

Interstate 66 Precast Prestressed Concrete Pavement

Project Information

Constructed: August-October 2009

Project Location: Westbound I-66, Fairfax, Virginia

Project Scope: Replacement/reconstruction of four main lanes of Interstate 66

Project Length: 1,020 ft (four-lane pavement)



Photo: Lane Construction

Fabrication

Contractor: Smith-Midland Corp., Midland, VA

Number of panels fabricated: 306

Panel Dimensions: Single-Lane: 12' x 10'

Double-Lane: 27' x 10'

Panel Thickness: 8 3/4"

Pretensioning: 8-0.5" Gr. 270 strands



Photo: Lane Construction

Construction

Installation Contractor: Lane Construction Corporation, Chantilly, VA

Post-Tensioning Contractor: Freyssinet Inc., Sterling, VA

Construction Timeframe: Night Construction (10:00 pm – 5:00 am)

Pavement Structure: 1"-3" No. 10 stone leveling course over existing base/subbase

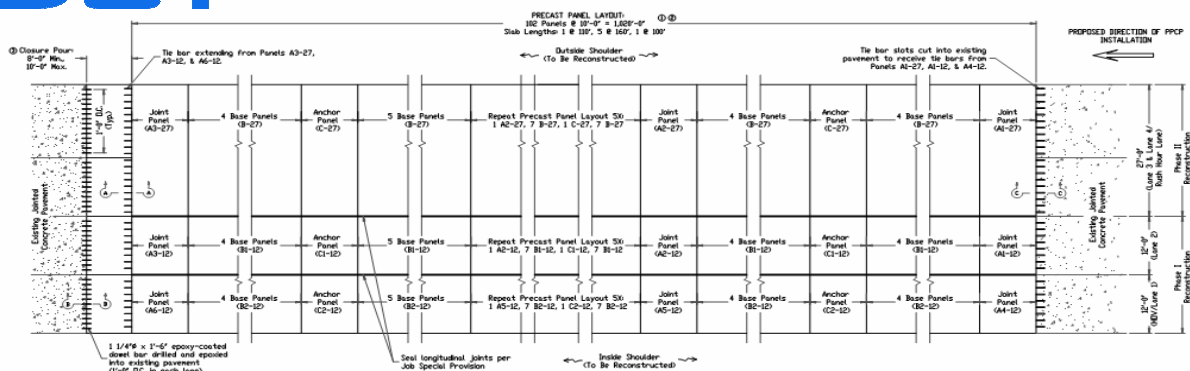
Post-Tensioning: Monostrand tendons, 0.6" Gr. 270 strand at 2'-6" on center with two 1" threaded bars replacing the strands at the quarter points.



Photo: VDOT



Photo: VDOT



Benefits of Precast Prestressed Concrete Pavement

- ✓ Expedited Construction
 - Faster opening to traffic*
 - Weekend or nighttime construction*
- ✓ Improved Quality and Performance
 - Controlled fabrication conditions*
 - Proven performance of cast-in-place prestressed concrete pavements*
- ✓ Reduced Slab Thickness
- ✓ Reduced Cracking and Number of Joints
- ✓ Ability to Span Voids and Non-ideal Base Layers
 - Prestress can be adjusted to account for voids and “soft” underlying base materials*

Where else has Precast Prestressed Concrete Pavement been used?

- Georgetown, Texas (2002)
 - 2,300 ft frontage road pavement along Interstate 35*
- El Monte/Los Angeles, California (2004)
 - 248 ft of mainline pavement on EB Interstate 10*
- Red Dog, Alaska (2002)
 - Truck apron for 200-ton mining trucks at Red Dog Mine*
- Sikeston, Missouri (2005)
 - 1,010 ft of mainline pavement on NB Interstate 57*
- Sheldon, Iowa (2006)
 - 160 ft precast prestressed bridge approach slab pavement*
- Newark, Delaware (2009)
 - 2,324 lane-ft of pavement on NB Route 896 at US 40*



www.PrecastPavement.com

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