

<p><b>THE MASTER HELD AT THE STRUXIT PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL</b></p>			
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CLIENT		DEV MCO	
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## 1. PURPOSE

This document is intended to provide guidance to civil engineers appointed for the design of stormwater network for the private stands in the Salta Mount Cotton development. The guidelines provide the engineer with sufficient information to ensure that the designs will comply with the stormwater management of the larger development.

All queries should be directed to STRUXIT Projects.

## 2. GENERAL

All stormwater designs to be compliant with the relevant South African codes including the following:

- eThewini Design Standard
  - Design Manual: Guidelines and policy for the design of stormwater drainage and stormwater management systems
- Drainage Manual
- SANS 10400
- Guidelines for Human Settlement Planning and Design

The civil engineering responsible for the stormwater design of the private stand remains responsible for the design and functionality of this stormwater system.

All stormwater designs should be submitted to the estate civil engineer for comment and approval prior to submission to council.

## 3. DISCHARGE POINT

No concentrated discharge points will be allowed for the private site networks. All discharges should be dissipated, regardless of whether the discharge point is located in a green zone or in another property. This does not necessarily mean that an energy dissipation structure should be constructed, it should just be proved that the stormwater is not concentrated.

There are two possible discharge scenarios, which include the following:

- Direct stormwater towards the road and discharge as surface flow onto the road
  - Direct stormwater away from the road (only allowed where the natural terrain of the site slopes away from the road) and discharge at the lowest point of the site, taking into consideration the position of the lower lying property.
- a. Discharging onto the road (Figure 1):
- In some instances the site's natural terrain will be lower than the bordering road. In order for these sites to discharge onto the road the sites level will have to be lifted in order for the site to discharge onto the road. Under no circumstances will a property be allowed to connect directly into the external stormwater network without prior approval from the estate engineer.



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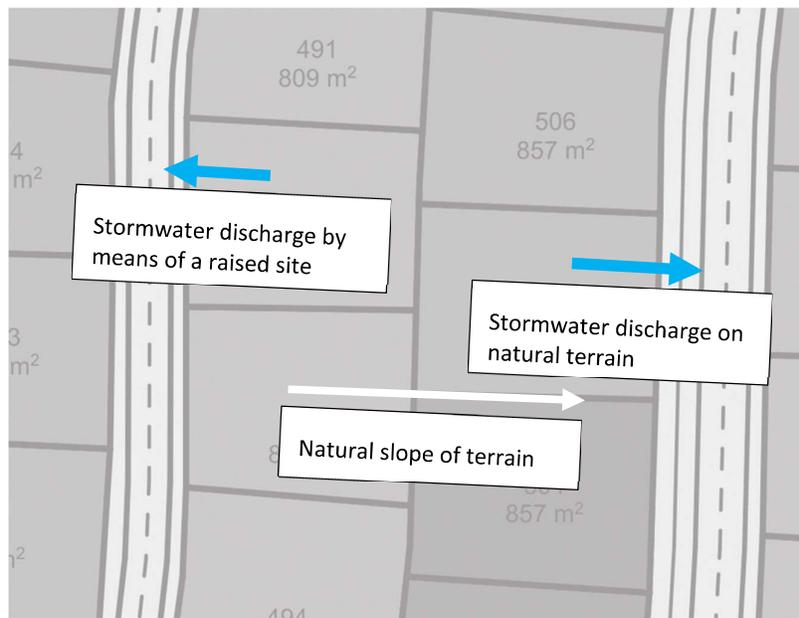


Figure 1 Stormwater discharge directed to roads only

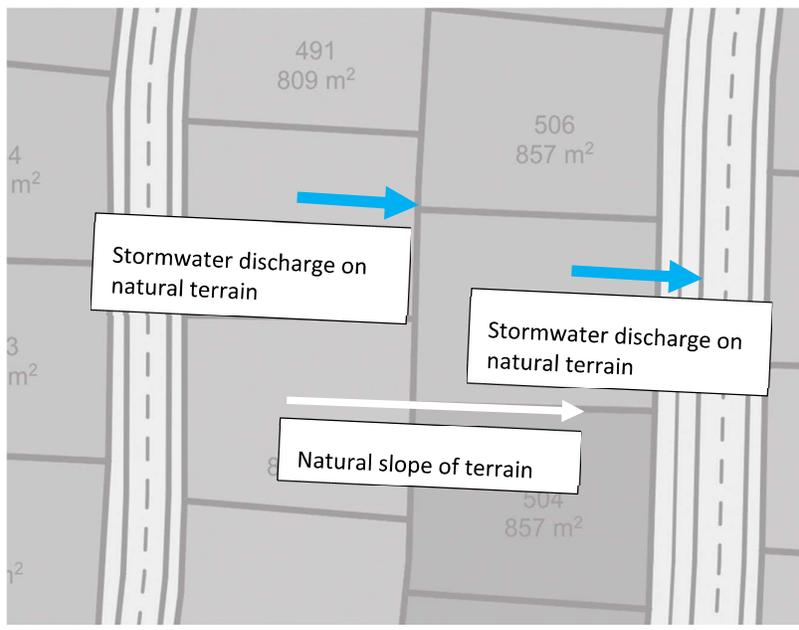


Figure 2 Stormwater discharge in line with natural terrain slopes

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- b. Discharge at the lowest point of the site (Figure 2):

Where the site is lower than the bordering road and the designer decides to discharge the stormwater (from the soak away) at the lowest point of the site, the stormwater should not be concentrated and should be discharged in a location where the stormwater will be able to flow around the lower lying neighbouring property's house. These plans will also have to be approved by the estate civil engineer.

#### 4. LOWER LYING PROPERTIES

All owners of lower lying properties should take note that they are legally obliged to accept and receive the stormwater from their higher lying neighbours, as long as the stormwater is not concentrated. Under no circumstances may an owner of a lower lying property design his stormwater system or landscaping in such a way that restricts the higher lying property from designing and operating their stormwater network in such a way that is in accordance with this document.

#### 5. SERVITUDES

All site owners should take note that there is a 1m wide servitude allowed along all private property boundaries (which coincides with the building line of a property). The purpose of these servitudes is to allow any authority to install services to service a site upstream of the respective property. No construction will be allowed within this 1m building line. The red line in Figure 3 provides a visual representation of the aforementioned servitude. The line is indicative only and does not indicate the actual width for the specific site.

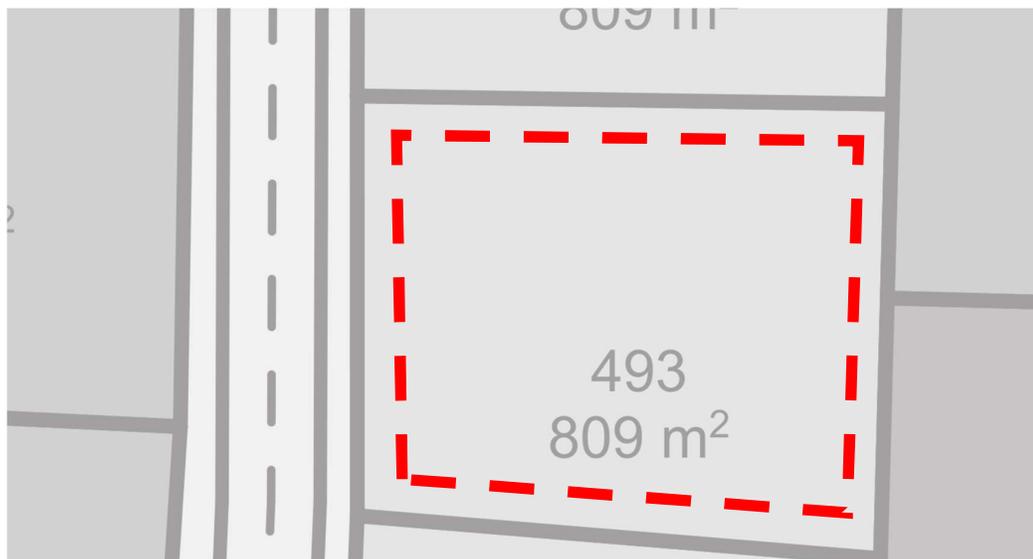


Figure 3 Private stand servitudes

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## **6. ATTENUATION**

All stormwater designs will include a soak away to ensure that only pre-developed flow is discharged from the site, in accordance with the eThekweni By-laws.

Any soakaways that form part of the stormwater design will have to discharge in accordance with Item 2 above.

Where it is the engineers opinion that this discharge should be taken through a neighbouring property in order to discharge on the road, it will be the site owner and the site engineers responsibility to install the required pipe and to arrange the logistics with the owner of the affected site.

## **7. LANDSCAPING DESIGN**

All site owners should take note that any landscaping design in the private sites that negatively impacts the stormwater management in the larger development can legally removed. If the owner refuses to remove the items personally, the development is allowed to remove them as they see fit.