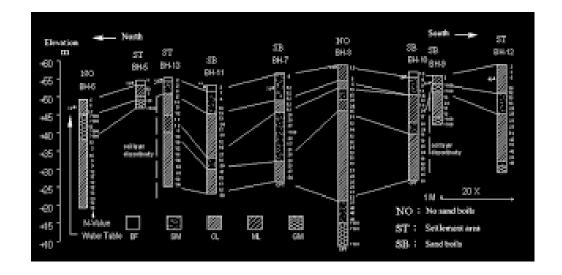


Soil Borings/Testing

- Soil Boring Proposal Guidance
 - Utilize DRC guidance for any drilling done by drillers subcontracted by consultant designers
 - https://deldot.gov/Business/drc/pd_files/plan development/soil_boring_proposal_guidanc e_w_stormwater.pdf
 - Consistency for design and construction
 - Reliable data for soil boring database
- Consultant Designers have two options for testing and drilling
 - Subconsultant drilling and testing
 - Utilize DelDOT drilling agreement and laboratory for testing



Underdrain/Tufa



Picture: DelDOT

Underdrain/Tufa

- Tufa limestone forms when carbonate materials precipitate out of water
- Underdrain damaged in field during construction, allowed infiltration of materials from the Recycled Concrete Aggregate (RCA) base



Picture: PennDOT

Base Materials





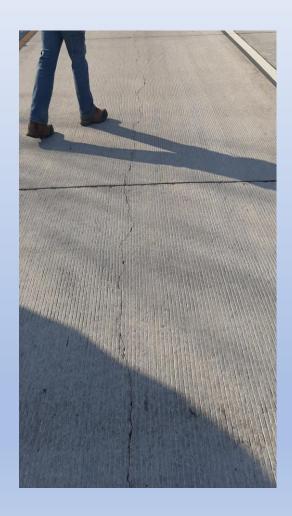




Millings

- Recent failures
 - 6 newly constructed concrete panels cracked (pictured)
 - 2" settlement on Rt. 1 ramp





NJDOT RAP Study

- Pumping from the loss of fines
- Decreased permeability
- Low shear strength
- Significant decrease in CBR value, which correlates to total thickness needed for design
- Conclusion, once you get above 50% RAP your base material becomes very unstable increases soil creep, shoving, and rutting.

FHWA-NJ-2005-003

The Development of a Performance Specification for Granular Base and Subbase Material

FINAL REPORT

Submitted by

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In cooperation with

New Jersey
Department of Transportation
Bureau of Research and Technology
and
U.S. Department of Transportation
Federal Highway Administration

1L Cement

- 1L Cement contains 8-15% limestone compared to 5% in standard cement, DelDOT will specify max 12%
- Ready Mix plants currently utilizing:
 - Bear Concrete
 - Chaney
- Precast Plants
 - Gillespie Chestertown & Greenwood
- Slower set times
- Lower early strengths (7 day)
- Not tolerant of additional water in the field

Special Provisions -Materials

- Drafting/modifying special provisions related to materials, circulate to M&R for comment
 - Can M&R test the material?
 - Are the tests listed still valid/active?

Tack

- Notify M&R if you see issues with the material such as dilution
- Proper and consistent application, no stripes
- Best Practices Video: https://mdasphalt.org/2019/b est-practices-applying-tackcoat/



Questions?

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