



University of Florida ASCE Student Chapter – Steel Bridge Team  
PO Box 116580, Gainesville, FL 32611-6580

Dear Future Sponsor,

The 2016 University of Florida Steel Bridge Team for the student chapter of the American Society of Civil Engineers (ASCE) is getting ready for a whole new year of competition. The Southeast Regional competition will be hosted by the University of Alabama in Tuscaloosa, Alabama on March 10<sup>th</sup> and the National Competition will be hosted by Brigham Young University in Provo, Utah on May 27-28, 2016.

Throughout the 24 year history of the National Student Steel Bridge Competition, the University of Florida holds one of the most impressive track records of the more than 200 schools that compete. Our record includes Top 10 finishes in 15 of our 17 appearances at the national level as well as National Championships in both 1997 and 2015. This past year, our team placed either 1<sup>st</sup> or 2<sup>nd</sup> in all categories at the regional level, including an overall ranking of 1<sup>st</sup> out of the 26 schools that were competing. At the national level, our team placed 1<sup>st</sup> in both Lightness and Structural Efficiency as well as 1<sup>st</sup> Place Overall, crowning us the National Champions for the first time since 1997.

Each year, our team consists of undergraduate and graduate students who dedicate roughly 10 months to design, fabricate, and compete at both the regional and national level. The bridge is loaded with 2,500 lbs with the objective of maximizing efficiency by minimizing weight, deflection, and construction time. By the time of completion, an estimate of over 4,000 student hours will have been dedicated to this project

While we do receive funds for some materials from the university, these are limited. We must raise additional funds to cover the expense of additional materials, new equipment, registration costs, and competition costs. We estimate our need to be approximately \$10,000 to manufacture a quality product to exceed previous years. With your support, you can help us reach our goal of winning the Southeast Regional Student Conference and represent the Gator Nation in Tuscaloosa!

We greatly appreciate your consideration. Any donations will be utilized frugally to help us achieve our goal of repeating as NSSBC Nation Champions for the University of Florida! For more information, please see the attached pamphlet and sponsorship form. Again, thank you for your consideration.  
GO GATORS!

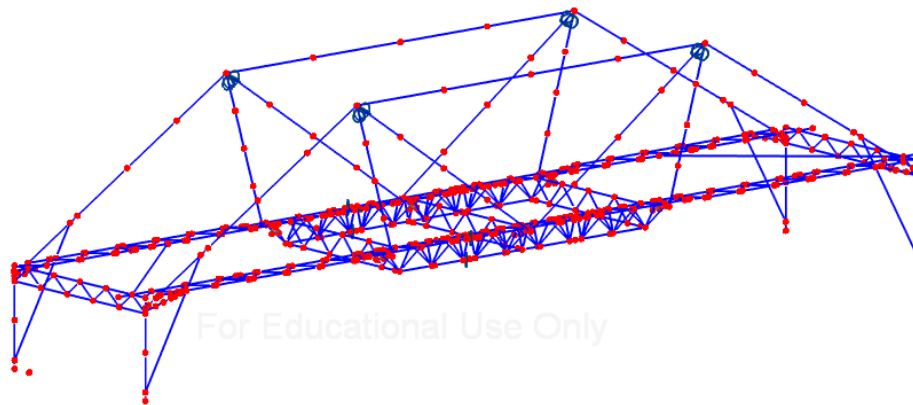
Sincerely,

A handwritten signature in black ink that reads "Kyle Willems".

Kyle Willems  
Steel Bridge Captain

## Design

---



- The designing of the bridge takes around 5 months to complete.
- More than 500 hours are focused on the design during this time period.
- Typically around 6 main differing models are tested with a multitude of iterations before a final design is chosen.
- AutoCAD, Visual Analysis, and other optimization tools are used during the design process.

## Fabrication

---



- Fabrication of the bridge takes around 4 months to complete.
- More than 20 students spend over 3,000 hours on fabrication alone.
- Students learn how to precisely cut, mill, and weld steel sections as well as build jigs during the fabrication process.

## Competition and Results

---

Before the regional and national competitions, more than 500 hours are dedicated to assembly practice, working on how to put the bridge together in the most efficient way possible.



### 2015 Regional Results

- 1<sup>st</sup> Overall
- 1<sup>st</sup> Lightness
- 1<sup>st</sup> Structural Efficiency
- 1<sup>st</sup> Display
- 2<sup>nd</sup> Construction Economy
- 2<sup>nd</sup> Construction Speed
- 2<sup>nd</sup> Stiffness

### 2015 National Results

- 1<sup>st</sup> Overall
- 1<sup>st</sup> Structural Efficiency
- 1<sup>st</sup> Lightness

### Categories of Competition

- Construction Speed- Final score is based on the total time it takes to assemble the bridge from start to finish. This score also includes added time for any penalties that occur during the run or repair time that is necessary after time has been called.
- Lightness- Final score is the total weight of the bridge plus any weight penalties prescribed by the judges.
- Stiffness- Final score is the sum of three deflection measurements, in inches, taken at various locations across the bridge during vertical loading.
- Construction Economy- Final score is calculated by multiplying the Construction Speed, in minutes, by the number of builders on the assembly team by \$50,000 per builder-minute.
- Structural Efficiency- Final score is calculated by multiplying the Lightness score by \$20,000 as well as multiplying the Stiffness score by \$1,000,000 and adding the two products together.
- Overall- Final score is the sum of the Construction Economy score and the Structural Efficiency score. The bridge with the lowest value of this total wins the overall competition.
- Display- Final score is based on the judge's rankings of the best looking overall display. This includes how the overall bridge looks during the display period of the competition as well as how the school's poster board looks. This is only used in tiebreaking situations.



University of Florida ASCE Student Chapter – Steel Bridge Team  
PO Box 116580, Gainesville, FL 32611-6580

You can help us obtain our goals by selecting your level of support for the 2016 UF Steel Bridge Team. All donations are tax deductible, and our tax ID number will be provided upon request. Various sponsorship levels are explained below:

**Gold Sponsor: \$1000**

- Large company logo on display board
- Large company logo on website
- 2016 Steel Bridge team shirts (4)
- Option to receive monthly email updates from the team

**Silver Sponsor: \$500**

- Medium company logo on display board
- Medium company logo on website
- 2016 Steel Bridge team shirts (2)
- Option to receive monthly email updates from the team

**Orange Sponsor: \$250**

- Small company logo on display board
- Small company logo on website
- 2016 Steel Bridge team shirt (1)
- Option to receive monthly email updates from the team

**Blue Sponsor: \$100**

- Small company logo on website
- Option to receive monthly email updates from the team

We hope that you will join us in our efforts to win the 2016 Regional and National Steel Bridge championships. For more information, please email us at [asce.steelbridge@gmail.com](mailto:asce.steelbridge@gmail.com) or feel free to contact Kyle Willems at (772) 475-3688.



University of Florida ASCE Student Chapter – Steel Bridge Team  
PO Box 116580, Gainesville, FL 32611-6580

### Steel Bridge Donation Card

Yes, I want to donate to the University of Florida Steel Bridge Team of the American Society of Civil Engineers 2015 Conference.

My steel bridge donation is:

\$100\_\_\_\_ \$250\_\_\_\_ \$500\_\_\_\_ \$1000\_\_\_\_ Other\_\_\_\_\_

Company: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Please make checks payable to “*University of Florida Foundation*” and note “*ASCE Steel Bridge*” in the memo line.

**Please return this page with your donation to:**

ASCE Steel Bridge  
Department of Civil and Coastal Engineering  
University of Florida  
P.O. Box 116580  
Gainesville, FL 32611-6580