

Latest improvements to cncPave

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Outline

- Introduction
- Specific modifications
- Demonstration
- Conclusion

Introduction

- cncPave is updated annually, at least.
- Accommodate:
 - New performance data
 - New research data from HVS and test dections
- cncPave self destructs at the end of 12 months
- Available free from website after registration
- www.cnci.org.za

Modifications (1)

- cncPave has a number of sub-models, eg:
 - load transfer through aggregate interlock and dowel action
 - combination of sublayers to form equivalent subgrade stiffness
 - curling & the development of voids
 - effect of different loads and surface pressures
- All the models were modified and recalibrated for a smooth transition between UT and conventional
- Models for UTCRCP and UTRCP were stand-alone
- Now same models for CRCP, UTCRCP and UTRCP

Modifications (2)

- Adjustment made to UTRCP option to allow for:
 - Block cracking develops early as no fibre used
 - Concrete is of a lower quality
 - Amount of reinforcing much less
- This results in UTRCP not being as stiff and
- More dependant on variation of stiffness of supporting layers

Modifications (3)

- Models to predict crack spacing have been adjusted to reflect actual crack spacing as observed in the field

Results

- As models have been adjusted
- Better simulation of field performance
- Implies FoS is closer to 1 than other models
- VIP to ensure that design is built to ensure predicted performance

Demonstration



Thank you

... for listening!

Knowledge, ..
.. Expertise,



Sustainable Perfection

