

Route 896 Precast Prestressed Concrete Pavement

Project Information

Constructed: May-July 2009

Project Location: Northbound Route 896 at US 40, Newark, Delaware

Project Scope: Replacement of two left turn lanes, single right turn lane, and single right thru lane

Project Length: ~1,044 ft (two-lane pavement)
~236 ft (single-lane pavement)



Fabrication

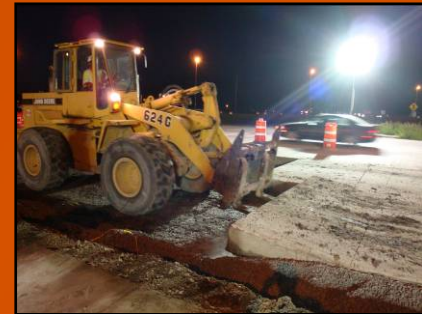
Contractor: Coastal Precast Systems, Chesapeake, VA

Number of panels to be fabricated: 130

Panel Dimensions: Two-Lane: 24' x 9'-10"
Single-Lane: 12' x 9'-10"

Panel Thickness: 8"

Pretensioning: Base Panels: 7-0.5" Gr. 270 strands
Joint Panels: 8-0.5" Gr. 270 strands



Construction

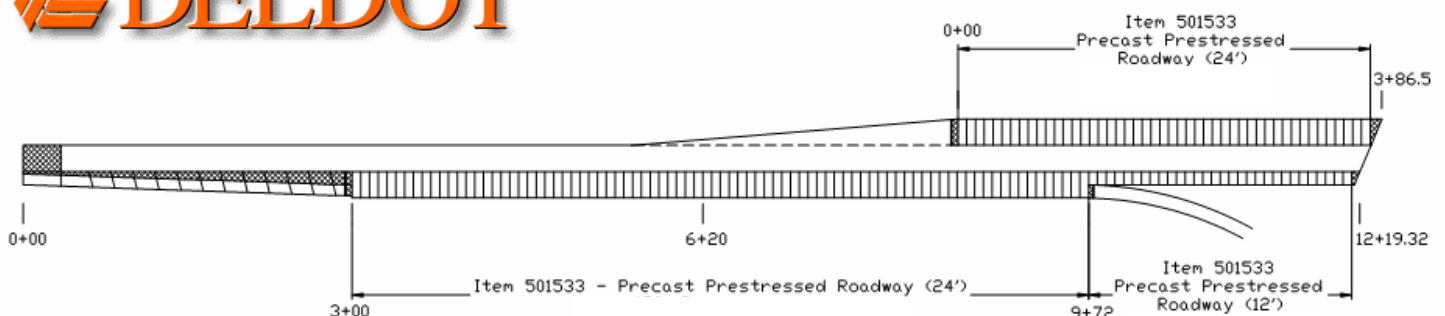
Installation Contractor: A-Del Construction, Newark, DE

Post-Tensioning Contractor: Dywidag Systems Int'l., Pompton Lakes, NJ

Construction Timeframe: Night Construction (7:30 pm – 5:30 am)

Pavement Structure: 4" pervious concrete base 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.



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*
- LaGuardia Airport (2002)
 - 100 ft of taxiway pavement*
- Sikeston, Missouri (2005)
 - 1,010 ft of mainline pavement on NB Interstate 57*
- Sheldon, Iowa (2006)
 - 160 ft precast prestressed bridge approach slab pavement*

Precast
Pavement



www.PrecastPavement.com

Contact Information

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