

Standard Bridge introduces our
100-year bridge

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PREDESIGNED & PREFAB BRIDGE SYSTEM
Spans of 60ft to 150ft lengths,
With a limited 50,000lb axle overload capability.

Once the bridge is fabricated,
only 30 working days to be complete and ready for traffic

Home **With the deteriorating state of America's infrastructure, the federal government**

About Us **challenged the world to build a bridge for the future setting forth the following criteria...**

Products

Mission Statement **Longevity** - we want a hundred-year bridge

Speed - a bridge design for rapid replacement. Time is money

Environmental - build us a bridge with the fewest scars on mother nature. Again, damage equals money

Safety - reduce worker hazard

Overload capacity - if we're building a hundred-year bridge, we need to think of potential future loads

Cost - infrastructure is a shared tax payer expense. Reduce with value engineering and readily available components

Here's how Standard Bridge has addressed the challenges...

Longevity - by reducing the stresses from tension to compression as well as the girders being galvanized

Speed - pre-manufactured, eliminating time consuming field work

Environmental - we take pride in following the current Environmental laws. With our special abutment design with a spread footing, we can have a bridge built where it would be hard to tell if any construction went on at the bridge site. Plus, we consider weathering steel to be an environmental issue, that is why we choose to galvanize all our steel girder (which cannot be done to the custom design girders).

Safety - meets and exceeds all OSHA safety standards No one needs to walk our steel girders in the shop or in the field

Overload capacity - with a limited 50,000lb axle overload capability today. With future capacity, we have the capability of increasing this without replacing the girder with modification of the keystone section of our girder

Cost - we can reduce your engineering cost by only needing the engineering for a hydraulic study, geological study and site survey, plus traffic data. We reduce your construction cost by not having our fabricators reinvent the wheel every time in their shops (as custom designs always require them to do), plus any local contractor can erect our bridge system which increase the bidding pool.

We reduce the transportation cost of girders as they are delivered in 3 pieces by a normal 65ft tractor trailer (ex. the 150ft girder is broke down into 2-55ft & 1-60ft section).

We at Standard Bridge believe that we have not only met but have exceeded the FHWA expectations as well as ASHTO design specifications.

Our predesigned & prefabricated bridge system can span from 60ft to 150ft lengths with clear roadway widths of 28ft to 44ft. Plus we can do multiple span combinations using our prefab pier system (that only take 4 days to build) and not be restricted by the continues moment distribution method that regular girders must meet for its span lengths.

- PREDESIGN-PREFAB BRIDGE SYSTEM -

- 70 FT. DESIGN BRIDGE -

- NOTES -

- This structure is designed in accordance with the AASHTO (HS 20) Bridge Design and Standard for the 2007 (21) Bridge Design in the company Design for Bridges. The structure is shown in Section 1, which is a preliminary design with Contractor details based on 2007 AASHTO Engineering code.
- All structure steel for steel deck and surface in the requirements of ASTM A572/A572M Grade 50.
- All other structure steel and surface in the requirements of ASTM A572/A572M Grade 50.
- Structure steel for all "V" girdes steel surface in ASTM A572/A572M Grade 50.
- All concrete shall be 4000 psi concrete with 40% adm.
- After fabrication, all construction steel and structural steel shall be in accordance with AASHTO 2007.
- The girders for this bridge are designed to resist any reaction or stress forces due to dynamic construction loads in placing concrete forms.
- Final bid quantity of steel quantity of miscellaneous members is one half of the steel shown, all as shown on this design drawing.
- All reinforcement concrete shall be Class "NY" concrete with a minimum design strength of 4000 psi.
- Concrete for the Deck Panels and Slabs shall be class "NY" with a minimum 28 day strength of 4000 psi.
- All reinforcing steel and surface in the requirements of ASTM A572/A572M Grade 50 steel.
- The minimum reinforcing diameter from the type of the concrete in the surface of any reinforcing steel shall be 2" round rebar minimum size.
- The steel plates will be used after the Concrete Panels are casted in the Slabs as indicated on the steel forming surface concrete rebar in steel plate.
- The Slabbing Surface will be class Concrete Class "NY" with a minimum 28 day strength of 4000 psi, all as shown on this design drawing and all Slabbing Steel shall be 2007 AASHTO.
- The members of all steel and reinforcement surface facilities may not be included in this design, reinforcement surface and/or indicated of all as shown and tagged to the surface of the rebar of the structure.
- All structure will be protected in the case of reinforcement facilities and all steel facilities will be checked and verified in the calculation of all parts. The reinforcement shall be accompanied with concrete rebar in order to meet any possibility of change in the steel facilities.
- The term "Integration of Bridge" shall consist of meeting structural or steel quantity and in the field of reinforcement. The steel plate will be shown in the design and to be used for facility. The steel rebar in concrete rebar shall be in accordance with AASHTO 2007.

- QUANTITIES -

REINFORCEMENT OF BRIDGE _____	14
ADJUSTED NO / CONSTRUCTION _____	15
ADJUSTED NO / CONSTRUCTION _____	16
CLASS 4000 CONCRETE FOR BRIDGE _____	17
ADJUSTMENTS _____	17
CONCRETE SURFACE _____	18
REINFORCEMENT BRIDGE SURFACE _____	19
STEEL STEEL REINFORCING SURFACE _____	20
STEEL BRIDGE REINFORCING SURFACE _____	21
CLASS 4000 CONCRETE FOR BRIDGE _____	22

QUANTITIES FOR INFORMATION

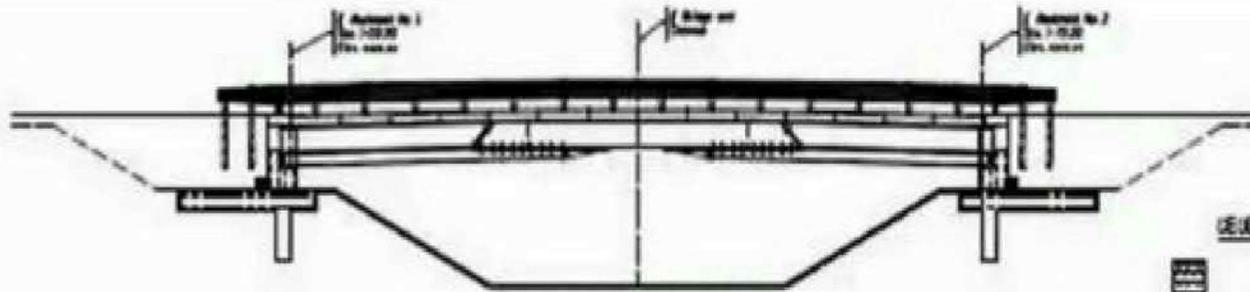
Preliminary design system
(Quantity for pricing see Standard Bridge Co. LLC)

CLASS 4000 CONCRETE FOR SLABS _____	17
REINFORCEMENT STEEL FOR SLABS _____	18
STRUCTURAL STEEL FOR SUPERSTRUCTURE _____	19
STRUCTURAL STEEL FOR SUBSTRUCTURE _____	20
ADJUSTED IN THIS DESIGN SURFACE _____	21

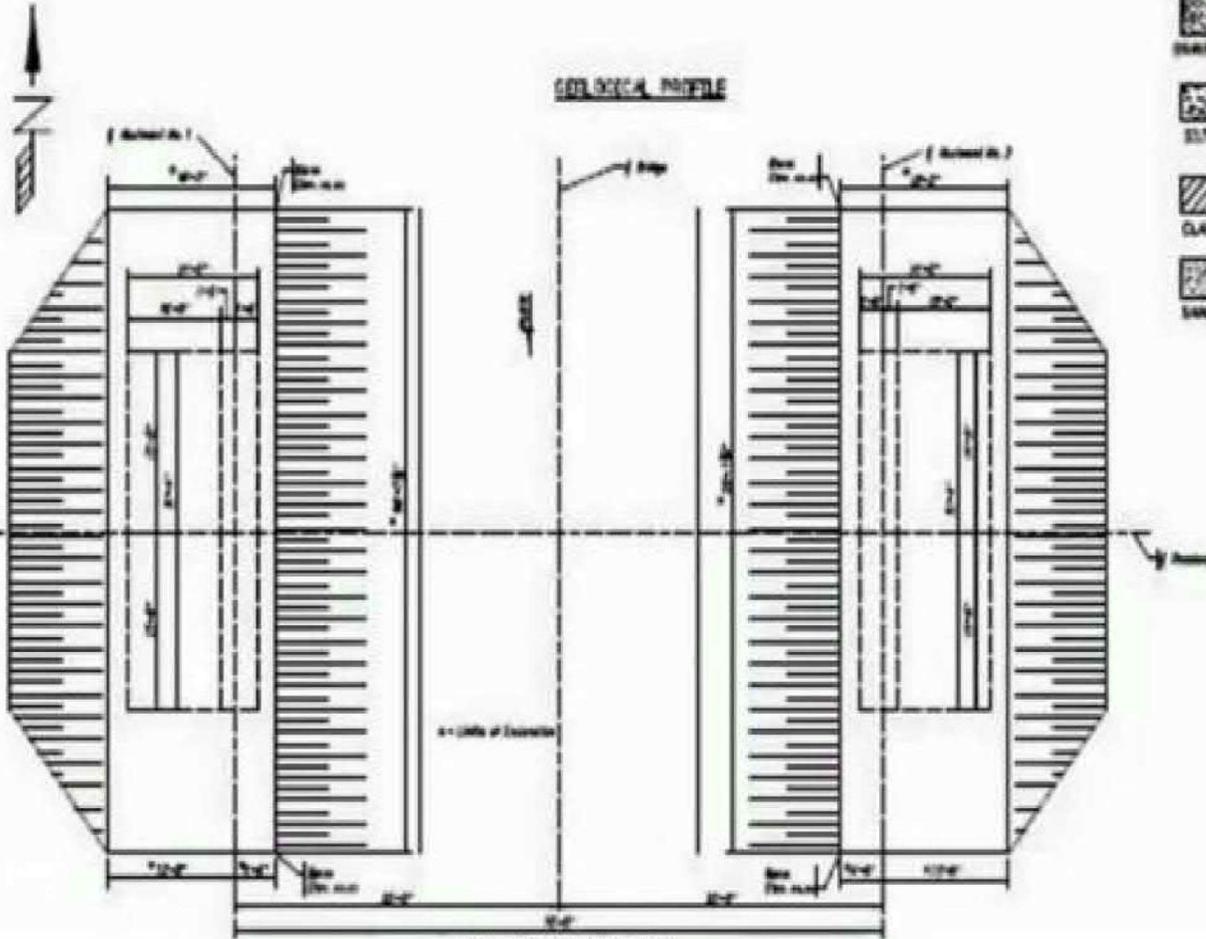
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PROJECT NUMBER _____	SHEET NUMBER _____	OFF ANTIKALIBR BUILDING CO., LLC PREDESIGN - PREFAB BRIDGE SYSTEM 70 FT. DESIGN BRIDGE 1000 BROADWAY NEW YORK, NY 10018 TEL: 212-692-1234 FAX: 212-692-1235
CONTRACTOR _____	ARCHITECT _____	ATTORNEYS AT LAW 100 WALL STREET NEW YORK, NY 10038 TEL: 212-692-1234 FAX: 212-692-1235

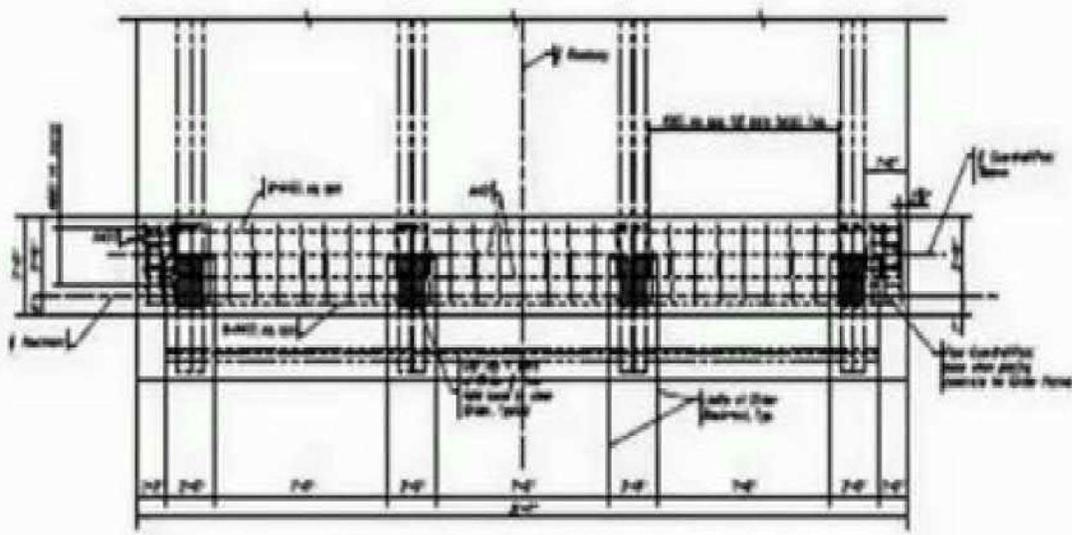


GEOLOGICAL PROFILE

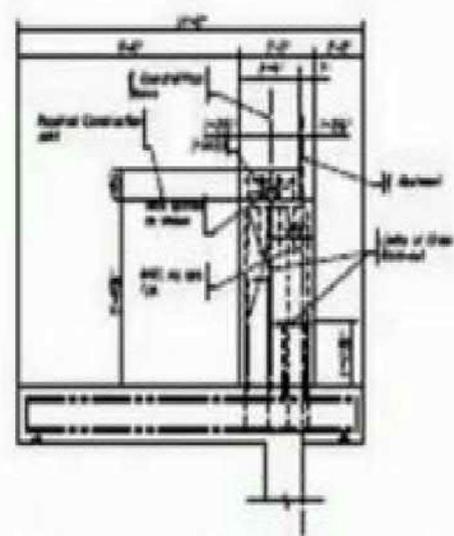


GEOLOGICAL LEGEND

PROJECT NO. 100-1000
 SHEET NO. 100-1000-1
 DATE: 10/1/50
 DRAWN BY: J. H. BROWN
 CHECKED BY: R. L. SMITH
 APPROVED BY: W. H. JONES
 ENGINEER: W. H. JONES
 CONSULTING ENGINEER: W. H. JONES
 877 ANDERSON BUILDING, S.W. CORNER
 10TH AVENUE & 10TH STREET
 DENVER, COLORADO
 GEOTECHNICAL DIVISION
 UNIVERSITY OF COLORADO
 BLDG. 100-1000-1
 10/1/50



PLAN OF RETAINING WALL ABUTMENT BACKWALL
Scale - 1/4"



SECTION OF RETAINING WALL ABUTMENT BACKWALL
Scale - 1/4"

PROJECT NO.	DATE	BY	CHECKED
100-100	10/1/50	J.M.	J.M.
STANDARD BRIDGE CO., L.L.C. PROVIDENCE - PROVIDENCE, R.I. 100-100 BRIDGE & HIGHWAY DIVISION 100-100 BRIDGE & HIGHWAY DIVISION PROVIDENCE, R.I. 02902			
ALTHOUGH IT IS OF GOOD STEEL DESIGN WORK ABUTMENT BACKWALL			
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
J.M.	J.M.	J.M.	J.M.

About Us

Standard Bridge was created by Dennis A. Vodicka and Greg Henriksen, an idea born of necessity.

Our Bridge Girder Design is based on using a buildup combination of Roll Beams with a compression splice developed in 1996 by Dennis A. Vodicka, a Structural Bridge Designer with over 37 years of experience in Engineering, 32 years for NDOR Bridge Division.

Dennis, along with Greg Henriksen (a general contractor with over 27 years experience) started working on the idea for Standard Bridge and in 2009, tested at the University of Nebraska Omaha Engineering lab using compression theory under the supervision of Dr. Maher Tadros and Dr. George Morcouc.

From those test results, here's how Standard Bridge system compares to AASTHO LRFD code...

AASTHO LRH) code - the maximum load for a county bridge is designed for 32,000 lbs per axle load and the state bridge is designed for 36,000lbs per axle load and none of these bridges have an overload capability.

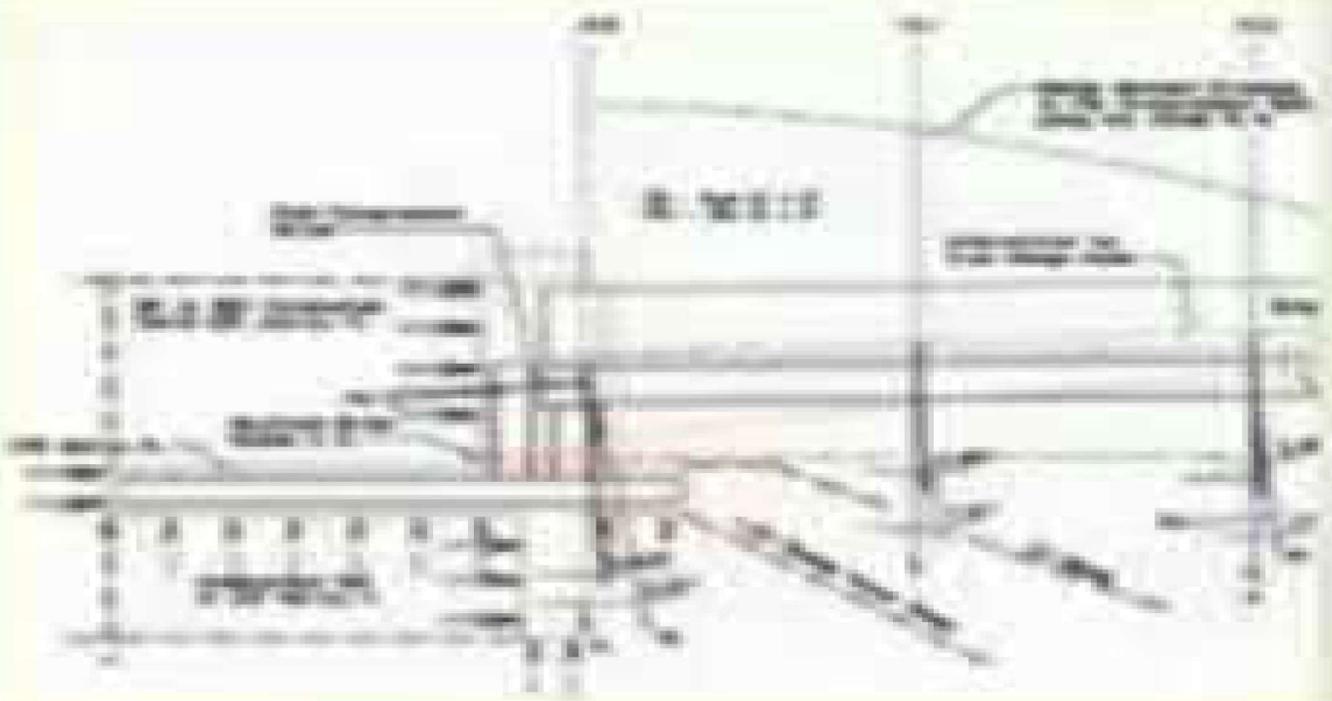
Standard Bridge System - using our new design concept we provide a 40,000 lbs axle load, with a temporary overload of 50,000lbs axle load without any damage, a benefit at Harvest time. There will be a higher live load deflection, but once this load is gone the bridge will return to normal, without having any fatigue problems. While with the AASTHO LRFD code designed girder, you cannot do this because of the high fatigue problems it would cause.

Standard Bridge System - girder, weight per foot is the same as for the **AASTHO LRFD code** steel girder weight per foot and in some cases even lighter.

Standard Bridge proposal is to provide an Alternate Bridge Design for all your bridge projects with an end result that will give you a stronger bridge at a lower cost.

How and Why Our System is Different

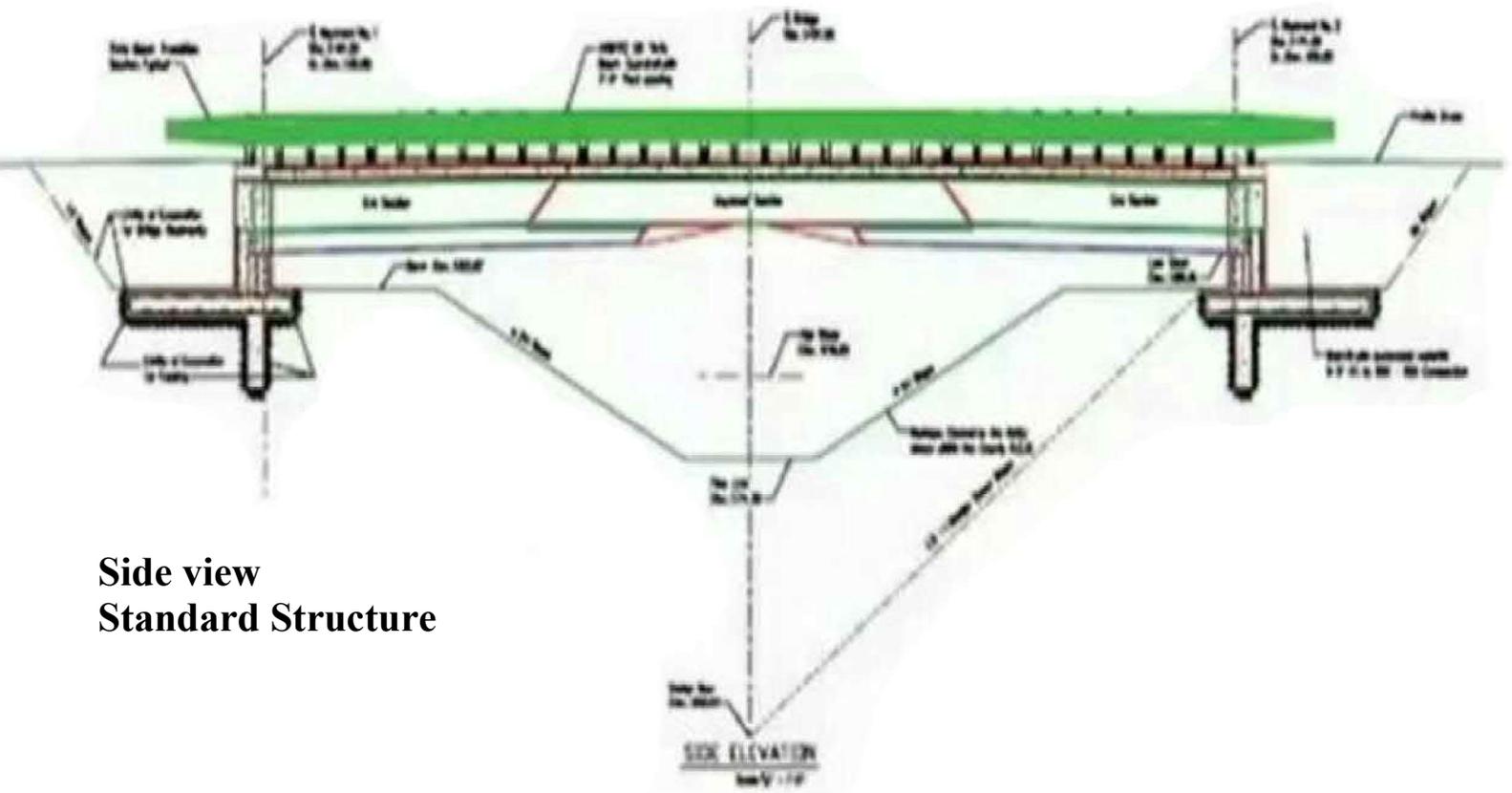
Our Bridge System is a non-composite steel beam girder system that makes use of a unique design. Which gives it superior loading ability through the use of the Momentary Arch. The Momentary Arch Transfers the load stress through the girder to the abutment walls and finally to the footings. The Arch channels the load stress to the abutment walls reducing standard deflection on the girder, as would typically occur on a traditional beam structure.



Standard Bridge System

Overall, our system allow for bridges that can be constructed quickly while carrying heavier loads than conventional bridges of the same size-allowing for population growth and traffic increases. The goal of the company is to provide low maintenance, cost effective bridges with greater load capacity, longer life span and a faster build time with a lower overall cost than conventional bridges.

Ultimately providing a more cost effective structure-saving 10% to 25%.



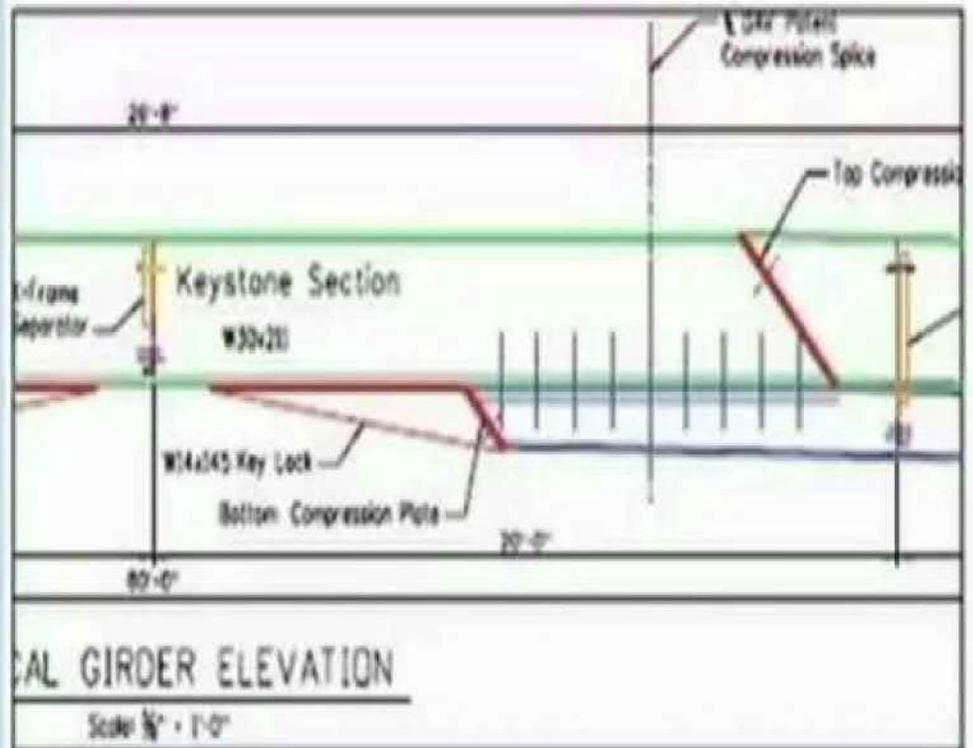
Girder System

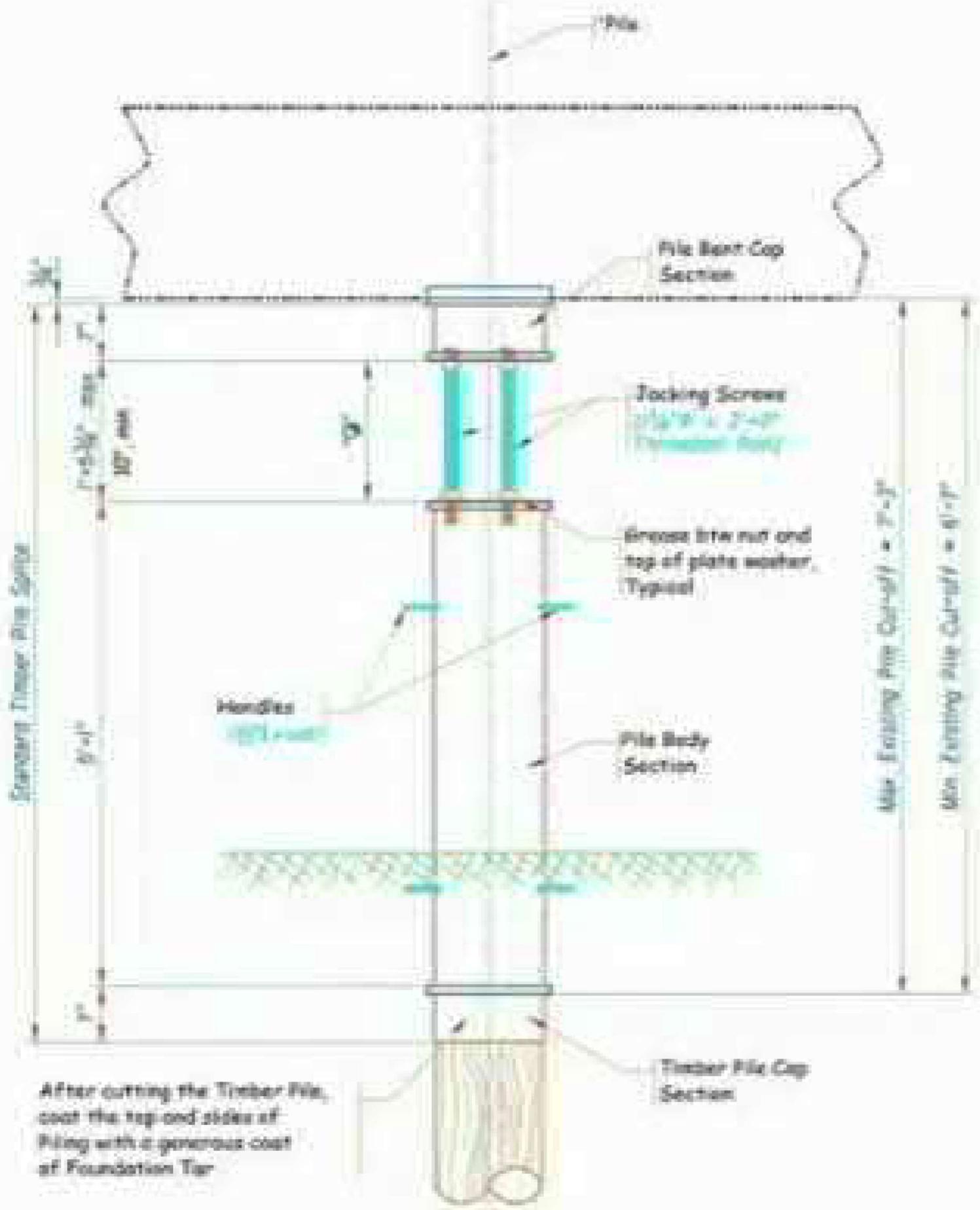


- The girder makeup consists of five beams that interlock forming a girder that uses compression and the principals of the arch, which is formed by the girder to achieve its strength and stability.
- Compression Joints are used where beams are joined together to form the girder and where the abutment walls join with the girder ends.
- A Compression Splice is used to mate the end beams with the bottom beams and is the primary anchoring joint that prevents the two beams from moving laterally.
- The keystone and key lock system is what securely ties the center, end and bottom beams together forming the arch Thus, giving the girder its superior loading ability.
- Due to the unique design our Momentary Arch transfers the load stress and deflection through the girder to the abutment walls and finally to the footing, which with traditional beam structures are not possible

Key Lock

Our girder consists of five beams that interlock. Four of the five beams are combined to make two girder sections via the compression splice. The crucial locking component is the key lock, which joins a center girder section and two end sections to form the girder system. The girder system, with its compression splices and key locks, transfers the weight to the abutments and footings allowing for greater loading. Strength and stability is accomplished using the momentary arch formed by the girder.





Standard Timber Pile Splice

Scale: 1" = 1'-0"

Mission Statement

To provide a Standard Steel Bridge System that EXCEEDS AASHTO Standard Specifications as well as the new AASHTO LRFD Specification for highway bridges with a working life of over 100 years. To be able to meet and handle all the heavy farm equipment and traffic of today and in the future. In addition, provide a bridge that is economically saving tax dollars to the taxpayers.

Goals

- 1) Make available a steel bridge system that can compete with the custom design and custom built bridges.
- 2) Make our steel bridge fabricators independent of the steel producers rolling production schedule.
- 3) To have a standard steel bridge system that a local contractor can build, so that the tax dollars spent can stay in the county or local district that the bridge will be built in.
- 4) To be the most "Environmentally Friendly Bridge System" in the nation. Once the bridge is finished, it would be hard to tell if any construction was done at the site.
- 5) Worker safety To provide a safe work place and to meet and exceed all OSHA safety standards. No one needs to walk our steel girders in the shop or in the field.
- 6) To erect a single span bridge in 30 days or less.