

An aerial photograph of a residential development. The image shows a network of winding, light-colored concrete roads that curve through the landscape. The roads are surrounded by green spaces, including grassy areas and clusters of trees. In the lower right corner, a more developed area with several houses and a paved road is visible. The overall scene is captured from a high angle, providing a clear view of the road layout and the surrounding environment.

LOW-VOLUME
concrete roads

Low-Volume Concrete Roads

The true cost of a road is the total of the initial construction cost as well as all maintenance costs over the whole lifetime of the road.

Low-volume concrete roads bring you... all the benefits

Low-volume roads offer you:

Economy

- Lower life-time costs for comparable designs
- Comparable initial costs for equal designs in other materials
- Very low maintenance and user disruption costs
- Reduced lighting requirements due to excellent surface reflectivity
- Reduced fuel costs for trucks
- Reduced need for stormwater reticulation

Low-volume concrete roads are the answer to tight budgets and increasing maintenance costs

Performance

- Long service life
- Strength increases with age
- Resistance to oil and fuel spillages
- Ability to withstand heavy axle loads
- Resistance to rutting, shoving and corrugations
- Unaffected by high temperatures and water
- Better performance under heavy loads and stop-start traffic
- Easy upgrading of existing deteriorated roads by overlaying
- Easy repair and maintenance

The best measure of a road's worth is the time it serves a community. An Ohio, USA, concrete street constructed in 1891 was still in use 100 years later.

Are we selling South Africa short?

Design

- Competitive designs for South African conditions
- A locally developed design guide
- That can be used for all levels of traffic
- That can be used over a range of support conditions
- Surfaces that can be dished to carry stormwater



“It is unwise to pay too much, but it is unwise to pay too little. When you pay too much, you lose a little money; that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing you bought it to do. The common law of business balance prohibits paying a little and getting a lot; it can't be done.”

– John Ruskin



Construction

- Labour friendly
- Ideally suited to labour intensive and labour based construction methods
- Can be fast tracked if necessary
- Existing subgrade and alignment can be used
- Can be built with integral kerb and channel
- Requires only simple inexpensive equipment
- Construction handbook available

Safety and environment

- Can be textured, patterned, coloured and shaped to create a more pleasant environment.
- Excellent light reflection and greater visibility
- Long lasting skid resistance and traction for safer driving
- Can be grooved to improve run-off
- No rutting creating conditions for aquaplaning
- Integral rumble strips and speed bumps
- Texture that can be varied to warn motorists of hazards
- Uses local materials – cement, sand, stone and water
- Can be completely recycled

Social Responsibility

- Local relatively unskilled labour can be used
- Ideally suited to the development of SMMEs
- Skills acquired are not limited to road construction but are transferable to the wider building and construction industry

Projects should contribute to satisfying broader community needs of job creation, skills transfer, entrepreneurial development and community upliftment.



**Put it all together and the benefits are clear –
concrete is your best solution**





**cement &
concrete
institute**

**PO Box 168, Halfway House
1685, South Africa**

Tel +27 11 315 0300

Fax +27 11 315 0584

E-mail cnci@cnci.org.za

Website <http://www.cnci.org.za>

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