Transportation Enhancement Project Gets Underway

The Center for Dirt & Gravel Road Studies (CDGRS) recently finalized a Transportation Enhancement (TE) project contract with the Pennsylvania Department of Transportation (PENNDOT). The project calls for the Center to provide program support to the Department in the promotion and development of Pennsylvania’s TE program and to prepare training course materials for equipment operators in environmentally sensitive road maintenance methods and techniques. Working in partnership with PENNDOT, the State Conservation Commission (SCC) and other entities, the Center will also coordinate a study on the economic benefits of TE projects. The multi-year project budget of $813,750 is matched by funds provided to the Center by the SCC.

The TE program is an initiative under the Highway Trust Fund that supports community-based projects to improve local quality of life by financing special or additional “enhancements” not normally required or associated with a highway or transportation project. Originally created in 1991 under the Intermodal Surface Transportation Efficiency Act, TE foster more choices for travel by providing pedestrian and bicycle facilities, revitalize local economies by restoring historic buildings and renovating streetscapes. Re-authorized and strengthened as part of the Transportation Equity Act for the 21st Century through 2003, the TE program is currently requesting applications for project funding from Pennsylvania communities. Inquiries should be directed to a PENNDOT engineering district office or transportation planning agencies in your local community.

Kevin Abbey Becomes a Nittany Lion

The Center is happy to announce that Kevin Abbey has joined Penn State. Kevin will be assuming a role as Associate Director of the Center for Dirt & Gravel Road Studies. Most of you know that Kevin has been instrumental in getting the Dirt and Gravel Road Program to where it is today. Kevin’s involvement with the program began when he was working as an assistant to former State Senator Doyle Corman. Kevin has continued his involvement with the program as a member of the task force and most recently by acting as a consultant to the Center.

In addition to working with the Center, Kevin will also be continuing to pursue his interest in natural stream restoration. He will also be pitching in to help Penn State’s Center for Materials in the Environment. Please see contact information on the last page of this publication.

Ag Progress Days—August 14, 15, 16

The Center for Dirt & Gravel Road Studies (CDGRS) will participate in this year’s Ag Progress Days at the Penn State University agricultural research grounds located at Rock Springs in Ferguson Township, Centre County. The annual event, well known throughout Pennsylvania for bringing the latest in agricultural research and farming practices to the farm industry, will be held August 14-16. In addition to hosting a display exhibit in the Conservation Partnership area, the Center has improved 2 sections of unpaved farm lanes on site to demonstrate the “low cost and common sense” principles advocated by the Dirt & Gravel Road Program.

The first lane—a 700-foot unpaved stretch of Main Street just south of the Administrative Office and hub of APD activities—was fortified with bottom ash recycled from Penn State’s Power Plant on the University Park campus. In one sub-section the bottom ash was used as a “stand alone” road surface. In another, the Dirt & Gravel Road Program’s “Driving Surface Aggregate” (DSA) was blended with the bottom ash. Mixing of the materials in preparation for application of a road-stabilizing agent (Ultra-Bond 2000) was accomplished by using two different farm implements: an “S-tine” cultivator and an Alterra soil integrator. Additionally, three erosion control structures—water bars—were placed at appropriate locations along the roadway to facilitate stormwater drainage and protect the longevity of the road surface.

In the second farm lane—a 550-foot section directly uphill in a southern direction from the Conservation Partnership area—recycled fill was placed and graded with a small bulldozer in preparation for an 8” placement of Driving Surface Aggregate (DSA). Again, low cost water control structures—a gradebreak, a broad-based dip and road crowning—were used to manage the erosive forces of stormwater drainage in the area of this steeply sloped roadway. Following application of the road stabilizer product, the road was rolled for proper compaction.

Using small scale equipment readily available to farmers and rural landowners and with a careful eye toward cost control, Philip Dux, the Center’s Manager of Field Operations, supervised maintenance improvements on the two road sections. Center personnel and State Program Coordinator, Woody Colbert, supported Phil with the project workload and are scheduled to be on hand at Ag Progress Days to provide additional information on the road improvements and give walking tours of the nearby project areas. A special “Thank You” for their warmhearted cooperation on this project goes out to Bob Oberheim, Bev Hunter and Jessie Darlington of Ag Progress Days, and Sam Duck of the Penn State Power Plant. Please stop by the CDGRS booth at Ag Progress Days to say “Hello” and see these road improvements in action.
Calendar of Events

Dirt & Gravel Roads Training Sessions:

October 10 & 11 (Previously scheduled for Aug. 8 & 9)
Clinton and Centre Counties
Porter Township Community Building, Mill Hall
Mary Ann Bower, 570-726-3196 ext. 5

October 31 & November 1
Susquehanna County
Montrose Bible Conference, Montrose
Elizabeth Janosky, 570-278-4600 ext. 280

Ag Progress Days
August 14-16, 2001
Rock Springs, PA
http://apd.cas.psu.edu

Mark Your Calendar:
D&G Roads Annual Meeting & Workshop
April 8-10, 2002
The Penn Stater Conference Center Hotel
State College, PA 16803
For Details Contact 814-865-5355

Swamp Road in Lehman Reclamation

This was a group effort involving the Luzerne County Conservation District under the management of Walter Chamberlain, along with Phil Dux and Steve Bloser, the Center for Dirt & Gravel Road Studies, and JMG Enterprises, and the Woody Colbert of the State Conservation District.

A layer of Driving Surface Aggregate (DSA) was applied to Swamp Road. A road reclaimer was then used to blend the DSA into the surface of the road. Two coats of a liquid dust pallative was applied. The reclaimer was used to blend the emulsion into the surface of the road. The road was then graded and rolled. Several days later the road was again coated with another layer of the dust pallative.

The Luzerne County State Conservation District used the Swamp Road project as an educational opportunity. Approximately 70 people toured Swamp Road during the first day of the project.

The group included local township officials, DEP representatives, Bureau of Forestry personnel and local newspaper reporters. If you would like the Center’s help in staging a “field day” like this in your district please call us at (814)865-5355.

2nd Annual Natural Stream Design Summit

The 2nd Annual Natural Stream Design Summit was held on June 28-30 at the Penn Stater in State College. Over 300 environmental practitioners, watershed representatives and stream advocates gathered for this year’s event to hear the latest developments in the Commonwealth’s growing interest in natural stream channel design. The Center for Dirt & Gravel Road Studies (CDGRS) was actively involved in the summit as Philip Dux and Kevin Abbey gave presentations on Environmentally Sensitive Maintenance of Dirt & Gravel Roads and an Interactive Primer on Natural Stream Channel Design, respectively. Kevin is an active member of the Keystone Stream Team, the multi-disciplinary work group that assisted the Canaan Valley Institute in organizing this year’s summit.

The participation of the CDGRS is, simply stated, a natural. The physical interaction between unpaved road corridors and adjacent stream channels are the framework and context of the Dirt & Gravel Road Program. All of the principles of natural systems that govern the stability of unpaved roads (i.e., slope, surface material, bank stability, vegetation, etc.) likewise are critically determinant factors in the morphology and stability of river systems. Quite frequently, unpaved roads are shaped and graded over time so as to resemble ephemeral stream channels (i.e., channels with active flow at only certain times of the year) and, accordingly, exhibit similar hydrologic patterns.

At this year’s summit, the Keystone Stream Team rolled out its DRAFT “Guidelines for Natural Stream Channel Design in Pennsylvania.” With the purpose of providing a “common process for planning, designing, and evaluating natural stream channel restoration projects,” the guidelines argue for an interactive and systematic approach involving the watershed community, regulatory agencies, and project design professionals. Interested parties are encouraged to review the DRAFT Guidelines and provide comments and suggestions to the Keystone Stream Team. A copy of the Guidelines can be downloaded from Canaan Valley Institute’s home page: www.canaanvi.org.

25-Years of Service Celebration

A picnic was held at the Materials Research Lab on July 13 in honor of Barry Scheetz 25 Years of Service to The Pennsylvania State University. Barry graduated from Penn State in Geochemistry. He is active in research areas dealing with the chemistry of cementitious systems including environmental remediation. More recently he has been working on the Driving Surface Aggregate certification program with the Center.

He was given a rocking chair and plaque from the University. On the behalf of the Center for Dirt & Gravel Road Studies Michael Silsbee presented Barry with a commemorative knife with the Pennsylvania seal.

Barry Scheetz and his wife Caroline
Waiting for the Dust to Settle…

The Center for Dirt and Gravel Road Studies has recently teamed up with the Bald Eagle State Forest District to monitor the effectiveness of several dust suppressants on White Deer Creek Road, located in the Northwest corner of Union County in Bald Eagle State Forest. A six mile stretch of White Deer Creek Road was divided into ten application sections with buffer areas of at least 1,500 feet between the application sections. Various dust suppressants from several different manufacturers were placed on the ten application sections. Dust collection jars were then stationed at each application section and buffer area to measure the effectiveness and longevity of each dust suppressant. The project work was completed on July 11th, 2001 and is currently in the monitoring phase. For more information about the project, check out the link on our website at www.mri.psu.edu/cdgrs. Click on “White Deer Dust Study” at the bottom of the homepage.

Center Hires New Field Operations Assistant

Dave Creamer is the newest employee at the Center for Dirt & Gravel Roads Studies. Many of you may already know Dave from his previous job at the Huntingdon County Conservation District. For the past two years, Dave served there as the Resource Technician and acted as the administrator of the 102, 105, NPDES, and the Dirt and Gravel Roads Program. Dave also had previous District involvement for several years at the Somerset office as an intern.

Dave graduated from Penn State in the fall of 1999 out of the Environmental Resource Management Program where he specialized in water quality/biology and water control. He also obtained a technical degree in forestry from the Somerset Vo-Tech and immediately became involved with the Sustainable Forestry Initiative when he arrived at the District. Dave’s hobbies and interests include hunting, fishing, reading, hiking, and more hunting.

Dave is looking forward to meeting and working with you all and he would like to extend an invitation for you to contact him with questions and concerns. Please see contact information on the last page of this publication.

New DSA Standards Approved

Modification of Driving Surface Aggregate (DSA) Standards have been approved at the July 18 meeting of the State Conservation Commission Meeting at Toftrees Resort in State College. Copies of the updated standards will be distributed to all Conservation District Offices. Modifications that were made to the DSA were identical to the recommended changes that were distributed to each District Office for review and comment before the July commission meeting. For the remainder of this construction season the “old standards” are still applicable. With the beginning of next years construction season the “new standards” will be in effect.

Aggregate Survey Summary

As you all are aware of by now, at the July meeting of the State Conservation Commission, the board acted upon and approved the modifications to the Driving Surface Aggregate standards that were recommended to them by the review committee.

Accompanying the distribution of the recommended changes to each district for review was a brief survey regarding the use of DSA. The following is a summary for your responses:

Of all of the districts in the Commonwealth about one in three or 33% responded to the survey.

- 77% of the respondents have had some experience with the use of DSA. In response to the question concerning the quality of your experiences with DSA, all but one county [94%] have indicated that their experiences were “good” and one county [6%] reported “fair” experience with DSA, no one has indicated that they had “poor” experiences with DSA.
- 22% of the respondents used sandstone
- 78% used limestone
- one respondent reported a quartz aggregate
- one respondent reported a dolomite aggregate
- 77 different projects have used DSA for a total of 63 miles
- the typical compacted placement was 6 inches but varied from 4 to 10
- the average cost per ton delivered was $13.81 but costs varied form $6.00 per ton to as much as $26.00/ton in those areas of the Commonwealth where aggregate are required to be trucked long distances. Where DSA is readily available, the average cost per delivered ton was $8.00.

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Penn State is an affirmative action, equal opportunity university.

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