

Session 18

Dan Maxey

Parsons Transportation Group

I-10 Escambia Bay Bridge

Topic Description

In September of 2004, I-10 was heavily damaged by Hurricane Ivan. This presentation describes some of the engineering and construction tasks associated with providing repairs to reopen the structures to traffic.

Speaker Biography

Graduated from the Univ. of Tennessee in 1982 with a Bachelor of Science in Civil Engineering, with a major in Structures. After graduation, accepted a design engineering position in Tennessee designing bridges in numerous southeastern states. Moved to Jacksonville in 1988 to start a structural design department with another office of the same firm. Since moving to Jacksonville, have been involved with numerous projects including: I-10 widening from I-295 to I-95, I-95 widening from Dunn avenue to the Georgia State Line, widening of the Buckman Bridge - the largest deck area bridge in Florida (56 Acres of concrete deck), I-95 widening from JT Butler to downtown (includes design of sound walls along I-95), design of the new 9A/I-295/I-95 South Interchange in Jacksonville, Design of the Regency Bypass Ramps currently under construction near the Regency Mall in Jacksonville, and design of emergency repairs to I-10 bridges over Escambia Bay that were damaged by Hurricane Ivan.

Emergency Repair of the I-10 Bridge Over Escambia Bay

Pensacola, Florida



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Timeline

- Hurricane Ivan made landfall the night of September 15.
- FDOT contacts Kiewit on September 16, Kiewit contacts Parsons same day.
- FDOT has scoping meeting on September 17 (4 contractors invited).
- D/B proposal same day, negotiations that night, NTP that night.





I-10 Bridge

- 2.5-mile long bridge over shallow bay.
- Critical east-west access to Pensacola.
- National security interest.



Schedule

Phase 1 (Westbound Bridge)

- Contract Time 24 days
- Actual Time 17 days

Phase 2 (Eastbound Bridge)

- Contract Time 90 days
- Actual Time 63 days





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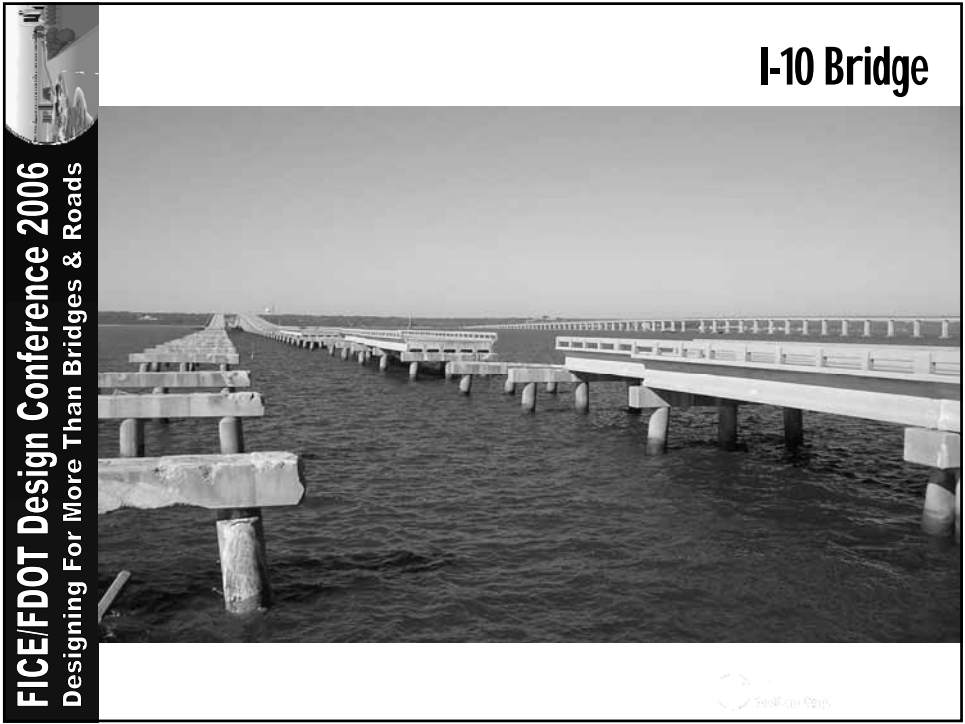
I-10 Bridge



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I-10 Bridge

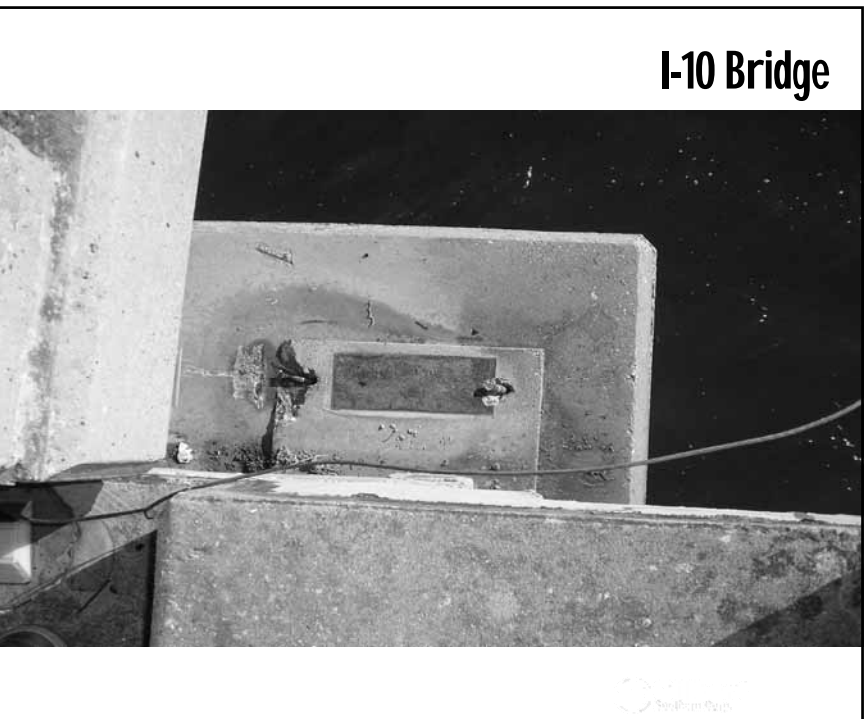




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I-10 Bridge



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I-10 Bridge



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Bridge Damage

Westbound bridge (Phase 1)

- 12 spans destroyed
- 19 spans misaligned
- 7 bents replaced

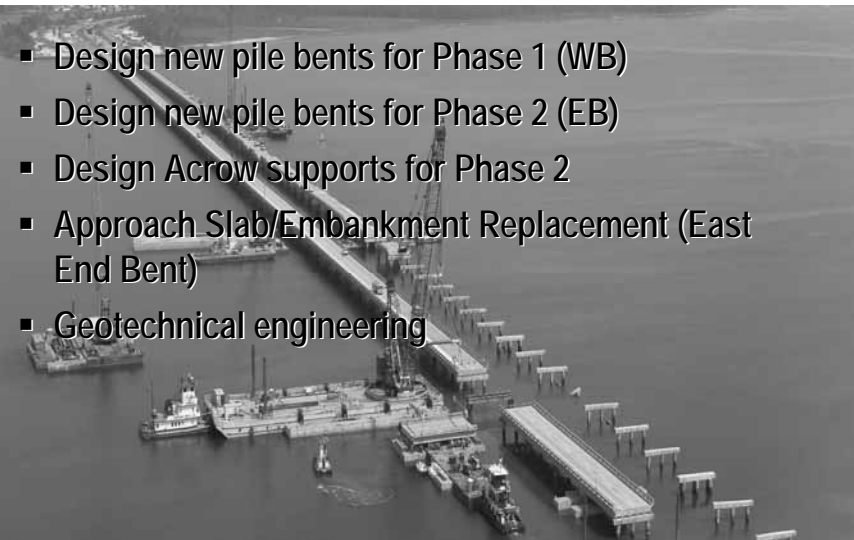
Eastbound bridge (Phase 2)

- 51 spans destroyed
- 33 spans misaligned
- 58 Acrow spans installed
- 25 bents replaced



Scope of Services

- Design new pile bents for Phase 1 (WB)
- Design new pile bents for Phase 2 (EB)
- Design Acrow supports for Phase 2
- Approach Slab/Embankment Replacement (East End Bent)
- Geotechnical engineering



Scope of Services

- Review lifting procedures for spans
 - Hydraulic platform transporters (Goldhofer)



Scope of Services

- Place EB Spans on WB Bridge (Phase 1)
 - Lifting supports for ringer crane



Scope of Services

- Design Acrow supports



Scope of Services

- Prepare MOT plans for both phases
 - Construction load ratings (hauling construction materials)





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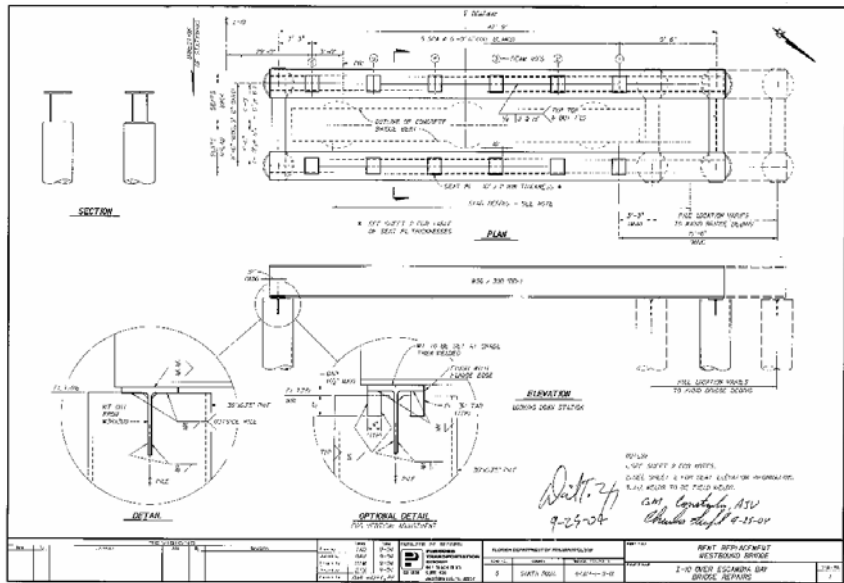
Project Execution

- Staff from Tallahassee, Jacksonville, Denver, Las Vegas
- Phase 1
 - 7 days a week
 - FDOT, Parsons, GM co-located in Parsons' Tallahassee office



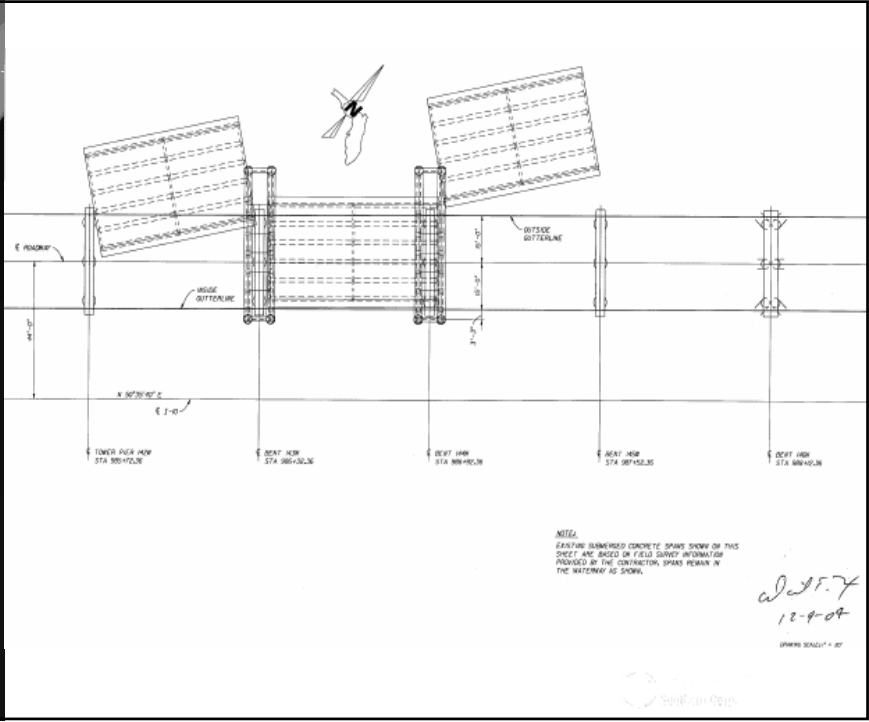
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I-10 Bridge

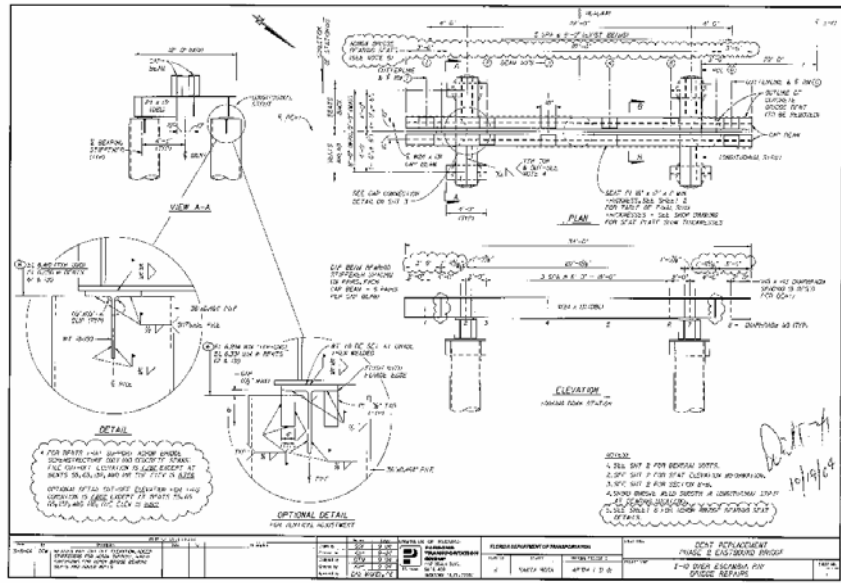
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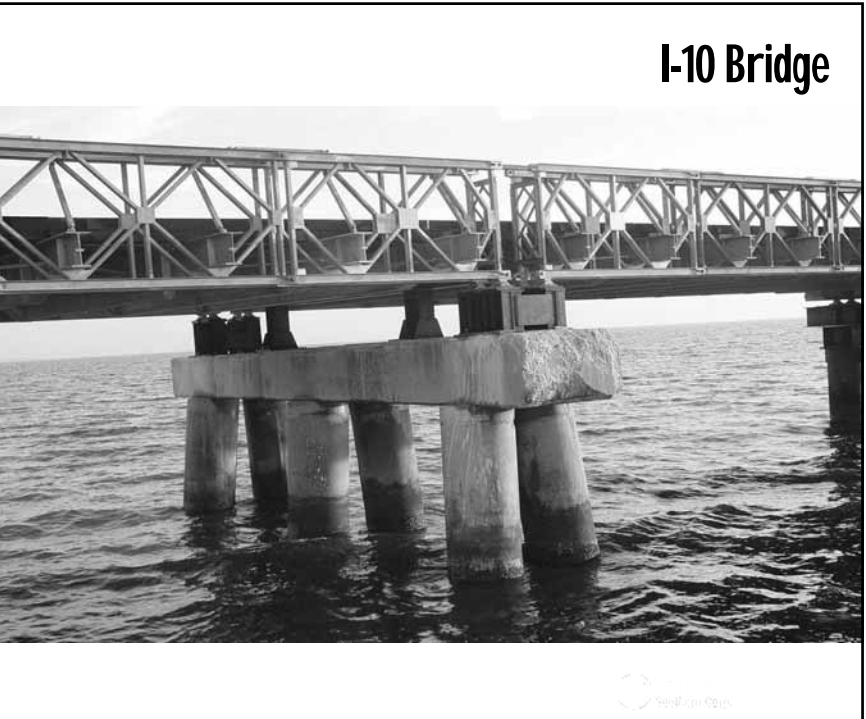
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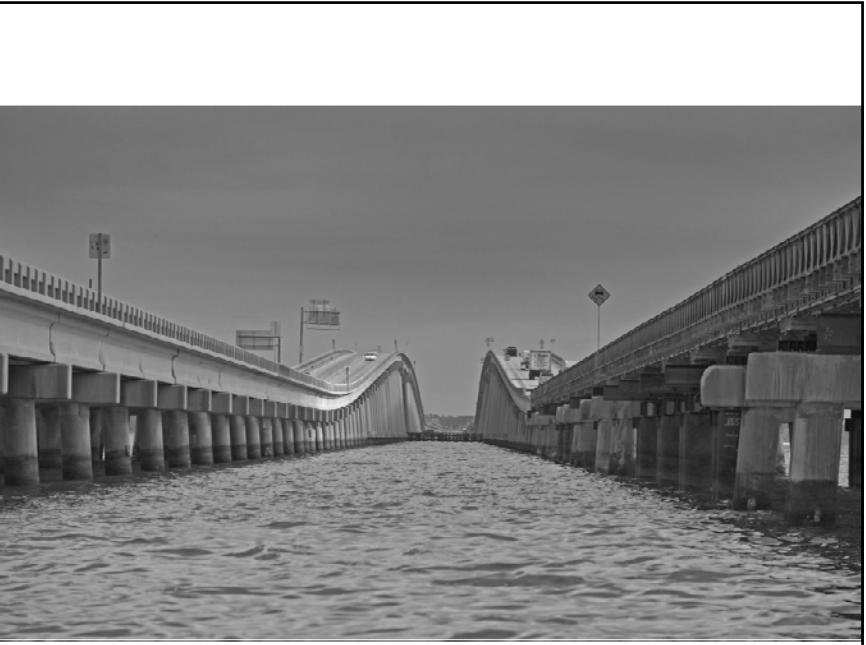




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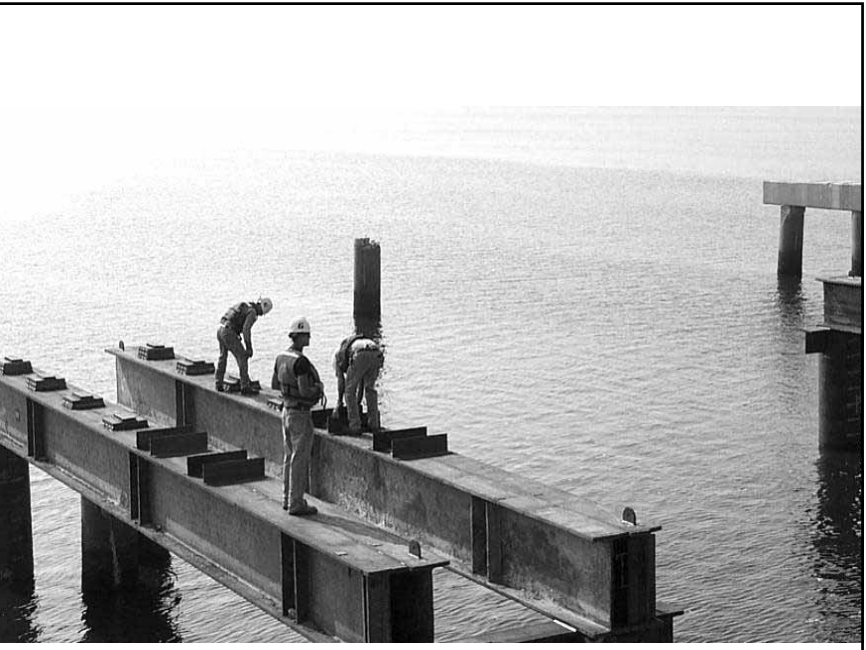


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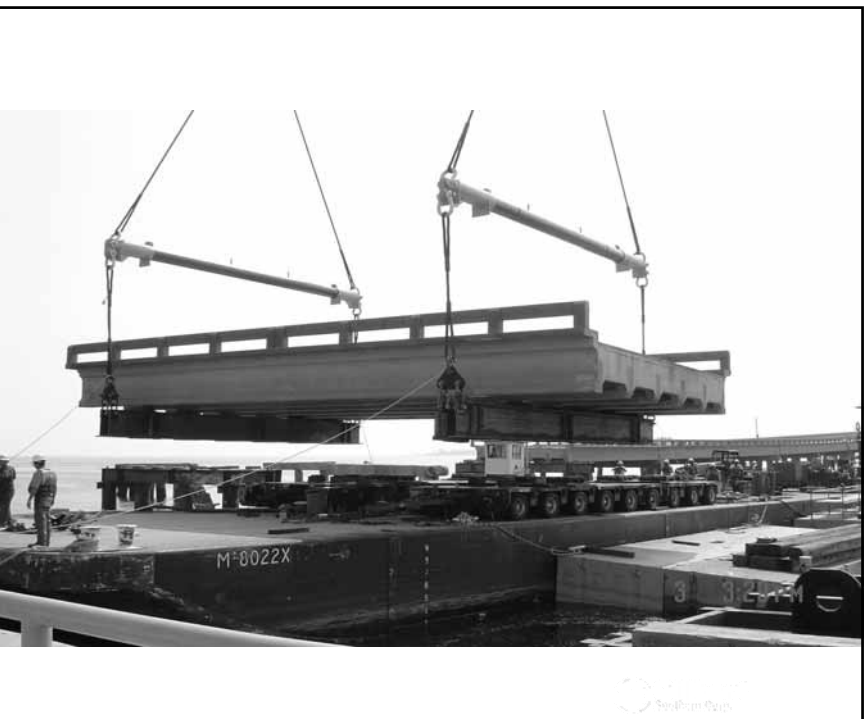
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