

THE BRIDGE

KTU CONSTRUCTORS' SAFE & SOUND DESIGN BUILD PROJECT NEWSLETTER
 JULY 2010 VOLUME 1, ISSUE 7

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Safety Crew of the Month



KTU Project Director Troy Heckmaster presenting Joe Robinson, owner of Joe's Bridge and Grading, the Safety Crew of the Month Award



The Safety Crew of the Month goes to Joe's Bridge and Grading. Joe's crews have been displaying great attention to detail with regards to safety as they begin work on their fourth bridge.

Thank you Joe and Randy for being a consistent example of how to build work safely.

LETTER FROM PROJECT OWNER'S OFFICE

Teamwork

The Safe & Sound project is definitely a one-of-a-kind major project, and we are just starting to get moving at the pace we expect to see over the next two years. Like any big job, there are A LOT of different people involved and A LOT of new processes which everyone is working to learn. Combine this with a huge push for speed, and what does this spell – *OPPORTUNITY*

Ordinary

People

Performing

Outstanding

Routinely

Trying

Unusual

New

Innovative

Techniques

YES!

We've already had some great successes, and like any mega-project, a few frustrations. The key to managing frustration – Maintain Positive Communications.

Here are a couple of suggestions:

Be patient – it takes more than a few seconds to communicate an issue and get a resolution on such a large project, with remote staff. If you have an idea, let others know. If you have an issue, work together to focus on the facts and get these communicated clearly. Be persistent, and don't hesitate to bring up an idea. Communicate, Communicate, Communicate.

As you come together to go over status items – like your weekly meetings in the Regional offices – take a minute to bring up a few success stories or something that changed and resulted in a better bridge or process. We sometimes get mired down in the problems – but we've also got a lot of successes. This project has challenges and opportunities that no one has ever experienced before, and we are making improvements every day. Fix the issues, and keep note of the successes.

Here are a few to get the conversation moving:

Grouting and waterproofing to prevent leaks in adjacent girder bridges: We've had a mix of success initially, but with a lot of effort and focus by everyone involved we have seen great improvement.

Ken Warbritton

Bridge Improvement Project Director
Missouri Department of Transportation

SAFETY FIRST

Flagged Power Lines



Flagging of overhead utilities is a great practice to incorporate into job site planning. Without the flagging of the overhead utilities in the above picture, they would be unnoticed to those on the ground. Efforts are being made with the utility companies in each district to flag the utilities and make them more visible.

Man Hours Worked

335,140

Injuries 6

- Lost Time 0
- JT/RD 2
- Rec. 4
- Gen. Liability 0

Rec. Frequency 3.58



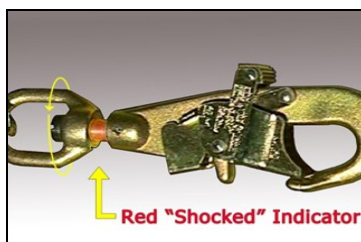
Fall Protection Inspections

One thing often overlooked in the routine day-to-day activities is the inspection of fall protection equipment. Before each use, the fall protection equipment shall be inspected. This includes the harness, lanyards, and retractable. In addition to looking over the equipment before each use, a monthly inspection tag attached to the lanyard should be properly checked off.

When inspecting the harness, look for frayed edges, broken fibers, cuts, or chemical damage. Inspect the D-rings and buckles for distortion, cracks, breaks, and rough or sharp edges. There is also a shock indicator on each harness. If this indicator is showing, the harness shall be taken out of service.

When inspecting lanyards, begin at one end, working towards the other making sure the entire length of the lanyard is inspected. Look for cuts, frays, and tears in the lanyard. Also, look at the hardware of the lanyard. The keeper latch should seat into the nose without binding and should not be distorted or destroyed. The keeper spring must exert sufficient force to firmly close the keeper.

Keep in mind that proper storage of fall protection equipment will keep it in safe working order. Always store fall protection harnesses and lanyards out of direct sunlight or heat, and away from chemicals and paints or solvents.



Red Shocked Indicator



Monthly Inspection Tag



Shock Indicator

COMMITMENT TO QUALITY

Importance of Meeting Pile Driving Tolerances



Tolerances on Pile Driving are critical to ensure the bridge will perform as designed. In the project specifications Section 702 (Load-Bearing Piles) it details many of the requirements for pile driving that must be met to ensure a quality end product. Recently, there have been many Non Compliance Reports on the Safe and Sound Design Build Project pile driving operations due to piles not meeting the plan location and/or tolerance requirements. This can be contributed to many reasons, but the important focus point is the requirements detailed in specification Section 702.4.4 (Pile Placement Tolerances). If the piling exceeds the requirements detailed in Section 702 it adds additional schedule time to resolve the issue, and may result in additional rework costs. During driving operations all involved must be ensuring through in process of quality checks that the pile driving operations will meet the tolerance requirements.

Importance of Proper Rebar Clearances



Recently we've had several Non Compliance Reports on rebar clearance issues on the Safe and Sound Design Build Project. These issues are different in some ways but do have one thing in common. The common thread is not verifying that the work meets requirements prior to moving forward with the concrete placement operations. It is essential that a pre-pour check is performed by both the bridge contractor and QA inspector prior to pouring concrete in order to prevent problems or delays for the project bridge. Having and verifying proper rebar clearances on work constructed will help ensure long term performance for each project bridge.

Importance of Placing the Submitted Asphalt Mix Design



You may have heard the expression over the years "Do what you say you're going to do". That same thing holds true on the Safe and Sound Design Build project. Recently, we've have a few sites that submitted an asphalt mix design for utilization on the project bridge that was not the same as the asphalt delivery tickets that arrived onsite during placement operations. This has caused several headaches for those involved for just not following the plan. All involved must understand the project requirements and do what we say we're going to

do, which includes **all** lower tier subcontractors. If we submit product A for use and on the day of operations product B arrives onsite, the project will have issues that no one needs. On the Safe and Sound Design Build project there are procedures in place to help ensure a quality end product. In order for everyone involved to be successful, we must communicate the procedures to all involved and follow the plan. It is essential for ensuring that each project bridge is constructed with the highest quality at the lowest cost.

TOP 10 ITEMS TO FOCUS ON:

- Roadway Transition Grades
- Material Receiving Inspections
- Concrete Beam Spalling
- Leaking Bridges
- RFC Drawing Communication to All
- Design Change Communication to Field Level
- Sub-Tier Subcontractor Communication
- Asphalt Operations
- Punchlist Process at Project Level
- Traffic Control for Punchlist Items

TOP 5 ITEMS GOING WELL:

- Schedule Communication for Community Relations
- Subcontractor Commitment to the Program
- Crane Inspections Documentation
- Subcontractor Initiated Field Design Change Implementation
- Coordination Efforts of QA Staff on the Project



ENVIRONMENTAL

Concrete Slurry 101

What is concrete slurry?

Concrete slurry is a watered down cement mixture with little or no aggregate, which means it has little compression or impact strength. The fine residue is generated from diamond grinding and concrete saw cutting.

Why is it so important?

The importance of awareness of concrete slurry is that it can be toxic to wildlife in rivers, streams, or other bodies of water. If concrete slurry enters a body of water, the law has been broken. Allowing slurry or other pollutants to enter a waterway is a violation of local, state, and federal regulations. Violators are subject to fines and cleanup costs. According to the EPA, fines can be \$10,000 per day plus \$10 per gallon. In addition, fines can reach to \$27,500 per day if the US EPA becomes involved. So remember, keep the waters clean!



Minimize and Contain Slurry

If a water body may be impacted, then containment systems must be properly designed and installed prior to the beginning of an operation. Use as little water as possible during coring/drilling or saw cutting. During wet coring or saw cutting, use a shovel or wet vacuum to lift the slurry. If wet vacuuming is not enough to capture wastewater, sandbags or other containment practices should be used. If the concrete residue remains after drying, then the area should be swept with a stiff broom and residue removed at the end of the day.

Remember to be aware of existing and forecasted weather conditions, which can change your current containment system.

Below are pictures of preventive methods:



Silt Fence



Sand Bags

Did You Know? In 2004, the US EPA conducted approximately 21,000 inspections, 425 criminal investigations and 455 civil investigations relating to pollution activities.

ETHICS & COMPLIANCE

Certified Payrolls From Lower-Tier Contractors

Most of us who work in construction have been fortunate enough to be part of the building "boom" in years past; these were periods of time when both the State and Federal governments had plenty of money and many projects to build. These projects are still out there, but the money has dried up! As is typical during any kind of recession, many owners are actively looking for money to help with funding, and governmental agencies are no exception.

Everywhere you look right now, in many different types of industries, there is a crack down on standards and an increase in audits of all types. OSHA, DOL and OFCCP are just a few examples of the agencies who have actually hired more people this year to do nothing but conduct field and office audits. Making sure that all of the craft people on this project are getting paid correctly is a high priority with KTU Constructors. Knowing that these agencies are placing a higher emphasis on this as well has only increased our drive to be compliant.

As the busy summer months are finally here, so is the influx of certified payrolls from all of our subcontractors on this project. The KTU staff is diligently checking each one for accuracy and adherence to all applicable standards, and sending them back for corrections when necessary. While most contractors are used to preparing and reviewing these payrolls, we want to emphasize that auditors will be looking to ensure everybody is meeting the U.S. Department of Labor (DOL), Federal Highway Administration (FHWA) and MoDOT standards.

This being said, KTU is developing a checklist that can be used as a guide to ensure that all certified payrolls are meeting every requirement. We are also working on setting up a Certified Payroll class in Jefferson City this August. This class will be taught and attended by agencies including MoDOT, the FHWA and the DOL. As we get this scheduled, more information will be disseminated to all subcontractors on the project.

As always, we appreciate everyone's hard work and attention to detail with these certified payrolls. If anyone has any questions or needs some specific guidance, feel free to contact Alicia Taormina at Alicia.Taormina@Kiewit.com, or Erik Kollberg at Erik.Kollberg@Kiewit.com, or call us at (816) 600-3671.

PUBLIC INFORMATION

MoDOT Safe & Sound At the Missouri State Fair



Bridge B0374, over Bear Branch Blackwater

MoDOT is a regular, popular participant in the annual Missouri State Fair, held in Sedalia August 12 through 22, 2010. As part of MoDOT's traditional Highway Gardens display, MoDOT will be promoting the Safe & Sound program with an interactive display featuring a new beam to be placed in bridge B0384, on Rte U over Spring Fork Creek in Pettis County. State fair attendees will have the opportunity to sign the new beam, which will be inscribed with "Missouri Loves Better Bridges!" MoDOT will be giving out 2,500 pens, inscribed with both the Safe & Sound and KTU logos.

Next to that beam will be an old beam from bridge B0374, on Route 127 over Bear Branch Blackwater. This bridge was built in 1933 and is 91 feet long. It carries just under 1,000 vehicles per day, is 20 feet wide and is striped for just one lane. The new bridge will be 26-feet wide. It is scheduled for a 35-day closure, meaning that it should be completed about the time the Fair ends or shortly thereafter. Information about both bridges, along with photos, will also be posted.

The two beams will give State Fair attendees the chance to see first-hand the impacts and importance of the Safe & Sound program. Informational banners will highlight bridge locations across the state, and in Pettis County, home of the Missouri State Fair.

"Growing Great Memories" is the theme for this year's state fair. Be sure to visit MoDOT in the ever-popular shady Highway Gardens and air-conditioned Transportation Exposition Center. The Expo Center will be fully loaded with interactive displays on the department's programs and activities including games, contests and giveaways, including the Safe & Sound exhibit, a transportation scavenger hunt and play driving-related computer games for the kids.