



# INTERSTATE 29/35 CONNECTIONS PROJECT



## kcICON Design-Build Project



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1<sup>st</sup> International Conference on Transportation Construction Management  
February 2009



# Brief History of MoDOT

- State Highway Department created in 1913
- Formal department operations (Construction Inspection) established in 1921
- 7<sup>th</sup> largest state system in the nation
- Maintain 32,800 miles of highways and 10,224 bridges (53 major river bridges)



# Project Description

- Four-mile corridor
- Spans two counties, two cities
- Landmark, cable-stay bridge
- 102,000 vehicles day





## Key Project Info

- 1 of 3 design-build pilot projects
- Fixed price contract, best value
- Other DOT standards
- Acceptance is Contractor's responsibility
- October 2011 required completion deadline



# Who's Who?

**Project Owner:** Missouri Department of Transportation

**Design-Build Contractor:** Paseo Corridor Constructors

- ◆ Clarkson Construction Co., Kansas City, MO
- ◆ Massman Construction Co., Kansas City, MO
- ◆ Kiewit Construction Co., Omaha, NE

**Major Participants:** Design team

- ◆ Parsons, USA
- ◆ TranSystems Corporation, Kansas City, MO



# Project Schedule

- October 2007 – proposals accepted
- December 2007 – contract signed
- February 2008 – DOT staff transferred
- April 2008 – construction began
- July 31, 2011 – anticipated project completion



# Construction & Materials Auditors

- Auditing staff: 1 engineer & 6 technicians
- Average of 23 years experience in construction or materials inspection
- Primary experience in construction



# February 2008 Reality Check

- MoDOT has 88 years of acceptance experience
- We have an excellent inspection staff for acceptance but MoDOT is not responsible for acceptance
- We are responsible for Quality auditing & oversight but have no auditing experience
- Construction activities start in 2 months



# Transition & Training

- Review of the procurement method
- Review of Contract requirements
- Review of Proposal commitments



# Transition & Training

The Contractor's Quality Management Plan is required to address all Contract requirements

- Construction & Materials
- Design
- Project Management
- Public Information
- DBE
- Workforce Development



# Transition & Training

Intensive study of:

- American Society for Quality (ASQ) – Certified Quality Auditor material
- Quality Council of Indiana – Certified Quality Auditor Primer



# Transition & Training

- Self-directed study of material
- Group discussion related to material
- Many discussions on QC, QA, IAS, & Oversight
- Continuous effort to reinforce the change from acceptance to oversight



# Transition & Training

Continuous effort to change the thinking  
from product-oriented to process-oriented

All auditors have the CQA Certification  
of Completion from ASQ (cd based)



# Transition & Training

## Utilization of Delcan resources

- Supplemented the training material
- Structure & methodology
- Quality Management Database
- Relational database linking requirements, activities, & audits



# Transition & Training

Utilizing a Delcan auditing database

- Provides audit tracking & storage
- Provides audits reports for continued improvement



# Current Status

- **23% Construction completed**
- **12257 Requirements in the system**
- **4252 Risk assessments**
- **1743 Observations**
- **92.7% Compliance Rate**



# Lessons Learned

Understand the basics:

- 23 CFR 635 Construction & Maintenance
- 23 CFR 637 Construction Inspection & Approval
- CSR 327 Practice of Professional Engineering



# Lessons Learned

- Impact of the WBS, schedule & activities on auditing
- Anticipating audit workload based on the schedule
- Auditing knowledge & skills have wide application including design-bid-build
- Train auditors sooner



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## Question & Answer

**Contact Us:**

**[www.kcicon.com](http://www.kcicon.com)**

**816-841-8888**

**E-mail: [info@kcicon.com](mailto:info@kcicon.com)**

