

# Bridge Design Memorandum

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**To:** Bridge Design  
**From:** NJA/sww  
**Date:** 2/2/2012  
**Re:** Detour Bridges

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As per NJA and JMW,

1. All detour bridge submittals shall be reviewed by the hydraulics section before distribution. This is to ensure the detour bridge meets the minimum hydraulic opening.
2. The Drainage Data provided on detour bridge sheets shall state that the effective opening is calculated below the 5 year design stage (Q5). This is to ensure the contractor calculates the effective opening from the 5 year design stage and not the low chord of the bridge.

Example:

**DRAINAGE DATA:**

Drainage Area.....45.3 sq. mi.  
Q5 (U.S.G.S.).....6900 c.f.s  
Min. Effective Area Required.....1183 sq. ft.  
(Calculated Below 5 Year Design Stage)  
Min. Low Chord Elevation.....6" Above Q5 Design Stage Elev.  
Effective Area Provided.....1183 sq. ft.  
(Calculated Below 5 Year Design Stage)  
Skew Angle.....0 Degrees