



VEHICULAR
TRUSS & ROLLED GIRDER
REFERENCE GUIDE



CONTECH[®]
ENGINEERED SOLUTIONS
A QUIKRETE[®] COMPANY

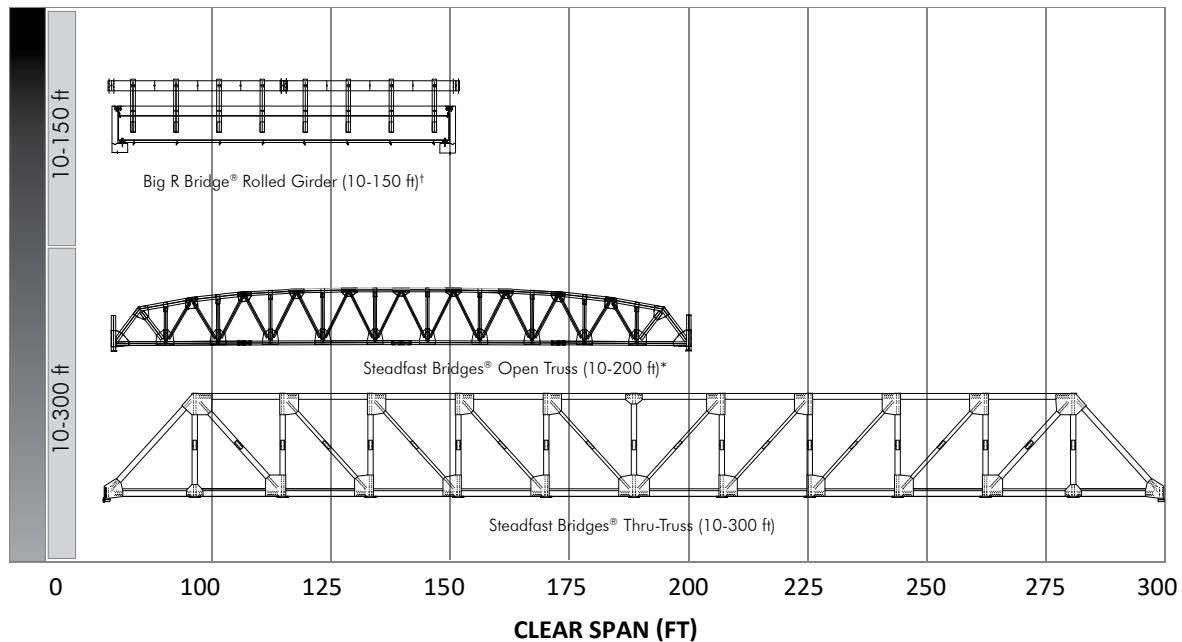


BIG R
BRIDGE[®]

STEADFAST BRIDGES[®]

VEHICULAR TRUSS & ROLLED GIRDER BRIDGES

Clear Span Bridges



† Custom options available for Big R Bridge® Rolled Girders

- 150' span single lane concrete deck
- 135' span multi lane concrete deck
- 120' span gravel/asphalt deck
- 110' span multi lane gravel deck

*Custom lengths from 200' to 250' are available to make your project a reality. Please contact your local Contech bridge consultant.



Big R Bridge® EXPRESS Rolled Girder

Gravel Deck



Big R Bridge® Site-Specific Rolled Girder

Concrete Deck



Steadfast Bridges® Vehicular Truss

Galvanized

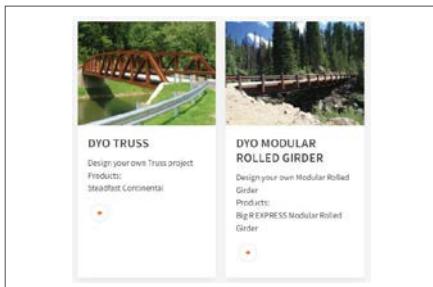


Steadfast Bridges® Vehicular Truss

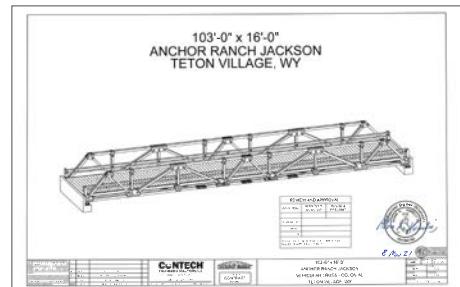
Weathering Steel

PROCESS | CONCEPT. DESIGN SUPPORT. FABRICATION. INSTALL.

CONCEPT/DESIGN



- Preliminary Concept Drawings (DYOB)
- Reactions, Specifications, Bid Drawings and Details
- Stamped Bridge Submittal Package
- Stamped Abutment Design



FABRICATION



FOUNDATIONS



Abutment Types:

- Deep Foundations (pile, caisson, helical pier, etc)
- Spread Footings - CIP Design
- Spread Footing Prefabricated System (Precast Concrete, Steel EXPRESS)
- Bin-Wall, GRS Abutment, MSE System (Keystone, Gabion, Wire Face)



TRANSPORTATION/ERCTION



COMPLETION

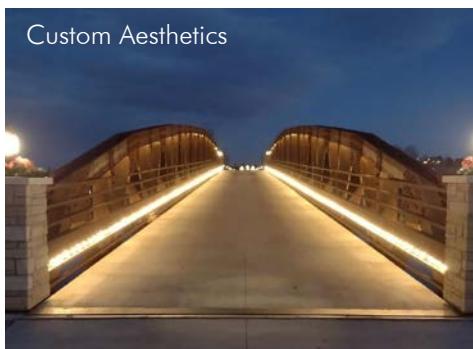


CUSTOM STEADFAST BRIDGES® VEHICULAR TRUSS



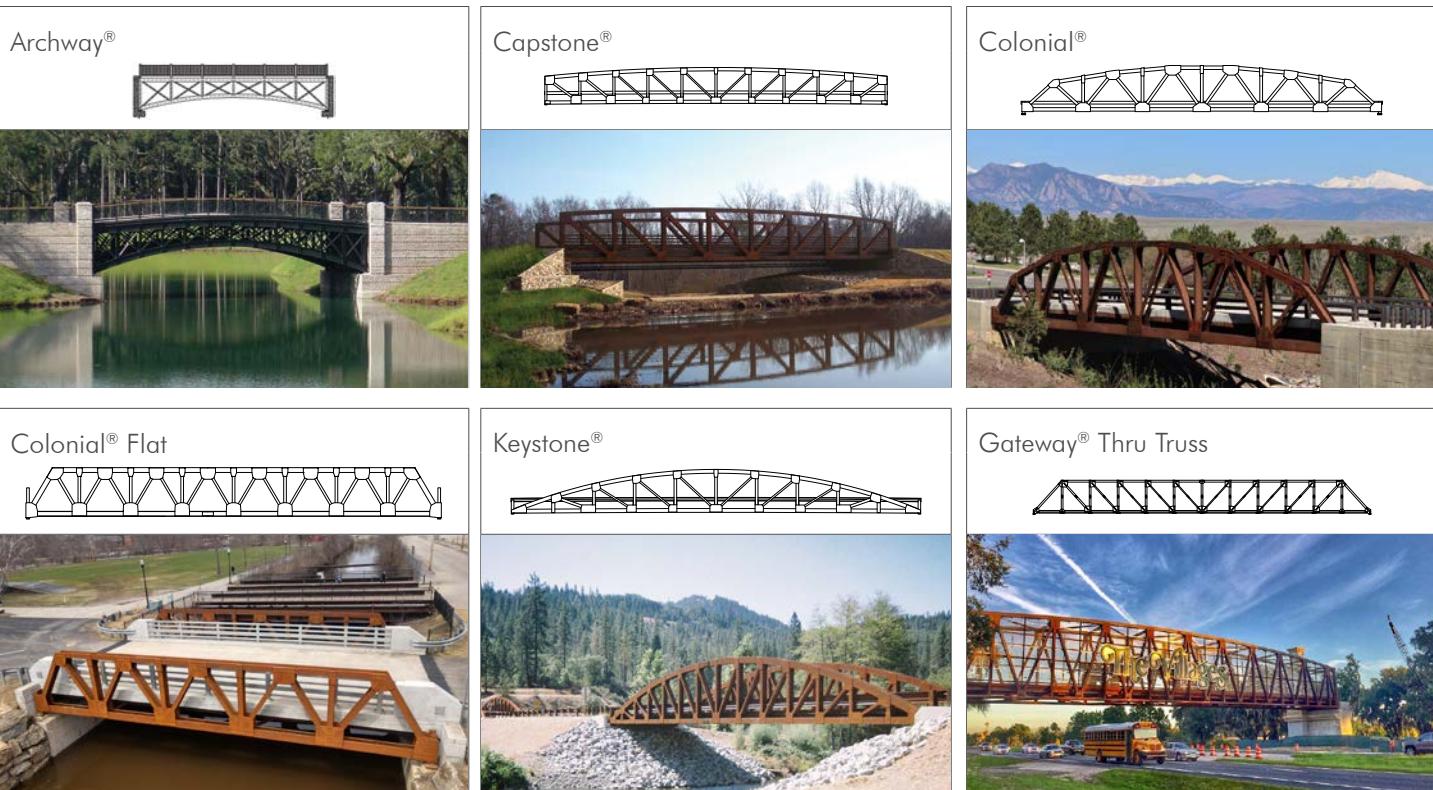
Benefits of Vehicular Truss Bridges

- Long spans with open truss up to 250' and 300' with thru truss
- Shallow depth applications (roadway to bottom)
- All bolted truss system
- Redundant design
- Design with roadway and sidewalk (inside truss or cantilever)



VEHICULAR TRUSS STYLES & OPTIONS

Steadfast Bridges® Vehicular Truss Styles*



*Custom styling is available to make your project a reality

Deck, Finish & Rail Options

DECK



FINISH



RAIL



BIG R BRIDGE® ROLLED GIRDER & ABUTMENT DESIGNS

Big R Bridge® Rolled Girder with Precast Sill and Sheet Pile Backwall



Custom Covered Bridge



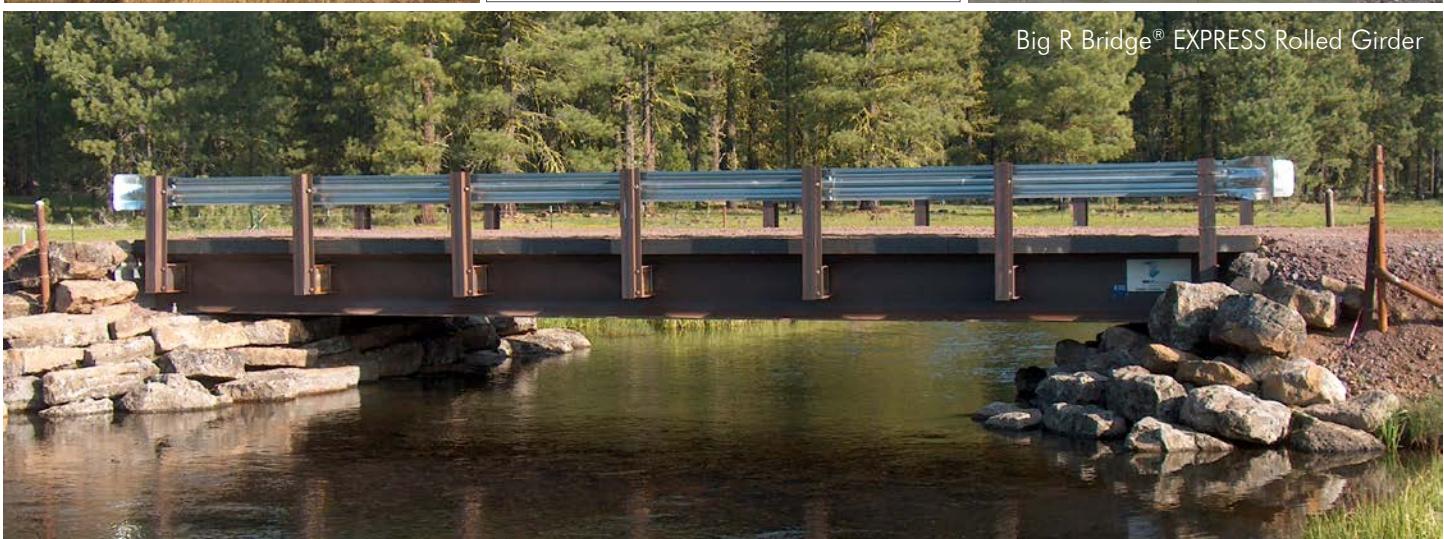
Benefits of Rolled Girder Vehicular Bridges

- Load carrying members fully under deck
- Ability to customize railing
- Economic and time-tested solution
- Modular system for Accelerated Bridge Construction
- Clear spans up to 150'

Land Cattle Bridge



Big R Bridge® EXPRESS Rolled Girder



Wire Wall Abutment



Big Block MSE Abutment

Bin-Wall™ Abutment



BIG R BRIDGE® SITE-SPECIFIC MODULAR BRIDGES

MANY SPANS & WIDTHS AVAILABLE

DESIGN OPTIONS



DESIGN PARAMETERS

- AASHTO LRFD
- HL-93 vehicular loading
- State DOT requirements
- Customer-specified vehicle loads
- Any rail or decking type
- Shipped in 2 or 3 beam modules
- Spans 10' to 150' dependent on bridge width (Single lane 14' or 16' and multi lane 24' wide)

GUARDRAIL OPTIONS



W-Beam



Thrie-Beam



Custom Rail

TL-1, TL-2, and TL 3 available upon request that will be deck mounted and a DOT railing.

DECK TYPES



Cast-in-Place Concrete on S.I.P. Forms



Concrete/Asphalt on Bridge Plank



Gravel on Bridge Plank

CUSTOM DECK AND RAILING



Timber Deck and Timber Rail



Timber Running Plank with W-Beam

Component (knocked down) bridges available upon request.

PROVIDING RURAL SOLUTIONS
Forestry Service & Logging

With production facilities in the East and West, Big R Rolled Girders provide complete bridging solutions for the Forestry and Logging sectors nationwide. Our strong yet lightweight modular bridges can be packaged with several in-house abutment systems including precast concrete sills with steel back walls, and Bin-Wall or Vist-A-Wall® MSE retaining walls.

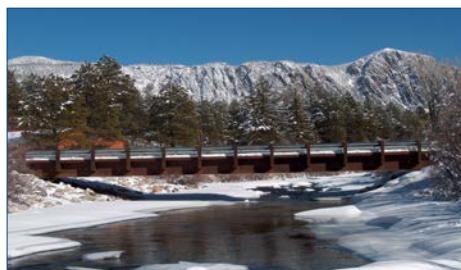


Big R Rolled Girder

Headquarters, ID



Big R Rolled Girder



Big R Rolled Girder

Brazos, NM



Big R Rolled Girder

Camas, WA

HELPING TO KEEP AMERICA WORKING
Energy, Mining & Industrial

Both Big R rolled girders and Steadfast vehicular truss structures meet AASHTO loading criteria. The bridge solutions can accommodate large construction vehicles and equipment for the transportation of heavy materials. The strength and durability of these systems allow for a wide range of solutions for the energy, mining and industrial markets.



Steadfast Colonial® Flat

Lewiston, ME



Big R Rolled Girder

Denver, CO



Steadfast Colonial® Flat

West Virginia



Big R Rolled Girder

Winter Park, CO



PROVIDING COMMUNITY SOLUTIONS Residential & Commercial

Steadfast vehicular truss solutions have been selected by developers throughout the U.S. to provide practical, yet aesthetic structures in residential developments, hospitals, schools and communities.

Developers also look to vehicular truss and rolled girder solutions for busy commercial sites. Often times, these bridges are main entrances or centerpieces for business parks, shopping centers and local communities.

Steadfast Colonial® Flat

Hunterdon, NJ



Steadfast Custom

Portland, OR



Custom Rolled Girder

Wilson, WY



Steadfast Colonial®

Highlands Ranch, CO

REBUILDING OUR INFRASTRUCTURE Municipalities & Counties

Time-sensitive projects and emergency bridge replacements often lead municipalities and counties to a Steadfast vehicular truss or Big R rolled girder solutions. The clear span structures can improve hydraulics and minimize road and closure time with a quick installation, while fitting within a budget. Structures are typically installed in 1-3 days and require minimal maintenance.

Utilizing Contech's turnkey design/supply support on these projects can allow for substantial cost-savings for your overall project.



Steadfast Colonial® Flat

Zurich, MT



Big R Rolled Girder

Brownfield, ME



Steadfast Colonial®

Fillmore, CA



Steadfast Colonial®

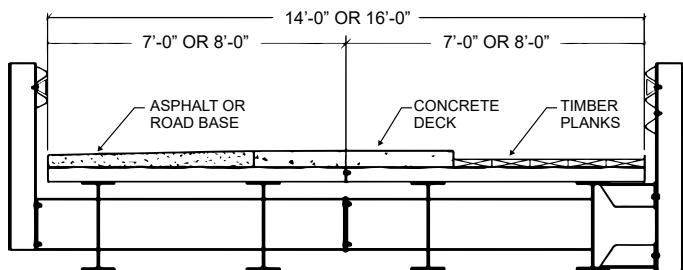
Boulder, CO

CONTECH CAPABILITIES

Big R Bridge® Modular Bridges

STANDARD FEATURES

- Single lane, modular bridge with a longitudinal splice
- Heavy duty loading (AASHTO HL-93 highway and U-80 off-highway trucks and greater)
- 14' or 16' wide
- Low-maintenance weathering steel structural members
- Galvanized steel structural decking
- Bearing plates and pads
- Curb or railing systems
- Precast sills available



ConTech Vehicular Truss & Rolled Girder Bridge Manufacturing

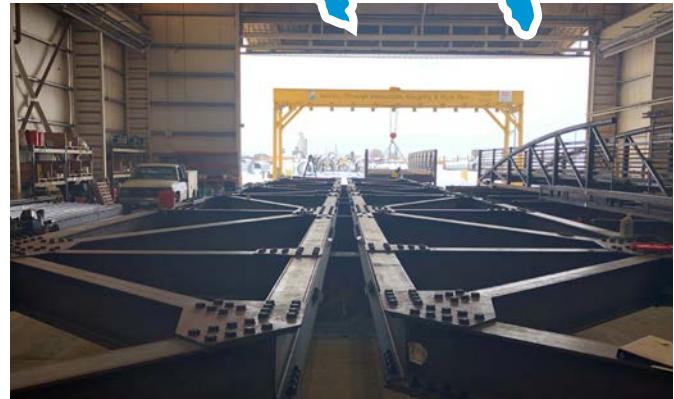
ConTech has four manufacturing locations to support projects across the continental United States and beyond. These manufacturing facilities are certified to AISC Advanced Major Bridge Quality Standards. All manufacturing locations have design engineers licensed in all 50 states located at the facilities to ensure that the bridges will be fabricated to exceed all industry requirements and our engineering standards. ConTech has Bridge Consultants located across the United States for local support on any of your projects.



1/2 Bridge Weights (lbs.)*		
Length (ft.)	14' Wide	16' Wide
30	7,900	8,400
40	11,200	11,700
50	14,100	16,200
60	21,800	22,600
70	27,900	28,800
80	35,700	36,800



Manufacturing Locations



DESIGN SPECIFICATIONS:	FABRICATION SPECIFICATIONS:
<ul style="list-style-type: none">• AASHTO LRFD Bridge Design Specifications• AISC Steel Construction Manual• Staff Registered Professional Engineers in all 50 states	<ul style="list-style-type: none">• AISC CERTIFIED FABRICATOR• Certified Bridge Fabricator – Advanced (Major) at all four plant locations• Fracture Critical Endorsement• Sophisticated Paint Endorsement• AWS Certified Welders• AWS Certified Welding Fabricator



Options & Support Specific to Your Project Needs



CONSIDERATIONS FOR ENGINEER OF RECORD	
Site Design	
Soil Borings	
Soil Bearing Recommendations	
Hydraulic Analysis	
Scour Analysis	
Scour Countermeasures	
Permitting	
Inspections	
INSTALLATION SUPPORT	
Preconstruction Meeting	
Logistics Coordination	
Structure Onsite Installation Assistance	
	Contech Support Available
	Engineer of Record May Provide

SOLUTION DEVELOPMENT & DESIGN SUPPORT		
Structure Selection		
Structure Siting and Layout		
Engineer's Estimate		
Photo Simulation		
DYOB Concept		
Proposal Drawings		
Contract Drawings		
Specifications		
Foundation Reactions		
Foundation Design		
Approval Assistance		
Fabrication Drawings		

DYOB® (DESIGN YOUR OWN BRIDGE)

DYO TRUSS
Design your own Truss project
Products:
Steadfast Continental

DYO MODULAR ROLLED GIRDER
Design your own Modular Rolled Girder
Products:
Big R EXPRESS Modular Rolled Girder

www.ContechES.com/dyob

DRAWINGS & TECHNICAL SUPPORT

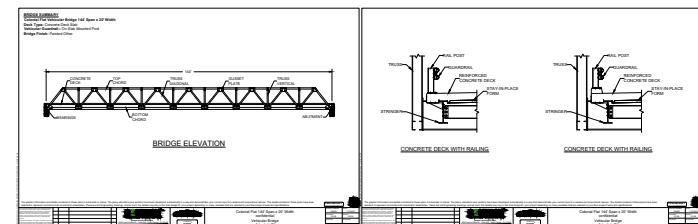


PHOTO SIMULATION





MANUFACTURING AMERICA'S INFRASTRUCTURE™

We manufacture engineered solutions for complex civil infrastructure challenges and create lasting value for project stakeholders through unrivaled expertise, support and workmanship.

To us, it's about being a trusted partner for project owners, engineers and customers while doing meaningful work that helps build our communities.



STORMWATER SOLUTIONS



PIPE SOLUTIONS



STRUCTURE SOLUTIONS

DESIGN SPECIFICATIONS:

- AASHTO LRFD Bridge Design Specifications
- International Building Code (IBC)
- AISC Steel Construction Manual
- Staff Registered Professional Engineers in all 50 states

FABRICATION SPECIFICATIONS:

- AISC CERTIFIED FABRICATOR
- Certified Bridge Fabricator – Advanced (Major)
- Fracture Critical Endorsement
- Sophisticated Paint Endorsement
- AWS Certified Welders
- AWS Certified Welding Fabricator

SUPPORT:

- Project Management
- Site Supervision
- Foundation Design
- Installation Guidance



**For more information, we have representatives for all 50 states.
Please call 800-338-1122 or visit www.conteches.com.**

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