

TRADITIONAL SOUQ - ABU DHABI

Storm Water Calculations

Revision	Description	Date
0	Concept Design Stage	July 2017
1	Schematic Design Stage	Aug 2018

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Storm Water Calculation

As per Abu Dhabi Municipality Storm water design Guideline, the rainwater intensity at 1 hr. storm duration within 10 years return period is 21.71 mm/hr.

Therefore, using rational method equation:

$$Q = C \times i \times A$$

Where Q = Peak Flow rate (m³/hr)

C = Runoff Coefficient= 0.90(For concrete & Asphalt)

i = Rainfall intensity = 21.71 mm/hr.

A = Catchment Area = 247822 m²

Hence,

$$Q = C i A$$

$$= 0.90 \times 21.71/1000 \times 247822$$

$$Q = 4842 \text{ m}^3/\text{hr}$$