



Civil & Structural Engineering Design Services Pty. Ltd.

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15th March 2019

D-11-266888

Wheeler Height Developments
40 Anzac Avenue
COLLARROY NSW 2097

Dear Sir & Madam,

Re: Stormwater Report – Proposed New Dwelling within the flood flow path at 44
Rose Avenue, Wheeler Height

INTRODUCTION

I, Edward A. Bennett, practicing Civil, Structural, Geotechnical & Environmental Engineer hereby confirm that I inspected the above property for the purpose of providing a stormwater report for this property for ARI 1:100 rainfall events (1%AEP).

REPORT-

The purpose for this stormwater report for No. 44 Rose Avenue, Wheeler Height, is to check if the existing easement on the eastern boundary of the property has the capacity of take extra discharge from the new Onsite Detention Tank to be constructed at 44 Rose Avenue, Wheeler Heights.

For the design parameters, we have relied upon the report produced by Northern Beaches Consulting Engineers Pty Ltd for our calculations.

Parameter used in determining Discharge using Pipe Flow Advisor

Diameter of Pipe= 525 mm (taken from W.A.E drawing: Drawing Number 150765-2, REV. E-16.02.2017) received from Northern Beached Consulting Engineers Pty Ltd)

1:100 ARI discharge through the pipe = 575 l/s

Maximum discharge through 525 mm pipe = 937 l/s

Discharge through the OSD tank = 55 l/s

CALCULATION OF DISCHARGE CAPACITY OF PIPE (USING MANNING'S EQUATION):

Pipe flow advisor was used to calculate the discharge capacity of the pipe. The parameters used for the calculations are:

Pipe Diameter: 525 mm

Slope: 4.1%

Manning's Coefficient: 0.013

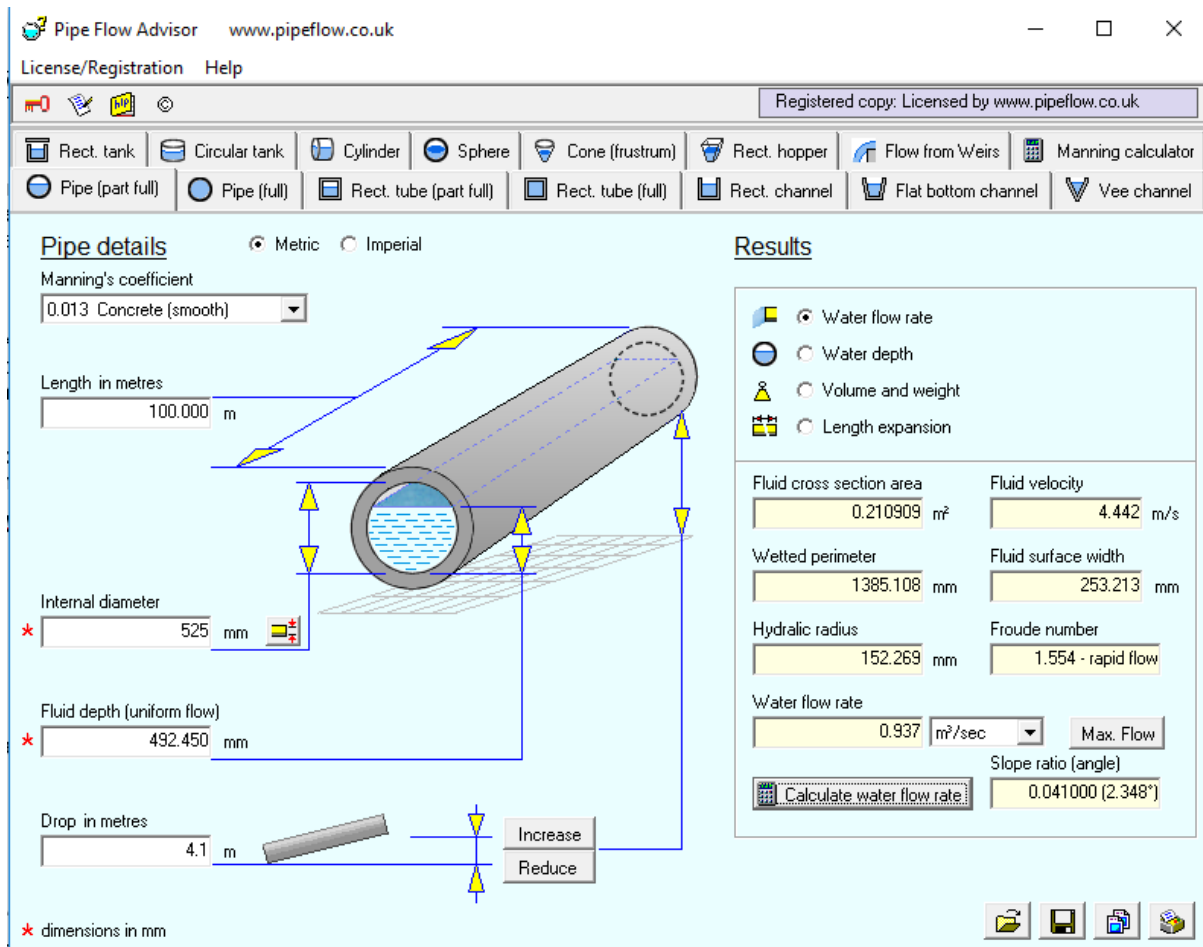


Fig 1: Screenshot from Pipe Flow Advisor

CONCLUSIONS:

Since the maximum discharge capacity of the existing 525mm easement RCP is 937 l/s and the 1:100 ARI discharge through this pipe is only 575 l/s, this easement RCP is able to cater for the extra discharge of 55 l/s coming from the OSD.

Yours faithfully,

E.A. Bennett M.I.E. Aust. Cp Eng. NPER 198230, Member AGS, BPB 0820