Lessons Learned in Alternatives to Paving

26th Regional Local Road Conference
Rapid City, SD
October 26-27, 2011
INVITE YOU TO ATTEND A SOIL STABILIZATION DEMONSTRATION ON THE STREETS OF THE CITY OF TEKAMAH

AUGUST 16, 2011
12,860 Sq. Yds.
PROJECT PARTNERS

• **Scotwood Industries**
  – Suppliers of Calcium Chloride
  – Provided Field Assistance

• **Tetra Chemicals**
  – Manufacturer of Calcium Chloride
  – Provided Transport and Application
  – Provided Field Assistance

• **Sta-Bilt Construction**
  – Preparation
  – Reclamation
  – Finish Grading
  – Compaction
PROJECT PARTNERS

• Nebraska LTAP
  – Project Documentation

• City of Tekamah Street Department
  – Additional Compaction
    • Following each rain event
PROJECT PROCESS

- Added ¾” crush & run limestone to existing surface
- Incorporated to a depth of 8”
- Compacted with sheepsfoot roller
- Prior to calcium chloride application surface was watered
  - Gallons / Sq. Yd. Varied
  - Field Compaction Test
PROJECT PROCESS

• Calcium chloride applied at a rate of 0.33 gallons / sq. yd.
• Calcium chloride incorporated to a depth of 6”
• Motor grader mixed and laid down to proper profile (additional water if needed)
• Material compacted with rubber tire roller
• Final top-coat of calcium chloride applied at a rate of 0.33 gallons / sq. yd.
PROJECT COSTS

• Sta-Bilt Construction
  – 12,860 sq. yds. @ $3.80/sq. yd.
    • $46,296.00
  – Calcium Chloride 7996 gal. @ $0.85/gal.
    • $6,774.40
  – 704 cu. yds. ¾” crush and run @ $16.00/cu. yd.
    • $11,264.00
  – Additional hauling
    • $637.50

• TOTAL COST $64,971.90