Influence of Mix Design Towards Stripping Potential of Asphalt Pavements

Asphalt Institute Moisture Sensitivity Sub Committee Meeting

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The Woodlands, Texas
Moisture Damage

★ Stripping
★ Moisture Susceptibility
Stripping

- Controlled with additives
- Compatibility
  - Aggregate
  - Binder
  - Additive
Moisture Susceptibility

Poor Quality Mixes
Alternatives

- Clean aggregates – change source
- Sands
  - Excessive use
  - Dirty
  - Shape
  - Change source
Alternatives

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

- Softer asphalts test less positively
- Polymer modified asphalts
Economics

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