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11. Author(s)/Principle Investigator(s) Andrew Mastel			
12. Performing Organization Name and Address NDDOT M+R <input checked="" type="checkbox"/> North Dakota DOT NDDOT OTHER* <input type="checkbox"/> Materials and Research Division NDSU <input type="checkbox"/> 300 Airport Road UND <input type="checkbox"/> Bismarck ND 58504-6005 UGPTI <input type="checkbox"/> OTHER* <input type="checkbox"/> *see supplementary notes		13. Sponsoring Agency Name and Address North Dakota DOT Materials and Research Division 300 Airport Road Bismarck ND 58504-6005	
14. Supplementary Notes			
15. Abstract Purpose and Need North Dakota's aging highways are being rehabilitated with thicker base sections to improve pavement performance. These bases are being constructed with virgin aggregates and blends of recycled materials to provide adequate drainage and support for the pavement. Most of the aggregate used is a local material that is being depleted and is becoming harder to find. The North Dakota Department of Transportation (NDDOT) is looking at ways to improve the performance of the pavement, decrease future maintenance costs, conserve aggregate resources, and reduce the time needed to rehabilitate the roadway Objective The objective of this study is to determine if using Geogrid as a base reinforcement will provide the performance characteristics required, while reducing aggregate use and construction time. Scope The experimental feature is on project NH-4-052(044)058 which is located on US Highway 52 from Donnybrook to Carpio. Three different sections were designed and are as follows: Section 1 (Control) –Length 0.5 miles, Sta 3260+44 to Sta 3286+84; Section 2 – Length 0.5 miles, Sta 3286+84 to Sta 3313+24; Section 3 – Length 0.5 miles, Sta 3313+24 to Sta 3339+64. The evaluation period is 10 years or until failure. Every two years the experimental feature will be evaluated and a report generated. The performance of each section will be monitored and evaluated for the following: <ul style="list-style-type: none"> ➤ Distresses (e.g., cracks, rutting, etc.) in the different sections. ➤ Overall pavement condition. ➤ Maintenance costs. ➤ FWD Comparisons (after construction and on a biannual basis). The FWD testing will be conducted in the early fall to coincide with the completion of the project. ➤ Performance of each section. Performance of each section will be judged on the number of distresses, overall pavement condition, maintenance costs, and FWD data. Summary From 2004 to 2010, the three experimental sections showed no visual distresses. It was observed in the fourth evaluation in 2012 that Section 3 has rutting in the wheel paths. Section 1 (the control section) has 2 transverse cracks and Section 2 has no visual distresses. In 2013 and 2014 it was observed that rutting was occurring in all of the sections and it was 1/8" to 1/2" over the length of the project. In 2014, there were new cracks in all of the sections which were one transverse shoulder crack in section 1, one transverse crack in Section 2 and one longitudinal crack, four transverse cracks and one transverse shoulder crack in Section 3 during the evaluation in 2014. The visual observations and the data that was collected from the three experimental sections are included in this report.			
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