I-64 Segment II, Williamsburg, VA

- Project Length: 7.08 miles

- Build 2 new lanes & one new shoulder in each direction (12” cement treated recycled crushed concrete, 2” OGDL, 6” CCPRM, 2” SMA-19 & 2” SMA 12.5

- Remove 2 existing lanes and 1 existing shoulder in each direction and replace with 12” FDR, 2” OGDL, 6” CCPRM, 2” SMA-19 & 2” SMA 12.5

- 150,000 tons cement treated recycled crushed concrete, 350,000 SY FDR, 190,000 tons CCPRM & 220,000 tons of Hot Mix Asphalt
CCPRM Mix Design

Trial and Error Process

• Determine the Raw material to be used.
• Foam or Emulsified Asphalt Stabilized Material
• Design and initial testing.
• The Job Mix Formula (JMF)

Now the Real Work Begins!
CCPRM Initial Testing and Trials

- JMF evaluation using the KMA 220 plant
- Working though the testing procedures
- Trial runs offsite to evaluate placement and compaction equipment to be used.
- Performed two of them offsite at New Kent Facility.
- Performed two on project site for Allan Myers and VDOT testing prior to full production
CCPRM Full Production

Started on November 2, 2017

Plant Logistics
- Cement Supply
- Processed material stockpiled and tested
- Organized Yard for Safe Operations
- Load Out of trucks and Sampling
CCPRM Full Production

Field Logistics
- Trucking Routes and Truck Count
- Training of Crew about Product
- Setting up Electronics and Depth Controls
CCPRM
Full
Production

Field Logistics
• Establishing Density Field Targets
• Daily Testing and Monitoring
• Setting up Production Shift for Success
• Process of Tracking all Data

PROBLEMS !!

Solving Them!!
Field Equipment Used

- CAT AP655F Model with SE50V Vibratory Screed
- CAT AP1055F Model with SE60V Vibratory Screed
- CAT CB54B Double Drum Asphalt Roller (12 ton)
- HAMM H12I Compactor with Vibratory (13 ton)
- HAMM H20 Compactor with Vibratory (22 ton)
CCPRM Lessons Learned
CCPRM Lessons Learned

Mix Lessons
• Importance of the Temperature requirements
• Value of processed material
• Proper Moisture testing and plant settings

Field Lessons
• Establishing Target using One Point Proctor
• Proper Compaction Techniques for 98% of Target
• Proper Thickness Controls and Smoothness
• Realizing Issues though Mix appearance
FULL DEPTH RECLAMATION
FULL DEPTH RECLAMATION
FDR Mix Design

Establishing the Mix Designs
• Prior to the material being exposed
• Number of Designs Established (95 plus)
• Determining which Design Appropriate

Process of Installing
• Grade
• Mixing Material in place and selecting the JMF
• Meeting Density Requirements
FDR Mix Design
FDR Mix Design
FDR Mix Design

Equipment Used to Install

- WIRTGEN WR 250 Series
- HAMM H20I Compactor w/Vibratory Smooth
- HAMM H20I Compactor w/Padfoot Drum & Blade
- Volvo A30 Articulated Dump w/ Stoltz 30ton fully automated spreader box
Five Virginia asphalt plant locations for every paving need, large or small

Allan Myers serves the Mid-Atlantic region from Philadelphia to Richmond, and operates five strategically located asphalt plants in Virginia.

- Powhatan
- Rockville
- Petersburg
- New Kent
- Chesapeake

Closing Discussion