

GREENSFERRY OVERPASS
Early May 2015 – Girder Placement

This photo was taken shortly after the girders (structural support beams) were placed on the structure. The girders are pre-stressed concrete. They were constructed offsite, delivered by truck, and set in place over three nights.



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Early June 2015 – Stay-In-Place Metal Decking

Metal deck forms are being installed between the girders. The metal forms, also called stay-in-place decking, act as the pan underneath the deck when the concrete is poured and remains in place for the life of the structure. Use of stay-in place decking speeds up the construction process over traditional wood forms.



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Mid June 2015 – Metal Reinforcement

Rebar reinforcement located in the deck is coated with an epoxy (giving it a light green color) to prevent the metal from rusting. After the stay-in-place-decking is installed, the metal reinforcement is placed in a specified pattern so when the concrete deck is poured around the rebar, the required strength of each span is achieved.



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Early July 2015 – Deck Placement Preparation

The metal rebar has been completely installed and the crew is preparing for the concrete deck placement. An automated concrete finishing machine is used for the deck pours. This machine runs along temporary rails installed on the outside of the structure and finishes the concrete at the designed grades for proper drainage and a smooth ride when driving over the bridge.



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July 8, 2015 – Concrete Deck Placement Day 1

The contractor poured 815 cubic yards of concrete on the 333 foot long bridge over two days. This photo shows the beginning of the first concrete deck pour in the early morning hours of July 8, 2015.



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July 10, 2015 – Concrete Deck Placement Day 2

The second deck pour is shown in this photo. In order to reach all areas during the second pour, two concrete pump trucks were used, one on the I-90 shoulder and one in the I-90 median. Traffic control on I-90 included various lane closures throughout the early morning hours to prevent any concrete pours over live traffic.





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July 10, 2015 – Finishing the Concrete Deck

A temporary walkway over the freshly poured concrete follows behind the automated concrete finishing machine. From this walkway, one worker adds grooves to the pavement while another sprays a white curing compound onto the concrete surface. This curing compound reduces surface cracking when the concrete has cured and helps the concrete reach its full strength.

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Mid July 2015 – Deck Cure

The concrete deck cured for 10 days in order to achieve the required maximum strength. This photo shows portions of the curing materials being removed and the finished driving surface being exposed. With the retaining walls on the north side of I-90 close to finish grade, the roadway is beginning to take shape.

