

April 26, 2016

Dear Mr. Vassiliades, the judges, Cal Trans, and Professional Engineers in California,

I would like to thank you for awarding me the Marilyn J. Reece Award at the 66th Annual Los Angeles County Science Fair. I hope to one day use what I have learned here to build an actual bridge which will minimize casualties from earthquakes. Earthquakes have always fascinated me and I hope to one day become a Architectural Engineer and this award brings me one step closer to my dream.

My name is Piper Mape and I'm an 7th grader St. Mel school in Woodland Hills. I enjoy playing club Waterpolo, drawing, and playing video games. Science was always one of my favorite subjects, although dissection made me uncomfortable. My interest with bridges sparked when my 6th grade class was learning about bridges and earthquake safety. We were building earthquake safe bridges with marshmallows and tooth picks. My teacher said that my bridge stood above the rest and had a good and strong design. This silly experiment was actually what inspired me to come up with a way to prevent earthquake damage to bridges.

My project is titled *Can Magnets Float A Bridge?* My goal is to examine the viability of using magnets to reduce the effect of seismic activity on structures. I used the negative and negative and positive and positive charge from a magnet to cause the base or platform of the bridge to float. I built two

bridges for my project, one had the six magnets repelling each other causing the base of the bridge to float, and the other bridge had no magnets and was a basic bridge. I glued both bridges to a long wooden board. Next I shook the board and watched to two bridges shake. I collected data and watched how each one shook. I noticed that the bridge with magnets shook harder than the one without. In conclusion my magnet bridge was a partial success. While it did float, it shook harder than the one without magnets.

I had a lot of fun doing my project this year. I will use all the advice and guidance I received from the judges and experts to make it even better next year. I plan to expand on it in many ways, but one is by adding more magnets to the sides so the poles don't not bang against them.

Once again I would like to thank you for this amazing award. It is a step forward on the path to my dream job. I had a wonderful experience getting interviewed by the judges, the Science Fair people, and Cal Trans. I would particularly like to thank Mr.Vassiliades, he has been so incredibly gracious and kind and helpful! I will always remember seeing my name appear on screen as the winner of this unbelievable award. It's a moment in my life that I will never forget and will always be thankful for. Thank you once again and I can wait to see you at next years LA County Science Fair.

Sincerely,

Piper Alixa-Rose Mape