



Project Profile:

Farmingdale Road

Sangamon County, Illinois
Summer 2004

Challenge

The oil and chip roadway was narrow, rough and lacked stability for the increased traffic caused by residential development. Budget limitations prevented complete reconstruction of the roadway. The road could not be closed due to accessibility needs of the residents.

Solution
Full Depth Reclamation (FDR) with engineered asphalt emulsion was used.

Construction Phasing

Phase 1: Add approximately 4 inches of crushed stone-based material (CA6) over existing roadway (work performed by County forces).

Phase 2: Pulverize 7 inches deep then shape and compact existing roadway.

Phase 3: Incorporate 3 percent asphalt emulsion, "Fortress®" Recycling Agent supplied by SEM Materials -- then grade, shape and compact.

Phase 4: After curing for two weeks the roadway was profiled with a Wirtgen 2200 to mill to 2 percent cross slope.

Phase 5: An A2 surface treatment was applied (self-performed with county forces).

Result

- Roadway was open to local traffic and emergency vehicles during construction
- Project stayed within budget.
- Roadway widened to 12-foot lane width and an additional 2 to 3 feet of material was provided as safety shoulder in most locations.
- 7 inch full-depth pavement structure adequate to meet current traffic needs and is suitable for additions for a HMA upgrade in the future.
- Cost saving of 50 percent over removal and replacement.
- Local agency participated in construction which allowed for additional cost savings to the County.

