ABOUT THE COMPANY
Based in Houston, H & H Resources is a civil engineering consulting firm that provides services in transportation drainage, floodplain engineering, and land development.

OVERVIEW OF THE PROJECT
Three bridge replacements:
• Complete the hydraulic and hydrologic analysis on the existing and proposed bridges
• Write the preliminary report

Annual Peak-Streamflow Frequency
• Needed for flood-plain management; for assessment of flood risk; and for design of roads, bridges, and culverts
• Regional regression equations used to estimate the peak streamflow for nine recurrence intervals of up to 500 years
• Use data from TX Annual Precipitation and USGS Topographic Maps

River and Bridge Modeling
• Cross sections drawn in Microstation V8i
• Elevations at cross sections plotted in HEC-RAS 4.1
• River bank information and the annual peak-streamflow frequency used to run the hydraulic analysis of the existing bridge
• Run analysis for the proposed bridge design and compare with existing
• Adjust design until proposed bridge has no impacts up or downstream