

Using the sketch below, size a smooth interior HDPE pipe to handle the design flow without overtopping. Assume a thin edge projecting inlet and no embedment. These hints will help you get started:

1. Find the pipe inlet and outlet locations:
Assume a 1:3 fill slope will need to be graded down to the inlet and outlet. How far from the edge of the road would those points be?
2. Figure out the channel roughness value:
Remember how we did this iteratively in lecture 7?
3. Test out various pipe sizes to see which ones work:
The smallest standard size that does not overtop the road at 23 cfs is the answer.

Peak Flows	
Min.	12 cfs
Design	23 cfs
Max.	41 cfs

