

**High-strength Bolted Friction Joint with Protective Rust  
for Existing Weathering Steel Bridges**

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Weathering steel bridges prevent corrosion by the protective rust on the steel surface instead of painting. However, when high-strength bolted friction joint for connecting the repair and/or reinforcement members to the bridges are applied, the protective rust has to be removed to ensure the joint surface friction, and the rust removal takes much time and cost. In this study, we develop a method to apply the high-strength bolted friction joint without removing the protective rust. The performance of the method is evaluated by the slip coefficient of the joint and the durability.