



TRANSPORTING INNOVATIONS

September, 2011

NCDOT CONTINUOUS IMPROVEMENT (CI) COORDINATORS MEET

The Continuous Improvement (CI) Coordinators from all fourteen Transportation Divisions, as well as from various Raleigh-based Business Units and DMV, met on August 3, 2011. The purpose of the meeting was to review and discuss information regarding fostering a culture of Continuous Improvement (CI) within NCDOT, major roles and key responsibilities, CI project generation, CI project submission process, as well as approach to planning and organizing a CI Conference at both the regional level and state level.

As a result of the constructive feedback from the CI Coordinators, several of their concerns and suggestions were addressed:

1. In order to create a positive experience for the employees, and provide quality projects to celebrate, **the timeframe for the Regional CI Conferences has been extended by six months. The first Regional Conferences will now be held during the Spring of 2012**

2. The Business Unit leaders should be informed about the regional conference concept prior to the start of the planning process.

3. The CI Coordinators within each region (eastern, central, western) are encouraged to organize conference planning meetings to discuss the format of their regional conference and create a budget for approval by their managers.

4. Leadership supports the idea of offering a competition that rewards the best solution for an enterprise level problem. They are currently thinking about what the challenge should be.

5. The QEU—CI team will provide frequent updates to share with the CI Coordinators that can be pushed down to the employees through email, unit meetings, etc.

6. The QEU—CI team will ensure that the CI database is kept up to date and is searchable by entry date. This will ensure that the CI Coordinators and others are able to quickly locate the new projects or ideas that can be replicated within their Business Units.

This newsletter will highlight current and past innovative ideas and techniques NCDOT employees have suggested and/or implemented.



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DUMP BED PROP—Securing a dump truck bed in raised position

The Dump Bed Prop is a safe, efficient and user friendly device for securing a dump truck bed in the raised position while maintenance and/or repairs are being performed. The dump prop was assembled at the Equipment Depot Machine Shop and the Equipment Depot Body Shop. Project team members involved were Rick

Mabry, Alvin Ball, Alan Medlin, and Bob Harrer,

The props are made of aluminum and measure approximately 14”L x 21” H x 5” W and fit between the truck frame and the bed frame. It is secured with the attached safety chain. Dump bed props are stronger and more durable than wood.



NEWSLETTER DEDICATED TO INNOVATION AND CONTINUOUS IMPROVEMENT

Transporting Innovations
Margaret Anderson, Editor

Use of the “BEAM WINCH” — Environmentally sensitive and safe method

The following project was recognized during the last Continuous Improvement Conference on April 21, 2010:

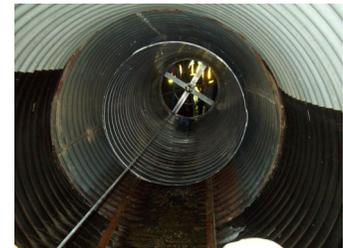
Division 7 needed a method of pulling a new liner pipe through the existing pipe without any equipment being placed in a stream. The solution was to build a piece of equipment that can pull an 84-inch diameter liner pipe over 104 feet.

Bridge maintenance had a supply of scrap H-piles anywhere from 2-feet long to 10-feet long. Three H-piles were used to form a beam that would provide a stable platform for a winch. The center H-pile was offset from the two end H-piles to help prevent twisting of the beam during the pulling process. The “**Beam Winch**” was placed on top of the wing walls of the existing pipe at the

same elevation as the center of the existing pipe.

The result of this project was a more environmentally sensitive and safer method for installing liner pipes through existing structures. Placement of the “**Beam Winch**” on top of the wing walls prevented any equipment from being placed in water and allowed for direct communication between workers and the operator.

Project team members in Division 7 were: Tim Powers, Donna Ball, Mark Brooks, Jeff Reese, Barry Kizziah, Ken Groce, Jackie Barnes, Jeff Brown, Jimmie Hawks, Scott Teague, Walter Allen and Chris Baldwin.



Reflective Stickers that Lead to Preventable Damage to Unpaved Roads Covered with Snow and Ice

Contractors who treat snow and ice covered roads as well as remove snow and ice in Guilford County (Division 7) cannot always distinguish paved roads from unpaved roads due to the accumulation of the snow and ice. Plowing wet, unpaved roads can result in significant damage to the surface and subsurface which must then be repaired. Applying salt to unpaved surfaces also results in significant damage that, too, must be repaired.

The employees of the Camp Burton Maintenance Yard in eastern Guil-

ford County developed an idea that should prove to save NCDOT money this winter. They are applying a red reflective sticker to state road signs at each end of an unpaved state maintained road to alert snow and ice removal operators that the road is unpaved. The stickers will signal that the road should not be treated and that care should be taken when plowing. The reflective properties of the stickers will allow them to be seen at night.

The implementation of this idea will result in the reduction of preventable

damage to unpaved surfaces which, in turn, reduces maintenance costs and permits other maintenance tasks to be carried out. For more information about this Continuous Improvement idea, contact Jeremy Delapp (CME) at (336) 375-5475.



Proactive Approach to Promoting Continuous Improvement

CI Coordinators: As point of contact for the CI Program in your Division/Business Unit, be proactive in taking the following actions:

1. Promote continuous improvement (CI) by raising awareness at staff meetings, safety meetings, regularly scheduled group meetings, etc.
2. Ensure that CI information is available to all employees.

3. Assist managers, supervisors, and employees in developing potential CI projects.
4. Help set-up and support CI teams.
5. Assist management in developing and prioritizing projects.
6. Review and screen projects before submission of applications.

7. Provide local recognition and incentives.
8. Assist in the organization and planning of regional conferences.
9. Refer to the CI webpage (www.ncdot.org/programs/cpi) for resources such as: CI application form, CI Guide, “Teams Getting Started”, CI Tool Box, and CI Project Database.