Materials Division

Professional Services
Asphalt Program Updates
Pipe and Pipe Joints
Concrete IA Program Updates
Professional Services

Materials Division PE Functions;
- Pavement Design & Evaluation
- Geotechnical Engineering
  - Exploration/Investigation
  - Subgrade Improvements
  - Embankment; slope
design, settlement

CY 2017- Invoiced $3.3M plus in professional services
Pavement Evaluation and Design Services

- On-call limited services contract
- RFP to be issued end of May/early June 2018
- Multiple Awards intended
- Contract Administrator;
  Affan Habib, P.E.

Typical contract services;

- Non-destructive testing,
- Pavement design services (new and major rehab)
- Coring, subsurface investigation
- Lab testing
Quality Improvements - Asphalt Mix Density

Percent, %

Density, %

2016 Pilot

2017 Project
Asphalt Program – 2018
New Key Initiatives

“Hi RAP” Mix pilot
- RAP content ≥ 40%
- Performance testing protocol deployed; cracking, rutting, durability

“Rubberized” Surface mix pilot
- Ability to mitigate reflective cracking ??
Field Acceptance Processes

**1. Volumetric**

- \[ \text{Volumetrics} + \text{Field Density} \]

**2. Volumetrics + Performance**

- \[ \text{Volumetrics} + \text{Field Density} + \text{Performance} \]

**3. Performance**

- \[ \text{Field Density} + \text{Performance} \]

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**Note:** “Performance” Tests may include fundamental tests and/or empirical tests.

**Note:** “Performance” Tests conducted during mix design may vary from those used during field verification.

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Graphic developed by Kevin Hall, 9/14/2017.
Corregated Metal Pipe Approval

Approved List 25 - Approved CMP Manufacturers

Effective Jan. 1, 2019, manufacturer’s must be AASHTO NTPEP certified to be on Approved List 25.
Pipe Joint Requirements

Approved List #14 – Joint materials and connections

AASHTO R82 (formerly PP63) – “Pipe joint selection for highway culverts and storm drains”
- soil tight
- silt tight
- leak resistant
- special design

L&D I&IM 254.2 “Selection of Pipe Type”
- Joint type specified on plans by designer
  If no joint type specified, default is leak resistant.
Concrete Acceptance Program

Independent Assurance
- Transition to system based vs. project based;
- Variability sources; material, personnel, and equipment
- Looking at variability sources on programmatic basis, not per project.

Acceptance testing protocol will not change.
Thank you.