

Client: Lte Consulting (Gauteng Department of Human Settlements)
 Value: R100 million
 Services: Road geometry and stormwater management system
 Project Duration: July 2015 – Ongoing

Lion Park Housing Development, Gauteng

Roads and Stormwater Design: Detail Design Stage

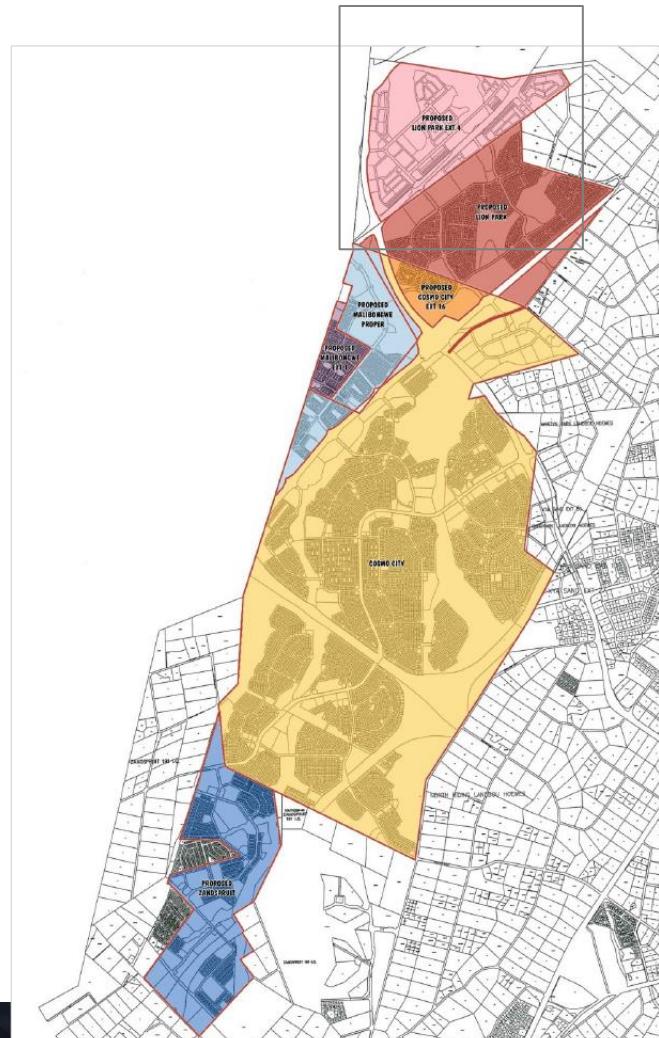
The Task

The Gauteng Department of Human Settlements (GDHS) (Gauteng Provincial Government) released a 'radical' human settlements 'mega projects' strategy in April 2015 to cover housing development in the province over the 2014/15 – 2018/19 (5 year) period. The plan seeks to transform urban planning and coordinate housing development through the delivery of self-contained economies (residential, healthcare, education, recreational, retail, commercial and public transport facilities) of no fewer than 15,000 units and up to 60,000 units (low to high income residential units), compared to previously sporadic, small and isolated developments. This is also hoped to ease housing backlog pressures.

Nurizon was appointed as a sub-consultant for LTE Consulting to undertake the detail design of the internal roads and stormwater for Phases 1 and 2 of this development – approximately 10,000 units. 140,000 units are earmarked for the ultimate Lion Park housing development, announced by the GDHS. The development is located in Diepsloot East, Gauteng on the site an existing informal settlement.

Design Services

Preliminary designs for the surfaced roads and stormwater infrastructure were produced using City of Johannesburg standards, with 8 attenuation ponds designed to control the discharge of stormwater from the 150 hectare post development site. Ponds were sized to accommodate 1:5 and 1:10 year flood recurrences, whilst carrier pipes were sized for a 1:25 year flood event.



The Result

Preliminary design drawings and detail design cost estimates (BoQ) were provided to the client for the Lion Park development, within a highly condensed 1 month timeframe. The detail designs are currently progressing and cost accuracies for the development being refined



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