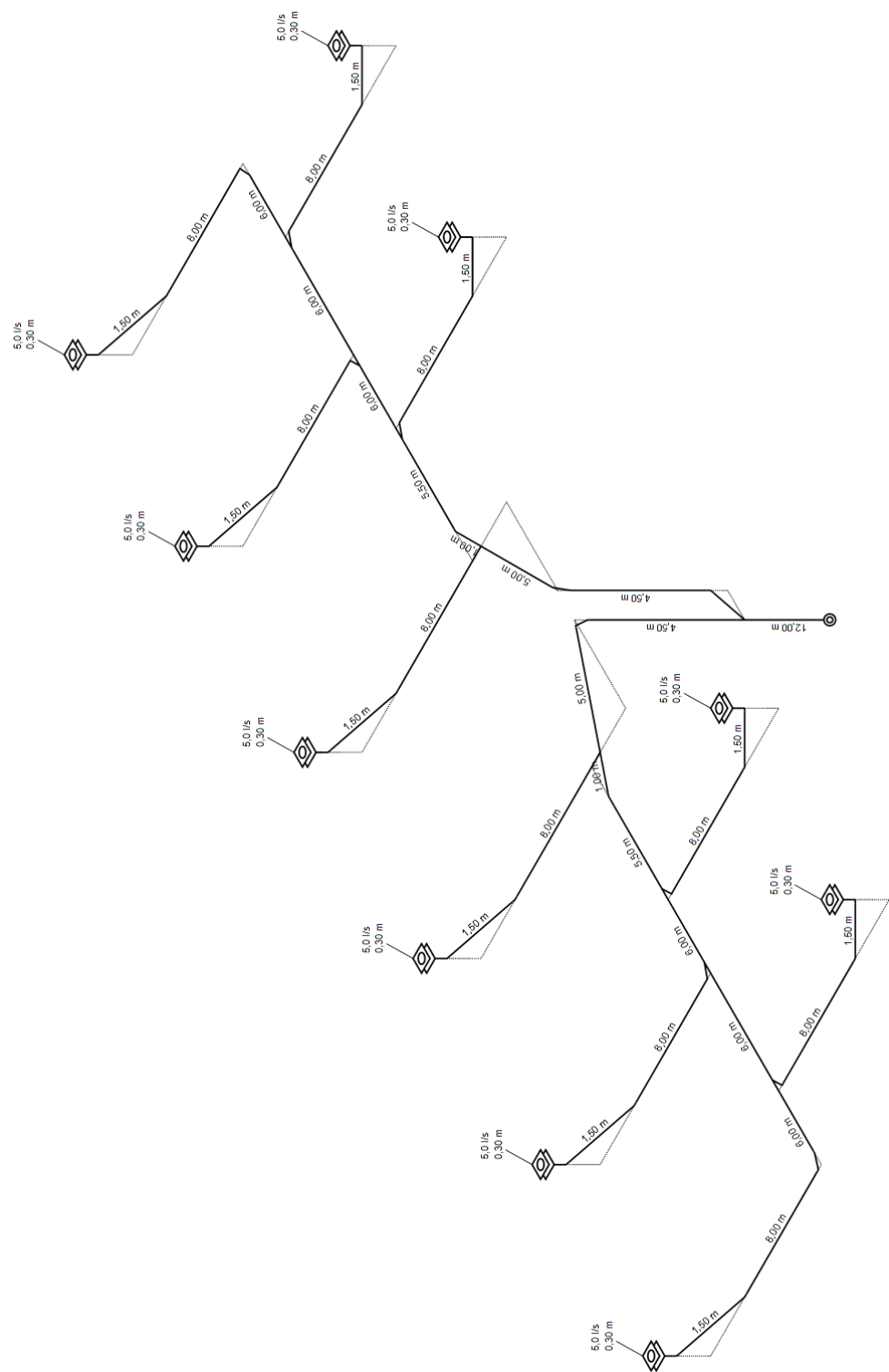
Function	Keyboard shortcut
Draw pipes	
Insert transfer point	G
Insert roof outlet	O
Draw pipe	P
Insert access pipe	A
Insert expansion socket	E
Split highlighted pipe	D
Join highlighted pipe	J
Optimise pipe diameters	F6
Lock/unlock dimension	CTRL + Space bar
Delete highlighting	Space bar
Select and edit	
Pipes and installation elements in the same alignment	Press and hold down the left mouse key
Drawing area	
Move drawing area	Press and hold the mouse wheel + move the mouse
Zoom	
Zoom out or zoom in	Turn mouse wheel
Zoom out (with whoosh)	S
Zoom out (without whoosh)	- (on numeric keypad)
Zoom in (with whoosh)	W
Zoom in (without whoosh)	+ (on numeric keypad)

5 OVERVIEW OF PLANNING EXAMPLES

5.1 Small roof area



5.2 Large roof area



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