

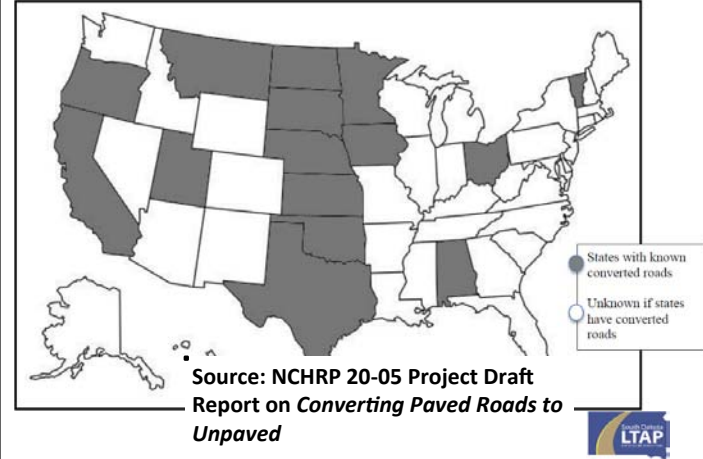
Reversion of Paved Surfaces to Unpaved Surfaces

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Recent Survey on Conversion of Paved Roads to Unpaved – More Extensive Than Anticipated



Like it or not – Some local agencies will have to face this:



Day County, SD Experience

- Several reversion projects have been done
- Initial negative reaction from the public, but seem to accept it after seeing a better driving surface, even though it is unpaved.
- All projects have been done by:
 - Add additional gravel prior to recycle
 - Recycling existing pavement and new gravel
 - Shape and compact
 - Begin maintaining as a gravel road.



A Day County Project



Recycle Process
Virgin gravel course added on roadway prior to recycling.



Recycle Process (Con't)



Reshape & compaction of the material



Outstanding performance



Brown County, SD Experience

- County Road system is extensive:
 - 680 miles total
 - 480 miles paved – many in poor condition
 - 200 miles unpaved
 - Total annual hwy budget is 9.2 million dollars.
 - By best estimate, 40 million dollars is needed annually to repair/maintain the current paved system.
 - Far too many paved miles for budget to support.



Some of Brown County's Challenges



The problems became severe after the economic downturn in 2008 and severe flooding at the same time.

Condition of one road late spring 2013



Experimenting with Reversion Process

- Simply go back to gravel
- Gravel surface with treatment for dust control
- Stabilized gravel –
 - Emulsified asphalt stabilization
 - Portland cement stabilization



Challenges with the Process of Reversion



Reversion with ripper and sheepfoot roller – not recommended!



Some counties have done this, but the method not efficient or cost effective



A better way to recycle failing pavement and add new surface gravel at the same time.



A good method



Careful processing and shaping is needed



Treat it like a construction project



Small loader-mounted recycling machines have worked well on small projects



Recycled material prior to processing and compaction



Very hard to avoid a few chunks if pavement is badly deteriorated



Compaction can be difficult in thick lifts with a high percentage of bituminous material



Documentation of performance on a project one year after reversion from failing pavement to untreated gravel – average daily traffic is 90 vehicles per day



If you cannot sustain your paved road system, you will have to do some reversion.

Do it right and it works.

Thank You