Watching the Ravenel Bridge Grow

T.S. Eliot (East Coker from the Four Quartets) put it this way:

Old men ought to be explorers
Here and there does not matter
We must be still and still moving
Into another intensity
For a further union, a deeper communion

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How this happened

My wife and I have a small kitchen house on Ashley Avenue. From time to time some of our grandchildren would come for a visit. Frequently we took them to the South Carolina Aquarium – a great place for grandkids and grandparents. During August and October 2003 I took photos of the kids standing on the outside terrace. Later I noticed that the Ravenel Bridge was growing. This started a weekend trip to the pier adjacent to the IMAX theater. I built a web page to share the photos: http://ravenelbridge.net. The web page opened many doors. Here is the story of what I saw.
The Diamond Pylon Foundation
November 2002

Courtesy of SC DOT
Base of the Diamond Pylons
Spring 2003

Courtesy of SC DOT
West Diamond Base
Summer 2003

Courtesy of Alvin Swails (east tower crane operator)
A visit to the SC Aquarium with my grandchildren revealed this.
This was my first bridge photo.
Growing Diamonds:
November 2003
The Mt. Pleasant Approach:

Morning sun bathes the east approach columns

July 4, 2004
The Charleston Approach
Growing the west approach columns
July 4, 2004
Early Main Span:

May 9, 2004  1 stay cable completed
Fog Surrounds the Main Span

My first visit to the main span. I was struck by the number of independent processes: building a cable, placing concrete road sections, balancing the bridge.

July 21, 2004
Completing the Approach Skeleton

Sunday morning (7am) bicycle rides across the Pearman Bridge provided breath-taking views of the construction. This morning, the Mt. Pleasant Police were running interference for me.

October 17, 2004
The Charleston Approach Skeleton

The symmetry of the structural steel drew my attention to small details – was anything out of place?

May 23, 2004
A Cable Strand

A stay cable is built one strand at a time. The cable is fed up the stay cable pipe and terminated in the tower and bridge platform. Here the Freyssinet workers feed a strand down to the termination plate.

July 21, 2004
The Last Stay Cable
February 11, 2005
I was fascinated with the process of building a stay cable. Composed of many strands, pairs of cables were fed from spools up the stay pipe. Each strand was terminated at a shark fin anchor and within the diamond towers.

February 11, 2005
The Pride of Charleston and PBC

I met many workers during my photo adventure. Here is Marvin Tallent, displaying the workers’ collective pride.

January 28, 2005
Closing the Main Span Gap
January 23, 2005
The Last Shark Fin Girder

Jan. 28, 2005
East and West Coming Together
February 6, 2005
Closing the Gap
March 5, 2005
Hydraulic Jacks Orient the Spans
March 8, 2005
Three Inches To Go
March 8, 2005
Perfect Alignment: Pinning the Splice Plate to the Girder

Pins are driven through the splice plate and girder. The plated is bolted to the girder and then there is one span.

March 8, 2005
Adding the last sections of the roadbed

March 10, 2005
PBC at work
March 10, 2005
Concrete Roadway + Rebar Gaps
March 12, 2005
Filling the Gaps:

Concrete is pumped through a pipe where the last gaps are filled

March 12, 2005
Signed, Sealed and Delivered
July 15, 2005
A “Clean” Bridge
July 12, 2005
Sunset over the Ravenel Bridge
July 16, 2005
July 16, 2005: thus ended the First Day
Thanks

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