Comite River Bridge

Structural Repair and Scour Protection

State Project 060-03-0023
Route LA 67
East Feliciana Parish
Original Bridge
Scour, Erosion & Debris
Can scour & debris be a problem?
Look at the Bridge Upstream
The Problems:

- 15 ft Pile Embedment
- 10 ft Predicted Future Scour
- Debris + Large unsupported pile length
- Erosion at abutments
- Channel migration
Were the **Problems**

“Built-in?”
Bents to be repaired:
Numbers 3, 4, 7, 8 & 9

OK

Original Channel & Ground Line
Bents to be repaired:
Numbers 3, 4, 7, 8, 9
Survey Before Project
Low Water
Water Level Spikes

13 ft / 4 days

9 ft / 2 days

6 ft / 2 days
Water Level Spikes

10 ft / 1 day
The **Solution**:

- Construct Rock Dike
- Rip Rap Blanket Abutments
- Redirect Channel

• Rehabilitate / Fortify 6 Substructures
  - *No future widening / no bridge replacement*
  - *Year 2002 ADT = 7400 (currently 7900)*
  - *Maintain traffic*
The **Solution**:

- Construct Rock Dike ✓
- Rip Rap Blanket Abutments ✓
- Redirect Channel ✓
- Rehabilitate / Fortify 6 Substructures
  - 5-Pile Bents
  - 6-Pile Bents
Progressions
5-Pile Bent
6-Pile Bent
... and Shaft Relocation
Low headroom drilling
“Low headroom”
... and Unjamming telescoping Kelly Bar
Columns up to Beam (Cap) Forms
New Beam with Pile Between Columns
5-Pile Bent Complete
Another 5-Pile Bent Complete
Debris with Flow
Project Timeline

- 06/2003 - District 61 requests assistance
- 09/2003 - Survey & Begin Design
- 01/2004 - Plans Complete
- 03/2004 - Plans Available to Bidders
- 05/2004 - LET for $1.4 million (Boh Bros.)
- 06/2004 - Begin Construction
- 02/2005 - Final Acceptance
The End