I-64 Widening Phase 1
HIMA Liquid
Project Location

Begin Project 0.5 miles east of Yorktown Rd

Bridge Widening at Lee Hall Reservoir

Bridge Widening at Fort Eustis Blvd

Bridge Widening at Industrial Park Dr and CSX

End Project 1.55 miles west of Jefferson Ave

City of Newport News Park

I-64 Segment I
Exit 247 to Exit 255

Exit 247
Rte. 238 Yorktown Rd

Exit 250
Fort Eustis Blvd

Exit 255
Jefferson Ave

Branscome Companies

12/13/2018
I-64 Phase 1 Project Overview

- Widening of I-64 from Jefferson Ave. to Lee Hall from 2 lanes to 3 lanes plus Emergency Shoulder Capability

- Existing Concrete Road left in place, Crack Sealing, Shoulder Strengthening, THMACO, SMA 19, IM19, SMA 12.5, SM12.5E

- Changed THMACO, SMA 12.5, and SM 12.5E to HIMA

- Total HIMA Asphalt Tons were 60,000 Tons
  - Previous Projects were 5,000 tons or less

- Shirley Contracting GC, Branscome Incorporated
  - Associated Asphalt – Liquid Supplier
  - Martin Marietta – Aggregate Supplier
  - Atco Hauling – Liquid Hauler
  - Hi-Tech – Fiber Supplier
Crack Seal, SMA 19.0, THMACO
Design and QC

- VDOT Design Specifications used for HIMA mixes
- Mix Designs were similar to non-HIMA mixes
- Roller patterns were similar to non-HIMA mixes
Planning and Logistics

- Travel Time from Liquid Terminal to Asphalt Plant
  - Locations were 4 to 5 hours away one way

- Coordination with Terminal was critical (Time and Qty)

- Accurate Jobsite Planning was critical

- Recommend tankers carry load of 64S after HIMA
Asphalt Plant Process

- Storage in Tanks
  - 2 Days Maximum Storage
  - Do Not use agitators (increases viscosity)
  - Storage Temps around 340 degrees Fahrenheit

- AC Lines Plugging
  - Flush all lines with 64 Liquid immediately after production
  - Strainers accommodate amount of liquid polymers
  - Do Not circulate HIMA overnight
  - Inspect / Clean AC injection line to drum periodically

- Do Not Recommend Running in Traverse Conveyors

- Start Up and Shut Down on 9.5A mix

- Micro-motion vs. Pump on Pump

- Recommend making sure tanks are plumbed to pump into tankers
  - Leave Capacity in Tanks to cut HIMA with 64S
Paving Placement Process

- MTV Operations
  - Run load of 9.5A before HIMA mix
  - Continuously spray release agent in belly (C2)
  - Clean thoroughly at end of every shift

- Make sure Paver and Screed are Hot

- Mix Temperature to ensure proper flow through equipment
  - Ideal 340-350 degrees F when load cracked
  - Ideal 315-325 degrees F behind screed

- No capability for Handwork especially in SMA mixes

- Recommend Skidsteer or Loader onsite for transverse joints

- Dump Trucks
  - Build up of mix in corners and bottom of beds
  - Recommend Excavator at plant to scrape out beds
SMA 12.5 HIMA Beds
Conclusions

- Follow Best Practices
- Communicate Schedule with the Binder Supplier
- Temperature at Every Stage in the Process is Key
  - Binder Storage: 330° – 350°
  - Mixture Production: 340° – 350°
  - Behind Screed: 315° – 325°
- Preheat Equipment
  - Drag Slat / Silo
  - MTV
  - Paver / Screed
- Shutdown on a PG64S-22 Mix