Full Depth Reclamation with Injected Asphalt Stabilization
Summer 2014

Customer / Road:
Town of Milford, NH - Armory Street

Road Type / Condition:
Armory Street is a connecting road between two highly traveled secondary highways. The road is approximately 4,000 linear feet in length with an AADT of 2000 (10% heavy trucks). The road was originally constructed as a farm road and was expanded with numerous sand seals, stone seals, and hot mix overlays over the past 80 years. The increase in AADT and heavy truck traffic, combined with the insufficient base materials, caused the road to experience significant structural defects and pavement failures.

Scope of Work:
Sampling and testing of the existing base materials and pavement was completed to determine the optimum mix design, quality of base materials, and stabilization treatment. The road was reclaimed to an average depth of 10" on the initial pass, followed by a second pass at a depth of 4" with injected SS-1 emulsion (1 gal/sy) as per the mix design. The material was then fine graded, compacted, and allowed to cure for 4 days prior to HMA paving.

Treatment Selection & Benefits:
In order to correct the significant base issues and assure the road would withstand the increased traffic load, the town chose to utilize the emulsion stabilization to increase the structural capacity while utilizing the existing materials. The increased structural value provided by the stabilized base also allowed the town to decrease the thickness of the HMA overlay (thus reducing costs) while maintaining the structural integrity of the road. The performance and cost effectiveness compared to full reconstruction was the preferred method for the town.