Scope: To identify an acceptable alternative to the paint system required for steel pile bents.

It is desired to have a positive protection for piles from 5 ft. below the computed scour line to the bottom of the pile cap. This has been done with a coal tar paint and where a splice is needed in the scour area, an inorganic-zinc-epoxy-urethane paint system is used. These systems require a curing period which may result in significant time loss.

An alternative is to encase the pile in concrete (refer to Bridge Engineer Bob Rusch’s letter). If encasement is selected instead of painting, the bottom of the casing is set at the elevation of the computed scour line and extended to at least one foot above the ground line or the normal water surface. The encasement may be extended to the bottom of the bent cap, in lieu of paint, should the contractor elect to do so. If encasement to the bent cap is considered, cross-bracing may be omitted on approval of the Bridge Division.

Encasement is offered as an alternative to painting and there will be no additional compensation when it is used. You may implement this Directive on all projects.

George Raymond, P.E.
Construction Engineer