Example 4A-10_2: Evaluation of System Time of Concentration

Find the greatest Time of Concentration (T_c) for each intake.

where:

T_{A1}, T_{A2}, T_{A3}, and T_{A4} = T_c for the area that matches the number of the intake the area drains.

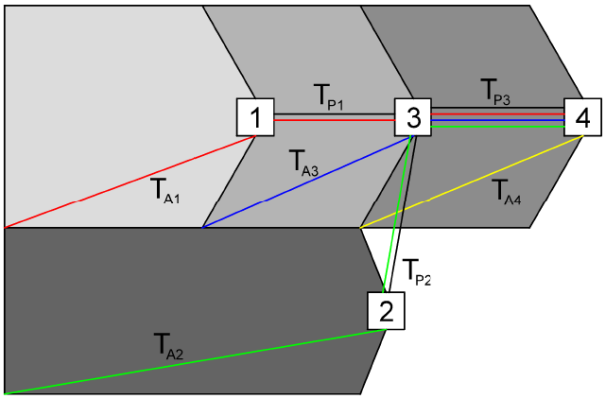
T_{P1}, T_{P2}, and T_{P3} = T_c for the pipe that flows out of intakes 1, 2 and 3.

T_1, T_2, and T_3 = Greatest time of concentration.

Use methods provided in Section 4A-5 to estimate surface flow T_c values.

The table below lists intakes with corresponding calculations used to determine the greatest concentration times. The figure beneath the table illustrates the T_c flow paths.

Intake	Use the Greatest of the Possible Times of Concentration Listed Below				
1	T_{A1}				
2	T_{A2}				
3	T_{A3}	or	$T_2 + T_{P2}$	or	$T_1 + T_{P1}$
4	T_{A4}	or	$T_3 + T_{P3}$		



Add the time of concentration for the area and the time of concentration for the pipe draining into the intake. Repeat this process for each intake downstream, continuing the process for the entire system. For each intake, use the greatest time of concentration.