The Georgia Department of Transportation recently completed a bridge deck rehabilitation project of the I-285 Bridge over Snapfinger Road located in Dekalb County, Georgia. This project included the repair of the bridge joints, selective removal of the existing bridge deck using both mechanical milling and hydrodemolition, and a new High Early Strength Latex Modified Concrete (HESLMC) overlay using Type III Cement. Rehabilitation of the existing bridge deck is the most cost-effective way to extend the overall lifespan of the bridge.

This bridge is 173 feet in length with 9 lanes of traffic, totaling approximately 2,754 square yards of area to be repaired during weekend only work. Due to the large width of the project and demanding schedule, it was important to use experienced contractors and subcontractors with a long track record of success to ensure the high-quality construction of a structural, long-lasting bond of the new concrete overlay surface. Massana was chosen as the prime contractor for the project, who then chose Modified Concrete Suppliers to supply the HESLMC overlay, and Hydro-Technologies to complete the fast track hydrodemolition surface preparation. This leaves the bridge surface in the perfect condition for the latex modified concrete overlay. This overlay material is highly bondable to the existing surface, highly resistant to wearing over the years, and the properties of the latex modified concrete provide a waterproof barrier that protects the underlying bridge.

This project was scheduled for a completion over the course of 4 weekends. Due to the volume of traffic in this area, a lane closure was only permitted during the hours of 9pm on Friday, until 5am Monday morning. With this condensed scheduled it was very important that there were no delays which would incur high liquidated damages on the project. Because of the experience and expertise of the contractor and subcontractors alike, the project was completed with zero delays.

In the end, this project proved to be a successful operation for all involved. The use of hydrodemolition with a HESLMC overlay will provide a high quality and long-lasting wearing surface of the bridge deck, that will increase the lifespan of the bridge over 25+ years.