BRIDGE REPLACEMENT
Rte. 501 over James River and CSX Railway
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Project Features:

• Replacement of structurally deficient, fracture critical bridge originally built in 1921
• Improved roadway geometrics by realignment of Route 501/Route 130 Intersection
• Construction of left and right turn lanes at new intersection
• Rock scaling along existing Route 130 cut slope
• New 930-ft bridge on steel plate girders, supported by hammerhead piers on drilled shaft foundations
Existing Bridge
Rte. 501 over James River and CSX Railway

Contract Details:

• Design-Bid-Build
• Designer: AECOM
• Contractor: Orders Construction Company, Inc.
• Contract Value: $16.9 million
• Contract Execution: October 31, 2014
• Fixed Completion Date: April 21, 2017
• “No Excuses” Early Project Completion Incentive
  • Option 1: 12/02/16 ($300,000)
  • Option 2: 03/15/17 ($70,000)
Rte. 501 over James River and CSX Railway

Contract Details:

- 1246 CY Class A4 Concrete
- 1751 CY Class A3 Concrete
- 224,210 lbs Solid Stainless Reinforcing Steel
- 38,709 CY of earthwork
- 5,961 tons of asphalt
- 988 LF of storm pipe
- One MSE wall
- Pedestrian fencing over CSX tracks
Project Overview
Project Overview
Proposed Bridge
Proposed Bridge

TRANSVERSE SECTION
Looking ahead station
Pier Construction
Shoring at Pier 1
Shoring at Pier 1
Shoring at Pier 1
Shoring at Pier 1

Temporary safety fence placed full length of shoring wall, see Special Provisions for additional information.

CSX R.R. track

Existing ground line

Varles

Face of temporary shoring wall

Top of wall
Elev. 641.50

Tieback anchor head work point (M.P.)
Elev. 637.50 or 634.50

Bottom of footing and open excavation
Elev. 622.50

Ordinary high water
Elev. 629.28

Limits of footing

Approx. top of rock
Elev. 614.00, Engineer to field verify

15'-0" min.
2'-0" dia. predrilled hole and rock socket

3'-0" min. rock socket

11-6'

SECTION A-A

* 10'-0" min. embedment
Plate Girder Erection
Route 130 Widening
Bridge Demolition