Updated Stormwater Compliance Plan

With COVID-19 running amok I’ve had time to update some of KDOT’s Stormwater documentation. One of those documents is the Construction Stormwater Compliance Plan.

Created in August 2013 and initially called “Inspection Procedures and Form 247 Instructions,” this form provides in-depth information on personnel responsibilities, inspection requirements, Pre-Construction Conference topics, Post Construction information, and various other Kansas stormwater related topics.

The current iteration can be found at:
http://www.ksdot.org/bureaus/burconsmain/Connections/swppp.asp

Updates in this version include changing all training references to Construction Stormwater (CSW) from Environmental Inspector (EIT) and Manager (EMT) training. Note that CSW covers both the EIT and EMT certification and the new certification is good for 4 years. A note to discuss open areas and place them on the 247 form was added to the Pre-Construction Conference item.

When doing an oversite inspections make sure and review the site map and make sure it matches what is installed in the field.

Finally, the biggest change was including details and guidance on how oversite inspectors are assigned. I won’t go into detail here, but know that District Mentors, Construction Engineers/Managers and Field Construction Administrators (FEA) have been included in the oversite pool along with Area Engineers and Headquarter Personnel. These assignments are not set in stone and the SWCE takes into consideration the project complexity and location when making assignments.
How Are You Containing Your Drilled Shafts?

I recently was asked to visit a bridge project to discuss how to contain the spoils and slurry generated from the installation of drilled shafts.

The shafts are 48” in diameter and approximately 44’ long. The Contractor is accessing the drill shafts via a causeway on either side of the waterway.

First we took a look at the completed shafts. As you can see from the picture the Contractor lined the bottom of their overflow area with an impermeable membrane to catch all the slurry and keep it from penetrating into the soil next to the waterway. You can’t see it here, but on top of the membrane they put a porous rock to keep the membrane in place while they pumped. The Contractor was able to size the area to contain all the slurry with no overflow.

Drilled shafts with little to no controls in place to contain the concrete slurry and spoils from the operation.

Proper containment of concrete slurry on a set of drilled shafts. How would you handle this situation?

The big discussion came from figuring out how to handle the spoils from the drillers. How were they going to contain the spoils within a limited work area? Once their bit is full, they raise it out of the shaft, rotate to the side, and spin-off the spoils causing the soil to fly in all directions. The biggest issue was keeping the soil from flying into the waterway. The Contractor came up with a pretty simple fix. They placed sheets of ply-wood on the waterway side. The sheets contained all the flying sediment from entering the waterway and once they finished drilling they disposed of the soil in the fill. Alas I did not get pictures of what they did.

Stormwater Update Online

This issue and all past issues of this quarterly bulletin are available online at KDOT’s Stormwater website:
http://www.ksdot.org/burconsmain/Connections/swppp.asp

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