



Reasons to Specify Tricon's

Con-Struct™ Prefabricated Bridge System

System's Structural Attributes

- All designs prepared to latest versions of applicable specifications.
 - 2002 AASHTO Standard Specifications for Highway Bridges
 - 2004 AASHTO LFRD Standard Specifications for Highway Bridges, Third Edition
- We design to a 75 year design life minimum.
- System's unique composite design creates:
 - A prestressed member by stressing the trapezoidal shaped steel tub girders into a predetermined camber and precasting a concrete deck, center diaphragm and end walls.
 - A precompressed concrete deck (driving surface) which eliminates shrinkage cracks and provides superior protection to underlying steel reinforcement.
 - A very durable and aesthetically pleasing bridge which will maintain its appearance and functionality for many years.
- Hot-dip Galvanizing provides 75+ years of maintenance free protection to the **Con-Struct™** steel tub girders.
- High quality concrete fabrication in controlled plant environment.
- Total weight of **Con-Struct™ Prefabricated Bridge System** is less than a concrete beam superstructure allowing some existing substructures to be utilized in a bridge replacement.
- Shallow superstructure depth for increased under-clearance.
- Future superstructure widening can be done quickly, cost effectively and with minimal disruption to traffic.
- System provides for rapid bridge replacement. Elements can be erected and ready for traffic in one day in critical locations.
- Temporary removal, storage and relocation of **Con-Struct™ Prefabricated Bridge System** elements is even possible!

System's Aesthetic Attributes

- Clean, modern aesthetic design (*just say no to "ugly" bridges*)
- Able to accept any D.O.T. bridge rail type
- Various aesthetic styles can be achieved with architectural railings

System's Environmental Attributes

- *Attention to Safety, Durability, Mobility and Efficiency*
 - Prefabrication and rapid construction drastically reduce congestion, hours and fuel spent in delays, and hours spent working in hazardous construction zones.
- *Conserves Materials and Resources*
 - Con-Struct elements are prefabricated off-site, construction waste is virtually eliminated.
 - Construction waste is also reduced at the precast plant by producing products in reusable steel forms and recycling water and wash-out materials.
 - A significant amount of industrial by-product and recycled materials are used in the Con-Struct system;
 - Supplementary cementitious materials such as fly ash (ASTM C 618) are used to replace 20 to 35% of the Portland cement in our mix designs.
 - Steel components are high in post-consumer recycled content.
 - Con-Struct elements are usually transported and erected within 200 miles of the precast plant.
 - Con-Struct elements are produced using local/regional raw materials such as aggregates, cement, sand, reinforcing steel and additives that are extracted, harvested, recovered or manufactured within 500 miles of the precast plant.
 - A Con-Struct™ bridge will need very little maintenance during its life.
- *Avoids Negative Impacts on the Ecosystem*
 - A single span structure with a small civil footprint avoids disrupting the ecologically sensitive waterway.
 - Concrete bridge decks have a higher solar reflectance (0.35 to 0.80) than other bridge deck materials, reducing the heat island effect in urban areas.
 - Paints, stains and sealers, as used in some bridge systems, range in volatile organic compound emissions and should be considered along with the durability of such components.
 - Because Con-Struct elements are prefabricated off-site;
 - Less dust is generated at the jobsite
 - Less noise is generated at the jobsite

Engineering Services

- In-house engineering provided by **TEG Tricon Engineering Group, Ltd.** *a Tricon Precast Company*
 - Feasibility Studies
 - Budget Estimates
 - Total Design and Construction Packages
 - Hydraulic Analysis
 - Geotechnical Analysis
 - Engineering Design Calculations and Construction Drawings signed and sealed by a Professional Engineer registered in the State where project is to be constructed.
 - Surveying
 - Small Bridge Inspection and Engineering Expertise
 - On-Site Technical Assistance

Tricon Precast, Ltd.

- Tricon is committed to quality.
 - Our systems and production processes are approved in over half of the United States.
 - We are working on approvals in the rest.
- Tricon has some of the most knowledgeable and experienced field representatives in the industry.
 - Most of our field staff Registered Professional Engineers.
 - Those few that are not bring years of experience to the table.
- Outstanding Customer Service
 - Just ask anyone who knows us.
- Providing you with the most reliable and constructible small bridge systems in our industry.