



Allan Myers CCPRM & FDR

# I-64 Segment II, Williamsburg, VA

-Project Length: 7.08 miles

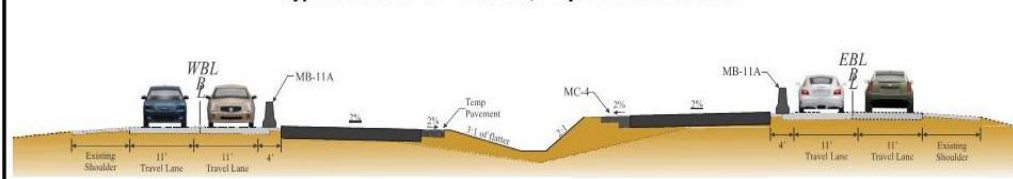
-Build 2 new lanes & one new shoulder in each direction (12" cement treated recycled crushed concrete, 2" OGD, 6" CCPRM, 2" SMA-19 & 2" SMA 12.5

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

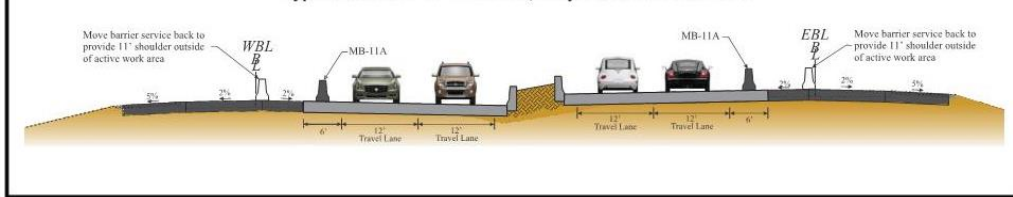
-150,000 tons cement treated recycled crushed concrete, 350,000 SY FDR, 190,000 tons CCPRM & 220,000 tons of Hot Mix Asphalt



Typical Section "A" - Phase 1, Project Sections A and B



Typical Section "G" - Phase 2, Project Sections C and D



# FDR & CCPRM

# 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 through 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

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## 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!!

# CCPRM Full Production

## 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



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## 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



# 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

