

## Weathered

### Steel for Bridges

Yesterday's Sakonnet Times and Tuesday's Newport Daily News reported on a presentation by RIDOT on a new look for the Sakonnet River Bridge: to save \$2.9M, it would be constructed of so-called "[weathering steel](#)," an alloy designed to weather to a naturally rusty-brown finish. Unlike regular steel which must be painted (because the rust eats the surface and exposes more material) the corrosion of weathering steels is self-limiting — once a surface patina of rust is built up, it protects the good steel beneath

Jerome Williams, RI DOT Director:

"The proposal to use weathering steel was generated from a team that included national engineering experts along with research staff from the Federal Highway Administration (FHWA). Weathering steel has been used successfully in many bridges in similar environments. The color is not a rusty brown but will be brown in color. The bridge is being designed for at least a 75 year lifespan and will carry bridge inspections based on FHWA standards. While this is a change from the original design the bridge originally was estimated at \$125 million. The latest estimate on the original design was \$215 million. Given the infrastructure needs of the State we conducted a value engineering process with national experts to maintain the usability and size of the bridge while identifying options to reduce the cost without sacrificing safety. The result of this was a \$39 million reduction in cost. These savings can be used on other transportation infrastructure needs the State has.