Channel Shaped Precast Post-Tensioned Segmental Concrete Overpass Bridge Replacement Retains Traffic Headroom

The Channel Bridge System is a precast, post-tensioned, segmental concrete bridge system specifically designed to address the needs of the overpass bridge market. Its patented cross-sectional consists of a thin deck supported from above by two longitudinal edge beams cast monolithically with the deck. The edge beams serve as the traffic barriers. Channel Bridge construction begins with the casting of a series of precast segments, approximately eight feet long that utilize match-cast technology. After each segment is cast, the deck is transversely post-tensioned in the precast plant. The segments are transported to the bridge site and supported on two temporary erection girders placed parallel and adjacent to the edge beams. Once all of the segments are in place, longitudinal post-tensioning tendons are installed in both slab and edge beams. After the tendons are stressed, the bridge becomes self-supporting and the temporary erection girders are removed. The Channel Bridge system provides solutions to the many challenges existing in the overpass bridge replacement market.

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