UMSUNGULI PROJECT MANAGEMENT

PROJECT	: UPM031
DATE	: 2010 - 2016
CLIENT	: A3 Architects
CONTRACTOR	: NMC
PROJECT VALUE	: R132 241 750.09

HILTON LIFE HOSPITAL

Umsunguli Project Management cc was appointed by the principal agents, A3 Architects to undertake the design and construction supervision of civil infrastructure serving the 94 bed Hilton Life Hospital situated within Hilton Gardens, Kwa-Zulu Natal. The civil infrastructure also served the Hilton Bunker and Hilton Health facilities. The civil infrastructure services included waterborne sewage, stormwater drainage, interlocking pave roads and parking and domestic water supply. UPM was also appointed by Never Ending Investment Trust to undertake the design and construction of bulk infrastructure ultimately serving the development but beyond the initial scope of the Hilton Life Private Hospital. This work included the Type B2 intersection, reinforced stormwater attenuation pond, reconstruction of Monzali Drive, 296kl bulk water storage reservoir, new sewer pumpstation, rising main, conservancy tanks and treatment package plant.

UPMs involvement during the planning phase, included and engineering report to obtain environmental and planning consent, including concluding service level agreements with uMngeni Municipality and Umgungundlovu District Municipality. Planning included liaison with Department of Transport, SANRAL, Grace College School, other project consultants, Calanesh Body Corporate and the Hilton Ratepayers Association.

Upgrades to bulk infrastructure included:

- **Upgrade of the P139-1 Intersection to a Modified Type B2 intersection**
  The Type B2 intersection with a bus bay was designed and constructed to conform to KZN Department of Transport standards. The intended purpose was to provide a dedicated right turning lane which ensured the safety of ambulances and motorists turning into Monzali Drive, whilst through traffic had a separate lane. A dedicated lane was also provided to Grace College for their own traffic requirements. Construction consisted of widening the existing P139-1 with new layer works typical of provincial roads. On completion of the layerworks and in preparation for the asphalt overlay, a geosynthetic fabric "*Sealmac"* was applied over the existing asphalt and new layerworks to provide a stress relieving function, better bond between new and old asphalt layers and acting as a waterproofing membrane that will prevent both the ingress of ground and surface water into the new and existing layerworks.

- **Reconstruction of 380m of Monzali Drive**
  Monzali Drive was reconstructed from a dilapidated 6m road with potholes into a 8m wide surface roads, as per agreement and in collaboration with uMngeni Municipality. The new 8m wide asphalt road included concrete sidewalks to allow for the increase pedestrian traffic, whilst parallel parking and a service yard entrance to the hospital was provided. The upgrade also included stormwater improvements along Smal Street.

- **296 kl Bulk Water Reservoir**
  A SBS reservoir was constructed to provide a 48 hour storage for domestic use, whilst it also provides 72,000 litres emergency fire storage. The tank is connects directly off the municipal water network to act as a standby during water interruptions, which are frequent in the area due to aging infrastructure.

- **Sewer Pumpstation**
  The sewer pumpstation was designed and constructed due to the lack of bulk infrastructure and the 110mm rising main pumps raw effluent to a series of conservancy tanks with a capacity of 80m³. The system is designed to link into a sewerage package plant, whilst a bypass is provided to link into the proposed future regional WWTW.

- **Stormwater Attenuation Pond**
  The purpose of the stormwater attenuation pond is to attenuate the peak flow and to release stormwater into the municipal system at pre-development flows to protect downstream natural drainage areas and wetlands. A 518m³ attenuation pond was constructed using a combination of a reinforced concrete footing and wall and earth embankments. The basement of the pond is 500mm lower than the outlet to act a natural silt trap and encourage wetland plant growth, which forms part of the overall landscaping plan.