



SERVICES PROVIDED BY GCI

- Site Reconnaissance
- Assessment of Waterway Bed Material Scourability
- Assessment of Unknown Foundations
- Soil-Structure Interaction Modeling (FB-PIER / FL-PIER)

MAIN PROJECT ELEMENTS

- Phase I - Data Collection & Qualitative Analysis
- Phase II - Hydrologic Assessment for Scour Analysis
- Phase III - Soil-Structure Interaction Modeling & Assessment
- Phase IV - Recommended Plan for Action

FLORIDA DEPARTMENT OF TRANSPORTATION Kimley-Horn and Associates, Ayres and Associates Collins Engineers, Ralph Whitehead and Associates BRIDGE SCOUR EVALUATION AND REMEDIATION (Maintenance) PROGRAM

GCI Incorporated has been involved in the Florida Department of Transportation (FDOT) Bridge Scour Evaluation and Remediation (Maintenance) program throughout the State of Florida since 1993. The purpose of this program has been to evaluate state-owned and local government bridges over tidal and non-tidal waterways with scourable beds to determine the risk of failure from scour. A multi-disciplined team of engineers was assembled in each District of the Florida Department of Transportation (FDOT) to ensure proper evaluation. Experts in bridge hydraulics/hydrology, structures and geotechnology worked together to come to a consensus on potential bridge scour-related problems and possible corrective actions. GCI has been involved on a continuous basis in numerous Phase I and II evaluations and has performed over 300 Phase

III evaluations over the last decade in various FDOT districts.

Scour is a complicated phenomenon and one can safely say that predicting scour cannot be established by testing and calculations only. Therefore, GCI has led the way in advancing an approach based on "Sound Engineering Judgment" in addressing scour impact on existing and new bridges over waterways. GCI advocated early in the program that the assessment of reasonableness of the predicted scour depth should be established jointly by the hydraulic, geotechnical and structural engineers (consultants and FDOT staff) working on the project. This approach has been shown to be extremely viable and a cost-saver for our taxpayers.



CONSTRUCTION COST: N/A
COMPLETION DATE: ON-GOING IN
FDOT DISTRICTS I AND VII