

**BRIDGE DESIGN MEMORANDUM – DM0209**

**TO:** RPG Structural Engineers  
Design Consultants

**DATE:** February 20, 2009

**RE:** Steel H-Pile Anchorage Detail  
Figure 19.2-2 of the *SCDOT Bridge Design Manual*

Figure 19.2-2 of the *SCDOT Bridge Design Manual* shall be deleted and replaced with the attached detail. The revised detail allows the Contractor the option to either drill or flame cut the anchorage holes. To provide a construction tolerance for the holes, the designer must specify a minimum and maximum hole size.

A minimum of two #6 (#19) bars shall be used for the anchorage. The maximum hole size should be limited to two times the diameter of the bar and the minimum hole size should be ¼" larger than the bar diameter. The reinforcing bar must be detailed with sufficient length to fully develop the bar beyond the bottom mat of the footing or bent cap reinforcement.

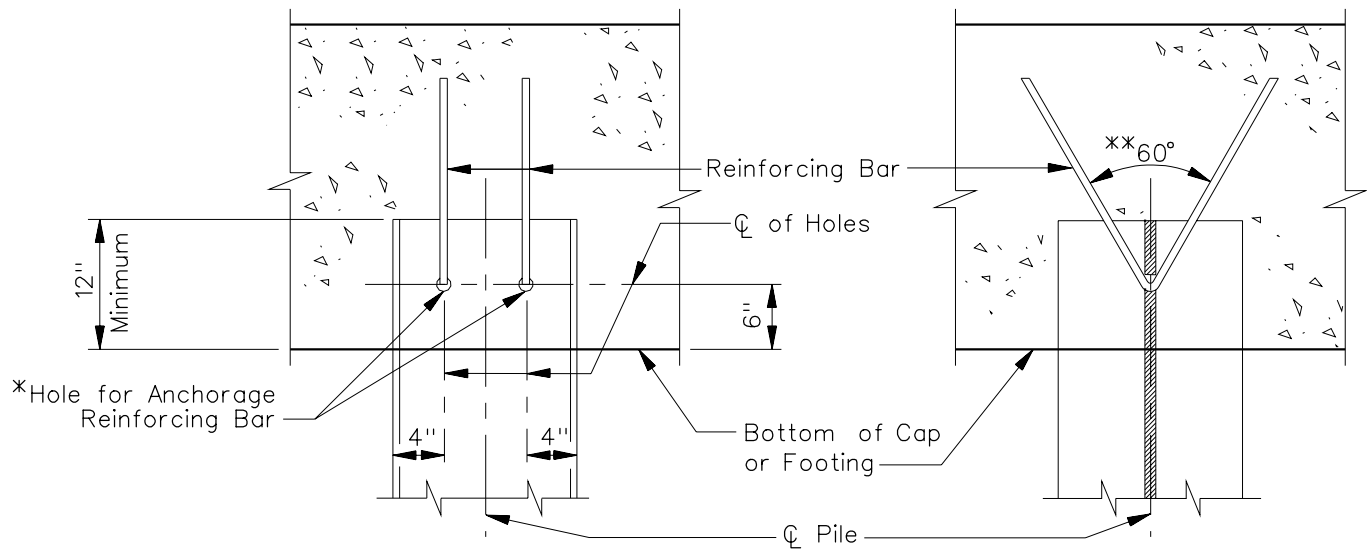
*Original Signed by E. S. Eargle on February 20, 2009*

E. S. Eargle  
Preconstruction Support Engineer

ESE:bwb  
Attachment  
cc: Bridge Construction Engineer  
Bridge Maintenance Engineer  
FHWA Structural Engineer  
File: PC/BWB

Preconstruction Support Managers  
Regional Production Engineers  
RPG Design Managers





Note: Drill or flame cut the holes. Grind area around flame cut holes to remove burrs. Tie or wedge tightly the reinforcing bar against the top of the hole.

## Steel H-Pile Anchorage Detail

\* Designer to specify a minimum and maximum allowable hole diameter. The minimum diameter should be  $\frac{1}{4}$ " larger than the reinforcing bar diameter and the maximum diameter should be two times the bar diameter.

\*\* Preferred angle is  $60^\circ$  - If necessary, Designer may adjust angle to allow for development length of the reinforcing bar.