

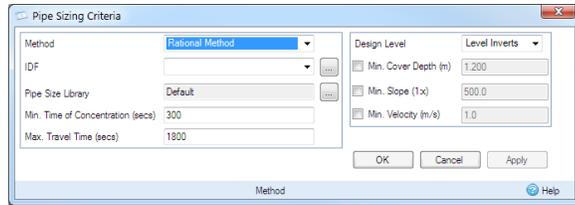
Pipe Sizing Criteria

The **Pipe Sizing Criteria** is the set of parameters required to size pipes/channels along a given network.

Note: **Pipe Sizing** is performed using **Path** which has been previously set up.



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Method

Select the calculation method to be used when sizing the pipes/channels. Choose from:

Rational Method: $\text{Flow} = \text{Rainfall Intensity} \times \text{Total Area} + \text{Total Base Flow}$

(UK) Modified Rational Method: $\text{Flow} = \text{Rainfall Intensity} \times \text{Total Area} \times Cr(1.3) + \text{Total Base Flow}$

IDF

An **IDF** entry in the **Rainfall Manager** that contains the local rainfall should be created and will be used to extract the rainfall intensity based on the Travel Time for the pipe/channel.

Pipes Size Library

The **pipe size library** is a sequential list of pipe diameters. New pipe libraries can be defined by clicking on the button next to the box.

Minimum Time of Concentration

This is the minimum time that should be applied to each pipes time of concentration. This is in effect applied to the head of each branch line to give an initial time of entry for the inflows.

Maximum Travel Time

This allows the maximum travel time down the system to be capped at the given value. This prevents the Intensity being used to size the pipe/channel reducing to low.

Design Level

Choose Level Soffits (Crowns) or Level Inverts from the list box to design the system with Level Soffits (Crowns) or Level Inverts respectively.

Note: Level Soffits only applies to Pipes as Channel soffits are already aligned to the cover level.

Minimum Cover Depth

The desired depth from the pipe soffit/channel top to the cover level. When ground levels have already been input the program will warn the user when the desired cover to ground level has not been achieved.

When the option is turned on the auto size calculation will attempt to redesign the system and achieve the above cover where it is feasible.

Note: Level Soffits only applies to Pipes as Channel soffits are already aligned to the cover level.

Minimum Slope

The desired minimum slope for a pipe/channel. This is desirable when the ground is flat or is sloping away from the pipes and minimum slopes are required to reduce excavation.

When the option is turned on the auto size calculation will attempt to redesign the system and achieve the minimum slope where it is feasible.

Minimum Velocity

The desired minimum velocity for a pipe/channel. The program will then choose a pipe diameter and slope with sufficient capacity to give the required Full Bore Velocity.

When the option is turned on the auto size calculation will attempt to redesign the system and achieve the minimum slope where it is feasible.

Section Pages

- [Networks](#)
- [Pipe Sizing Criteria](#)
- [Pipe Size Library](#)

Workflow - What's next...?



Connect Inflows to your **Stormwater Control**, specify **Inlets** or **Outlets** or connect to another Stormwater Control or **Junction**.

Note: Pipe sizes are increased in steps and it may not be possible to achieve exactly the minimum velocity.