Hello again!

We are having one of the longest winters I remember.

Concrete paving prices are staying pretty level, or falling slightly. Hot Mix Asphalt prices are sliding up. The Portland Cement Association’s Price Index shown later in the Newsletter confirms these trends.

We had a letting in Pierce County where a concrete whitetopping had a lower bid than a thinner HMA overlay. That is the best of both worlds. Lower first cost, and longer life!

The Nebraska Department of Roads plans to let a five-inch thick unbonded concrete overlay on US 30 between Paxton and Sutherland this spring. This will be the thinnest whitetopping done by the Department.

And finally, I’m going to repeat something from the Pavement Engineer’s Doings letter.

One of the things we need to keep in mind is funding for roads and transportation. The construction industry needs funding to re-build and improve our road system. Only limited methods exist for generating resources to accomplish that.

One standard source is the fuel tax. If someone drives 20,000 miles each year and gets 20 mpg, a five-cent per gallon increase would cost that highway user only about $50 per year. That is not much to keep our highways up to date.

We can also look at toll roads. Kansas and Oklahoma have several. If people use the roads, they pay for them.

Enjoy the rest of the newsletter!  

Bill Cook, P.E.

The Cornhusker Marriott in Lincoln, NE was the site of the 31st NCPA Concrete Paving Workshop held January 19-20, 2010. Twenty-three presenters spoke on 24 different topics.

A highlight of the event included the annual Concrete Paving Awards ceremony which recognized Portland cement concrete pavement projects determined to be best designed and constructed during the past contract year.

The Awards program was designed to encourage high quality workmanship in every concrete pavement project. Workshop highlights and photos from the event are included in this newsletter. Congratulations to the 2009 winners!

Concrete Lower Cost Than Asphalt at Letting

How many times have you heard concrete Pavements always cost more to build than Hot Mix? Well, here is another example where that obsolete saying is shown to be false.

Pierce County held a letting February 8, 2010. County Highway Superintendent Brian McDonald arranged the letting to allow alternates of a six-inch PCC whitetopping (an unbonded overlay over HMA) and a thinner HMA alternate.

“Don’t assume asphalt will always be cheaper at the bidding table. More and more concrete is becoming the lowest first-cost option.”
The Concrete Alternate bid at $267,647.87 for a one-mile whitetopping. When compared to an equal thickness HMA overlay, the concrete was less. An equal thickness HMA overlay would have been about $313,755.

There were five bidders on the concrete option, and two bidders on the asphalt option.

The successful low bidder was A & R Construction from Plainview, Nebraska. They plan to start work in mid-July this year.

Designer for this economical whitetopping project was JEO Consulting Group from Norfolk, Nebraska.

Don’t assume asphalt will always be cheaper at the bidding table.

More and more concrete is becoming the lowest first-cost option. Call me if you have questions about this letting.

In each issue of the Newsletter, we like to highlight an old concrete pavement. This time it is Nebraska Highway 91 from Snyder east to US 75 in Dodge County.

Originally paved in 1952, the pavement was widened in 2000. So we have a concrete slab serving the travelling public for almost 58 years.

Here are some photos of the road.
Do you have an old concrete roadway that because of age has become rougher? And the usual solution is a thin asphalt overlay? Give Diamond Grinding a look. What follows is a solution to the rough road problem.

CPR – REBUILT TO LAST

WITH A POPULATION of more than 50,000, Ames, Iowa is a charming city located approximately 30 miles north of Des Moines. Home to Iowa State University and its 23,000 students, Ames is ranked among the top small American cities for living and working.

In early 2009, engineers for the City of Ames recognized that the two roads that cross through the heart of the town as well as the campus (Stange Road and 24th Street) were in desperate need of repair. With a profile index of 100 inches per mile and transverse joint faulting in excess of one inch, this pavement rode rough. A four-lane section (0.64 miles in each lane), totalling 2.56 miles, was identified for repair.

Although the City of Ames traditionally uses an asphalt overlay for this type of repair, they instead opted to use concrete pavement restoration (CPR) with diamond grinding. Having learned of the success other municipalities have had with CPR, the city wanted to evaluate the life-cycle costs of each process to determine where taxpayers’ dollars are best spent. The methods selected were full-depth repair and diamond grinding followed by joint rescaling.

Since the project required heavy concrete removal and lane closures while maintaining traffic, it presented many challenges. Due to the project’s proximity to nearby utilities and a railroad, the contractor had to coordinate with railroad and utility representatives, which is not typical of most CPR projects. Further complicating the project was the fact that the inner two lanes were constructed in the late 1950s, while the outer lanes were added in the 1970s and were paved with manholes and water valves. This presented multiple obstructions for the grinding contractor to work around and through.

The project began July 20, 2009 and was completed July 31, well ahead of the Aug. 17 deadline. The result for taxpayers is a safe, smooth pavement delivered in just a few weeks that is expected to last at least 15 more years. Although the specified profile index for the road was 20 inches per mile, it now measures 14 inches per mile, an 86 percent improvement in ride quality. With a total project cost of only $267,697, the city has realized that CPR is the sustainable, cost effective maintenance answer for their concrete pavement.

TEAM MEMBERS
• City of Ames (Owner)
• Manatts Inc. (Prime contractor, full-depth patching and diamond grinding)
• Iowa Erosion Control Inc. (Joint saw and resceal subcontractor)
• Diamond Products (Diamond blade supplier)
• Iowa Plains Signing (Traffic control and stripping)

Arterial Street Rehabilitation in Ames, IA

>>> CONCRETE PAVEMENT RESTORATION & DIAMOND GRINDING
STRONG STUFF FOR HARD TIMES

As we work together to meet the energy challenges of the future, it’s time to recognize the economical, durable solution for developing a sustainable infrastructure: concrete and its key ingredient, cement.

Concrete’s long lifespan helps conserve America’s natural resources and provides an unsurpassed level of sustainability in roads, buildings and infrastructure projects.

CONCRETE: DURABLE. SUSTAINABLE. ECONOMICAL.

For more information, visit www.cement.org.
The Producer Price Index tracks HMA, Steel, Concrete and lumber prices. The current PPI shows Hot Mix, steel, and lumber prices on a slight upward trend. However, HMA prices show a little upward tick. Concrete prices seem to be stable, or dropping slightly. I heard asphalt bitumen shot up $70 per ton last month.

Steel prices increased for the month, increasing by 2.0% from December to January. Asphalt prices increased as well, 2.0% from the previous month. Lumber prices increased slightly by 0.6% from December to January. Concrete prices decreased slightly, 0.7% from the previous month.

Steel prices have decreased 3.7% within the last year. Asphalt prices have decreased 4.0% and concrete prices also decreased from last year, decreasing by 3.2%. Lumber prices increased by 5.1% from last year.

PCA Market Research provides this information to aid in the promotion of concrete and cement-based products.
**Award Winners**

### Interstate Highways & Expressways

1-80, I-180 to 56th Street, Lincoln  
Contractor: Dobson Brothers Construction Co.  
Owner & Designer: NDOR  

*Front (L to R):* Justin Morrow; Brent Kunze; Tom Moorehead; Jason Volz  
*Middle (L to R):* Dean Dowling; Bob Sanburn; Angela Burnett  
*Back (L to R):* Matt Martin; Gene Garza; Devin Townsend; Steve Buss

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### Municipal Streets

U.S. 30, Grant Street to Greenwich Street, Grand Island  
Contractor: Paulsen, Inc.  
Owner: NDOR  
Designer: Kirkham Michael  

*Front (L to R):* Joe Brockhaus; Scott Gripenstroh; Curtis Probasco  
*Middle (L to R):* Ben Merchant; Dennis Sandrock; Ken Osborne  
*Back (L to R):* Don Darling; Tony Kessler; Steven Irons

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### Concrete Pavement Repair

US 75, Plattsmouth to Omaha  
Contractor: Safety Grooving & Grinding, LP  
Owner & Designer: NDOR  

*Front (L to R):* Tiffany Wells; Chanda Parker; Linda Masek  
*Middle (L to R):* Mohammed Assadi  
*Back (L to R):* Mark Strong; Marty Weander; Matt Bouwens
**Award Winners**

**Airports**

*Reconstruction of 14R - 32L and 18-36 Runway Intersection, Eppley Airfield, Omaha*

Contractor: Hawkins Construction  
Owner: Omaha Airport Authority  
Designer: Lamp, Rynearson & Associates  
Contract Administration & Materials Testing:  
- Lamp Rynearson & Associates  
- Thiele Geotech, Inc.

Front (L to R): Mike Blankenship; Andy Wester; Stacy Heusel; Steve Weidenhammer; Joe Detken  
Back (L to R): Kurt Peyton; Virgil Olingmueller; Paul Huntimer

**Secondary State Highways & County Roads**

*Dodge County, Herman to Scribner Road*

Contractor: Knife River Midwest, LLC  
Owner: Dodge County  
Designer & Contract Administration: Speece Lewis Engineers

Front (L to R): Tim Farmer; Dan Volkert; Alan Doll  
Back (L to R): Clyde Erie; Loell Strand; Doug Sindelar

**Urban Streets**

*West “J” Street from West 10th to Norris Avenue, McCook*

Contractor: Paulsen, Inc.  
Owner: City of McCook  
Designer & Contract Administration: W Design  
(L to R): Darrell O’Neill; Dave Neill
Award Winners

Local Projects less than 30,000 Sq. Yds.

Riverview Drive 4-Lane Project, South Sioux City
Contractor: Concrete Specialty, Inc.
Owner: City of South Sioux City
Designer & Contract Administration: Olsson Associates

(L to R): Chad Kehrt; Joe Johnson; Rod Hanson

Recreational Trails

MOPAC Trail Bridge over North 27th Street, Lincoln
Contractor: Stephens & Smith Construction
Owner: City of Lincoln Parks & Recreation Dept.

Front (L to R): Mark Lutjeharms; Dirk Egger
Back (L to R): Jon Mooberry; Doug Talich; Doug Holle

Parking Lots & Other Misc. Paving

Metropolitan Community College Culinary Arts Building Parking Lot
Contractor: AVAS Construction Company, Inc.
Owner: Metropolitan Community College

(L to R): Jereme Montgomery; John Cambridge
conference speakers

1. Dale Harrington
   National Concrete Pavement Technology Center

2. Monty Fredrickson, Director
   Nebraska Department of Roads

3. Mary Johnson
   Nebraska On the Move

4. Joe Clendenen
   Holcim, US

5. Dr. James K. Cable
   Cable Concrete Consultation

6. Jim Witt
   Logan Contractors Supply

7. Jerome Montgomery
   Nebraska Concrete & Aggregates Assoc.

8. Todd Ellis
   Nebraska Department of Environmental Quality

9. Walley Heyen, PCC Engineer
   Materials & Research
   Nebraska Department of Roads

10. Lieska Halsey
    Materials & Research
    Nebraska Department of Roads

11. Kevin Klein, VP of Research and Development
    GOMACO, Inc.

12. Brian Manatt
    Manatt’s, Inc.

13. Dr. Hugh Stirts
    Small Business & Assistance Coordinator
    Nebraska Department of Environmental Quality

14. Anna Lannin, Manager
    Planning & Programming
    Nebraska Department of Aeronautics

15. Dr. Chip Anderson
    The Pearl Group

16. William Dowd, P.E., S.E.
    HDR Engineering

17. Steve Wobken
    Ash Grove Cement

18. Joseph Werning, NE Division Director
    FHWA
ASPHALT: AGE 13

A recent survey of 50 state Departments of Transportation indicated that asphalt roads need major reconstruction after thirteen years compared to more than twenty-nine years for concrete. With initial and life-cycle costs for concrete now competitive with asphalt, concrete stretches your dollars and keeps drivers moving forward. For more information visit www.think-harder.org.
Jereme Montgomery, Executive Director of the Nebraska Concrete & Aggregates Association, has a new blogspot. Check out http://nebraskaconcrete.blogspot.com/.

31st Annual Concrete Paving Workshop speakers who are not pictured in this newsletter but who deserve recognition and thanks include:

- Paul Westhoff, Resident Construction Engineer in Lamar, Colorado for the Colorado Department of Transportation
- Matt Zeller, Executive Director for the Concrete Paving Association of Minnesota
  Paul and Matt told us how concrete overlays are being constructed in Colorado and Minnesota.

- Rick Quistad from Jones Automotive. Rick talked about traffic control lights and vehicle lighting.
- Jon Brown from Rapid Set Cement discussed cementitious patching products.
- Mel Cowser discussed epoxies used in paving and repair applications.

Keep June 21, 2010 Open. The NCPA will hold its annual Golf Outing that day at Quarry Oaks Golf Course. The Golf Course is right off I-80 at Exit 426, the Mahoney State Park exit. More information coming out later.

The ACI-Nebraska Chapter will have their golf outing May 7 at the Beatrice Country Club in Beatrice, Nebraska. Keep this date open for more golfing fun. More information coming out later from ACI-Nebraska.
Concrete for Life
NEWS

2010 NCPA Members

Arps Red-E-Mix
A & R Construction
Ash Grove Cement Company
BASF Construction Chemicals
Cedar Valley Corp.
Diamond Engineering
Diamond Surfacing Inc.
Dobson Brothers Construction Co.
E&A Consulting Group, Inc.
General Resources Technology
Hawkins Construction Co.
HDR Engineering, Inc.
Holcim (US) Inc.
Iowa Erosion Control, Inc.
JEO Consulting Group
Kirkham Michael & Associates
Knife River West Division
Lafarge North America
Lamp, Rynearson & Associates, Inc.
Logan Contractors Supply
Lyman-Richey Corp.
Martin Marietta
Mid-State Engineering

Murphy Tractor & Equipment
Nebraska Truck & Equipment Co., Inc.
Nebco, Inc.
  - Concrete Industries
  - Ready Mixed Concrete, Lincoln
  - Western Sand & Gravel
  - Overland Sand & Gravel
  - Kerford Limestone
  - Constructors, Inc
  - Nebraska Ash
Nebraska Machinery Co.
Olsson Associates
PCA-North Central Region
Paulsen, Inc.
Pavers, Inc.
Penhall Company
Rose Equipment
Sarpy County
TCW Construction, Inc.
Ten Point Construction
The Schemmer Associates
Thiele Geotech
Upper Plains Contracting
Wise Mack