SR 57 vs the White River
June 2008

Mark Bailey, PE – Hydraulic Manager, INDOT
Dale R. Sedler, PE – Sr. Hydraulic Engineer, INDOT

Road School 2016
SR-57 vs White River, June 2008

- 1. In June 2008 Indiana experienced numerous events of extraordinary rainfall.

- 2. There was high water & damage in numerous areas of the White River watershed, including Edinburgh, Columbus, Franklin, and Martinsville.

- 3. USGS estimated Young’s Creek flow in Franklin at a 0.2 % AEP (500 year flow).
1. On the White River at Newberry, the gage indicated 1% AEP depth, though it was partially due to a farmer’s illegal levee.

2. Historical river profiles indicate that the White River would leave its watershed upstream of Newberry at ~2% AEP depth, which would send flow to a 20’ x 8’ 3-sided box under SR-57 north of Newberry.
1. 20’ x 8’ 3-sided box was designed for a watershed of ~ 238 ac.

2. Per 1930s survey, SR-57 had a dip in the road which may have been designed due to the 1913 floods. The road would go before the structure.

It was removed some time later, maybe due to institutional amnesia.
SR-57 vs White River, June 2008

2008 NAIP Aerial Photo w/ 5 ft contour overlay
2008 NAIP Aerial Photo w/2 ft contour overlay
SR-57 vs White River, June 2008

2005 NAIP Aerial Photo of site
SR-57 vs White River, June 2008

2008 site photo, overflow upper right
SR-57 vs White River, June 2008

2008 site photo, structure damage
2008 site photo, structure damage
SR-57 vs White River, June 2008

2008 site photo, structure damage & scour
SR-57 vs White River, June 2008

2008 site photo, structure damage & scour
SR-57 vs White River, June 2008

2008 site photo, structure damage & scour
2008 site photo, structure damage & scour
SR-57 vs White River, June 2008

2008 NAIP Aerial Photo of site
SR-57 vs White River, June 2008

2008 site photo, structure damage & scour
SR-57 vs White River, June 2008

2008 site photo, structure & road damage
SR-57 vs White River, June 2008

2008 site photo, view from downstream
2008 site photo, outlet and scour hole
SR-57 vs White River, June 2008

2008 site photo, outlet and scour hole
2008 site photo, downstream channel
SR-57 vs White River, June 2008

2008 NAIP, flow pattern-embankment reclamation
SR-57 vs White River, June 2008

2005 NAIP Aerial Prior Scour Issue
SR-57 vs White River, June 2008

2011/2013 Indiana Map Aerial – no scour visible
Per aerial measurement, 26 ft. span.
SR-57 vs White River, June 2008

The End
Any Questions?