



# *Influence of Mix Design Towards Stripping Potential of Asphalt Pavements*

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**Asphalt Institute Moisture Sensitivity  
Sub Committee Meeting**

**April 14, 2002**

**The Woodlands, Texas**



# *Moisture Damage*

- ★ Stripping
- ★ Moisture Susceptibility





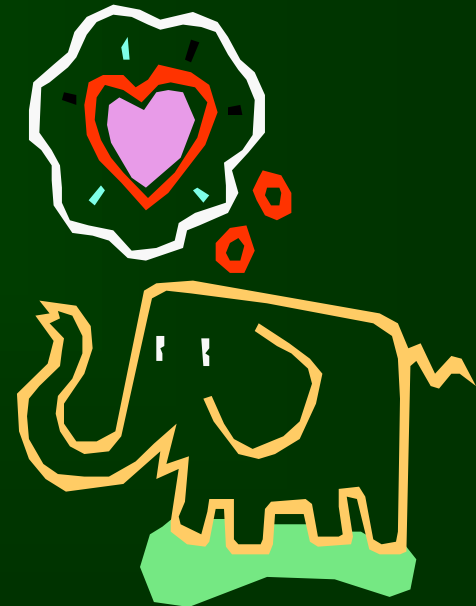
# *Stripping*

- ★ Controlled with additives
- ★ Compatibility

Aggregate

Binder

Additive





# *Moisture Susceptibility*

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Poor Quality Mixes





# *Alternatives*

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- ★ Clean aggregates – change source

- ★ Sands

  - Excessive use

  - Dirty

  - Shape

  - Change source



# *Alternatives*

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- ★ Lack of film thickness
- ★ Mix too dry
- ★ Obey minimum VMA
- ★ Aggregate/AC compatibility
  - aggregate surface chemistry
  - asphalt chemistry



# *Alternatives*

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- ★ Softer asphalts test less positively
- ★ Polymer modified asphalts





*Downside*

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Economics







# *Economics*

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- ★ Cheaper aggregates
- ★ Excessive use of field sands
- ★ Dirty aggregates
- ★ Minimum VMA – less asphalt





# *Shortcomings*

