

REIMAGINING ETHEKWINI PRIMARY

POWERED BY THE COTTON ON FOUNDATION



Size: 13 981m²
Location: eThekwin, KwaZulu-Natal.
Completed: 2022
Cost: R 32 million

Site information and history for context

The education of a child is one of the fundamental steps required to better the future of a country. An educational environment should allow for experiential learning and be conducive to new thought. Located in KwaMashu, eThekwin Primary School stands proud on a hill in B Section and is one of the oldest primary schools in KwaMashu, and accommodates learners from the surrounding areas. Identified by The Cotton On Foundation as a strategic project, Fieldworks Design Group was tasked with the design and development of new infrastructure and educational spaces, as well as the refurbishment of existing buildings and the school terrain.

When inheriting the site, the school grounds, buildings and supporting infrastructure were severely dilapidated and in dire need of intervention to create a platform which facilitates meaningful educational engagements. Since its transformation, eThekwin Primary School forms part of a plethora of Cotton On Foundation projects aimed at providing holistic education opportunities through the delivery of quality education from early childhood to further studies.

'Education is the most powerful weapon we can use to change the world' – Nelson Mandela

The brief

After visiting the Fieldworks designed Streetlight Schools Jeppe Park Primary, Tara Stretch, Cotton On Foundation Manager, contacted Fieldworks to discuss the Foundation's vision for eThekwin Primary.

The Cotton On Foundation believes in a hands-on approach in partnering with communities to tear down the barriers to education. The primary objective is to break the cycle of poverty by keeping kids healthy and in school. Apart from the functional requirements in the form of a facilities list and the need to increase the school's capacity to accommodate 1280 learners, the brief from the client allowed for much creative interpretation as long as the architectural response remained aligned with the United Nations Sustainable Development Goals.



SUPPLIERS

Brick:
Corobrik - 011 871 8600

Trees and strategic planting:
CJM Growers - 082 775 1224

Rainwater harvesting Tanks:
Jojo Tanks - 011 695 8300

Paint:
Plascon - 0860 20 40 60

Fencing:
Betafence - 021 868 7300

Concrete benches:
Smartstone - 010 442 0377



"Classrooms from the **refurbished buildings** spill out onto a **central playscape** to ensure **passive surveillance** of students during break time."

Anchored in the core value of the provision of quality education, the project is aimed at delivering:

- Inspiring sustainable infrastructure and classrooms
- Space for ongoing professional development of educators
- Spaces that promote and prioritise physical, social and emotional student wellbeing
- Safe spaces free from barriers that prevent children, especially girls, from participating in educational opportunities
- Basic necessities through the provision of clean water, nutritious food and healthcare

How the brief was realised

With sustainability as a key driver for the project, the Fieldworks team embarked on a conceptual design which integrated the site as a whole and envisaged education spaces beyond only the classroom. The design integrated systems and processes associated with water, food, waste and energy as key infrastructural components while creating learning opportunities for not only the individual or class, but the greater community.

The interior

Assimilating items from the client brief as part of multifunctional spaces or programmatic integrations afforded the Fieldworks team the opportunity to develop a more compact and efficient layout. The new built component manifested as 5 buildings, housing 14 new classrooms, a multifunctional hall, administration facilities (reception, offices, staff room, staff bathrooms and sick bay) a kitchen, store rooms and multifunctional meeting spaces. Existing buildings, housing fifteen classrooms and ablution blocks, were refurbished to ensure that all building skins, roofs, openings and services contribute to a safe and healthy learning environment, while reflecting the aesthetic established in the new build. Store rooms and additional ablution facilities were incorporated in strategic areas while the existing caretaker unit was expanded to incorporate a multifunctional learning space, surrounded by an edible garden that can operate independently from the school – now known as The Cotton On Foundation Nutrition Mission at eThekweni Primary School.

Outdoor facilities

A multi-functional sports field and a tree lined avenue greet learners, teachers and guests alike. The avenue leads visitors to an administration window housed in one of the towers of the admin block. Towering murals, painted by a local artist, celebrates the main internal entrance to the school, while strategic murals throughout the school foster identity and pride. Security is paramount and manifests in the form of internally fenced areas, while building façades create safe boundaries to the internal school grounds. Classrooms from the refurbished buildings spill out onto a central playscape to ensure passive surveillance of students during break time. Play areas and sport facilities function as platforms for outdoor instruction while promoting safe physical activity and healthy social interaction.

Systems design

Situated in a high summer rainfall area with an average annual precipitation of 970mm, all buildings, walkways and hard surfaces are edged with planters which fulfil the function of bio-swales, housing subsurface drainage that efficiently distribute stormwater across the site to an onsite detention facility, which only discharges water back into the municipal grid upon flooding. Forming part of the Indian Ocean coastal belt biome of South Africa, the area falls within the KwaZulu-Natal Coastal Belt veld type – a veld type threatened by the practices of forestry, farming, cultivation and urban sprawl.

The planting palette for eThekweni Primary, aims to conserve species from this vegetation unit while including a selection of hardy, indigenous plants varying in height, texture and colour. As part of the ecosystem services rendered the plants celebrate seasonal change and create landscape niches that attract beneficial insects and birds to the site. More than 70 trees, of which most have edible qualities, are planted across the site and act as space making elements. Linked to healthy and nutritious food provision, fruit borne on these indigenous edible trees are enjoyed by learners and create an educational opportunity highlighting the value of our natural heritage and resources.

In a location where prolonged water outages are a reality, sustainable water supply is paramount



MEET THE TEAM

Client: Cotton On Foundation & Ethewkini Primary School
Development partner: The Cotton On Foundation
Architects and landscape architects: Fieldworks Design Group

Main contractor: Verbaan Construction
Photographer: Samora Chapman
Mural artist: Khulekani Mkhize

and contributes significantly to a higher level of hygiene, health and sanitation for learners. Dedicated water tanks located on the central tower of the school act as an onsite reservoir for potable water supply, while rainwater harvesting tank banks located at all ablution blocks are responsible for the flushing of toilets and the irrigation of edible gardens and lawn areas. All classrooms are fully furnished with Fieldworks Design Group designed furniture and include strong rooms where chrome books are stored as part of digital learning. All new buildings aim to promote natural ventilation and natural light to conserve energy. Clerestory windows, high ceilings and open trusses ensure ample provision of natural light, while brise-soleil elements control glare and heat radiated into the buildings from exterior hard surfaces.

Sourcing materials and other relevant information

Fieldworks endeavoured to work with local and robust materials as far possible, which translated to a material palette dominated by brick laid either in stack bond on building façades or used for screening and landscape elements. Once-muddied outdoor areas are transformed into play areas covered with artificial turf and pre-cast multi-blend paved walkways.

Timber and gumpole structures create overhead planes providing shade or covering functional areas for instruction. Strategically selected paint colours dot the school ground, either on murals, the container library or classroom doors and play equipment. The nature of the project provided opportunity for intensive community engagement and extended local employment. Apart from employing local labour, specific work packs were assembled and transferred to community contractors.

The topography of site, although fairly flat, drops steeply to the edges and the ground conditions are predominantly shale. Where possible, building pads were constructed to mitigate difficult soil and ground conditions, while suitable planting soil was imported to the terrain to accommodate high yielding vegetables, African Orphan Crops and the strategic planting palette as previously discussed. Overburden was used to create multi-layered playscapes and spread across seeded embankments for slope stabilisation.

