ASCE
FLORIDA SECTION
East Central Branch

**2022 East Central Branch ASCE Florida Bridge Competition**

**What: ASCE East Central Branch Florida Bridge Competition**

**When: April 8th, 2022 to June 12th, 2022**

**Where/Who: All High, Middle, and Elementary students attending schools within the East Central Branch area are eligible to compete.**

You will be given from **April 8th to June 12th, 2022** to complete the design of your bridge. The bridges that safely carry the design load with the lowest final **total cost** (Sum of the bridge cost for both site conditions) wins. Designs will not be accepted after June 12th, 2022**.**

**Two Bridges have to be designed (One for each of the following site conditions).**

1. **Site condition 22A must be used to design one bridge (See below for directions).**
2. **Site condition 81A must be used to design second bridge (See below for directions).**

The final bridge designs must be sent to the following email address for scoring: ASCEECBBridgeContest@gmail.com. The top 3 teams for high, middle and elementary schools will be announced prior to June 15th, 2022. Awards will be presented to the winning entries. Please email questions to ASCEECBBridgeContest@gmail.com.

Ties will be broken based on time of delivery. Teams can be individuals or groups of two.

Prizes for this competition are as follows:

- 1st Place Team/Contestant - $150
- 2nd Place Team/Contestant - $75
- 3rd Place Team/Contestant - $50

**Software:**

This is the same program as last year. If you don't have it, first download the 2016 Bridge Designer Software from the ASCE Florida Section Competition webpage:

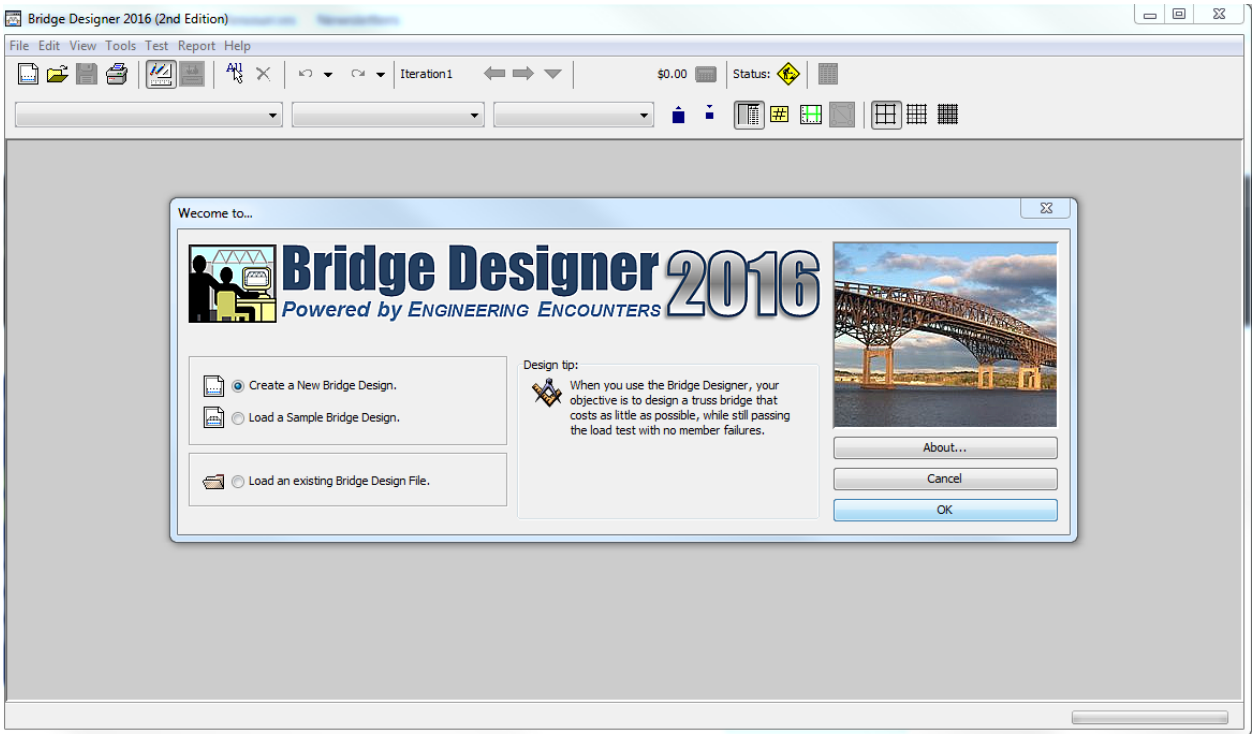
https://www.asceflbridge.org/software

**Please scroll down to the bottom of the webpage and download the software. Versions for both Apple and Windows are provided.**

Install the program on your computer by clicking the provided setupbdv16j.exe file.

Once installed, open the program and please use the following instructions to configure your bridge for the local competition to (**Site Conditions 22A and 81A**).

#1 – Open Bridge Designer 2016 Program and Create a New Bridge Design, select ok, then next



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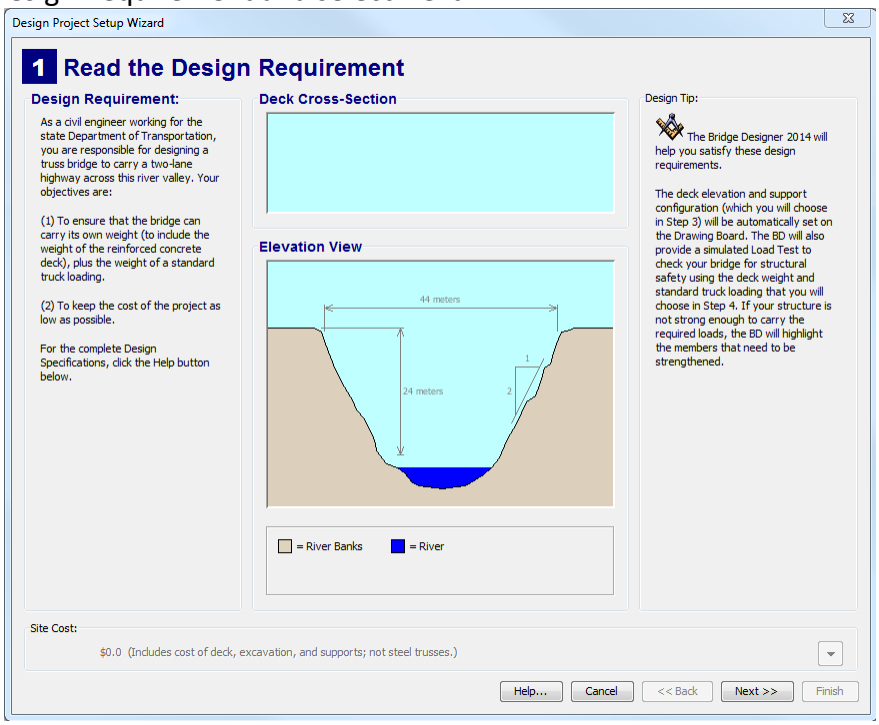
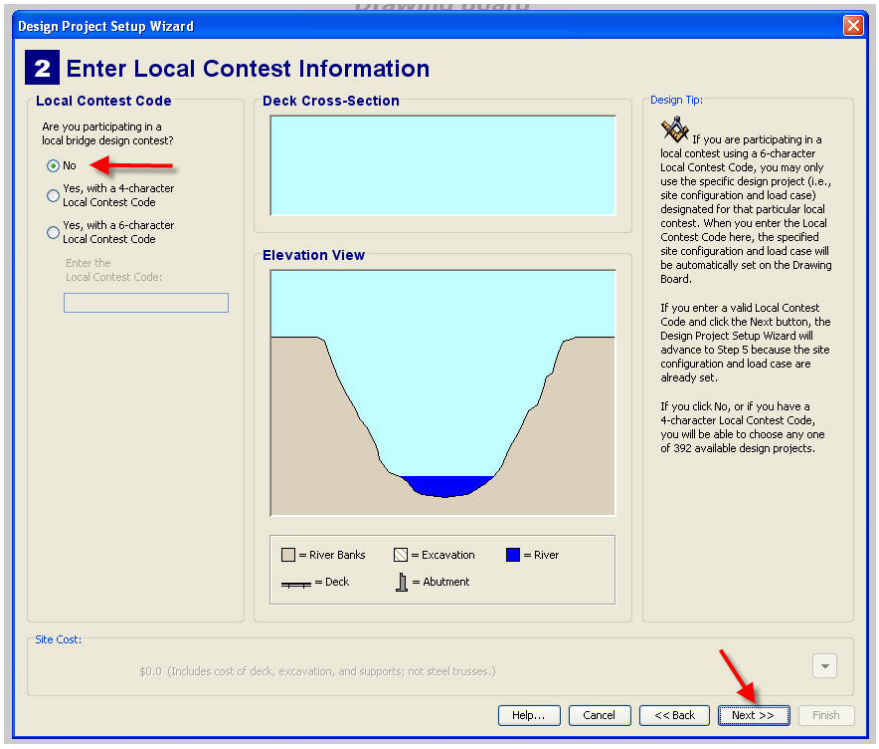
#2- Read the Design Requirement and select Next




#3 - Select No for local contest and select Next.



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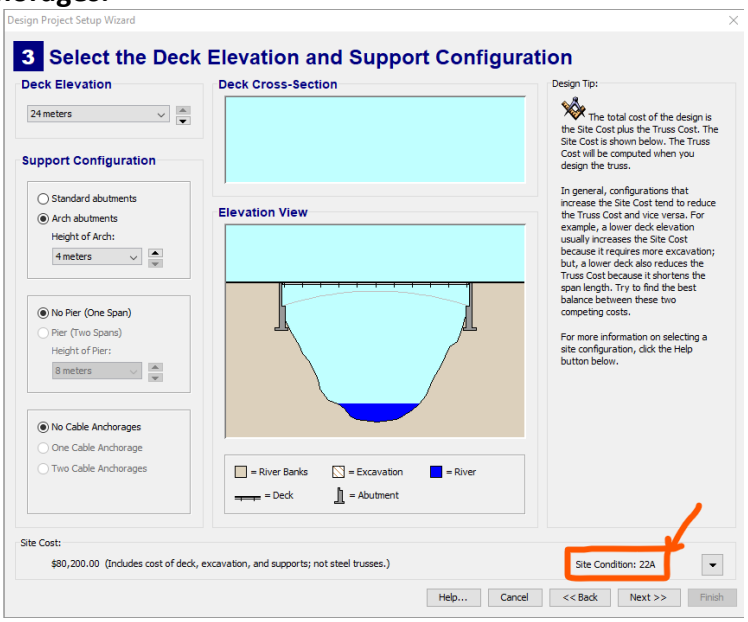
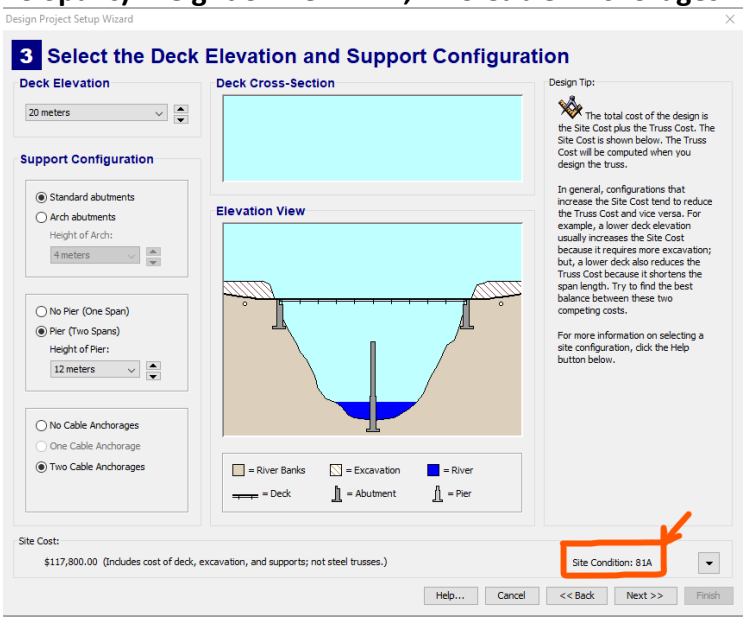
**#4a – <u>For Site Condition 22A</u> - Specify the following: deck elevation 24m, Arch abutments, No Pier, No Cable Anchorages.**



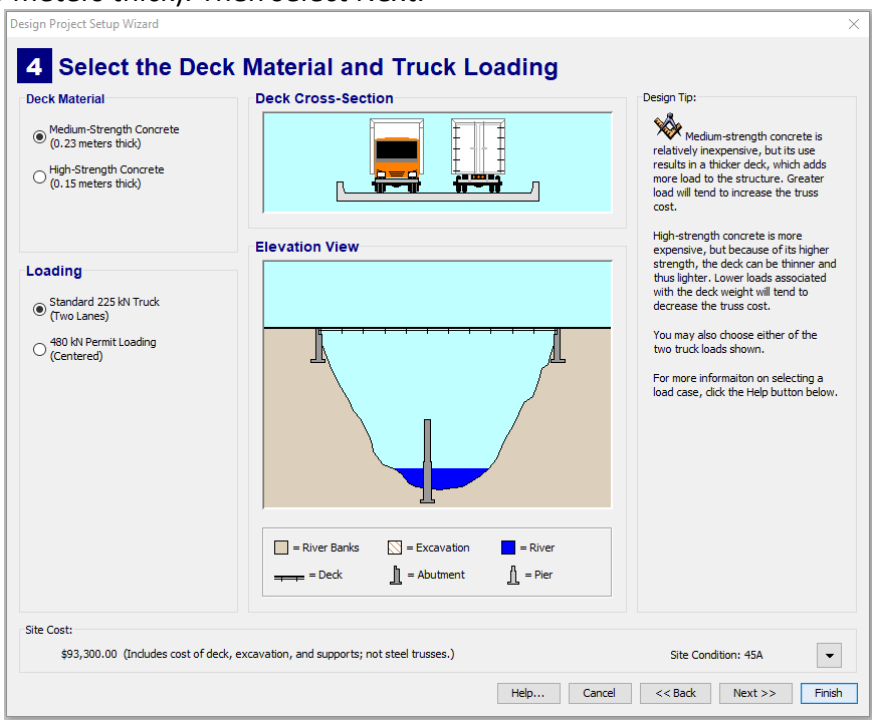

Verify your Site Condition is **22A**, look on the bottom right part of the screen and it will have your site condition. Then select Next.

**#4b – <u>For Site Condition 81A</u> - Specify the following: deck elevation 20m, Standard abutments, Pier (Two Spans)- Height of Pier: 12m, Two Cable Anchorages.**

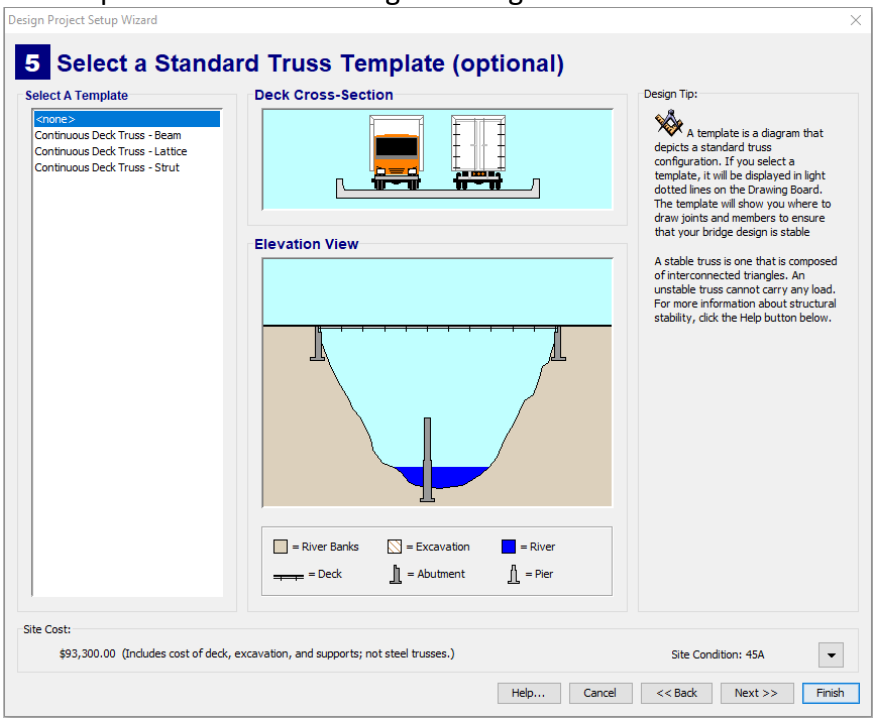



Verify your Site Condition is **81A**, look on the bottom right part of the screen and it will have your site condition. Then select Next.

#5 - Select loading of Standard 225 kN Truck (Two Lanes). Deck material: Medium-Strength Concrete (0.23 meters thick). Then select Next.




#6 – You may use templates or create an original design



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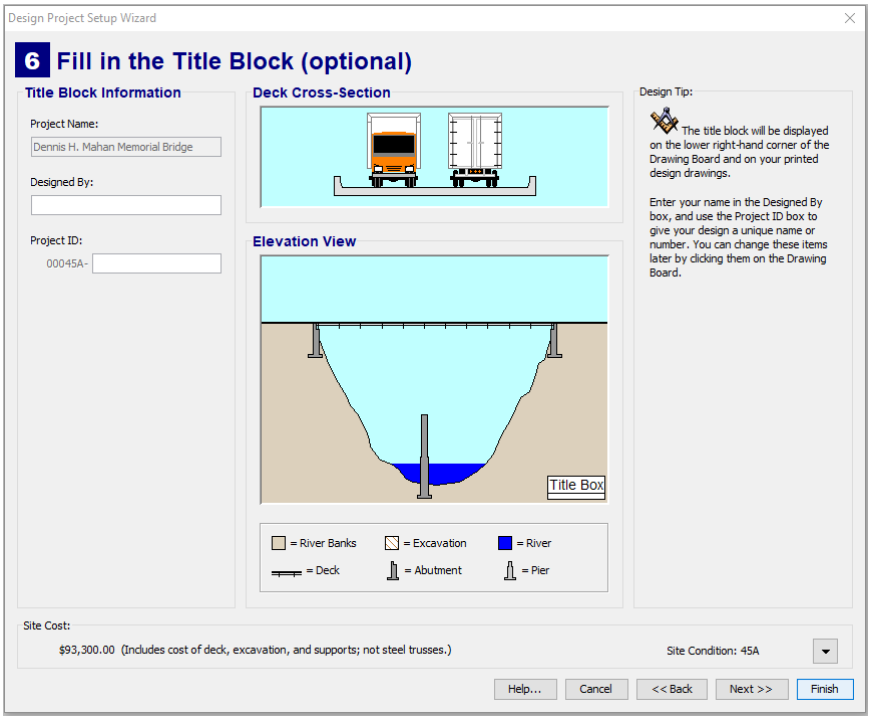
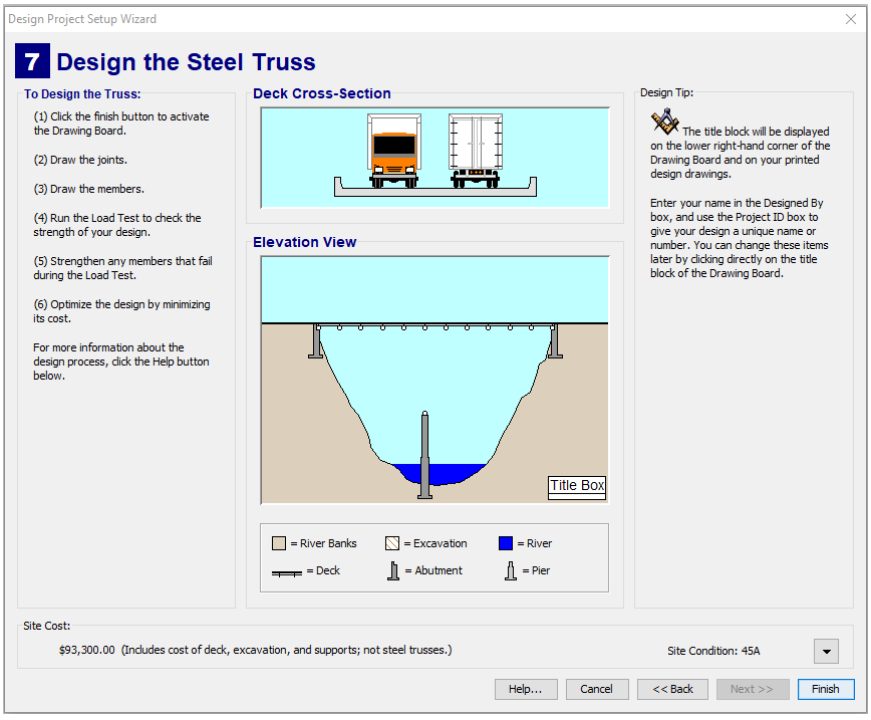
#7 - Leave Title Block blank and select Next.

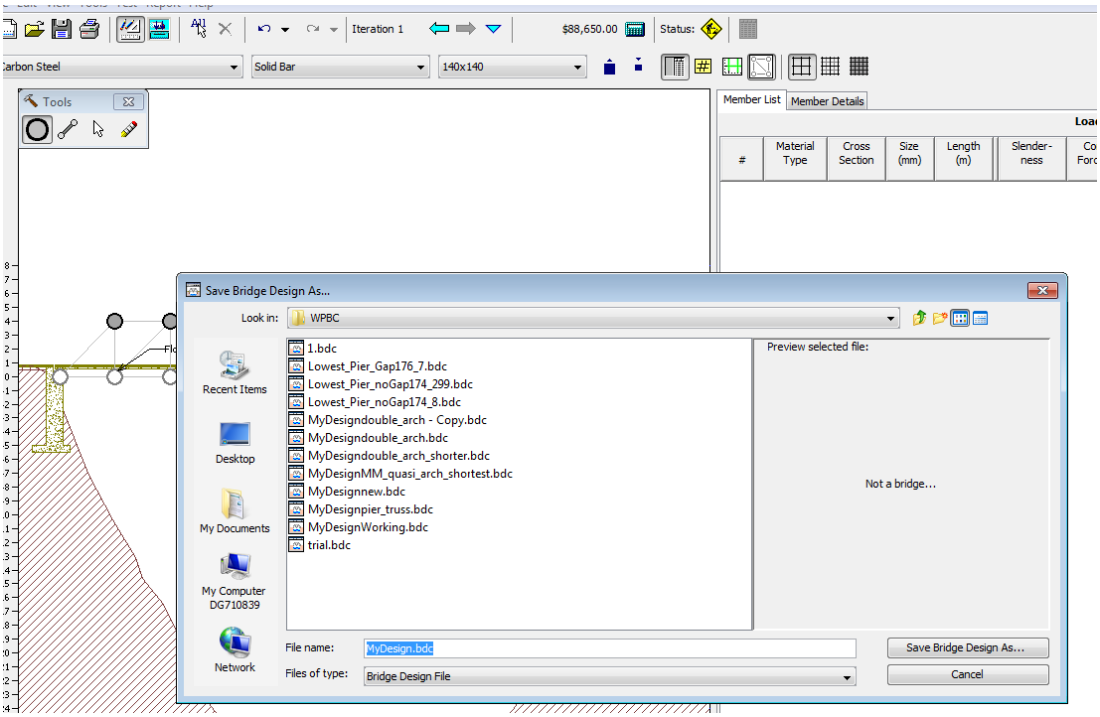



#8 - Select Finish.



#9 – Saving your bridge.

Once you have created your lowest cost bridges (for both site conditions), click file then save as, save the file and attach them in an email and send it to ASCEECBBridgeContest@gmail.com for submission.




**Please include the following in your submission email**:
**To:** ASCEECBBridgeContest@gmail.com
**CC:** Put Your Teachers Email address here
**Email Subject Line**: Total Cost of Two Bridges ($$)/ Grade /Team Name
**Body of Email:** Name of Science Teacher (teacher's email), Grade, Names of Team Members
**Email Attachment**: Please use the naming format provided in the example below to name your bridge file.
**Example** :
Subject: 500,000/9/ Bridge Blasters
Body: Mrs. Williams (Williams@Orange.net), 9th Grade, John Smith and Robert Johnson
Attachment: (Cost_Teacher_Team Name_Grade) for example: Team Robot are submitting bridges that have a total cost of $500,000 and they are in 9th grade from Mr. Rogers Class. You would name your attachment: 500000_Rogers_Robot_9.bdc

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The winning contestant/team from the High and Middle schools will be invited to attend the in-person Florida Section ASCE competition on Friday, July 15, 2022 in Orlando.

Prizes for the Florida Section ASCE competition are as follows:

Junior Division (Middle School)

- 1st Place Team/Contestant - $1100*
- 2nd Place Team/Contestant -$500*
- 3rd Place Team/Contestant - $250*

Senior Division (High School)

- 1st Place Team/Contestant - $1500*
- 2nd Place Team/Contestant -$700*
- 3rd Place Team/Contestant - $350*

*Prizes subject to change based on sponsorship

**You may now begin the competition. Good Luck!!**